



# White Paper

## Draft Digital Competition Bill: A critical assessment

AUGUST, 2024



# 1. Background

- 1.1 The draft Digital Competition Bill (DCB) by the Committee on Digital Competition law (CDCL) has argued for a *de novo* ex-ante regulation for digital markets. The proposed bill carves out an exception for the digital sector (in the form of 9 Core Digital Services (CDC) it identifies) on the premise that digital markets are distinct from traditional markets due to certain peculiarities such as multi-sidedness, cross and same network effects, zero price services, access to vast consumer data, etc., in the digital markets. This tends to “tip” markets swiftly in favour of one company leading to severe market concentration. The net result is that leading players in a digital ecosystem are *more* prone to resort to practices which foreclose competition, reduce market contestability, and raise barriers for new entrants. To counter the swiftness with which these come about (thereby leaving no time for regulators to stop developing monopolies) the committee has suggested a preventive mechanism to supplement the existing corrective mechanisms that the competition regulating authority already has. Their main contention is that the corrective mechanism is *too little too late* for digital markets.
- 1.2 The CDCL opted to adopt an ex-ante regulatory framework for an ‘inclusive and pre-identified list of Core Digital Services’ that it deemed ‘*susceptible to concentration an anti-competitive behaviour*’. The list is presented as a Schedule to the draft DCB to ‘accord flexibility to the Central Government to add new digital services from time to time’ in case such a need arises. This identification follows the European Commission’s approach, and is contrary to the practices of UK, Japan or Germany that refrains from pre-identifying specific markets/services. This framework is expected to provide a ‘*balance between certainty and flexibility*’ to deal more effectively with the arising anti-competitive practices in the digital sector. The presently identified Core Digital Services (as per Schedule I of the draft DCB) are (a) online search engines; (b) online social networking services; (c) video-sharing platform services; (d) interpersonal communications services; (e) operating systems; (f) web browsers; (g) cloud services; (h) advertising services; and (i) online intermediation services.

- 1.3 Furthermore, the CDCL opted for thresholds to ‘catch’ those entities that have the power to influence these digital markets as dominant entities. For this purpose, it suggested a mix of ‘quantitative parameters’ (capturing ‘significance financial strength’ and ‘significant spread’ in terms of annual turnovers or user base) along with ‘qualitative parameters’ (such as resources of the enterprise, volumes of data aggregated, direct and indirect network effects at play, and the entity’s bargaining position vis-à-vis its business users and consumers) to identify (and regulate) Systemically Significant Digital Enterprises (SSDEs) who risk distorting the markets in the identified ‘Core Digital Services’.

## 2. Fundamental Characteristics of Digital Services

- 2.1 Digital services often operate as platforms, enabling discovery and matchmaking for two or more different types of users. Such platforms leverage network effects, whereby the growth of one side of the userbase helps grow the other. However, platforms (or multisided platforms) are not unique to the digital sector. Such platforms operate both online and offline in different sectors. While non-digital platforms are often limited by the boundary of physical spaces or cost of scaling (which in turn sets an optimal size for such platforms), there are no such limitations for digital platforms. In fact, scaling often improves the service quality (as many of these algorithms improve with more and more data), which creates a virtuous cycle of scaling for these platforms. Once setup, the digital platform can expand volume of business at almost zero marginal cost. This is what results in many digital platforms becoming very big and even monopolies.
- 2.2 However, treating digital services as different markets would be erroneous, especially given many of these services are just digitalisation of other markets. For instance, e-commerce is digital services for the retail and wholesale sector; video streaming services are digital dissemination of content otherwise done via television channels, and so forth. These services have emerged (and gained popularity) given the efficiencies digital services bring to each of these sectors. Users continue to use digital and non-digital services in each of these sectors as per their convenience. Digital services often form a sub-category of service providers in these sectors and a monopolist in the digital category is not necessarily a monopolist in the entire sector.

- 2.3 Some of the services identified as Core Digital Service (CDS) do not have a non-digital counterpart and are unique to the digital ecosystem (e.g. Operating Systems, Search engines, etc). Such digital services are ‘asset light businesses’ that leverage the physical infrastructure of telecom services (or digital device manufacturers) to provide their services. The fact that these businesses do not require significant capital costs in building their own physical networks mean that they do not face ruinous competition with incumbents who have made significant sunk-cost investments. The factors that help digital platforms scale up faster (as discussed in Section 2.1) also means that there is scope of high competition in these sectors as competitors too can scale up faster. Thus, digital sector has higher propensity of dynamic competition than non-digital sectors. There are several such instances in the history of the digital sector where a new service provider has upstaged an incumbent, across several service categories (e.g. emerging Facebook upstaging Orkut from then tech-giant Google, both Facebook and Yahoo messengers being upstaged by Whatsapp, pioneer Hotmail and market leader Yahoo Mail losing out to Gmail, and so forth).
- 2.4 Technological changes and ‘disruptive innovation’ are critical aspect of digital services. Irrespective of whether a digital service is operating in a mixed market (having both digital and non-digital service providers) or purely digital markets, new technology (or innovation) can often render certain service categories obsolete. For instance, online listing (a digital version of classified advertising such as Craigslist) was an immensely popular digital service category in the early days of internet. However, technological innovations that allowed digital transactions in the form of e-commerce has now rendered basic listing services as redundant. Traditional Web Hosting services (such as Virtual Private Servers or VPS) are making way for cloud hosting services. Thus, even if a digital service category is monopolized, the same can be upstaged not only by emerging competitors in the same service category, but by new types of service categories. Any regulatory framework that seeks to straightjacket the digital sector in terms of identified services of the present day is myopic and fails to do justice to the dynamic nature of digital services.

2.5 The CDCL report states “*It is noteworthy that the Competition Act does not seek to prohibit the dominance of an enterprise per se but rather the abuse of such dominance by an enterprise*”. Thus, scale cannot be the only criterion for any competition regulation; a measure of ‘abuse of dominance’ must be the central tenet for any regulatory framework for digital platforms. Hence, the fact that platforms tend to evolve as natural monopolies has to be tempered by how contestable these markets are, especially in the context of the abovementioned fundamental characteristics of digital services.

### 3. Qualifying abuse of dominance

3.1 Competition regulation essentially focusses on market power of an entity and whether the entity is leveraging such market power (or abusing its dominance) to distort the market. Distortion of market can be of various forms such as creating barriers to entry for other businesses or creating artificial barriers for users to switch. Competition regulations focus on two critical aspects in determining dominance:

- a) Identifying the relevant market
- b) Position of strength of an entity to influence market outcomes, depending on their extent of dominance

The extent of dominance of any entity in its relevant market is limited by:

- i. Strong complementarity between different entities operating in the relevant market (both offline and online)
- ii. Option of multihoming and low switching cost for users between such complementary platforms

3.2 *This paper seeks to assess the nine Core Digital Services identified by the CDCL to ascertain whether the concerns of abuse of dominance is indeed so critical so as to warrant a bespoke ex-ante regulation for them.*

*The assessment is done by identifying the relevant market the services operate in and the complementarities (multihoming) that may exist in such markets. The study further tries to assess the ease by which users can shift from one platform to another (switching cost) even if complementarities do exist. These factors are then taken into consideration to make a qualitative judgment on the degree of dominance such platforms can have over the business-users on these platforms.*

## 4. Core Digital Sector analysis

### 4.1 Online intermediation services

4.1.1 Online intermediation services are digital means of intermediation in various sectors. For instance, e-commerce is digital intermediation in the retail and wholesale sector, while online mobility aggregation services are digital platforms servicing the public transport sector. Online intermediary services are therefore not a different market or sector by itself. In terms of relevant markets, each online intermediation platform forms part of the specific market they are operating in. This is a critical consideration; as e-commerce is recognised to be only around 8% of total retail sector in India.<sup>1</sup> Furthermore, there are multiple online intermediation platforms operating in many of these sectors. For instance, e-tail (e-commerce in retail sector) has a plethora of platforms; with some operating as horizontal platforms (offering multiple categories of products such as Amazon and Flipkart) while others operate as vertical platforms (offering certain category of products such as Myntra in fashion). Today, it is well recognised that both consumers and marketeers adopt omnichannel strategies for shopping, treating online and offline channels of sales and marketing as perfect complements.<sup>2</sup>

4.1.2 Thus, there exists strong complementarities, not only between online platforms (say between a Flipkart and Amazon or between Uber and Ola) but also between online and offline service providers (Amazon and a shopping mall, ordering food via Zomato or ordering home delivery directly from the restaurant). This in turn means that both end-users and business-users can easily diversify with no switching cost. An end-user can opt to order food via Zomato, Swiggy, directly order home-delivery from a restaurant or even choose to dine-in at the restaurant. The same restaurant can be listed on Swiggy and Zomato and also offer home-delivery with physical dine-in facility.

4.1.3 Intermediary platforms can charge commission from users of both sides of the platform (to the maximum feasible extent). However, given the strong competition and ease of switching, most platforms follow at best a Freemium model (free services to certain extent, payment for more 'premium' services) of pricing for its end-users, while they charge commission from the business-users.

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<sup>1</sup> <https://economictimes.indiatimes.com/industry/services/retail/share-of-e-commerce-in-total-retail-market-to-reach-13-15-by-2028-report/articleshow/108064254.cms?from=mdr>

<sup>2</sup> <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-omnichannel-marketing>

4.1.4 In such a scenario, a digital platform does not have a captive user base on either side of the platform. Furthermore, the extent of transaction facilitation (or intermediation) done by any of these platforms are often a minor proportion of the total transactions taking place in these sectors. This, in turn, means that such platforms have very little dominance over their business-users. Existing competition (both between digital platforms and between digital and non-digital channels) are sufficient checks against market abuse by any digital platform in these sectors.

4.1.5 The concerns of ‘tipping’ or digital markets foreclosing competition (the critical arguments for an ex-ante regulation) in digital intermediation services are suitably mitigated by the above-mentioned factors. Therefore, an ex-ante regulation is not warranted for this service category.

## **4.2 Interpersonal communication services**

4.2.1 Digital inter-personal (or P2P) communication services are essentially the digital version of existing telecommunication services. While mobile telephony and short messaging services (SMS) introduced instant messaging and communication between individuals, digital platforms have enabled multimedia communication services. Digital interpersonal communications gained special importance recently in the pandemic period. The global practice of social distancing and *work from home* (WFH) led to greater adoption of such services. However, it also meant that multiple such services are available today for end-users.

4.2.2 In India, over 90% of internet users access internet via the mobile phone.<sup>3</sup> This means that for majority users, there exists perfect complementarity between mobile telephony and digital interpersonal communication services on the one device of choice. Furthermore, there exists multiple digital interpersonal communication platforms for messaging (Whatsapp, Telegram, Snapchat. etc) or video call (Zoom, Skype, Teams, Webex, etc) which end-users can avail in parallel. This suggests there is no switching cost for end-users who can easily diversify between platforms.

4.2.3 In most of these platforms, the business-user pays a subscription to reach end-users. Most of these platforms cannot afford to charge the end-users (as end-users would stop using these services) while some follow a Freemium model for end-users

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<sup>3</sup>[https://uat.indiadigitalsummit.in/sites/default/files/thought-leadership/pdf/Kantar\\_iamai\\_Report\\_20\\_Page\\_V3\\_FINAL\\_web\\_0.pdf](https://uat.indiadigitalsummit.in/sites/default/files/thought-leadership/pdf/Kantar_iamai_Report_20_Page_V3_FINAL_web_0.pdf)

(for instance Zoom or Webex subscriptions). This is in sharp contrast to the telecommunication services where both business-user and end-user has to pay a subscription plus pro rata charges for access to such services. This is because there is greater scope of multihoming between digital interpersonal communication services than between telecommunication platforms.

- 4.2.4 The digital interpersonal communication service platforms have very little captive user base on either side of the platform and therefore have very little dominance over their business-users. In the relevant market of interpersonal communication services (including both digital and telecommunication services), the CDCL proposes to introduce an ex-ante competition regulation for the service category which has lower scope for captive audience and higher scope for multihoming.
- 4.2.5 The ease of multihoming and the practice of end-users using multiple platforms simultaneously mean that the concern of ‘tipping’ is misplaced for this service category. Strong complementarities with non-digital services also limits the scope of dominance of any digital platform in this relevant market. Therefore, this service category does not require an ex-ante competition regulation.

### **4.3 ‘Video-sharing platform services’**

- 4.3.1 Video-sharing platforms are essentially digital platforms that allow audio visual contents to be shared digitally over the internet. Depending on the type of video content, they are complementary to television channels, movie theatres, video libraries or other similar offline modes of video consumption. Most platforms today follow a Freemium model. Under such models, free end-users can access content with advertisement interludes, while subscription allows them ad-free content. Some platforms may opt to keep some content behind the paywall to encourage subscription. Transactional or ‘rent’ model is also a fast-emerging commercial practice where even subscribers pay extra for specific content for early or exclusive access. In terms of business users, there can be (a) content developers who ‘sell’ content to platforms for curation; (b) advertisers who pay platform for access to end-user audience.
- 4.3.2 Conventional video services like television channels provide ‘push content’ where the channel *broadcasts* a certain content at a certain point of time and all users *tuning in* to the channel has to watch that specific content or switch to another channel. For some events (e.g. sporting events) involving *live broadcasting*, users



have to *tune in* at the specific time to consume the content. Digital platforms allow for ‘pull content’ where the user can choose to consume any content at any point of time at their discretion. Thus, multiple users *logging in* to a platform at the same time can opt to consume different contents as per their choice. Digital platforms allow users to *pause* and resume their watching as per their convenience. For *live events* users can either watch it at the time of occurrence or watch the recording of the entire event (or its highlights) at any time of their convenience. This is why such platforms are often referred to as *Video on Demand* (VOD) services, where users can consume any content they *demand* at any point of time. This flexibility (of content and time) makes such digital services so popular amongst the users.

4.3.3 The popularity of VOD services has given rise to several competing platforms. It is estimated that there are over 50 VOD platforms operating in India.<sup>4</sup> Most of the conventional media and broadcasting business entities operate their own VOD platforms along with their television channels (e.g. Hotstar, Zee5, Sony Liv, Sun NXT). Many production companies have also established their own digital platforms (Alt Balaji, Eros Now, Lionsgate Play). Thus, business-users leverage digital platforms as complementary to their non-digital channels of business.

4.3.4 Multihoming is possible for all these platforms and end-users can avail multiple platforms in parallel. Therefore, nothing stops the end-user from subscribing to multiple platforms in parallel, other than their price of subscription. In many cases, users can consume the same content via digital or non-digital platforms as per their choice (e.g. IPL’24 witnessed strong user base for both the television broadcast and digital streaming).<sup>5</sup> The strong competition in the sector presently means that most platforms follow Freemium model with minimal charges on users. It is argued that strong platform competition may lead to all platforms adopting transactional payment (user charge for each specific content they consume), similar to the pay-per-view model for cable channels.<sup>6</sup>

4.3.5 The ease of diversifying for end-users coupled with strong complementarities for business-users mean that platforms have very little captive user-base on either side. This in turn means that such platforms have little scope of dominance over

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<sup>4</sup>[https://www.seamedu.com/blog/the-future-of-regional-otts-in-digital-era-in-india#:~:text=India%20has%20over%2060%20OTT,2025%20\(FICCI%2C%202021\).](https://www.seamedu.com/blog/the-future-of-regional-otts-in-digital-era-in-india#:~:text=India%20has%20over%2060%20OTT,2025%20(FICCI%2C%202021).)

<sup>5</sup> <https://www.hindustantimes.com/cricket/the-evolution-of-ipl-viewership-from-television-to-digital-dominance-101713771117729.html>

<sup>6</sup> <https://www.encyclopedia.com/economics/encyclopedias-almanacs-transcripts-and-maps/pay-view>

business-users. Strong complementarities and the abundance of multiple digital platforms mean that ‘dominant player’ cannot create barriers to market entry. reduce market contestability or by any means ‘tip’ the market in this sector. Therefore, there is no merit for ex-ante competition regulations for such services.

- 4.3.6 Furthermore, like in the case of online intermediation, there can be multiple relevant markets for online video content. Thus, an ex-ante regulation on such platforms would result in different regulation for online and offline entities across multiple markets. The strong competition in this sector along with the strong complementarity means market dynamics can create effective control against any anti-competitive practise by any platform.

#### **4.4 ‘Online Social networking Services’**

- 4.4.1 Social networking is a unique service enabled by digital technologies. While networking platforms have existed earlier (in the form of clubs, associations, etc), digital technologies allow real time and remote interaction along with peer-peer interaction. Social networking platforms are similar to interpersonal communication services to certain extent. However, the main differentiating factor is that such platforms allow more transparent showcasing and search/discoverability for users.
- 4.4.2 Social networking is one of the most popular digital services and there exists multiple social networking platforms. Many platforms offer service differentiation; e.g. LinkedIn for professional networking, Tinder for dating, Instagram for images and short video content, etc. This in turn means that end-users use multiple social networking platforms in parallel.
- 4.4.3 Social networking platforms are non-transactional platforms in the sense that business-users and end-users do not engage in any form of direct transactions. In this case, business-users pay platforms for end-user audience. This means that social networking platforms differ from other multisided platforms. While more end-users mean more busines opportunities for business-users (and therefore is a positive network externality), more advertisers are a negative network externality for end-users. Given the option of multi-homing and zero switching cost for end-users, the platforms have to balance the negative externality to ensure end-users do not shift to other platforms.

- 4.4.4 Given that most social networking platforms are essentially advertising platforms, there is an inherent stickiness for business-users who would prefer to stick to the platform that has maximum end-user network. Social networking is presently dominated by the platform Facebook. However, the sector is witnessing a generational change with new generation users opting out of the platform in favour of other platforms.<sup>7</sup> This in turn means that dominance is short-lived under competition in this market.
- 4.4.5 The primary concern of dominance in social networking platforms is combination. Some of the major social networking platforms are owned by a single entity which achieved this dominance by merger and acquisition.<sup>8</sup> Owning multiple platforms allows for the parent entity to cross-leverage its end-user base in its dealing with the business-users. However, combinations (in the form of mergers and acquisitions) in the digital sector remains as ex-post regulation under the existing Competition (Amendment) Act, 2023.
- 4.4.6 The scope of multihoming with zero switching cost and the unique negative indirect externalities across social networking platforms limit the scope of dominance by a platform. There is little scope of tipping in this market given user's behaviour to use different platforms for different purposes (Section 4.4.2). That also suggests that platforms have no means to reduce contestability or restrict new entrants offering differentiated services; the two key arguments for ex-ante competition regulations. The main concern of combination is suitably covered under the present competition act and a separate ex-ante regulation is unwarranted for this service category.

## 4.5 'Advertising Services'

- 4.5.1 Digital advertising is the lifeline for most digital platforms which offer services to end-users at zero cost by recuperating their expenses from advertisers as business-users. Digital advertising platforms are platforms where the clients (like brands) pay the network or agency to publish their adverts across different digital platforms. In that sense, digital advertising is an extension of advertising and marketing services that operate in other forms of media such as print, radio or television. Digital advertising has fast gained popularity given some inherent advantages it offers; it allows for directed (or targeted) outreach, allows for

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<sup>7</sup> <https://www.theguardian.com/commentisfree/2022/feb/06/first-time-history-facebook-decline-has-tech-giant-begun-crumble>

<sup>8</sup> [https://en.wikipedia.org/wiki/List\\_of\\_mergers\\_and\\_acquisitions\\_by\\_Meta\\_Platforms](https://en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Meta_Platforms)

immediate call-to action, and allows greater traceability of its reach and reaction. Most agencies and brands today adopt ‘multi-channel’ advertising strategies (advertising across digital and non-digital media) with outlays for digital advertising being a composite part of the total outlay.<sup>9</sup>

4.5.2 Advertising services are pure B2B services where the business-users (or clients) can easily shift between digital advertising agencies and also between different media. Given the broader relevant market of advertising across all forms of media, and the strong competition in the advertising sector (and even amongst digital advertising services), there is very little dominance any platform can possibly have over their business-users.

4.5.3 Digital advertising is a service that is prevalent across different digital service categories. Therefore, the relevant market is so broad that no dominant platform in any service category can possibly foreclose competition or create barriers to new entries. In such a scenario, ex-ante regulation for digital services makes little sense.

#### **4.6 ‘Cloud Services’**

4.6.1 Cloud Services consist of two distinct relevant markets under consideration: (a) Cloud hosting which is the pooling of web server resources and (b) cloud computing which forms an application layer over the hosting service. While the former is a technological advancement fast replacing old technology based hosting services, the latter has given rise to new service categories such as such as Infrastructure as a Service (IaaS), Platform as a service (PaaS), Software as a service (SaaS) and serverless.<sup>10</sup> Both service categories are essentially B2B services where the end-users are also business-users, often in other relevant markets.

4.6.2 Cloud hosting services have very high switching cost (or very high cost of egress) that creates lock-in for most users on these platforms. There are four major core cloud technology providers (or the basic cloud infrastructure) in the world today. Thus, while the scope of diversification (or switching) is limited in this sector because of technological limitations and high costs involved in this sector, the fact that the market is serviced by 4 providers suggests there is no evidence of market concentration or tipping in this service category. On the other hand, cloud

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<sup>9</sup> <https://blog.beehiiv.com/p/multi-channel-marketing-statistics>

<sup>10</sup> <https://azure.microsoft.com/en-in/resources/cloud-computing-dictionary/what-is-iaas/>

computing is a highly competitive market with approximately 30,000 SaaS companies<sup>11</sup> operating globally today. It is one of the most competitive service categories with numerous Indian SaaS startups fast gaining global prominence.<sup>12</sup> It is a highly competitive service category with newer innovation and cost effective solutions leading to a very dynamic market.

4.6.3 The different innovations under cloud computing offer different degrees of integration of core digital architectural requirements such as data centre and server and storage facilities, Operating systems and applications, development tools, data management tools, business analytics tools, and hosted applications. Vertical integration is an integral part of cloud computing services that ensures the cloud service providers can better optimise their services over the technology stack.<sup>13</sup> Any ex-ante regulation that seeks to blanket-ban certain business practices<sup>14</sup> over concerns of market dominance can seriously undermine not only the service efficiencies but also commercial viability of such services.

4.6.4 Cloud services is a critical technology service for India given the criticality of such services for the growth of the digital sector in India. Any provision of ex-ante regulation for the sector needs to be carefully evaluated in the broader context of the possible impact it can have on the digital ecosystem in the country. All these aspects are presently being studied in greater detail by CDF for a deeper insight on this service category.

## 4.7 ‘Operating system’

4.7.1 Operating systems (OS) form the core architecture of any digital device. The relevant market for OS is the digital device market, as each device has its own embedded OS ecosystem. There are only two dominant OS platforms for mobile phones and two dominant OS platforms for laptops/computers. There is only one OS that successfully operates across both mobile phones and laptops/computers. This means that there is a limited scope of convergence for end-users for OS. Technically, users can operate different OS but across different devices. However, there is a cost (in the form of device cost) for using multiple OS in parallel.

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<sup>11</sup> <https://explodingtopics.com/blog/number-of-saas-companies>

<sup>12</sup> <https://itatorders.in/blog/saas-startups-in-india-the-next-wave-of-innovation/>

<sup>13</sup> <https://highscalability.com/the-cloud-is-not-a-railroad-an-argument-against-the-vertical/>

<sup>14</sup> Such as Tying and Bundling or self-preferencing, two Anti Competitive Practices (ACPs) recognised under CDCL

- 4.7.2 Operating systems allow for app or software platforms, where developers can develop their apps/ software specific to the OS to offer to end users. Such developers can offer their software/ app directly to the users (direct download from their own websites) or through markets or stores (app stores) operated by the OS platform owner or other agencies. In many cases, the OS developer themselves may offer software/apps to the users over their own platforms.
- 4.7.3 While OS form the core architecture of the digital device, the relevant market for competition is not competitions between OS but between the software/apps operating on those OS. There are numerous competing software/apps available to users for different types of functions. Therefore, the software/app market is more competitive than the OS market.
- 4.7.4 OS operators in the past have been found to be guilty of self-preferencing their own software/apps over their platforms. For instance, OS developers like Microsoft<sup>15</sup> or Google<sup>16</sup> have been found guilty of market subversion and restricting other software/ app developers in the past. The Competition Commission in India has penalised Google over anti-competitive practices in relation to the Android OS<sup>17</sup> under the present competition regulation framework. All these provisions pertain to market access for apps or software operating over these OS and not the core OS services. Moreover, ex-post provisions proved to be an effective mechanism as in all these cases, rule of reasoning proved helped identify and establish how market access was actually being restricted. The existing rulings addressed the issue of levelling the playing field for other software and app developers and set a precedent to deal with any future concerns.

#### **4.8 ‘Online Search Engines’**

- 4.8.1 Online search engines are unique to the digital sector. There exist multiple search engines which are often Operating System agnostic, while some search engines are specific to the Operating System of the device of choice. End-users have the option of using multiple search engines in parallel with zero switching cost. While there exists full option of multihoming, the market is dominated by one service provider given strong user preference for its efficiency and ‘best results’.

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<sup>15</sup> <https://corporatefinanceinstitute.com/resources/management/microsoft-antitrust-case/>

<sup>16</sup> [https://ec.europa.eu/commission/presscorner/detail/es/MEMO\\_17\\_1785](https://ec.europa.eu/commission/presscorner/detail/es/MEMO_17_1785)

<sup>17</sup> <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1869748>

- 4.8.2 Online search engines are similar to online social networks in the sense that these too are non-transactional platforms with no direct transactions between the end-users and business-users. Even in this case, business-users pay platform for end-user audience.
- 4.8.3 While there exists perfect complementarity for end-users, there is an inherent stickiness for business-users who would prefer to stick to the most popular platform for maximum indirect positive network externality. Thus, platforms have some dominance over business-users in the short and medium term. However, the ability of a platform to retain its strong user-base is dependent on technological factors and user preferences, both of which can change under innovation from other platforms. For instance, many search engines that were popular earlier have become obsolete today<sup>18</sup>, while new search engines continue to emerge in the market.<sup>19</sup> Technological innovation in the search engine sector, which is presently witnessing the rise of AI based search tools, is expected to change the market composition in the near future. Therefore, dominance in search engines may be a temporary phenomenon that can well be changed by rapid technological innovations in this sector.
- 4.8.4 The options of multihoming and new technological innovations and services in this service category means that dominants cannot restrict new entrants or foreclose competition in this sector. Dominance in this sector has historically been temporal (as discussed in Section 4.8.3) and hence the scope of tipping is limited. Technological innovation can best address all possible concerns of dominance in this service category and an ex-ante regulation is not required to correct for this service category.

## 4.9 'Web Browsers'

- 4.9.1 Web browsers, like search engines, are unique to the digital sector. There exist multiple web browsers which are often OS agnostic. There exists option of diversifying for web browsers with zero switching cost for users.
- 4.9.2 Determining the business aspect of browsers is difficult, as most companies do not report direct revenue from their browser services. This is also because browsers often act as complementary services to the broader revenue streams. For instance:

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<sup>18</sup> <https://www.makeuseof.com/tag/7-search-engines-that-rocked-before-google-even-existed/>

<sup>19</sup> <https://blog.hubspot.com/marketing/top-search-engines>

- Google Chrome is believed to help direct traffic to Google search and advertising services.
- Mozilla Firefox main revenue comes from search engine partnerships, subscriptions and ad revenues, besides tying it with revenue streams from Mozilla VPN and Mozilla Developer Network (MDN).
- Microsoft Edge forms an integral part of the Windows OS and Office 365 services, with Bing advertising being a relevant component for revenue.
- Apple Safari operates as a walled garden search for the Apple ecosystem, with search engine partnership and affiliate marketing driving its commercial interests.
- 4.9.3 Web browsers are in that sense complementors to other forms of revenue generating activities and are not necessarily direct platforms for business-users. Browser operators leverage the insights of end-user search data to monetise it via other forms of commercial activities.
- 4.9.4 Given the strong complementarity between browsers for end-users (and ease of multihoming) with no direct evidence of influence over business-users, there is no apparent immediacy for ex-ante competition regulation over web browsers.

## 5. Conclusion

- 5.1 Identifying the relevant market is critical for any competition regulation. In many cases, the core digital services identified by the CDCL are not distinct markets, but are digital counterparts of larger relevant markets. In such cases, a digital platform, no matter how big, is often not a dominant service provider in the relevant market. Carving out separate regulation for the digital segment while not addressing the inefficiencies in the larger market only risks amplifying the latter.
- 5.2 Digital Services are extremely popular given the efficiencies they offer to users over their non-digital counterparts. For instance, online intermediation offers real time discovery; video sharing platforms allow for pull content not possible over other platforms; or digital advertising allows better targeting and impact assessment. Restricting digital platforms in regulatory silos can hamper the growth of such services and limit the emergence better service providers in each of these relevant markets.



5.3 Innovation is one of the most critical factors in the digital sector that redefines service categories. Even at the present juncture, new digital innovations such as Cloud, AI, IoT, Edge Computing, Augmented Reality/ Virtual Reality, Robotic Process Automation, etc are reshaping digital services and service categories. For instance, Industry 4.0 will be leveraging many of the above-mentioned technologies to redefine manufacturing sector in India. Any regulatory framework based on a static snapshot of digital sector risks being ineffective or redundant very soon given the dynamism of the sector.