

When private digital platforms become infrastructures: Lessons for regulation in India

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Table of Contents

----	Abstract	4		
01	Introduction	5		
02	Digital platforms as infrastructure	9		
	2.1 Infrastructural power and its abuse			
	2.2 Two possible pathways for regulatory intervention			
03	A gateway through the essential facilities doctrine	16		
	3.1 The Essential Facilities Doctrine in India			
	3.2 Limits of Competition Law Remedies in India			
04	The opportunities and limitations of the essential facilities doctrine	25		
	4.1 Limits set by competition law on the application of the essential facilities doctrine			
05	Regulating gatekeepers through ex-ante measures	31		
	5.1 The scope for ex-ante regulations in India			
06	Conclusion	38		
----	References	41		

Abstract

This paper seeks to study the regulation of private digital platforms that have acquired infrastructural status. It seeks to explore the potentialities offered by the essential facilities doctrine in regulating infrastructural platforms by unpacking the doctrine's features, advantages, and shortcomings. The paper also highlights emerging trends from other jurisdictions of ex-ante regulations of digital platforms, in order to understand how they overcome the shortcomings of the essential facilities doctrine. Emerging regulations of digital platforms hold important lessons for India's own pursuit of platform regulations.

The paper argues that select private digital platforms have acquired infrastructural roles and consequently infrastructural powers in India. In the recent past many instances of abuse of these powers have come to light. Competition law can address these abuses by facilitating open and non-discriminatory access to platform infrastructures via the essential facilities doctrine. The doctrine helps leverage the efficiencies of scale that powerful digital platforms engender to the benefit of smaller actors in the ecosystem. However, the doctrine is constrained by the (high) thresholds set by competition law prior to its intervention in the abuse of dominance and is ill suited to address the peculiarities of digital platforms. The paper thus makes a case for the adoption of competition-plus, ex-ante regulations that we see emerging in jurisdictions like the EU to regulate powerful digital platforms. These regulations embody the spirit of the essential facilities doctrine without being encumbered by the limitations of a competition law framework.

01

Introduction

1

Introduction

Digital platforms have been described as multi sided digital frameworks made up of a shared set of ‘techniques, technologies, and interfaces’ that mediate and structure social, political, and economic interactions (Kenny & Zysman, 2016). Investigation of Competition in Digital Markets’, a report by the US Subcommittee on Antitrust, notes that technological markets tend to tip in favour of one or two players resulting in highly concentrated markets. These players have included tech giants like Google, Amazon, Facebook, and Apple (Investigation of Competition in Digital Markets 2020).

General characteristics of powerful digital platforms include high fixed costs and (usually) low marginal costs, non-rivalrous usage (to some appreciable extent), business models based on advertisements and ‘large- scale real- time collection and automated’ data collection (Barwise & Watkins, 2018). Digital platforms are importantly embedded within network logics, which means that the value of the platform grows as more people use it (Barwise & Watkins, 2018; van der Aalst, et al., 2019).¹ Winner takes-all features such as economies of scale and scope, network effects, and control over data, combine to impose high barriers for entry in digital markets (Competition

issues in the digital economy, 2019)., but also high switching costs for users (Matrimony.com and CUTS v. Google, 2012). These features have resulted in the dominance of a few platform actors, and this outcome is fortified by lock-ins that make it difficult for participants to exit the platform ecosystem (Shao, 2020). Thus, dominant digital platforms can become very difficult to displace.

The Competition Commission of India (CCI) in its 2020 ‘Market Study on E-commerce’ (Market Study on E-commerce) observes that deep pocket funders have helped powerful digital platforms onboard customers and sellers through attractive prices and offers in the country. This kickstarts network effects, and eventually drives out competition. With such large capital at its disposal, platforms are also able to buy up competitors and squash smaller players before they even become a threat. Through such actions, platforms acquire monopoly status, and thereafter profits are windfall (Parsheera et al., 2018).

The paper will build on an earlier study by Tandem research, ‘A Balancing Act: the Promise and Peril of Big Tech in India’. The study notes that Big Tech platforms have acquired an infrastructural role by creating ‘value and dependencies for other players in the market.’(Aneja & Chamuah, 2020). If digital platforms have attained infrastructural status then regulations

¹ The network effects is both direct and indirect because of their multisided nature. Take Amazon Market Place, as more sellers join the platform, greater the value to users.

that seek to prevent them from abusing their infrastructural power must be cognizant of preserving the benefits of scale that accrues from infrastructures (Maurer & Scotchmer, 2014). The value of a digital platform grows with every additional user, in splitting up the facility we may decrease the value of network effects and lose out on the advantage and efficiency of scale (Guggenberger, 2020; Hovenkamp 2021). For instance the efficiencies of scale and positive coordination effects enjoyed by Amazon marketplace by its linkage to a vast network of warehouses and logistics services in India (Sen, 2017) would be lost if the facility is split up into different units.

Policy interventions that preserve the benefits of scale can either take the form of ex-post antitrust/competition regulation via the essential facilities doctrine (EFD) or, ex-ante sector specific regulations (Khan, 2016). Both kinds of intervention maintain scale but impose non-discriminate access. The EFD is a product of judicial intervention in the US and EU, under the abuse of dominance provisions of antitrust/competition law, to regulate gatekeepers who were able to use their control over a bottleneck facility as leverage to monopolise and control upstream or downstream markets (The Essential Facilities Concept 1996). Importantly, the doctrine recognises that by splitting up the facility into smaller components, the consumer may be left with a poorer service. Preserving network effects (scale) on digital platforms is valuable, as the usefulness of the platform only increases with scale (Maurer & Scotchmer, 2014).

This paper will explore the following questions: How can India regulate private digital platforms that have acquired

infrastructural status? How can the essential facilities doctrine be used to regulate these infrastructural platforms? What are the doctrine's features, advantages, and shortcomings? What have been some emerging trends from other jurisdictions regarding ex-ante regulations of digital platforms? How do they overcome the shortcomings of the essential facilities doctrine and what can India learn from them? Precedents of courts, orders and policy documents by competition and other state authorities, and secondary literature studying the nature of digital platforms and the role of competition law including the essential facilities doctrine and ex-ante regulations shall be used to answer these questions.

Although the paper acknowledges the informational role of infrastructures it is mainly concerned with regulating platforms that have become market infrastructures. The paper will not discuss the toolbox of solutions available to tackle the regulation of platforms such as state-takeover or public options but focus mainly on how competition policy acting through the essential facilities doctrine and ex-ante (competition-adjacent) measures can be used to regulate platform infrastructures. Lastly, the scope of the paper is limited to the regulation of privately held digital platforms, although it does briefly discuss lessons that can be learned from the state's control of traditional infrastructures.

The paper is divided into five parts. Part 1 lays down how digital platforms have become infrastructures and discusses two regulatory approaches to maintain open and non-discriminatory access to these infrastructures. The approaches are: ex-post

measures, through the essential facilities doctrine (applied via the abuse of dominance provisions of antitrust/competition law) and ex-ante regulations. These approaches were chosen because they preserve the scalar benefits of the infrastructure but open up access to third parties.

Part 2 investigates the main tenets of the essential facilities doctrine (EFD), which emerged from case laws in the US and EU, and how they were adopted into competition policy in India. The part argues that the doctrine provides a useful foundation to regulate powerful multi-sided digital platforms who often use their intermediation powers to leverage their dominance in one market in order to enter and dominate another.

Part 3 presents the opportunities and limits of EFD. It focuses on the high thresholds set by competition law prior to its intervention in the abuse of dominance and the constraints it places on the regulation of the platform economy.

Part 4 of the paper discusses how jurisdictions like the European Union, etc., have sought to overcome the limitations of traditional competition law to suit the exigencies of the platform economy through ex-ante, competition plus policy measures. These new policy measures amongst other things, alter the threshold for legal intervention and provide certainty to market players on the kinds of activity that will not be tolerated by the law. This part also explores how India can incorporate ex-ante measures in the regulation of powerful digital platforms in its competition policy. Part 5 concludes with recommendations for the way forward for India in regulating platform infrastructures.

02

Digital platforms as
infrastructure

2

Digital platforms as infrastructure

It has become increasingly common to encounter arguments characterizing dominant digital platforms like Amazon, Google, and Facebook as infrastructures. There is a growing recognition of the outsized role played by a select few private digital platforms in the economic, political, and cultural life of the state (Kwet, 2019). Legal scholar Sabeel Rahman, for instance, advocates for the extension of the jurisprudence on public utilities/ infrastructures that emerged from the US to cover digital platforms. From this jurisprudence he distils three main characteristics of goods or services that constitute infrastructures: Firstly, they have scale and some degree of market concentrations; secondly, they enable a variety of downstream economic and social activities; and thirdly, when access to the facility is denied or curtailed, it can lead to harm and vulnerability to those excluded (Rahman, 2017). This framing follows from Brett Frischmann's framework to determine what constitutes an infrastructure. The focus of Frischmann's inquiry is not on supply side provisioning (the presence of natural monopoly and high fixed costs) of an infrastructure. Instead it is the latter's demand side characteristics, namely, non-rivalrous usage (over some appreciable range of demand) and the social value of the infrastructures based on how it is and can be used. Or in other

words how the good/service performs as a means to (various) ends (Frischmann, 2012).

Rahman argues that based on demand side characteristics Google and Facebook should be considered informational infrastructures and Amazon retail infrastructures (for a variety of businesses it supports). These platforms have scale and engender a wide variety of downstream uses and become integral inputs to participate in certain markets. This creates networks of dependencies that allow platforms to control those who become reliant on them. Thus, those who are excluded from the ecosystems of these powerful platforms are left vulnerable (Rahman, 2018).

In India regulators and competitors have brought attention to the critical role played by certain digital platforms in markets. In a case before the Competition Commission of India (CCI) regarding the manipulation of search results by Google, the informant 'Matromony.com', referred to the search engine as an "unavoidable trading party" (Matrimony.com and CUTS v. Google, 2012). The Market Study on E-commerce acknowledges that sellers and buyers have become dependent on intermediary digital platforms to access the other. Each of the sectors studied

by the CCI² revealed high levels of market concentration, with a handful of players mediating the interactions between sellers and buyers (Market study on E-commerce in India, 2021).

Plantin and Punathambekar also note that features typical of infrastructures like scale and indispensability are present in the case of platforms like Facebook and Google. They argue that social and economic life is ‘shackled’ when access to these infrastructures is cut-off, thus making them social and material infrastructures (2018). In its study on Big Tech in India, Tandem Research notes the growing usage and imbrication of powerful digital platforms in India. Facebook, for instance, has accumulated over 328 million active users and WhatsApp over 400 million users (Sen, 2017). The COVID-19 pandemic has cemented the leadership position of Flipkart and Amazon in the e-commerce market as online sales saw a spike (Flipkart Group and Amazon corner 88 percent market share in festive sales: Report, 2020). Reuters Institute reports that increasingly people in India are moving away from traditional print sources to social media sites, particularly Facebook and WhatsApp, to access the news (Aneez, 2019). While this paper will focus on the economic rather than informational dimension of infrastructures, it is important to acknowledge the central role privately controlled platforms play in shaping the public sphere and hence democracy (Simons & Ghosh, 2020).

Digital platforms are also involved in building infrastructures in India. Google and Amazon have set up digital infrastructures

in the form of cloud services and Wi-fi access points. Amazon and Flipkart have invested in filling-in the gaps in physical infrastructures that matter to its supply chain, such as collection, packing and storage centres and building a delivery network (Aneja & Chamuah, 2020). In fact, Amazon’s control over a wide network of warehouses and logistics services not only dwarfs any other retail e-commerce platform in India but also rivals the conveniences of local mom and pop shops (Sen, 2017).³

This is not unique to global platforms. Reliance Jio has invested heavily in communications infrastructures and has captured a large part of the communications market in India. It is now leveraging its position to promote a suite of apps, thereby connecting its pipes to platforms. Reliance appears to be building a platform ecosystem or walled garden that may eventually become infrastructural, since people tend to access the Internet through apps (Mukherjee, 2019).

Infrastructural digital platforms, however, differ from traditional infrastructures in important ways. Unlike traditional infrastructures not all the components of a platform are owned by a single entity. Instead, application programming interfaces (APIs) are created to allow third parties to build on the affordances of the platform. Gradually lock-ins are introduced, making it difficult for third parties to leave the platform environment. To seal the exits, bottleneck platforms usually do not allow interoperability (Plantin et al., 2018). Eventually,

² The study focused on e-commerce marketplaces for goods, restaurants and accommodation.

³ It is noted that in the absence of brick and mortar retail stores, Amazon has concentrated on improving its delivery times in order to compete with local kirana stores.

platforms begin acquiring infrastructural qualities such as scale and public value. Additionally, unlike traditional infrastructures, Plantain observes that digital platforms tend to be privately owned and thus operated in commercial interest. The state's role is no longer to provide infrastructure, but to regulate competition and enforce intellectual property rights Plantin et al., 2018).

2.1 Infrastructural power and its abuse

The infrastructural role digital platforms occupy, Sabeel Rahman explains, allows them to exercise three types of powers. Gatekeeping power: as the platform ecosystem becomes essential to the survival of several actors, the former can impose unfair conditions that result in rent extraction. The gatekeeping power of platforms is also a function of their control over multiple nodes in the network. For example, Google controls internet search and many channels for online advertising. Such an arrangement has led to a conflict of interest due to the preferencing of its own websites, affecting organic search results. Many, including small businesses, depend on the neutrality of search results (Van Dijck, 2019). Transmission power: even if actors are willing to bear the costs of entering the platform-ecosystem, they are at the mercy of the platform on how data is routed through their channels. Scoring power: using the vast quantities of data under its control, platforms index and score actors. This determines their visibility to users/consumers on the other side of the platform, which in turn impacts the kinds of decisions made by these actors, to ensure

their continued viability within the platform ecosystem (Rahman 2018).

Platforms often abuse their infrastructural powers by imposing exploitative and discriminatory terms on users and businesses who depend on them, adversely affecting the latter's business viability (Investigation of Competition in Digital Markets 2020). In the EU and US there have been a litany of instances in which Big Tech platforms have leveraged their infrastructural powers to their own advantage. Apple and Google, for instance, charge a commission for in-app purchases and have been known to block third party apps. Amazon uses data gathered on third-party sellers to market its own private label. These sellers are then forced to invest more money in the Amazon marketplace to better position their good for consumer uptake. Google has been known to promote its own services and content over others. It has been reported that Facebook suppresses apps which it sees as competitive. The company is also able to leach data from third party app providers only to later undercut them, by either acquiring them or cloning them (Khan, 2018; O'Brien, 2020; Mattioli, 2020; Jefferies & Yin, 2020).

Many of these exploitative practices are also taking place in India. These practices are reflective of the abuse of the three infrastructural powers identified by Rahman. In an abuse of its scoring powers Google was found by the CCI to be preferencing its own offerings over third-party websites in search results (Market study on E-commerce in India, 2020). Amazon may claim to increase the viability of small retailers in the country, but the reality is that the latter are anxious of being anchored to

Amazon's marketplace. Especially since the latter often will offer rival goods under their private label (or through dealerships) with better delivery times. This is an abuse of Amazon's transmission powers. These measures incentivise consumers to choose Amazon's products over a rival's offerings. Amazon's well-established brand-name also lends it credibility as against smaller unknown sellers online. Further, smaller sellers report that selling through Cloudtail (a reseller that is partially owned by Amazon) was unprofitable due to the huge margins that Cloudtail charges (Sengupta, 2020; Vijayaraghavan, 2019).⁴

Due to the coercive practices by tech giants to stymie competitors, venture capitalists are known to discourage start-ups whose offerings may conflict with the interests of Big Tech. This is colloquially referred to as the 'kill zone' (Khan, 2019). India has also witnessed a number of take-overs of start-ups by more established tech companies, giving cause for concern of an emerging 'kill zone' in the country (Big Story: Why Are Indian Tech Giants Acquiring So Many Startups & SMEs?, 2019).

Sellers on e-commerce sites, who were a part of the Market Study on E-commerce, observed that these platforms abuse their indispensability, breaching conditions of platform neutrality by manipulating search ranking and promoting their own wares (Market Study on E-commerce, 2020). The study noted that smaller platforms and offline stores are no longer a comparable

⁴ The Ken reports that under the global accelerator seller initiative launched by Amazon in India to help local manufacturers launch their brand on its platform, the company not only charges a large commission on the manufacturer's online sales but also wrote in an outright buyout clause for a flat fee of \$10,000.

alternative to the might of multi-billion, foreign funded e-commerce platforms. Because of network effects, sellers remain beholden to certain dominant e-commerce platforms despite the unfair conditions they impose. These unfair conditions include practices such as deep discounts (which initially is funded by the platform and later imposed on the seller), bundled services, mandating price parity, and exclusive preferential seller agreements. Market Study on E-commerce, 2020). These practices are a form of rent extraction that follows from the platform's abuse of gatekeeping powers.

Tandem Research's study on Big Tech in India also attests to such dependence. Many of the start-ups interviewed for the study revealed that they rely on the infrastructures provided by Amazon and Microsoft. They also admit to being unable to compete with Big Tech, 'because of the latter's large capital investments, data-based intelligence and ability to set up and invest in auxiliary industries.'(Aneja & Chamuah, 2020)

The Delhi Vyapar Mahasang, an association of Micro, Small and Medium traders in smartphones, have accused Amazon and Flipkart of carrying out exclusive agreements with preferred sellers, pricing below cost, preferential listing, and using consumer data to marginalize certain sellers (Delhi Vyapar Mahasangh v. Flipkart & Amazon, 2019). The Confederation of All India Traders (CAIT), a traders association representing over 8 crore traders in India, has also raised alarm over the perpetration of abusive practices by e-commerce giants in the country, and has urged the government to take action against them (CAIT requests PM Modi for fresh press note, 2020).

If private platforms have become important market infrastructures, ‘then we need to ask of platforms some of the questions we typically raise in relation to infrastructures,’ mainly how should we regulate them (Plantin & Punathambekar, 2018) ?

2.2 Two possible pathways for regulatory intervention

Sabeel Rahman notes that beyond the economic conception of public goods (defined by high sunk costs and monopolistic provision), we must also consider such goods in democratic terms. Under the latter conception, public goods are those that are essential for human success and wellbeing (Rahman, 2017a). If we are to take the latter view, certain digital platforms should be seen as providing public goods. In many developing countries, Whatsapp, supports a range of quotidian activities from personal to economic, causing vulnerability when they break down (Cruz & Harindranath, 2020). Simons and Ghosh also note that as social, economic, and political activity increasingly moves online, platforms like Facebook and Google ‘shape the fundamental terms of citizens’ common life’ as nearly 70% of the internet traffic intersects via either of these two platforms (2020). In these contexts, certain digital platforms could be seen as providing a public good necessary for success and wellbeing. Consequently, ‘ensuring the accountability and responsiveness’ of providers of public goods and ‘protecting beneficiaries of public goods from exploitation’ is key (Rahman, 2017a).

Frischmann, whom Rahman cites, argues that access to infrastructures should be open and non-discriminatory, when it is feasible to do so. He comes to this conclusion due to the spill-

over or positive externalities that accrue to society when access to infrastructures is opened to third parties (Frischmann, 2012). With respect to the platform economy, when access to Google app-store is open and non-discriminate, then third parties can build on top of it to provide a variety of innovative apps to users.

To counter the abusive practices of private infrastructure providers, regulatory interventions can take two directions: one, ex-post antitrust/competition regulation and two, ex-ante sector specific regulations (Khan, 2017). Both these forms of regulation can preserve the efficiencies of scale that infrastructures generate but impose non-discriminate access. As noted earlier, a platform’s value grows with every additional user, in splitting up the facility we may decrease this value and lose out on the advantage of scale (Maurer & Scotchmer, 2014; Guggenberger, 2020).

The EFD is a key tool under antitrust law to regulate infrastructural platforms and is used to enforce fair and open access. It is usually invoked under the abuse of dominance provision of the competition law. The doctrine, however, requires that certain conditions be met, prior to its application. For instance, the ‘relevant market’ for the infrastructure needs to be defined and further, only those abusive acts that are carried out by the monopolist in the relevant market will be examined (Khan, 2018).

The reasons stated above make it clear that general competition regulations will often be insufficient to deal with harmful behaviour of infrastructural actors and specialized sector-

specific regulations will be required (Jaag & Trinker, 2011). Ex-ante regulations are not dependent on the establishment of conditions precedent that competition law requires. It accepts the benefits of scale that a monopoly or oligopoly generates, and instead seeks to impose obligations on the actors who control the infrastructure (Khan, 2018). Jurisdictions like EU, UK and China are beginning to invest in ex-ante policies and regulations for the digital economy with features of antitrust solutions. Part 4 of the paper will detail these emerging regulatory trends.

03

A gateway through the
essential facilities doctrine

3

A gateway through the essential facilities doctrine

EFD first came into prominence in the US under antitrust law (the Sherman Act) to deal with the regulation gatekeepers who were able to use their control over a bottleneck facility as leverage to monopolise and control upstream or downstream markets. The EFD has travelled from the US to other parts of the world including the EU, which has since added new dimensions to the doctrine (as will be discussed below) (The Essential Facilities Concept, 1996).

EFD is usually used in reference to facilities that are akin to natural monopolies and are therefore prohibitively expensive to duplicate (Lipsy & Sidak, 1998). The US Supreme Court's decision in the 1912 case of *U.S. v. Terminal Railroad Association*, was the first case to discuss the doctrine. It involved taking exclusive control of railroad facilities from the Terminal Railroad Association in St. Louis. Because the Terminal Railroad Association had control over the railroad infrastructure it could impose premium rates on others who wanted to use the facility. Instead of dissolving the Association, the Court found that consolidation of railroad facilities had positive coordination effects and was a public utility. It thus ruled the facility had to be

jointly owned by all railroads interested in using it. For railroads that did not want ownership, they had to be afforded access under reasonable terms and conditions, and on an equal footing as the owners (Lipsy & Sidak, 1998).

The main thrust of EFD is to allow reasonable, open, and non-discriminatory access to facilities deemed essential (Piropato, 2000). Such an approach prevents the leveraging of an essential facility by a private actor in order to control access to and hence dominate upstream or downstream markets (Piropato, 2000). Case laws exemplify how these features have been interpreted.

In the 1974 case of *Commercial Solvents Corp v Commission of the European Communities*, the European Court of Justice held that the denial of input by a dominant firm to a customer, who also happened to be a competitor in the downstream market, was an abuse of dominance. Famously, the European Commission (EC) has applied EFD to Microsoft's unwillingness to license 'interface information'. Microsoft tried to leverage its dominant position in the PC OS market into the downstream work group server OS market. On appeal, the European Court of

First Instance agreed with the EC, emphasizing that the refusal is likely to eliminate competition and halt technical development (Graef, 2019). The European Court ordered Microsoft to arrange interoperability with its platform on reasonable and non-discriminatory terms. What this means is that Microsoft cannot restrict interoperability with its software, consideration for interconnection cannot be unreasonable, and terms of service can be changed arbitrarily so that third parties can invest in complementary services (Microsoft Corp. v. Commission, 2007).

As we noted in section 1 digital platforms have become an essential input in several downstream activities. As a result, when access to the input is made costly/cumbersome, third parties will be forced to accept these adverse terms since an equally cost-effective, especially since a substitute may not yet be available (Vaheesan, 2010). Executive Vice President of the European Commission for A Europe Fit for the Digital Age, Margrethe Vestager, has argued that, ‘App stores play a central role in today’s digital economy. We can now do our shopping, access news, music, or movies via apps instead of visiting websites. ... Apple is a gatekeeper to users of iPhones and iPads via the App Store’(Lomas, 2021). If Google and Apple’s app stores are deemed essential facilities, then they will have to provide third parties fair and non-discriminatory access to build on top of them. This would require opening-up the necessary code and access points (Guggenberger, 2020). Additionally they would be prevented from leveraging their dominance in the app store market. The anti-leveraging requirements of the EFD can also be used to prevent entities like Amazon from using access to its marketplace (if deemed to an essential facility) from imposing

unfair conditions like most favourable clauses, on third party sellers (Khan, 2017).

By enforcing access, the EFD also avoids the unreasonable requirement of forcing competitors to duplicate infrastructures (Podell, 1988). In *MCI Comms. Corp. v. American Tel. & Tel. Co* (1994), the United States Court of Appeals gave more clarity to EFD by expressly accounting for the competitor’s inability to duplicate the essential facility of a monopolist practically or reasonably.

The EC has also applied non-duplication criteria to essential facilities. In relation to a case dealing with the abuse of dominance by Google for tying its search app to its app store, the EC noted that it would require ‘substantial investments to replicate the whole Google ecosystem.’ Even established and capital rich companies like Amazon and Yandex noted that it could take substantial resources to replicate Google’s play store (Google Android, 2018). EFD thus promotes synergies of sharing and of scale (Maurer & Scotchmer, 2014 & Guggenberger, 2020).

The other criteria identified by the Seventh Circuit Court in the MCI case for the application of EFD include: control of the essential facility by a monopolist; the denial of the use of the facility to a competitor; and the feasibility of providing the facility. Platforms are often dominant players and deny access to their services to third-party actors in a downstream market, some of whom maybe competitors.⁵ The EC’s guidance

⁵ This prong of EFD has been criticized later in the paper.

on abusive exclusionary conduct by dominant undertakings clarifies that refusal can also be constructive (Waller & Tasch, 2009), and can thus include conduct like self-preferencing. For example, the EC imposed a considerable fine on Google after it found that the latter misused its position as a monopoly actor to promote its own services and content over others (Antitrust: Commission fines Google, 2016). And to the last criteria in MCI, digital platforms are rivalrous to a reasonable or appreciable extent and can afford to provide access.

In 2004, the EFD suffered an unceremonious death in the US via the US Supreme Court's decision in the *Trinko* case. The court refused to enforce EFD, even going as far as to declare that the court had never acknowledged it (Maurer & Scotchmer, 2014). Unlike the US where the EFD died out because of judicial and legislative disregard, in the EU the doctrine continued to hold sway as a pro-competition tool (Waller & Tasch, 2009).

In *Bronner* the European Court of Justice ruled that proof of indispensability is necessary to be considered an essential facility (1998).⁶ In the *IMS Health* case the European Court of Justice concluded that refusal to deal,⁷ or the denial by one undertaking to supply its goods or services to another undertaking, is abusive when the 'refusal is preventing the emergence of a new product for which there is a potential

⁶ The case deals with access by newspaper publishers to a home delivery scheme run by a dominant newspaper.

⁷ In the EU Essential Facilities doctrine is referred to as refusal deal or refusal to supply. While the latter required that the dominant firm refused to deal with a competitor with whom it previously had some business relation, this condition has not been consistently applied.

consumer demand, that it is unjustified and such as to exclude any competition on a secondary market' (2004).⁸

In the antitrust lawsuit filed by Epic Games against Apple for being shunted off the Apple app store,⁹ the former alleged that iOS is an essential facility. By being forced to leave the platform it prevented them from competing in the iOS App Distribution Market. (Epic Games v Apple Inc. , 2020) Spotify has also accused Apple of instituting measures to restrict its app in favour of Apple Music on iPhones (Chee, 2021). Access to the Apple apps store is indispensable if an app desires to be available on Apple devices. If one were to apply the rationale of *IMS Health* and *Bronner*, it can be concluded that by disallowing apps from participating on its platform, Apple is preventing the emergence of a product in a downstream market for which there is clear consumer demand. This amounts to an abuse of its gatekeeping power and EFD.

Just because access to infrastructures is open does not mean it should be free. For example, we often pay tolls to use roads which are open for all to use (Frischmann and Waller, 2008). Owners of an essential facility may therefore be allowed to charge a reasonable fee from those accessing the facility. Other costing models include paying a share of revenues earned to the owner of the essential facility (Maurer and Scotchmer, 2014). Such a model has been used in India under the compulsory licensing provision of the Patent Act. In 2012, when India

⁸ The case dealt with the licensing of a copyrighted brick structure used by IMS to provide pharmaceutical data to pharma companies and had become industry standard.

⁹ For failing to abide by the 30 percent commission charged on in-app purchases.

granted its first compulsory license to NATCO for a cancer drug patented by Bayer, the former had to pay 6% of royalty earned every quarter to the latter.

The EFD also provides the idea of platform neutrality with a basis in competition-law.

3.1 The essential facilities doctrine in India

The 2014 Draft National Competition Policy lists the access to essential facilities as one of the main competition principles in India. The principle is defined as ‘requiring dominant infrastructure owners to grant to third parties’ access to their infrastructure on agreed terms and conditions and at regulated prices’(Draft National Competition Policy, 2011). Goyal et al., argue that existing abuse of dominance provisions of the Competition Act, 2002 can be used to enforce EFD. For example, Section 4(2)(c) of the Competition Act prohibits firms in a dominant position from indulging ‘in practice or practices resulting in denial of market access.’ Section 4(2)(c) considers the act of leveraging the dominant position in one market to enter another market as an abuse of dominance. Further, the authors suggest that Section 18 of the Competition Act which states that it is the ‘duty of the Commission to eliminate practices having adverse effect on competition’ should be read widely to support the application of EFD (Goyal et al., 2018). Many of these provisions, as we see below, feature in the CCI’s decisions that have dealt with EFD.

In the 2010 case of Arshiya Rail Infrastructure Ltd v. MoR and CONCOR, the CCI briefly flirted with the idea of reading EFD under Section 4(2)(c) of the Competition Act. The Container Corporation of India Ltd (CONCOR) is a wholly owned subsidiary of the Ministry of Railways (MoR) and oversees managing container trains and container traffic including depots in India. In 2006 MoR decided to allow licensed private actors to use its rail lines to move containers. Consequently, rules were issued which laid down that CONCOR and private actors would be treated on an equal footing with uniform haulage charges and access to the same railway lines. The informant Ashriya alleged that CONCOR denied it access to its slidings¹⁰ and terminals. Since MoR is a dominant actor in the market for container transport by rail, blocking access to this infrastructure, the informant claimed, constituted an abuse of dominance and a violation of Section 4(2)(3) of the Competition Act. The Director General’s (DG) investigation agreed with this conclusion, arguing that the cost of building additional terminals by private players was prohibitive. Thus, the terminals should be thought of as essential facilities to which private players should have equal access. The CCI, however, ruled that it was a mistake to treat MoR and CONCOR as the same actor. Further, it observed that the economic power and capital strength of the former cannot be used to ascribe dominance to the latter. The CCI did not engage with EFD, instead holding that sidings are a separate market (Ashriya Rail Infrastructures Ltd v. MoR and CONCOR, 2010).

¹⁰ Slidings is branch line that connects to the main track, and is used for loading/unloading or can connects warehouses, mines, factories to the main line

In *Anila Gupta v. BEST* (2010), CCI acknowledged that forcing actors to duplicate essential infrastructures by refusing to provide access was an unreasonable requirement. The Commission held that Brihanmumbai Electricity Supply and Transport's (BEST) denial of permission to Tata Power company Ltd (TPCL) from wheeling electricity on its network was an abuse of dominance. The refusal would have imposed a 590 crore INR capital expenditure on TPCL if it were forced to set up an identical infrastructure. This would have ultimately been passed onto the consumer. Since BEST is a public utility and a dominant actor in the provision of electricity in Mumbai, it was contended that its actions amounted to a denial of market access and was an imposition of unfair and discriminatory conditions, violating sections 4(2)(a)(i), 4(2)(a)(ii) and 4(2)(c) of the Competition Act. The CCI interestingly cited the US Supreme Court's decision in *Terminal Rail* to buttress its argument that building a parallel facility would be burdensome and instead the incumbent should open facilities under their control (*Anila Gupta v. BEST*, 2010).

In 2014, the CCI took a more concrete step towards realising the spirit of EFD in India, without using the exact phrase. The *Shamsher Kataria* case dealt with abuse of dominance by automobile companies. It was alleged that these companies were leveraging their dominance in the market for spare parts to the market for automobile servicing and repairs. Because these automobile companies tightly controlled access to their spare parts, technological information, diagnostic tools, and software programs; independent workshops were unable to maintain, service or repair the cars belonging to these automobile companies. This was tantamount to denial of market access.

The DG's investigations into the matter found that these acts constituted a violation of Sections 4(2)(a)(i), (c) and (e) of the Competition Act. The DG clarifies that what they are dealing with is not the primary market for the sale of cars, which is competitive, but the secondary market or aftermarket. The DG held that the spare parts and services of each manufacturer are separate, with each automobile company occupying a dominant position. Importantly, the DG concludes that the spare parts are an essential facility, for independent actors cannot partake in the aftermarket without access to such critical technology (*Smasher Kataria v, Honda Siel Cars & Ors*, 2011). Citing *Commercial Solvents*, the CCI noted that independent repairers were effectively foreclosed from competing in the secondary market by a web of contracts, and this ultimately impacted consumer choice. Further, it also held that the automobile companies leveraged their dominance in one market — spare parts and diagnostic tools — to enter another market — repairs and maintenance services. The CCI thus found the automotive companies in violation of the Competition Act for their anti-competitive agreements. As part of its remedies, the CCI directed automobile companies to: 'work for standardization of an increasing number of parts in such a manner that they can be used across different brands, ... which would result in reduction of prices and also give more choice to consumers as well as repairers/ service providers' (*Smasher Kataria v, Honda Siel Cars & Ors*, 2011)

In relation to digital platforms, in the landmark case against Google for search bias, the CCI noted that Google had a 'special responsibility' since the company's search engine is a gatekeeper

to the Internet for many users and entities. This ‘special responsibility’ is critical in ensuring not only the fairness of the online web search and search advertising markets, but also the fairness of all online markets given that these are primarily accessed through search engines’ (Matrimony.com and CUTS v. Google, 2012).¹¹ The court, however, did not make any explicit references to EFD.

Unfortunately, the CCI’s general approach towards allegations of anti-competitive behaviour by digital platforms has been one of non-interference. Historical antecedents and contemporary policy concerns both have had a role to play in such an outcome.

3.2 Limits of competition law remedies in India

The objective of India’s post-liberalisation competition framework was to open-up markets to improve allocative, productive, and dynamic efficiency (Roy, 2016). In the regulation of monopolies, the CCI is guided by an ideology that favours post-facto market correction for the fear of losing out on innovation.

The CCI’s tentativeness in interfering with the platform-based business model and possible future innovation, was evident in its decision in the 2018 case, All India Online Vendors

Association (AIOVA) v. Flipkart and Ors . In this case, the CCI noted that e-commerce was still in its nascent stages in the country and that “any intervention in such markets needs to be carefully crafted lest it stifles innovation.” The commission observed that:

“No doubt, the size and resources of Flipkart are large; yet, it cannot be disputed that the closest competitor to Flipkart is Amazon which has a valuation of around 700 billion dollars and has a global presence. With regards to entry barriers, it has to be noted that it is possible for new entrants to create online marketplace platforms, but the advantage gained by incumbents due to network effects may be difficult to breach. However, Flipkart has pointed out that there are several new players which have entered or propose to enter the e-commerce segment, such as Paytm Mall, thus indicative of low entry barriers (AIOVA v Flipkart, 2010).”

Earlier, the CCI rejected the allegations of dominance and predatory pricing against OLA, again, as it was unwilling to interfere in a nascent digital market (Chatterjee, 2018). It should, therefore, come as little surprise that though the Market Study on E-commerce acknowledges the growing power of intermediary digital platforms it only goes as far as recommending self-regulatory measures (Market study on E-commerce, 2020).¹²

¹¹ Although in the succeeding para, the CCI cautions against any intervention stifling innovation in India.

¹² These include transparency measures in relation to search rankings, collection and use of data, and discounting practices.

Competition policy in India was however not narrowly focussed on just furthering consumer welfare. The Monopolies and Restrictive Trade Practices Act (MRTP Act), the precursor to the current Competition Act, was meant to secure social justice with economic growth in line with the Constitution's Directive Principles of State Policy (Chakravarthy, 2006). The thrust of competition regulation from the 1950's to the 1990's was to curb market concentration in order to promote public interest, rather than to grow competition (Gouri & Pandya, 2020). There was general import scepticism and a desire to grow domestic industry. This was buttressed by Articles 38 and 39 of the Constitution of India which envisions a more central role for the state in the control of material resources and its equitable distribution (Prasanna and Manjushree, 2021). Much of this changed post 1991 and the introduction of liberalization, globalization and privatization policies leading to the relaxation of the licensing regime and import restrictions (Gouri & Pandya, 2020). In the paradigmatic shift to a free-market economy, monopolies were no longer required to take prior approval from the government before expansion, for example, setting up additional units (Parthasarathy, 2017) .

The S.V.S Raghavan Committee, established in 1999, to 'modernize' competition law and replace the MRTP Act (Pingali et al., 2016), placed emphasis on consumer welfare as the ultimate consideration for regulating competition in India. Welfare was defined as a metric of price, and the maximization of consumer surplus and producer surplus. It was argued that other policy goals like fairness, equality and pluralism may not be successfully incorporated into competition policy because

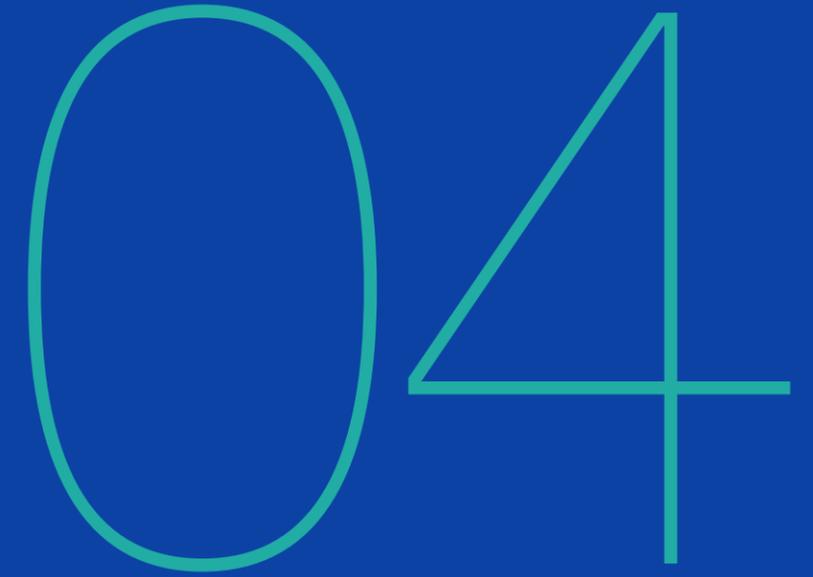
it could 'dilute competition principles' and undermine the competitive process. The Committee argued that 'though the public interest approach to Competition Policy permits the consideration and balancing of different economic, social and political objectives, the independence with which the policy can be administered can easily become constrained.' Instead, it observed that equity and economic development will be reached as a consequence of economic welfare and efficient resource allocation (Report of the High Level Committee on Competition Policy and Law, 2000).

The limited scoping of the Competition Act was made apparent in the CCI's 2018 review of Walmart's acquisition of Flipkart. When the CCI received representations from trade associations objecting to the acquisition on grounds including 'adverse impact on employment, entrepreneurship, small and medium scale enterprises,' it noted that these concerns did not have a 'nexus to the competition dimension of the proposed combination' (Notice under sub-section (2) of Section 6 of the Competition Act, 2002 filed by Wal-Mart International Holdings, Inc., 2018) .

While digital markets should be innovative, they should also be inclusive and fair. For smaller enterprises to be able to survive in the economy, open and non-discriminate access to platform infrastructures is crucial. Further the latter should be prevented from leveraging its dominance and the dependencies that it inculcates into other markets. And lastly, competitors to platforms should not be forced to duplicate the platform infrastructures, just to participate in the platform economy.

Thus, to ensure markets are inclusive and fair, India must take advantage of its established vocabulary in EFD and meaningfully develop it to apply to digital platforms. For example, directions given by the CCI in *Shamesher Kataria* regarding the standardization of spare parts sets a valuable precedent in India to couch interoperability and non-discriminate access requirements on essential digital platforms. Interoperability can help smaller players stay afloat, dissuade venture capitalists from enforcing the ‘kill zone’ and enhance downstream innovation and competition (Amazon sued over fair pricing policy violations in Washington DC, 2021; Doctorow, 2019; Wölken, 2021).¹³

¹³ In fact, the Committee on Legal Affairs of the European Parliament recently opined that to ensure competitive digital markets interoperability is essential not only with ancillary services but also between core platform services. Many of the tech giants of today in fact grew by developing (adversarial) interoperability with powerful platforms of their time. For example, Facebook developed tools so that its users could interact with MySpace users.



The opportunities and
limitations of the essential
facilities doctrine

4

The opportunities and limitations of the essential facilities doctrine

Nicholas Guggenberger argues that EFD offers a more holistic and long-term solution to market dominance in comparison to other antitrust solutions. For example, as opposed to structural and functional separation, treating platforms as essential facilities will maintain the benefits of network power. This approach also preserves the infrastructure for the benefit of others. Merely opening up one part of the consolidated infrastructure such as control over data to third party use cannot empower smaller players to act independently. This is because the latter may not necessarily have the computing capacity to leverage the data (Guggenberger, 2020).

Moreover, not all abusive practices by digital platforms depend on big data. Data portability solutions cannot address systemic harms as it is dependent on individual users taking action. And often users feel an inertia to leave the conveniences of a platform. Guggenberger also notes that the essential facilities doctrine is general and flexible enough to apply to a wide variety

of cases, unlike regulation that seeks to curb particular anti-competitive behaviours (Guggenberger, 2020).

However, ensuring compliance for orders passed by competition authorities to open-up access can also be difficult. About the Microsoft case discussed earlier, the Centre on Regulation in Europe observes that in comparison to orders prohibiting a particular activity, imposing access to essential inputs is more cumbersome. And ultimately such an order further protracted the legal battle between Microsoft and the courts (Streel, 2021).

Another prominent critique levelled against EFD and its application to digital platforms is that it dampens innovation by forcing platforms to provide access to their facilities to rivals (Vaheesan, 2011). Justice Scalia explains in the Trinko Case that:

Firms may acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve their customers. Compelling such firms to share the source of their

advantage is in some tension with the purpose of antitrust law, since it may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities’ (Verizon v. Trinko, 2004)

Scholars have countered this allegation, arguing that exclusive control over infrastructures (through intellectual property rights) have social costs, and affording access to third parties can in fact enable innovation (Lao, 2012; Frischmann & Waller, 2008). Additionally, if we rely only on disruptive innovation from outside the market we may lose out on sustaining innovation, which is encouraged by EFD, and that comes from within the market. Without the lack of the latter could adversely impact product variety and prices (Graef, 2019). Bottleneck facilities when they become essential can often indulge in rent extraction, disincentivising downstream actors who depend on the facility from participating in the market. Further because of the natural monopoly characteristics of essential facilities, it is unlikely that a downstream actor will want to duplicate the facility (Frischmann & Waller, 2008). In the context of platforms like Amazon, Google and Facebook, it has been argued that having reached tipping-point, their dominance is no longer a function of innovation but a function of network effects (Guggenberger, 2020).¹⁴

In its application to digital platforms EFD is importantly also constrained by the limits set by competition law and the conditions required to adjudge an ‘abuse of dominance’

¹⁴ An oft cited example of stagnant innovation is the continued dependence on the QWERTY keypad despite the existence of better alternatives. Sandeep V paper

under the law. The next subsection will unpack some of these limitations.

4.1 Limits set by competition law on the application of the essential facilities doctrine

Firstly, abuse of dominance provisions under competition law only takes effect ex-post, that is after the infraction occurs (Gupta et al., 2018). Ex-post measures have been described as ad-hoc, narrow solutions that will not be able to tackle systemic anti-competitive behaviour (Prasanna and Manjushree, 2021).¹⁵ In a case dealing with the tying of WhatsApp’s messenger services with its payment application, the CCI held that harm could not be presumed and would need to occur before it could interfere. The CCI, however, did take note that WhatsApp is a dominant actor in India¹⁶ due to its large user base and lack of competition from the second most widely used messaging application – Facebook – because of their common ownership. Furthermore, network effects and lack of interoperability between platforms

¹⁵

¹⁶ The CCI was of the opinion that price was bad metric to define markets for services that are essentially free and instead opted to use the test of functional substitutability. Applying the test to the present case, it noted that with respect to OTT messaging apps WhatsApp had dominance.

ensures that customers do not switch (Harshita Chawla v. WhatsApp Inc. and Facebook inc., 2020).¹⁷

Secondly, to pursue abuse of dominance under competition law, the ‘relevant market’ needs to be established. The latter is defined by cross-price elasticities of demand and supply and the substitutability of products (Jacobides, & Lianos, 2021). Defining the relevant market is extremely important under competition law because abuse of dominance analysis can proceed only once the actor under investigation is considered dominant in the relevant market (Roy, 2016).

Defining the relevant market through price unfortunately does not translate well for the platform economy where fixed costs may be high but (usually) marginal costs and price negligible. Even when marginal costs are substantial, platforms may be willing to bear them and offer services for free to customers. Amazon incurred high shipping and delivery costs to grow its consumer base (Khan, 2018). Tim Wu reflects that antitrust law in the US failed to notice the creeping power of Big Tech which it accumulated through strategic mergers and cloning competitors. Wu observes this result was brought about by the choice to identify consumer welfare with price (Wu, 2018). Others have concurred, noting that instead, ‘dominance, and market power must... accommodate non-price considerations and other non-traditional metrics if we are to truly increase consumer welfare

¹⁷ Despite these observations CCI concluded that it cannot rule that WhatsApp leveraged its dominance in the OTT messaging to promote its digital payments application since there is no compulsion to use the latter to use the former, nor will it be able to capture the digital payments market, which currently consists of established players.

when broadly understood.’ (Competition and Regulation in India, 2019: Digital Economy, 2020).

Guggenberger suggests that a better suited dominance framework for the platform economy would account for data dominance and network effects (2020). The report of the Competition Law Review Committee in India, released in 2019, has noted that existing provisions of the Competition Act, 2002 can be read broadly to account for the practices of digital platforms. For example, it suggests that the definition of price under the Act can be read to include data. The report also posits that the Competition Act allows for the control over data and network effects to be factored, in establishing dominance (Report Of Competition Law Review Committee, 2019; Kumbhat, 2020; Satariano, 2020).¹⁸

¹⁸ In a case filed against Google by informants Matrimony.com and CUTS, the CCI defined the relevant market not by the usual the Small but Significant, Non-transitory Increase in Price (SSNIP) test that relies on price but by substitutability based on product characteristics. Further, Google opposed the application of Section 4 of the Competition Act on abuse of dominance contending that it did not fulfil the criteria of commercial activity as there was no sale or purchase of goods and services. This argument was rejected by the CCI, noting that consideration need not be monetary. In the case at hand, consideration was ‘paid’ by users in the form of attention and data. Besides which, the CCI recognize that Google is part of a two-sided interdependent market. From the side facing away from users, Google was gaining monetary compensation from advertising

Data has increasingly been recognized as a key asset in the digital economy. Germany’s high court ruled, for instance, that Facebook abused its dominant position when it combined user data collected from its platform with data from its other platforms, namely WhatsApp and Instagram as well third-party data brokers. This was also importantly a demand side rather than a supply side remedy. <https://www.nytimes.com/2020/06/23/technology/facebook-antitrust-germany.html>.

Other competition scholars have gone even further, recommending that we do away defining markets at the outset. Instead, they recommend that dominance be presumed if the actions of the platform are unconstrained by competition, which eventually leads to exclusionary effects (Schweitzer et al., 2018).

Besides this, establishing distinct markets in the platform economy is difficult. Powerful digital platforms such as Google or Amazon operate as an ecosystem of (complementary) products and services and not as distinctive markets. Tech giants operate multi-sided platforms that control a web of users, sellers/websites, and advertisers all at once. Platforms strengthen and widen their infrastructures by inducting third parties into their ecosystem through APIs and locking them in through incentives and disincentives (Lianos & Ivanov, 2019). The report ‘Competition Policy for the Digital Age’ developed for the EC notes that Big Tech’s data-based model and name recognition, allows them to exploit economies of scope, wherein they can participate in several sectors based on the data under their control.

Finally, competition intervention in the practices of digital platforms should not be limited to cases where dominance/monopoly is established. Instead, it should be defined by dependence for downstream access and social importance (Khan, 2019). This falls in line with Rahman and Frischmann’s demand-side understanding of infrastructures, which calls attention to the social value of infrastructures (Firschmann, 2012; Rahman, 2017).

France for example had introduced a law in the 1980’s to curb the abuse of economic dependence¹⁹ by non-dominant undertakings. This law was recently used by the French competition authority to fine Apple for anti-competitive distribution agreements that were an outcome of ‘its dual position in the supply chain, both as a manufacturer and a reseller’ (Crew, 2021; Abuse by non-dominant companies, 2021)²⁰

Markets with positive externalities have the potential to tip in favour of one actor leading to the creation of monopolists. However, the tipping may happen as result of practices such as preferential dealing, or obstruction of multi-homing, that presently is considered abusive only if carried out by a monopolist. The German report ‘Modernising the law on Abuse of Market Power’ recommends that competition authorities or courts should be empowered to intervene below the monopoly threshold so as to put a stop to ‘unilateral behaviour that is not justified on grounds of competition ... and which is found to have a dangerous probability to promote “tipping”’ (Schweitzer et al., 2018). The same report also encourages German authorities to strengthen existing competition provision that prevents the abuse of “relative market power” with respect to small and medium sized firms (Schweitzer et al., 2018). More recently the

¹⁹ Situation of economic dependence that will be appreciated according to the following criteria: the reputation of the brand or product, the supplier’s market share, the share represented by the supplier’s products in the distributor’s turnover, the lack of an equivalent solution to the contractual relations entered into, either as a customer or as a supplier (lock-in situation)

²⁰ Belgium has also introduced a law that seeks to curb the abuse of economic dependency by non-dominant firms.

European Parliament's Committee on Legal Affairs has argued that not only large platform companies with a multitude of customers and business users can become gatekeepers, but even smaller companies (Wölken, 2021).

In the All India Online Vendors Association case, the CCI refused to hold that Flipkart abused its dominance, noting that there were alternate actors in the 'relevant market' (AIOVA v Flipkart, 2010). The presence of these 'rivals', however, does not take away from the fact that Flipkart indulged in abusive behaviour that adversely affected those (customers and third-party sellers) who depend on its platform.

Thus, as it currently stands, the thresholds set by competition law for the application of EFD is inappropriate for digital platforms. These drawbacks, however, have not stopped states from instituting measures to regulate powerful digital platforms. Instead, as the next section will demonstrate, recent developments emerging from other jurisdictions attempt to escape the rigid structures of competition law in order to take forward the spirit of EFD in the digital age. This has taken the form of prophylactic measures, outlawing certain powerful platforms from carrying out acts like preferential dealing, self-preferencing, and imposing unfair conditions on third parties at the outset.

05

Regulating gatekeepers
through ex-ante measures

5

Regulating gatekeepers through ex-ante measures

Despite the high thresholds of EFD, other jurisdictions have found new utility for it in the age of super digital platforms through ex-ante regulation. These regulations apply to gatekeeper digital platforms characterized not only by dominance but also the dependence they generate. The regulations seek to identify and manage certain behaviours of stakeholders beforehand (prior to the finding of any illegal conduct) (Gupta, n.d.) and exist alongside ex-post competition law regulations (Kolstad, 1990).²¹

Regulators usually opt for ex-ante measures when ‘the probability of anticompetitive behavior in the absence of the prior restraint is high’, ‘The magnitude of the harm from such behavior would be great’, ‘The likelihood and magnitude of offsetting efficiency justifications for the behavior are low’ and the ‘danger of false positives are low’(Geradin & Sidak, 2003).

²¹ This is similar to other sectoral regulations. For example, pharmaceutical companies are usually not allowed to sell their products commercially until they meet a set of safety standards set by the drug regulator first. This is an ex-ante regulation. Once the products are commercially available, pharma companies can be held liable for harm caused through product liability norms. This is an ex-post regulation.

The advantages of ex-ante rules are that: firstly, they introduce greater predictability for market players. Relying on the tides of court-led precedents may not be conducive to regulating commercial practices. Secondly, the regulatory body can act more quickly. And thirdly, it can encourage dialogue between the regulator and the regulated which can ensure pro-competitive conduct (Joshi & R.V, 2009).

In China a new Antimonopoly Guidelines on Platform Economic Sector has been proposed that seeks to regulate powerful domestic digital platforms. The Guidelines expressly states that if a platform is considered an essential facility, then it cannot refuse to deal with third parties who want access to the platform without justification. To be deemed an essential facility, the authorities will take into consideration: ‘data occupied by the platform, the substitutability with other platforms, the existence of potential available platforms, the feasibility of developing competitive platforms, the degree of dependence of the operators on the platform, and the possible impact of opening the platform on the platform operator’(Zhou, 2021).

Important amendments have also been suggested to Germany's competition law – German Act against Restraints of Competition – that also incorporates the spirit of the EFD by regulating gatekeepers ex-ante. Under the amendment if a digital platform is declared as having 'paramount cross-market significance for competition' (PCMS)²² then the competition authority may prevent it from discriminating by preferencing its own offerings, leveraging dominance in one market into another where it is not dominant, and limiting interoperability and data portability (Heinz et al., 2020; The government draft bill for the Tenth amendment, n.d.). What is unique here is that while the competition authority may end up going after dominant actors, the amendment does not mandate it. Thus, for a company to be declared with PCMS it need not be dominant as required by competition law. This means that acts like leveraging are abusive even if the platform with PCMS is not dominant in the leveraged market (Heinz et al., 2020).

The European Commission's Digital Markets Act (DMA) has been training its eyes on regulating platforms who have gatekeeping powers. The services it will cover include search engines, intermediation services, social networking services,

²² To be declared a company with PCMS, the company must occupy a significant part of a multi-sided market. The criteria which will be taken into account to come to such a conclusion include: - dominant position in one or more markets.

- financial strength or access to other resources.
- vertical integration and activities in other related markets.
- access to competitively relevant data; and
- the significance of its activities for third parties' access to procurement and sales markets, as well as the influence caused by this on third-party business activities.

interpersonal communication services, and cloud computing.²³ A digital platform offering a core service is deemed a gatekeeper if it has 'significant impact on the internal market' and "enjoys an entrenched and durable position in its operations or it is foreseeable that it will enjoy such a position in the near future."²⁴ The Vice- President of the French competition authority notes that the DMA is supposed to be complementary to competition policy. As an ex-ante instrument, 'the authorities will no longer need to delineate the relevant market, or identify a position of dominance before deciding that an actor violates obligations and banned practices. This should lead to greater efficiency' (Digital markets act: A new role for competition authorities, 2021).

The Act sets out both quantitative and qualitative criteria to identify gatekeeper platforms. If the digital platform meets pre-defined evidential thresholds of number of users, turnover, and market capitalisation it would be presumed to be a gatekeeper. This is a rebuttable presumption. Qualitative criteria are established on a case-by-case analysis by the Commission. The latter will take into consideration size, network advantages, data driven advantages, scale, and scope effects amongst others.²⁵

According to Article 5 of the Act, if a platform is identified as a gatekeeper, it cannot indulge in certain black-listed activities. These include disallowing third party sellers from offering their products on another service, disallowing third party sellers

²³ Article 2(2) Digital Markets Act

²⁴ Article 3 (1) Digital Markets Act

²⁵ Article 3(3), 3(6), Digital Markets Act

from contracting with users independently of the platform, and imposing their own ancillary services.²⁶ Other refrains directed at gatekeepers are outlined under Article 6, and in the future will require further specifications based on the platform in question. These include preventing users from installing third party applications (unless they impact the integrity of the hardware or operating systems provided by the gatekeeper), disallowing interoperability with third party applications, prioritizing their own offering and using data from third parties to compete against them, preventing fair and non-discriminatory access to app stores to third party platforms.²⁷

The UK is also in discussion to impose special obligations and regulations on gatekeeper digital platforms that include non-discriminatory access to platform facilities. The report by the ‘Digital Competition Expert Panel’ has advocated focusing regulation on firms that have ‘strategic market status’, i.e, ‘those in a position to exercise market power over a gateway or bottleneck in a digital market, where they control others’ market access’(Unlocking Digital Competition, 2019). This is a more flexible threshold of intervention compared to the EU’s quantitative approach (Jacobides, & Lianos, 2021). The report observes that often one or two firms acquire a high degree of control over buyers, sellers, and advertisers in a market. These firms should thus be made to abide by a special code to regulate unfair or unreasonable practices. The report argues that enforcing existing competition law is a long-drawn affair thereby

²⁶ Article 5, Digital Markets Act

²⁷ Article 6, Digital Markets Act

making it difficult to lay down clear rules for businesses (Kerber, 2019). The Code will be developed by a new regulatory authority (Digital Markets Unit) in consultation with industry and other stakeholders.²⁸ If these voluntary measures fail, then the report suggests that the Unit can enforce rules on its own. According to the Panel these agile pro-competitive measures can go beyond existing competition provisions (Unlocking Digital Competition, 2019).

5.1 The scope for ex-ante regulations in India

The application of EFD in India has primarily formed a part of the regulatory jurisprudence associated with access to physical infrastructures in sectors where the state traditionally controlled the infrastructure.

From the 1950’s to the 80’s institutional economic activity was subject to central planning, and the public sector was expanded to become monopolies within the government. Post the introduction of liberalisation policies these utilities were opened to private participation. Since the state was competing alongside private sector actors (for example state services BSNL/MTNL competes with private services like Bharati Airtel and Reliance), regulations were introduced, and independent regulators were established to assure private actors that the state would not favour itself (Thiruvengadam, 2017).

²⁸ Examples of the kinds of conduct the code would regulate include: the exclusion of rival products, showing preference for the platform’s own products, and penalising third parties from offering better deals on other sites.

REGION	TYPE OF REGULATION	SALIENT FEATURES OF THE REGULATIONS
<p>China</p>	<p>Antimonopoly Guidelines on Platform Economic Sector</p>	<ul style="list-style-type: none"> • If a platform is considered an essential facility, then it cannot refuse to deal with third parties who want access to the platform without justification. • Factors that will be taken into consideration to be deemed an essential facility: data occupied by the platform, the substitutability with other platforms, the existence of potential available platforms, the feasibility of developing competitive platforms, the degree of dependence of the operators on the platform, and the possible impact of opening the platform on the platform operator.
<p>Germany</p>	<p>Amendments to German Act against Restraints of Competition</p>	<ul style="list-style-type: none"> • Regulates digital platforms that are declared as having paramount cross-market significance for competition (PCMS). • For a company to be declared with PCMS it must occupy a significant part of a multi-sided market • If a company is declared to be with PCMS then the competition authority may prevent it from discriminating by preferencing its own offerings, leveraging dominance in one market into another where it is not dominant, and limiting interoperability and data portability

REGION	TYPE OF REGULATION	SALIENT FEATURES OF THE REGULATIONS
<p>European Union</p>	<p>Digital Markets Act (DMA)</p>	<ul style="list-style-type: none"> • The DMA seeks to regulate digital platforms offering a core service if deemed to be a gatekeeper. • Core services include search engines, intermediation services, social networking services, interpersonal communication services, and cloud computing • Gatekeepers are those that have ‘significant impact on the internal market’ and ‘enjoys an entrenched and durable position in its operations or it is foreseeable that it will enjoy such a position in the near future.’ • The DMA sets out both quantitative and qualitative criteria to identify gatekeeper platforms.
<p>United Kingdom</p>	<p>Code of conduct for companies with Strategic Market Status</p>	<ul style="list-style-type: none"> • The Digital Competition Expert Panel has advocated focusing regulation on firms that have ‘strategic market status’. • Firms with SMS are those that are in a position to exercise market power over a gateway or bottleneck in a digital market, where they control others’ market access. • Firms with SMS will be made to abide by a special code to regulate unfair or unreasonable practices that will be developed by a new regulatory authority (Digital Markets Unit) in consultation with industry and other stakeholders.

With the rise of private infrastructural platforms, India must once again engage in developing specific regulations that opens up these infrastructures to wider participation. The Supreme Court of India has recognized that private actors may be subject to public laws when their functions are of public interest. In *VST Industries Limited v. VST Industries Workers' Union and Anr* (2001) the court noted that:

The activities by private bodies may be governed by the standards of public law when its decisions are subject to duties conferred by statute or when, by virtue of the function it is performing or possibly its dominant position in the market, it is under an implied duty to act in the public interest.

If India decides to introduce ex-ante regulation of powerful digital platforms it can draw inspiration from utilities regulation that incorporated features of EFD ex-ante. Sectoral regulations like the Telecom Regulatory Authority of India (TRAI) Act 1997, the Electricity Act 2003, and the Petroleum and Natural Gas Regulatory Board (PNGRB) Act 2006, all contain provisions that embody the spirit of EFD. One of the duties of TRAI is to ensure technical compatibility between service providers. The PNGRB Act instituted common carriage and hence non-discriminatory access for the transportation of petroleum and petroleum products. The Electricity Act mandates the Central Transmission Utility to provide open access on the payment of a fee (Goyal, 2013).

Powerful tech companies, both local and foreign, are taking steps to entrench themselves in Indian markets, resulting in

multiple antitrust lawsuits against them. Time has come for the CCI to invest in regulating digital platforms through ex-ante measures (Kathuria, 2011) that are not constrained by the need to establish relevant-market or dominance. Like other jurisdictions have done, such regulation should account for the endemic dependencies powerful digital platforms cultivate. Further, the salient features of EFD can be institutionalized through subordinate legislation issued by the CCI itself as section 64 of the Competition Act empowers the CCI to issue rules.

066

Conclusion

6

Conclusion

Tech giants are often critical intermediaries that orchestrate interactions between multiple kinds of actors (users, buyers, sellers, content providers, advertisers, etc.) across multiple complementary markets. The positions they occupy in the economy have allowed them to inculcate and exploit the dependencies they create by leveraging their gatekeeping, transmission and scoring powers. These powers are abused by platforms by dictating to third parties, the terms, and conditions of their participation in the market. The paper asserts that digital platforms have come to mimic infrastructural properties like scale, non-rivalrous use, and dependency, and have acquired social value. Some have even referred to digital platforms as ‘technologies of life’ (Cruz & Harindranath, 2020). Consequently, it should become the state’s duty to ensure that everyone has reasonable and affordable access to the infrastructure (Field, 2018).

Regulating infrastructures to preserve the benefits of scale (network effects) but which promotes open and non-discriminatory access can take two paths, ex-post competition measures or ex-ante sectoral regulations. The paper discusses how EFD, read under the abuse of dominance provision of competition laws, is an important foothold in the regulation of privately held infrastructural platforms. Its main features, developed through case law in the US and EU, include non-

discriminate access, non-leveraging, non-duplication of infrastructures, and the removal of impediments to the emergence of new products for which there is consumer demand. Precedents set by the CCI have introduced the doctrine and these principles in India. However, the CCI’s general approach to the regulation of platforms has led to the prioritisation of innovation, affording both foreign and domestic powerful digital platforms great leeway to carry out actions which should otherwise be considered anti-competitive.

EFD, however, has some critical shortcomings – it is constrained by the prerequisite conditions of abuse of dominance under competition law that requires litigants to establish relevant markets and monopoly status prior to interception. Digital platforms behave like ecosystems and therefore defining exact markets is difficult. Further, platforms that are non-dominant also cultivate dependencies, which they often abuse. Although the development of the digital economy may have rendered some of the provisions of competition law ineffective, alternate measures have arisen that embody the spirit of EFD such as non-discriminatory access and anti-leveraging, without being encumbered by the high thresholds of competition law. These new developments have taken the form of ex-ante regulations of powerful digital platforms. India has had a rich history of regulating infrastructures through sectoral regulations. In fact,

many of these regulations such as TRAI Act 1997, the Electricity Act 2003, and the PNGRB Act 2006, all contain provisions with features of EFD. This presents an opportunity for India to consider regulating powerful digital platforms through ex-ante regulations and the establishment of an independent regulator to oversee these rules. Alternatively the new body may even exist within the CCI as has been suggested in the UK (Unlocking Digital Competition, 2019).

Future research could explore the exact contours of ex-ante regulation of digital platforms in India, as well as the nature, powers, and duties of the independent regulator. Investigating second and third order impacts of ex-ante measures would also be valuable to identifying policy next steps.

Powerful digital platforms have important social value that impact our lives as individuals and citizens (Van Dijck, 2019). Competition law thus has an important political and not just economic role to play in society (Simons & Ghosh, 2019). This requires investing in tackling systemic harms in the market through not only reactionary but also proactive regulations.

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