**International Political Economy of Covid-19 Vaccine: Issues & Challenges**

Ms. Aparna Kulkarni, Mr. Ameya Sanzgiri, and Ms. Vasudha Jha

1 Asst. Professor, Department of Economics, St. Xavier’s College, Mumbai, India

2 Research Student, St. Xavier’s College, Mumbai, India

**Abstract:** The COVID pandemic has wreaked havoc around the world; through economic, social and political aspects. No nation as such has been spared from this pandemic and today as we hope to recover from the blow faced due to the virus, our only savior is a good vaccine to protect us from the virus. Vaccines have been developed to fight this pandemic in record time and these vaccines and their distribution is already having a huge impact on the political and economic situation in nations around the world. This paper sees this very economic and political outlook of the COVID vaccine and states some of the problems that can be faced especially in an Indian context.

**Introduction:**

The outbreak of Covid-19 pandemic has been the most disastrous considering the other pandemics in the recent past. Preparedness of public health care system and social awareness about the basic health care among the people both have been brought to the forefront during this crisis episode. In view of the modern capitalist systems across the countries it has been observed that public health care system was never prioritized by the State machinery all over the world. Hence, the State’s response to the crisis was a mix of panic and haphazardly undertaken measures to control the spread of the virus.

The dire need for a Covid 19 vaccine made the countries to make heavy short-term arrangements for medical infrastructure and R&D expenditure. The economic and social upheaval during the crisis and lockdown worsened the situation and the political economy aspects were at function in case of the medical trials for such vaccine. The intellectual property rights for medical inventions, international treaties for medical help and medicinal exchange, domestic concerns of increasing Covid-19 cases and the issue of maintaining social harmony recapitulate the lockdown episodes in many countries.

This paper is an attempt to examine the trajectory of trials to invent and distribute the Covid-19 vaccine in different countries and the way politico-economic ideologies have played their role in directing the efforts to invent such vaccine and in getting the right vaccine out to the people in time. This paper also discusses the stories of the various vaccines now in production like, Covishield, Covaxin, Sputnik V and many more. We argue that with the invention of Covid – 19 vaccine and its current distribution, there are various political factors internationally and social justice domestically but the capitalist concerns and priorities that shouldn’t deemphasize the public health in any manner.

**Review of Literature:**

The landscape of COVID-19 showcases the poor preparedness of countries against the threat of the virus. The development and provision of the COVID-19 vaccine is envisaged to act as a key intervention in order to minimize the threat imposed by the virus. The numerous partnerships by international organizations viz. PAHO, WHO and UNAIDS are taking immediate actions to deploy community health workers, prioritizing the vulnerable communities across the globe. Claims for the potential vaccines are still being tested for number of doses to administer for adequate protection, the subsequent cold chain needs and most importantly the safety of the vaccine and its effectiveness.

Thanh Le et al., (2020) states that COVID-19 has triggered intense amount of global R&D ventures against it. It has caused immense economic and political impacts on the global environment. In the R&D landscape notably 115 vaccine candidates are registered of which 78 are confirmed as active ones of which 73 are in their exploratory stage. These will step soon into the clinical development and indicate plans for human testing of vaccines. Majority of these vaccine
development activity (46%) is undertaken in North America. The development activity is not equally distributed geopolitically as because, when compared to North America and Asia, these activities are slow-paced in Africa and Latin America due to the epidemiology of COVID-19, are non-identical in terms of control of disease and geography.

The terminal effects of COVID-19 can be noticed over the whole landscape of global arena affecting the international relations and policymaking, altogether. Singh (2020), elucidates how COVID-19 will lead to a New World Order which will definitely have, if not immediate the long-term visibilities in International Politics, scientific development, economic impacts viz., increase in poverty (especially in India pushing 12 million people into poverty), among others. It also throws light on China’s role in aggravating the situation by not sharing ample information about the virus, leading to severe outbreak. This provided it with opportunities of making investment in international markets. This has also caused severe strains in international politics, with reference to COVID-19 vaccine, as more reliance is getting posed on China, away from EU or the USA. It has also angered its western neighbours notably India, and countries from Central Asia such as Kazakhstan and Kyrgyzstan after its unethical moves to provoke these nations.

Hafner, Yerushalmi, Fays, Dufreme and Stolk (2020), explicate how “Vaccine Nationalism” (wherein any country undertake ways to get doses of vaccine explicitly for its own citizens) leads to unequal issuance of COVID-19 vaccine and ultimately affecting it by detonating its global GDP up to $1.2 trillion year-over-year. Hence such economic implication caused due to inequitable access of vaccines, needs framework which can be enforced with an objective to encourage international sharing of vaccines and enough international support.

On the other hand, Thunström, Ashworth, Finnoff and Newbold (2020) surveys a sample population of adults in the US, to showcase their intention towards the need of vaccine. This representative sample showed a hesitancy towards the COVID-19 vaccine because of uncertainty and severity of infections caused by it. Such risk causing fear among people, transmitted through different sources ultimately affects other types of health behavior associated with COVID-19. Such a hesitation due to reasons like worry about the side effects, considering Coronavirus to be not severe enough, or the recommendation of their doctors to not take any vaccine, and the thought of vaccine doing no good creates economic imbalances and disproportionate results from these vaccines.

According to Tisdell (2020), the economic recovery from COVID-19 lies solely on the medical treatments, for instance breakthrough in mass production of an effective and reliable vaccine. It notes that the pace of recovery is hampered by both supply side and demand side factors, as many businesses and manufacturing units depends on international supply chains for sustenance of their economic activity. But due to dwindling international relations we can see international suppliers lacking production affecting the overall economic performance.

Focusing on the economic impacts because of the absence of COVID-19 vaccine Fernandes (2020), explains how negative performances can be noticed in almost all sectors of global economy. Notably, 75% of the companies report major disruptions in their supply chains causing deficiency of raw materials and final products supply. This as a result affect the trade relations among multifarious countries and how after the experience of global pandemic calls for risk management strategies even if it counts for a small spike in average cost.

As stated by Chakraborty and Maity (2020) this global health calamity has impacted the global environment by posing numerous health issues, social challenges, and economic fluctuations. And in case of no reported COVID-19 vaccines the countries are taking measures in order to keep their economy robust enough by saving it from distressing economic patterns. This is done by testing and treating people, imposition of lockdowns an obstructing large gathering.

It is noticeable that the outbreak of COVID-19 has caught the attention of scientists and physicians worldwide. According to Liu et al., (2020), the constant effort of unveiling its epidemiology seems to be an attempt with the objective to find all possible treatment regimens, and ultimately develop the vaccine. The recent research and findings on SARS-Cov-2 have offered beneficial insights about the therapeutic and preventive agents of the disease. It is important to note that there have been more than 2000 patents of SARS disease since its first outbreak. And 35 % of this patent is related to vaccine development. After emergency situation breakout there have been multifarious patents that are deemed to be associated with some potential drugs like Remdesivir and lopinavir. Because of some positive results from these patented applications, these have entered into the third phase of clinical trials showcasing advancement in research for vaccines. It is indicative that the ardent efforts by the pharmaceutical industry and majorly by the research institute, are proving to be useful by paving their way for current treatment and future diagnostics.

As mentioned by numerous researchers that in the absence if the Vaccine to curb the outbreak of Coronavirus Disease the brunt of it is faced by the countries economically, politically and socially. Accounting for the economic loss caused due to the pandemic we see that more than 190 million jobs has
been lost and around 12 million people falling into the poverty trap. Henceforth, all these alarming situations calls for the need of Vaccine, but it will still require the cooperation between the government and the public as most of them are unwilling to take up vaccine.

The Economic Advantages of a Vaccine

Vaccinating the masses will have a huge economic advantage. The pandemic and the subsequent lockdowns have caused a massive economic slowdown in the economies of many nations around the world. The faster we are able to get a vaccine out, than businesses, factories, industries, and other economic sectors can open up to pre-lockdown production rates. This will help reduce the unemployment in nations, as due to shutting down of jobs the unemployment numbers skyrocketed. A strong vaccine will help bring the economy back to strength stabilize the same. Plus, the production and distribution of these vaccines will also employ hundreds if not thousands of additional workers who will benefit economically. There is of course even the international trade aspect. Nations who are producing the vaccine will be able to export it to other nations, boosting their own economies in the process as well as improving their industrial capacity.

International Vaccine Research and Production

Starting in the end of 2020, multiple nations have begun the production of their own respective vaccines and conducting trials to check the safety and efficacy of the vaccines on different age groups. Below is a table of the various vaccines currently undergoing trials or in production and use around the world:

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*The geography in which the first Emergency Use Authorization was granted varies by vaccine.
Source: BioCentury; clinicaltrials.gov; Milken Institute COVID-19 Treatment and Vaccine Tracker; press search

McKinsey & Company

Currently the leading vaccines in the world are the Moderna, Pfizer, AstraZeneca/Oxford/Covishield, Covaxin (Bharat Biotech) and the upcoming Johnson and Johnson vaccine. These vaccines have been produced by three nations the United States of America, the United Kingdom and India. There was initially a lot of excitement over two vaccines from China and Russia, that is Sinopharm and the Sputnik V vaccine respectively. The Russian virus was actually the first virus to get approved, albeit from the Russian government, for full scale production. However, issues surrounding the efficacy of these vaccines as well as issues in their production timelines have pushed them back in the production scale compared to the leading three.

What is interesting is the front running that India has taken in the production of the vaccines. With its pharmaceutical companies accounting for the 20% of total medicines and pharma products in the world, this is not extremely surprising. However, the efficiency with which the production has been handled is. Below is a table that shows how India, just after the United States has the highest production capacity of any nation.
A First Mover Advantage

Whichever country gets the first approved vaccine that shows results will get what is known in economics as the First mover advantage and will for a while dominate and monopolize the market before other alternatives are tested and put into production. This will not only lead to firms producing these vaccines getting a lot of power, but also the nations wielding immense international diplomatic strength with access to the vaccine. On the political stage the nation may use it to benefit and further its own interests such as striking deals with nations or increasing its influence. It will also be a tremendous weapon in the hands of diplomats who can push other nations into corners to benefit their nation. The economic perspectives will also include large deals surrounding the vaccine and technology to produce it as well as huge profits to governments due to sales of the vaccine.

Internationally the development of the vaccine is going to have very interesting consequences for not only diplomacy, but also in politics and the global economy.

An Economic and Political Advantage

We can see this first mover advantage immensely through the example of India and the policy of the government, “Vaccine Maitri”. The vaccines from the United States such as the Moderna or the Pfizer vaccine are on paper some of the best vaccines in the world currently to fight the coronavirus. But with these vaccines there are immense costs involved. Not only is there the cost of the actual vaccine, but also the cost of transporting these vaccines. These vaccines need very strict storage facilities with extremely low temperatures. While nations in Europe and the US itself can afford these measures, many nations around the world cannot.

That is where India has come in. Where otherwise China would have filled the niche by providing a much cheaper alternative, issues in their vaccine production and questions over the vaccine’s efficacy have kept the niche fully open for India to take. India has struck deals with over 90 nations all around the world to provide vaccines, both the Serum Institute’s Covishield and Bharat Biotech’s Covaxin. The vaccines do not need as expensive storage facilities and are cheaper than their American counterparts. India has also given the vaccine free of cost to some nations as a point of goodwill and to strengthen relations.

This has created a huge advantage for India. Not only is the selling of the vaccines to other countries definitely helping the economy, but also it has massive political ramifications. It has been India’s goal to get a permanent seat in the UN and this vaccine diplomacy will go a long way in getting the support of various nations to agree to India’s getting of a permanent seat in the UN security council. It will also boost the economic cooperation of India with these states. This is especially true in the case of the central African nations. These nations have vast potential for economic growth and experts suggest they will experience the next big economic boom in the global economy. While China has already invested in these nations, vaccine diplomacy has given India a golden opportunity to put its foot in the door and build the foundation for future business and trade potential. The vaccine diplomacy has also helped greatly in combating the Chinese “String of Pearls” in South Asia. The gifting of vaccines to other members of SAARC as well as to other nations in the Indian subcontinent will help build diplomatic and economic ties which will help India keep the upper hand in the region through a geo-political standpoint.
Tracing Vaccine Research and Distribution in India:

There are three institutions in India which are actively involved in the vaccine research namely, Serum Institute, Bharat Biotech and Pfizer. Among the three, Serum institute has claimed the successful clinical trial of vaccine experiment in collaboration with University of Oxford and AstraZeneca. As per the recent development in the vaccine research the Covisheild vaccine invented by Serum which is the Indian version of Oxford’s vaccine is 90% effective in creating anti-bodies in human species. Covaxin of Bharat Biotech meanwhile has an 80% success rate. However, other two institutes are putting in hard efforts. However, the Pfizer vaccine was not approved for distribution in India. This has to do more with the economic aspect of the distribution, rather than its ability to fight the virus. The cost of storing the vaccine as well as its transportation makes it prohibitive for distribution in especially the rural parts of India. Currently the two vaccines being used in the country and being distributed to the masses are the Covishield and Covaxin. Over 2 million people have been inoculated, making India one of the leaders in vaccinating its population.
There are some concerns regarding the Serum vaccine which create scope for political economy issue making the matter complex. In view of the production, distribution and storage of the vaccine the crucial conditions are as follows:

1. **The half dose boost**: the clinical trial of this vaccine has showed a success in just half of the dose which indeed is good news because it will be possible to cover major chunk of population especially in the initial months when supply will be constrained.

2. **Wider efficacy**: the preliminary results of this vaccine showed that it works across all age groups including elderly. Also, it reduces the asymptomatic infection as well. These are big advantages making this vaccine an effective one.

3. **Easier storage and distribution**: this vaccine can be stored at closer to normal refrigerator temperature which means it can be distributed, transported and administered cheaper and faster. Storage is a crucial issue in country like India especially to rural areas where cold chain logistics are weak.

4. **Much cheaper**: The institute has claimed that the distribution of the vaccine will be on no profit basis and its cost will be around $2.5 per dose. There is a possibility that the vaccine will be available even at cheaper rate given the finding that a smaller initial dose is more effective than a bigger one.

5. **Made in India**: This vaccine will be manufactured by Serum institution which will bring more access and timely availability for Indian people.

The cost efficiency, easy storage and wider efficiency make the vaccine affordable and accessible. However, the political economy issues that are going to be challenging can be:

1. **Center – State relations**: being a federal state, India always faces the tension in Center State relations especially in the current atmosphere of political polarization. Political priorities and ideological differences might play the role in the distribution of vaccine in all the states in India.

2. **Preparedness of State governments for vaccine distribution**: Covid – 19 pandemic has already worsened the public health system scenario in India especially in Maharashtra, Tamil Nadu, Karnataka and Delhi. In view of the existing health infrastructure in such states the preparedness for vaccine distribution is a crucial question. Undoubtedly the role of the Central government is immensely important but the clarity and adequacy of information, sufficient technological transfer at the State level are extremely important issues.

3. **Prioritizing vaccine distribution**: agencies involved in vaccine research especially in India have their priorities for vaccination, like, medical practitioners, health workers, bureaucracy, political parties, etc. All these groups have different preference order for vaccine distribution. Ideally the State machinery should take charge and prioritize the vaccine distribution by making a proper contract with the research institute. Otherwise, this conflict will result in chaos and unrest among the people.

4. **Intellectual Property Rights (IPR)**: as mentioned previously, it is necessary to make a contract with the research institute for the supply of vaccine doses considering the population. At the same time, government has to ensure that intellectual property rights of vaccine invention are also honored as clinical inventions are subject to patents and IPRs.

Crony capitalism and selective approach at the governments have been very peculiar in Indian society in last few years. Unfortunately, political priorities and agenda seem to be dominating forces in public policy making. But this time it is a matter of saving life from the pandemic so it is expected that such forces will be deemphasized and public health with social justice will be the top priority.

**CONCLUSION:**

The idea of capturing the effect of COVID-19 vaccine on the geopolitical and international relations, showcases the inefficient management of different units of the economy to fight against any similar outbreak. Because of inefficacious risk management technique and R&D activity, the pressure on the introduction of a vaccine soon has turned into a necessity. And after safe recovery from the outbreak China is using all its cards to tap on the needs of the countries and exploit them for its own global supremacy. This causes unfortunate languish of international and political relations. However, recent developments in vaccine research especially in India raises political economy concerns and tension between center state relations financially. It is important to achieve social justice and wider access to public health care system in post Covid – 19 time. Domestic concerns and international pressure shouldn’t cause compromise with social justice and economic equality.

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