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THE GOOGLE ADVERTISING STACK AND THE IMPACT OF THE DIGITAL
MARKETS AND SERVICES ACTS

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Abstract

This work project explores the impact of the Digital Markets Act (DMA) and Digital Services Act (DSA) on digital advertising. The project focuses on the Google Advertising Stack, in light of the company's record of anticompetitive conduct allegations and monopolistic business practices. The report will assess the implications of the DMA and the DSA on the regulation of the monopolistic marketing value stream of large digital platforms, using Google's Advertising Stack as the main subject.

Keywords

Economics, Competition, Regulation, Digital Platforms, Advertising Market

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1. Introduction

Digital advertising is an integral part of the modern business landscape, revolutionizing the way companies promote their products and services. With the introduction of the internet, advertising has transitioned from traditional media to the digital realm, providing businesses with unprecedented opportunities to reach their target audience. Among the prominent players in the digital advertising sphere, Google stands out for its comprehensive collection of advertising technologies, the Google Advertising Stack. However, the increasing dominance of platforms like Google in online advertising has raised concerns regarding market competition and data privacy, which created a need for regulatory measures (Dapena et al. 2019). This research explores Google's advertising technologies and analyses the regulatory impact of the DMA and DSA, the regulations that form the European Commission's rulebook for online platforms, regulating competition and protecting the safety of users.

2. Literature Review

2.1 The importance of digital advertising in the modern business landscape

Digital advertising has the ability to connect businesses with a global audience, transcending geographical boundaries. Platforms like Meta (previously Facebook), X (previously Twitter) or Google showcase how digital advertising allows businesses to target specific demographics, interests, and behaviours, ensuring that their messages reach the right people, regardless of their whereabouts (Patoli, 2021). Modern day advertising allows for cost-effective marketing for businesses of all sizes. The nature of advertising digitally, allows for precise budget control and accurate performance tracking of ad campaigns in real time, unlike traditional advertising channels such as radio, print or television (Smith et al. 2019). Digital advertising provides access to real-time analytics and performance metrics, allowing advertisers to track key performance indicators (KPIs) such as click-through rates (CTR), conversion rates, website traffic and sales (Laboon, 2020). This data allows for quick adjustments and optimizations to

improve campaign effectiveness marginally, driving engagement and the retention of customers (Patoli, 2021). Traditional advertising methods often lack this level of actionable data. Digital advertising offers interactive and engaging ad formats that go beyond static images or text. Video ads, interactive banners, and social media advertising enable businesses to create compelling narratives and foster meaningful interactions with their audience. In the fast-paced digital landscape, businesses can quickly adapt their advertising strategies to respond to changing market conditions and consumer preferences (Smith et al. 2019). Whether it's adjusting ad copy, targeting a new audience, or launching a time-sensitive campaign, digital advertising provides the flexibility needed to stay agile in a competitive marketplace (Laboon, 2020). Perhaps one of the most significant advantages however is its ability to measure and quantify return on investment (ROI) accurately. With tools like conversion tracking and attribution modelling, businesses can determine which marketing efforts are driving sales, allowing for data-backed decision-making and optimization. Businesses that harness the power of digital advertising are better positioned to adapt to changing consumer preferences, maximize their budgets, and ultimately thrive in today's competitive marketplace (Paun, 2020).

2.2 Review of digital competition regulation literature

The European Union (EU) competition law framework is a dynamic and ever-evolving system designed to ensure fair competition and prevent anti-competitive behaviour within the EU's single market (Monti, 2020). An emerging concept in EU competition law is “gatekeeper power”. A gatekeeper can be defined in economic terms as “an intermediary who essentially controls access to critical constituencies on either side of a platform that cannot be reached otherwise, and as a result can engage in conduct and impose rules that counterparties cannot avoid” (C. and S. Morton, 2021). One can distinguish between two types of gatekeeper power in the context of digital platforms. The first, “controls access to its users by third-party firms” (De Streel, 2022). Meta lends itself as the obvious example, as the social network has

successfully managed to lock its users into a whole product ecosystem, through different products and services. The firm monetizes its customers to third parties in several ways, including selling customers' attention to advertisers and data to data brokers (De Streel, 2022). The second type of gatekeeper according to De Streel, "controls access to content, products and/ or services" (De Streel, 2022). Google search for example controls the access of users to web content via an algorithm, similar to the way streaming services do. De Streel showcases how a digital firm can attain the position of the gatekeeper, by expanding its range of products and services. If consumers use products and services from one provider, something referred to as "single homing" (as opposed to "multi-homing"), the gatekeeping position can be attained quickly, providing market power (De Streel, 2022). The study of multi and single homing remains a vibrant and essential area of research, as explored by Belleflamme's and Peitz.

Another key concept within EU competition law is the "rule of reason," which forms the foundation for evaluating various competition-related issues, such as antitrust cases, mergers, and agreements among competitors. The rule of reason is a legal principle used in antitrust and competition law (Monti, 2020). It refers to a standard or approach that requires a detailed and fact-specific analysis to determine whether a particular business practice, agreement, or conduct violates antitrust laws. The key idea behind the rule of reason is to assess whether the practice in question has both pro-competitive and anti-competitive effects and to weigh those effects against each other. Giorgio Monti's 2020 paper, "EU Competition Law and the Rule of Reason Revisited" highlights the importance of striking the right balance, promoting competition and economic efficiency, while preventing anti-competitive practices (Monti, 2020). The rule of reason utilises a case-by-case analysis to evaluate the impact of a business practice on competition. Ex ante regulation in contrast, applies a more pro-active approach and entails determining whether particular conducts pro-competitive benefits outweigh any potential

drawbacks (OECD, 2021). The pro-active nature of ex ante regulation is exemplified by the designation of certain digital platforms as gatekeepers under the DMA, that are subjected to obligations aimed to prevent anti-competitive behaviour. The rule of reason allows for more flexibility and a more tailored evaluation, while ex ante regulation protects competition upfront. The Universal Service Directive acts as an example of ex ante regulation and competition regulation symbiosis. It allowed customers to transfer their numbers across network providers, while lowering switching costs, fostering fair competition. Using only competition law, this would have been complex, if not impossible to achieve. (OECD, 2021).

Anti-competitive behaviour frequently takes place in traditional markets at the levels of manufacturers, wholesalers, and retailers, which has an indirect impact on consumers who are on the other end of the value chain of goods or services. In digital markets, on the other hand, where platforms are immediately in front of consumers, the dynamics are slightly different. Given a more direct connection, the end user may be instantly impacted by unethical behaviour on the platforms or in their integrated processes (OECD, 2021). Cases like the EU's inquiries into Google Shopping, Apple Pay, and Amazon Marketplace are noteworthy instances. Given that digital markets are primarily focused on customers, it is crucial to consider their attitudes and behaviours while evaluating and averting unfair practises, both in the context of ex-ante regulation and competition law (OECD, 2021). In such markets, the effects of anti-competitive conduct are more immediate and visible, emphasizing the need for tailored approaches to safeguard consumer interests. Ex ante regulation and the rule of reason are distinct approaches to address anti-competitive conduct. It has been demonstrated in various industries that they are complimentary, necessary tools rather than replacements. With each playing to its unique strengths, they should be viewed as distinct arrows in a quiver, working towards distinct but complementary goals that ultimately benefit customers and society at large (OECD, 2021).

3. Methodology

3.1 Scope and design of the research

This report will evaluate the impact of the DMA and DSA regulations on digital advertising, by describing Google's Advertising Stack components, as well as the DSA and DMA regulations. The aim is to provide insights into a multifaceted domain within the digital advertising sector and the impact of the newly imposed regulatory frameworks. The research methodology, which blends observational research and theoretical scenarios, with analysis of case studies and interviews with industry experts will form the analysis of the impact on Google's Advertising Stack, alongside an exploration of Google's anti-trust cases and the concept of market power and dominance. In addition, Ana Sofia Rodrigues, member of the board of the Portuguese Competition Authority, will be interviewed to gain insights into how the Competition Authority views these new regulations. The examination of the DMA and DSA requirements will determine the implications on the market and Google, in particular.

3.2 Defining the limitations of the research

It is essential to acknowledge the limitations that may impact the study's verdicts. The research combines the analysis of case studies with relevant observational research from the sector, enabling a comprehensive investigation of the topic. However, the success of this methodology could be limited due to lack of historical data, the difficulty of extrapolating results, and the speculative impact evaluations. Additionally, the accuracy of the research's projections may be impacted by legislative changes and the dynamic nature of the digital advertising sector. Furthermore, despite any efforts to produce an unbiased piece of work, natural bias, both of any cited literature and the author cannot be dismissed.

4. Google's Advertising Stack

4.1 Google's Advertising Stack: An overview

Google has established itself as an unrivalled titan of digital advertising, exerting immense

influence over the way businesses connect with consumers online (Lipsman et al., 2019). In Australia, Google threatened to remove their local search engine if unable to reach political agreement, exemplifying the firms bargaining power (Khadem, 2021). At the heart of Google's vast advertising empire lies the Advertising Stack, which sells advertising space on Google's own services and intermediates between advertisers and third parties. The AdTech industry provides three digital tools, also present in the Advertising Stack. Publisher Ad servers (DFP), used to manage ad space, ad buying tools (Google Ads and DV360) used to manage ad campaigns and ad exchanges (AdX) where ads are bought and sold via auction (European Commission, 2023). This ensemble of advertising tools has shaped the digital marketing landscape by offering advertisers comprehensive solutions for reaching their target audiences. Central to the effectiveness of the Google Advertising Stack, is the use of data and analytics. Google collects vast amounts of data on user behaviour, search queries, and preferences. This data informs ad targeting, such that users can be served ads based on their interests, location, and online activity (Lipsman et al., 2019). Real-time analytics provide advertisers with insights into campaign performance, enabling them to make data-driven decisions and optimize their strategies. As it continues to innovate and adapt to the changing digital landscape, Google's Advertising Stack will likely continue to shape the future of digital marketing. In an increasingly data-driven and competitive marketplace, it stands as a testament to the transformative power of technology in modern advertising. While this technology provides a rich source for consumer data, reinforcing the rest of Google's advertising business in unquantifiable ways, it has contributed to Google's dominant market position, raising competition and data privacy concerns.

4.2 The Advertising Stack's components

Google has enabled marketers to connect with customers across search, display, video, text and more for several years. As the channels and formats of consumer engagement become

increasingly complex, Google streamlined their extensive advertising offerings in 2021 (Datta, 2021). Google renamed their advertising product catalogue, categorizing the components of the Ad Stack into three clusters, based on the consumer type. The first is Google Ads, which caters to small and medium enterprises (SMEs). The second is the Google Marketing Platform, which combines DoubleClick digital marketing and Google analytics for enterprises. Lastly, there is Google Ad Manager for large publishers, bundling all of Google's monetization tools into one platform, matching publishers with advertisers (Datta, 2021).

Google Ads is comprised of two main components. The first is "smart campaigns", which allow users to create real-time AI-powered advertising campaigns tailored to the specific company's objectives, such as boosting customer phone calls, website traffic, or foot traffic. These campaigns enable SMEs to accomplish their objectives more effectively. The second component is "click identifier", a recently released ad extension, that will give business-to-business (B2B) advertisers comprehensive access to contact details of companies that have clicked on their advertisements (Datta, 2021). This will include lead data such as the company name, email addresses, and contact details, as well as those that have been viewed in the previous 12 months. For business-to-customer (B2C) marketing, advertisers gain access to customer information, such as the precise keywords and advertisements that users clicked (Datta, 2021). Across search, display ads, YouTube videos, app ads in Google Play, location listings in Google Maps, and other platforms, advertisers will have a more comprehensive understanding of potential customers, making their advertising much more effective. The Google Marketing Platform is designed to help businesses by providing tools for managing campaigns. Users may plan and build stronger ad campaigns with enhanced customer experiences by combining ads and analytics to gain a more complete view of the consumer journey across platforms and devices (Datta, 2021). Google Ad Manager gives publishers more

control over their ad spend and return on investment by centralising the whole ad delivery, measurement, and optimisation process across a variety of inventory types, including display, connected TV, and mobile (Google, n.d.). As part of the platform, the ad exchange, and the ad server, previously known as DFP serve as the publishers' user interface. Director of Product Management at Google Jonathan Bellack claims that this platform simplifies the way publishers conduct business. He went on to say, "Publishers are combining programmatic yield teams and programmatic sales teams together. In order to allow one unified sales staff to use a single unified ad manager tool, we are merging the technologies" (Datta, 2021).

Beyond the three clusters of the Google Advertising Stack, lie some of Google's other products, allowing advertisers to display visually engaging ads and target specific demographics and interests for more effective campaigns. These products include Google Shopping, which focuses on e-commerce, enabling advertisers to showcase products in search results, enhancing the user's shopping experience and facilitating a seamless transition from product discovery to purchase. As one of the largest video-sharing platforms globally, YouTube serves as a powerful medium for advertisers to engage audiences through compelling video advertising. YouTube ads provide various ad formats, including skippable and non-skippable ads, allowing advertisers to tailor their approach based on campaign goals. To cater to the rapidly growing mobile audience and considering Google's ownership of Android, the Google Advertising Stack includes App Campaigns. Designed specifically for mobile apps, App Campaigns streamline the process of promoting apps across Google's extensive network, including Search, Google Play, YouTube, and the Google Display Network. Advertisers can set specific goals such as app installs, in-app actions, or even in-app purchases, leveraging machine learning to optimize ad delivery and maximize performance. The large amount of data Google collects on their customers through various channels, makes it a lucrative space to advertise.

Digital advertising has become essential for enterprises in the modern business landscape, with Google's Advertising Stack playing a key part in its implementation. With its extensive suite of advertising technologies, Google gives advertisers unmatched reach and targeting options, enabling them to develop campaigns that are driven by data. According to the Wall Street Journal, Google holds a 37% share of the \$130 billion U.S. digital advertising market (Haggin, P and Dapena, K, 2019). To further exemplify Google's dominance and success, the company generated approximately \$54.5 billion in advertising revenue, from July to September 2022, up 2.5 percent from the same period in 2021 (Chin-Rothmann, 2023). 2021 was a historic year for the business: generating \$209.5 billion in worldwide advertising revenue. A considerable increase, compared to the revenue of \$36.4 billion in 2011, showcasing not only the firms, but also the advertising markets growth. Google CEO Sundar Pichai referred to 2021 as "one of the strongest years we've ever had in the history of the company" (Chin-Rothmann, 2023). Google's success and dominance, however, has sparked worries about competition and data protection, prompting governmental proceedings, questioning Google's dominant market position.

4.3 The concept of market power, dominance, and the need for regulatory measures

Market power refers to the ability of a firm to maintain prices above, or quality below, a competitive level. It can make the difference between procompetitive and abusive firm conduct, and the difference between beneficial and harmful mergers (OECD, 2022). Closely related to this concept, is market dominance, which describes a firm's ability and position to control an economic market. A dominant firm possesses the power to affect competition and influence market price (Rao, 2020). While market power, as well as dominance itself are not necessarily abusive, regulations strive to prevent firms from achieving dominant market power, to ensure fair competition. As digitization has increased, the risk of market power abuse has grown, particularly in industries where digital technology plays a significant role (OECD, 2022). It is difficult to evaluate market strength in digital markets as regulators must consider network

effects, multisidedness and data availability as potential sources of market dominance (Graef, 2015). Furthermore, the existence of zero-priced services creates a need for non-price criteria. Factors including the ones mentioned, have led to arguments on whether notions of market power should be modified for the digital era, through novel terminology like gatekeepers and intermediation power, as discussed in the literature review.

Assessing market power and dominance in digital markets involves a consideration of various factors that extend beyond conventional metrics. Traditional indicatives of power, such as market shares, are limited in the digital realm. Competition authorities have grappled with conceptual questions, including the impact of zero price products, the influence of ecosystems in market power, the efficacy of competition-for-the-market dynamics and the temporary nature of market power in the face of innovative competition (OECD, 2022). Terms like gatekeeper, strategic market status, and paramount significance are highlighted in new OECD regulatory initiatives, reflecting efforts to codify concerns about market power and anticompetitive conduct. Acknowledging the challenges in evolving frameworks addresses the need for coordination amid growing divergences across jurisdictions (OECD, 2022). Despite the evolving landscape, market power and dominance remain reliable principles for guiding digital competition policy development and cooperation.

4.4 Antitrust issues faced by Google

Google has been accused of abusing its dominant market position. The tech giant processes around 80% of all US online searches and 94% of all mobile search queries, underpinning Google's immense dominance (Elias, 2020). Furthermore, the company created the Android operating system, the most popular mobile software in the world to be ever present in the mobile advertising market. Android powers almost nine out of every 10 smartphones shipped globally, another testimony to Google's dominance (Elias, 2020). Google's Advertising Stack, which

generates most of its annual sales of \$160 billion is under scrutiny as Google owns every step in the process that connects sellers and buyers of advertising, which competitors believe gives Google an unfair market advantage (Nieva, 2020). Google's presence across all stages of the advertising value chain, allows the firm to influence certain levels to benefit on others, making Google's dominance abusive. A dominant market position alone, does not make it abusive.

To ensure a fair and competitive digital advertising landscape, regulatory measures are needed to address anti-competitive behaviour. Recent literature and the ongoing legal cases of the U.S. Department of Justice (DOJ) against Google highlight the urgency for measures to maintain a balanced and ethical digital advertising market. In just a few months, Google has attracted multiple antitrust lawsuits. In October 2020, the DOJ filed a landmark lawsuit alleging that Google unlawfully boxed out competitors by using its monopoly status to reach deals with phone makers, including Apple and Samsung, to be the default search engine on their devices (Nieva, 2020). It's part of a strategy to "lock up" search distribution, the DOJ alleges. The tech giant is accused of favouring its own services over those of more specialized competitors in search results, according to a lawsuit filed in December of that year. The bipartisan complaint further asserts that Google exploited its market dominance to set itself as the default search engine for technologies like connected cars and smart speakers in addition to web browsers and smartphones. (DOJ, 2020). In 2023, the DOJ alleged that Google was actively and illegally maintaining its dominance "by engaging in a campaign to thwart competition" (Fung, 2023). The DOJ and eight states have filed a lawsuit against Google, accusing the tech giant of harming competition in the online advertising market. The complaint alleges that Google illegally maintained its dominance by engaging in anticompetitive practices, such as acquiring rivals and using its proprietary ad technology to pressure publishers and advertisers. According to Harvard Economist Shane Greenstein, the antitrust law evaluates whether a firm is dominant,

followed by determining if the firm abused that dominance, which can be translated into the following two questions: Has a firm achieved a certain level of success that can be characterized as a monopoly? And has the monopoly used its leading position in ways that abused the competitive process?" (Pazzanese, 2023). The lawsuit calls for Google to be broken up and to divest at least some of its advertising assets. Google, in response, argues that the suit undermines innovation and harms small businesses and publishers (Fung, 2023). This lawsuit is the latest in a series of antitrust actions against Google and raises concerns about its immense influence in the digital advertising market. This series of proceedings showcases the importance of regulating large tech companies to prevent anti-competitive behaviour, safeguard consumer interests and ensure transparency in the digital advertising ecosystem (Grewal et al., 2021).

5. EU Regulatory enforcements: The DSA and DMA

5.1 The Digital Services Act and the Digital Markets Act

The DSA, officially known as Regulation (EU) 2022/2065, enacted by the European Parliament and the Council on October 19, 2022, plays a pivotal role in shaping Europe's Digital Future strategy. The regulation addresses the following five main issues related to online platforms: the sale of illicit goods, the fight against hate crimes, disinformation, and child abuse, safeguarding children from targeted advertising and other online hazards, guaranteeing racial and gender diversity in advertising, and outlawing online retailers' use of deceptive tactics known as "dark patterns" (O'Carroll, 2023). The regulation also prohibits the use of sensitive personal data for targeted advertising and aims to protect consumers from manipulative practices employed by online shops. The rules seek to uphold fundamental rights, including freedom of expression and data protection, while addressing various societal risks associated with online platforms (O'Carroll, 2023).

Effective from February 17, 2024, the DSA will be fully applicable to all platforms across all EU member states. However, for companies designated as very large online search engines (VLOSEs) and very large online platforms (VLOPs), platforms reaching more than 10% of 450 million consumers in Europe, DSA obligations apply since August 2023 (European Commission, 2023). VLOPs and VLOSEs are subject to stringent due diligence requirements, including performing regular audits of the systems conducting risk assessments and the corresponding mitigation measures. X was designated as a VLOP under the DSA in April 2023. On October 12th 2023, the EU Commission publicly sought information from X, in response to worries that X is disseminating false information and illegal content (European Commission, 2023). Under the DSA, X has deadlines for providing information, and if they don't, they risk fines (European Commission, 2023). Notably, the DSA provisions extend to entities operating not only within EU states but also encompasses those outside the EU. This is applicable as long as the services offered by these entities cater to recipients who are established or located within the EU (Pajaczek, K. et al., 2023). The DSA maintains the e-Commerce Directive's liability exemptions called "safe harbours", under which providers are not liable for content on hosted their service so long as they are unaware that it is illicit, or they promptly remove or block access to it, once aware (Latham and Wilkins, 2023).

The principal objective of the DSA is to protect consumers by creating a safe digital environment and to strengthen the internal EU market. This is achieved by placing certain duties on digital service providers to provide parity between services supplied offline and online, transparency in the provision of advertising content, and consumer freedoms and fundamental rights protected. A wide range of electronically delivered services are covered by the DSA, such as social networks, cloud and hosting services, online marketplaces, content sharing platforms, app stores, travel and lodging platforms, Internet service providers, and domain

registrars. These service providers are divided into different groups, each with different obligations (See Figure 1 and 3). Obligations applicable depending on the group include:

- Updating the administration regarding intermediary liability for content by third parties,
- Tracking down sellers on internet marketplaces, and addressing illicit goods and services;
- Enhancing user rights, such as the ability to contest decisions made by moderators;
- Complying with new limits on targeted advertising;
- Enforcing stricter standards regarding transparency, for the protection of children;
- Designating a single point of contact as direct contact for authorities.

The DMA, Regulation (EU) 2022/1925 adopted by the European Parliament and the Council on September 14, 2022 (see Figure 2) aims to ensure fair competition for all digital businesses, regardless of size. Companies that have been designated as a gatekeeper by the Commission, will need to comply with the full obligations under this act from March 2024. The DMA aims to prevent large online marketplaces, that connect consumers with goods, services and information, from abusing their dominant market position against other businesses, achieved by targeting the designated gatekeepers. Gatekeepers are digital platforms, that offer "core platform services" in accordance with the DMA (Schmalenberger, Nagel, 2022). These services include online search engines, social networking sites, virtual assistants and ad intermediaries. In addition, for a company to be classified as a gatekeeper it must have a market value of at least EUR 75 billion or annual revenue of at least EUR 7.5 billion, that have established a reliable market position, have a significant impact in the domestic market and their principal platform service is utilised by a minimum of 10,000 commercial clients annually and 45 million end users monthly (Art. 3(2)(a) and 3(2)(b) of the DMA). The European Commission believes that tightly regulating big technology companies (the "gatekeepers of the digital economy") will lead to increased competition, choice, innovation, growth, quality and

lower costs. Gatekeepers designated on September 6th 2023 include Apple (iOS, App Store), Amazon, Meta (Facebook, Instagram, WhatsApp), Microsoft (LinkedIn, Windows PC OS), Alphabet (Google, YouTube, Android) and Bytedance (TikTok). More recently, Meta submitted an appeal against its designation, which the EU Commission found to be insufficiently substantiated under Article 3(2) of the DMA (C/2023/1092, 2023). Key platform service providers must notify the European Commission as soon as they surpass the thresholds, or they risk facing penalties under Art. 3(3) of the DMA. The Commission subsequently decides whether the provider is a gatekeeper (Schmalenberger, Nagel, 2022). In rare circumstances, the Commission may rule that a company is not a gatekeeper, but still demand that they comply with the same requirements Art. 3 (4). Obligations, often referred to as "do's," for gatekeepers include (Schmalenberger, Nagel, 2022; Usercentrics, 2023):

- Allowing third parties to operate with the gatekeeper's services in specific situations;
- Granting users access to data they generate while using the gatekeeper's platform;
- Providing advertising companies on the platform with the necessary tools and information for independent verification of their advertisements;
- Permitting business users to promote their offers and finalize contracts with customers outside the gatekeeper's platform Art.(5, 6, 7).

Conversely, prohibitions, termed as "don'ts," for gatekeepers involve:

- Preferential treatment of services or products offered by the gatekeeper over similar offerings from third parties on the platform (Article 6(6));
- Consumers connecting to businesses outside of the gatekeeper's (Article 6(4)(6));
- Users uninstalling any pre-installed software or app if they choose (Article 6(3));
- Tracking of end users outside the gatekeepers' core platform service for targeted advertising without obtaining effective consent (Articles 5(2) and 6(2));

- Restricting their ability to aggregate end-user personal data without express consent (Article 6(9));
- Requiring end users to register in order to use their proprietary platform services (Article 6(7)).

The DMA and DSA are poised to reshape the digital landscape, set new standards for digital platforms, and establish a regulatory framework that strikes a balance between fostering innovation and ensuring responsible and accountable digital services.

5.2 Compliance under the new regulations

Breaches of the DSA may result in fines equivalent to 6% of the annual worldwide turnover of the provider of intermediary services concerned in the preceding financial year. Up to a maximum of 1% of the annual income of the preceding financial year will be charged when failing to reply or rectify incorrect, incomplete, or misleading information, as per Art. 52(3). Businesses that don't comply with the DSA risk having their access to core platform services, which are essential for sales, customer interaction and ad revenue, restricted or removed entirely. There is also a risk of reputational harm, as breaching the DSA can undermine customer confidence, leading to decreased conversion rates, higher customer attrition and loss of revenue (Schmid, Koehler, 2022). Businesses that collect and process users' personal data, including advertisers inside the EU and/or EEA must first have the users' informed and lawful consent, requiring clear and affirmative actions, such as ticking a box or clicking a button, under Recital (68) of the DSA (Usercentrics, 2023). Obtaining legal consent is not only enforced by the DSA requirements, but also by the General Data Protection Regulation (GDPR), creating entry barriers for certain firms (Usercentrics, 2023). Furthermore, users must be given comprehensive information about the data being collected, the specific purposes for such data collection and their right to withdraw consent. The notice-and-action procedure, which is part of the DSA under Art. 22, must include procedures for working with "trusted flaggers," who

regularly report illegal content (Engels, 2022). Additionally, the DSA aims to advance transparency in the advertising sector, for instance by making intermediary services provide user specific information about the algorithms that decide the content offered to users (Latham and Watkins, 2023).

According to Article 30 of the DMA, non-compliance of any of the obligations of Articles 5, 6 and 7, as well as other compliance requirements, may lead to gatekeepers being fined a maximum of 10% of their total worldwide turnover in the preceding financial year. If a gatekeeper is found to have committed a similar infringement of an obligation laid down in Article 5, 6, or 7, as it was found to have committed in the 8 preceding years the Commission may impose a fine of up to 20% of its total worldwide turnover of the preceding financial year, as per Article (30)(2.). Beyond financial penalties, breaching any of the DMA's requirements may pose other consequences including harm of reputation and loss of revenue. In order to ensure effective compliance with the DMA's obligations, gatekeepers are required to provide their annual compliance reports to the Commission, as per Art. 11 (Carugati, 2023). Renowned law firm Bruegel summarized the DMA's compliance obligations in five categories: Access, Fair conditions, Information, Choice and Flexibility (Carugati, 2023). Access aims to enable third parties to access the inputs of the gatekeepers, as well as products and services. The Fair conditions category aims to correct the imbalance of power between the user and the gatekeeper. The Information category ensures that users are informed about how to exercise their DMA rights. Moreover, Choice promotes competition, by tackling users' difficulty of expressing their choice preferences. Lastly, flexibility aims to ensure that users are able to change and ease multi-homing when users choose to use different services for the same purpose (Carugati, 2023). To comply with the DMA, gatekeepers will have to adhere to the specific obligations under these five categories.

6. Implications on digital advertising

6.1 The Digital Services and Markets Acts impact on digital advertising

The DSA defines advertisement as information intended to further the message of a natural or legal entity that is displayed by an online platform on its web interface in exchange for payment for promoting said information, whether for non-commercial or commercial uses, as per Article 3(r). (Pajaczek, K. et al., 2023). The DSA and DMA will affect all online advertising operators. This wide effect is due to the fact that forbidden or restricted behaviours for online platform advertising set the limits for ads, which in turn affects platform providers as well as advertisers (Pajaczek, K. et al., 2023). The success of digital advertising depends on the capacity to match adverts to the interests and the likelihood of purchase based on information gathered, a process called profiling, as mentioned in Recital 68 of the DMA. Hence, digital advertising will be impacted immensely by the implementation of both regulations.

The DSA forbids the use of certain kinds of sensitive personal data as defined by the GDPR Recital 51, such as racial or ethnic origin, political ideas, religious beliefs, trade union membership, genetic and biometric data, or health data, in the presentation of profiling-based advertising on online platforms. The DSA also includes restrictions on the display of advertisements based on profiling and the use of a minor's personal information. Platforms that are available to minors need to have safeguards in place to provide protection, security, and privacy. These provisions will limit the data that can be used for digital advertising, requiring marketers to re-strategize. In addition, to improve transparency, the DSA mandates that every advertisement must include real-time disclosure of information of it (Pajaczek, K. et al., 2023). This information must include unambiguous indications that the advertisement is an advertisement, identification of the entity presenting the advertisement on their behalf, disclosure of the advertiser's payer, if applicable, and pertinent details about the parameters

used to determine the advertisement's recipients. Although these transparency requirements increase user knowledge of targeted advertising, they place a significant strain on platforms. Platforms are required to reveal the parameters that lead to particular profiling and explain the process behind the display of each advertisement (Pajaczek, K. et al., 2023). The main objective of the DSA is to guarantee that users are fully aware that they are being targeted, which might have a major impact on the internet advertising industry. Advertisers are likely to face some responsibility for compliance. Beyond requirements mentioned above and in order to protect themselves, advertisers may also conduct due diligence on the online platforms they intend to contract with, in order to ascertain whether they are complying with the DSA.

Due to restrictions on data sharing, the DMA may encourage marketers to investigate other strategies in the realm of digital advertising. It is likely that contextual advertising, which uses less personal data, will become more frequently used. This change can force a review of performance indicators and an investment in compliant tactics such as email marketing or partner content (Cookiebot, 2023). The implementation of the DMA emphasizes the importance of laws protecting internet advertising's fairness and openness. The health of the sector depends on maintaining user trust and providing a variety of advertising possibilities. It is important to strike a balance between competition and privacy. Excessive rules impede innovation and restrict advertiser options, while too lax regulations jeopardize user trust. In order to promote trust and fair competition, the DMA enforces data handling standards in an effort to strike this balance (Cookiebot, 2023). Instead of unduly restricting gatekeepers, its goal is to ensure operations benefit all stakeholders—users, advertisers, and platforms alike. Under the DMA, digital advertising will face increased competition as well as increased reach and effectiveness of digital advertising across different online services, due to anti-competitive and interoperability measures. Increased transparency and prohibition of unfair practices will benefit advertisers. Advertisers might consider collaborating closely with online platforms

providers to navigate the evolving regulatory landscape, thus ensuring transparency and a compliant advertising ecosystem, which is also true for the DSA.

6.2 How will Google's Advertising Stack operate under the new regulations?

A focus on consent and transparency is key to long term and sustainable success in the ever-changing advertising industry, hence Google will have to make a number of changes to their products and services to comply with the DMA and DSA. Looking at Google considering SWOT analysis principles (See Figure 4), it becomes evident how reliant the business is on the Advertising Stack, which makes up 80% of the firm's profit according to CNBC (Graham, 2021). This overdependence explains Google's attempts to ease the regulations it will have to adhere to (Amadeo, 2021). Practices like influencing ad exchange bids to favour oneself, will become too obvious under the new transparency requirements. The tech giant will be required to have a valid user consent identification on all of its measurement technologies. One of the core rules of the DMA, makes explicit consent essential for gatekeepers like Google to track their users for the purpose of targeted advertising. In accordance, Google will have to make major changes to the way in which it enables marketers to collect consent. Any data collected without valid consent identifiers is subject to enforcement, which may lead to data deletion, account disabling and or functionality restrictions. Users of the Advertising Stack should, therefore, have a robust consent management platform, have fully migrated from Universal Analytics to Google Analytics 4 as well as to the latest APIs/ SDKs (Barnes, 2023). Furthermore, Google has implied, that any customers who don't have an implementation of Consent Mode by March 6th 2024, will have their bidding and remarketing halted. In light of DSA measures, Google will have to disclose details about how their algorithms operate in context of advertising targeting. Furthermore, Google might have to conduct regard assessment to identify potential risks and harms to users and society, through the Advertising Stack.

As the full implementation dates of both the DSA and the DMA is nearing, companies in the business of digital advertising are forming strategic approaches to keep up with the evolving legislation and ensure they thrive within the privacy-first landscape. In June 2023, the EU Commission has sent a statement of objections to Google regarding abusive practices in online advertising (European Commission, 2023). In response to the statement, as well as the latest antitrust proceedings, Google is expanding its Ads Transparency Centre to provide additional information on targeted ads served in the EU (Richardson, et al. 2023). The Vice President of Trust and Safety at Google's said: "We will be expanding the Ads Transparency Center, a global searchable repository of advertisers across all our platforms, to meet specific provisions..."(Agius, 2023; Richardson, et al. 2023). This tool enables people to easily access Google reporting, Transparency Reports, Google appeals tools and policy development process information. Furthermore, Google is increasing the data available to marketers to allow more insight into how Google Search, YouTube, Google Maps, Google Play and Shopping operate. Google is also bound to expand the scope of its transparency reports, including information about the handling of content moderation. Google will file reports of its findings regarding its risk analyses of illegal content on its platforms to regulators in the EU, after which a public summary will be published (Richardson, et al. 2023). Furthermore, Google is considering restructuring so that parts of their AdTech business is owned by Alphabet, one of Googles firms. It's crucial to note that precise reactions will become apparent as the legislative process progresses, as it is difficult to anticipate Google's strategy. Google's response, in order to comply with the new regulatory framework and continue to conduct business in the EU however, will probably consist of a mix of technical modifications, policy changes, and legal compliance measures that will be made public in the near future.

6.3 Future outlook and the impact of artificial intelligence in digital advertising

Advertisers have been using artificial intelligence (AI) in the background for many years.

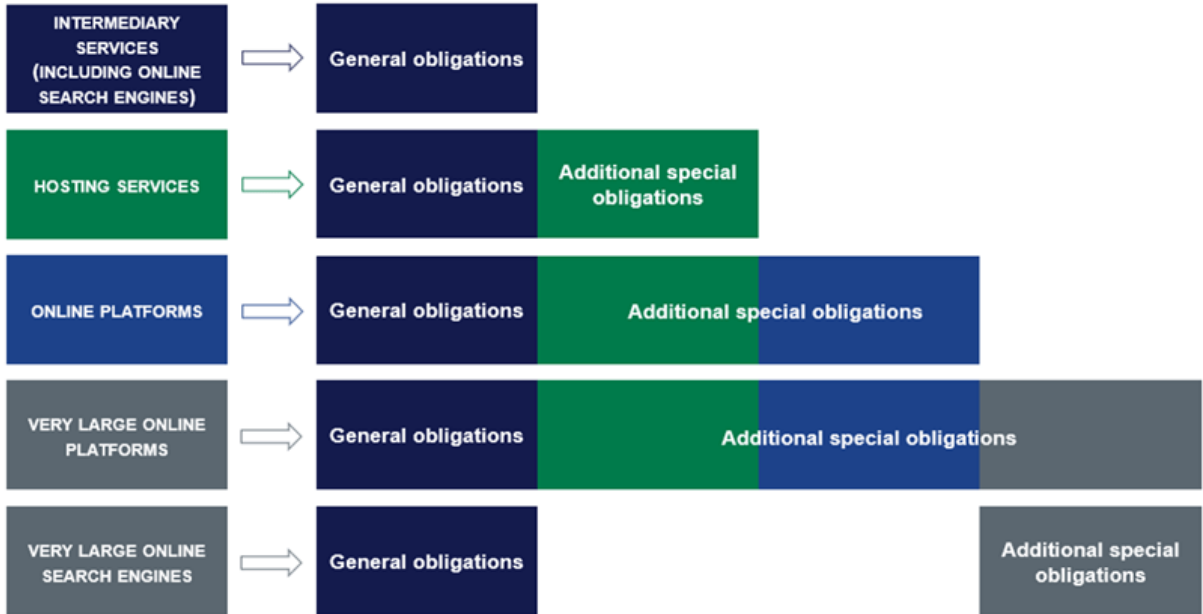
Today, AI is becoming mainstream one ChatGTP request at a time. Beyond allowing advertisers to create highly powerful ads, target niche groups and show contextual advertising based on behavioural targeting, AI will allow marketers to create custom content in real time, maximising the attention of the audience (Autoridade de Concorrência, 2023). Meanwhile, deep learning and neural networks can be used to link engagement to outcomes. Unique insights, will allow marketers to optimize their campaigns to the highest efficiency (Liddicoat, 2023). Following a number of AI-developments regarding Google's search engine, Drive and Gmail, Google announced the introduction of AI tools for the advertising stack in early 2023. The tools are intended to be used in collaboration with Performance Max, an Advertising Stack service that algorithmically recommends ad placement (Konstantinovic, 2023). However, compliance with regulations must be observed, when looking to refer to AI to reduce costs for creative work, while increasing ad efficiency. The EU Parliament and Council negotiators reached a provisional agreement for the AI Act on December 11th 2023. The AI Act will include a risk-based tiered system that will apply the highest level of regulation to machines that represent the greatest risk to human rights, health, and safety (Valero de Uriquia, 2023). This would provide safeguards against the use of AI within the EU. The risk is anticipated to be measured by the number of floating-point operations per second (flops), or computer transactions required to teach an AI. The agreed text of the provisional agreement will have to be formally adopted by the Parliament and Council in order to become EU law. The EU AI Act is expected to come into law in 2025 (Valero de Uriquia, 2023). Firms established in the field of AI, or firms that have great computing capabilities, might have first mover advantage in regard to the AI development in the digital advertising market (Autoridade de Concorrência, 2023). For Google to keep up, a clear strategy is required, in line with components of a PESTEL analysis, to manage the benefits and risks attached to the wholesale adoption of AI.

7. Conclusion

In conclusion, both the DMA and DSA will transform the world of digital advertising at an unprecedented scale. Big players like the Google Advertising Stack will have to strategically adjust their business model to comply with the transformative regulations. As of February 17th, 2024, the DSA will ensure user safety, preventing harmful and illegal online activities on all digital platforms, following the application to designated platforms with more than 45 million users. As one of the first regulations to regulate gatekeeper power, the DMA will enhance competition conditions, complementing the EU competition rules starting with the full application of obligations in March 2024. As part of the EU Commission's journey towards developing a rulebook for online platforms, these two ground-breaking regulations play their part in creating "a safer and more open digital space, grounded in respect for fundamental rights" (Valero de Urquia, 2023). Google will be required to obtain explicit consent from users under the DMA, prior to using their data for advertising purposes. Furthermore, users will have to be provided with more control over their data. The Advertising Stack will be required to become more interoperable with third party platforms, while ensuring that illegal content can be removed swiftly and efficiently, as well as providing reports on complaints, disputes, suspensions, and monthly active users, as per the DSA. The digital advertising market will continue to evolve at a rapid pace, keeping EU lawmakers on their feet. As competition and innovation is expected to increase under the new regulations, the imminent widespread use of AI will add to the already structurally attractive market of digital advertising. In summation, the implementation of the DSA and DMA will significantly alter the regulatory landscape, prompting a paradigm shift in the Google Advertising Stack, necessitating adaptation, compliance measures, and potential alterations to stay on top of the competitive industry.

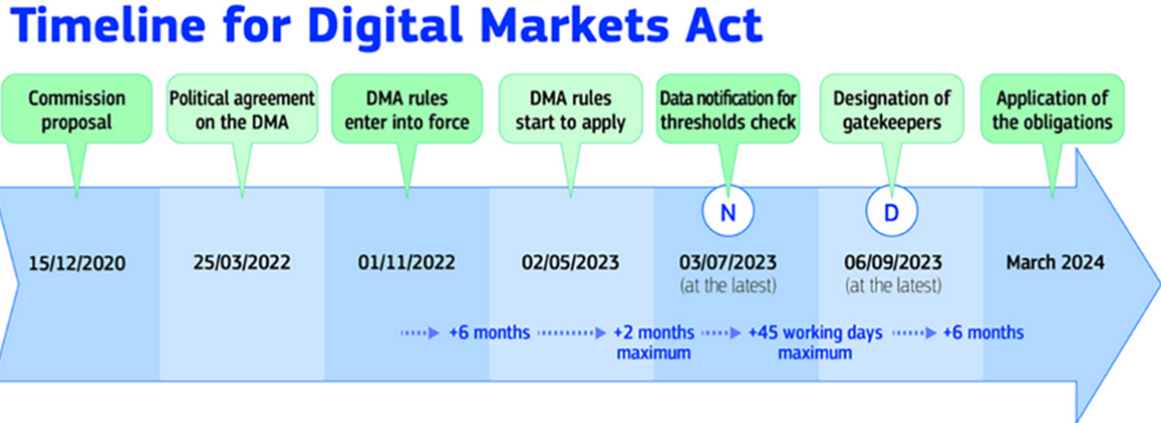
8. Appendix

Figure 1



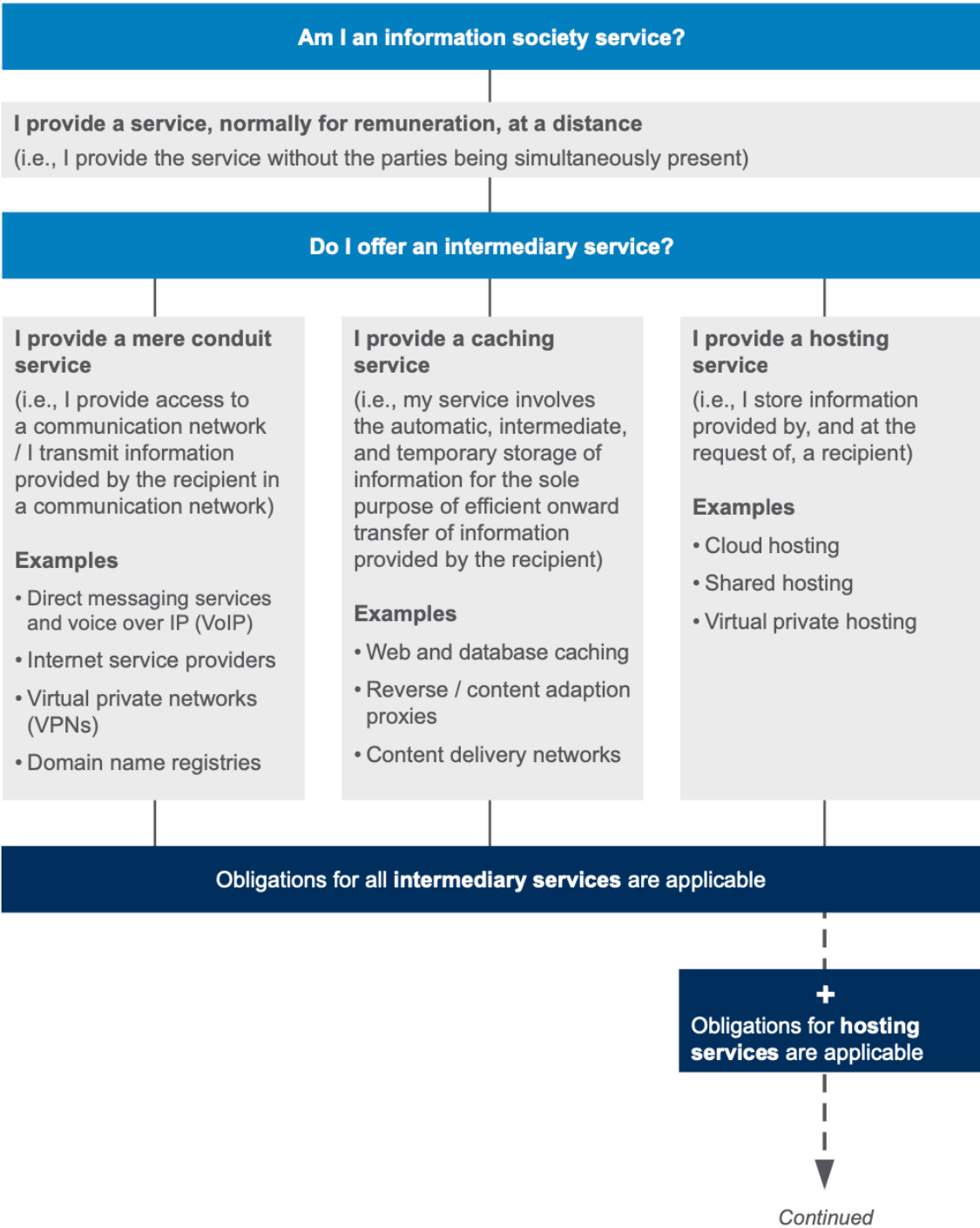
Digital Services Act Framework (Schmid. and Koehler, 2022.)

Figure 2

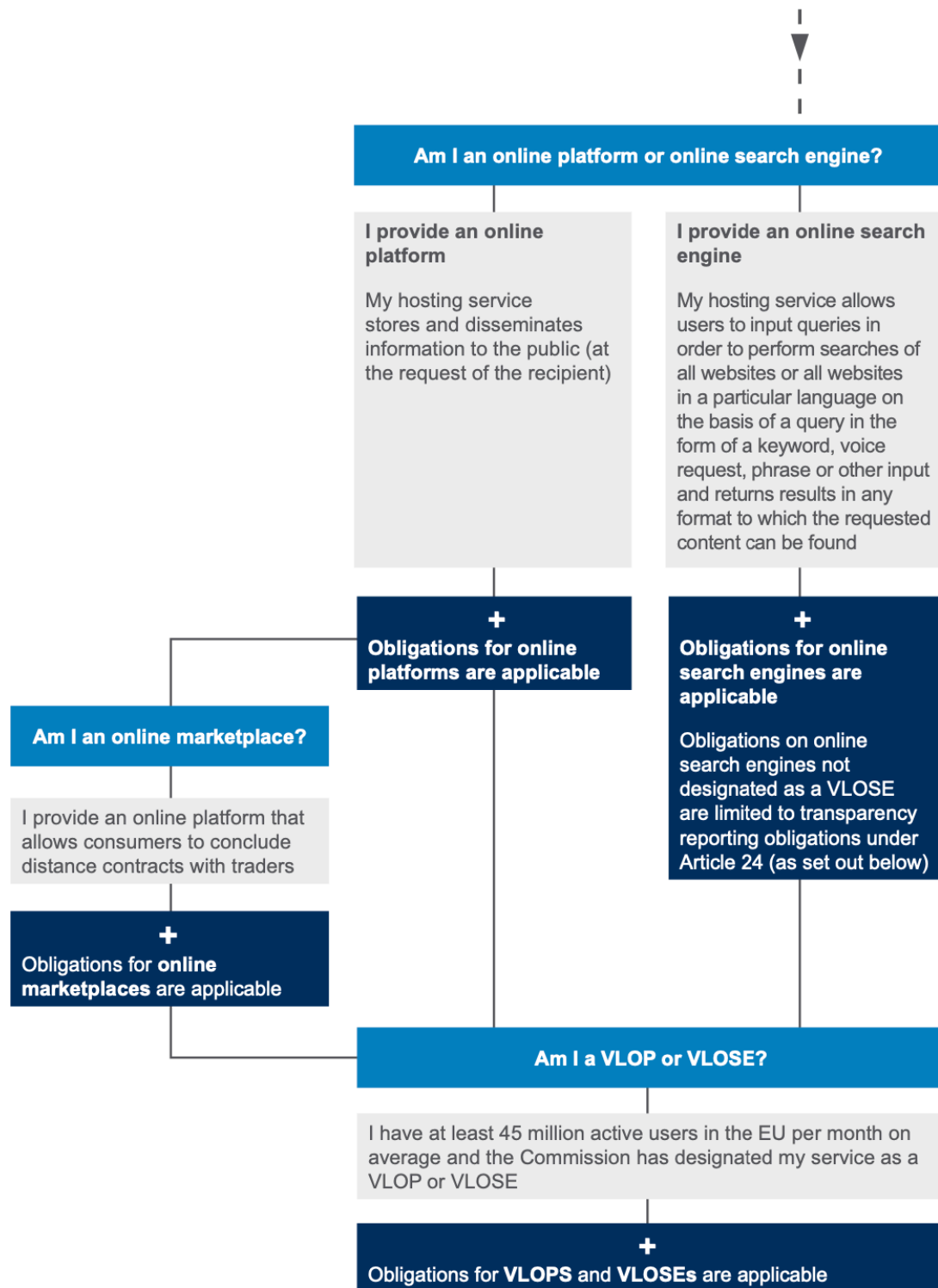


Digital Markets Act Implementation Timeline (European Commission, 2023)

Figure 3



Continued



Digital Services Act Applicability (Latham and Wilkins, 2023).

Figure 4



SWOT Analysis of Google (Pereira, 2023).

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