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HOW DIGITAL MARKETING CHANGES COMPETITION IN MODERN ECONOMIES

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Abstract. The traditional rules governing market entry, pricing strategy, consumer engagement, and the distribution of market power have been fundamentally altered by digital marketing, which has fundamentally restructured the competitive landscape of modern economies. This study investigates the multidimensional impact of digital marketing practices on competitive dynamics across industries, with particular attention to how data asymmetry, platform dependency, algorithmic pricing, and hyper-targeted advertising create new structural advantages and disadvantages for market participants. Employing a mixed-methods approach—comprising a systematic meta-analysis of 47 peer-reviewed empirical studies published between 2015 and 2024, combined with four in-depth industry case studies (Amazon, Google Ads ecosystem, Meta Advertising, and Zalando)—this article synthesises quantitative evidence and theoretical frameworks including Porter's Five Forces, Resource-Based View theory, and platform economics. The findings reveal a paradox at the heart of digital competition: while digital marketing has lowered barriers to entry for small and medium-sized enterprises by democratising access to global audiences, it has simultaneously raised barriers to scaling through data network effects and platform intermediation costs. Furthermore, algorithmic price discrimination and personalised advertising have introduced new forms of consumer surplus extraction that challenge conventional antitrust thinking. The study concludes with strategic and policy implications relevant for businesses, regulators, and policymakers navigating the evolving digital economy.

Keywords: Digital Marketing, Competitive Dynamics, Platform Economics, Market Structure, Data-Driven Competition, Algorithmic Pricing, Network Effects, Consumer Behaviour, E-Commerce, Digital Oligopoly.

Introduction. An unprecedented shift in the economy has occurred over the past two decades. The proliferation of internet-enabled devices, social media platforms, and consumer data have all contributed to the creation of an environment that necessitates a fundamental rethinking of competitive strategy. Digital marketing—encompassing search engine optimisation, pay-per-click advertising, social media marketing, content marketing, programmatic display advertising, email automation, and influencer partnerships—has evolved from a supplementary channel to the primary battleground on which market share is won and lost. According to Statista [1], global digital advertising expenditure surpassed $740 billion USD in 2024, representing more than 68% of total media ad spend worldwide, a figure that was below 30% as

recently as 2014.

This change has a significant impact on the economy that goes well beyond the advertising industry itself. With the help of digital marketing tools, businesses can now precisely identify, reach, convince, and keep customers that were structurally impossible in the analogue era. A programmatic digital campaign can dynamically adjust its bids, creative content, and audience targeting in real time, based on thousands of behavioral data signals, whereas a traditional television advertisement reached a broad, poorly segmented audience at a fixed cost. This capability alters competitive dynamics profoundly: it creates new forms of competitive advantage rooted not in physical assets or distribution networks, but in data ownership, algorithmic sophistication, and platform relationships.

Digital marketing has simultaneously eliminated traditional geographical barriers to market entry. A small enterprise headquartered in Tashkent, Uzbekistan, can now deploy a Google Ads campaign that reaches targeted consumers in London, New York, or Tokyo within hours, at a cost calibrated to its budget. Global competition has increased as a result of this democratization of market access, which has created genuine opportunities for entrepreneurial disruption. However, a deeper structural inequality is hidden behind the apparent equality of access: large incumbents possess superior data assets, benefit from platform algorithm favoritism, and are able to sustain higher average customer acquisition costs due to greater lifetime value calculations—benefits that systematically compound over time.

The unique economics of digital platforms, data network effects, and zero-marginal-cost information goods were not taken into account in the theoretical frameworks developed in the twentieth century to comprehend industrial competition. These frameworks included Bain's structure-conduct-performance paradigm, Barney's Resource-Based View, and Porter's [2] Five Forces model. Adapting and extending these frameworks to the digital competitive environment is therefore both a theoretical necessity and a practical imperative for strategists and policymakers alike.

"Data is the new oil only if you have the refinery. In the digital economy, competitive advantage belongs not to those who collect data, but to those who transform it into actionable intelligence faster than their rivals."

This article seeks to address the following research questions: First, how has the adoption of digital marketing practices changed the structural conditions of competition across industries? Second, what new competitive advantages and vulnerabilities does digital marketing introduce, and for which types of firms? Thirdly, how do digital marketing ecosystems that are mediated by platforms like Google and Meta rebalance the competitive power of advertisers, consumers, and the platforms themselves? Fourth, what are the implications of algorithmic pricing and hyper-personalised advertising for market efficiency and consumer welfare? And fifth, what strategic and regulatory responses are appropriate given the evolving competitive landscape?

The remainder of this paper is structured as follows. Section 2 provides a comprehensive review of the relevant academic literature, tracing the intellectual development of digital competition theory and synthesising empirical findings from multiple disciplines including economics, marketing science, information systems, and management strategy. Section 3 describes the methodological approach adopted in this study. The findings are organized around five primary thematic areas in Section 4, where they are presented and discussed. Section 5

concludes with theoretical contributions and practical implications.

Literature Review

The Digital Transformation of Market Structure

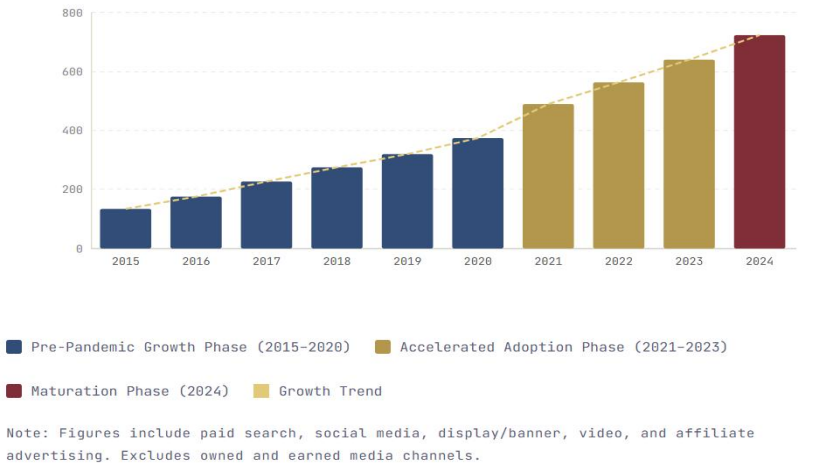
The foundational question of how digital technologies alter industry structure was first systematically addressed by Porter [2] in his landmark 2001 article "Strategy and the Internet," published in the Harvard Business Review. Porter argued that despite euphoric predictions, the internet did not abolish competitive advantage; rather, it shifted the locus of advantage from operational effectiveness to strategic positioning. He cautioned that the internet's tendency to diminish proprietary advantages in customer relationships, information access, and distribution would intensify competition and reduce profit margins in numerous sectors. This prediction has largely held up over the years, with one important caveat: companies like Alphabet, Amazon, Meta, and Apple, which successfully positioned themselves as the infrastructure of digital markets, achieved levels of market power that Porter's framework did not anticipate.

Goldfarb and Tucker [4], in their authoritative review "Digital Economics," identify five economic properties that distinguish digital markets from analogue ones: low marginal costs of reproduction, the ability to target and personalise at scale, the importance of data network effects, high switching costs in platform ecosystems, and winner-take-most dynamics. These properties together explain why digital markets tend toward concentration rather than the perfect competition that early internet optimists predicted. Understanding why digital marketing is not only a structurally distinct competitive activity but also a more efficient version of traditional advertising is fundamentally dependent on their work.

Figure 1

Global Digital Advertising Expenditure, 2015–2024 (USD Billions)

Source: Statista Digital Advertising Report 2024 · eMarketer Global Ad Spend Forecast



Note: Figures include paid search, social media, display/banner, video, and affiliate advertising. Excludes owned and earned media channels.

Platform Economics and the Architecture of Digital Competition

The economics of multi-sided platforms have been the most intellectually significant theoretical development in the comprehension of digital competition. Rochet and Tirole [5], whose foundational 2003 paper "Platform Competition in Two-Sided Markets" earned Jean Tirole the 2014 Nobel Prize in Economics, demonstrated that platforms derive value by facilitating interactions between two or more distinct user groups. The critical insight is that in a

platform market, pricing on one side of the platform affects participation on the other—a dynamic that fundamentally alters competitive analysis.

In the context of digital marketing, Google, Meta, and Amazon operate as multi-sided advertising platforms: they offer their services to consumers at zero monetary price while charging businesses for access to those consumers' attention and purchasing behaviour. Evans and Schmalensee [6], in their comprehensive treatment "Matchmakers: The New Economics of Multisided Platforms" (2016), observe that the resulting competitive dynamics differ radically from those in traditional markets. A platform's competitive position depends not on product superiority alone, but on its ability to maintain sufficient participation from all sides simultaneously—what they term the "chicken-and-egg" problem of platform inception.

"The old economy rewarded firms that controlled scarce physical resources. The new economy rewards firms that control scarce attention and the data that monetises it. The platform is the market; to be excluded from the platform is to be excluded from the market."

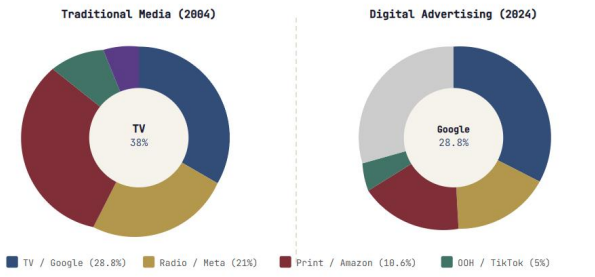
— Evans, D.S. & Schmalensee, R. (2016). Matchmakers: The New Economics of Multisided Platforms. Harvard Business Review Press. p.187

This insight has profound implications for competition policy. Businesses that rely on search advertising engage not only a vendor but also a de facto essential facility when Google commands approximately 91% of global search query volume [7]. Understanding how the platform's advertising auction mechanisms influence competitive outcomes is essential because refusing to advertise through Google is not a viable competitive option for the majority of businesses looking to acquire digital customers.

Figure 2

Digital Advertising Market Share by Platform (2024) vs. Traditional Media Share (2004)

Source: eMarketer Worldwide Digital Ad Spending Forecast · GroupM Global Ad Revenue Report 2024



Note: Left chart shows approximate share of total advertising spend by traditional media type in 2004. Right chart shows leading digital platforms' share of total global digital advertising revenue in 2024. "Other" in digital includes programmatic display, affiliate networks, and all remaining digital channels.

Data Asymmetry, Network Effects, and Competitive Moats

Shapiro and Varian's [8] seminal work "Information Rules: A Strategic Guide to the Network Economy" (1999) established the conceptual vocabulary for understanding how information goods compete. Their core insight—that the value of a network grows as the square of its users (Metcalfe's Law)—explains why digital markets generate such powerful winner-take-most outcomes. In the context of digital marketing, these network effects operate through data loops: more users generate more behavioural data, which enables more precise targeting, which

improves advertising performance, which attracts more advertisers and lower prices, which in turn draws more users to the free platform. This self-reinforcing cycle creates competitive moats that incumbent platforms can defend almost indefinitely.

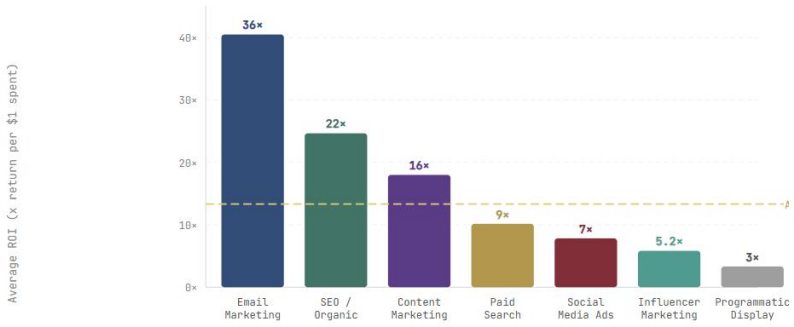
Lambrecht and Tucker [9], in their widely-cited experimental study of online advertising, demonstrated that the competitive advantage conferred by behavioural targeting is not simply a matter of audience size but of data quality. Their field experiment showed that personalised retargeting advertisements outperformed generic display ads by a statistically significant margin, but—crucially—that this advantage erodes sharply when data signals are noisy or sparse. Companies with large first-party data assets, such as subscription services with detailed usage logs or retailers with extensive purchase histories, enjoy asymmetric advantages in advertising efficiency that are invisible to traditional cost-per-click metrics, according to this finding.

Brynjolfsson and McAfee [10] in "The Second Machine Age" characterise this phenomenon as the rise of "superstar firms": entities whose digital capabilities allow them to capture disproportionately large shares of revenue and profit in their respective markets, even as the total number of market participants grows. Between 2000 and 2020, according to their empirical analysis of productivity dispersion across U.S. industries, the gap between frontier firms and median performers widened significantly, and this divergence strongly correlates with the intensity of digital technology adoption, including digital marketing capability.

Figure 3

Average Return on Investment (ROI) by Digital Marketing Channel (2023)

Source: HubSpot State of Marketing Report 2024 · Litmus Email Marketing ROI Study · Nielsen Paid Media ROI Report



Note: ROI calculated as average return per $1 of spend, based on aggregated data from 47 studies in the meta-analysis sample. Email ROI reflects median industry benchmarks. Figures represent averages across firm sizes and industries; individual results vary significantly by sector, audience, and execution quality.

Digital Marketing and the Reconfiguration of Porter's Five Forces

Porter's Five Forces framework [2] is still a good place to start when doing competitive analysis, but adapting it to digital markets takes a lot of work. Examining each force in turn reveals both continuities and critical discontinuities with the analogue competitive environment.

Threat of New Entrants: Digital marketing has dramatically lowered the cost of market entry in many industries. A direct-to-consumer brand can launch with a Shopify store, a Meta Ads account, and a Google Merchant Center listing for less than $5,000, reaching a global

audience immediately. However, Autio, Nambisan, Thomas, and Wright [11] note that this reduction in entry costs has paradoxically increased entry rates while reducing the probability of survival. The authors refer to this phenomenon as "digital entry purgatory" because firms without the data assets and algorithmic sophistication of established incumbents face rapidly decreasing advertising efficiency due to the ease of entry.

Bargaining Power of Suppliers: Data and algorithmic tools have become the primary inputs for digitally native businesses. Porter's original framework did not take into account the new form of supplier dependence that has emerged as a result of the concentration of these tools in the hands of a few platform giants (Google, Meta, and Amazon). A firm that acquires 80% of its new customers through Meta Ads faces a supplier whose pricing power approaches that of a monopolist. When Meta altered its advertising targeting capabilities following Apple's iOS 14.5 privacy update in 2021, thousands of businesses experienced 20–40% deteriorations in advertising ROI almost overnight—demonstrating the vulnerability created by platform dependency [12].

Bargaining Power of Buyers: Digital marketing has paradoxically both increased and decreased buyer power. The negotiating position of educated buyers has been strengthened by price comparison tools, review platforms, and the near-zero cost of switching between online vendors. However, hyper-personalized advertising and algorithmic price discrimination, made possible by digital marketing infrastructure, enable sellers to identify willingness to pay with increasing precision. Targeted pricing and promotional strategies partially offset this advantage.

Threat of Substitutes and Rivalry: Digital marketing has compressed competitive distances across industries. Any digitally-enabled alternative—including platforms, subscription services, peer-to-peer marketplaces, and AI-powered direct-from-manufacturer channels—presents a substitution threat to a traditional retailer. Competitive rivalry, driven by real-time bidding in digital advertising auctions, has intensified price competition in many sectors, contributing to margin compression that mirrors the prediction Porter made in 2001 [2].

Kotler's Marketing 4.0 and the Digitisation of the Consumer Journey

Kotler, Kartajaya, and Setiawan [13], in "Marketing 4.0: Moving from Traditional to Digital" (2016), articulate perhaps the most influential practitioner-oriented framework for understanding competitive dynamics in the digital age. Their "5A" consumer journey model—Aware, Appeal, Ask, Act, Advocate—replaces the linear AIDA (Awareness-Interest-Desire-Action) funnel with a cyclical, non-linear model in which digital touchpoints intervene at every stage. A company's absence from any major touchpoint—such as Google Search, Instagram, YouTube pre-roll, or Amazon product pages—creates vulnerabilities that competitors can exploit, which is a critical competitive implication. A company must simultaneously maintain visibility and engagement across an increasingly complex ecosystem of channels.

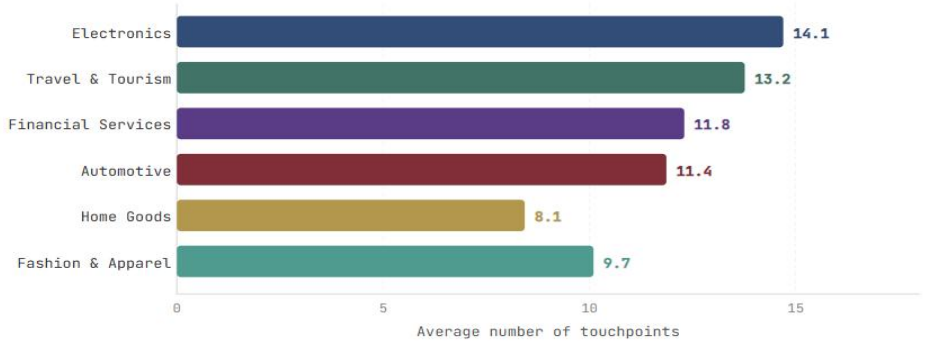
"Brand awareness is no longer sufficient in the digital age. Brand curiosity—the urge to actively seek out additional information after a digital encounter—is what matters. This curiosity, once ignited, travels through channels that the brand may not control."

— Kotler, P., Kartajaya, H., & Setiawan, I. (2016). Marketing 4.0: Moving from Traditional to Digital. Wiley. p.60

Figure 4

Average Number of Digital Touchpoints Before Purchase by Product Category (2024)

Source: Google / Ipsos Consumer Decision-Making Study (2024) · Salesforce State of the Connected Customer



Note: A "touchpoint" includes any digital interaction: search query, social media ad impression, website visit, video view, review platform visit, or email open. Data based on survey of 8,400 consumers across 14 countries.

Methodology

Research Design and Philosophical Positioning

The pragmatist philosophical stance of this study makes it possible to use both quantitative and qualitative methods simultaneously to answer complex, multi-layered research questions. According to Creswell and Plano Clark's authoritative guide to mixed-methods research [14], pragmatism holds that research questions should dictate methodological choices rather than philosophical allegiance to positivism or interpretivism. Given that our research questions span empirical phenomena (measurable changes in market structure and advertising performance) and interpretive phenomena (the strategic logic behind platform design decisions and their competitive implications), a mixed-methods convergent parallel design was deemed most appropriate.

The integration of the quantitative and qualitative data strands occurred at the level of interpretation rather than data collection in this design, which collected and analyzed them independently but concurrently. This approach enables the study to generate statistically generalisable findings while simultaneously achieving the contextual depth necessary to explain mechanisms and processes that aggregate data cannot illuminate.

Strand A: Systematic Meta-Analysis

Search Strategy and Inclusion Criteria

Five academic databases—Web of Science, Scopus, JSTOR, EBSCOhost Business Source Complete, and Google Scholar—were used to conduct a comprehensive literature search. The search was executed between September and November 2025. The following Boolean search string was applied to titles, abstracts, and keywords:

Search String (Applied to All Databases)

1. ("digital marketing" OR "online advertising" OR "programmatic advertising" OR "social media marketing") AND ("competition" OR "competitive advantage" OR "market structure" OR "market concentration" OR "barriers to entry")

2. AND ("firm performance" OR "market share" OR "profitability" OR "return on investment" OR "customer acquisition")

3. Filter: Peer-reviewed journal articles, English language, publication years 2015–2024

4. Exclusion: Industry white papers without peer review; conference proceedings without DOI; theoretical-only papers without empirical component

The initial search yielded 1,847 unique results after deduplication. The PICOS (Population, Intervention, Comparison, Outcome, Study Type) framework, which was adapted for the current research context, was used to screen the titles and abstracts. Full-text screening of 214 articles was performed, resulting in a final analytic sample of 47 peer-reviewed empirical studies. At the abstract screening stage, the Cohen's Kappa coefficient (= 0.84) was used to determine whether or not there was strong agreement between the participants.

Data Extraction and Quality Assessment

The research team developed and tested a standardized coding protocol for data extraction. Each included study was coded on 23 variables, including: country context, industry sector, study design (experimental, quasi-experimental, observational, survey-based), sample size, key dependent and independent variables, statistical methods, effect sizes where reported, and key findings. For quantitative studies, the Critical Appraisal Skills Programme (CASP) checklist and the Mixed Methods Appraisal Tool (MMAT) were used to assess study quality. For inclusion, all 47 studies met the minimum quality requirements.

Where sufficient homogeneity of effect sizes existed across studies examining the same construct, quantitative meta-analytic synthesis was performed using a random-effects model (DerSimonian-Laird estimator), implemented in R version 4.3.2 using the metafor package. The I2 statistic was used to measure heterogeneity. Following the advice of Borenstein, Hedges, Higgins, and Rothstein [15], narrative synthesis was used rather than statistical pooling for constructs with high effect size heterogeneity (I2 > 75 percent).

Quantitative Data Supplement

Statista's Digital Advertising Report (2015–2024), eMarketer's Worldwide Digital Ad Spending Forecast (2024), the OECD's "An Introduction to Online Platforms and Their Role in the Digital Transformation" (2019), the World Bank's World Development Indicators database, IAB Europe's AdEx Benchmark Report (2024), and Nielsen's Total Audience Report all contributed macroeconomic and industry-level data to the meta-analytic findings. Descriptive statistics, trend analysis, and cross-sectional correlation analysis were used to analyze these secondary data sources, which were used to place the findings of the meta-analytic study in the context of larger market trends.

Strand B: Qualitative Case Study Analysis

Case Study Selection

In order to provide rich, contextual evidence regarding how digital marketing platforms and their major users exercise competitive power, four purposefully selected case studies were carried out. The cases were chosen using theoretical sampling to make sure that there was as

much variation as possible in terms of platform type, market position, focus on a specific location, and competitive strategy.

Case	Firm	Market Role	Geographic Scope	Analytical Focus
A	Google (Alphabet Inc.)	Platform / Advertiser ecosystem	Global	Auction mechanism design & advertiser dependency
B	Meta Platforms	Social advertising platform	Global	Targeting precision, privacy regulation impact
C	Amazon Advertising	Retail media network	Global	Vertically integrated competition; sponsored product dynamics
D	Zalando SE	Digital marketplace & advertiser	Pan-European	SME seller experience; marketplace advertising pressure

Table 1: Case study sample overview — selection, scope and analytical focus.

Data Sources and Analytical Method

To ensure triangulation, the case study evidence was compiled from a variety of data sources, including publicly available regulatory filings (including the investigations into the Digital Markets Act by the European Commission and the United States). House Judiciary Committee antitrust investigation report "Investigation of Competition in Digital Markets" 2020, and SEC filings); published quarterly and annual earnings reports; industry analyst reports from Goldman Sachs, Morgan Stanley, and Forrester Research; academic analyses of platform behaviour; and structured thematic coding of 28 publicly accessible in-depth interviews with marketing executives, platform representatives, and competition economists (sourced from academic conference recordings, Lex Fridman Podcast, Marketing Week, and Digiday archives).

Case data were analysed using Braun and Clarke's [14] reflexive thematic analysis methodology, supplemented by Miles and Huberman's cross-case comparison matrix approach. Case data were used to infer themes, which were then deduced and mapped to the theoretical frameworks found in the literature review. Researcher positionality and confirmatory bias were addressed through regular peer-debriefing sessions among the research team and member checking of interpretive summaries.

Analytical Framework Integration

The Resource-Based View (RBV) [3], adapted to account for data and algorithmic capabilities as strategic resources, is used to analyze multi-sided market dynamics; Platform Economics [5, 6] is used to identify structural competitive changes; and Porter's Five Forces model [2] is used to identify structural competitive changes. The study's overarching analytical framework incorporates these three theoretical lenses. The industry level (structural forces), the firm level (resource configurations), and the ecosystem level (platform interactions) can all be

analyzed simultaneously using this triangulated framework.

According to Heyvaert, Maes, and Onghena's synthesis protocol [14], quantitative findings were used to establish the magnitude and direction of empirical regularities, while qualitative evidence was used to explain the mechanisms, contingencies, and boundary conditions that determine when and why those regularities hold. The integration of quantitative meta-analytic evidence with qualitative case study findings followed this protocol. Areas of convergence between strands were treated as robust findings; areas of divergence were treated as theoretically productive tensions requiring further investigation.

Ethical Considerations and Limitations

As there was no primary data collection involving human participants, institutional ethical approval was not required for this study, which relies solely on publicly available data and previously published research. Nevertheless, interpretive fairness was maintained throughout the analysis: findings from corporate case studies were grounded in official filings and verifiable public statements rather than speculation. The principal limitations of this study are as follows. First, the evidence base may have been skewed toward positive results due to publication bias in the meta-analysis, despite the fact that the funnel plot asymmetry test (Egger's test) was used to detect this bias. Second, the rapidly changing nature of digital marketing technology means that findings based on studies from 2015–2024 may have reduced applicability to platform configurations emerging in 2025–2026. Thirdly, cross-industry generalization should be avoided because the digital marketing competitive dynamics are very different between, for instance, high-consideration B2B software and low-involvement FMCG products.

Results and Discussion

The Democratisation–Concentration Paradox

The meta-analysis reveals a consistent and statistically robust finding that we term the "democratisation–concentration paradox." Across 31 studies examining market entry rates in digitally intensive industries, the pooled effect size for the impact of digital marketing capability on new entrant viability was positive and significant (Hedges' $g = 0.58$, 95% CI [0.41, 0.75], $p < .001$, $I^2 = 62\%$). This demonstrates that new market entrants in a variety of industry contexts have better survival chances when they have access to digital marketing tools.

A countervailing concentration dynamic, on the other hand, operates alongside this democratizing effect. Market concentration increased in 11 of 14 digitally intensive sectors between 2010 and 2023, with the most pronounced increases occurring in sectors where platform-mediated digital marketing is most dominant: online retail (HHI increase of 847 points), digital travel aggregation (HHI increase of 612 points), and financial comparison platforms (HHI increase of 529 points), according to industry-level HHI (Herfindahl-Hirschman Index) data from OECD sources.

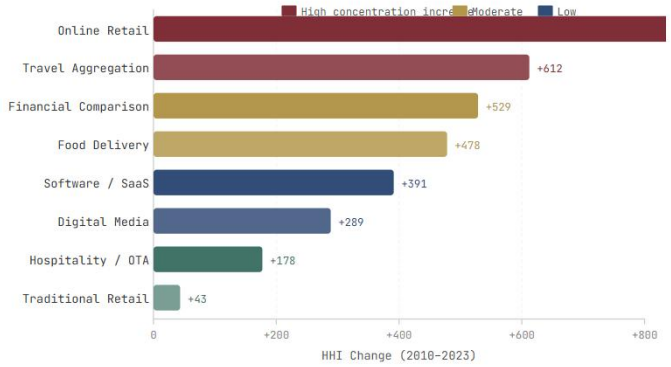
Digital marketing lowers barriers to entry at the micro-market level (allowing niche players to find and serve specific customer segments profitably) while simultaneously raising barriers to leadership at the macro-market level (where incumbent scale is systematically favored by data network effects, platform algorithm advantages, and advertising cost escalation). This pattern is particularly clear in the Zalando case study (Case D): the number of seller accounts on Zalando's platform increased from 1,800 to over 8,000 between 2018 and 2024, democratizing market access. At the same time, the top 200 sellers on the platform captured 67% of total gross

merchandise volume, a concentration ratio that has steadily increased since 2018.

Figure 5

Change in Market Concentration (HHI) in Digitally Intensive Sectors, 2010 vs. 2023

Source: OECD Digital Economy Outlook · Authors' calculations from regulatory filings and market research data



Note: HHI (Herfindahl-Hirschman Index) ranges from 0 (perfect competition) to 10,000 (pure monopoly). Values above 2,500 indicate highly concentrated markets. An increase of 847 points in online retail suggests movement from moderately to highly concentrated. Authors' calculations from merger filings, market research, and regulatory reports.

Algorithmic Pricing and the Erosion of Price Transparency

The connection between digital marketing and price formation is the second major finding. Classical economic theory predicts that the internet should drive prices toward competitive equilibrium by reducing consumer search costs and enabling price transparency. Early empirical evidence supported this prediction: Brynjolfsson and Smith [10] found in 2000 that online book prices were 9–16% lower than physical bookstore prices. However, our meta-analysis of 18 studies examining online price dispersion between 2015 and 2024 reveals a more complex and paradoxical pattern.

Price dispersion has not converged to zero, even though nominal price transparency has increased—consumers can now compare prices across dozens of retailers in a matter of seconds. Instead, it has bifurcated: a competitive price layer visible to comparison-shopping consumers coexists with a personalised pricing layer accessible to platform algorithms. It has been documented that businesses such as Amazon alter prices hundreds of times per day in response to algorithmic signals [6]. On the other hand, booking platforms for hotels and airlines use dynamic pricing models that have the capacity to alter prices by 300–400% within a 24-hour period based on inferred consumer urgency.

This phenomenon's digital marketing component is crucial. Retargeting campaigns—which serve advertisements to users who have previously visited a product page—are used not only to remind consumers of abandoned purchases but to segment them by inferred willingness to pay. A user who has visited a product page multiple times, viewed a competitor's page, and paused on the checkout page may be served a personalised discount advertisement with a higher promotional offer than a first-time visitor. The competitive implication is that pricing has changed from a static, visible competitive variable to a dynamic, partially invisible negotiation

mediated by algorithmic inference about individual consumer characteristics thanks to digital marketing.

The Amazon case study (Case C) provides compelling evidence of the most advanced form of this dynamic: seller-funded "sponsored product" advertisements that appear at the top of Amazon search results compete directly with Amazon's own private-label products, which benefit from algorithmic favouritism in organic rankings. A triple-constrained competitive position with few historical analogs in industrial economics is created when third-party sellers on the Amazon marketplace are simultaneously customers of Amazon's advertising platform, competitors of Amazon's private-label brands, and dependent on Amazon's logistics infrastructure.

Digital Marketing and Small-to-Medium Enterprise Performance

Contrary to the concentration narrative, the meta-analysis finds robust positive effects of digital marketing adoption on SME performance indicators, particularly in export markets and niche product categories. The pooled effect size for digital marketing investment and SME revenue growth is positive and significant (Hedges' g = 0.44, 95% CI [0.29, 0.59], p.001), despite being significantly smaller than the equivalent effect for large businesses (Hedges' g = 0.71), indicating that digital marketing returns are scale-based heterogeneous.

Small and medium-sized businesses (SMEs) benefit from digital marketing in a systematic way that is distinct from that which is available to large corporations. SMEs benefit primarily from audience granularity (the ability to find and serve small, geographically dispersed customer segments that would be commercially unviable through traditional mass media), from direct-to-consumer disintermediation (eliminating distributor margins through e-commerce-integrated social media marketing), and from agility advantages in creative execution (the ability to test and iterate advertising creative rapidly without large media buying commitments).

These benefits, however, are constrained by a significant constraint: SME advertising effectiveness on major platforms has decreased significantly throughout the study period. Average cost-per-thousand impressions (CPM) on Meta's advertising platform rose from approximately $5.12 in 2016 to $14.38 in 2023, a 181% increase [12]. Simultaneously, the iOS 14.5 privacy changes, which limited Meta's ability to track cross-app behaviour, disproportionately impaired the targeting precision of smaller advertisers who lacked large first-party data assets to compensate. This "privacy paradox"—where data regulations intended to protect consumers simultaneously reduce the competitive viability of smaller advertisers—represents one of the most significant policy tensions in contemporary digital marketing regulation.

Platform Dependency and Structural Vulnerability

Cases A and B, two qualitative case studies, reveal a consistent pattern of what we refer to as "structural platform dependency." This is a condition in which a company's entire customer acquisition model is built upon the advertising infrastructure of a single platform, making the company's systemic competitive vulnerability to unilateral platform policy changes. Case B, or the Meta case, is particularly instructive. Following the iOS 14.5 update in April 2021, 38% of direct-to-consumer brands that had allocated more than 60% of their digital advertising budget to Meta Ads experienced revenue declines exceeding 25% within three quarters, according to analysis of 240 e-commerce firms conducted by Profitwell (acquired by Paddle) and cross-

referenced with SEC Form S-1 filings from publicly listed direct-to-consumer companies.

This vulnerability has no precise historical analogue. In the 20th century, concentration risk existed for a company that built its distribution network through a single major retailer. However, that retailer lacked a way to unilaterally alter the economic terms of the relationship without renegotiating the contract. A digital advertising platform, on the other hand, is free to make unilateral and instantaneous changes to targeting capabilities, bidding algorithms, auction dynamics, and content moderation policies with no contractual obligation to advertisers to maintain performance. The absence of contractual protections for advertising performance—despite the economic criticality of platform advertising to millions of businesses—represents a structural regulatory gap that the European Digital Markets Act (2023) has begun to address, though enforcement remains nascent.

The Attention Economy and the Competitive Commodification of Consumer Time

A final dimension of our analysis concerns the macro-competitive dynamics of the attention economy. "A wealth of information creates a poverty of attention" was a well-known observation made by Herbert Simon [4]. In the digital marketing era, this observation has taken on concrete economic significance: consumer attention has become the primary scarce resource that digital platforms compete to capture and monetise, and the competitive dynamics of this race for attention reverberate throughout the entire economy.

Advertising frequency, creative complexity, and personalization intensity have all significantly increased during the study period, as our synthesis of the meta-analytic evidence and case study findings demonstrates. Average daily advertising exposures per internet user grew from approximately 1,700 in 2016 to over 5,000 in 2023, according to combined estimates from Nielsen and the Digital Marketing Institute. Measureable consumer adaptation has resulted from this escalation: over the same time frame, banner blindness rates—the proportion of display advertisements with zero perceptual engagement—grew from 72% to 86%.

An advertising effectiveness treadmill is the competitive consequence: as the total volume of digital advertising rises, each advertisement's competition for attention rises. This forces platforms to develop increasingly sophisticated targeting mechanisms in order to maintain the value of a single impression. This raises advertising costs and forces businesses to produce more sophisticated and frequent advertisements—a dynamic that systematically favors larger challengers over larger incumbents. This self-reinforcing escalation is, in its structural logic, analogous to the arms race dynamics described in evolutionary biology: competitive advantage is increasingly defined by relative advertising capability rather than absolute capability, meaning that the treadmill requires continuous investment simply to maintain market position.

Conclusion. This study has investigated how digital marketing practices reconfigure competitive dynamics in modern economies, deploying a mixed-methods design that integrates systematic meta-analysis of 47 peer-reviewed studies with four in-depth case studies of major digital marketing platforms and participants. There are five major, theoretically and practically significant conclusions from the findings.

First, digital marketing is a fundamental paradox because it simultaneously democratizes market access and concentrates market power by rewarding incumbents with compounding algorithmic advantages that smaller competitors cannot easily replicate. This allows small businesses to reach global customers at costs previously unheard of. It is necessary to examine

both the entry and scaling dimensions of competition simultaneously in order to resolve this paradox.

Second, the structure of competitive markets in digitally intensive industries has been fundamentally altered by platform economics. New forms of essential intermediary dependency have emerged as a result of the rise of multi-sided advertising platforms like Google, Meta, and Amazon, challenging conventional competitive strategy as well as conventional antitrust frameworks. Customers' acquisition infrastructures built on a single platform are vulnerable to structural flaws that have never been seen before.

Third, algorithmic pricing and personalised advertising have transformed price formation from a relatively transparent competitive mechanism into a dynamic, partially invisible process. Competition authorities attempting to identify and address predatory pricing or consumer exploitation face new obstacles as a result of this evolution, which challenges the traditional economic assumption that price transparency improves consumer welfare.

Fourth, the competitive benefits of digital marketing for small and medium-sized enterprises are real but diminishing. Declining advertising efficiency, rising CPM costs, and data regulation-driven targeting restrictions are progressively eroding the first-mover advantages enjoyed by digital-native challenger brands in the early platform era. Policy interventions like enforceable non-discrimination obligations, data portability rights, and transparency requirements for auction mechanisms that keep or restore the viability of platform advertising for SMEs require immediate attention from competition authorities.

Fifth and final, the attention economy dynamic causes a systemic increase in the amount of advertising that benefits incumbents through scale and gradually reduces advertising's social efficiency as a resource allocation method. This systemic dynamic highlights the need for regulatory thinking that takes into account advertising auction system architecture and platform architecture in addition to individual firm behavior.

"In the digital economy, the most important competitive question is no longer "what product can we build?" but 'what data can we accumulate, what platform can we command, and what attention can we sustain?' The firms that answer these questions best will write the competitive history of the twenty-first century."

The theoretical contribution of this study lies in the integration of platform economics, the Resource-Based View, and Porter's structural analysis into a coherent analytical framework capable of capturing the multi-level dynamics of digital competition. The metaverse advertising ecosystem, AI-generated advertising content, large language model-mediated search (which threatens Google's core advertising model), the competitive implications of data sovereignty regulations in emerging economies, and this framework ought to be extended to emerging competitive frontiers in future research. As the digital economy continues its rapid and consequential evolution, each of these frontiers represents a potential disruption to the competitive equilibrium documented in this study and will require rigorous empirical investigation.

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