

ANALYTICAL REASONING FOR KEYWORD MANAGEMENT IN DIGITAL MARKETING

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ABSTRACT

The adoption in digital marketing of the smart bidding strategies, target Cost Per Acquisition (tCPA) and target Return Objective of Ad Spend (tROAS) developed by the main search engines (Google, Bing) has motivated the re-design of how publishers must be update the campaigns parametrization to maximize their impact. In this paper, JOT describes how by integrating data coming from internal (statistics, financials and actions registry) and external data (keywords) sources and developing a unique reasoning and rule based optimization algorithm, it is possible to manage huge amount of campaigns with the aim of maximizing the financial profit. The combination of keyword grouping based on semantic and financial criteria among the evaluation of statistical information enables the selection of the most adequate algorithm to achieve the expected goals.

KEYWORDS

digital marketing, rule-based reasoning, data preparation, optimization algorithm, data analysis, multiple data sources

1. Introduction

Digital marketing has experienced a remarkable increase in recent years due to the growing importance of online strategies to reach a wider audience and increase sales [1] [2]. With the COVID-19 pandemic and the need to maintain social distancing, digital marketing has become an even more essential tool for businesses.

Digital marketing refers to the promotion of products or services through digital channels such as email, social media, search engines, and other online media. Unlike traditional marketing, which focuses on television, radio, and print advertisements, digital marketing leverages technology to reach a global and highly segmented audience.

One of the main advantages of digital marketing is its ability to measure the performance and effectiveness of advertising campaigns. With data analytics tools, companies can track the number of people who interact with their content, understand consumer behavior, and adjust their marketing strategy accordingly. Additionally, digital marketing allows for greater personalization of advertising messages, which improves the user experience and increases conversion rates.

Digital marketing relies heavily on effective keyword management to drive targeted traffic and optimize campaign performance. Analytical reasoning plays a crucial role in determining the most relevant keywords and their strategic implementation. This section explores the scientific background of analytical reasoning in keyword management, highlighting key concepts and approaches supported by relevant references.

- **Keyword Research and Analysis:** Keyword research involves identifying and evaluating keywords that are most likely to be used by the target audience in search queries. Analytical reasoning enables marketers to make data-driven decisions by analyzing search volume, competition level, and relevance of keywords. By understanding user intent and behavior, marketers can select keywords that align with their marketing objectives [3]
- **Keyword Selection and Optimization:** Analytical reasoning helps marketers choose the most effective keywords for campaign optimization. Through techniques like search query analysis and competitive analysis, marketers gain insights into keyword performance, trends, and competitive landscape. This enables them to refine keyword selection and optimize campaigns for better visibility and relevance. [4]

- **Keyword Expansion and Long-tail Keywords:** Analytical reasoning also facilitates keyword expansion strategies. By examining search trends and user behavior, marketers can identify related keywords and long-tail variations that may have lower competition but higher conversion potential. This allows for more targeted and cost-effective marketing efforts [5].
- **Data Analytics and Machine Learning:** The use of data analytics and machine learning techniques further enhances analytical reasoning in keyword management. Advanced algorithms and predictive models can identify patterns, predict keyword performance, and automate keyword selection and bidding processes. This enables marketers to efficiently manage large-scale keyword campaigns and make real-time optimizations [6] [7] [8]

In conclusion, analytical reasoning is a critical component of effective keyword management in digital marketing. By leveraging data-driven insights, marketers can identify relevant keywords, optimize campaigns, and drive targeted traffic. The integration of data analytics and machine learning techniques further enhances the efficiency and effectiveness of keyword management strategies.

2. Analytical background for campaign optimization

JOT Internet Media bases its strategy on the use of Google Ads' Target ROAS and Target CPA algorithms [9].

The advertising return on investment (ROAS) goal is a key metric for advertisers looking to measure the effectiveness of their online advertising campaigns. ROAS is a measure of how much money an advertiser earns for every dollar spent on advertising. In other words, if an advertiser has a 4:1 ROAS, it means that for every dollar spent on advertising, they earn four dollars in revenue. In Google Ads, advertisers can set a specific ROAS goal for their advertising campaigns. This is known as the Target ROAS goal. This ROAS goal allows advertisers to adjust their advertising investment to achieve the best possible return on investment. Google Ads' Target ROAS feature uses machine learning to adjust ad bids in real-time based on campaign performance. By setting a specific ROAS goal, advertisers can tell Google Ads the level of advertising performance they want to achieve. Then, the Google Ads algorithm will automatically adjust ad bids to maximize performance and achieve the desired ROAS goal.

When setting a Target ROAS goal, advertisers need to consider several factors, such as the conversion value of their website and the profit margin of their business. If an advertiser has a high profit margin, they may want to set a higher ROAS goal to maximize profits. On the other hand, if an advertiser has a low profit margin, they may want to set a lower ROAS goal to maximize sales volume. It is important to remember that setting a Target ROAS goal is not a one-size-fits-all solution for all advertisers. ROAS goals should be regularly adjusted based on campaign performance and market behavior. Advertisers should also use other key metrics, such as cost per conversion and total return on investment, to evaluate the success of their advertising campaigns.

In conclusion, the Target ROAS goal in Google Ads is a valuable tool for advertisers looking to maximize their advertising return on investment. By setting a specific ROAS goal and using Google Ads' machine learning to adjust ad bids in real-time, advertisers can maximize the effectiveness of their online advertising campaigns. However, it is important to remember that ROAS goals should be regularly adjusted and complemented with other key metrics to evaluate campaign success.

The cost per acquisition (CPA) goal is an important metric for advertisers looking to measure the effectiveness of their online advertising campaigns. CPA measures the cost of acquiring a customer or conversion and is an important measure of campaign performance. In Google Ads, advertisers can set a specific CPA goal for their advertising campaigns. This is known as the Target CPA goal. Google Ads' Target CPA goal uses machine learning to adjust ad bids in real-time based on campaign performance. By setting a Target CPA goal, advertisers can tell Google Ads the level of acquisition cost they want to achieve. Then, the Google Ads algorithm will automatically adjust ad bids to maximize performance and achieve the desired CPA goal. Google Ads' Target CPA goal is particularly useful for advertisers looking to maximize the performance of their advertising investment. By setting a specific CPA goal, advertisers can ensure that their advertising campaigns are optimized to maximize customer conversion at an efficient cost.

It is important to note that setting a target CPA goal is not a one-size-fits-all solution for all advertisers. CPA goals should be regularly adjusted based on campaign performance and market behavior. Advertisers should also utilize other key metrics such as conversion value and total return on investment to evaluate the success of their advertising campaigns.

To sum up, the target CPA goal in Google Ads is a valuable tool for advertisers who want to maximize their advertising investment performance. By setting a specific CPA goal and utilizing Google Ads machine learning to adjust ad bids in real-time, advertisers can maximize the effectiveness of their online advertising

campaigns. However, it is important to remember that CPA goals should be regularly adjusted and complemented with other key metrics to evaluate campaign success.

As presented previously, machine learning and predictive analytics have become indispensable tools in digital marketing optimization. These techniques leverage advanced algorithms and statistical models to analyze large volumes of data, identify patterns, and make predictions. In the context of digital marketing, machine learning and predictive analytics enable marketers to gain deeper insights into customer behavior, optimize campaigns, and drive better business outcomes.

1. *Data Analysis and Pattern Recognition:* Machine learning algorithms excel at analyzing complex datasets and identifying meaningful patterns. In digital marketing optimization, these algorithms can analyze historical campaign data, user behavior, demographics, and other relevant variables to uncover valuable insights. By recognizing patterns in data, marketers can make informed decisions about keyword selection, audience targeting, and campaign optimization [11]

2. *Predictive Modeling and Forecasting:* Predictive analytics in digital marketing allows marketers to forecast future outcomes based on historical data. By training predictive models on historical campaign performance data, machine learning algorithms can make predictions about click-through rates, conversion rates, customer lifetime value, and other key performance indicators. These predictions help marketers allocate budgets effectively, optimize bidding strategies, and make data-driven decisions for campaign success [12] [13]

3. Dataset generation

In the realm of analytical projects, the acquisition of pertinent data assumes a pivotal role, whereby its inclusion inherently shapes the subsequent findings and consequential insights. Hence, the pursuit of a comprehensive dataset emerges as a paramount endeavor, necessitating a discerning comprehension of contextual nuances and input quality to effectively identify the optimal datasets.

In this case, several data sources have been used:

- *Google Ads:* The integration of historical information from Google Ads furnishes valuable insights into the statistical impact and investment history of campaigns. This dataset offers a rich tapestry of cost-related information, facilitating the measurement of campaign profitability and ad performance. The inclusion of such quantitative metrics empowers researchers to discern patterns and trends, aiding in the evaluation of advertising efficacy.

- *Partner report:* The incorporation of partner reports adds an additional layer of economic data, specifically revenue figures, intertwined with the outcomes of individual advertisements. These reports, having undergone rigorous traffic quality filters, serve as a reliable source for assessing the financial implications of the analyzed advertisements. By amalgamating revenue data with pertinent performance indicators, managers gain a comprehensive understanding of the overall effectiveness of the analyzed campaigns.

- *Internal Information:* Encompassing all data regarding actions performed by JOT's internal algorithms and account managers, this repository facilitates a comprehensive examination of past actions and endeavors to predict future courses of action.

Fecha_id	Cuenta_id	Campaña_id	Impressions	Cost	Clicks	Cpa_Medio	Cpc_Medio	ConvCost	Abs_top_ip	Top_ip	Search_abs	Search_cs	Search_exac	Search_js	Search_rank	Search_rank	Search_top	Search_rank
20230531	1096747284	14126806490	34	2.43	1	2.43	2.43	0.41152263	6.00E-02	0.68	9.99	0	9.99	9.99	0.9	0.9	0.1	90.01
20230531	1096747284	14126806493	1	0	0	NULL	NULL	NULL	0	0	9.99	0	9.99	11.11	0	0	0.1	0
20230531	1096747284	14126806499	34	0	0	NULL	NULL	NULL	0	0	0	0	0	0	0	0	0	0
20230531	1096747284	14126806499	14	0	0	NULL	NULL	NULL	0	7.00E-02	9.99	0	9.99	9.99	0.9	0.9	0.1	90.01
20230531	1096747284	14126806502	58	0	0	NULL	NULL	NULL	0	0	0	0	0	0	0	0	0	0
20230531	1096747284	14126806502	14	0.4	1	NULL	0.4	0	0	7.00E-02	9.99	0	9.99	9.99	0.9	0.9	0.1	90.01
20230531	2508014248	14126886395	24	2.34	2	NULL	1.17	0	0	0	0	0	0	0	0	0	0	0
20230531	2508014248	14126886395	51	0	0	NULL	NULL	NULL	0.02	8.00E-02	9.99	0	9.99	9.99	0.9	0.9	0.1	90.01
20230531	2508014248	14126886398	219	1.35	3	0.45	0.45	2.22222222	0	0	0	0	0	0	0	0	0	0
20230531	2508014248	14126886398	91	8.13	4	2.0325	2.0325	0.49200492	0.01	0.18	9.99	0	9.99	9.99	0.9	0.9	0.1	90.01
20230531	2508014248	14126886401	4	0	0	NULL	NULL	NULL	0	0	0	0	0	0	0	0	0	0
20230531	2508014248	14126886401	5	0	0	NULL	NULL	NULL	0	0.6	9.99	0	9.99	9.99	0.9	0.9	0.1	90.01
20230531	2508014248	14126886404	62	0	0	NULL	NULL	NULL	0	0	0	0	0	0	0	0	0	0
20230531	2508014248	14126886404	87	1.98	3	0.66	0.66	1.51515152	0	5.00E-02	9.99	0	9.99	9.99	0.9	0.9	0.1	90.01
20230531	2508014248	14126886407	8	2.43	1	NULL	2.43	0	0	0	0	0	0	0	0	0	0	0
20230531	2508014248	14126886407	13	0	0	NULL	NULL	NULL	8.00E-02	0.62	9.99	0	9.99	9.99	0.9	0.9	0.1	90.01
20230531	2508014248	14126886410	70	0.39	2	0.39	0.195	2.56410256	0	0	0	0	0	0	0	0	0	0
20230531	2508014248	14126886410	52	0.78	2	0.78	0.39	1.28205128	0	0.17	9.99	0	9.99	9.99	0.9	0.9	0.1	90.01
20230531	1096747284	14123196372	1	0	0	NULL	NULL	NULL	0	0	9.99	0	12.5	11.11	0.9	0.9	0.1	88.89
20230531	1096747284	14123196375	30	0.68	1	NULL	0.68	0	0	0	0	0	0	0	0	0	0	0
20230531	1096747284	14123196375	21	0	0	NULL	NULL	NULL	0.1	0.71	9.99	0	9.99	9.99	0.9	0.9	0.1	90.01

Fig. 1 Data set sample containing the main statistics of the campaigns

3.1 Keyword grouping

One of the most crucial aspects in digital marketing campaign creation is the selection and grouping of keywords. Currently, JOT employs two types of keyword grouping: Indexed Cost-Per-Click (CPC) Grouping and Semantic Category Grouping.

Indexed Cost-Per-Click (CPC) Grouping is a strategic approach employed to amalgamate keywords exhibiting comparable potential revenue per click. By grouping these keywords based on their estimated revenue generation capabilities, advertisers can streamline their optimization efforts and drive enhanced campaign performance. This grouping technique serves as a catalyst for optimization by facilitating the establishment of a target Cost-Per-Acquisition (CPA) for the campaign.

The inherent advantage of indexed CPC grouping lies in its ability to align optimization strategies with the unique characteristics of each keyword group. Advertisers can calibrate their target CPA to accommodate variations in the estimated cost per click within a specific grouping. This flexibility allows for a more nuanced approach to campaign optimization, enabling advertisers to fine-tune their bidding strategies based on the revenue potential associated with each keyword cluster.

By adopting indexed CPC grouping, advertisers gain a multifaceted toolkit to drive campaign success. The amalgamation of keywords based on revenue per click not only streamlines optimization efforts but also enables the identification of high-value clusters that deserve focused attention. This targeted approach ensures that resources are allocated strategically, with an emphasis on maximizing returns on investment.

Moreover, indexed CPC grouping fosters a deeper understanding of the relationship between revenue generation and click behavior. Advertisers can delve into the performance metrics of individual keyword clusters, unraveling patterns and insights that can inform strategic decision-making. Through meticulous analysis of these groupings, advertisers gain insights into the revenue potential associated with different click levels and can leverage this information to refine their bidding strategies accordingly.

While indexed CPC grouping provides a powerful mechanism for campaign optimization, it is important to recognize the dynamic nature of cost and revenue metrics within these keyword clusters. The variability in cost per click and potential revenue introduces complexities when optimizing campaigns with a target CPA. Advertisers must carefully navigate the trade-offs between bid management and revenue maximization, striking a delicate balance that ensures the achievement of campaign objectives while maintaining cost efficiency. Within the realm of keyword grouping, another notable approach is Semantic Category Grouping, which leverages the power of semantic categorization to cluster keywords. By organizing keywords based on their semantic relevance, advertisers gain the ability to craft ad texts that resonate with the target audience on a deeper level. This strategic alignment between the ad's message and the user's intent holds the potential to significantly enhance Click-Through Rate (CTR) and Conversion Rate (CR), thereby bolstering the overall campaign performance.

The implications of semantic grouping extend beyond immediate performance improvements, opening up avenues for additional analysis and extrapolations. The categorization of keywords based on their semantic characteristics provides a fertile ground for deriving deeper insights into consumer behavior, preferences, and trends. Through careful examination of keyword clusters, advertisers can unveil patterns and correlations that may inform strategic decision-making at a more profound level. These insights, in turn, can influence various aspects of campaign management, ranging from ad messaging and targeting to landing page optimization and audience segmentation.

However, it is essential to acknowledge that semantic grouping introduces certain complexities when it comes to optimization with target CPA. Due to the inherent nature of semantic categorization, the CPAs of keywords within a campaign tend to exhibit wide dispersion. This dispersion stems from the inherent variability in performance among keywords grouped together based on semantic relevance. As a result, optimizing campaigns with a target CPA becomes a more intricate endeavor, as the challenge lies in striking a delicate balance between maximizing the overall campaign's profitability and maintaining a reasonable level of CPA efficiency.

Navigating the intricacies of optimization with target CPA amidst the dispersion of CPAs within semantic keyword groups necessitates a nuanced approach. Advertisers must carefully evaluate the trade-offs between performance and efficiency, considering the potential gains in CTR, CR, and overall campaign effectiveness against the inherent variations in keyword-level profitability. By striking an optimal equilibrium between these competing objectives, advertisers can unlock the true potential of semantic category grouping, harnessing its power to drive meaningful results and capitalize on the inherent semantic nuances that shape consumer behavior in the digital landscape.

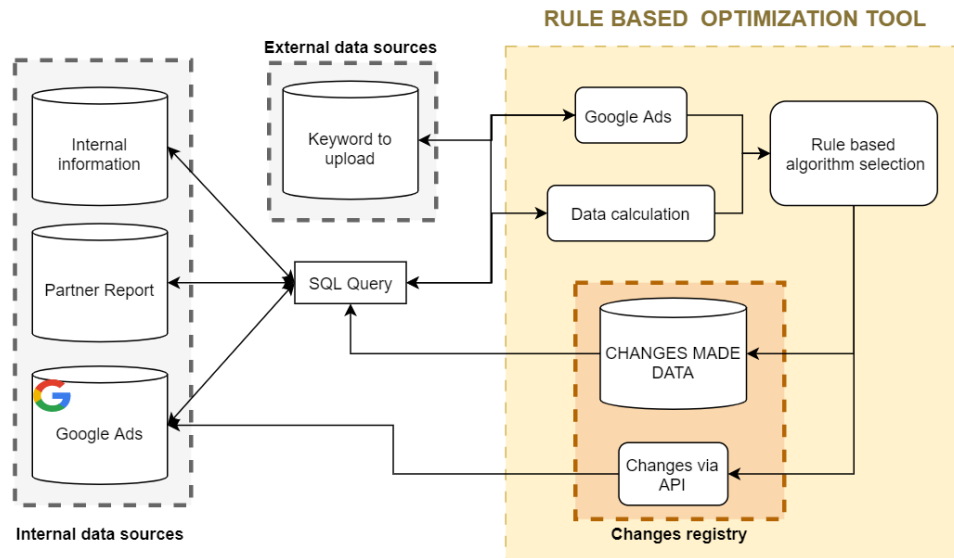


Fig. 2 Data architecture for analytical campaign optimization

3.2 Campaign statistics and key performance indicators

The overarching objective of the algorithm is to maximize the profit achieved for each individual campaign. This paramount objective encapsulates the essence of campaign performance, emphasizing the need for strategic decision-making. The calculation of profit entails a meticulous evaluation, derived from subtracting the campaign's incurred costs from the reported value of conversions. This comprehensive measure provides a holistic perspective on the campaign's financial success, enabling a quantitative assessment of its effectiveness.

Furthermore, the examination of profit at the keyword level assumes a pivotal role in determining the viability of specific keywords within the campaign. By meticulously scrutinizing the profitability of individual keywords, advertisers gain crucial insights that inform their strategic actions. Through careful analysis, it becomes possible to identify underperforming keywords that fail to yield substantial returns on investment. In such instances, advertisers may opt to pause these unprofitable keywords, thus redirecting resources to more lucrative avenues. By implementing this nuanced approach, advertisers can fine-tune their bidding strategies and investment allocations, optimizing the overall profitability of their campaigns.

The consideration of keyword-level profit introduces a dynamic dimension to campaign management, emphasizing the importance of continuous monitoring and optimization. Advertisers are faced with the challenging task of striking a delicate balance between bidding on keywords that drive substantial profits and minimizing wasteful expenditures on less fruitful avenues. Consequently, this granular approach to profit evaluation empowers advertisers with the knowledge and insights necessary to make informed decisions, shaping the trajectory of their digital marketing campaigns.

In essence, the maximization of profit at both the campaign and keyword levels lies at the heart of strategic decision-making in digital marketing. By effectively managing costs and evaluating the profitability of keywords, advertisers can steer their campaigns towards greater success and ensure a judicious allocation of resources. This comprehensive understanding of profit dynamics serves as a cornerstone for data-driven decision-making, fueling the optimization of digital marketing campaigns and ultimately driving business growth.

By merging the datasets from Google Ads and partners, key performance indicators (KPIs) are obtained for campaign optimization. JOT use variables such as:

- Cost
- Impressions
- Clicks
- CPA (Cost-Per-Acquisition)
- Average CPC (Cost-Per-Click)
- Conversion value divided by cost
- Absolute top impression share percentage
- Top impression share percentage

- Search impression share

Furthermore, several of these variables are employed at the keyword level, but only for paused keywords. The target Return on Ad Spend (ROAS) and target CPA algorithms in Google Ads do not allow bidding at this level, necessitating a higher level of granularity. In this case, the campaign level is chosen as a compromise between sufficient detail and aggregated data to provide historical information for the algorithm.

4. Data-driven Actions

Within the campaign, there are several decisions that can be made to maximize its profit. These decisions can be divided into two categories: actions to be taken and waiting periods before implementing those actions.

An illustrative example of decision-making can be exemplified as follows:

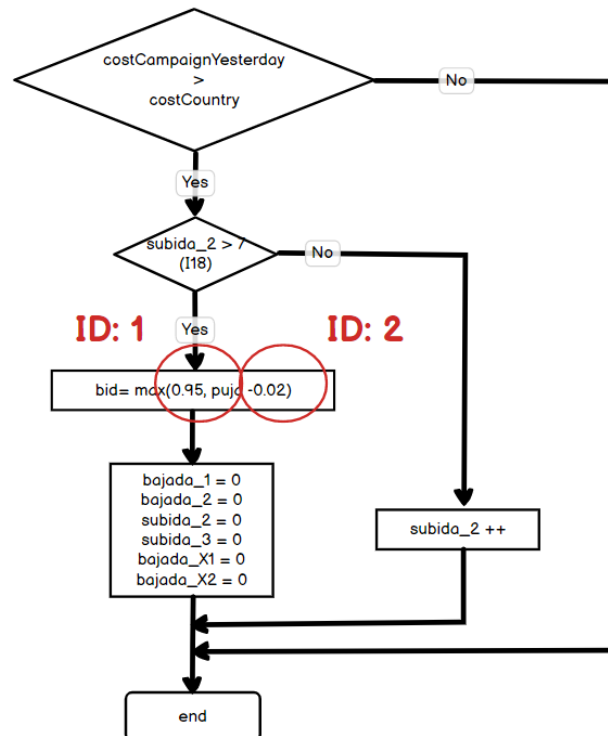


Fig. 3 Algorithm to automate performance data analysis and optimization

Within the scope of this project, we encounter a dual framework of changes that need to be enacted. These changes are contingent upon specific conditions, such as achieving predefined return on investment (ROI) thresholds. Once these conditions are satisfied, the campaign embarks on a distinct trajectory. The initial decision-making process revolves around a crucial parameter known as the "subida_2" counter, which signifies the number of days to wait before implementing subsequent modifications, specifically pertaining to bid adjustments.

The overarching objective of this project is to delve into a comprehensive analysis, leveraging historical data, to ascertain the appropriateness of the designated waiting period and bid adjustments vis-à-vis the resultant outcomes and the past actions undertaken within this campaign as well as comparable campaigns sharing similar characteristics. By scrutinizing the dynamic interplay between these factors, the algorithm can proactively determine or recommend the most judicious modifications, grounded in meticulous historical assessments, to optimize the campaign and foster the attainment of maximal feasible profit.

One of the risks associated with the project relates to the variability of actions. By studying, for example, the changes made in bid adjustments from target ROAS downwards in a previous period, the following results are obtained:

Table 1 Results from studying the bid adjustments from previous period

Mean	Variance
-0.021123	0.001189

In order to mitigate the potential adverse effects and enhance the algorithm's decision-making capabilities, an iterative and adaptive framework is employed, incorporating both an exploratory phase and a comprehensive analysis of historical data.

The exploratory phase of the algorithm involves introducing controlled variations to a percentage of campaigns for each action undertaken. By deliberately exploring alternative approaches, the algorithm can assess the potential benefits and drawbacks of unexplored or minimally explored modifications. This controlled experimentation allows the algorithm to gather valuable insights into the effectiveness of different strategies, refining its understanding of optimal campaign management practices. However, to minimize potential risks associated with untested changes, the degree of freedom in this exploratory phase is carefully bounded, striking a balance between innovation and stability.

Additionally, determining the optimal number of waiting days is a critical aspect of campaign management. Leveraging the wealth of historical statistics from each campaign, a regression analysis is employed to predict the expected values of key performance indicators based on past data. By comparing these projected outcomes with the actual results obtained, campaign managers can gauge the performance of ongoing actions in relation to expected benchmarks. This assessment provides valuable feedback on whether the campaign is aligning with anticipated performance trajectories or if course corrections are warranted. Furthermore, this analysis can be complemented by the exploratory phase, incorporating insights gained from the controlled variations to further refine the decision-making process.

By integrating the exploratory phase with the analysis of optimal waiting days based on historical data and regression techniques, the algorithm strives to enhance its ability to navigate the complex landscape of digital marketing. Through iterative learning and adaptation, the algorithm continually refines its strategies, leveraging insights gained from past actions and experimental variations. This iterative process not only enhances the algorithm's capability to optimize campaign outcomes but also empowers advertisers to make data-informed decisions, ensuring their marketing efforts are finely tuned to achieve maximum impact in a dynamic and ever-evolving digital ecosystem.

5. Conclusion

In conclusion, digital marketing, particularly through platforms like Google Ads, has become an indispensable tool for businesses aiming to expand their online presence, reach a wider audience, and drive sales growth. The advantages of digital marketing, such as its ability to personalize advertising messages, measure campaign performance, and reach a global audience, make it a powerful strategy in the modern business landscape. However, it is crucial for companies to be aware of the challenges associated with digital marketing, including the need to stand out from competitors and the potential costliness of online advertising.

The internal functioning of Google Ads, specifically the utilization of algorithms like Target ROAS and Target CPA, provides advertisers with valuable tools to optimize their advertising campaigns and maximize return on investment. By setting specific ROAS and CPA goals and leveraging machine learning, advertisers can dynamically adjust their ad bids and drive enhanced campaign performance. These algorithms enable advertisers to align their advertising investment with desired performance metrics, whether it be maximizing profitability or customer acquisition at an efficient cost. However, it is essential for advertisers to regularly assess and adjust their goals based on campaign performance and market dynamics.

The generation of comprehensive datasets is crucial for conducting effective analytical projects and deriving meaningful insights. In the case of this study, data from Google Ads, partner reports, and internal information were utilized to evaluate the statistical impact, investment history, and profitability of campaigns. These datasets allowed for a comprehensive analysis of cost-related information, revenue figures, and the outcomes of individual advertisements. By merging and analyzing these datasets, advertisers can gain valuable insights into the effectiveness of their advertising campaigns and make informed decisions for future endeavors.

Keyword grouping, both through indexed CPC grouping and semantic category grouping, plays a vital role in campaign creation and optimization. Indexed CPC grouping allows advertisers to streamline their optimization efforts by grouping keywords with similar revenue generation potential. This approach facilitates the establishment of target CPAs and enables advertisers to allocate resources strategically.

Semantic category grouping, on the other hand, leverages semantic relevance to cluster keywords and enhance ad messaging alignment with user intent. This grouping technique not only improves immediate performance but also provides insights into consumer behavior and preferences. However, optimization with target CPA in keyword grouping requires careful consideration of the variations in cost and revenue metrics within these groups.

Campaign statistics and key performance indicators (KPIs) are essential for evaluating the success and profitability of campaigns. Profit, calculated by subtracting campaign costs from the reported value of conversions, provides a holistic measure of financial success. Examining profit at the keyword level allows advertisers to identify underperforming keywords and optimize bidding strategies. By focusing on maximizing profit at both the campaign and keyword levels, advertisers can make data-driven decisions, effectively manage costs, and optimize the overall profitability of their digital marketing campaigns.

Acknowledgement

This work received partial funding from the Economics Affairs and Digital Transformation Ministry through Red.es with grant number 2021/C005/00141700

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