

DATA-DRIVEN MANAGEMENT OF SOCIAL MEDIA ADVERTISING: THEORY AND PRACTICE

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**Abstract:** *This article examines the management of social media advertising in enterprises through data analytics. The study explores methods for optimizing advertising campaigns on Facebook, Instagram, Telegram, and YouTube based on data-driven approaches, including audience targeting, engagement analysis, and techniques for improving ROAS (Return on Ad Spend). Against the backdrop of rapid growth in social media users in Uzbekistan, the necessity of applying platform-specific analytics tools for local businesses is substantiated. The research findings demonstrate that data-driven social media management can increase advertising ROAS by 2.5–4 times and reduce the Cost per Lead (CPL) by 30–45%.*

**Keywords:** *social media marketing, data analytics, ROAS, audience targeting, engagement rate, Facebook Ads, Instagram advertising, content analytics, influencer marketing, SMM strategy.*

INTRODUCTION

With more than 5.1 billion social media users worldwide — a number growing year by year [1] — social media platforms have evolved far beyond simple communication tools. Facebook, Instagram, TikTok, YouTube, and other platforms have become powerful marketing instruments that allow businesses to reach their target audiences with precision and efficiency.

Uzbekistan is no exception to this trend. According to DataReportal (2024), the country has over 10 million active social media users, representing 28% of the total population. Instagram and Telegram are the most popular platforms, with daily active users numbering between 4 and 5 million [2]. These figures confirm that social media advertising has become a critical marketing channel for local businesses.

However, many local enterprises still manage their social media advertising intuitively — relying on gut feeling and experience rather than data. This approach leads to inefficient use of advertising budgets, misdirected targeting, and low conversion rates. Research shows that data-driven social media management can improve advertising effectiveness by three to four times [3].

The purpose of this article is to establish the theoretical foundations of data-driven social media advertising management, systematize core analytics methods and tools, and develop practical recommendations for Uzbek enterprises. The study addresses the following objectives: analyzing the analytics capabilities of major social media platforms; identifying the key components of a data-driven SMM strategy; and developing an implementation model for local businesses.

METHODOLOGY

The research employed a complex of scientific methods: literature review, systematic analysis, comparative analysis, empirical observation, and survey methods.

**Literature Review:** More than 50 international peer-reviewed articles published between 2019 and 2024 were reviewed, alongside annual reports from Meta, Google, DataReportal, Hootsuite, and Sprout Social. The most frequently cited and most current sources were selected for inclusion in the study.

**Empirical Observation:** The social media accounts and advertising campaigns of five enterprises in Tashkent were monitored over a four-month period. Key performance indicators — engagement rate, reach, CTR, and ROAS — were recorded for each enterprise. The observed businesses represented the retail, restaurant, education, and real estate sectors.

**Survey:** A survey was conducted among 92 marketing specialists and SMM managers from enterprises in Tashkent, Samarkand, Bukhara, and Namangan. The survey examined the extent of social media advertising use, awareness and adoption of analytics tools.

**Comparative Analysis:** Key performance indicators of data-free versus data-driven social media campaigns were compared. Additionally, the experience of Uzbek enterprises was benchmarked against that of small and medium-sized businesses in Kazakhstan, Russia, and Southeast Asia.

### LITERATURE REVIEW

**Theoretical Foundations of Social Media Marketing:** Kaplan and Haenlein (2010) were among the first to define social media in an academic context, describing it as “internet-based applications that allow the creation and exchange of user-generated content.” Their classification framework remains a foundational reference for understanding social media platforms today. Subsequently, Tuten and Solomon (2017) developed a model for fully integrating social media marketing into an overarching marketing strategy [4].

**Data-Driven SMM:** Kietzmann et al. (2011) identified seven core components of social media analytics — identity, conversations, sharing, presence, relationships, reputation, and groups — that help organizations understand what data to track. More recent studies indicate that when these components are analyzed in real time, marketing decision quality improves by up to 60% [5].

**Audience Targeting and Personalization:** Bleier and Eisenbeiss (2015) demonstrated that targeted advertising delivers conversion rates 2.7 times higher than general advertising. Lookalike Audience technology — finding new users who resemble existing customers — has been recognized as one of the most effective targeting methods on Facebook and Instagram [6].

**Engagement Analysis:** According to Sprout Social (2023), average engagement rates vary significantly by platform: Instagram 1.22%, Facebook 0.08%, TikTok 4.25%, and LinkedIn 0.54%. These differences allow businesses to select the most appropriate platform for their sector and allocate resources more efficiently. Notably, Telegram channels in Uzbekistan achieve an average engagement rate of 8–15% [2].

**Influencer Marketing Analytics:** Research by Influencer Marketing Hub (2023) indicates that influencer marketing campaigns deliver an average ROI of \$5.78 per \$1 invested. However, achieving this figure requires careful analysis of influencer audience quality — engagement rate, follower authenticity, and alignment with the target audience [7].

**Situation in Uzbekistan:** A study by Razzaqov and Mirzayev (2023) found that 78% of Uzbek enterprises using social media marketing rely on Instagram and Telegram, yet only 23% use dedicated analytics tools. The remaining 77% rely solely on basic in-platform statistics such as likes and views, without conducting deeper analysis [8].

### ANALYSIS AND RESULTS

The research identified three main approaches to social media advertising management among Uzbek enterprises: an intuitive approach (without data), a partially data-driven approach, and a fully data-driven approach. The analysis of each approach and the key performance metrics are presented below.

**Table 1**

**Analysis of Social Media Advertising Management Approaches Among Uzbek Enterprises**

Approach	Characteristics	Share of Enterprises	Average ROAS
<b>Intuitive</b>	Based on intuition, no data	54%	1.2–1.8x
<b>Partially Data-Driven</b>	Monitors platform statistics	23%	2.0–2.8x
<b>Fully Data-Driven</b>	Dedicated tools, A/B testing, attribution	23%	3.5–5.2x

As Table 1 illustrates, the fully data-driven approach yields approximately 2.5–3 times higher ROAS than the intuitive approach. Yet survey results show that half of all enterprises still rely on intuition — a clear indicator of significant room for improvement.

**Audience Targeting Effectiveness:** Among the observed enterprises, those that precisely defined their target audience demonstrated, on average, 3.1 times higher conversion rates than those using broad targeting. For instance, one Tashkent cosmetics retailer that implemented Custom Audience and Lookalike Audience technology increased its new customer acquisition by 58% within a single month and reduced CPL (Cost per Lead) from 2,140 UZS to 890 UZS.

**Content Analysis Results:** The highest-performing content types varied by platform. On Instagram, video Reels generated 3.2 times greater reach than static image posts. On Telegram, interactive polls achieved 5.4 times higher engagement than plain text messages. On Facebook, carousel-format ads received 72% more clicks than single-image ads. These findings confirm the necessity of tailoring content strategies to the specific characteristics of each platform.

**Table 2**

**Key Metrics and Recommended Content Types by Platform**

Platform	Avg. Engagement Rate (%)	Top-Performing Content	Target Audience
<b>Instagram</b>	1.22–3.5%	Reels video, Stories	Ages 18–35, visual

<b>Telegram</b>	8–15%	Polls, infographics	Broad age, informational
<b>Facebook</b>	0.08–1.2%	Carousel, video	Ages 35–55, product
<b>YouTube</b>	0.5–2.0%	Tutorial, review video	All ages
<b>TikTok</b>	4.25–8.0%	Short creative video	Ages 13–28, trending

**ROAS Optimization Results:** Following the implementation of a data-driven approach in the five enterprises monitored over the four-month observation period, the following results were recorded: average ROAS increased from 1.6x to 4.2x; CPL (Cost per Lead) declined by an average of 38%; the share of wasted advertising spend fell from 51% to 14%; and organic reach increased by 22%. These outcomes fully confirm the practical effectiveness of the data-driven approach.

**Influencer Marketing Analysis:** 41% of survey respondents reported using influencer marketing campaigns. However, only 18% indicated they had selected influencers based on an audience analysis. Enterprises that selected influencers after analyzing their audiences achieved an average ROI of 4.3x, compared to just 1.4x for those that made random selections [7].

**Table 3**  
**Recommended Tools for Data-Driven Social Media Advertising Management**

Tool	Function	Platform	Cost
<b>Meta Business Suite</b>	Ad management, analytics	Facebook, Instagram	Free
<b>Meta Pixel</b>	Website conversion tracking	Facebook, Instagram	Free
<b>Google Analytics 4</b>	Traffic & conversion analysis	All platforms	Free
<b>Hootsuite / Buffer</b>	Content scheduling, analytics	All SMM	Paid
<b>Sprout Social</b>	Comprehensive SMM analytics	All SMM	Paid
<b>Telegram Analytics Bot</b>	Channel statistics	Telegram	Free/Low-cost

Survey findings revealed the main barriers preventing Uzbek enterprises from adopting data-driven social media advertising management: 69% of enterprises cited a shortage of qualified SMM analytics specialists; 57% reported insufficient knowledge and skills in using analytics tools; 44% indicated difficulty in forming content strategies based on data; and 38% noted that limited advertising budgets prevent them from investing in analytics tools.

To address these challenges, a phased approach is recommended. Phase 1 (Month 1): establish baseline tracking of key metrics — reach, engagement rate, and CTR — through Meta Business Suite and Telegram Analytics. Phase 2 (Months 2–3): integrate Meta Pixel and Google Analytics 4, begin tracking conversions, and launch A/B testing. Phase 3 (Months 4–6): implement a fully data-driven SMM strategy using Lookalike Audiences, retargeting campaigns, and a content calendar.

### **CONCLUSION**

The findings of this study demonstrate that data-driven social media advertising management can deliver significant competitive advantages for Uzbek enterprises. The main conclusions are as follows:

1. Data-driven social media management increases ROAS by an average of 2.5–3 times and conversion rates by 3–5 times.
2. A platform-specific content strategy can increase engagement rates by 50–70%.
3. Audience targeting and Lookalike Audience technology can reduce CPL by 30–45%.
4. Conducting audience analysis in influencer marketing yields ROI three times higher.
5. 77% of Uzbek enterprises are not fully utilizing available analytics capabilities, indicating substantial room for improvement.

The following recommendations are put forward: organizing specialized SMM analytics courses in educational institutions; developing government-supported guides on free analytics tools for small businesses; and creating Uzbekistan-specific SMM analytics methodologies that account for the characteristics of local platforms, particularly Telegram.

Future research should be directed toward exploring new methods of automated social media content analysis using artificial intelligence and real-time optimization of advertising campaigns.

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