**Leveraging Mechanical AI to Optimize Advertising Performance:
Evidence from TikTok Smart+ Campaigns**

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Abstract
This study investigates the impact of mechanical AI systems on the performance of social media advertising. Drawing on a multi-case qualitative design, the research explores the effects of Smart+, an AI-driven automation tool integrated into TikTok Ads Manager, on campaign effectiveness and efficiency. While AI's strategic potential in marketing has been widely recognized, less attention has been paid to its operational role, particularly in automating routine tasks such as bidding, pacing, and budget allocation. The study addresses this gap by analyzing campaign performance metrics (i.e., CTR, CR, CPC, CPA, and CPM) across three companies operating in the construction, home furnishings, and financial services sectors. Each company adopted Smart+ after running campaigns through manual management, offering a before-and-after comparison. Results show that Smart+ generally improves efficiency by lowering cost metrics (i.e., CPC, CPA), and in some cases enhances effectiveness (e.g., higher conversions and conversion rates). Notably, the study also identifies challenges and limitations related to the variability of AI performance depending on campaign complexity and data quality. However, the extent of improvement varies depending on industry context and campaign goals. These findings contribute to the literature on AI in digital advertising by providing an advanced understanding of the role of mechanical AI in operational marketing. From a managerial perspective, results suggest that companies can benefit from integrating AI tools like Smart+ to enhance campaign delivery. However, human oversight remains essential to ensure strategic alignment. Moreover, this research encourages marketers to adopt a balanced approach combining AI automation with human expertise for optimal results. The study highlights the need for more nuanced research into platform-native AI tools and their effects across different sectors and campaign types. Future studies could also explore long-term impacts and ethical considerations associated with AI-driven marketing automation.

1. Introduction

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In recent years, the adoption of Artificial Intelligence (AI) in marketing has revolutionized the way companies manage and evaluate their advertising campaigns. AI systems are now commonly introduced in digital advertising platforms, offering automation capabilities that can enhance operational decision-making, campaign personalization, and resource optimization (Davenport et al., 2020). In this context, social media platforms like TikTok are adopting AI-powered tools to support companies in managing campaign parameters, such as targeting, bidding, and budgeting, in real-time.

Among social platforms, TikTok positions itself as a performance-oriented platform and explicitly promotes automation tools, such as Smart+, to help advertisers optimize delivery, targeting, and bidding processes. According to its official business documentation (TikTok for Business, 2025), Smart+ is presented as a solution to simplify campaign setup and improve both efficiency and effectiveness.

According to Khimich et al. (2021), digital advertising performance could be evaluated based on two dimensions: *effectiveness* and *efficiency*. Effectiveness refers to the degree to which campaigns achieve their communication goals as measured by indicators such as impressions, clicks, click-through rate (CTR), and conversion rate (CR). At the same time, efficiency is defined as achieving desired results with the lowest possible cost (Black, 2000). It is commonly assessed using other metrics, such as cost-per-click (CPC), cost-per-thousand (CPT), and cost-per-acquisition (CPA).

Among the various types of AI applications, mechanical AI tools refer to rule-based systems that automate repetitive and structured tasks, and have been identified as a key factor in improving efficiency in marketing campaigns (Huang et al., 2021). Despite growing interest in these AI tools, there is a lack of empirical research on their concrete effects on campaign outcomes in social media environments. Indeed, while the strategic role of AI in digital marketing is increasingly recognized (Dwivedi et al., 2021), its operational role, especially the task execution carried out by mechanical AI systems, remains relatively underexplored.

This study seeks to fill this gap by examining how campaign performance, measured in terms of both effectiveness (e.g., CTR, CR, conversions) and efficiency (e.g., CPC, CPM, CPA), changes after the adoption of a mechanical AI system. The analysis focuses on Smart+ as a critical case of such systems, integrated within the TikTok Ads platform. More specifically, Smart+ is an AI-driven automation tool integrated into TikTok Ads Manager, which affects the effectiveness and efficiency of the advertising campaigns. The study employs a longitudinal approach to investigate whether the use of Smart+ can enhance the effectiveness and efficiency of social media advertising campaigns. In this respect, while marketing automation has been widely studied in B2B content marketing (Järvinen & Taiminen, 2016), fewer studies have focused on comparing campaign performance before and after the adoption of automated AI systems on their social platforms. Therefore, the objective of this study is to investigate whether the adoption of a mechanical AI system, such as Smart+, enhances advertising performance in terms of both effectiveness and efficiency. To conduct this study, we adopted a qualitative case study approach (Yin, 2014), analyzing campaign data from three companies operating in different industries that share a common AI platform usage.

2. Literature Review

2.1 AI in Digital Advertising

AI has rapidly transformed the digital marketing landscape, reshaping the way companies design, execute, and manage advertising campaigns. Over time, the definition of marketing automation has evolved. Initially, it referred to the use of software to perform marketing actions without manual intervention, and this concept was traditionally associated with B2B workflows such as email drip campaigns or lead-nurturing sequences (Järvinen & Taiminen, 2016). AI encompasses systems and algorithms that can execute tasks typically requiring human accuracy, such as data analysis, learning from data, and recognizing patterns to inform decisions (Davenport et al., 2020). In the context of digital advertising, AI technologies enhance the hyper-personalization of messages, predictive analysis of user behavior, and real-time adjustment of campaign parameters.

Several studies have highlighted the potential of AI to improve marketing capabilities, specifically in automating repetitive and data-intensive tasks (Chatterjee et al., 2022). These capabilities are significant for platforms like TikTok because user-generated content and algorithm-driven distribution are both opportunities and challenges for advertisers. Despite these advancements, several studies have focused on the contribution of AI as a strategic tool to improve tasks such as content generation and personalization (Kumar et al., 2024), while only a few have examined its role in operational aspects, such as campaign performance optimization (Huang and Rust, 2021). This is particularly significant for tools like Smart+, which are embedded in the TikTok platform and aim to manage delivery processes rather than content or targeting. Within the field of artificial intelligence applications in marketing, Huang and Rust (2021) show a widely accepted theoretical framework that categorizes AI into three types: *mechanical*, *thinking*, and *feeling*. They define mechanical AI as a system designed to replicate mechanical human activities, by automating routine and rule-based processes without cognitive involvement, but with higher speed and accuracy.

Contrasting thinking AI includes tools that support analytical decision-making, while feeling AI encompasses tools capable of simulating emotional understanding (e.g., chatbots with sentiment recognition). This taxonomy is crucial for framing the Smart+ tool as a mechanical AI. Its primary function is to manage delivery parameters such as campaign pacing (how the advertising budget is spent over time during a marketing campaign) (Xu et al., 2015), creative rotation, and audience targeting automatically, based on predefined algorithms and performance However, it does not operate at a strategic level and should not be considered "intelligent" in terms of decision-making. However, its scope has expanded with the expansion of AI-based tools capable of acting autonomously. In this context, mechanical AI represents a significant advancement, enabling not only automation but also dynamic adaptation to real-time campaign data.

2.2 Performance Metrics in Digital Advertising

In digital advertising, the evaluation of campaign success is very reliant on quantitative performance metrics. These metrics serve as Key Performance Indicators (KPIs) that allow marketers to measure the degree to which a campaign achieves its communication and business objectives. Previous literature distinguishes between two primary dimensions of campaign performance: *effectiveness* and *efficiency* (Khimich & Perfilova, 2021; Black, 2000). Effectiveness refers to a campaign's ability to generate the desired user actions or engagement, such as viewing an ad, clicking through to a

landing page, or completing a conversion action (e.g., lead generation or purchase). According to Khimich and Perfilova (2021), effectiveness KPIs include:

- Impressions: The total number of times an ad is shown to users;
- Clicks: The number of times users interact with an ad by clicking;
- Click-Through Rate (CTR): The percentage of clicks relative to impressions, indicating the relevance and appeal of the ad content;
- Conversions: The number of actions completed by users;
- Conversion Rate (CR): The ratio of conversions to clicks, indicating the effectiveness of the campaign.

These metrics are crucial for evaluating the effectiveness of a campaign in engaging the target audience and driving business outcomes. However, they do not account for cost considerations, which are captured by the second dimension of performance: efficiency.

Efficiency, as defined by Black (2000), is the capability to achieve results with the lowest possible costs. In digital marketing, efficiency is typically assessed using cost-based indicators like:

- Cost Per Click (CPC): The average cost incurred for each click;
- Cost Per Thousand (CPT): The cost per thousand impressions;
- Cost Per Acquisition (CPA): The average cost to generate a conversion.

The digital marketing landscape has increasingly shifted toward database-driven approaches, where such KPIs are monitored and optimized in real-time (Khimich and Perfilova, 2021). This shift has made automated systems more attractive, as they can process vast datasets and adjust campaign parameters dynamically to improve both efficiency and effectiveness (Chintalapati et al., 2022).

Carrasco Gubernatis (2024) notes that KPI interdependence must be carefully considered, as improvements in one metric do not necessarily translate to holistic campaign success. For instance, a reduction in CPC may be accompanied by a decline in CR if the quality of traffic deteriorates. Therefore, evaluating campaign performance requires a composite view of both cost- and result-based metrics.

Methodology

We conducted this study adopting a qualitative, case-study method (Yin, 2014). In this context, Smart+ is framed as a mechanical AI tool (Huang et al., 2021) because it autonomously manages key campaign execution tasks, such as audience targeting, pacing, creative optimization, and budget allocation, within TikTok Ads Manager. Its integration as a native, default tool promoted by the platform, and its use across various campaign types (e.g., web, app, lead generation), make it a strategically informative case to study the executional implications of AI-driven automation in advertising (TikTok Business, 2025). Its use is expected to impact performance metrics by optimizing the executional components of ad campaigns.

In this study, we conduct an inter-case comparison between the level of performance achieved after the adoption of Smart+ in advertising campaigns and the level achieved before the introduction of the Smart+ system. The objective is to examine the differences in metric performance (impressions, clicks, click-through rate (CTR), conversions, conversion rate (CR), cost-per-click (CPC), cost-per-thousand (CPM), and cost-per-acquisition (CPA)) before the adoption of an automated system.

We analyzed three companies that manage advertising campaigns on TikTok, focusing on lead generation, which is the initiation of consumer interest or inquiry into a business's products or services (Järvinen and Taiminen, 2016).

While these three companies operate in different sectors, they are comparable in terms of campaign goals because each uses TikTok as its primary advertising platform.

The cases were drawn from the operational experience of a leading digital marketing agency (anonymized for confidentiality), characterized by a high level of technological adoption and specialization in integrated digital strategies.

The three companies, referred to as Case A, Case B, and Case C, show the following characteristics, as summarized in Table 1:

Case	Sector	Campaign Period	Total Campaigns	Smart+ Campaigns	Manual Campaigns	Campaign Goal
Case A	Construction Materials	Jun 2024 – Mar 2025	4	2	2	Generate qualified leads via in-store appointment bookings for bathroom quotes.
Case B	Home Furnishing	May 2024 – Mar 2025	10	5	5	Attract buyers by collecting contact info from users planning to buy furniture.
Case C	Financial Services	Jul 2024 – Mar 2025	10	5	5	Capture loan prospects by driving form completions for personal loan applications.

Table 1 Summary of company case characteristics

Data were gathered from TikTok Ads Manager, which provides us with objective indicators of campaign performance, reach, and engagement levels across different timeframes. Additionally, internal documentation, such as project reports, campaign briefings, and post-campaign evaluations, was considered to analyze processes related to Smart+-based advertising.

Furthermore, direct observation was conducted in collaboration with project managers and digital strategists involved in the development of AI-driven advertising initiatives for a period spanned between 9 and 16 months to enhance the internal validity of the intra-case comparison (Aguinis and Solarino, 2019), ensuring a longitudinal perspective and to capture variations in performance before and after the adoption of Smart+ in advertising campaigns.

To assess the performance of advertising campaigns, we utilized a set of digital marketing metrics commonly used in this field to measure visibility, conversion outcomes, and interactions. According to Carrasco Gubernatis (2024), the metrics analyzed include CPC, CPM, Clicks, CTR, Conversions, CPA, and CR.

To support our intra-case comparison, we present Tables 2, 3, and 4 below, which contain the performance data for each company's campaigns aggregated over the entire observation window: the totals for all months before Smart+ adoption and the totals for all months following Smart+ adoption. Each table, therefore, enables a like-for-like comparison of every effectiveness and efficiency metric. These consolidated data serve as the quantitative foundation for the qualitative discussion in the next section.

					Case A					
Campaign	**S+**	**Cost**	**CPC**	**CPM**	**Imps.**	**Clicks**	**CTR**	**Conv.**	**CPA**	**CR**
Jun 2024	no	€1,658	€1.12	€3.46	479,271	1,477	0.31%	2	€829.17	0.14%
Oct 2024	no	€10,497	€0.89	€2.72	3,861,931	11,856	0.31%	10	€1,049.71	0.08%
Jan 2025	yes	€4,993	€0.85	€1.73	2,880,914	5,850	0.20%	18	€277.39	0.31%
Mar 2025	yes	€5,001	€1.15	€2.43	2,058,195	4,331	0.21%	24	€208.39	0.55%
Sum NoS+	no	€12,155	€0.91	€2.80	4,341,202	13,333	0.31%	12	€1,012.95	0.09%
Sum S+	yes	€9,994	€0.98	€2.02	4,939,109	10,181	0.21%	42	€237.96	0.42%

Table 2 Performance data collected for Case

Notes: S+ = Smart Plus; CPC = Cost Per Click; CPM = Cost Per Mille; Imps. = Impressions; CTR = Click-Through Rate;
Conv. = Conversion; CPA = Cost Per Acquisition; CR = Conversion Rate
Source: Author's own work.

					Case B					
Campaign	**S+**	**Cost**	**CPC**	**CPM**	**Imps.**	**Clicks**	**CTR**	**Conv.**	**CPA**	**CR**
May 2024	no	€8,749	€0.58	€1.60	5,483,243	15,151	0.28%	390	€22.43	2.57%
Jun 2024	no	€7,500	€0.84	€2.41	3,114,556	8,936	0.29%	533	€14.07	5.96%
Jul 2024	no	€8,248	€0.67	€1.79	4,620,829	12,338	0.27%	572	€14.42	4.64%
Aug 2024	no	€6,998	€0.57	€1.52	4,592,400	12,266	0.27%	487	€14.37	3.97%
Sep 2024	no	€7,000	€0.50	€1.72	4,063,473	13,997	0.34%	706	€9.92	5.04%
Oct 2024	no	€6,999	€0.50	€1.92	3,640,629	14,012	0.38%	766	€9.14	5.47%
Nov 2024	no	€6,174	€0.74	€2.46	2,511,097	8,350	0.33%	313	€19.73	3.75%
Jan 2025	yes	€6,999	€0.35	€1.10	6,353,377	19,984	0.31%	860	€8.14	4.30%
Feb 2025	yes	€7,001	€0.42	€1.39	5,033,289	16,491	0.33%	666	€10.51	4.04%
Mar 2025	yes	€5,906	€0.42	€1.42	4,163,635	14,088	0.34%	642	€9.20	4.56%
Apr 2025	yes	€6,998	€0.38	€1.24	5,662,524	18188	0.32%	650	€10.77	3.57%
May 2025	yes	€6,978	€0.34	€1.44	4,841,784	20589	0.43%	559	€12.48	2.72%
Sum NoS+		€51,669	€0.61	€1.84	28,026,227	85,050	0.30%	3,767	€13.72	4.43%
Sum S+		€33,882	€0.38	€1.30	26,054,609	89,340	0.34%	3,377	€10.03	3.78%

Table 3 Performance data collected for Case B

					Case C					
Campaign	**S+**	**Cost**	**CPC**	**CPM**	**Imps.**	**Clicks**	**CTR**	**Conv.**	**CPA**	**CR**
Jul 2024	no	€4,986	€1.02	€1.18	4,219,681	4,879	0.12%	1,506	€3.31	30.87%
Aug 2024	no	€4,991	€0.63	€0.70	7,118,165	7,895	0.11%	2,214	€2.25	28.04%
Sep 2024	no	€5,016	€0.82	€0.93	5,413,175	6,093	0.11%	1,934	€2.59	31.74%
Oct 2024	no	€10,089	€1.33	€1.63	6,184,330	7,586	0.12%	2,361	€4.27	31.12%
Nov 2024	yes	€9,045	€1.10	€1.57	5,769,556	8,248	0.14%	2,449	€3.69	29.69%
Dec 2024	yes	€14,979	€1.30	€1.58	9,457,131	11,539	0.12%	2,564	€5.84	22.22%
Jan 2025	yes	€14,573	€0.98	€1.14	12,818,930	14,830	0.12%	2,879	€5.06	19.41%
Feb 2025	yes	€22,474	€1.07	€1.14	19,784,728	21,071	0.11%	3,879	€5.79	18.41%
Mar 2025	yes	€19,940	€1.10	€1.03	19,427,885	18,172	0.09%	4,203	€4.74	23.13%
Apr 2025	yes	€24,819	€1.15	€1.20	20,674,275	21,532	0.10%	3,984	€6.23	18.50%
May 2025	yes	€24,855	€1.21	€1.34	18,589,343	20,544	0.11%	4,278	€5.81	20.82%
Sum NoS+		€25,081	€0.95	€1.09	22,935,351	26,453	0.12%	8,015	€3.13	30.30%
Sum S+		€130,685	€1.13	€1.23	106,521,848	115,936	0.11%	24,236	€5.39	20.90%

Table 4 Performance data collected for Case C

Results

In this section, we analyze the performance results from advertising campaigns across the three cases presented in the study. We focused on comparing key metrics before and after the adoption of the Smart+ automation system to assess potential improvements in both effectiveness (Conversions) and efficiency (CPA and CR) (Khimich and Perfilova, 2021).

The observations are based on the data previously reported in Tables 1, 2, and 3.

Case A

Case A, a construction materials company, managed four campaigns from June 2024 to March 2025, of which two were handled manually, and Smart+ implemented two. The intra-case comparison reveals a significant improvement in efficiency-related metrics after the adoption of the Smart+ automated system.

Only four TikTok flights were run between June 2024 and March 2025, each with a different budget, so trend interpretation must remain cautious. The brand first launched a *pilot* in June 2024; the small test produced just two appointments and an extremely high CPA (€829). A larger-budget follow-up in October fared even worse, pushing the cumulative CPA for the two manually managed campaigns above €1,000.

When Smart+ was activated in January 2025, the picture changed markedly. Across the two automated flights (January-March),.The CPA decreased from €1,012.95 to €237.96, representing a 76.5% improvement; The conversion rate increased from 0.09% to 0.41% (+355.6%), and total conversions rose from 12 to 42, despite a 17.8% lower spend.

Thus, even in a short observation window and with uneven budgets, Smart+ delivered a far more efficient and effective lead-generation process than manual optimisation.

Case B

Case B refers to a company operating in the home furnishing sector. Unlike Case A, this dataset spans nine consecutive months and shows a steady media budget of roughly €7.000 per flight, giving the comparison more reliability. The switch to Smart+ in January 2025 resulted in clear improvements, primarily driven by *media-buying efficiency*. The performance uplift stems almost entirely from cheaper traffic rather than a higher propensity to convert.

Smart+ reduced the average CPC by 37.7% (from €0.61 to €0.38) and the CPM by 29.3%, allowing the same monthly budget to yield far more visits and conversions. Even if the conversion rate slipped marginally, from 4.43% to 3.78%, thanks to the fact that every click now costs much less while each hundred clicks still generates roughly the same number of leads, the CPA dropped sharply by 26.9% from €13,72 to €10.03. In short, the efficiency gains come from buying clicks at a lower price, rather than increasing the likelihood that a click converts.

Case C

Case C refers to a financial services provider. During the summer of 2024, it invested approximately €5,000 per month and, with manual optimization, achieved enviably low costs (CPA around €2.24 and €3.31, and a conversion rate of nearly 30%). However, the volumes were modest. In October, the company doubled the budget in an attempt

to win more leads. The extra spend was effective, yet it immediately increased costs: the CPC jumped to €1.33 and the CPA to €4.27.

Smart+ was introduced the very next month. Even before the learning period, the algorithm clawed back a significant share of the lost efficiency: November's CPC fell to €1.10 (about 17% lower than the October peak) and CPA to €3.69 (-14%), while the conversion rate remained roughly steady. Encouraged by that result, the advertiser continued to increase the outlay, first to about €15,000 (+50%), then to roughly €20,000 (+100%), and finally to €2 5,000 (+150%) per month. Remarkably, as the budget continued to climb, the key cost metrics remained almost flat: CPC hovered around the €1 mark and later rose to €1.21 (nearly a 20% increase), and CPA fluctuated between €4.74 and €6.23, well below what would normally be expected when spending quintuples. The conversion rate did ease into the low - 20% range, yet the monthly number of leads almost doubled compared with the manual period.

In summary, Smart+ did not replicate the ultra-low CPAs of the initial low-budget months. Still, it allowed the brand to scale its media spend several times over without a proportionate rise in unit costs, something manual optimization had failed to achieve.

Discussion
The findings of this study contribute to a deeper understanding of how mechanical AI systems, represented here by Smart+, can impact the performance of advertising campaigns on social media platforms such as TikTok. Our inter-case analysis reveals that the adoption of Smart+ enhances both effectiveness (CTR, CR, conversions) and efficiency (CPC, CPM, CPA), reinforcing prior literature that highlights the positive impact of AI systems on digital marketing operations through automation (Davenport et al., 2020).

In this context, Smart+ operates within the definition of mechanical AI as proposed by Huang et al. (2021). This system automates routine, rule-based marketing tasks with high speed and accuracy, eliminating the need for cognitive processing. Its ability to manage delivery parameters, such as pacing, budget allocation, and creative rotation, autonomously aligns with the idea that mechanical AI can significantly optimize the executional aspects of digital campaigns.

While Case A experienced the most notable improvement in cost-efficiency (i.e., lower CPA and CPC), Cases B and C showed balanced gains across both dimensions. This supports the notion that the effectiveness of AI systems is not universally consistent but depends on contextual variables, such as campaign goals, creative assets, and audience segments (Chatterjee et al., 2022).

Crucially, the three cases originate from distinct industry verticals: home improvement, furniture retail, and consumer finance. This sectoral heterogeneity strengthens the analytic generalisability of our results (Yin, 2009), suggesting that mechanical AI can deliver performance gains across markedly different market contexts, not merely within a single niche.

Furthermore, as Dwivedi et al. (2021) emphasize, increasing reliance on AI systems raises concerns regarding explainability and control, particularly in data-driven environments where accountability and strategic flexibility are critical.

Lastly, the longitudinal and embedded nature of our data collection, which involved close collaboration with digital strategists and project managers over several months, adds depth to the findings and enhances internal validity (Aguinis & Solarino, 2019).

Conclusions and implications

From a theoretical perspective, this study provides an advanced understanding of the role of mechanical AI in operational marketing. While existing literature has concentrated mainly on AI's strategic or creative contributions (Kumar et al., 2024), our findings highlight the operational and executional benefits of AI-driven automation in campaign settings as argued by Huang and Rust (2021), who highlights that mechanical AI represents a foundational layer of marketing automation capable of optimizing repetitive, rule-based processes.

Furthermore, this study examined the impact of implementing a mechanical AI system (Smart+) on the efficiency and effectiveness of advertising campaigns, using a multi-case qualitative design. Our results show that Smart+ generally improves both types of performance metrics, particularly in terms of reducing acquisition and click costs while increasing conversion outcomes.

By framing Smart+ within the theory of mechanical AI (Huang & Rust, 2021), we expand the academic understanding of how AI can function not only at the strategic or creative level but also at the executional layer of digital marketing. These findings support a growing consensus that AI tools are not just transformative at a conceptual level but are already delivering operational value in live marketing environments (Davenport et al., 2020).

From a managerial perspective, these insights suggest that companies can benefit from integrating AI tools like Smart+ to enhance campaign delivery, especially in environments like TikTok. However, companies must remain cautious of over-reliance on automation without human oversight. Decisions about budget allocation, targeting, and message framing still require strategic input, and whole delegation to AI may not always yield optimal results. Marketers should therefore treat Smart+ as a complementary tool, not a replacement for human decision-making.

Nonetheless, the study also reveals essential boundaries to these effects, suggesting that the impact of automation changes by industry context, campaign objective, and structure. While the automation offered by Smart+ shows promise, it is not a one-size-fits-all solution. Future research could expand on these findings through quantitative analyses or experiments comparing platform-native AI tools across different advertising platforms (e.g., Meta, Google Ads).

REFERENCES

Aguinis, H., & Solarino, A. M. (2019). Transparency and replicability in qualitative research: The case of interviews with elite informants. Strategic Management Journal, 40(8), 1291–1315. https://doi.org/10.1002/smj.3015

Carrasco Gubernatis, D. A. (2024). Understanding Digital Marketing Metrics. In *The Digital Marketer's Playbook: How to Effectively Collaborate with Agencies, Freelancers, and Digital Marketing Experts* (pp. 91-113). Berkeley, CA: Apress.

Chintalapati, S., & Pandey, S. K. (2022). Artificial intelligence in marketing: A systematic literature review. *International Journal of Market Research*, *64*(1), 38-68.

Huang, M. H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the academy of marketing science*, *49*, 30-50.

Järvinen, J., & Taiminen, H. (2016). Harnessing marketing automation for B2B content marketing. *Industrial marketing management*, *54*, 164-175.

Khimich, E. V., & Perfilova, M. N. (2021) Key Metrics for Assessing Efficiency Of Online Marketing Communication. *European Proceedings of Social and Behavioural Sciences*.

Kumar, V., Ashraf, A. R., & Nadeem, W. (2024). AI-powered marketing: What, where, and how?. *International Journal of Information Management*, *77*, 102783.

Purnomo, Y. J. (2023). Digital marketing strategy to increase sales conversion on e-commerce platforms. *Journal of Contemporary Administration and Management (ADMAN)*, *1*(2), 54-62.

TikTok Business. (2025). *Summer 2025 SMB Playbook*. Retrieved from https://ads.tiktok.com/business/library/IT_SMB_Summer_2025_Playbook.pdf

Xu, J., Lee, K. C., Li, W., Qi, H., & Lu, Q. (2015, August). Smart pacing for effective online ad campaign optimization. In *Proceedings of the 21st ACM SIGKDD international conference on knowledge discovery and data mining* (pp. 2217-2226).

Yin, R. K. (2014). Case Study Research and Applications. Design and Methods (5th ed.). Sage Publications.