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HARMONY OR CONFLICT? ALIGNING IP RIGHTS AND COMPETITION LAW IN TECHNOLOGY MARKETS

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ABSTRACT:

Balancing Intellectual Property (IP) rights with antitrust regulation is absolutely necessary in the evolving digital economy. The former invokes innovation since there is a temporary situation of a monopoly, while the latter calls for competitive markets through prevention against monopolistic practices. How such conflicting objects can be better aligned by regulators for the promotion of innovation besides market competition will be discussed in this paper. The paper is dedicated to global approaches toward the integration of IP rights with competition law, focusing on key jurisdictions including the US, EU, and India. By reference to a few landmark rulings involving major technology giants like Google and Microsoft, this paper shall throw light upon how antitrust enforcement has, both in good and bad ways, shaped innovation. It also describes how the tech industry, in data and digital platforms, reacts to certain needs in the balance between competition and IP law. The paper also tries assessing how competition law plays a role in the development of innovation in sectors such as technology in terms of interoperability and preventing anti-competitive conducts. The paper attempts through the review of recent legal developments and regulatory trends a comprehensive analysis on how antitrust regulation might support innovation while discouraging anticompetitive acts that dampen incentives without undermining IP law. This study provides a nuanced view on how the challenges will continue into the future regarding balancing innovation with fairness in the market, specifically focusing on emerging technologies. This paper ends by recommending some policy reforms so that competition law and IP regulations can change as the needs of the 21st century economy demands.

Keywords: Antitrust, Intellectual Property, Innovation, Technology, Economy.

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INTRODUCTION

In the evolving context of the global economy, IP rights and competition law stand as two important, though many times conflicting domains. The former encourages innovation when granting temporary monopolies to creators; it allows them to get monetary returns from the fruits of their inventions. Whereas, the latter speaks towards the cause of market equilibrium through the prevention of monopolistic behaviour and promoting the growth of enterprises of different sizes. This effect is especially strong within technology-impacted markets where fast changes align with the complexity of data monopolies, platform economics, and the imperative to interoperability.[2]

This integration has stirred considerable debate between legal scholars, policymakers, and professionals in the profession.[3] Overprotection through intellectual property may lead to distortion of markets that can result in stifling of competition and innovation.[4] Conversely, overaggressive enforcement of antitrust could undermine the incentives for research and development and would thus impede technological progress.[5] Hence, this requires proper balancing towards the goal of promoting innovation but in a manner compatible with equitable market practices. This complicated nexus of intellectual property rights and antitrust laws involves special focus being placed within the tech-oriented and digital marketplace.

This paper explores how regional regulators are dealing with such tensions by reviewing global strategies by regions such as the United States, the European Union, and India.[6] This paper will provide the relevance of the critical cases of Qualcomm, Google Android, and Microsoft in order to analyse how the impact of antitrust enforcement varies between

[2] Joseph E. Stiglitz, *Intellectual Property Rights and Wrongs*, Project Syndicate (August 5, 2005), https://www.project-syndicate.org/commentary/intellectual-property-rights-and-wrongs.

[3] Richard Gilbert & Carl Shapiro, *Antitrust Issues in the Licensing of Intellectual Property: The Nine No-No's Meet the Nineties* (Brookings Papers on Economic Activity, 1997), https://www.brookings.edu/articles/antitrust-issues-in-the-licensing-of-intellectual-property-the-nine-no-nos-meet-the-nineties/.

[4] United Nations Conference on Trade and Development, *Competition Provisions in Regional Trade Agreements: How to assure development gains*, UNCTAD/DITC/CLP/2005/1, https://unctad.org/publication/competition-provisions-regional-trade-agreements-how-assure-development-gains.

[5] Herbert Hovenkamp, *Antitrust and Innovation: Where We Are and Where We Should Be Going* (77 Antitrust L.J. 749, 2011) https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=2834&context=faculty_scholarship.

[6] European Commission, Directorate-General for Competition, Montjoye, Y., Schweitzer, H., Crémer, J. *Competition policy for the digital era* (Publications Office, 2019), https://data.europa.eu/doi/10.2763/407537.

regions.[7] The paper further presents policy recommendations to promote an environment where innovation and competition can coexist. By investigating these issues, this article will contribute to the discussion on how to strike a balance between the market competition and intellectual property protection, to regulators, legislators, and other stakeholders in a quickly evolving economic environment.[8]

HARMONISING IP RIGHTS WITH COMPETITIVE MARKET PRACTICES

This is the essential area of tension between incentives to innovation and fair market behaviour-competition law. Intellectual property laws give inventors temporary monopolies that promote innovation and secure returns on investments.[9] On the other hand, these monopolies could become a platform for anti-competitive behaviour, which needs intervention in the name of competition law.[10] Differing jurisdictions like the United States, the European Union, and India apply various approaches towards reconciling these bodies of law.

1. THE UNITED STATES: BALANCING INCENTIVES AND MARKET FAIRNESS

   The United States has seen some tremendous developments in the intellectual property-competition law relationship through a mix of legislative and judicial enactments. While the Sherman and Clayton Acts regulate competition, the Patent Act affords protection to intellectual property.[11] A good example of how the judiciary approaches monopolistic abuse stemming from IP is the case of Microsoft.[12] In this scenario, Microsoft used its commanding position in the market to combine its software products and still was being scrutinized by antitrust despite its patent rights.[13]

   The US Supreme Court in *Illinois Tool Works Inc. v. Independent Ink, Inc.*, explained a patent on its own does not provide market power for antitrust purposes.[14] This law has

[7] Mark A. Lemley, *IP in a World Without Scarcity* (90 New York University Law Review 460, 2015), https://www.nyulawreview.org/wp-content/uploads/2018/08/NYULawReview-90-2-Lemley.pdf.
[8] *Id.*
[9] World Intellectual Property Organization, *Intellectual Property and Competition Policy*, CDIP/4/4 Rev. (2009), https://dacatalogue.wipo.int/projectfiles/DA_7_23_32_01/CDIP_4_4_Rev/EN/cdip_4_4_rev_EN.pdf; *Supra* note 2.
[10] *Supra* note 3; Michael A. Carrier, *Innovation for the 21st Century: Harnessing the Power of Intellectual Property and Antitrust Law* (Oxford Univ. Press, 2009), file:///E:/Downloads/ssrn-1368931.pdf.
[11] *Patent Act*, 35 U.S.C. §§ 1–376 (2012); Sherman Act, 15 U.S.C. §§ 1–7; *Clayton Act*, 15 U.S.C. §§ 12–27, 29 U.S.C. §§ 52–53 (2012).
[12] United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).
[13] *Id.*
[14] Illinois Tool Works Inc. v. Independent Ink, Inc., 547 U.S. 28 (2006).

focused that intellectual property rights themselves are not sufficient to trigger antitrust examination and instead foster creativity without excessive interference by the regulatory authority.

The case of *Eastman Kodak Co. v. Image Technical Services, Inc.* illustrates an entirely different aspect of this balance. The Supreme Court ruled that Kodak's patent of replacement parts for its equipment constituted an abuse of its dominant power, although the patent itself was valid.[15] In this case, the court emphasized a possibility of using intellectual property to stifle competition to lead to antitrust liability.

'Patent misuse doctrine' also prevents proprietors of IPs from venturing monopolies further than those provided in statutes.[16] Recent cases like *FTC v. Qualcomm* illustrate the way in which licensing and royalty practices can also violate antitrust because they hinder competition in profoundly innovative industries.[17]

2. THE EUROPEAN UNION: PRIORITIZING CONSUMER WELFARE

The European Union takes an approach that is stricter towards the balancing of intellectual property rights and competition law. Articles 101 and 102 of the TFEU prohibit agreements affecting competition and abuse of dominant positions.[18] A vivid example is the European Commission's investigation of Google's practices relating to Android.[19] This led to the European Commission imposing fines on Google for its licensing conditions, which were found to have had a restrictive effect on manufacturers, thereby limiting competition and further choice to consumers.[20]

The European Court held an abuse of dominance when a party refuses from licensing IP in *IMS Health GmbH v. NDC Health GmbH* where that refusal may prevent appearance of new products which the consumer desires to buy.[21] Again it indicates consumer benefits have precedence to pure IP rights.

Another is *AstraZeneca AB v. European Commission*, which held AstraZeneca liable for abusing its dominant position in misusing the patent system to delay generic competition

[15] Eastman Kodak Co. v. Image Technical Servs. Inc., 504 U.S. 451 (1992).
[16] B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419 (Fed. Cir. 1997).
[17] FTC v. Qualcomm Inc., 969 F.3d 974 (9th Cir. 2020); *Id.*
[18] Consolidated Version of the Treaty on the Functioning of the European Union, arts. 101–102, Oct. 26, 2012, 2012 O.J. (C 326) 47.
[19] Google and Alphabet v. Commission, Case T-604/18, decided on 18 July 2018.
[20] *Id.*
[21] IMS Health GmbH v. NDC Health GmbH, Case C-418/01, 2004 ECR I-5039.

in the drug market.[22] It thus demonstrates that the EU does not support IP-related practices that have a negative impact on market competition.

Furthermore, the "essential facilities doctrine" established by the European Union has proven to be effective in facilitating equitable market access, even in the context of intellectual property rights.[23] For instance, in the Magill case, the European Court of Justice instructed the broadcasters to license their copyrighted television listings, thereby illustrating that intellectual property rights could not be utilized as a barrier to deny essential resources to competitors.[24]

3. INDIA: A DEVELOPING JURISDICTION'S PERSPECTIVE

The Competition Act, 2002 is India's regulatory framework for the practice of competition law. This aims at achieving a proper balance between intellectual property rights and the practices that are likely to harm competition.[25] For most part, as illustrated in *Ericsson v. Intex*, the Indian courts and the Competition Commission of India have achieved a just balance between issues of Standard Essential Patents (SEP) and fair licensing terms.[26] According to the CCI, while patent rights do provide exclusivity, its exercise should not adversely affect competitive dynamics.[27]

In *Ericsson v. Micromax*, the Competition Commission of India (CCI) interrogated claims regarding excessive royalty demands over the SEPs.[28] This is when the CCI found that holders of SEPs indeed are entitled to license their patents under the conditions of FRAND (Fair, Reasonable and Non-Discriminatory terms).[29] In fact, the case was another success of balancing intellectual property rights by competition law within the Indian jurisdiction.

Investigation into the claims of market dominance by data policies from WhatsApp and Facebook goes deep, underlining a pattern of ever-growing interest in digital markets in

[22] AstraZeneca AB v. Commission, Case T-321/05, 2010 ECR II-2805.
[23] White & Case LLP, *EU Court of Justice Clarifies Scope of Essential Facilities Doctrine in Lithuanian Railways Case*, White & Case (Dec. 4, 2020), https://www.whitecase.com/insight-alert/eu-court-justice-clarifies-scope-essential-facilities-doctrine-lithuanian-railways.
[24] Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v. Commission, Joined Cases C-241/91 P and C-242/91 P, 1995 ECR I-743.
[25] The Competition Act, No. 12 of 2003, INDIA CODE (2003).
[26] Intex Technologies (India) Ltd. v. Telefonaktiebolaget LM Ericsson (Publ), Case No. 76/2013, CCI.
[27] *Id.*
[28] *Id.*
[29] *Id.*

India.[30] These cases reflect how the relationship between IP, competition law, and innovation in India is changing.

This is challenging in achieving this balance, where the Ministry of Corporate Affairs proposes several reforms, and exemptions from intellectual property fall under the balance of competition law.[31]

These call for further harmonization in both intellectual property and competition law to promote more inclusive forms of innovation. Cross-border matters such as data monopolies and SEP license disputes become very complicated and require global coordination towards maintaining equality and consistency.[32]

CASE STUDIES OF ANTITRUST ACTIONS AND THEIR IMPACT ON INNOVATION

Antitrust enforcement is an important ingredient for innovation development, especially in technology-intensive markets. This chapter expands the discussion on active regulation in major cases by jurisdiction.

1. QUALCOMM: LICENSING PRACTICES AND SEP

The American case, *FTC v. Qualcomm* [33], is the collision between antitrust law and intellectual property rights on Standard Essential Patents. The 'no-license, no-chips' policy of the firm compelled a cell-phone manufacturer to pay royalties for the complete product instead of the patented portion thereof, thus forcing these companies to accept higher-than-normal royalties to obtain the licensed patents and thereby reducing the amount of competition.[34]

Here, the Federal Trade Commission argued that Qualcomm was misusing its dominant position in standard-essential patents to extract exorbitant royalties and so stifle innovation for the benefit of its competitors.[35] Even though the Ninth Circuit overturned

[30] Harshita Chawla v. WhatsApp Inc. and Facebook Inc., Case No. 15 of 2020, CCI.
[31] Ministry of Corporate Affairs, *Draft National Competition Policy for India* (July 28, 2011), https://www.mca.gov.in/Ministry/pdf/DraftNationalCompetitionPolicyForIndia-28th_July2011.pdf.
[32] World Intellectual Property Organization, *Settling IP Disputes Through Arbitration and Mediation: WIPO Services*, https://www.wipo.int/sme/en/settle-ip-disputes.html.
[33] FTC v. Qualcomm Inc., 969 F.3d 974 (9th Cir. 2020).
[34] *Id*. at 982.
[35] *Supra* note 9.

the district court's ruling, a pronouncement as important as an approach to enforcement respecting innovation cannot be overstated.[36]

2. GOOGLE ANDROID: RESTRICTIVE LICENSING AND MARKET DOMINATION

In particular, the European Commission's probe of Google's Android operating system clearly depicted how antitrust actions can control monopolistic tendencies in the digital arena. In this case, Google was requiring the companies to install its search and Chrome browser in exchange for offering its Android application store. Thus, it dominated both the markets of search and advertisement.[37]

The European Commission fined Google €4.34 billion for anti-competitive practices, arguing that these restrictions reduced competition in search services and prevented innovation in mobile operating systems.[38] Such a verdict reflects the commitment of the European Union to choosing consumer preference and avoiding a monopolistic control in any emerging market.[39]

3. MICROSOFT: TYING AND ABUSE OF DOMINANCE

United States v. Microsoft: The case remains one of the most classic examples of applying antitrust laws to technology. Microsoft bundled its Internet Explorer web browser into its Windows operating system by relying on its market dominance to quell competition presented by Netscape Navigator.[40]

The U.S. Department of Justice argued that the actions of Microsoft prevented innovation in web browsing technologies by driving out competitors.[41] Hence, the incorporation of a behavioural treatment that involved restrictions on bundling practices had also resulted in an intensified competitive environment.[42]

4. INDIA'S ERICSSON SEP DISPUTES

Cases under India's competition law relating to SEPs have also been noteworthy in this regard. In *Ericsson v. Micromax*, the CCI was asked to examine Ericsson's royalty rates

[36] *Id*.
[37] Google and Alphabet v. Commission, Case T-604/18, decided on 18 July 2018.
[38] *Id*.
[39] *Id*.
[40] United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).
[41] *Id*.
[42] Richard A. Posner, Antitrust Law, 2nd ed., Univ. of Chicago Press, 2001.

on SEPs that were said to be discriminatory against Indian companies.[43] On the facts, the CCI noted that while the holders of SEPs were free to license their patents, they had to do so in compliance with their FRAND obligations under the license terms.[44]

This would provide a perfect precedent in the balance between IP rights and competition law across India, ensuring that SEP licensing fosters rather than inhibits innovation.[45]

5. APPLE V. SAMSUNG: PATENT LITIGATION AND COMPETITIVE PRACTICES

The much-talked-about patent infringement issue related to the alleged rights between the technology giants Apple and Samsung has been a vital influencer on competitiveness, especially in relation to the claims of infringement upon patent rights.[46] Apple asserted that its smartphone designs as well as utility patents undergird an important portion of Apple's competitive advantages.[47] Courts in the United States favoured Apple and weighed out large damages, but the critics pointed to such heavy reliance on intellectual property protections in competitive markets as leading to incremental limitation of innovation.[48]

This proved that the process of enforcing rights in such a fast-moving technology with high competition is bound to be complex.[49]

6. UNITED BRANDS V. COMMISSION: ABUSE OF DOMINANCE AND INNOVATION

In *United Brands v. Commission*, the European Court of Justice decided whether the particular policies of United Brands in relation to pricing and its refusal to supply bananas to certain wholesalers constituted an abuse of dominance.[50] The court ruled United Brands had abused its dominant position by preventing actual or potential competition.[51]

Although not an IP-specific case, it was an important case precedent as to how dominant firms can strangle market innovation through exclusionary practices.[52] Such a decision

[43] Micromax Informatics Ltd. v. Telefonaktiebolaget LM Ericsson, Case No. 50/2013, CCI.
[44] *Id*.
[45] Ministry of Corporate Affairs, *Report of the Competition Law Review Committee* (July, 2019), https://www.ies.gov.in/pdfs/Report-Competition-CLRC.pdf.
[46] Apple Inc. v. Samsung Elecs. Co., 678 F.3d 1314 (Fed. Cir. 2012).
[47] *Id*. at 1320.
[48] *Supra* note 9.
[49] *Id*.
[50] United Brands Co. v. Commission, Case 27/76, 1978 ECR 207.
[51] *Id*. at 240.
[52] *Supra* note 22.

has since shaped many subsequent cases dealing both in IP and competition law in the EU.[53]

7. PAY-FOR-DELAY AGREEMENTS: THE PHARMACEUTICAL SECTOR BETWEEN THE EU AND US

Pay-for-delay agreements are those agreements by which patent owners pay generic drug manufacturers to delay launching the more affordable generic versions. Pay-for-delay agreements have thus received significant scrutiny under the antitrust laws of Europe and the United States.[54] For instance, Lundbeck was fined $93.8 million by the European Union due to its anticompetitive conduct in delaying the generic antidepressant.[55] Similar case in the United States is *FTC v. Actavis* wherein the Supreme Court resolved such an issue that found such agreement violated the antitrust laws due to the tendency that would support the maintenance of the monopoly power and the suppression of competition.[56]

These examples portray the fine line that must be drawn to ensure that intellectual property protections do not create artificial barriers of entry.[57]

ROLE OF COMPETITION LAW IN STIMULATING INNOVATION IN TECHNOLOGY

Competition law in technologically driven markets plays a key role in fostering innovation through the eradication of anti-competitive practices, facilitation of entry into markets, and interoperability. The dynamics of the technology sector are very different and include network effects, data monopolies, and rapid innovation.[58] This section explains how competition law while enhancing innovation maintains fair dynamics within the market.

1. PREVENT ABUSE OF DOMINANCE IN DIGITAL PLATFORMS

Digital platforms possess significant influence within the current technological ecosystems, by means of data as an asset. Corporations such as Google, Amazon, and Facebook have been subject to antitrust examination because of conduct that is anticompetitive and blocks innovation.[59] Such is the case with Google Search, in which

[53] *Id*.
[54] *Supra* note 3.
[55] European Commission, *Lundbeck Case*, Case COMP/AT.39226 (2013).
[56] *FTC v. Actavis, Inc.*, 570 U.S. 136 (2013).
[57] *Id*.
[58] *Supra* note 4.
[59] European Commission, *Digital Markets Act: Ensuring Fair and Open Digital Markets*, https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/digital-markets-act-ensuring-fair-and-open-digital-markets_en.

the European Commission prosecuted Google Search for promoting services from the Google stable while neglecting others, leading to its relegation below those from a smaller company.[60] Applying fines amounting to an amount of €2.42 billion, the commission ensured corrective action in their behaviour on countering exploitative practices into digital markets.[61] The CCI has put the inquiry with respect to the privacy-related issues for WhatsApp, reflecting that where the competition laws have empowered control over platforms holding monopoly positions from reaping unjust advantages, further would block innovation and limit consumer preference.[62] Examples of such interventions demonstrate ways in which competition law forms a safety net for this end: an open and competition-friendly environment for technological breakthroughs.[63]

2. ENCOURAGING INTEROPERABILITY AND STANDARDS

Interoperability is a must ingredient in technology markets because proprietary standards create an entry barrier. Competition law is directed at preventing dominant firms from using rights in intellectual property to prohibit interoperability or to create so-called "walled gardens".[64] In the Microsoft Interoperability case, the European Commission compelled Microsoft to make information available to its competitors to allow interoperability with its operating systems.[65] The decision did not merely promote competition but also innovation by enabling smaller companies to develop complementary products.[66]

Standard Essential Patents is one of the largest areas in which fair licensing is ensured by the competition law. Through the FRAND principle, it encourages innovation as well as prevents SEP owners from abusing their power.[67] Legal cases such as *Huawei v. ZTE* make FRAND conditions imperative to the maintenance of competitiveness and encouragement of innovation in the marketplace.[68]

3. DATA MONOPOLIES AND ARTIFICIAL INTELLIGENCE

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[60] Google Search (Shopping) Case, Case AT.39740, European Commission (2017).
[61] *Id.*
[62] Harshita Chawla v. WhatsApp Inc. and Facebook Inc., Case No. 15 of 2020, CCI.
[63] *Id.*
[64] *Supra* note 22.
[65] Microsoft Corp. v. Commission, Case T-201/04, 2007 ECR II-3601.
[66] *Id.*
[67] World Intellectual Property Organization, *Standard Essential Patents (SEPs)*, https://www.wipo.int/en/web/patents/topics/sep.
[68] Huawei Technologies Co. v. ZTE Corp., Case C-170/13, ECLI:EU:C:2015:477.

The new challenge under competition law, especially relating to AI, is data monopolies. Many tech giants possess high volumes of user data, which translates into a favourable position versus small businesses, which lack the same ground for rivalry. The case of Facebook-Germany exemplifies the anti-competitive effects of the dominance of data because of the fact that the regulators have compelled Facebook to change the practice of data collection.[69]

It creates additional risks as associated with the algorithmic collusion, such as those of companies doing unintentionally collusive conduct to synchronize price or limit entry into markets, [70] and must evolve on that basis into producing frameworks promoting innovation while counteracting risks of anti-competitive harms.[71]

POLICY RECOMMENDATIONS ON BALANCING IP AND COMPETITION LAW

This balance between intellectual property rights and competition law will therefore foster innovation with the protection of fair market practices. The regulatory frameworks called for must be sensitive to emerging challenges in a rapidly advancing technological and digital market development. Recommendations to policymakers have been practically made, based on how the balance can be affected between incentives for innovation and protections against anti-competitive practices.

1. STRENGTHEN LICENSING PRACTICE STANDARDS

At minimum, standards regarding licensing practice for SEPs issued by both government and competition authority, should be as specific as possible. Licensing should only be practiced according to FRAND and must not be unevenly weighted to deny or allow access to patented technologies equitably.[72] For example, in cases of *Huawei v. ZTE*, this is the reason behind having clear licensing guidelines - it is in order not to abuse, but even to innovate more cooperatively.[73]

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[69] German Federal Cartel Office, *Bundeskartellamt prohibits Facebook from combining user data from different sources*, https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2019/07_02_2019_Facebook.html.

[70] Ariel Ezrachi & Maurice Stucke, *Virtual Competition: The Promise and Perils of Algorithm-Driven Markets*, Osgoode Hall Law Journal 55.2 (2018).

[71] UNCTAD, *The Future of AI: Why Innovation and Regulation Must Go Hand in Hand* (2023), https://unctad.org/podcast/future-ai-why-innovation-and-regulation-must-go-hand-hand.

[72] *Supra* note 66.

[73] *Huawei Technologies Co. v. ZTE Corp.*, Case C-170/13, [2015] ECLI:EU:C:2015:477.

Such advancements may lead to regulatory pressure to create specialised courts specific to the resolution of SEPs-related disputes so as to expedite dispute settlement and reduce litigation costs.[74]

2. PROMOTE INTEROPERABILITY AND OPEN STANDARDS

Regulators will require interoperability between conflicting systems, especially in markets controlled by proprietary platforms.[75] Therefore, open standards policies decrease obstacles to entry and induce new innovations in the markets.[76] The case for Microsoft Interoperability has been paradigmatic; unless it is mandated, the latter will not be achievable.[77]

Tax incentives or grants to companies implementing the open standards can motivate the stakeholders to encourage open-source development, balancing between protection of IP and public interest.[78]

3. ANTI-DATA MONOPOLIES AND ALGORITHMIC COLLUSION

Big data and artificial intelligence require a more proactive posture from competition authorities in regulating new anti-competitive conducts, which have the potential to adversely affect the market's level of competition.[79] The authority must, therefore, provide mechanisms for algorithmic collusion detection and prevention.[80]

Additionally, compulsory provisions for data sharing would make all datasets available to smaller-scale businesses to promote innovation and help curb monopolistic practices.[81] The EU General Data Protection Regulation is the gold standard set in balancing the difficulties created by data accessibility with the privacy worries.[82]

4. ESTABLISH SECTOR-SPECIFIC REGULATORY BODIES

The regulatory framework will then have sector-specific bodies within it. This will mean that those sector-specific bodies will oversee sector-specific knowledge, catching specific

[74] *Supra* note 31.
[75] *Supra* note 4.
[76] *Id.*
[77] *Microsoft Corp. v. Commission*, Case T-201/04, 2007 ECR II-3601.
[78] UNCTAD, *Ensuring Open, Competitive and Fair Digital Markets* (Dec. 10, 2024), https://unctad.org/news/ensuring-open-competitive-and-fair-digital-markets.
[79] *Supra* note 69.
[80] *Id.*
[81] European Commission, *Strategy on Data*, https://digital-strategy.ec.europa.eu/en/policies/strategy-data.
[82] GDPR, Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, 2016 O.J. (L 119) 1.

expertise relating to matters of policy. This kind of approach applies best in sectors such as technology and pharmaceuticals, simply because such businesses are distinctive by nature, especially about matters of intellectual property and competition.[83]

5. ENCOURAGE CROSS-BORDER COLLABORATION

Innovation is a cross-border phenomenon therefore international cooperation is required. Policymakers must be working on an international level to have international treaties and agreements for intellectual property and competition laws.[84] For example, guidelines issued by WIPO on intellectual property and competition is an excellent step in terms of cross-border cooperation.[85]

6. PUBLIC INTEREST SAFEGUARDS

Competition authorities have to balance intellectual property rights against antitrust regulations by considering the public interest. For example, where the cases involve essential medicines, the regulatory authority can rely on provisions for compulsory licensing so that it can ensure that the medicines are affordable without sacrificing incentives for innovation.[86] The case of Bedaquiline in India is an example of how competition law needs to be aligned with the imperatives of public health.[87]

CONCLUSION

The complex nexus of intellectual property rights with competition law only underlines the difficulties arising from holding such a sensitive balance that should be met between pushing for innovation and ensuring balanced practices in markets. Thus, intellectual property rights-encouraged creativity and innovation may spur anti-competitive behaviour if practiced under the monopolistic or oligopolistic regimes. On the other hand, an overly strict application of competition law will undermine incentives for investment in R&D and stifle innovation in the key sectors. Pivotal cases such as Microsoft, Google Android, and Qualcomm demonstrate the complex role of competition law in managing intellectual property-related dominance. Moreover, these cases demonstrate the role of regulatory measures in furthering innovation,

[83] *Supra* note 44.
[84] *Supra* note 8.
[85] *Supra* note 5.
[86] S. Abhipsha Dash, *The Bedaquiline Saga: Overlap Between Intellectual Property Rights and Competition Law*, CSIPR Blog, 24th February 2024, https://csipr.nliu.ac.in/miscellaneous/the-bedaquiline-saga-the-overlap-between-intellectual-property-rights-and-competition-law/.
[87] *Id*.

facilitating interoperability, and mitigating exclusionary behaviour. The pharmaceutical industry, as represented in the Bedaquiline case, demonstrates the broader social effects of this balance, as it shows how competition law and public health needs can meet. The focus of the policymakers and the regulatory authorities will be on imperative changes of legal structures responsive to market dynamics, which change with these emerging digital and AI innovations. Ultimately, a balance such as this will be struck by implementing certain recommendations for licensing standards, interoperability, combating data monopolies, and international cooperation. Thus, while the existence of balanced competition coincides with a culture of innovation, the regulatory body will be able to ensure that technological advancement has its benefits shared among consumers and innovators alike and, importantly, that such benefitting is fair. This paper contributes to the ongoing debate by providing insights and practical recommendations aimed at facilitating navigation through this intersection within a global economy.