FROM INNOVATION TO EXCLUSION: REASSESSING THE INTELLECTUAL PROPERTY RIGHTS, COMPETITION LAW INTERFACE IN DIGITAL MARKETS

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ABSTRACT

The rapid growth of digital markets has transformed traditional understandings of innovation, competition, and market power. While Intellectual Property Rights (IPRs) remain essential for encouraging technological advancement and rewarding innovation, their interaction with Competition Law has become increasingly complex in the digital economy. The emergence of data-driven platforms, network effects, platform ecosystems, and technology-based market structures has enabled firms to acquire and maintain significant market power, raising concerns regarding exclusionary conduct and barriers to competition. This paper examines the evolving relationship between Intellectual Property Rights and Competition Law, with particular emphasis on the Indian legal framework. It analyses the extent to which intellectual property protection may contribute to market dominance and explores the role of competition law in addressing anti-competitive practices without undermining incentives for innovation. The study further examines issues relating to data concentration, platform dominance, Standard Essential Patents (SEPs), FRAND commitments, and exclusionary practices in digital markets. It argues that Intellectual Property Rights and Competition Law should not be viewed as conflicting legal regimes but as complementary mechanisms that collectively promote innovation, consumer welfare, and economic efficiency. The paper concludes that an effects-based and balanced regulatory approach is necessary to ensure that intellectual property protection continues to encourage innovation while preserving competitive opportunities in the digital economy.

Keywords: Intellectual Property Rights, Competition Law, Digital Markets, Market Power, Platform Dominance, Standard Essential Patents, Innovation.

CHAPTER 1

1.1 Intellectual Property Rights and Competition Law: Conceptual Foundations

Innovation is a deal for the economy these days. New technology, creative ideas, and scientific progress are all important for growth. They also make people's lives better. Laws are made to help innovation happen while keeping markets fair and open. Intellectual Property Rights and Competition Law are key to this.

Intellectual Property Rights help innovation by giving people who create things with some control over what they make. This means they can get paid for their work. Patents, copyrights, and trademarks are all types of protection. They let people who invent things get back the money they spent on research and development. Without these laws people might not want to spend time and money on ideas. So Intellectual Property law helps innovation by giving people a reward for their work.

Competition Law is different. Just as important. It makes sure markets are fair by stopping companies from working in bad ways or being mean to others. When companies compete, it's good for everyone. Prices are lower, people have choices, and innovation keeps happening. Competition Law does not care about companies; it cares about keeping the market fair. This helps people who buy things and makes the economy grow[1].

In the past people thought Intellectual Property Rights and Competition Law were against each other. Intellectual Property Rights give companies some power while Competition Law tries to stop companies from getting too powerful. This made people think that Intellectual Property Rights create monopolies while Competition Law tries to break them up. It seemed like these two areas of law were always fighting.

Nowadays people think differently. They realize that Intellectual Property Rights and Competition Law actually work together. Both help innovation makes the economy work better and make people's lives better. Intellectual Property Rights give people a reason to innovate while Competition Law makes sure markets are fair. Although they are against each other, these two areas of law work together to help innovation happen.

[1] Competition Act, 2002 (India); Richard Whish & David Bailey, *Competition Law* (11th edn., Oxford University Press 2021).

This is especially true in industries where technology is key. Companies compete by making things and being different. Intellectual Property Rights help this competition by rewarding innovation. Competition Law makes sure that companies that are successful do not use their power to stop others from competing. The goal is not to take power that comes from innovation but to stop companies from using that power in bad ways.

The Internet has changed how these laws work together. New technology and business models have changed the market. Intellectual Property Rights, like patents and copyrights, are very important in these markets. People who make laws are worried about how to balance these rights with competition. They need to make sure that Intellectual Property Rights do not stop companies from competing.

The challenge is to make sure both Intellectual Property Rights and Competition Law work together. If Intellectual Property Rights are too strong, they might stop innovation. If Competition Law is too weak, companies might use their power to stop others from competing. Finding a balance is key to keeping the economy growing and fair[2].

We need to look at Intellectual Property Rights and Competition Law in the context of the Internet and business models. This will help us understand how they work together and how to make them work better.

1.2 The Rise of Digital Markets. The Transformation of Market Power

The way we do business has changed a lot with the rise in markets. Digital markets have changed how we buy and sell things and how companies get and use power. A time ago companies got power by controlling things like factories, stores and money. Now digital markets are driven by things you cannot touch, like data, computer programs, and digital platforms.

Digital markets are like online places where people and companies meet to buy and sell things. We have search engines, social media, online stores, and cloud computing. These places help people and companies connect and do business. They make it easy for us to find things to talk about and share information.

[2] Organisation for Economic Co-operation and Development (OECD), *Data-Driven Innovation for Growth and Well-Being*(OECD Publishing 2015).

One big thing about markets is that they have something called network effects. This means that when more people use a service, it becomes more useful and attractive to others. For example, a social media site is more fun when you have a lot of friends on it. Online stores are better when they have a lot of buyers and sellers. This makes it hard for new companies to compete.

Data is also very important in markets. Companies. Use a lot of data to make their services better and to sell things to us. They use data to show us ads we might like and to make their services more useful. When companies have a lot of data, they can make their services even better, which attracts users and gives them even more data.

The way companies get power in markets is different from the way they used to. Sometimes companies do not charge us money to use their services. Instead, they make money from ads or sell our data. We need to look at how companies get and use power in ways. We need to think about how they control our attention to our data and their platforms.

Big technology companies often have a lot of services that work together. This can be good for us because it makes things easy to use. It can also make it hard for us to switch to a different company if we want to. This gives those companies a lot of power.

Intellectual Property Rights are also important in markets. These rights help companies protect their ideas and inventions. They can also help companies get and keep power.

All these changes mean that we need to think about competition in a way. We need to consider things like data, technology, and network effects when we look at how companies compete[3]. We want companies to be able to innovate and succeed. We also want to make sure that they do not get too powerful and prevent others from competing.

The rise in markets and the transformation of market power is a big challenge for us. We need to figure out how to make sure that companies can innovate and compete while also making sure that markets are fair and open. Digital markets are changing how we live and work, so we need to understand how they work and how to make them work for everyone. Digital markets and the digital economy are changing everything. We need to pay attention to digital markets

[3] Organisation for Economic Co-operation and Development (OECD), *Rethinking Antitrust Tools for Multi-Sided Platforms*(2018).

and the digital economy[4].

1.3 Scope and Objectives of the Study

The growing significance of digital markets has intensified the need to examine the relationship between Intellectual Property Rights (IPRs) and Competition Law. While intellectual property protection remains essential for encouraging innovation and technological advancement, concerns have emerged regarding the way exclusive rights may interact with market power in digital environments. The increasing influence of data-driven platforms, network effects and technological ecosystems has blurred the traditional boundaries between legitimate exclusivity and anti-competitive conduct, making the IPR–Competition interfaces a subject of considerable legal and policy importance.

This study seeks to examine how Intellectual Property Rights and Competition Law interact within the context of digital markets. It analyses the extent to which intellectual property protection contributes to innovation while also exploring circumstances in which the exercise of such rights may affect market competition. Particular attention is given to the Indian legal framework, especially the Competition Act, 2002, and its approach towards balancing innovation incentives with competitive market principles.

The study further explores key issues arising from the digital economy, including the role of data as a source of market power, the impact of network effects on competition, platform dominance, exclusionary business practices and the competition implications of intellectual property-backed market power. It also examines the significance of Standard Essential Patents (SEPs), FRAND commitments and the limits of legitimate exclusivity under Indian competition law.

The primary objective of this research is to demonstrate that Intellectual Property Rights and Competition Law should not be viewed as inherently conflicting legal regimes. Instead, both frameworks operate towards the common goals of innovation, consumer welfare, and economic efficiency. The study argues that an effects-based and balanced approach is necessary to ensure that intellectual property protection continues to promote innovation without undermining

[4] Furman Review, *Unlocking Digital Competition: Report of the Digital Competition Expert Panel* (Government of the United Kingdom 2019).

competitive opportunities in digital markets.

To analysis, the paper is divided into four chapters. Chapter I introduces the conceptual relationship between Intellectual Property Rights, Competition Law and digital markets. Chapter II examines the Indian legal framework governing the interface between intellectual property protection and competition regulation. Chapter III analyses exclusionary practices and emerging forms of market power in digital markets. Finally, Chapter IV provides recommendations for strengthening the IPR–Competition interface and concludes with the study by highlighting the need for a balanced regulatory approach in the digital economy.

CHAPTER 2

INTELLECTUAL PROPERTY RIGHTS AND COMPETITION LAW IN THE INDIAN LEGAL CONTEXT

2.1 The Intellectual Property & Competition Law Interface in India

The relationship between Intellectual Property Rights and Competition Law is very important in today's economy. Both laws aim to promote innovation, economic growth, and consumer welfare. However, they work in ways. Intellectual Property law gives creators rights over their work. This helps them earn benefits from their innovation and get back the money they invested in research and development[5].

On the hand, Competition Law ensures that markets stay competitive. It stops actions that limit market access, distort consumer choices, or create power[6]. So, the big question is: when does having exclusive rights stop encouraging innovation and start hurting competition?

In the past people saw Intellectual Property Rights as exceptions to competition rules. Patents, for example, let inventors stop others from using their inventions without permission. Copyrights give control over work. Trademarks protect a businesss brand identity and a good reputation[7]. These rights give their holders some market power.

Today competition law does not see all exclusivity as a problem. The issue arises when

[5] Robert P. Merges, *Justifying Intellectual Property* (Harvard University Press, 2011) 1–25.
[6] Richard Whish & David Bailey, *Competition Law* (10th edn, Oxford University Press 2021) 1–18.
[7] W.R. Cornish, David Llewelyn & Tanya Aplin, *Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights*(9th edn, Sweet & Maxwell 2019) 3–20.

exclusivity is used in a way that goes beyond protecting property and harms competition.

Innovation usually needs some incentives. The chance to have rights for a limited time encourages investment in technology, creativity and research. At the time innovation works best in open markets with competition new entries and technological progress. So Intellectual Property law and Competition Law are not opposing forces. They work together in the economic system. Intellectual Property law encourages innovation by offering incentives. Competition Law makes sure these incentives do not become barriers to innovation.

The Indian legal system reflects this changing approach. The Competition Act of 2002 does not question the legitimacy of Intellectual Property Rights. Instead, it ensures that these rights are used in a way that's consistent with competitive market principles. Section 3(5) of the Act recognises the right of intellectual property holders to set conditions. It also allows competition law to intervene if exclusionary conduct harms market competition[8].

This interface has become very significant with the rise of technology-driven markets. In areas like telecommunications, software, digital platforms, artificial intelligence and e-commerce Intellectual Property often plays a role. Control over patents, technologies, software, algorithms and data infrastructure can influence innovation and market structure.

Recent cases have shown that Intellectual Property Rights can sometimes be used to strengthen market dominance. Too much competition intervention can risk reducing incentives for innovation and investment. The challenge is to apply both Intellectual Property Protection and Competition Law in a way that encourages innovation and prevents exclusion[9].

In the economy, this challenge is even more urgent. Market power now comes not from traditional Intellectual Property but also from network effects, data concentration, and technological dependence. Therefore, the line between exclusivity and anti-competitive conduct is harder to draw[10]. The debate today is about how to balance Intellectual Property protection with the goals of competition, consumer welfare and public interest.

The Indian experience provides insights into the changing relationship between Intellectual Property Rights and Competition Law. Understanding this interface is crucial, for addressing

[8] Competition Act, 2002, s 3(5).
[9] Telefonaktiebolaget LM Ericsson v Competition Commission of India, 2016 SCC OnLine Del 1951.
[10] Competition Commission of India, *Market Study on the Telecom Sector in India* (2021).

the challenges of digital markets. It helps in determining when innovation-driven exclusivity can turn into conduct.

2.2 Section 3(5) of the Competition Act and the Limits of Legitimate Exclusivity

The Competition Act and Intellectual Property Rights are closely linked in India. Section 3(5) of the Competition Act, 2002 is an example of this. It says that having Intellectual Property Rights means you have some exclusivity. This exclusivity is necessary to protect these rights. However it also means that sometimes you have to put restrictions in place that might not be allowed under competition law.

Section 3(5) tries to find a balance between protecting innovation and keeping the market competitive. It says that people with Intellectual Property Rights can impose conditions to protect their rights. These rights include patents, copyrights, trademarks and more. The reason for this exemption is simple: Intellectual Property Rights are valuable because they are exclusive. If people who create something cannot control how it is used they will not be incentivized to innovate.

Section 3(5) is not just about protection. It also has limitations. Not everything related to Intellectual Property Rights is exempt from competition law. Only restrictions that are necessary to protect the rights are allowed. The term " conditions" is important because it sets a limit. If restrictions go beyond what's necessary and start to exclude others they are no longer justified.

The difference between protection and exclusion is key to understanding Intellectual Property Rights and competition law. Intellectual Property Law allows exclusivity to encourage innovation. Competition law steps in when exclusivity starts to hurt the market. So the question is not whether a restriction is related to Intellectual Property Rights but whether it is proportionate to the goal of protecting those rights.

This is especially important in technology and digital markets. In these markets Intellectual Property Rights can be combined with factors like control over data and platform advantages. Restrictions imposed to protect Intellectual Property Rights can have reaching effects on the market. They can affect how companies enter the market and compete with each other.

In India the Competition Commission has recognized that having Intellectual Property Rights

is not automatically anti-competitive. However the Commission has also said that these rights cannot be used to distort competition or block others from entering the market. The focus is on the effect of the actions, not the existence of Intellectual Property Rights.

From a policy perspective Section 3(5) tries to balance two competing concerns. Innovators need to know their work will be protected.. Markets need to be protected from the misuse of Intellectual Property Rights to exclude competitors. The section acknowledges that some exclusivity is necessary for innovation. Only if it is connected to encouraging new ideas.

In markets finding this balance is becoming increasingly difficult. As Intellectual Property Rights become more intertwined with data and technology it is harder to distinguish between protection and anti-competitive exclusion. Therefore the interpretation of Section 3(5) needs to evolve. It should focus on the consequences of restrictions not just who owns the Intellectual Property Rights.

2.3 Refusal to License, Essential Facilities and Access to Technology

The right to stop others from using something is a part of what intellectual property protection is all about. A person who holds a patent can usually decide who gets to use their invention and a person who owns a copyright gets to choose how their work is used. The freedom to say no to people who want to use something is often seen as a part of what makes intellectual property valuable. If people who own property could not control how it is used it would not be worth as much.

When we look at this from the perspective of competition law, things get more complicated. If someone refuses to let others use their technology, it can cause problems when that technology is necessary for people to compete in a market. This is especially true in industries where technology is moving forward quickly, and people need to use existing technologies to make products and services. In these cases, saying no to people who want to use something can affect not competitors but also the creation of new ideas[11].

The tension between protecting property and making sure people have access to markets has led to something called the Essential Facilities Doctrine. This is a principle that has been developed in competition law. It says that if something is necessary for competition and cannot

[11] Competition Act, 2002, s 3(5)(i)–(vii).

be easily replaced, then refusing to let people use it might be a problem in circumstances. Courts and regulators have been careful when applying for this doctrine[12]. It is still an important part of discussions about access to important technologies and digital infrastructure.

Looking at what has happened in countries, we can see how complicated this issue is. In cases like Magill IMS Health and Microsoft it was decided that people who own property have a lot of control over how it is used, but that control is not absolute. If refusing to let people use something hurts competition. Slows down innovation then competition law might get involved. These cases show that intellectual property rights and competition law are not mutually exclusive. Instead, they interact in ways that depend on how they affect markets and consumers.

This debate is becoming more important in markets. In these markets companies often control platforms, software and data and access to these things can determine whether other companies can compete. If a company refuses to let others use its technology or share information it can have a big impact on competition. This is similar to cases where a company refuses to supply something to others.

In India the competition regime has been dealing with these issues in areas like telecommunications, digital platforms and technology licensing. While Indian law recognizes the importance of protecting property regulators are becoming more willing to look at whether companies are using their intellectual property to hurt competition. The goal is not to force companies to license their property all the time but to identify cases where companies are using their intellectual property to block competition.

Recently we have seen that access to technology is not about patents. Control over software, data and technological standards can also affect whether companies can enter a market. As markets become more dependent on technologies the distinction between owning something and having access to it is becoming more important.

The challenge is to find a balance between encouraging innovation and making sure that intellectual property is not used to block competition. If a competition regime always forces companies to license their property, it could discourage innovation. On the hand, if a regime never looks at refusals to license, it could allow companies to become too powerful. The right

[12] Organisation for Economic Co-operation and Development (OECD), *Competition Policy for the Digital Age* (2019).

approach is in between and requires looking at each case individually to see what is necessary what the impact on the market is and what is good for consumers. In the economy, where access to technology often determines whether a company can compete, the debate about refusing to license is going to become more important[13].

2.4 Standard Essential Patents, FRAND Commitments and Competition Concerns

The relationship between Intellectual Property Rights and Competition Law is complex with Standard Essential Patents (SEPs). SEPs protect technologies that're part of an industry-wide technical standard. To make products that work together, manufacturers must follow these standards in telecommunications, information technology, and digital communications. This means SEPs can give companies a lot of market power because competitors can't participate without access to technology[14].

Common technical standards are crucial in digital economies. Mobile networks, wireless technologies, internet systems, and digital devices rely on technologies for compatibility. Standard-setting promotes innovation, reduces costs, and facilitates development. However, including technology in a standard can give patent holders a strategic advantage.

To address these standard-setting organisations require SEP holders to license their patents on Fair, Reasonable and Non-Discriminatory (FRAND) terms. FRAND commitments balance innovation by preventing the abuse of market power. They ensure innovators get compensation while preserving access to essential technologies. Competition concerns arise when SEP holders exploit their position after technology becomes a standard. Manufacturers may find it hard to switch to an alternative, creating the risk of "patent hold-up" where SEP holders demand royalties or impose unfair licensing conditions. This can undermine competition to increase market entry costs and affect consumer welfare[15].

However excessive intervention against SEP holders presents risks. Technology developers invest in research and innovation expecting intellectual property protection to help them recover their investments. If licensing obligations are too aggressive innovators may lose

[13] United Nations Conference on Trade and Development, *Competition Issues in the Digital Economy* (2019).
[14] Organisation for Economic Co-operation and Development (OECD), *Intellectual Property Rights, Competition and Standard-Setting* (OECD Policy Roundtable, 2010).
[15] European Commission, *Guidelines on the Applicability of Article 101 TFEU to Horizontal Co-operation Agreements*[2011] OJ C11/1.

incentives to contribute technologies to standard-setting processes. Competition law must balance market access concerns with preserving incentives for advancement.

The Indian experience with Telefonaktiebolaget LM Ericsson and mobile device manufacturers shaped the country's approach. The Competition Commission of India addressed competition implications of SEP licensing focusing on royalty determination, licensing practices and potential abuse of dominance. A key principle emerged: owning a patent doesn't exempt one from competition law scrutiny when licensing practices impact the market. SEP-related disputes have increased with the growth of communication technologies. The deployment of 5G networks of Internet of Things (IoT) devices, artificial intelligence systems and connected digital ecosystems relies on technologies. As technological interdependence grows, disputes over access to technologies will become more frequent and economically significant.

Globally regulatory attention to SEP licensing practices is increasing. Competition authorities and courts ensure transparency in royalty determination prevent licensing and preserve access to standardised technologies. The goal is not to reduce patent protection but to ensure intellectual property rights don't restrict competition[16].

2.5 IPR-Backed Market Power and Abuse of Dominance under the Competition Act

Having Intellectual Property Rights can give companies a lot of market power. Things like patents, copyrights, and trademarks help innovators control how their ideas are used and sold. Just because a company has market power because of Intellectual Property Rights, it does not mean they are doing anything wrong. In fact, companies that are really good at what they do and make new and better things can become very successful and that is okay[17].

The Competition Act of 2002 says that being a company is not against the law. What is against the law is if a dominant company abuses its power. This is a point when it comes to Intellectual Property Rights because these rights are meant to help innovators compete. So just because a company has a lot of patents or a well-known trademark, it does not mean they are being anti-competitive[18]. The problem arises when a company uses its power to hurt competition or limit what consumers can choose from. In industries where knowledge and innovation are key,

[16] Richard Whish & David Bailey, *Competition Law* (10th edn, Oxford University Press 2021) 932–940.
[17] Agreement on Trade-Related Aspects of Intellectual Property Rights arts. 7–8.
[18] UNCTAD Model Law on Competition, ch. VIII.

Intellectual Property Rights can be very powerful. In areas like telecommunications, software, and pharmaceuticals, Intellectual Property Rights can give companies a lot of control over the market. This can be a problem if companies use this power to keep others out of the market or to charge a lot for their products[19].

Indian courts have started to realize that Intellectual Property Rights and competition law are not mutually exclusive. While it is okay to protect Intellectual Property Rights, companies cannot use these rights to do things. The Competition Commission of India has said that companies cannot use Intellectual Property Rights as an excuse for behavior that's anti-competitive. Instead, they look at what the company's doing and why and whether it is hurting competition[20].

There was a case involving Telefonaktiebolaget LM Ericsson that shows how this works. The company was accused of using its patent rights in a way that was anti-competitive. Even though the company had the right to its patents the Competition Commission of India looked at how the company was using those patents and whether it was hurting competition. This case shows that Intellectual Property Rights and competition law can work together to make sure that companies are not abusing their power[21].

This is especially important in industries where technology is advancing quickly. In these industries companies often have a lot of power because of their Intellectual Property Rights. They can use this power to keep others out of the market.. Competition law says that companies cannot use their power to limit consumer choice or to keep others from competing[22].

The modern approach to competition law is to look at the effects of a company's behavior, then just at whether they have the right to do something. Companies are allowed to have Intellectual Property Rights. They cannot use those rights to hurt competition. This approach helps to make sure that companies have an incentive to innovate while also making sure that they do not abuse their power.

[19] Richard Whish & David Bailey, Competition Law 857–862.
[20] Shamsher Kataria v. Honda Siel Cars India Ltd..
[21] Telefonaktiebolaget LM Ericsson v. Competition Commission of India, 2016 SCC OnLine Del 1951.
[22] OECD Competition Committee Report on Digital Markets.

CHAPTER 3

EXCLUSIONARY PRACTICES IN DIGITAL MARKETS

3.1 The New Architecture of Market Power in Digital Markets

The digital market has changed how economic power works. Traditional competition rules were made for a time when market power came from controlling things like factories, stores, or money. Digital markets work differently. Here market power comes from controlling data, technology, and online platforms. This means the way companies get and keep market power has changed. Digital markets are places where many groups of people interact through technology. This includes search engines, social media, online shops, app stores, and cloud services. These platforms connect to consumers, businesses, advertisers, and developers. The more people who use these platforms, the more valuable they become. This creates a more competitive environment than traditional industries.

A key thing about markets is that intangible things like data and technology are very important. These things can give companies an advantage. When companies collect data, they can improve their services. Better services attract more users, and more users create data. This cycle helps companies get even stronger. The way businesses compete has also changed. It's not just about the price or how much they make. Digital companies compete by innovating working with platforms and getting access to data. This means companies can have a lot of market power even if they don't charge consumers money. This makes it hard to tell if a company has a lot of market power[23].

These changes have implications for competition policy. Digital markets often have a few players because its hard for new companies to compete. Once a company has a lot of users it's hard for others to compete. This doesn't always mean companies are doing something. It can just be because they're good at innovating and pleasing consumers.. It raises questions about how fair digital markets are and if new companies can compete.

Intellectual property rights, like patents and copyrights, also play a role in digital markets. These rights can help companies keep their market power. This means that exercising these rights can have effects that go beyond intellectual property law. What might seem like a reward

[23] Competition Commission of India, *Market Study on the Telecom Sector in India* (2021) 29–31.

for innovation can sometimes help a company dominate the market. Digital markets are strong because of technology and data, not physical things. This is why regulators are paying attention to digital markets.

3.2 Data, Network Effects and Platform Dominance

Digital markets are different from industries. One key reason is the growing importance of data and network effects. These factors help companies get ahead of their competitors. When a company first starts, it might use technology to attract users and become well-known. But what really makes a company powerful in the run is its ability to collect and use data and to benefit from network effects. Data is very valuable in the economy. It helps companies improve their services to make products and understand what users want. Digital platforms collect a lot of information about users, such as what they like, what they buy, and how they interact with the platform. This information helps companies make their services better and develop products.

The more data a company has the better it can serve its users. This makes it harder for new companies to compete. Big platforms have a lot of data that they've collected over years. They can use this data to make their services better and to predict what users will want. This makes it hard for smaller companies to compete.

Network effects also play a role. A network effect happens when a product or service becomes more valuable as more people use it. Social media platforms, online marketplaces and messaging services all benefit from network effects. The more users a platform has the more valuable it becomes. This creates a cycle where more users attract more users.

When data and network effects work together they create a competitive advantage. More users generate data. More data helps companies improve their services. Better services attract users. This cycle can make it hard for new companies to enter the market.

Recently regulators have started to pay attention to the role of data in competition. They recognise that control over data can affect how easily new companies can enter the market and compete. This is a challenge for competition law. It needs to find a balance between allowing companies to innovate and compete and preventing companies from using their power to stifle competition.

The development of intelligence and machine learning has made data even more important.

These technologies rely on amounts of data to work well. Companies with access to a lot of data may have an advantage that goes beyond their market. This has raised concerns about the concentration of power in a few large digital companies.

3.3 Technological Control, Ecosystem Lock-In and Barriers to Entry

The way companies control the market is not about being the only one doing something. Now companies can stay on top by using technology that affects how people use their products how people get to the market and how much people rely on these ecosystems. So technological control is a way for companies to keep their place in the market.

Digital platforms are not just products or services. They are like groups of things that work together including apps, operating systems, cloud services, payment systems, online stores, communication tools, and other technologies. When all these things work together, it can make things easier for people to use and make their experience better. It can also make people rely too much on one ecosystem and not want to switch to another. This is called ecosystem lock-in. When people spend time, money and personal information on one platform, it can be hard for them to switch to another. They might have bought things stored files to set up their preferences and gotten used to how things work on that platform. If they switch, they might lose things they paid for to have trouble with compatibility or lose their history on that platform. So, people might stay on a platform not because it is the best. Because it is too much trouble to leave.

Ecosystem lock-in is connected to another issue, which's interoperability. Interoperability is when different technologies can work together. This has always been important for innovation and competition because it lets new products work with ones. When systems are open and can work together it is easier for new companies to enter the market and people have choices. It also helps technology develop because companies are not too reliant on one provider.

When platforms do not work well together, it can be a problem. If big companies limit how well other companies can work with them, it can be hard for new companies to compete. This can make it harder for new companies to enter the market and for people to have choices. In markets, control over interoperability is like control over who can compete[24].

[24] OECD, *Competition in Digital Markets* (2020) 20–23.

The importance of control is even clearer now that we have big digital platforms that do many things. Companies are operating in markets at the same time combining hardware, software, data, and services. This can be good for people. It also raises concerns about how much power these companies have and whether other companies can compete. We cannot just look at measures, like prices or market share, to understand what is going on. We need to look at how technology affects those who can enter the market[25].

In the end ecosystem lock-in and interoperability are changing how we think about competition. In markets the things that prevent new companies from entering are not just laws but also the technology itself. Companies can stay on top not by being mean. By making it hard for people to switch. We need to understand how this works so we can see how companies can use innovation to stay on top and affect competition, peoples choices and how open digital markets are. Technological control and ecosystem lock-in are issues here and we need to consider how digital ecosystems work and how they affect the market.

3.4 Self-Preferencing, Data Foreclosure and Strategic Exclusion

Digital platforms are really important for activity these days. People are worried about how these platforms use their power. It is not about having power but about how they use it. Digital platforms do a lot of things at the time. They are like players in the market. They also make the rules for the market. They control how things work on their platforms. They even compete with other businesses that use their platforms. This can cause problems that're hard to see.

One big problem is self-preferencing. This happens when a platform helps its products or services more than others. They might do this by making their own things show up first in search results or by making it easier for people to find them. The platform might say they do this to make things more efficient or to help users. Others say it is not fair. It can make it hard for other businesses to compete.

Another issue is data foreclosure. Data is very important for markets. It helps businesses make products and understand their consumers. Big platforms have a lot of data from people using their services. This data can give them an advantage over businesses. They can use this data to make products or to get ahead of their competitors.

[25] *Competition Policy for Digital Markets* (2022) 11–13.

When platforms use data from businesses that use their services it can be a problem. They can use this data to find opportunities or to make their own products better. While collecting data is a part of doing business it can be a problem if it gives platforms too much of an advantage.

Many competition investigations have looked into these issues. They want to make sure that big platforms do not use their power to hurt competition or limit consumer choice. The goal is not to punish businesses but to make sure that the market is fair for everyone[26].

Self-preferencing and data foreclosure are not just problems for businesses. They can also hurt the digital market. Digital markets need to be open and allow new businesses to enter and compete. If big platforms can always favor themselves it can hurt innovation and competition.

3.5 When Innovation Becomes Exclusion

Innovation and competition are two things that are often talked about together in a market economy. Innovation helps technology get better makes people happier and creates economic opportunities. Competition makes sure markets are dynamic, efficient and accessible. In theory when someone innovates they should get a reward for being creative and investing their time.. Sometimes innovation and competition do not work well together. The things that make innovation successful can sometimes stop others from entering the market and weaken competition.

The main problem for people who make competition laws is not just to protect innovation. To find out when innovation starts to hurt the competition process. We can see the difference between innovation and exclusion by looking at an example. Imagine a student who always does better than others because they study hard and are very smart. They deserve to do. But if that student gets to see the test before others stops their classmates from studying or cheats on the test then they are not doing well because of their work but because they are cheating. Markets work in a way. Competition laws do not have a problem with people being successful because they innovated. They do have a problem when people are successful because they are stopping others from competing fairly.

This is especially important in markets because innovation often creates advantages that get

[26] United Nations Conference on Trade and Development (UNCTAD), *Digital Economy Report 2021* (United Nations 2021) 155–158.

bigger and bigger. A technology platform might be very popular because it is the best. As more people use it gets better and more people want to use it. This is a reward for innovation. After some time, the platform might become so strong that no one else can compete, no matter how hard they try. The problem is not that innovation happened, but that the market is not competitive anymore[27].

Innovation does not suddenly turn into exclusion. It usually happens slowly as advantages get bigger and bigger and change the way the market works. Having a lot of data being part of a network depending on certain technology using special standards and controlling ecosystems might seem harmless on their own.. Together they can create big barriers that stop other companies from competing. Exclusion in markets is often hidden in the way the market is designed not in obvious restrictions.

This shows that the old way of analyzing competition is not enough. Usually competition laws look at prices how much is being produced or if someone is being stopped from competing. Digital markets are different. Many big platforms give their services for free keep getting better and make users happy. They can also decide what people see, control who can enter the market influence what people do and shape the opportunities for others. So power is not about owning something but about controlling and influencing.

The main question should be whether other companies can still challenge them by innovating. A competitive market is one where new company can enter new technology can change the game and users benefit from companies competing. When the market changes in a way that stops this from happening, innovation can become a way for companies to keep their power. The competitive process is weakened, not because innovation happened. Because it is hard for others to innovate.

3.6 Impact on Competition, Consumers and Public Interest

The effects of practices in digital markets go way beyond what happens to individual competitors. When we look at competition law, we usually think about how certain actions affect the market and the competition. Digital markets are different. They affect consumers, new ideas, and what is good for everyone. As digital platforms become a part of our economic and social lives, we cannot just think about competition in terms of business. We also have to

[27] Richard A Posner, *Antitrust Law* (2nd edn, University of Chicago Press 2001) 11–14.

think about things like access, choice, new ideas, and how economic opportunities are shared in the economy[28].

Consumers are also affected, even if it is not always easy to see. In markets consumers do not always get hurt by higher prices. Many digital services are cheap or free.. With less competition consumers may have fewer choices, less innovation, less protection for their privacy and have to rely on just a few platforms. When there is not competition companies may not try to make their services better or listen to what consumers want. So we need to think about what's good for consumers in a broader way than just looking at prices.

These concerns are even more important when we think about what is good for everyone. Digital platforms affect how we communicate, do business, get information, and participate in activities. They go beyond private businesses and affect what is good for society. Market structures that give much power to a few companies can have effects that go beyond just competition. We need to think about things like fairness, accessibility, inclusivity, and economic participation when we look at the long-term effects of market concentration[29].

The connection between competition and what is good for everyone is clear in countries like India. Digital technologies are important for including people in the economy helping entrepreneurs innovating and growing the economy. So it is essential to keep markets open and fair not just to protect competitors but also to help more people participate in the digital economy. Exclusionary practices that limit opportunities for companies and new innovators may reduce the benefits of digital transformation.

The discussion in this chapter shows that exclusion in markets usually does not happen because of one action or practice. It happens because of how data advantages, network effects, technological control and strategic conduct work. These factors shape market conditions. Affect how companies can compete equally. While innovation is the driver of economic progress its benefits may be reduced if competitive opportunities are concentrated in just a few companies.

[28] Organisation for Economic Co-operation and Development (OECD), *Data-Driven Innovation: Big Data for Growth and Well-Being* (OECD Publishing, 2015).
[29] David S. Evans & Richard Schmalensee, *Matchmakers: The New Economics of Multisided Platforms* (Harvard Business Review Press, 2016).

The challenge for regulators is to keep the incentives that encourage innovation while making sure digital markets are open, fair, and listen to consumers. This challenge cannot be met by looking at traditional competitions. It also requires thinking about what's good for everyone, including accessibility, inclusivity, consumer welfare, and sustainable innovation. The growing importance of these concerns has led to a renewed focus on the role of interest in the relationship between Intellectual Property Rights and Competition Law.

CHAPTER 4

RECOMMENDATIONS AND CONCLUSION

4.1 Recommendations for Recalibrating the IPR–Competition Interface

The relationship between Intellectual Property Rights and Competition Law is not about conflict between being exclusive and having freedom in the market. Both of these laws have goals. They want to help people innovate, develop technology, and make sure consumers are happy. Intellectual Property Rights give people a reason to spend money on research and development. At the time Competition Law makes sure that these reasons do not become barriers that stop people from getting into the market and competing with others.

We need to look at how Intellectual Property Rights are used, not just that they exist. The problem is not that people have rights but that they might use these rights to stop others from competing close off markets or become too powerful. So, the people in charge of making sure there is competition should look at how things are affecting the market, not just who owns Intellectual Property Rights.

We have to be careful with markets where Intellectual Property Rights are used with things like data and platforms. In these markets, things can go wrong because of how many things are interacting, not just because of one thing. So, when we regulate, we should look at the market and think about how to help people innovate and keep the market open in the long term.

It would be helpful to make Section 3(5) of the Competition Act, 2002 clearer. This part of the law says it is okay to protect property, but we need to know more about what "reasonable conditions" mean. If we can clarify this, we can tell the difference between protecting property and stopping competition. We should still watch licensing agreements, especially when they

are about technologies to make sure they do not stop others from competing[30].

The main goal is to make sure Intellectual Property Rights keep helping people innovate, and Competition Law keeps the market competitive. We need to balance these two laws so that we can keep making progress with technology and growing the economy in the age. Intellectual Property Rights and Competition Law should work together to help Intellectual Property Rights promote innovation and help Competition Law preserve the conditions necessary, for future innovation and Intellectual Property Rights.

4.2 Making Competition Work Better in Digital Markets

Digital markets have changed the way we think about power in markets. We cannot just look at things like prices. How much of the market does a company have? These things are not enough to know if there is competition in markets where companies like Google and Facebook give us services for free or for very little money. Now companies have an advantage because they control a lot of data and many people use their services and they have algorithms and technology. When we look at competition in markets, we should think about what helps companies get into the market grow and compete with others. It is very important that companies can get to the data they need that services work well with each other so that people can easily switch from one service to another and that technology is fair to everyone.

These things are very important because they help us know if markets are still open to competition even when there are companies like Amazon that have a lot of power. People who make rules should pay attention to what companies do like when they give themselves an advantage over others or when they limit access to data or when they make rules that're not fair or when they do things that make people depend on them too much. Even if these things do not hurt people away, they can make it harder for other companies to compete and innovate over time.

At the same time, we should not overregulate ourselves. If a company is successful because it is innovative and people like it, that is okay. We should not punish them for being successful. If we regulate a lot, it can stop companies from investing in new research, technology, and

[30] Competition Act, 2002, § 3(5); *FICCI Multiplex Association of India v. United Producers/Distributors Forum*, Case No. 01 of 2009, Competition Commission of India.

products.

The problem is knowing when a company is successful because it is good or when it is successful because it is doing things that're not fair and that stop others from competing. We need to think about the future when we enforce rules. We should not just look at what's happening now but think about if the market is still open to new companies, new ideas and new technology. Digital markets should be open to competitors, new business models, and new technology that can challenge big companies, like Apple.

4.3 Conclusion

The relationship between Intellectual Property Rights and Competition Law has undergone significant transformation in the digital economy. Market power is no longer determined solely by ownership of physical assets or traditional measures of market share. Instead, data, network effects, digital platforms, and technological ecosystems increasingly shape competitive dynamics and influence market outcomes.

This study demonstrates that Intellectual Property Rights and Competition Law are not inherently conflicting with legal regimes. Both seek to promote innovation, economic efficiency and consumer welfare, albeit through different mechanisms. Intellectual Property Rights encourage creativity and investment by granting limited exclusivity, while Competition Law ensures that such exclusivity does not evolve into market structures that restrict competition and technological progress.

The emergence of digital markets has intensified concerns regarding exclusionary conduct, platform dominance, and barriers to market entry. While innovation remains the primary driver of economic growth, competitive concerns arise when advantages generated through innovation become mechanisms for preventing effective competition. The challenge for regulators is therefore not to restrict innovation, but to ensure that innovation does not become a tool for market foreclosure.

The analysis further demonstrates that Intellectual Property Rights should not be treated as immunity from competition scrutiny. Legitimate protection of intellectual property must be distinguished from conduct that exploits market power to exclude competitors or distort market processes. A careful assessment of competitive effects remains essential in determining when

intervention is justified.

Ultimately, the future of digital markets depends upon maintaining a regulatory balance that rewards innovation while preserving competitive opportunities. Intellectual Property Rights must continue to incentivize technological advancement, while Competition Law must safeguard the openness and contestability of markets. When properly balanced, these legal frameworks operate not as competing forces but as complementary mechanisms that promote innovation, competition, and long-term economic development in the digital age[31].

[31] World Intellectual Property Organization (WIPO), *Intellectual Property and Competition Policy: A Development Perspective* (2020).