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Pandemic, Patents and Public interest

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Abstract- There is a constant tug of war in patent law between the value of promoting innovators and the need to ensure access to technology for customers. The legislation itself mirrors this tussle. But for the patent system to work and be meaningful to society, this continuous attempt to balance the rights between patentees and consumers is necessary. Some laws are viewed as pro-patentee, i.e., in favor of innovators, while some laws are perceived to ensure that inventions benefit the public.

Keywords: -Covid-19, Patent, Pandemic, Vaccine, Pharmaceutical, Monopoly, Invention

I. INTRODUCTION

COVID-19 is neither the first coronavirus in human history nor the first pandemic. The SARS coronavirus is the first "novel coronavirus" in humans (SARS-CoV-1). In late 2002, it spread rapidly to 8096 cases, resulting in 774 deaths across 30 countries (a 10 percent death rate).[1] Although no effective drug has been reported, the epidemic ended in 2004 with the last known transmission.The most recent pandemic before COVID-19 was an influenza pandemic involving the H1N1 virus, widely referred to as swine flu, which infected as many as 1.4 billion people worldwide in the first year since its occurrence and resulted in 151,700 to 575,400 deaths.

There have been many other such pandemics, and many have suffered. Some of such diseases can now be treated and prevented via vaccine, while many remain untreatable. The pharmaceutical companies developing such therapeutics invest vast amounts of money for research and development without guaranteed success. Hence, naturally, when the drugs are developed, they recover the investment cost and earn some profits. Patent protection is granted as an incentive to these companies for the work done.

Patents are given to pharmaceutical industries as a monopoly right to exploit their invention for a limited time. In this way, patents are used to encourage the pharmaceutical industries to invent medicines and vaccines to serve humankind. However, the patent right is not absolute and is subject to certain conditions. Such conditions include monopoly right for a limited time, compulsory licenses, government use licenses, and making the invention available to the public at a reasonable cost, i.e., making it accessible to the public.

John Locke said that individual property rights are a natural right of a person, and the fruits of one's labor should be paid. On the contrary, Bentham argued for the utilitarian principle meaning greater good for the more significant number. Such a line of thoughts can be seen while balancing individual patent rights and public interest. During health emergencies such as H1N1 influence, HIV, Ebola, and COVID 19 among many, where the medicines are required on a large scale and preferably at an affordable cost,how far the monopoly is provided to the inventors is justifiable.

The TRIPS agreement has attempted to balance the individual monopoly rights and the public interest via incorporating relevant articles in the agreement. The public interest is further strengthened by the Doha Declaration on public health signed in the year 2001. Such flexibilities include compulsory licensing, parallel import, and government use license.

Until the TRIPS agreement was signed, there were diverse forms of patent protection across the globe. Such as the United States, among other developed countries, gave strong IP protection while developing countries provided weak protection. In India,before the signing of the TRIPS agreement, only process patent was provided. It enabled the generic manufacturing companies to produce the high-cost branded drugs cost-effectively and supply developing and least developed countries.

[1]WTO Secretariat, 'This Document Has Been Prepared under the WTO Secretariat's Own Responsibility and Is without Prejudice to the Positions of WTO Members or to Their Rights and Obligations under the WTO. 1' 1.

The TRIPS agreement was signed in 1994. It laid the minimum guidelines to be followed by the member countries. Developing countries were given extended timelines to incorporate the changes post-signing. Since everything has a good and harmful effect, the same happened after this agreement. It focused on multinational companies to produce medicines for the diseases most affected by developing and third world countries. It also made the pharmaceuticals inaccessible to the LDCs.

The high cost of creating a new pharmaceutical product has meant that investments in pharmaceutical innovation by the private sector have been primarily directed at products meeting patient needs in developed countries, particularly in the United States, which combines strong patent protection with a price control-free market.

This report will focus on TRIPS role in the public health policy, health emergencies such as HIV and the role of patent, COVID-19 and various steps taken by private companies, international organizations, NGOs and Governments, advanced purchase agreements and the effect on the least developed countries.

TRIPS agreement and public health policy

TRIPS agreement sets minimum IP protection standards to be implemented in the member countries. It is in no way attempts to bring in a single IPR system. The member countries are free to adopt a stricter law than the one outlined in the agreement. The WTO accepts the need of the states to meet the demand regarding public health. The members can legislate on public health and public interest in sectors such as socio-economic and technological development. The TRIPS Agreement aims to ensure that IPRs are adequately covered, in line with the developing countries' health goals and the diffusion of innovation worldwide.
Various provisions of the TRIPS agreement, such as article 27.2, allows the countries to include requirements under their laws for compulsory licensing of the patents under necessary circumstances. Various provisions of the TRIPS agreement, such as articles 7,8,30, and 31, provide scope for implementing the right to health provisions in the member countries' national laws.

Article 7 on the agreement lays down the 'objectives' under which Two terms "to the mutual advantage" and the balance of rights and obligations" are given in exact words in this article, which circumscribes how the goals will be accomplished. The substantive objectives of encouraging innovation, technology transfer and distribution, and social and economic welfare promotion have explicitly been recognized. Article 8 states the 'principles' that allow the member countries to formulate their national laws necessary to protect the public.
Article 30 of the TRIPS Agreement allows for the authorization of Member States to
'Subject to the condition that it does not unreasonably interfere with the normal use of the patent and does not unreasonably conflict with the rights of the patent proprietor, taking into account the valid interests of the third parties, provide limited exceptions to the exclusive rights granted by the patents.
Article 31 gives a necessary right to the member states in terms of implementing public health policy. The article provides a compulsory license under essential circumstances. This right under trips and paragraph 5(b) of the Doha declaration, 2001 plays a vital role in public health policies, especially in the developing and third world countries.
Paragraph 6 of the Doha declaration empowers the nations having the insufficient manufacturing capacity to import the patented drugs from other countries under necessary circumstances. The Doha declaration offered some clarity on the interpretation and implementation of compulsory licenses for the public interest. The declaration mentioned:

- The TRIPS agreement should not prevent the members from taking measures necessary to protect public health.
- The agreement should be interpreted in such a manner that it protects the WTO member's right to protect public health and promote access to drugs.

The DOHA ministerial declaration, 2001, made it possible for the countries having insufficient manufacturing capacity to import pharmaceuticals from other countries manufacturing the drugs under the compulsory license. The WTO member government stressed that the application of the TRIPS Agreement is essential in such a way that it promotes public health by encouraging both access to existing medicines and the development of new drugs. The ease of TRIPS should be used to gain access to low-priced generic medicines. They decided that the TRIPS Agreement should not prohibit participants from taking public health protection steps.

History of epidemic and pandemic

Humankind has faced many pandemics and epidemics, resulting in enormous death. When the scientific treatment was not known, such widespread diseases were considered to bean act of a supernatural being. Some of the early recorded infections include Antonine plague, Cyprian Plague, Justinian plague, black death, cholera, leprosy, Russian flu, and Spanish flu. These resulted in a high number of deaths. The more recent outbreaks include HIV, SARS, Tuberculosis, and Hepatitis C.

HIV was believed to be originated in Congo in the year 1920 when the virus jumped from chimpanzees to humans. It was difficult to know about the infection as it did not show early signs of infections. It is a major global health issue, with an estimated 38 million deaths by the end of 2019 because of this infection so far. The concentrated efforts of various organizations to respond to HIV has been steadily increasing. The infection can be stopped from spreading since it is not highly contagious. By the year 2019, 68 percent of adults and 58 percent of children infected with HIV have received lifelong antiretroviral therapy.[2]

The new infections and death rates have been decreasing, but the number of patients living with the infection has increased.[3]There has beena significant increase in access to AVR therapy in low- and middle-income countries. The international funding received for the treatment and the decreasing cost of AVR therapy plays a significant role. The decrease in the price can be due to various reasons such as increasing funding, compulsory and government use licenses, not granting patents in key producing countries and promoting generic manufacturing.

India did not grant product patents until 2005. It enabled the production of the generic versions of AVRs enabling access to it at a low cost, which were impossible in other jurisdictions that provided product patents. Indian companies still provide the generic versions of the AVRs as the product patent's introduction does not affect the generic market established before it.

Hepatitis C virus has a global prevalence, with an estimated infection of 71 million in 2015. The treatment for chronic disease has undergone a revolution in the past few years. The invention of direct-acting antivirals (DAAs) such as sofosbuvir has increased the infection's curing rate. However, the drug was costly, and most of the OECD countries could not access it. The inaccessibility of these highly effective drugs started a debate. Later the originator company granted voluntary licensing to the generic company to produce the generic versions of it. The first voluntary licensing agreement was signed in the year 2014 with an Indian generic company. It allowed the supply of these highly effective medicines to more than 100 other countries in need of it.[4]

Tuberculosis has been the leading case of death globally since 2007. But there is a decline in infection rate by 2% every year, and death rates have fallen from 1.5 million to 1.3 million in 2018. The patient's treatment has also significantly increased in 2018 from 35 percent to 69 percent in 2018.[5] The low cost of treatment also plays a significant role in the decline in the mortality rate. However, approximately 484,000 cases of multi-drug resistant TB were reported, which is harder to treat, and the first-line treatment suggested by WHO for TB is ineffective.[6] The treatment of the new drug-resistant TB requires research and development of new medicines. But TB is a somewhat neglected disease in the pharmaceutical sector. This is where patents play an essential role in encouraging pharmaceutical companies to invest in R&D. In the year 2012,bed aquiline, which can be used to treat drug-resistant TB, was granted patent. In the year 2013, the originator company sold it to the developed countries at US$30,000 per treatment course, to the developing countries at US$3000, and the low-income countries at US$900 per course. It later in the year 2018, agreed to sell per course of treatment at US$400 to the low- and middle-income countries.[7] Patents can motivate companies to invest in R&D to develop medicines and vaccines for various diseases. As mentioned above, steps are taken to help the low- and middle-income countries be the best possible method to balance individual and public interest. However, various other ways act as a threat to the private players from overexploiting their monopoly rights, such as compulsory and government use license.

COVID-19 and public health: Initiatives taken by various organizations

[2]WTO, *Promoting Access to Medical Technologies and Innovation*, *2nd Edition* (2020).
[3]WTO (n 2).
[4]WTO (n 2).
[5]WTO (n 2).
[6]WTO (n 2).
[7]WTO (n 2).

On 11 March 2020, the World Health Organization (WHO) announced COVID-19, caused by SARS-CoV-2, a pandemic. Since the outbreak, the relationship between patent rights and the creation and access to medical treatments and technology has become central to the debate on the connections between intellectual property (IP), innovation, access, and public health among stakeholders with divergent interests.

Wide-ranging access to a wide range of medical products and other technologies, from protective devices to contact monitoring software, medicines, diagnostics, and vaccines and therapies that are yet to be developed, is required for a Complete response to the crisis. To improve accessibility to the necessary technologies and to promote the development, production, and distribution, the intellectual property system will play a significant role.

Since the beginning of the crisis, governments and stakeholders have considered how innovation is encouraged, controlled, and handled, including the IP system, and how this may lead to tackling the pandemic. The cooperative sharing and pooling of IP rights have been discussed by a range of initiatives, thus reacting to the spirit of cooperation needed for any global effort to resolve the COVID-19 pandemic. Similarly, a variety of policy options confirmed under the TRIPS Agreement, as enacted in domestic law, remain open to WTO members as instruments for resolving public health concerns where appropriate. For example, under various conditions aimed at protecting the patent holder's legitimate interests, the TRIPS Agreement permits the compulsory licensing and government use of a patent without its holders' consent. All WTO members can issue such licenses and government-use orders for health technologies, such as drugs, vaccinations, and diagnostics, as well as any other product or technology required to resolve COVID-19. The need for an immediate response to the COVID-19 pandemic has prompted national and regional IP offices to take steps to speed up or simplify the management of the IP system in particular concerning patents and trademarks, and to provide practical assistance to companies seeking to produce potentially beneficial products in the battle against the pandemic.

IP systems are only one component of the cycle of innovation involving discovering, producing, and delivering emerging health technologies. Many policy areas, including tariffs and import licenses, government procurement, regulatory standards, health care, and competition policy, are involved in an interconnected approach to responding to the COVID-19 pandemic.

Sharing of the Data

Various stakeholders, such as international organizations, governments, and private sector players, have taken many actions and collaborations to share the IP and clinical trial data. Such sharing of the data helps in the speedy development of COVID-19 related health technologies. Some of such voluntary collaborations are given in the table below:

Sl. No.	Organizations and collaborations	Details
1	Medtronic	Puritan BennettTM 560 ventilators have been made publicly available by a medical device manufacturing firm. It also introduces the ventilator training alliance to pass on the know-how needed to use the ventilators.[8]
2	AbbVie	It waived its patent rights relating to lopinavir/ritonavir used to treat HIV, which is currently being studied to treat COVID-19.[9]
3	Moderna	A pharmaceutical firm seeking to produce a vaccine for COVID-19 has waived some vaccine-related IP protections. It also declared that during the pandemic, it would not enforce vaccine-related patents.[10]
4	Multinational Companies (Amazon, IBM, Microsoft)	Few multinational companies came forward to issue Time-Limited licenses to help mitigate COVID-19[11]
5	AstraZeneca, Gavi and SII	The potential vaccine developed by Oxford University was licensed to be produced by AstraZeneca. It made a deal of US

[8]Secretariat (n 1).
[9]Secretariat (n 1).
[10]Secretariat (n 1).
[11]Secretariat (n 1).

		$750 million with CEPI (the coalition for Epidemic preparedness) to fund the project. It made a licensing agreement with Serum Institute of India to produce 400 million generic versionsof vaccines before the end of 2020 to be supplied to the middle and low-income countries.[12]
6	A collation of scientist, physician, funders, and policymakers	An initiative was taken to transfer technology and know-how to promote the open sharing of knowledge and research data.[13]
7	EUCommittees for standardization and Electrotechnical Standardization	Certain copyrighted European standards for medical equipment and devices are publicly available.[14]
8	ASTM International	It provides its ASTM standards for testing and producing PPE kits, including facemasks, medical gowns, gloves, and hand sanitizer, free of cost.[15]

Open access initiatives and open-source licensing

Amid the pandemic, some IP right owners are giving open access or open-source licensing to deal with COVID-19 related issues. This is the practice of licensing, for a specific purpose, possibly free of charge, to the third-party for commercial applications, such as the use, modification, or sharing of source code, blueprint, or design, as a general rule, given that any improvements established are made available under the same terms and conditions. For example, Singapore has made its copyrighted software for contact tracing freely available as an open-source license.[16]

Creating Technology pools

From a legal and economic point of view, the Patent Pool has been an ongoing debate topic. In plain words, a pool means accumulation. A Patent Pool is an agreement between two or more patent owners to grant licenses to each other or third parties for their patents. Patent rights among multiple patent holders are aggregated in a patent pool. The pooled patents are then made available to the member and non-member licensees. The pool typically allocates a portion of the licensing fees that it receives in proportion to each patent's value to each member. Many pharmaceutical manufacturers have taken over the patent pool option to allow their products at a low price by reducing research and development expense that affects marketing costs.

The WHO Director-General and the president of Costa Rica signed an agreement on 29 May 2020, which has been initially endorsed by at least40 WHO member states. It asks the key stakeholder to voluntarily pool their IPs to develop vaccines and other related therapeutics. In furtherance of the above, COVID-19 Technology Access Pool (C-TAP) was created.[17]

The Medicines Patent Pool is a public patent pool founded in 2010 by Unit aid as a global health initiative. The MPP negotiates IP licensing agreements with companies holding pharmaceutical patents. The patent-holder allows the MPP to develop and sell generic copies to manufacturers in low- and middle-income countries in a particular territory. The MPP mandate initially concentrated on HIV, then extended to include tuberculosis and hepatitis C, and then further expanded to include other essential drugs in 2018. On 3 April 2020, the MPP Board agreed to temporarily extend the mandate of MPP to include any health technology that could contribute to the COVID-19 response and support innovation and access through licensing.[18]

[12]Secretariat (n 1).
[13]Secretariat (n 1).
[14]Secretariat (n 1).
[15]Secretariat (n 1).
[16]Secretariat (n 1).
[17]Secretariat (n 1).
[18]Ludiwg-Maximilians-Universität München Technische Universtität München, 'Patent Related Actions Taken by WTO Members' [2018] e-conversion - Proposal for a Cluster of Excellence.

Amendments in patent examination or application procedure

The existing patent and application procedure of the patent offices across the globe is time-consuming. To shorten the time, the relevant government has made few laws to allow patent-related applications to be processed on priority. The 'Fast-track' procedure aims to promote the development and eventual delivery of certain types of technology, such as inventions that impact healthcare.

Brazil has passed an ordinance under which the Brazilian patent office will prioritize the examination of the COVID 19 related patent applications from 7 April 2020 to 30 June 2021.The Russian Federation has decided for accelerated consideration of IP applications, which will be used for combating COVID-19 and various other related diseases, without charging extra fees. The United States Patent and Trademark Office has introduced a COVID-19 related pilot program for a speedy examination of COVID-19 related applications and waived off the fee requirement for provisional applications.

Use of compulsory or government use licenses to address COVID-19

Under Article 31 of the TRIPS agreement, the member countries can grant compulsory or government use licenses under certain conditions without the patent holder's consent. Any member country can use the flexibility to grant compulsory licenses under article 31. It allows the government to make sure that the essential medicines are accessible to the public at a reasonable rate. Many countries such as New Zealand has a national emergency as a ground for issuing a compulsory license. Section 84 of the Indian Patent Act 1970 talks about compulsory licensing. It provides various conditions under which compulsory licenses can be granted.

To respond to the pandemic when the potential vaccine or drug is available many countries have granted compulsory or government use licenses. The other member parliament has requested the government to grant a compulsory license for the potential COVID-19 treatment. Compulsory licensing can be a handy tool in combating the situation. It is to be used to provide access to the drug at an accessible price. Some of such steps taken by member countries are given below:

Sl. no.	Country	Action taken
1	Canada	They have amended their patent act to authorize the patent's commissioner to issue a license to the government or the third party to supply the required quantity of patented invention to address the situation, on an application of the Ministry of Health. They also considered that the interest of the owner and had granted him several rights, such as a restriction on the timeperiod of the authorization, the issuance of a notice of authorization, access to the court if the licensed individual was functioning beyond the scope of the authorization, and sufficient remuneration.[19]
2	Germany	Amendments have been made to the German Act on the prevention and control of infectious diseases in humans. It enables the Ministry of Health to issue patented medicines orders to be licensed to resolve national situations, such as a pandemic.[20]
3	Hungary	They have declared a state of danger. They can suspend any application or take extraordinary measures outside the scope of existing laws during this time. Making use of Article 31 of the TRIPS agreement has passed a government order on 16 May 2020 to the compulsory license of necessary drugs to be exploited within the country. But the State of danger was ceased to operate on 18 June 2020; hence the compulsory license order passed has also ceased.[21]

[19]Technische Universtität München (n 18).
[20]Technische Universtität München (n 18).
[21]Technische Universtität München (n 18).

4	Israel	An order was passed by the Israeli Health ministry authorizing the government to import generic versions of lopinavir/ritonavir from India to see the possibility of COVID-19 treatment.[22]

Advanced purchase agreements

Advanced purchase agreements are legally binding contracts. An entity, such as a government, undertakes to purchase from a vaccine manufacturer a specific number or percentage of doses of a potential vaccine at a negotiated price if it is produced, approved, and manufactured. Such agreements ensure priority access to the vaccinations.

Countries that do not agree with the ethics of APAs or are financially unable to buy vaccines are unable to engage in purchase negations are at risk of not having access to the vaccine when it is first marketed. It further delays the vaccines' access to them while other developed countries with hi-tech health infrastructures receive the vaccines on priority.

For example, during the H1N1 influenza outbreak in 2009, several APAs were owned by high-income countries. They have been used on a priority basis to procure vaccines, making it impossible for middle and low-income countries to receive them. In 2009, APAs were used so widely that because of pre-existing commitments under APAs with HICs, more than 56 percent of WHO-surveyed pandemic influenza vaccine providers could not manage to guarantee 10 percent of real-time vaccine development for the procurement of UN agencies.[23]

The advanced market commitments (AMCs) can be used to secure APAs to secure vaccines for the low- and middle-income countries by global health organizations. The Gavi, a vaccine alliance, used donor-funded AMCs to enter into APAs with different vaccine manufacturers to deliver low-profit vaccines to low- and middle-income countries with a fixed number of vaccines. They have also been used in child pneumococcal and Ebola vaccine applications. It has also established the COVID-19 Global access vaccine in June 2020 with the help of AMC's funded by the donor and High-Income Country governments to purchase a guaranteed vaccine volume distributed in LMICs.

II. ANALYSIS AND FINDINGS

Differences of opinion between countries on the justification of the IP protection to be granted have been and continued to be discussed; those in favour of economic development are in favour of the protection of IP rights, while those concerned with health are opposed to those views.

The patent protection granted in India was less strict or probably zero during the pre-TRIP'S regime, which was better as the accessibility and affordability of medicines were not a problem. Still, now in the post-TRIPS scenario, the drugs are priced beyond the poor's reach and cause a significant loss. They can't receive the latest drugs they could have in the pre-TRIPS period. By incorporating various flexibilities such as parallel importation and compulsory licensing, the TRIPS agreement has tried to balance medicine's accessibility and preserve the owner's intellectual property rights. The prolongation of strong intellectual property rights in less developed countries increasingly burdens the poor as they lose access to generic versions of medicines that are still protected. This expansion of intellectual property rights, on the other hand, could help the poor of the future, given that additional incentives are being offered in developed countries to address health needs.

A unique challenge has emerged with research laboratories worldwide rushing to produce a coronavirus vaccine: how to reconcile intellectual property rights with public health policy. The company developing the vaccine will no doubt get the monopoly rights and will exploit the same. However, countries in their domestic laws have many provisions to use the patent for compulsory licensing, government use license

[22]Technische Universtität München (n 18).

[23]Alexandra L Phelan and others, 'Legal Agreements: Barriers and Enablers to Global Equitable COVID-19 Vaccine Access' (2020) 396 The Lancet 800.

and countries not having the sufficient capacity to manufacture can make use of parallel importation provisions in the Doha Declaration.
Many countries such as Canada, Germany, and Israel have passed compulsory licensing laws for COVID-related pharmaceuticals. Various patent pools have been established to boost the research.
Various amendments have been made in the application filing and examination procedures for the COVID-19 related filings in the respective patent office. These amendments are made for a fast-track examination of patents. Countries like Russia have waived off the fee for provisional applications, and brazil has prioritized examining the related patents. The USA has launched a pilot program for speed examination of the patent.
The Medicine Patent Pool was established to negotiate patent licensing with originator companies. The patent holder requires the MPP to issue licenses to create and sell generic versions in a particular territory to producers in low and middle-income countries. Initially, the purpose of the MPP was focused on HIV, then extended to include tuberculosis and Hepatitis C, and expanded to include essential medicines in 2018. The MPP Board voted on 3 April 2020 to temporarily extend the MPP's mandate to include those health innovations that could contribute to the global response to COVID-19 and encourage innovation and licensing.[24]
Many countries have signed advanced purchase agreements with the manufacturers for the potential vaccines and other therapeutics to be developed in the future. It guarantees them to make available the vaccines within their country on priority. Developed countries such as the United Kingdom and the USA have entered into APAs for manypotential vaccine dosages. It leaves the middle- and low-income countries waiting for further manufacturing after the developed countries' demands are fulfilled because they cannot afford to purchase them via APPs. The health infrastructures of the LDCs are not developed to support such considerable demands in times like pandemic. It further adds up to their sufferings. Vaccination is the best way to control the infection in LMICs.
Gavi, a vaccine alliance, previously known as Global Alliance for vaccine and immunization, has attempted to secure a certain amount of vaccine for the developing countries using the donor's fund. Its public-private partnerships and funds have successfully provided vaccines for the children living in developing countries.
Many pharmaceutical companies, such as bed-aquiline producing originator company, run donation program, sell medicines at a lower rate in comparison to developed countries, making it accessible to the marginalized people. However, such initiatives depend on individual patent holders.
Doubts remain about these public health policies benefiting the developing and least developed countries. Countries such as India, having huge potential to produce generic versions of the medicines, will not manufacture these life-saving drugs due to monopoly rights and lack of licensing. Such generic manufacturing can help in securing the health of the LMICs.

III. CONCLUSION

Over a wide geographical area, large-scale disease outbreaks can significantly increase mortality and cause major economic, social and political instability. Evidence suggests that the risk of disease outbreaks has escalated over the past century, due to increased globalization and greater exploitation of the natural environment. Such phenomena will certainly continue and escalate. Major policy emphasis has been given on recognizing and restricting emerging outbreaks that could lead to pandemics and expanding and maintaining health infrastructure.
Scientific inventions are a mode of earning profits for private companies. Still, when it is about pharmaceuticals and other medical inventions, they are life-saving for the public. The big multinational companies based mostly in developed countries invest a vast amount of money in the research and development of various therapeutic drugs with no guarantee of getting desired results. Hence, when a new drug is invented, they would be interested in recovering the invested money and making a profit. But such a monopoly should not be exploited to such an extent that it remains inaccessible to a large amount of the population. Especially during times like COVID-19, which made countries close their borders, put months-long lockdown affecting business,tiny and medium businesses, affecting work, schooling, and mental health of the public. Patents undoubtedly work as an incentive to the companies to stay motivated and develop necessary therapeutics. Still, the real purpose of drug discovery should not be ignored by the pharmaceutical industry and trade negotiators alike, saving lives. To this end, profit should always be a medium, not vice-versa.

[24]WTO (n 2).

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