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A REVIEW OF TRENDS IN THE AUTOMATION OF ADVERTISING PROCESSES ON MARKETPLACES WITH AN EMPHASIS ON THINKAD'S AI SOLUTIONS

Summary. *This paper covers the history and current trends in the automation of advertising workflow within marketplaces through AI solutions provided by the ThinkAd platform. The study shall attempt to detail drivers that have prompted a transition from manual bidding to intelligent autopilots. It also tries to present comparative analyses regarding the functionalities of leading AI services and empirical assessments of their effectiveness via real-world case studies. Such a work is meaningful since there has been a strong upward trend in cost-per-click on Amazon Ads, coupled with increasing difficulties that come with manual management regarding hundreds of thousands of product × keyword × time combinations, which cause both budget overruns and lost sales. Simultaneously, first-party data gains value in a cookieless world; intense competition demands instant strategy changes via hyper-personalization and goal-based bidding. The novelty of the study lies in the integration of descriptive statistics on CPC dynamics and sellers' time savings, content- and case-analysis of AI-platform technical documentation, and a functional comparison of semantic-core generation modules, goal-based bidding, hourly day-parting, and multi-account mastering. Particular attention is paid to the ThinkAd platform, which forecasts ACoS 24 hours in advance, updates bids hourly, and consolidates data across multiple stores. The main findings indicate that intelligent*

automation can reduce ACoS to 22–25% while increasing advertising sales by 82–206%, freeing up to 20 hours of operational time per week, and ensuring competitiveness for small and medium enterprises under cookieless conditions and rising click costs. Integrated via the Amazon Ads API and supporting multiple regions, ThinkAd sets a new efficiency standard by combining a semantic module, predictive analytics, and an autopilot. This article will be helpful to marketplace advertising managers, e-commerce analysts, and small and medium business owners when selecting and implementing AI tools for advertising campaign automation.

Key words: *AI automation, marketplaces, ThinkAd, goal-based bidding, day-parting, first-party data, ACoS, CPC.*

Introduction. Over the past eight years, advertising on marketplaces has evolved from manual techniques into a sophisticated system in which each keyword participates in instantaneous auctions and platform algorithms apply real-time bid adjustments. A steady rise in cost-per-click accompanies competition for customer attention on Amazon. For small and medium enterprises with limited advertising budgets, the previous approach of setting a bid and waiting for a weekly report has ceased to be cost-effective: any delayed action results in overspending and lost sales.

Simultaneously, the informational burden has increased. Today, merchandisers and marketers must manage bids and maintain synchronization of prices, inventories, and content across dozens of platforms, monitor new ad formats, and adjust negative keywords. The number of variables requiring manual evaluation has long exceeded human capacity: even a small brand with a modest portfolio and three to five listing channels faces over a million daily product × keyword × hour combinations. Attempting to address this volume manually is slow and economically inefficient, as specialist labor costs grow faster than their ability to reduce ACoS.

These factors are driving sellers toward intelligent automation. According to [2], by January 2024, 34% of Amazon sellers will have already used AI tools for listing creation and optimization, and another 14% for marketing and content automation. The appeal lies in improved targeting accuracy and time savings: research data [3] shows that sellers adopting AI platforms free up an average of 15–20 hours per week by automating routine tasks. These hours become a resource for strategic decisions—testing new creatives, expanding assortments, and negotiating with suppliers—instead of endless manual bid adjustments.

As a result, advertising on marketplaces is no longer manual labor, not because specialists have become idle, but because human time has become too expensive for tasks that machines perform faster, more accurately, and cheaply. The emergence of specialized AI platforms such as ThinkAd marks a point of no return: algorithms assume operational routines, allowing companies of all sizes to compete with large brands based on reaction speed and data rather than budget size.

Materials and Methodology. The research materials include an extensive review of publicly available sources and cases demonstrating the evolution of advertising processes on marketplaces and the application of AI solutions. Empirical data were drawn from statistical reports on the dynamics of average click prices in Amazon Ads [1], figures on the share of sellers who have already implemented AI tools for listing and marketing optimization [2; 3], Google Ads Help materials on the upcoming deprecation of third-party cookies [4], and studies on the role of first-party data in a cookieless environment [5]. Additionally, technical changes in Amazon Dynamic Segments [6], McKinsey's findings on the effectiveness of hyper-personalization [7], and AWS reviews on the use of generative AI in retail [8] were analyzed.

To evaluate practical AI solutions, official guides and case studies were examined: goal-based bidding in Amazon DSP [9], outcomes of automatic optimization by Perpetua [10] and Quartile [11], as well as independent seller

surveys on the growth of multi-marketplace trade [12, 13] and investments in proprietary data [14, 15]. The industrial scale of ThinkAd is documented in the platform's public statistics and the Handcraft Blends and New York Biology case studies [18–20]. At the same time, industry recognition is evidenced by the ECDMA Global Awards 2025 [21].

Methodologically, a systematic review of secondary sources was conducted, complemented by content analysis of technical documentation and case-study analysis of real AI autopilot implementations. Descriptive statistics were used to visualize monthly CPC trends [1] and to assess seller time savings afforded by AI platforms [3]. The functional comparison of ThinkAd, Perpetua, and Quartile was based on matching key features: semantic-core generation, goal-based bidding, hourly day-parting, and multi-account management [9; 10; 11; 18]. The Handcraft Blends and New York Biology case studies illustrated the impact of automation on conversion growth and ACoS reduction [19; 20].

Results and Discussion. By 2025, competitive pressure on the most significant marketplaces had reached a level at which even small bid fluctuations are instantly reflected in profitability. The average CPC in Amazon Ads, having fallen to $0.89 in March 2024, rose to $1.14 by June and has since remained around $1.00—i.e., 10% higher than the previous year's value, as shown in Figure 1 [1]. At such auction density, any delay in bid adjustment entails a surge in advertising costs and loss of placement.

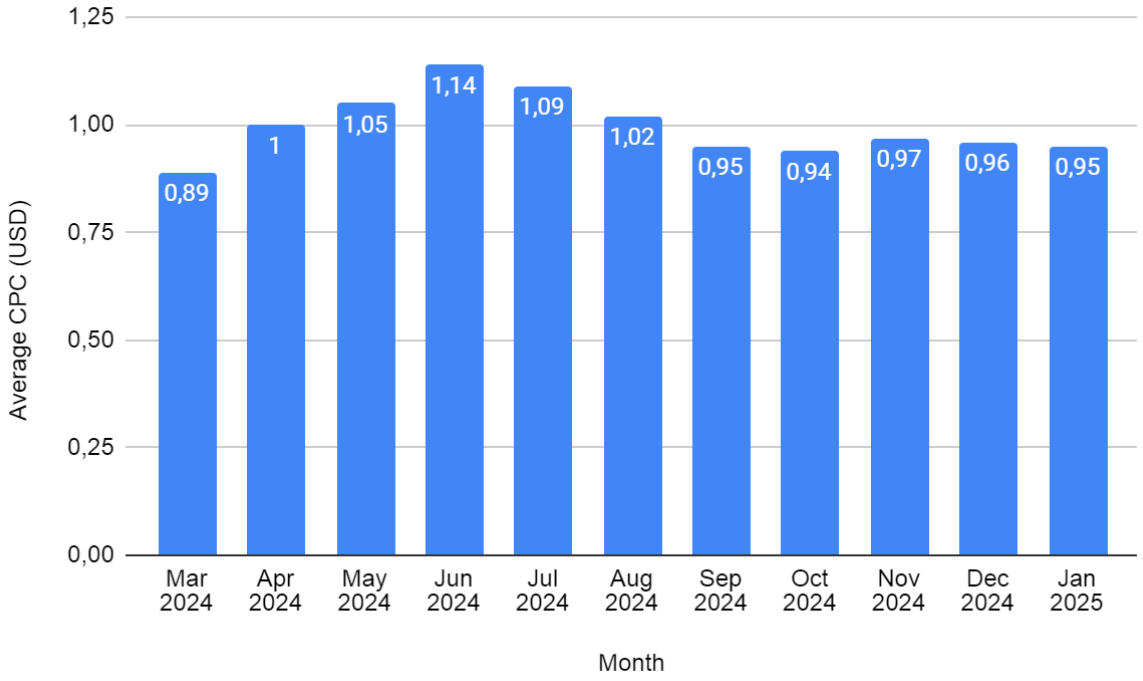

Fig. 1. Average CPC on Amazon Advertising by Month [1]

Concurrently, advertisers find themselves in a new regulatory reality. The phased deprecation of third-party cookies in Chrome, scheduled to begin in early 2025, regardless of any subsequent Google adjustments, has forced platforms and brands to shift their focus to proprietary customer data [4]. Study [5] records that fully permitted first-party data becomes a critically important asset in 2025 due to simultaneous regulatory pressure and the proliferation of AI personalization algorithms. For sellers, this means consolidating order, loyalty, and interaction data and feeding it into advertising engines; otherwise, precise targeting in a cookieless environment will be impossible. Thus, rising bids, a shortage of human resources, and privacy constraints converge. Without intelligent automation, campaigns cease to scale, and competitiveness shifts to those who first learned to convert their data into fuel for AI systems.

Hyper-personalization has become the logical response to scarce ad slots and rising click costs: the more expensive the impression, the more crucial it is that ads reach users with the highest conversion probability. The shift from segmentation by gender or age to behavioral clusters accelerated after the launch

of Amazon Dynamic Segments in November 2024, when the platform first allowed algorithms to rebuild audiences on the fly based on the latest search and purchase signals [6]. The practical effect of this approach is confirmed by McKinsey [7]: precise personalization consistently adds 10–15% to revenue, and companies that can apply data swiftly see gains up to 25%, as shown in Figure 2.

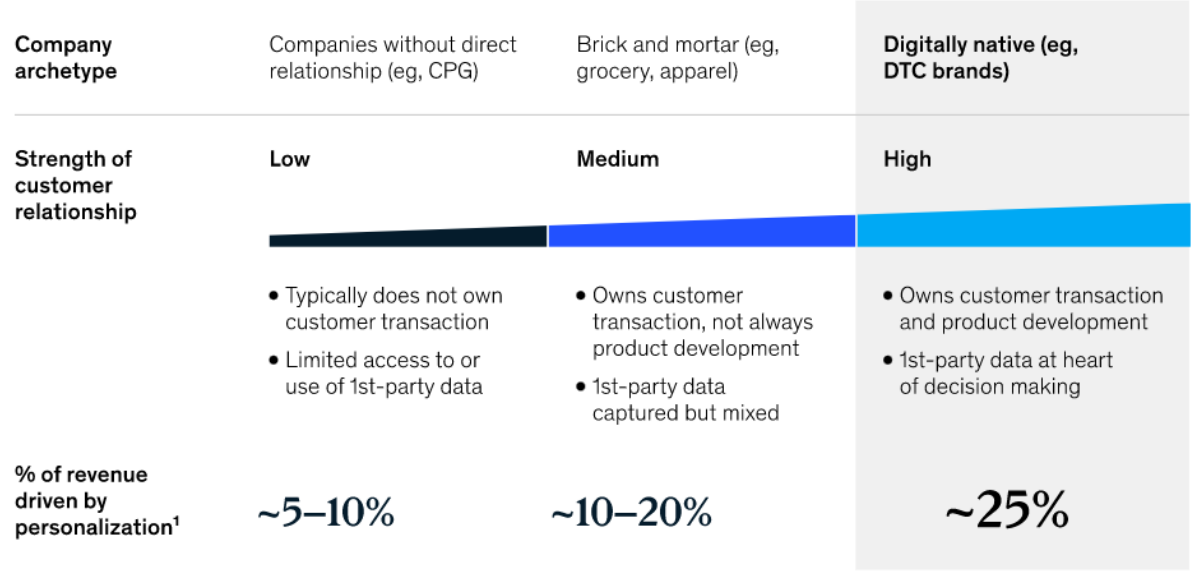

Fig. 2. Digitally native companies drive more revenue from personalization than other company archetypes [7]

For the seller, this means not just selecting relevant keywords, but dynamically restructuring the storefront—displaying different sets of products, pricing offers, and images depending on query context and funnel stage. Generative tools, such as Amazon Personalize in combination with Amazon Q, further remove speed barriers: a banner or product card is regenerated in less than a minute after a user signal change, turning a seller's first-party data into a continuous stream of hypotheses and A/B tests [8].

The second key evolutionary line is predictive analytics, which combines algorithmic demand forecasting with goal-based bidding. By launching goal-based bidding in DSP in 2024, Amazon enabled advertisers to set a business metric—reach, CPA, or ROAS—instead of a manual bid; the system then manages click price and budget allocation in real time [9]. The algorithm

calculates a conversion probability for each user × creative × time slot combination and bids as high as needed to achieve the goal. In an environment where even slight overshooting of target ACoS can erase margins, this shift from micromanaging bids to managing outcomes becomes a critical advantage. ThinkAd employs this logic: the platform forecasts ACoS for each keyword 24 hours ahead, updates bids hourly, and enables small businesses to maintain target profitability without constant human intervention.

The third notable vector of evolution is the emergence of a complete AI autopilot, in which campaign generation, keyword selection, bid management, and budget reallocation occur without direct human involvement. Technologically, this became possible once marketplace ad interfaces opened access to streaming auction events: Amazon DSP introduced goal-based bidding, allowing the algorithm to pursue a set ROAS or CPA and adjust click prices in real time based on conversion-probability models built on billions of user signals [9]. Independent SaaS platforms rapidly adopted the same principle. In 2024, Perpetua demonstrated a 15% ACoS reduction through hands-free campaigns, where the system creates ad groups and updates negative keywords after each search query report [10]. Quartile moved bid adjustments to an hourly interval: the neural network analyzes demand peaks and raises bids only where the sale probability exceeds a historical threshold, saving up to 18% of budget without losing impressions [11]. According to ThinkAd, this logic, reinforced by a 24-hour ACoS forecast, allowed small sellers to maintain target profitability amid a 200% increase in sales volume and freed 10–20 hours of operational time per week previously spent on manual optimization.

The next logical layer atop the autopilot is day-parting, or micro-regulation of ad serving times. Rising click costs have made round-the-clock advertising too expensive, and order statistics show that for most categories, conversions concentrate in narrow time windows. Agency case studies confirm practical effectiveness: AiHello recorded an ACoS drop from 30 % to 22.66 % over four

months after implementing algorithmic day-parting, which lowers bids on weekends and raises them during evening purchase peaks. This is especially critical for small businesses: dynamic hourly budget allocation turns limited funds into a competitive advantage, winning auctions precisely when competitors have exhausted their daily limits. AI autopilot and micro-time control set a new norm: the seller manages a business metric rather than bids and schedules, and the system makes all intermediate decisions based on first-party data and current demand dynamics.

The more sellers spread across different platforms, the costlier data fragmentation becomes: in small businesses where one manager handles multiple Amazon, Ozon, and Wildberries logins, each price or inventory change must be manually duplicated. Savvy players respond by consolidating interfaces: a survey [12] showed that by 2025, only 11% of small companies still work in a single channel, whereas 81% already manage at least two and aim for a unified dashboard. Marketplaces themselves confirm the effect of multi-format selling: Mirakl reports a 104% GMV increase for brands selling on three or more marketplaces, turning cross-account management from a convenience into a direct revenue driver [13]. ThinkAd's modules align with this trend by aggregating statistics from different Amazon regions into a single model, enabling algorithms to perceive inter-product and inter-market relationships lost in isolated analyses.

Simultaneously, the transition to a cookieless ecosystem accelerates. After Google finally postponed their removal to 2025, the market stopped waiting for day X and switched to proprietary transaction databases: 82% of marketers already report increased investment in first-party data, not because of regulators, but because predictive models lose accuracy without it [14]. In its report [15], IAB directly links this migration to signal erosion and identifies data purity and connectivity as the main barriers to large-scale AI adoption. From two-thirds to nearly 90% of agencies, brands, and publishers use accessible AI tools, yet these

lack the functionality required for full-scale implementation, as shown in Figure 3.

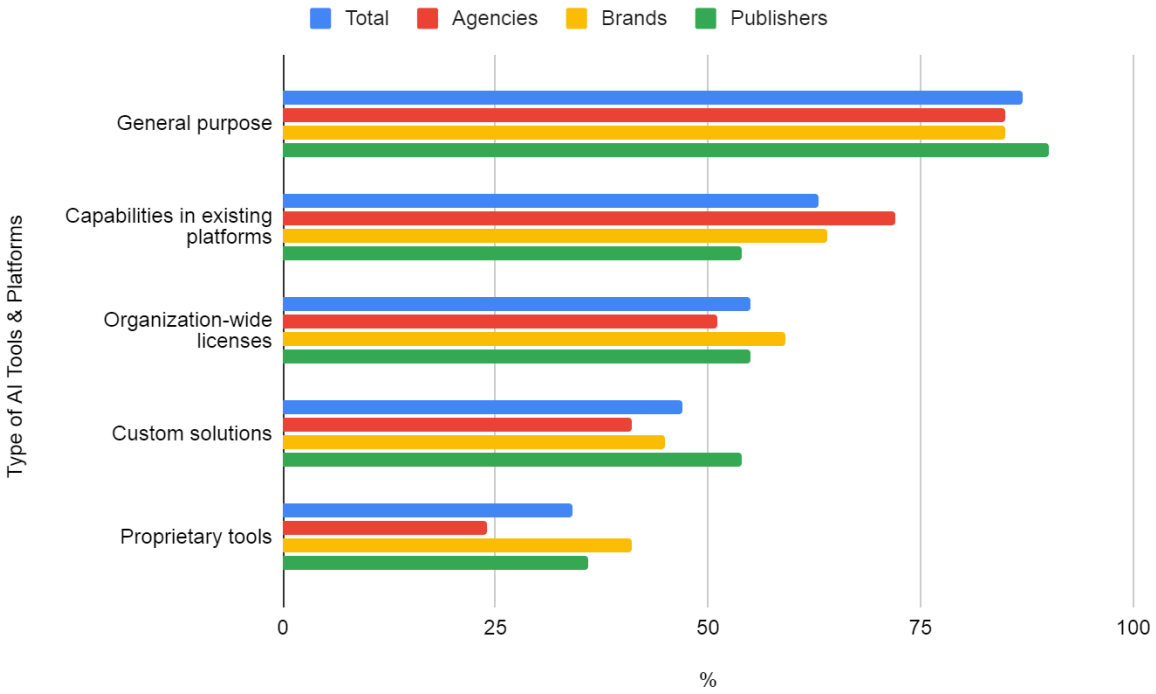

Fig. 3. Types of AI Tools and Platforms Being Used [15]

Finally, the next paradigm shift is already visible on the horizon: commerce designed for humans is gradually being complemented by commerce for machines. Amazon has unveiled Rufus—a generative assistant that responds to customer queries directly in the search bar and autonomously suggests product assortments [16]; Walmart has followed the same path, testing an AI agent capable of compiling shopping lists and placing orders without user involvement. When recommendations and purchases are executed by algorithms, priority shifts from the attractive banner to structured, machine-readable information about price, availability, and rating, ThinkAd already optimizes feeds for such scenarios: the system exports product attributes in a format equally understood by both the marketplace and third-party shopping agents, thereby preparing sellers for an era in which their primary client will be not a human, but an AI intermediary.

Since 2017, the author of this article has worked in e-commerce and has followed the complete path of an Amazon seller: from niche selection and supplier negotiations to elevating brands to top category positions and maintaining those results amid rising competition. Concurrently, the author has consulted dozens of entrepreneurs, helping them launch and scale their brands by developing placement strategies, conducting deep competitive analyses, and designing advertising campaign architectures to reduce ACoS and increase ROI sustainably. He also serves as a marketing strategist at Lev Brands—a large company with annual revenues exceeding $50 million—where his methodologies and technologies have become the foundation for business scaling and enhanced advertising profitability.

In recent years, the author has focused on creating an AI platform that automates key Amazon advertising processes. Thus, ThinkAd was born: a specialized Amazon advertising automation platform developed and founded by the author, created by sellers themselves, and initially oriented toward practical campaign management tasks. Already at the public release stage, the service processes 5,597 products, retains over 31,000 active campaigns in its database, optimizes more than $3.6 million of historical advertising budget, and manages 1,162,468 keywords for 326 brands, demonstrating the industrial scale of the solution and its readiness to support small and medium enterprises [18]. The conceptual foundation of ThinkAd is a platform written by sellers for sellers: its creators emphasize that the product emerged from their own seven-figure Amazon sales and therefore addresses real, rather than hypothetical, PPC specialist pain points [18].

The core functional block is the automatic semantic module: the system generates a Semantic Core from niche and competitive data, enabling users to obtain a professional keyword core in just a few clicks, which feeds the predictive bidding model. At the optimization level, ThinkAd combines hourly conversion and price collection with an Auto Mode: the algorithm pursues a specified

ACoS/ROAS, adjusts bids hourly, and filters out ineffective keywords, while the built-in Ignore List, together with the Wasted Spend Management module, automatically excludes sources of empty spend. The extended feature set includes Advanced Dayparting—scheduling by hour and weekday based on proprietary statistics—Real-Time Keyword Harvesting, which translates high-conversion search phrases into exact targets, and Multi-Account Mastery, allowing management of multiple stores and regions through a single dashboard, thus addressing multi-marketplace expansion without manual duplication of settings.

The workflow follows the principle connect—set a goal—enable autopilot: the seller authorizes Seller Central, initiates Semantic Core generation, specifies target ACoS and bid limits, after which the AI fully manages campaigns, including negative keywords and budget reallocation; in parallel, a Keyword Tracker is available that displays real-time organic and paid rankings for selected queries. The service is built on full integration with the latest Amazon Ads API, so format or attribute updates appear without delay, and the platform scales to high traffic volumes and budgets for multiple brands simultaneously. ThinkAd supports all American and major European Amazon marketplaces (USA, Canada, Mexico, UK, Germany, France, Italy, Spain) as well as Japan and Australia; at early access, it supports Sponsored Products, with Sponsored Brands/Video and Sponsored Display modules announced as coming soon. The commercial model is transparent: a fixed fee of $49.99 and 1% of advertising spend for the first three hundred Early Access participants, after which the price remains unchanged forever [22].

The effectiveness of this approach is illustrated by published case studies: the cosmetics brand Handcraft Blends increased advertising sales by 82%, raised clicks by 125%, and reduced ACoS to 22% after implementing ThinkAd's AI bidder [19]; another client, New York Biology, achieved a 206% increase in ad-sales within just a few months of using the platform [20]. Thus, ThinkAd positions itself as an end-to-end tool combining semantic generation, hourly bid

optimization, intelligent scheduling, and a multi-account console in a single interface, enabling small and medium sellers to compete for traffic with larger players without expanding headcount or maintaining their own BI systems.

In 2025, ThinkAd was awarded Gold in the Best SaaS E-Commerce Platform category at the international ECDMA Global Awards, where the jury noted its contribution to reducing advertising costs and increasing ROAS for small sellers, thereby confirming the industry significance of the solution [21]. Additional recognition comes from ThinkAd's inclusion in the Amazon Ads Partner Network, the official registry of accredited tools and agencies, demonstrating the platform's compliance with Amazon's stringent requirements for optimization quality, reporting transparency, and managed budget volume.

It combines an autopilot based on first-party data, precise hourly dayparting, consolidated multi-account management, and feed preparation for machine agents. ThinkAd sets a new benchmark for efficiency in automating advertising processes on marketplaces. The platform not only relieves sellers of the routine of bid and schedule adjustments but also elevates campaign management to the level of business metrics, from which the system autonomously builds an optimal real-time strategy. Thanks to deep integration with the Amazon Ads API and simultaneous operation across multiple marketplaces, ThinkAd converts fragmented data into a cohesive model capable of predicting demand peaks and adapting to the cookieless era. The combination of intelligent semantic-core algorithms, advanced day-parting, and multi-account consolidation renders the platform indispensable for large brands seeking scale and small businesses pursuing competitive advantage on limited budgets.

Conclusion. Based on the foregoing review, the evolution of advertising tools on marketplaces inevitably leads to the complete replacement of manual management by intelligent AI systems capable of operating under high competition, rising click costs, and cookieless-environment constraints. The increase in variables—from bid and inventory dynamics to user behavior—has

exceeded the capacity for human oversight, rendering routine tasks inefficient in terms of time and resource expenditure. Under these conditions, ThinkAd demonstrates a practical solution: it integrates the collection and consolidation of sellers' first-party data, predictive analytics, and an algorithmic autopilot, enabling minimization of ACoS alongside increases in sales volume and liberation of up to 20 hours of operational time per week for strategic tasks.

ThinkAd's functional architecture—which includes an automatic semantic module for Semantic Core generation, goal-based bidding with a 24-hour ACoS forecast, advanced algorithmic dayparting, and multi-account mastering—fully meets the needs of small and medium businesses for a scalable tool. Practical case studies confirm that after deploying ThinkAd's AI bidder, clients' ad sales increased by 82–206% and ACoS fell to 22–25% without additional staffing. Integration with the Amazon Ads API and support for key regions ensure timely updates. At the same time, ThinkAd's participation in the Amazon Ads Partner Network and its international awards underscore the solution's high quality and industry relevance.

Thus, ThinkAd emerges not merely as an automation technology but as a system that transforms marketplace advertising into a manageable business process, where the priority shifts from manual adjustments to real-time attainment of business metrics. Through deep platform integration, intelligent algorithms, and a focus on first-party data, it lays the foundation for further development of commerce for machines, providing a competitive advantage to large brands and companies with limited budgets. In the future, such comprehensive AI solutions will define new standards of efficiency and responsiveness to continuously changing digital-market conditions.

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