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MEO FIELD LAB – HOW TO INCREASE REACH EFFICIENCY AND EFFECTIVENESS OF MEO's DIGITAL MARKETING CAMPAIGNS

PROGRAMMATIC BUYING & TARGETING TECHNIQUES

Matteo Fenu

#2286

A Project carried out on a Master in Management Field Lab, under the supervision of:

Professor Elizabete Cardoso

NOVA
School
of Business
& Economics

Shaping
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minds

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Abstract

This paper draws on two new trends in the digital marketing environment: programmatic buying and targeting techniques. These topics arose as the main responses to increase digital marketing campaigns' efficiency and effectiveness, as requested during a Field Lab carried out at a leading Portuguese telecommunication and media services operator. Once the reader is introduced to the environment in which the project was performed and the reference literature, theoretical recommendations for a strategic implementation of these techniques, and a practical example to increase the targeting efficiency, are provided, passing through the conclusions of four main research techniques that led to these choices.

Keywords:

Programmatic buying; targeting techniques; Telecommunication industry; digital marketing.

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1. Introduction

The Master thesis presented in this report arose from a Field Lab lasted for 3 months at the digital marketing department of MEO – Serviços de Comunicações e Multimédia, S.A., a leading telecommunication and media services operator in Portugal. The work project was conducted in the context of a partnership that Nova School of Business drew up with the telecommunication company, in order to reach a common objective: give the opportunity to a group of dedicated and eager students to develop their thesis, having at the same time the opportunity to apply the concepts learnt during the Master to solve real business problems.

The work revolved around a major issue that the client, MEO, addressed to the group: how to improve the efficiency and the effectiveness of the company's marketing digital campaigns, specifically about MEO commercial brand. For the purpose of fulfilling this task, three main paths were developed: create and implement a R.O.I. useful to evaluate all the digital campaigns, detect online trends and preferences of customers in order to increase the attractiveness of the ads, and identify an effective way to reach different targets, to incorporate this practical conclusion within the theoretical guidelines to implement programmatic buying. In the following pages the reader is introduced to six main parts. The first one is the contextualisation of the environment in which the company is currently working, followed by the main literature reviews employed to address the issues about the two topics of this paper: programmatic buying and targeting techniques. Then, is presented the methodology used to conduct the researches designed to find significant results in order to be able to provide pertinent recommendations about the mentioned topics. Both results and recommendations are then covered providing more specific details about findings and possible courses of actions. Finally, limitations and future research directions are proposed.

2. Context for the project

2.1. MEO's past and present

Portugal Telecom (PT), the parent company of MEO, was born in 1994 through the merger of Telecom Portugal, S.A. – owned by CTT –, Teledifusora de Portugal and Empresa Pública Telefones de Lisboa e do Porto. On the 1st June 1996, the Portuguese government started the privatization process of the company, which was concluded in December 2000, after its 5th phase,

leaving PT's capital almost entirely in private hands. In 2010, an alliance begun between PT and Oi PLC – the Brazilian telecom colossus – to create a leading Portuguese-Brazilian telecommunications operator. The main terms of the agreement on the merger were only reached in July 2014, due to the interest in the acquisition by the French Altice group. This turmoil led to diverging visions and strategic objectives of the new management team that were translated in a deep reorganization, still ongoing, of the company; in which also the digital marketing department, where the field lab was performed, is involved.

MEO as a brand emerged after PT Comunicações and PT Multimédia split in 2007, subsequent to an acquisition proposal by Sonaecom. In fact, MEO service was started as a pilot test in Lisbon in 2006 but once PT Multimédia was acquired, changing its name to ZON Multimédia and becoming the major competitor of PT on the Cable TV area, MEO arose as the most natural strategic response for Portugal Telecom. In 2014 it converged with the mobile brand of the group, TMN.

MEO is one of the three biggest telecommunication and media services operator in Portugal, along with NOS and Vodafone. Its main businesses concern television, internet, and landline and mobile phone services. Due to the competitive environment and the economic problems faced during the last years, the market experienced a consolidation of these larger players in the market. A position of strength also shown by the last accessible data:

Figure 1 – MEO data, supported by its market share and internal Portuguese Telecommunications' data
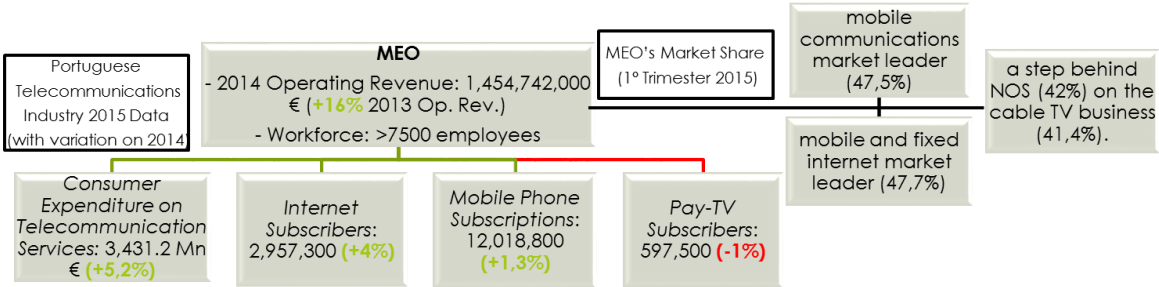
Sources: Euromonitor International, 2015; Amadeus; Anacom.

All MEO's technologies rely on the transmission of all its services – either television, telephone and internet – over Fiber optic (MEO Fibra) and ADSL (MEO ADSL) that provide different down- and up-stream speeds as well as data allocation capacity. In addition, MEO offers a wide

set of services (*Appendix 1*), among which, the core products are represented by three bundles – M3O, M4O and M50. At the same time, MEO corporate brand owns three other commercial brands: MOCHE, PT Empresas, and Uzo, characterized by specific targets (*Appendix 2*). The project, anyway, was just focused on the commercial brand MEO and its digital marketing campaigns, as requested by the client.
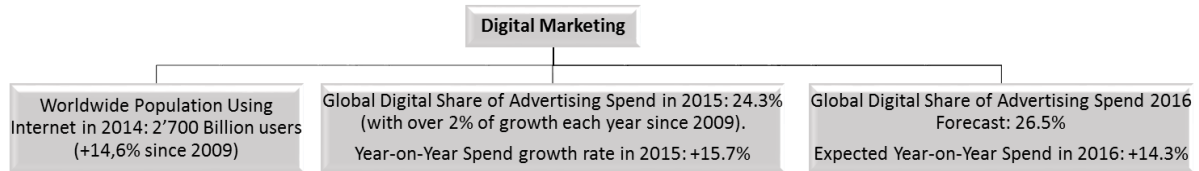
MEO presented the group with a digital marketing roadmap, challenged by the restructuring process in different ways: new tools and platforms implemented, changes in the key objectives, a high fragmentation either during the launch process of the digital marketing campaigns, between the different teams and in terms of information sources. These issues were addressed through a plan called "Improve Performance Roadmap" made up of 5 main steps that, at the time of the project's launch, weren't still implemented, even if the first three were ongoing. The first step regarded the implementation of a unified technology platform to have single user interface and data from a single pool. The second one was about attacking fragmentation, both inside the department and aligning the data strategy with the overall strategy. Then, increase performances through the implementation of advanced techniques. In conclusion, the last two steps were about assigning collection, analysis, and use of the data tasks to the right people, and finally testing the techniques until getting the desired results.

3. Literature review

Digital marketing is a relatively new field, with a lot of research devoted to it, but not yet consolidated scientific truths. Currently, though, digital marketing could be interpreted as: a form of digital communication to the customers about the value of a product, service or brand, driving the creation of demand and trying to intercept this demand at the steps of the Consumer Decision Journey (CDJ) that most influence their decision, creating a more connected customer experience via marketing that makes use of every electronic device to engage stakeholders (Chaffey & Smith, 2008; Holliman & Rowley, 2014; Martin, 2015; Stokes, 2008). The importance of this field inside the marketing overview is particularly evident taking into considerations several data, as the

percentage of worldwide Internet users, or the investments around this field, which fast growth doesn't seem to be willing to be stopped (*Figure 2*).

Figure 2 – Digital Marketing Horizon

Digital Marketing		
Worldwide Population Using Internet in 2014: 2'700 Billion users (+14,6% since 2009)	Global Digital Share of Advertising Spend in 2015: 24.3% (with over 2% of growth each year since 2009). Year-on-Year Spend growth rate in 2015: +15.7%	Global Digital Share of Advertising Spend 2016 Forecast: 26.5% Expected Year-on-Year Spend in 2016: +14.3%

Sources: IAB, 2015; Carat, 2015.

In this context Portugal arises as one of the most traditional-media-dependent countries but, at the same time, as one of the top 10 growing markets in terms of overall year-on-year ad spend. In 2013, digital investments stood at €41.9 million (+136% over 2008) but were "*expected – with economic turmoil – to increase going forward, due to factors such as cost optimisation and the wider reach of the on-line medium*" (Euromonitor International, 2014).

This project was, then, specifically applying the digital marketing tools in the Telecommunication industry. In this field most of the achievable benefits are aligned with the general advantages brought by the online marketing, but with a specific focus on some particular characteristics. Digital marketing impact on the new CDJ is one of these. In the new "Digital Era" the traditional "funnel" metaphor is not adequate anymore (Edelman, 2010; *Appendix 3*). Today that concept is not suitable to fully describe the consumers path to purchase, due to "*the explosion of product choices and digital channels, coupled with the emergence of an increasingly discerning, well-informed consumer*" (Court, Elzinga, Mulder, & Vetvik, 2009) that can have access in an easier and immediate way to product information, price comparisons, discounts and peer reviews, being influenced in his buying decisions (Fulgoni, 2014). In this horizon, the new digital tools implementation in an aligned omni-channel strategy appears as necessary to influence customers in the right place, at the right moment and with the right message in order, not only to increase the brand awareness/recall, but also to "pull" consumer-driven marketing. In addition, among the most important factors is necessary to mention the possibility to get, keep and grow customers in a more tailored and interactive way. Through the new on-line techniques is possible, beyond

having a complete customer-centric approach, also transform consumers in co-producers of the company instilling higher levels of trust (Lusch & Vargo, 2009) and adapting the offer to their preferences. All these possibilities lead, consequently, to a better understanding of the different targets' habits allowing a most effective attraction of new clients as well as higher levels of engagement and so opportunities of up- and cross-selling. The importance of digital marketing towards these objectives is amplified in this industry due to the usual big first-party data that telecom companies own, having used it for years to target traditional direct marketing, providing a unique competitive advantage in reaching, in the most effective (in terms of attractiveness) and efficient (in terms of costs) manner, prospective and current clients (Telogical Systems, 2015). The primary use for first-party data in the sector is focused on media targeting. Along with the programmatic buying implementation, these are the most advanced and fast growing techniques of the digital scenario. An in-depth study is developed based in these two topics due to a lack of literature about the specific case of the Telecommunication services operators industry, and a lack of the company, where the project was performed, in terms of implementation of these techniques.

Programmatic Buying (PB) can be defined as the automated buying of digital display, video and mobile advertising *"generated through transactional or workflow automation mechanisms embedded in an infrastructure that relies on a set of rules applied by software and algorithms, commonly known as 'ad tech'"* (IAB Europe & IHS Technology, 2014). During the past few years, this technique went from being a surplus value to a key imperative in order to remain competitive. In 2014 it had already a total market value of more than €3.65bn – mostly represented by programmatic desktop display revenues (€2.9bn) – with an increase of +70,5% compared to 2013 (IAB Europe, 2015b). The process of PB can mainly have two forms: it can be based on fixed prices or auctions. For fixed prices, deals are negotiating by buyers and sellers and consequently run automatically. For auctions, it is usually based on an entirely automated process where buyers and sellers never communicate directly (Field, Zwillenberg, Rosenzweig, Zuckerman, & Ruseler, 2015). This approach can be led either by human (HPB – Human Programmatic Buying) or artificial intelligence (AIB – Artificial Intelligence Buying) – based on an algorithmic process

involving thousands of factors specified by human input. In both cases, they bid in real time through an advertising exchange on an advertising inventory source, for the opportunity to show one specific ad to one specific consumer in one specific context and on one device (e.g. a 728 x 90 "leaderboard" ad format, to football lovers, from msn.com, on desktop) (Ebbert, 2012). More in depth, the main actors of the real time bidding process are five: Advertiser, Publisher, Demand Side Platform (DSP), Supply Side Platform (SSP) and the Ad Exchange. Publishers manage through the SSP their inventories that are supplied to the Ad Exchange, which is the touch point between advertisers and publishers, allowing the inventory real-time purchase based on the automatic bid set up on the advertiser buying parameters determined on the DSP, where advertisers can have access to multiple sources of inventory. The buying parameters can vary according to the data chosen, e.g.: demographic, contextual, behavioural. According to the data selected to create the profile of the interested target, the value of the eventual bid will be different according to the value of that individual impressions. Once a match on the Ad Exchange for the inventory request, supplied via a DSP, is found with an available ad space corresponding to the target profile provided by publisher SSP – and crafted by publisher Data Management Platform using its own first party data – the bidding starts. At the end, the advertiser that bid the highest cost per thousand for those ad impressions wins, and the ads are supplied from the advertiser's server to the publisher's server until they finally appear on the publisher's site (Marin, 2015).

Among the key drivers for the implementation of PB, a study conducted by IAB Europe (2015a) has identified efficiency, both in terms of targeting and trading & operational efficiencies, as the most relevant factor. Advertisers and agencies are searching for methods to reach the desired audience decreasing their media costs, and seem to have identified the solution to this enigma in PB, mentioned also as a source of competitive advantage among the most important key drivers. However, at the same time, part of the literature identified several barriers around the implementation of this tool. First of all, the lack of understanding about how programmatic actually works. This problem born from several other possible barriers, as hiring and training people with the right skill set, choosing and implementing the right technology, or having a clear

understanding of the impact of PB on the actual revenues and costs (AppNexus, IAB Europe, & Warc, 2014; Cyrcle Research & AppNexus, 2015). Lack of transparency, especially about data used by publishers to define audience targeting, or about where the ads and the money end up, is another limiting factor, with the increasing numbers of in-between players (e.g. AdTech companies, advertising and media buying agencies, etc.) as major cause (Sherman, 2014). A limit also related to fraud risks and "viewability" issues; namely, the online ads bought programmatically could be never seen by the intended audiences. However some strategies and metrics can be helpful in overcoming and monitor those difficulties as further presented in the secondary data results.

In this background the implementation of new advanced Targeting Techniques (TT) appear as the main driver in improving the effectiveness of online marketing campaigns. Marketers have always been struggling in realizing what the market wants and communicating relevant messages to reach their targets more effectively. Through the last few years revolution in data mining – thank to an increasingly wide range of online data-collection techniques revolving around IP addresses, third-party cookies, and Web tools that track consumers during their online journey – a new way to develop customized online ads, according to the thorough picture of individuals buying habits and consumption patterns, is just a click away (Greengard, 2012). With all these techniques making possible to reach the customers at any time, a new trend is arising as particularly important in order to drive online sales: targeting micro-moments, namely, small and personal events (Warc Trends, 2015b). For these reasons, simple site-based TT – based on the content of the website that a customer is visiting – are outclassed, nowadays, by data-driven advanced TT, in which the advertiser, through the above mentioned information collected about past browsing and search consumer's behaviour – usually along with third party data – is able to reach in the right way a large scale audience engaged with the product/service, even saving time and money (Chen & Stallaert, 2014; Zwillenberg et al., 2014). These advantages are largely due to the possibility in targeting the consumers at specific moments of the path to the purchase, through several advanced techniques: display and video remarketing, behavioural analytics, and

third party look-alike techniques. Display remarketing enables to reach those consumers that visited the company website, after they leave it, with a customized message while they are browsing other sites. In addition, it can be also benefited from search ads, serving display advertising to those ones who clicked on paid search link bought by the advertiser. In this way, the advertiser is able to influence the users while they are in the search phase of the CDJ. Similarly, video remarketing allows to serve ads to those users that watched a video of the advertiser's channel, or subscribed to it. In this case, consumers can be reached in the awareness phase of their pathway to the final conversion. While, about the last step of the journey, advertisers try to influence the preference of the prospective customers through the use of behavioural analytics, so serving relevant ads according with their interests based on the online behaviour tracked (Miller & Washington, 2013). Finally, the third-party lookalike techniques, are models based on the specific traits of the advertiser's first-party target to unearth similar consumers on third-party lists of users, increasing the possibility, in terms of numbers, to reach more prospective customers. In all the above mentioned cases, there is a crucial aspect that makes feasible the implementation of those techniques and, consequently, makes attractive telecommunication first-party data: the presence of updated, reliable and complete big database of information.

4. Methodology
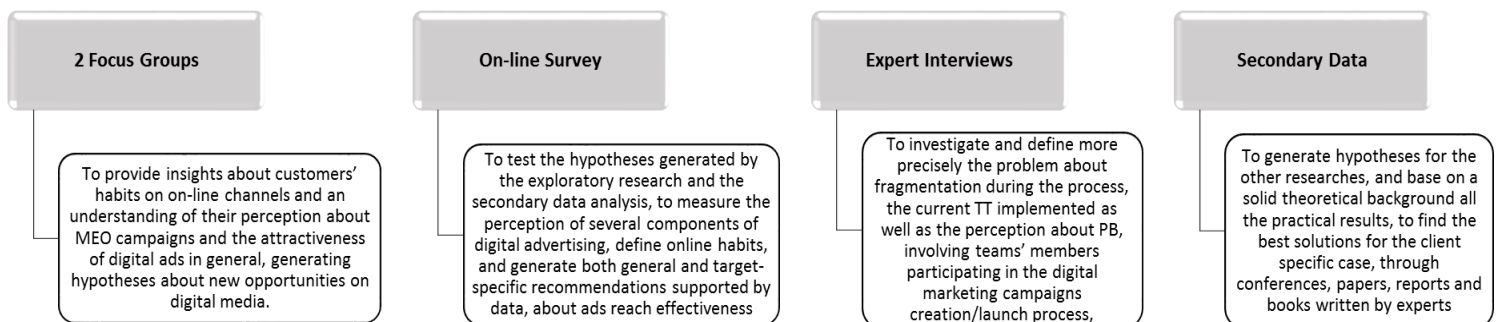## *4.1. Consultancy toolkit: group general approach*

The main broad issue, submitted by the company during the first meeting on 16/09/15, was about how to improve the efficiency and the effectiveness of its digital marketing campaigns. Therefore, in order to approach this major problem, the project was structured as a typical consultancy framework, made up of four main steps with specific deadlines (*Appendix 4*). About the first step, a previous analysis of the context and the background of the company was conducted to identify all the possible main limits and to have a clearer understanding of the current situation of the company. The data used for this analysis were both internal – coming from the kick-off meeting of the project on the 21/09/15 and a subsequent meeting with the group liaison, the Digital Marketing Process Improvement Manager, on the 06/10/15 – and external secondary data –

Amadeus for the financial information and *Euromonitor International* for trend and industry statistics. Having a better understanding of the management decision problem, this was translated in a main research problem that was split into several others research issues (*Appendix 5*).

After closing in on the problem to be solved, the issue tree was created: from the initial problem to the key issues and to the different possibilities to solve them (*Appendix 6*). The issue tree was then compared with the external and internal factors identified (*Appendix 7 and 8*). In addition, an organizational problem solving platform (*Appendix 9*) was created in order to identify the "size of opportunity" and the "ease of capture" of each solution formulated in the issue tree. The client had complete authority in choosing its favourite course of action. Subsequently a new and final issue-tree was ideated (*Appendix 10*).

The overall suggested way of action consisted of four research techniques.

Figure 3 – Research Techniques Implemented and Goals Pursued

2 Focus Groups	On-line Survey	Expert Interviews	Secondary Data
To provide insights about customers' habits on on-line channels and an understanding of their perception about MEO campaigns and the attractiveness of digital ads in general, generating hypotheses about new opportunities on digital media.	To test the hypotheses generated by the exploratory research and the secondary data analysis, to measure the perception of several components of digital advertising, define online habits, and generate both general and target-specific recommendations supported by data, about ads reach effectiveness	To investigate and define more precisely the problem about fragmentation during the process, the current TT implemented as well as the perception about PB, involving teams' members participating in the digital marketing campaigns creation/launch process,	To generate hypotheses for the other researches, and base on a solid theoretical background all the practical results, to find the best solutions for the client specific case, through conferences, papers, reports and books written by experts

4.2. Research methods for programmatic & targeting topics
4.2.1. Programmatic Buying

Aiming to identify possible limitations, those theoretical models that best fit MEO's specific situation, and the current perception and knowledge about the topic inside the company, two main techniques were used: expert interviews and secondary data analysis.

The expert in-depth interviews are interviews conducted on a one-to-one basis to professional people, in order to uncover confidential topics and gather information associated to specific respondents. In the programmatic case, were specifically aimed to have insights and a better understanding of the current situation of the company about digital marketing techniques implemented in the different teams, and possible limits in terms of implementation of new tools.

A judgemental sampling was used since, as suggested by Malhotra & Birks (2006, p.364), the respondents were chosen based on the relevance of the departments along the process that was being evaluated, with one expert for each team (*Appendix 11*). The interviews took place at MEO and days and time were scheduled according with the preferences of the respondents.

The data analysis was based on an analysis grid with the topics and the respondents, respectively at the beginning of each row and at the top of each column. The quotes were, then, transcribed from the audio records, supported by the notes of the interviewer, in the cell corresponding to the respective respondent/topic (*ibid*. pp.201-215; *Appendix 12*). Through those quotes general conclusions for each topic were generated.

About secondary data analysis, a set of up-to-date researches about digital tools & techniques, drivers & limitations, metrics, and other PB related topics, were investigated to gain the necessary theoretical knowledge to be integrated with the practical findings generated from the primary data to find the best match between theory and MEO specific case. These data were both external – mainly papers & books – and internal – having access to Sizmek and Google Analytics, the main platforms used to control the different digital marketing campaigns' channels trends. The data were chosen according to four main characteristics: dependability, up to date, accuracy, and content. In addition, to better support the goals about having a general understanding and create ideas about the strategy and do's & dont's to follow to implement theoretically PB and TT, on the 11th of November, the group took part in a conference delivered by the Lisbon Head of Digital Media for the Havas Media Group, entitled: new trends in Digital Media – Programmatic Buying.

4.2.2. Targeting Techniques

Both a survey and focus groups were run in order to generate and test other hypotheses beyond those ones elaborated from secondary data. Focus groups are a direct research technique – non-disguising the purpose of the project – where the moderator guides a discussion between a small group of respondents, in order to gather a wider set of insights, in this case, about digital marketing drivers and annoying factors. The script (*Appendix 13*) went from a more general perspective – general behaviours in the online environment – passing through questions concerning directly

MEO, to reach the final part in which different ad formats, before, and two different campaigns, afterwards, were shown asking the opinions of the participants. The focus groups took place in an empty reserved room at Nova to prevent any interruption or distraction.

Both focus groups had 9 respondents and lasted 2 hours (19:00 to 21:00). Respondents were composed by Portuguese MEO's customers of different ages that use online platform. About the selection of the population elements two different sampling techniques were followed: judgmental and snowball sampling, meaning some of the respondents were directly contacted based on the judgment of the researcher, and asked to bring with them another MEO's current Portuguese client. Data analysis followed an analysis grid to organize answers in topics and infer hypothesis for drafting the survey (*Appendix 14*).

The survey (*Appendix 15*) focused on on-line habits, attractiveness factors in digital ads, MEO's image and current online performances. It included a test of possible practices to strengthen cross-media interaction. Final sample was 267 responders (*Appendix 16*). The sampling technique used was a mix of simple random probability technique, judgmental sampling and snowball sampling, since the survey was spread through several different Facebook groups, private messages and e-mails, also asking for sharing it. Different scaling and measurement approaches were used. To understand the attitude of the respondents towards a certain practice or factor, interval non-comparative scales of measurement as the semantic differential scale were used, as well as itemized rating scales to understand the real impact of each object. Several comparing scales were also used as paired comparison, rank order, and constant sum scale – when the number of options was five or less – to determine the most effective factors and the influence of each one of them for the respondent. In conclusion, multiple choice questions, with the possibility to select one or more options, were implemented to identify on-line habits.

Data analysis was performed on SPSS and Excel, and implemented, just to obtain relevant results about targeting examples, a cross-tabs analysis to show the different trends about specific samples. This tool was supported by an analysis of variance to determine if the differences between the groups were due to a coincidence or not, and several chi-square tests to prove a

significant discrepancy between the expected values and the actual values among the samples to determine a statistically dependent relationship between the variables analyzed, and the independence of the sample from the rest of the population.

5. Discussion of results

As a premise, about both PB and TT, the reader is introduced initially to the results concerning the current situation at the company, and then to those ones generated externally to MEO, to provide the best conceptualization for the recommendations suggested.

5.1. As-Is analysis

This section's results were all arising from the expert interviews conducted and the several meetings had with the managers during the project. About PB current situation, the company doesn't have any strategy nor specific plan about the implementation of programmatic processes. This is due, also, to the limits coming from the partially outsourcing of MEO's digital campaigns' creation/launch, as emerged from the interview with the Digital Marketing team: *"Normally, we present a media briefing to the media agency [OMD], which gets it back to us with the options they consider more viable for the goals we defined. That includes them defining websites and format we should use. […]We know that the media agency also has its own agenda. Many times they want to sell us certain formats on websites because they have that space to sell or because they earn a higher commission fee on a certain website"*. A quote highlighting a limit in implementing PB, since the agency is the one supposed to negotiate the price for the ad spaces. The agency's negotiations are mainly not programmatic, bargaining over the ad spots for each MEO's campaign. A limitation also due to the still high dependency on direct negotiation with online publishers; most of them don't offer the possibility to buy digital ads through Ad Exchange platforms. Just some channels, as SAPO, are based on PB practices with fixed prices. Anyway, this constraint may not be seen as a major disadvantage since the implementation of this technique in Portugal is still not popular as in other nations, but it might change due to the country's fast growth in this area (Carat, 2015).

Moreover, an alignment of PB's strategy, transversally to all the department goals, is even harder due to an internal high fragmentation. A fragmentation on two levels: among the different teams of the department, just focused on their specific objectives, not encouraged to pursue common goals; and on the campaigns' information level. In June 2015, to avoid this second aspect was acquired Sizmek. Currently it is not implemented in its full capacity, since MEO's data are stored across different platforms – as Google Analytics, Google AdWords, Sizmek, Facebook Insights – and the numbers provided are perceived as non-reliable – due to a big discrepancy with the numbers provided by Google Analytics – using it "*almost only as a source of relative [to other campaigns] measuring*". Most of the respondents were not even aware about the fact that it would be possible buying programmatically publishers' ad spaces on that platform. Actually Sizmek offers, not only the chance to execute programmatic campaigns across display, video, mobile, and social, through both public and private marketplaces, but also custom and advanced training, certification, technology evaluation, recruiting, and tools to build a performance-focused trading desk. In addition, arose also a partial awareness about the possibilities of PB, and especially about real-time-bidding, having a general conception of this process mainly related to the fixed prices. The digital environment in which MEO is currently present, is represented by specialized websites and blogs, including business and news pages, and social media: Facebook, Twitter, YouTube, Spotify, Instagram, Tumblr, Snapchat, Google+, and LinkedIn. Specifically about mobile advertising, then, even if MEO owns a high number of apps, as music and internet apps among the others, these "*are not used often to publish MEO ads, just sometimes*" and "*actually they are not even publicizing a lot on our [MEO] channels*" (Social Media).

Targeting practices differ across teams. Social Media is the one that is more advanced in terms of TT implementation, mainly using Facebook targeting tools through Facebook for Business. On the other side, the respondents from e-commerce and digital marketing seemed a bit more confused about it, talking mainly about targeting customers through, respectively, Google AdWords and e-mail, with no specific mention to specific advanced techniques. Anyway, during a steering meeting, testing third-party look-alike techniques was mentioned, to increase the

number of reachable users, as well as in some specific campaigns the use of video and display remarketing. In addition, MEO is not currently relying on attribution models, even if it is present in all the platforms they are using. The interviews confirmed that most of the teams are not aware about which attribution model is being used. In sum, mains barriers to effective PB implementation are: having different goals, being positioned at different part of the funnel, the fragmentation and a lack of active communication among the teams, and scarce knowledge about PB's actual potential.

5.2. Theoretical and practical findings
Secondary Data

Developing a programmatic in-house model can have several advantages against part of the lack of transparency, first of all, ensuring company's control over the data and, then, reducing the possibility of "misunderstandings" with intermediaries, reducing costs, having better insights about consumers online habits, and with the possibility to integrate programmatic with other existing teams inside the company (Nail, Paderni, Cooperstein, & Merlivat, 2014; Warc Trends, 2015a). In any case, a general strategic approach to implement PB should always be followed, starting by defining the goals and the targets, then developing a data strategy complementary to the trading one, and deciding the key touch-points of the CDJ, regularly updating the feedback from consumers (IAB Europe, 2015a). It's also about getting the right people, as will be further explained as part of the recommendations (Sherman, 2014).

The most accurate KPI to monitor the delivery status of campaigns to the desired audience is represented by "viewability". This metric measures the number of times the ad was actually viewed, based on different parameters: usually a certain surface area of the ad visible for a certain time within the users' screen – in general, 60% of the ad for at least 1 second. Anyway, these parameters can vary according to the platform used and the type of ads, but the objective is always to provide an increase of the possibility that the ad would be actually seen by the users (IAB Europe, 2015c). Metrics already implemented are: normal impressions, a count of advertising contacts, view-through rate and view time talking about on-line video ad; ROI, cost-per-

acquisition (CPA) and conversion rates (CVR) for goal-driven campaigns, especially when the objectives concern leads, sales and/or revenues; and cost-per-click (CPC) and click-through rate (CTR) to measure even other purposes as brand awareness and to understand the impact of each media channel (Yuan, Wang, & Zhao, 2013). In this sense, in order to understand also consumers' paths to purchase, it's more and more important the implementation of the right attribution model – which currently is not considered at MEO (as per interview with the e-commerce team). Among the attribution models, inspecting Google Analytics and Sizmek, three appeared as the most relevant for MEO specific case:

- The last-click attribution model that assigns all the value associated with the conversion to the last marketing activity that generated the revenue.

- The first-interaction model, attributing 100% of the conversion value to the first channel with which the customer interacted.

- The linear model, which gives equal credit to each channel interaction, or the position based, that usually assigns 40% credit each to the first and last interaction and 20% to the interactions in the middle.

On the 11th of November, the Lisbon Head of Digital Media for the Havas Media Group presented, at Nova SBE, a conference on "New trends in Digital Media – Programmatic Buying" providing additional insights. Three different analysis were showed, as strategically fundamental, for those companies that want to use in-house. The LTV (Life Time Value), RFM (Recency/Frequency/Money), and Path to Purchase methods. The first one is a formula, with varying degrees of complexity to identify the monetary value of a customer relationship, based on the present value of the projected future cash flows from that same relationship. RFM consists in creating, inside the database, a tab to allocate each customer, according to his last purchase, the frequency of purchases, and the amount of money spent during a certain period, to the different segments – from the most recent, frequent or largest, to the lowest values – composing each attribute – recency, frequency and money – and assigning to every segment a value (Appendix 17). Finally, knowing that each segment has a value and growth potential, with the Path to

Purchase analysis the company can detect how much they should pay by each type of new customers and then, with the CPA (Cost Per Acquisition) by cluster, calculate how much the company can invest on them, setting rules for maximum investment and triggers by cluster. These analyses aim at identifying the most attractive clusters of customers, the decision makers, as well as the customers in their different stages of the relationship with the company, and to decide the cost that can be supported during the bidding process.

The presentation revolved then around the new TT. Through the new technologies, as location-aware devices of a location-based service, that incorporate geo-fencing programs, companies can set up triggers to reach automatically a customer, when its device enters (or exits) the boundaries defined by the administrator, with specific ads. In addition, mobile devices can also be used for cross-device retargeting, a technique that could allow to retarget specific website visitors across their desktops, mobile phones and tablets, without using any personally identifiable information. In conclusion, among a new targeting dynamics list of tips to reach different audiences with the right message, was suggested to define capping, consisting in setting up the number of time an ad should reach the user before stop to show it to him, to set different messages for capping range.

Primary Data

As already mentioned, through the survey conducted some practical results were achieved. Since, the hypotheses tested were also in part generated by the focus group, also a quick overview of these results is provided. From the conclusions of both focus groups were generated the overall final conclusions for each topic (*Appendix 18*) – mainly in order to detect the factors that could increase the digital ads attraction – and once chosen the most relevant to test in a survey, several hypotheses were extracted:

- H1: MEO's advertisement is seen as strong in TV, while its Digital presence is still weak.
- H2: There are several factors identified as most important to define the success of a Digital Ad. The main ones indicated were: context, contents (e.g. first image, theme/story of the ad, events associated), channels, and video length (in the case of video ads).
- H3: People are increasingly saturated by ads, so that an advertising has to be not intrusive.

- H4: People pay more attention to the ads when they are in need for the product.

- H5: People use a mobile device (mobile phone, tablet, desktop) while watching TV but Second screen habits are still not implemented when it comes to marketing ads interaction. In that case the main factors that lead people to follow up a TV ad with an online search are: contests, date limits for adhesions or specific need for the product/service and information.

- H6: People are receptive towards online discount codes to take to physical stores.

Beyond these hypotheses, other important findings came out from the focus groups that, for constraints in terms of survey length, couldn't be tested.

The final results of the online survey had the main objective of generating solid results about the significant preferences of different segments and about a specific target to show how, knowing the clusters habits, the company could be more effective targeting each of them in a different way. So that, based on the indication of the client and on the number of observations, three segments and one complete profile of a target were created. The three segments were based just on the age: (i) less than or equal to 24 years old, that will be called 'younger 24', (ii) between 25 and 44 or 'adults', and (iii) greater than or equal to 45, 'older 45'. While, the target was based on a combination of all the demographic information asked: single, girls, with less than or equal to 24 years old, bachelor degree and currently student. Therefore, cross-tabs analysis supported by ANOVA and Chi-Square tests were employed to see if, and where, there were significant statistical differences, in one case between the segments, and in the other case between the target and the remaining observations of the population. Both in the ANOVA and Chi-Square test, the null hypothesis was rejected when the probability, p-value, was less than or equal to the significance level, $\alpha=5\%$. About the Chi-Square, two main tests were taken into consideration to reject the null hypothesis: the *Pearson's chi-square* to test the independency of the variables, which is more sensitive to small-medium sample size than the ordinal chi-square (Agresti, 1996), and the *Linear-by-Linear Association* test, more useful when some kind of ordered metric is assigned to the independent variables (Maxwell, 1961). According to the outcome of these analyses (*Appendix 19*), a series of results was obtained, and just those findings identified as

particularly relevant, especially in terms of statistical significance, are now presented. First of all, in terms of time spent on internet there is immediately a significant difference with 'younger 24' spending much more time on internet than 'older 45', that was the segment with the highest percentages related to the lowest options. The use of different means appeared also as dependent on the different segments and, even if the first two platforms were the same for everybody, 'older 45' preferred by far P.C.s – assigning on average 59 points in a constant sum scaling question – and 'younger 24' were slightly more dependent on smartphones (46 pt.), especially the target (49 pt.), while 'adults' were perfectly balanced between the two options (43 pt.). The different habits among the segments emerged also considering the time ranges in which they mainly surf on internet. In fact, even if 20:00 - 24:00 is surely the best spot to reach the three segments, the oldest segment preferred much more, in second place, the range 8:00 – 12:00, while all the others the one from 16:00 to 20:00 even if rather close to the 4 hours range just before those.

For all the segments, and especially for the target, Social Networks were the most frequently used channel followed by specialized websites and blogs, with the exception of the target that prefers Apps. This last category was the third favorite option for the two youngest segments while it was not appreciated by the oldest segment that replaced it with the news websites. Anyway, inside the Social Networks category, apart from Facebook's leadership, there was a really high dependency between Instagram and the youngest segment, and even higher with the target, that selected the option 94% of the times. Other specific results related to the target were the use of Snapchat (73.5%) and Spotify (53%), shared also by the rest of the 'younger 24' observations (respectively 66% and 45%), and Tumblr (15%). On the other hand, YouTube – even if appreciated by all the samples – and Pinterest were mainly dependent on the 'adults' segment as well as LinkedIn, even if shared with the youngest segment, while 'older 45' could be specifically reached on Google +. The main differences in terms of Social Networks followed in order to get information about products/services arose, then, from Facebook that even being the first option for all the samples was much less used by 'older 45', as well as Instagram significantly less followed even by the target, which didn't seem particularly interested in that specific use of Social Medias. About Apps,

even if 'older 45' was the segment that uses less those channels, emerged that it also was the segment clicking on those ads on purpose more than the others – 20% of them selected that option. Their favorite apps were those about news, which were significantly less appreciated by the target, who dislike also sport and business apps, while 100% of them stated that Social Networks apps are among the three categories most used. Also the segment 'younger 24' make a high use of this last category of apps, and in second place of music apps, also highly appreciated by 'adults', along with Social Networks, news and internet apps. About online ads, both the target and the youngest segment appreciated much more video rather than display ads. A distance that is reduced, in terms of preference, increasing the age range of the segments. After need/interest about the product/service, that is the common main driver of attractiveness in both video and display digital ads, 'adults' were mainly led to interact with these ads by promotions and discounts. This factor is, anyway, less important in video ads where it is not even second for 'younger 24' and the target. In those cases the length of the video takes its place.

No significant differences about the results were identified about the most important contents' factors in display ads, while for video ads the interaction was more important for the 'younger 24' and 'adults' segments occupying the third position, whereas, especially for the target, the theme/history of the ad was important and holds that position, as well as for 'older 45'. About the most attractive channels to bump into a display ad, there is a particular inclination towards Social Media and a complete rejection of online news websites and business/working pages by the target; while 'older 45' appears dependent on both these channels.

A significant dangerous discrepancy was identified also about the Telecom brand communication/ads/campaigns preferences. In fact, "younger 24" and "adults" privileged Vodafone as the best brand and MEO as the last one – even if the distance was not high – while "older 45" sustained the exact opposite.

In regard the performance of the current channels in which MEO's online ads were performed, beyond Facebook as the most commonly recalled, search engines, SAPO, and Google+ appeared as the most efficient in order to attract 'older 45', while YouTube was really low effective

compared to all the other segments, well impacted by this channel. Twitter and FourSquare were identified as the less frequently used, less followed in order to obtain information about products or services, and as not well performing since any respondents recalled to have ever seen during the last month a MEO app on those channels.

On the other hand, ad intrusiveness was particularly important for the 'adults' segment as main deterrent to not interact/click on MEO's ads encountered. About the last part of the survey, then, the 'second screen' interaction was really frequent about the target (71%) while 'older 45'was the one stating to never have this habit more times (23%), even if no statistically significant differences were identified. About the factors leading to the said interaction, beyond the product/service need as the most important one for everybody, the participation/search of information about online contests was highly related to a higher predisposition of 'younger 24' segment, significantly decreasing with the population getting older. The same trend was experienced by the aptitude towards the use of an online promotional code in a physical shop – with a special attention of the young segment to the reliability of the channel –, as well as for the probability to vote or participate in the online video contest.

6. Recommendations

The following recommendations arise from the main results just analysed and from the theory on which this report is based. As presented, MEO is not very advanced in the implementation of PB and TT, but it's true programmatic is only now moving up a gear in Portugal. Therefore, a logical recommendation is that a strategy for programmatic buying is defined, as a solid foundation for medium to long term success.

- First, MEO should define the main general benefits they're aiming at. The information gathered and the management problem exposed points to effectiveness of their digital marketing campaigns and the efficiency in terms of saving time and money as needed benefits.

- The company should, then, find out which programmatic operational model is best suited. MEO should start entering in the programmatic world with the help of an expert agency, to understand the mechanisms and gain expertise, implementing an in-house model at a later date,

to be less dependent on the traditional media-buying agency in the long term. In fact, the biggest challenge of bringing PB in-house is keeping up with the expertise and the knowledge: setting this as a long term objective, the company could work to up-skill team members and hire people with expertise beyond trying to swipe the trade secrets.

- Crafting the general strategy should account for long-term and short-term values (being aligned when the specific campaigns), buying the right technologies (to manage data, analyse large amounts of information in real time, and integrate across multiple platforms for access to whatever media inventory) and hiring the right people – all of which often presented as the main barriers to the implementation of PB.

  o Tools should be chosen according to their ability to customize to MEO's specificities. Anyway, among the most mentioned platforms for PB, Google Double Click appears the most famous and reliable one.

  o Best profiles for employees in this field should be more analytical and quantitative, closer to those typically hired for electronic financial trading.

- Setting up PB will imply identifying the existing and prospective customers with the highest profitability potential, through the RFM, LTV and Path to Purchase models described, in order to set campaign and bidding parameters. For each audience the specific goals that are pursued are setting and just after that, should be decided at which stage of the CDJ the users have to be reached.

  o During this process a particular attention should be addressed in avoiding audiences' overlap, since a more effective buying means to reconcile multiple points of contact into unique individuals.

  o Due to the high level of internal fragmentation at MEO, when decided to reach the customer at different CDJ's stages, the company should be sure that the strategy would be coordinated by a manager that could follow the whole campaign. This person should monitor and go-between the different teams of the department to be sure that each one

knows what the others are doing and so avoid mismatches or other dangerous situations as annoying people overwhelming them with ads.

- o Each one of the new advanced TT, as the literature highlights, should be used for specific goals: display remarketing to influence the search phase, video remarketing to make users aware of new products/services, behavioural analytics to influence their preferences, and third party lookalike techniques for the consideration phase. Geo-fencing programs and, more in general, location based services, could be used to reach the users when they are more in need and to develop better cross-media targeting strategy – e.g. recalling a TV ad highlighting/specifying some characteristics of the offer online after a certain time the customer has seen it, or showing a MEO digital ad straight after a customer passed near a competitor outdoor or had just seen a TV ad of another telecom brand.

- Once, decided how to shape/follow the consumer journey, the tools to implement and the objectives to achieve, a successful digital marketing strategy depends on aligning around organisation, measurement, techniques and technology.

  - o TT should be used every time the company wants to achieve specific objective, not just for specific campaigns, in some teams, and with any alignment with the rest of the teams working on the same campaign. This could jeopardize the actual beneficial impacts that these techniques actually have in terms of reaching the prospective users, not giving a real estimate of the extent to which they affect the results, in order to monitor it.

  - o The company should develop a plan to monitor campaigns' evolution, through the right KPIs and gathering information from consumers to refine the strategy. MEO should implement the "viewability" metric. Moreover, rather than using impressions-served standards, is suggested that MEO, once decided to implement PB models, chooses to buy its ads based on these viewable impressions. This would increase the possibility that the ad would be actually seen by the users, removing 'unfair' charges for non-viewable ads. According to IAB, the Interactive Advertising Bureau, this should be in the near future the main standard in trading programmatic.

o Use different attribution models according to the objective of each team as well as different capping ranges. Currently, the attribution model sets up is the standard one, the last-click attribution model, being never changed. This type of attribution should be used by the e-commerce team, while for the teams that work to reach customers at the top of the funnel would be more relevant the first-interaction model, to see where the initial awareness was created. Finally, to monitor what are the most successful channels in the whole path to the conversion, in influencing the users at different stages of the CDJ, should be used the linear model. Capping ranges should also be set, once defined the parameters of the PB, to reach users with different messages according to how many times the ads are going to be shown to them, based on their tolerance.

Beyond this theoretical suggestions, some more practical recommendations were developed about how to target different customers based on their preferences, habits, and specific demographic data, to increase the reach efficiency and effectiveness of MEO's digital ads.

• It is recommended to invest more on mobile ads since younger people spend a significant amount of time there, and older are more prone to clicking.

• These investment should rely – beyond social network apps that could be used for all the segments, especially for the youngest one – specifically on news apps to reach older 45 users, on mobile internet browsers for older 25, and on music apps to target younger 44 segments.

o The company should advertise its own apps on social medias, where MEO is already present, in order to spread these free apps and so take advantage of these marketing channels, placing the ads most suitable to the app type of users and saving money.

o In addition, through the implementation of cross-device retargeting, MEO could retarget its website visitors across their desktops, mobile phones and tablets. This TT would allow to show MEO's ads to its targets when they are tuning to their favourite mobile apps, while they are playing mobile game, or surfing on internet with their tablets or phones, increasing also the cross-media interaction.

- About the other channels, a specific focus is recommended towards Social Media, and just in second place about news and other specialized websites and blogs that according to the topic should be used to address the ads toward one segment rather than another one.

  o Online news websites and business/working pages should be used in order to reach the older 45 segment. On Social Network MEO should focus just on those most relevant in order to be effective in reaching the interested segment. Instead of investing on Twitter and FourSquare, the company should be more focused on differentiate the type of advertisement with regards to the channel in which it is placed. So that, while Facebook is universally useful, they could use Google+ to target more specifically the older 45 segment, YouTube, Spotify or LinkedIn for the other two younger segments, while Instagram and Snapchat more specifically for younger 24, and Pinterest for the 25 – 44 years old segment.

  o Through PB, MEO could automatically set these channels as specific for the different segments and so reach them with specific ads in order to be more effective. So, for instance, advertise more promotions and discounts on those channels where the 'adults' segment is present – since they were those most affected by this factor in the choice of interacting with display and video ads – or ads related to events and contests to participate on those channels more frequented by the youngest segment.

- Also the time when showing the ads should be programmatically set up. In this case the recommendation would be to use the range 20:00 – 24:00 to generally reach all the segments, while using the spot 8:00 – 12:00 to reach more specifically the older 45, and the one between 16:00 and 20:00 for the other two segments.

More in general, then, MEO should try to use more innovative ads and so count on impressive first image for display ads, or unexpected contents about videos, paying attention that, especially when they target the 'adults' segment, the ad would not be intrusive. At the same time, a warning signal was identified in order to change the weight on the different targets focus. The alarm bell rang about the fact that MEO is losing ground in the younger and the middle age segments that see the company as a step behind the other main Telecom brands in terms of digital campaigns.

This significant gap should be filled as soon as possible, increasing the focus on the new generations. As demonstrated with a random target, created for the survey data analysis, all the targets have specific habits and preferences. Once identified these differences, and implemented in an algorithm for the PB of the ad spots reflecting those same habits and preferences, MEO would be able to strike up a deeper relationship with the younger segments reaching them with what they care about.

7. Future research and limitations

About limitations, these were mainly of three types: time, lack of technical knowledge and MEO's current situation. The field lab lasted for almost three months, during which part of that time was spent in order to enter in the company's perspective and identify the possible courses of action, making possible just a narrower focus on specific issues. At the same time, as explained throughout the paper, the transition phase that the company is experiencing led to other constraints, mainly in terms of fragmentation among the department information and the subsequent quality of those, making more difficult their collection. In the end, also the lack of technical knowledge about IT processes was slowing down the overall process, taking time to gain the necessary understanding of some fundamental concepts.

To yield even more satisfactory results for the client in the future, the author would like to suggest some further researches. (i) Being fundamentally important the creation of a correct LTV model in order to identify the correct value of the different customers and so base the bid on that during the PB process, is recommended to follow some papers as those ones of Samizadeh, Koosha, Zangeneh, & Vatankhah (2015) or Jain & Singh (2002) to build an effective model, and periodically update it. In fact, the practical research part performed about the different targets were mainly demonstratives, but they should be deepened, identifying better specific targets with characteristics that could be relevant for MEO's offers. (ii) Once identified those targets, investigate on the crucial CDJ touch points for each of them. (iii) Make further researches about the most reliable and useful platforms to reach the programmatic and targeting objectives set up, consulting also the expert hired. (iv) Test the different customers' grade of tolerance towards the

ads shown to establish the capping ranges. (v) About TT, deepen the knowledge about new trends, as in ZenithOptimedia (2015) paper about three areas to explore – time of the day, social setting, and quality of the media context – to take full advantage in targeting moments. (vi) Investigate about publishers' viewability offers before choosing it, since the secondary data analysis highlighted that publishers can use various different methods and technologies to establish whether impressions meet the 'viewable' criteria or not.

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