



# Barriers To Competition Law Posed By The Growth Of The Digital Economy

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## Abstract

The research paper examines methods for predicting the future based on the digitization of the economy. The obstacles to getting into high-tech businesses are examined in this regard, along with their dual nature—the benefits they bring and the risks they entail.

Intellectual property, marketing tactics, market dominance of large companies, infrastructure, political conflict, security of the nation, high-tech product life cycles, staffing, global value chains, and technological saturation were the top ten barriers found. The study's primary findings are: - Since the physical borders of production, storage, trading, and any other traditional business principles are eliminated, the digital transformation of the economy changes the traditional entrance barriers into the industry.

Intellectual property is the biggest impediment to a free economic environment. It is already accounted for in the commercial turnover together with products, labour, and services, and its significance is escalating annually.

**Keywords:** high-tech industries, intellectual property, the digital economy, and entry restrictions.

## Introduction

India's legal system has long included competition law as a foundational component with the aim of fostering a just and competitive business environment. Competition law, which has as its main objectives the prevention of anti-competitive practises and the protection of consumer welfare, is essential to promoting economic growth and ensuring a level playing field for all market participants. This law seeks to create a competitive environment that is advantageous to both businesses and consumers by forbidding corporations from acting autonomously and encouraging monopolistic activity.

A governmental policy known as the "Competition Law Policy" aims to prevent any market competition restrictions that would be harmful to society. The main objective of competition policies is to protect society from destructive competition.

The high technology industry is thought of as a dynamic field with a quickening rate of creative destruction. There is a class of businesses, though, where there are significant network effects, and the market tends to consolidate around a small number of competitors. Following a wave of innovation that sees the emergence of new internet businesses and the digital economy, there is a chance that market dominance may become established through the collection of consumer surplus.

India's competition law framework is governed by the Competition Act, or Act, which was first enacted in 2002 and updated in 2007. Under the provisions of the Act, the Competition Authority of India, or CCI, is designated as the principal body in charge of implementing and administering the nation's competition laws. In order to prevent the creation of monopoly or combinations that can hurt competition, the CCI's mandate include looking into allegations on anti-competitive agreements, the unlawful use of dominant positions, and governing the conduct of mergers and acquisitions.

To protect consumer interests is one of the main aims of Indian competition law. It seeks to offer customers a wide range of choices, affordable prices, and high-quality products and services. By forbidding anti-competitive practises like cartelization, fixing prices, and the abuse of dominant positions, competition law safeguards consumers from unfair corporate practises including cartelization, price fixation, and misuse of dominating positions.

### **The study's primary objective**

We identify intellectual property as the biggest roadblock to an economic entity entering the high-tech sector. The Institute for the Protection of Intellectual Property was created initially to encourage and safeguard investment in innovation by limiting the application of technology as an element of production via the payment of patents and know-how.

The right to utilise the products of intellectual work can be legally secured through intellectual property, providing a return on effort. Even the writers mention how a monopoly is produced by intellectual property. Thus, patents monopolise the use of the products of intellectual work, so preventing competitors from entering the market.

A high-tech company can acquire its intellectual property in a number of ways, including by paying for its own R&D; through mergers and acquisitions (buying a company with IP); or by encouraging internal invention through the distribution of a profit-sharing share.

In order to receive a patent, which ensures a lifetime licence to use proprietary information for a predetermined amount of time, we must disclose a specific portion of the product of intellectual activity to the state.

However, due to the unnecessarily strict restrictions of patenting, organisations that operate in their interests or participate in industrial espionage have more opportunity to use anti-competitive business practises.

The rules governing the unrestricted flow of capital are broken, and the way that markets interact is evolving. In a similar vein, China forbids Apple from selling products there.

The following barrier consists of concerns about national security and advocacy on behalf of state national interests.

The shortened lifespan of a high-tech product is another obstacle that will be covered later. In the telecommunications business, it takes one year from the point of introduction to the market to the start of the recession, while it takes three to four years in the case of mechanical engineering. However, there is an overall downward trend. There is not enough time for the new business to "swing". The foundation for the advancement of new technologies is personnel, which serves as an entry barrier into high-tech enterprises.

The techniques for communication transfer, data transfer packets, the shape of the packet themselves, and possibly their transmission speed all need to be improved technologically. In order to better understand the nature of sound's transmission and its behaviour at these altitudes and speeds, additional research must be conducted in a variety of settings and at varying heights. The issue with technology progress now is man himself. Humanity is actively developing intelligent, self-learning technologies that are intended to eventually take the role of people with "artificial intelligence."

### **Dominance in the digital market**

In the twenty-first century, the market has drastically shifted in favour of the internet or digital industry. The internet and technological advancements have increased the appeal of websites and digital marketing. This tendency was exacerbated by the COVID-19 epidemic, which led to the emergence of numerous new businesses offering online services. The simplicity and accessibility that digital markets offer customers must be balanced against the potential threats to their privacy and market dominance.

It is impossible to overstate how convenient and comfortable internet services are. Through the ease of their homes, customers can readily access a wide variety of goods and services, explore a wide range of options, and make well-informed purchasing decisions. On the other hand, the digital economy offers its own set of problems, particularly regarding customer privacy. Customers commonly agree to the terms and conditions of the platform when they establish account or register up for services, expressing their readiness to provide personal information.

There are now issues with competition as a result of the digital marketplaces' rapid rise. These specifically appear in areas like digital monopolies, tax structuring, patent issues, etc. End consumers can access the material and services that vendors and content creators offer them through a variety of electronic channels, including social media, TV, phones, and television. When a digital company gains market dominance, they inevitably create a deadlock for consumers on both sides of the platform, making their intervention necessary. The same is suggested by pre-emptive mergers. In this model, a merger is created by purchasing a smaller

enterprise, so preventing possible competition from hurting the company's business model. These numerous exclusive contracts could be an issue because they stifle innovation and competition.[9]

However, because digital commodities primarily involve future markets, it might be challenging to distinguish between anti-competitive goals and typical corporate methods. The term "anti-competitive behaviour" refers to rivalry exchanges that hurt rivals and consumers and are not founded on the merits but rather on collusion or foreclosure.

There are concerns about the protection of client privacy with this consent-based approach. Every time a consumer interacts with a brand in the digital space, a digital trail of their personal data, browsing patterns, and preferences is left behind. This volume of data can be misused, leading to possible breaches of privacy, identity theft, or consumer autonomy-violating targeted marketing techniques.

In the digital age, data has become a valuable resource that has been compared to the significance of petroleum in the century before it. Businesses having consumer base data have a substantial competitive advantage given the growing emphasis on data-driven decision-making. However, this advantage might result in market hegemony and limit competition. Recognising the possible harm that could emerge from company data sharing, the fourth section of the competition law creates specific safeguards to prevent market dominance.

The comparison among data and oil stresses how important consumer data is to the modern economy. Enterprises may learn more about customer tastes, behavior trends, and market trends by utilizing large consumer data sets. This knowledge gives businesses a significant advantage when it comes to modifying their goods, services, and marketing strategies to effectively meet client needs.

However, a dominant organization's data concentration may lead to distorted market dynamics. The exploitation of large consumer data by dominant firms to strengthen their market position and exclude or disadvantage rivals is possible. Because of this, market leaders that have access to consumers' personal data frequently experience rapid growth, in contrast to new entrants who frequently struggle to acquire users and essential user data.

In order to counter the possible market domination caused by data, the fourth section of the competition law is extremely important. The goal of this section is to stop businesses from abusing their dominant positions. To ensure fair competition and the welfare of consumers, it forbids actions like misuse of market authority, agreements that are anti-competitive, and predatory pricing practices.

A dominant company's data sharing with rival companies could be detrimental to the market. By restricting competitors' access to crucial data, it can strengthen the position of the dominant corporation by undermining their ability to compete effectively. This information asymmetry exacerbates the market dominance of the company that has access to enormous amounts of consumer data. To maintain a competitive market environment, it is essential to encourage data sharing practises that do not harm smaller businesses or erect entry obstacles. The monitoring and regulation of data practises by regulatory agencies and competition

commissions is crucial to preventing monopolistic tendencies brought on by data dominance from impeding competition.

There are only a few cases in which it has been determined that releasing information can be viewed as an abuse of power. In *Google LLC and Ors v. Competition Commission of India* [2]. By placing unreasonable restrictions on its partners who utilized its searching services, such as mandating them to share their data solely with Google and forbidding them to refrain from sharing the same information with competing search engines, Google had exploited its dominant position. Due to their inability to gain access to the information required to raise the calibre of their search results, rival search engines faced a major barrier to entry, according to the CCI's ruling [3].

The Competition Authority in India (CCI) found Googling guilty of exploiting the data obtained via its search engine in order to provide a disadvantage over its own services in the proceeding entitled *Matrimony.com Ltd v. Google LLC* [4] in 2020. In the Facebook-Cambridge Analytica Scandal [5], it was discovered that Facebook had given Cambridge Analytica unauthorized access to millions of users' data in 2018. This prompted inquiries into whether Facebook's data collecting, and usage practices were anti-competitive by several regulatory agencies. Also, the court did acknowledge the value of human freedom and authority over personal data for *WhatsApp Inc. v. the Competition Commission of India* [6], and it emphasized the requirement for transparency and informed permission in data processing.

According to the court, WhatsApp's revised privacy policy, which demanded that users consent to Facebook's data collection, infringed on Indian individuals' right to privacy. The court ruled that users must be able to choose not to share their data, as well as that data processing must occur transparently and with user privacy in mind [7].

### **Evaluation of Digital Dominance Abuse**

When a market is not properly described, competition authorities may overstate market power. It is challenging to establish a dominating position in digital markets, regardless of whether competition regulators have correctly recognised the relevant market. To keep a dominant position, one needs market power. To assess market domination, competition authorities typically use quantitative criteria including concentration ratios, share of the market, pricing stages, and profit margins. Such static measures are occasionally impossible to achieve in digital markets since certain services are provided for free and some company models generate little to no revenue or profit. This is not to imply that these companies lack market power. The takeover prices and stock levels of these companies suggest that they could generate large profits in the future.

Dominance in online markets is a concept which can (dynamically) evolve, much as defining the relevant marketplace. The video conferencing service Zoom serves as an illustration of how quickly a market position can change.



The consumer welfare criteria serve as the foundation for the current dominance calculation approach. The criteria evaluates whether consumers gain or lose out as a result of higher or lower prices. The issue with this norm in the world of technology is that it makes it impossible to undertake price assessment of online platforms due to abrupt price changes and customised pricing made possible by algorithms. Furthermore, in a study of competition that considers digital channels, prices might not be an especially important variable. Many services are offered without charge, but users are required to pay by providing personal information. To fully acquire domination in digital markets, one requires a thorough understanding of how to operate autonomously.

### **Acquisitions and Mergers in the Virtual Space**

The level of competition in India's digital business can be significantly impacted by mergers and acquisitions. Let us examine how these deals impact India's competitiveness. In the digital sector, mergers and acquisitions usually lead to higher market concentration. Fewer competitors due to this concentration may limit customer choice and possibly increase pricing. To guarantee that mergers and acquisitions do not have an anti-competitive effect, the Competition Authority of India (CCI) routinely examines how they affect competition in India. Mergers and acquisitions might make it more difficult for new and smaller enterprises to enter the digital economy. Established businesses with significant financial resources and market power may acquire potential rivals, lessening the threat posed by newcomers to their hegemony. This may limit innovation and entrepreneurship in the digital economy, hinder competition, and potentially harm consumer welfare. The digital marketplace, which is fuelled by innovation, may experience both positive and negative effects as a result of mergers and acquisitions. One way that mergers may benefit innovation and technological advancements is by creating synergies and pooling resources. On the other hand, acquiring promising businesses only for the aim of obstructing rivals or gaining control over emerging technology may, over time, hinder innovation and restrict competition. The protection of consumer welfare is the goal of competition law. The impact of mergers and acquisitions on customers might vary widely in the digital economy. Less competition from consolidated enterprises may lead to increased prices, fewer available products, and lower-quality services. On the other hand, customers may profit from lower costs and improved services if mergers lead to improved effectiveness and economies of scale. Acquisitions or mergers that meet certain requirements are subject to CCI review per the competition law of 2002. To make sure that mergers and acquisitions do not reduce market competition, the CCI evaluates any potential anti-competitive effects. The CCI can set conditions or even prevent the merger if it considers such the agreement has an opportunity to significantly lessen competition.

### **Online Market or Consumer Privacy: CCI's Authority**

The Competition Authority of India (CCI) has responsibility over concerns with consumer welfare and anti-competitiveness, but it lacks a clear line of authority over issues with personal privacy. The primary objectives of the CCI's mandate are to control market competition and ensure ethical business practises. However, it is important to emphasise that privacy concerns may occasionally interact with competition law. Despite the

absence of specific case law defining the CCI's authority over concerns regarding privacy, the CCI is able to intervene where privacy infractions support anti-competitive conduct or misuse of dominance. The CCI can give authority to look into and remedy a situation, for instance, if a company uses customer information to establish a market monopoly or participates in anti-competitive activities. Situations like the case of Bharti Airtel and ONGC instances allowed for an examination of the CCI's authority over privacy issues. These incidents most likely involved instances when companies used privacy infractions to gain an advantage over rivals or act in an anti-competitive manner. The CCI is empowered to investigate these situations and take action as needed to safeguard both consumer welfare and competition. It is crucial to understand that the CCI's authority over privacy-related matters is not unlimited and is based on how closely privacy infractions are tied to anti-competitive conduct or misuse of dominance. The bill on the protection of personal data, which would be implemented if it is passed, and other privacy laws that are implemented by various regulatory bodies in India generally cover privacy issues. With the development of the digital age, the relationship between privacy concerns and competition law is going to keep to be a topic of debate and examination. To address the unique problems presented by the digital economy while maintaining sufficient competitiveness and privacy protection, regulatory frameworks may need to be developed.

### **Difficulties in India**

The competitive environment in India is changing quickly, and these worries have emerged. In addition to acquisition, another strategy for gaining market dominance is to lure customers by subsidising their purchases with the use of their financial resources. Big businesses with the benefit of larger financial resources, who use tactics like deep discounts, cash-back incentives, and other programmes designed to draw in new users and create the network effect, find this technique notably more appealing.[10] They occasionally experience major setbacks for decades on end. Businesses like Uber, Ola, and Paytm have embraced this tactic.[11] These practises are becoming getting harder and harder to contrast with an opening offer from a new player; instead, they seem to represent systematic competitive strategies that use money as a competitive weapon.

The competition regulator of India (CCI) has been aware of such situations. The CCI issued a prima facie order in April 2015 recommending a thorough investigation into the claim that Ola had engaged in unfair business practises to increase its market share in Bangalore thanks to significant funding from many investors [12].

In addition, CCI has established an internal panel to analyse the practises of cash-back incentives offered by various internet businesses considering the laws against predatory pricing under the Competition Act of 2002[13]. In instances where powerful entities have eliminated competition through the acquisition of lesser firms, CCI could adopt the stance of the European Court (ECJ) and examine such agreements in accordance with the fourth section of the Act [14], focusing on abuse of a dominant position. As the Continental Can case [15], the European Court of Justice held that practises of dominating organisations acquiring competitors and thereby abusing their position might be regulated under Article 102 of the TFEU, which is identical to Section 4 of the Act. If an organization occupies a prominent position in the market and acquisitions have the potential

to limit consumers' freedom of action, then regardless of any error on the part of the organization, the move will qualify as a misuse of dominant power.

Furthermore, CCI should consider the economic tenets that underpin these businesses' business decisions as well as the long-term effects of their practices when examining the strategies used by large corporations with ample capital to drive out their rivals by luring customers with introductory offers at below-cost prices. This would entail paying attention to more than just the share of the market of these companies, as well as the general situation, such as the industry's finance situation, whether expansion is the main objective, and the presence of incentive for the company. In order to increase their capital pool, these firms that invest in them should have their investment patterns analysed by CCI. The CCI should use techniques that make it easier for dominant payers to communicate with one another and avoid engaging in anti-competitive behaviour [16].

Access would be made easier. For example, if a compatibility requirement is placed on a dominant payments network like Paytm, it will assist expand the network's effect of this on the entire digital economy as opposed to being limited to a network. However, this needs to be considered against other elements including a fair access cost, this arrangement's structure, complexity, and effect on future innovation potential.

The Competition Act of 2002 stipulates that there must be concrete proof of domination before any action is taken, in contrast to the second section of the Sherman Act in the US, which recognizes an "attempt to monopolies" as an anti-trust violation [17]. CCI should be given the authority to investigate circumstances in which a firm is not now dominant but has consistently taken use of the network's effects and ventured towards dominance. This practice could be adopted in India. A mechanism like this would allow CCI to put preventative measures against unfair practices in place, but it may also encourage a new system that would discourage new competitors from joining the market. Depending on the development of the Indian online market, this possibility can also be evaluated on its merits.

### **Policies for business and competitiveness that are in line with the digital age**

The role of current competition policy goes beyond what is suggested by conventional theory when it considers digital challenges. Given the effects of the pandemic on the productive sector, competition policy needs to play a bigger part in the current situation. Industrial policy's various facets are covered by competition policy, which is a permanent and significant component of it (ECLAC, 2020).

According to Crucelegui Garate (2020), trade or industrial policies support competitiveness and consumer protection laws. These policies are crucial to accomplishing the Sustainable Development Goals in this way.

A trend that was already developing before the health crisis is being accelerated by the recovery following the pandemic process of several severely affected sectors. The production, technological, and value network sectors in this process clearly need to be restructured, especially in small and medium-sized enterprises (MSME), where there are fewer prospects for integration. The policy of competition has been employed in the area as a strategy to support the revival of the economy. The governing bodies in Brazil, Chile, Peru, Colombia, and Mexico among the seven countries under study have permitted corporate cooperation to



quicken the economic recovery. The adoption of this viewpoint in the area is urgently required given the background and predictions for the present pandemic provided by the Economics Commission for the Region of Latin America & the Caribbean (ECLAC) that are accessible through the Digital Repository.

Due to their size, large digital companies can innovate quickly and patent their creations at a lower cost. This emphasises the significance of having property rights and patent law that supports the success of smaller businesses and remains in line with the fresh realities of the digital economy. The relationship among intellectual property and technological advances protection, as well as some aspects of performance in the pharmaceutical industry related to the development of the COVID-19 vaccine, which may be expanded to various areas of the economy, are identified in Box 2. These factors emphasise the requirement for implementing policies that encourage innovation and real innovators above all else, in addition to SMEs.

A government must embrace a dynamic vision of competition in addition to an effective intellectual property system to ensure technology uptake and development. Additionally, it calls for an innovation-focused competition policy in addition to consistency in macroeconomic, industrial, and foreign exchange policies. With increased innovation and more intense market competition, this strategy can produce higher levels of welfare. In the areas of proprietary information and data access, we contend that a flexible viewpoint and strategy focused on promoting and protecting small firms will have a favourable effect on the overall health of the economy.

To achieve the goal of recovery from recession and development, it is essential to modernise the idea of industrial strategy and employ vertical strategies in the current environment. Since it affects all sectors, interoperability promotion could be seen in this light as a horizontal industrial policy. The Digital Economy Partnership Agreement (DEPA), which Chile, Singapore, and New Zealand signed in June 2020 and which ensures cooperation, open exchange, and international movement of data, is another illustration of an industrial strategy for the digital age. It is acknowledged in this agreement that the free movement of data may be a powerful motivator for development in the digital economy. All these elements are necessary for accomplishing the development goal through technology adoption; in the digital age, coordination of business, competition, and data access policies is essential.

## **Conclusion**

There are worries that the time required for a thorough inquiry may prolong the process of determining a breach and taking action to avoid it given how quickly online enterprises change. CCI must endeavour to impose more stringent deadlines for the resolution of cases, especially those involving businesses involved in the digital economy. Additionally, a voluntary settlement procedure can be used to allow a company that is being investigated to voluntarily change its market behaviour, avoiding the need for a thorough inquiry. Because possible competition legislation is so important to the process, the authorities must adopt a forward-looking strategy. This entails taking a cautious approach and relying on the ability of digital markets to self-correct. In order to control businesses and enable them to comprehend future trends, there should be a stronger

participation of external IT professionals who can better understand the business models of the corporations more effectively.

Search engines, e-commerce platforms, and social media networks all play important roles in the modern, digitalized economy. To maintain their stratification as they do today, these significant actors' trade secrets and strategies have, nevertheless, been hotly contested throughout history under the aegis of antitrust and competition laws. Whenever it comes to pricing analysis and determining if these modes are compliant with the applicable legislation, the current tools have been somehow rendered useless.

A relatively new area of law, competition law, was created to regulate the market and prevent monopolistic practices on the Indian market. As a result, India has found the concept of the digitalization of the economy to be a peculiar one at this time given how eagerly its markets are seeking for new opportunities for trade and commerce. Therefore, in order to avoid anti-competitive practices, which are a likely result of the scenario, this field of untapped potential has to receive careful attention. There are many other elements that lead to the establishment of an authorized grey area, that is like the global environment. These include the dynamism of the online marketplace, a lack of proper equipment to detect abuse or dominance effectively, and numerous more.

While a more sophisticated viewpoint is needed to research and investigate digital market platforms, there may be not a pressing need for fundamental modifications to the legislation. In order to determine the sources of income for a certain participant when looking into antitrust activity, reference to the business model is essential. Inspiration can come from abroad, particularly from the anti-trust rules of the European Union and their frequently announced mandates, which may be adapted in the Indian market, naturally with some case-sensitive modifications. Therefore, one must anticipate several additional challenges to come that will necessitate the implementation of an agile strategy in order to guarantee a smoother transition for commerce as it goes into total digitalization. This is due to the advent and developments of fresh opportunities in the field of the digitalized economy.

It is obvious that for competition authorities around the world, enforcing the rules of competition in digital marketplaces will continue to be difficult and a top concern in the months and years to come. Many of the suggestions covered in this guide are still in the early stages, even though significant progress has been achieved in terms of enhancing competition authorities' awareness of the complex challenges that can develop and beginning to identify viable solutions. It is still unclear how they will be created and implemented, as well as how they will affect businesses engaged in digital markets. We can anticipate major developments over the coming year, both in regard to enforcement by competition agencies and national courts, as well as new legislation and guidelines, as this is a fast-moving field, much like digital marketplaces itself.

On many of the concerns mentioned in this guide, it does appear likely—and perhaps desirable—that top competition authorities will need to come to an agreement on a global strategy. Because of the global character of digital markets, enforcers should, to the greatest extent practicable, try to adopt a consistent strategy across countries to give firms, investors, and consumers clarity.

## References

1. Challenges in Competition Law: Addressing Digital Market Dominance (taxguru.in)
2. Competition Commission of India v. Google LLC and Ors., Case No. 07 of 2012, order dated Feb. 8, 2018, (Competition Comm'n India)
3. Ibid
4. Supra.
5. Sahana Venugopal, the Hindu, what does Facebook's settlement in the Cambridge Analytica lawsuit mean for the platform? March 17,2023,  
What does Facebook's settlement in the Cambridge Analytica lawsuit mean for the platform? - The Hindu
6. WhatsApp Inc. v. Competition Commission of India, W.P.(C) No. 7455/2016 (Delhi High Court, Sep. 23, 2016)
7. Ibid
8. Growth of Digital Economy- A challenges to Competition law (ourlegalworld.com)
9. Greenhalgh C, Rogers M, 'Innovation, Intellectual Property and Economic Growth.' (2010) Princeton University Press
10. C Graham, F Smith (eds.), "Competition, Regulation and the New Economy,"(2014) p. 17 to 53. Hart Publishing
11. [http://www.nipfp.org.in/media/medialibrary/2017/04/WP\\_2017\\_194.pdf](http://www.nipfp.org.in/media/medialibrary/2017/04/WP_2017_194.pdf)
12. Fast Track Call Cab Private Limited v ANI Technologies Pvt Limited Case No. 6 of 2015, Order dated 3 September 2015
13. Smriti Parsheera, Ajay Shah and Avirup Bose (n 9)
14. Section 4, The Competition Act 2012
15. European ballage Corporation and Continental Can Co Inc v. Commission [1973] ECR 215
16. Farrel J, Katz ML, 'The Effects of Antitrust and Intellectual Property Law on Compatibility and Innovation.' (1998) Antitrust Bulletin, Fall-Winter
17. *United States v. Grinnell Corp.* 384 U.S. 563, 57071 (1966)
18. Competition in Digital Markets: Global Overview - Lexology
19. Competition Law for the Digital Economy- Björn Lundqvist, Michal S. Gal · 2019
20. E-Commerce in India: Economic & Legal Perspectives- Pralok Gupta 2020

21. Competition Law in India: Policy, Issues, and Developments- T. Ramappa 2014

22. [https://repositorio.cepal.org/bitstream/handle/11362/46661/1/S2100019\\_en.pdf](https://repositorio.cepal.org/bitstream/handle/11362/46661/1/S2100019_en.pdf)

