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FDI and Indian Pharma: A Study of Economic Revival and Growth Post-COVID-19

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Abstract

India's pharmaceutical sector is a global hub for affordable generic medicines, playing a crucial role in healthcare accessibility. This study examines Foreign Direct Investment (FDI) trends in the Indian pharmaceutical industry, assessing its impact, particularly in the post-COVID-19 era. The findings reveal that while the pandemic initially disrupted FDI inflows, the sector has demonstrated resilience, recovering to pre-pandemic levels. Government initiatives such as Pharma Vision 2020 have significantly influenced FDI by promoting affordability, quality, and sustainable growth. The study highlights India's competitive advantages, including low production costs and a strong generic drug market, positioning it favorably compared to other countries. Despite fluctuations in FDI inflows from 2013 to 2024, the sector shows overall growth. Challenges like regulatory barriers and pricing policies persist, but opportunities in innovation and market expansion remain strong. The study underscores the importance of strategic policies in sustaining FDI-driven growth and technological advancements in the Indian pharmaceutical industry.

Keywords: *Foreign Direct Investment (FDI), Indian Pharmaceutical Industry, Investment Trends, Government Policies.*

Introduction

India is known as a global centre for reasonably priced generic pharmaceuticals, which is essential for defending the right to health in emerging and impoverished nations. In order to provide safer and more advanced technologies to India, FDI is required. The New Economic Policy, which introduced liberalization, privatization, and globalization (LPG) as significant economic changes, caused the economy to begin shifting towards a mixed economy with equal control and opportunity for private firms at the beginning of July 1991. The main goal of this approach was to enable India's economy become the fastest-growing in the world while also equipping it with the means to compete with the world's largest economies, or developed countries (Khurana, 2015). In terms of volume, the Indian pharmaceutical sector is third globally, while in terms of value, it ranks fourteenth (Sheelan, 2022; Muthukumar and Aishwarya, 2021; Pawar and Argade, 2021; Tewathia, 2014; Paul, 2014; Sharma and Sidhu, 2014; Mangla and Sekhon, 2013;). Indian pharmaceutical exports rank among the top 20 worldwide. Approximately 200 nations worldwide, including the highly controlled markets of the United States, the United Kingdom, and others, receive Indian pharma exports. Antibiotic, anti-asthmatic, and antihypertensive drugs make up the three main therapeutic groups of export (Tewathia, 2014). Our country has identified that FDI is a tool for economic growth through its strengthening of domestic capital, productivity & employment (Dhande, 2015). At present 80% of antiretroviral drugs used to combat AIDS globally supplied by Indian Pharmaceutical Industries (Muthukumar and Aishwarya, 2021). Prior to 2000, bulk pharmaceuticals, their middlemen, and formulations that went through the approval process may receive up to 74% of their Foreign Direct Investment (FDI). When the Indian government opened up the pharmaceutical industry to all foreign direct investment (FDI) in 2000, it became one of the most

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sought-after locations for foreign investors (Sharma and Sidhu, 2014). According to the Balance of Payment Manual-5, foreign direct investment is the category of international investment that reflects the objective of obtaining a lasting interest by a resident entity in one economy in an enterprise resident in another economy. As per UNCTAD, the lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the investor on the management of the enterprise.

Literature review

It would we worthwhile to make a review of available literature regarding various aspects of FDI at national as well as international level:

Foreign direct investment (FDI) has a negative and negligible horizontal spillover effect on domestic company productivity. The Indian pharmaceutical companies that participate in foreign equity are not more productive than their domestic counterparts, owing to heightened rivalry (Desai, 2022). Foreign investors are attracted to the pharmaceutical industry due to its growing competitiveness, rising demand for medical services, and investments in life and health insurance. Emerging markets like medical travel and biopharma, along with India's low production costs and diverse disease patterns, further boost the sector's appeal (Sheelan, 2022). Being the world's third-largest provider of pharmaceutical products and 50% of immunizations, India has become a sought-after destination for international direct investment. However, the growth of foreign direct investments in the pharmaceutical and medical sectors is not occurring at a steady pace (Muthukumar and Aishwarya, 2021). (Pawar and Argade, 2021) found that the rate of foreign direct investment (FDI) influx to the drugs and pharmaceuticals sector is rising, but it also looks at the fact that there is no meaningful correlation between FDI and the industry's turnover and exports, but that FDI inflow has a favourable impact on R&D investments. Pharmaceutical industry in India is drawing in the most cutting-edge technologies, FDI policies ought to be developed in a way that promotes drug discovery research. However, for these medications to reach as many people as possible, the drug price strategy needs to work in tandem with the FDI policy (Prapti, 2020). EU countries are successful in drawing foreign direct investment (FDI) and investing in both home and foreign markets. Of the three states, the Netherlands performs best in terms of FDI inflows and outflows. Comparing Asian nations to EU states, the analysis showed that they are less effective in terms of FDI flows (Hussain et al., 2020). The study's research of the present and potential future scenarios reveals that, despite numerous worries, the Indian pharmaceutical industry is generally in a good financial, business, and commercial position (Festa et al., 2020). (Chitra and Kumar, 2020) found that a market with too much regulation has less competitiveness. For the benefit of human civilization, equal management practices and the preservation of competition are necessary to lower out-of-pocket costs for pharmaceutical items. There has been a rise in employment as a result of FDI influx. Employability is also found to be positively impacted by export size and intensity, but negatively by capital intensity (Sharma and Sidhu, 2018). Patel (2018) found that although the sixth-largest sector in the nation attracted foreign direct investment (FDI), the sector's share of total FDI inflows decreased significantly, and over the course of the study period, a weak negative correlation was seen between the country's total FDI and FDI inflows into this sector. The Indian pharmaceutical industry, exports drive outward foreign direct investment (FDI), which in turn directly influences exports in the current year (Suri and Banerji, 2017). FDI has a favourable effect on the Indian pharmaceutical industry because it has made the country self-sufficient and a net exporter of generic medications. The fact that FDI mostly enters the pharmaceutical sector through mergers and acquisitions has a detrimental effect as well (Khurana, 2017). India is acknowledged as a global centre for reasonably priced generic pharmaceuticals, which is essential for preserving the right to health in developing and impoverished nations. In order to provide safer and more advanced technologies to

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India, FDI is required. On the other hand, India's current FDI rules require reconsideration (Yadav, 2017). According to **(**Dhande and Magar, 2015) the growth in outsourcing activities, the demand for generic drugs, the need from developing markets, the rise in domestic demand, and the significant number of upcoming patent expirations are the main drivers of foreign direct investment in the pharmaceutical industry. The pharmaceutical sector in India, is that innovation in the form of expanding into new markets and diversifying inside regulated ones, was contingent upon TRIPS compliance (Bouet, 2015). According to (Tewathia, 2014) the study discovered that the primary factors drawing foreign direct investment (FDI) into the pharmaceutical sector are: growing domestic demand; increasing outsourcing activities; expanding healthcare financing products; growing demand in the generics market; growing demand from emerging segments; a large number of upcoming patent expirations; and a shortage of new drugs in the pipeline. FDI spillover channels exhibit spillover effects, and the regression analysis's findings indicate that greater levels of productivity are seen in businesses owned by foreigners. Nevertheless, there is little evidence of a relationship between FDI and domestic company productivity (Bergman, 2006). Policy initiatives aimed at promoting R&D and a certain amount of domestic company concentration in the industry may be preferable to FDI policy liberalization that is done passively with the intention of boosting local businesses' productive efficiency (Pradhan, 2002).

Research gap

Despite extensive research on foreign direct investment (FDI) in the pharmaceutical industry, several gaps remain. Current literature lacks a comprehensive analysis of post-pandemic FDI trends, leaving the impact of COVID-19 on FDI in this sector underexplored. The pandemic has significantly altered global economic dynamics, but its specific effects on pharmaceutical investments, supply chains, and healthcare innovations have yet to be fully understood. Additionally, the direct impact of government policies, such as "Pharma Vision 2020," on FDI inflows is insufficiently analyzed. Existing studies often treat the pharmaceutical sector as a homogeneous entity, failing to recognize the unique dynamics within its sub-sectors, such as generics and biologics. This oversimplification overlooks the distinct investment patterns and challenges faced by different segments of the industry, limiting a more nuanced understanding of FDI flows.

Objectives of the study

- To assess the trend of FDI in Indian pharmaceutical sector.
- To assess the impact on FDI in Indian pharmaceutical sector.
- To compare India's FDI trends and impacts in the pharmaceutical sector with other countries to provide a global context.

Hypothesis of the study

H_{01}: The COVID-19 pandemic has not significantly disrupted FDI inflows in the Indian pharmaceutical sector.

H_{a1}: The COVID-19 pandemic has significantly disrupted FDI inflows in the Indian pharmaceutical sector.

H_{02}: Government policies such as "Pharma Vision 2020" do not have a significant impact on FDI inflows in the Indian pharmaceutical sector.

H_{a2}: Government policies such as "Pharma Vision 2020" have a positive and significant impact on FDI inflows in the Indian pharmaceutical sector.

H_{03}: India’s FDI trends and impacts in the pharmaceutical sector are not significantly different from those in other countries.

H_{a3}: India’s FDI trends and impacts in the pharmaceutical sector are more favorable compared to other countries.

Research methodology

Secondary Data: The primary source of data will be secondary, including reports, articles, and publications

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from credible sources such as the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce, Annual Reports of pharmaceutical companies, and international bodies like WHO and WTO. Relevant data will be extracted from:

- DPIIT reports on FDI inflows.
- Annual reports of top pharmaceutical companies.
- Government policies and initiatives like "Pharma Vision 2020".
- Research articles and case studies from academic journals and publications.

Research Design

- **Descriptive Research Design**: This study will employ a descriptive research design to systematically describe the FDI trends in the Indian pharmaceutical sector and their implications post-COVID-19. It will involve collecting data from various sources to identify patterns and trends.
- **Comparative Analysis**: The study will also compare the FDI trends in India's pharmaceutical sector with those in other countries to provide a global context.

Government guidelines for foreign direct investment in pharmaceutical industry

"Pharma Vision 2020," a strategy for the planned growth of the pharmaceutical business in India, was created by the Department of Pharmaceuticals. India wants to become the world's largest supplier of affordable, high-quality pharmaceuticals. This is the department's stated objective.

In order to realize this vision, the department suggests pursuing the following missions:

- Develop Human Resources for Pharmaceutical Industry and Drug Research and Development.
- Encourage Public-Private Partnership for Development of Pharmaceuticals Industry.
- Promote Pharma Brand India through International Cooperation.
- Encourage Environmentally Sustainable Development of Pharmaceutical Industry.
- Enable Accessibility, Affordability, and Availability of Drugs.

The Government of India has established the following objectives in the 12th plan to help the country's pharmaceutical industry grow:

- Over US$25 billion is exported, while US$60 billion is produced.
- Professional training and SMEs' upgrade to WHO-GMP.
- The creation of Pharma Growth Clusters.
- Promote Central Pharma PSU expansion.
- Establishing Pharmaceutical Infrastructure to Boost Innovation and Drug Discovery
- Increase M.Pharma and Ph.D. programmes in NIPERs to develop Pharma Human Resources.
- Build NIPER Mohali and provide manpower and infrastructure for new NIPER
- Launch 10 more NIPERs
- The Jan Aushadi Campaign and the execution of the business plan to establish 3000
- Jan Aushadhi Stores (up to the national subdivision level)
- Encouraging the private sector to create novel drugs for ailments that are indigenous to India.

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Fdi limit in pharmaceutical sector of the economy

Pharmaceuticals	% of equity/FDI Cap	Entry Route
Greenfield	100%	Automatic
Brownfield	100%	Automatic up to 74% Government route beyond 74%

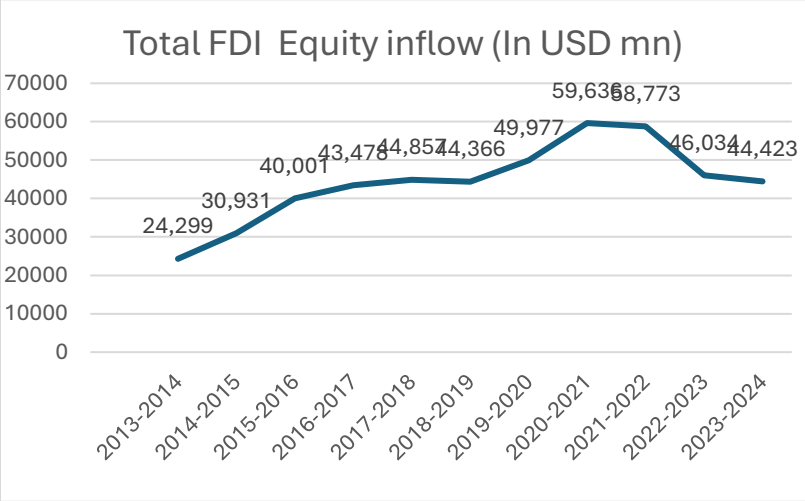
Routes of FDI

- **Automatic route:** The Indian or non-resident company does not require prior approval of the RBI or the government of India for FDI.

Government route: Government approval is mandatory. The company will need to apply through the Foreign Investment Facilitation Portal, which facilitates single desk clearance. The application is then forwarded to the respective ministry, which will approve/reject the application in consultation with the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce. DPIIT will publish the Standard Operating Procedure (SOP) for the processing of claims under the existing FDI policy.

Data analysis and interpretation

The pharmaceutical market is now estimated to be worth $41.7 billion, but it is predicted to grow to $65 billion by 2024 and $120 billion by 2030. In FY20–21, pharmaceutical exports from India were $24.44 billion. In terms of value, the pharmaceutical sector in India makes up 2.4% of the entire pharmaceutical sector worldwide. The pharmaceutical sector in India is primarily composed of generic pharmaceuticals, accounting for 70% of the market. Anti-Infectives (13.6%), Cardiac (12.4%), and Gastrointestinal (11.5%) held the largest market shares in the domestic market by revenue.



Source: https://dpiit.gov.in

figure 1 FDI yearly data

The data indicates an overall increasing trend in FDI inflow from 2013-2014 to 2020-2021, peaking at $59,636 million in 2020-2021. However, there is a decline in the subsequent years, reaching $44,423 million in 2023-2024.

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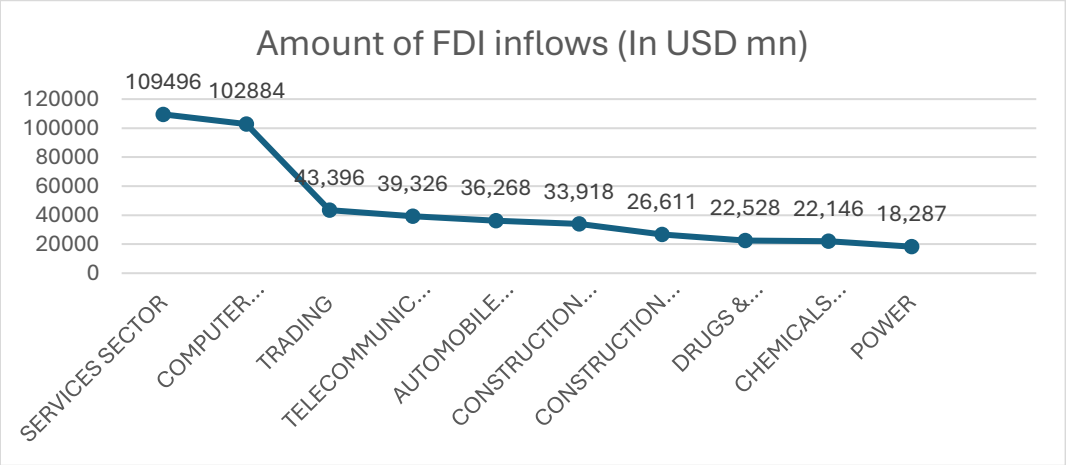
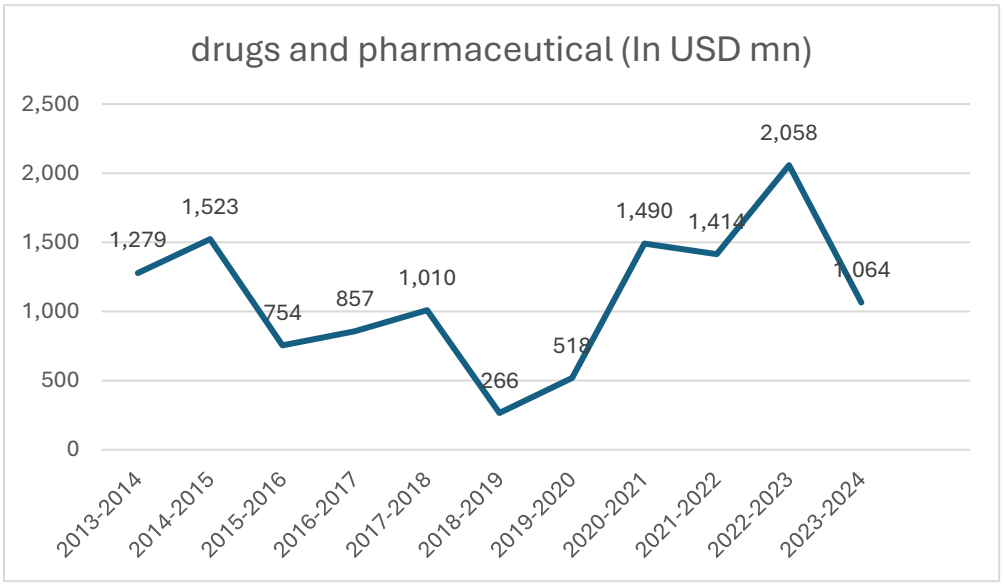


Source: https://dpiit.gov.in

Figure 2 Sector-Wise FDI Equity Inflows from April 2000 to March 2024

These values likely represent the amount of investment, revenue, or another financial metric for each sector. The **Services Sector** and **Computer Software & Hardware** are the top sectors with the highest values, indicating they might be the most significant in terms of investment or revenue. The **Power** sector has the lowest value among the listed sectors.



Source: https://dpiit.gov.in

Figure 3 Pharmaceutical sector

The table shows the FDI equity inflow into the drugs and pharmaceutical sector from 2013-2014 to 2023-2024. The investment fluctuated significantly, starting at $1,279 million in 2013-2014, peaking at $2,058 million in 2022-2023, and having low points like $266 million in 2018-2019. These fluctuations indicate varying levels of foreign investment interest over the years.

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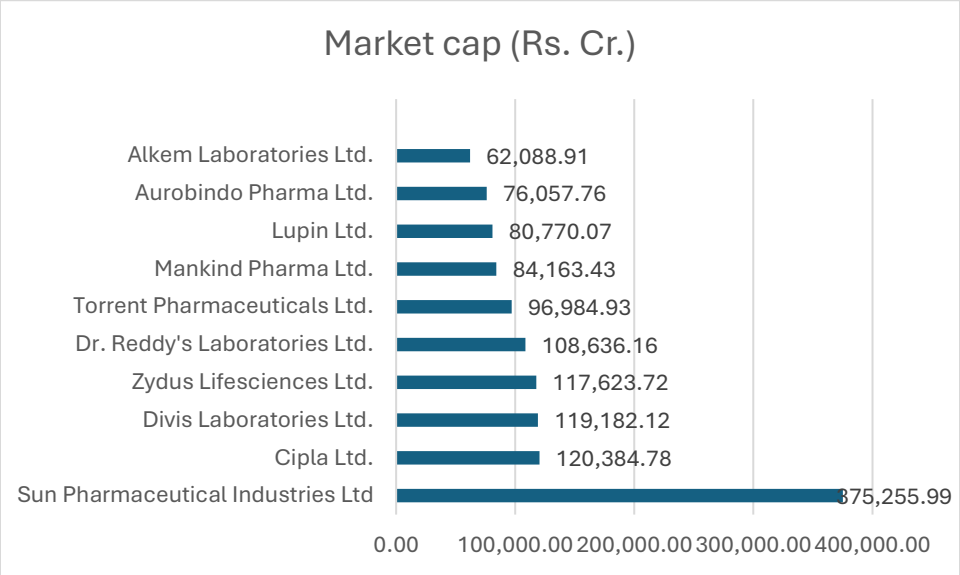

Source: https://www.moneycontrol.com

Figure 4 top 10 listed pharmaceutical companies in india by market capitalization as of july 2024

These companies collectively represent the upper echelon of the Indian pharmaceutical industry, driving innovation, production, and distribution of a wide range of medical products both domestically and internationally. Their market capitalizations are indicative of their financial health, operational scale, and the trust they command among investors and stakeholders in the pharmaceutical market.

Findings of the study

- The COVID-19 pandemic disrupted FDI inflows in 2020-21, but the sector is recovering to normal investment levels.
- Initiatives like "Pharma Vision 2020" have positively influenced FDI, focusing on affordable, high-quality pharmaceuticals and sustainable development.
- India shows promising FDI growth compared to other countries, driven by its generic drug market and competitive production costs.
- FDI inflows have generally increased from 2013-2024, peaking in 2020-21, despite some fluctuations.
- India has low production costs for pharmaceuticals. Pharmaceutical companies are drawn to areas with a wide range of diseases due to their huge population.

Conclusion

The study on "FDI and Indian Pharma: A Study of Economic Revival and Growth Post-COVID-19" highlights several key insights into the dynamics of foreign direct investment (FDI) in India's pharmaceutical sector. The findings indicate that while the COVID-19 pandemic disrupted FDI inflows in 2020-21, the sector has shown resilience and is recovering to pre-pandemic investment levels. Government initiatives such as "Pharma Vision 2020" have played a significant role in attracting FDI by emphasizing affordable, high-quality pharmaceuticals and promoting sustainable development.

India's pharmaceutical industry, characterized by its substantial generic drug market and competitive production costs, has demonstrated promising FDI growth compared to other countries. The sector has witnessed an overall increase in FDI inflows from 2013 to 2024, peaking in 2020-21. Despite some fluctuations, the trend indicates a positive trajectory.

The study also underscores the unique dynamics of different sub-sectors within the pharmaceutical industry, such as generics and biologics, which have varied impacts on FDI attraction. Furthermore, India's regulatory framework, including the automatic and government routes for FDI, shapes investment patterns and contributes to the sector's appeal.

Economic contributions from the pharmaceutical industry are significant, with projections indicating substantial market growth from $41.7 billion in 2020 to $120 billion by 2030. FDI has also bolstered technological advancements, research and development investments, job opportunities, and skill development within the sector.

However, the study acknowledges challenges such as regulatory hurdles and price control policies, which need to be addressed to sustain and enhance FDI inflows. Opportunities lie in market expansion, leveraging India's cost advantages, and fostering innovation in drug discovery and production.

In conclusion, the Indian pharmaceutical sector's ability to attract and utilize FDI effectively will be crucial for its continued growth and contribution to the economy. Strategic government policies, competitive production capabilities, and a focus on sustainable development are essential to maintaining this upward trajectory and ensuring the industry's long-term success.

References

1. Allagh, P. (2020). Analyzing Law And Policy Along With Contemporary Problems Relating To FDI In Brownfield Pharmaceutical Sector In India.
2. Bergman, A. (2006). FDI And Spillover Effects In The Indian Pharmaceutical Industry.
3. Bouet, D. (2015). A Study Of Intellectual Property Protection Policies And Innovation In The Indian Pharmaceutical Industry And Beyond. *Technovation*, *38*, 31-41.
4. Chitra, M., & Kumar, N. (2020). Pharmaceutical Market Structure In India & Competition Concerns. In *Ash* (Vol. 8, Pp. 233-41).
5. Dhande, N. C., & Magar, A. V. (2015). A Study Of Foreign Direct Investment In Indian Pharmaceutical Industry. *International Journal*, *3*(7)
6. Dhande, N. C., & Magar, A. V. (2015). A Study Of Foreign Direct Investment In Indian Pharmaceutical Industry. *International Journal*, *3*(7).
7. Festa, G., Rossi, M., Kolte, A., & Marinelli, L. (2021). The Contribution Of Intellectual Capital To Financial Stability In Indian Pharmaceutical Companies. *Journal Of Intellectual Capital*, *22*(2), 337-359.
8. Http://Hdl.Handle.Net/10603/418037
9. Hussain, A., Yang, X., Yali, L., & Nazir, M. S. (2020). Foreign Direct Investment (FDI) By Asian And European Union (EU) Countries: The Investment Effects Of Pharmaceutical Sector. *International Journal Of Economics And Finance*, *12*(4), 1-16.
10. Khurana, A. (2017). Impact Of FDI On Indian Pharmaceutical Sector.
11. Mangla, M., & Sekhon, B. S. (2013). Foreign Direct Investment In Drugs And Pharmaceutical Sector Of India. *Phtechmed, 2 (4), 316, 322*.
12. Muthukumar, V., & Aishwarya, M. P. (2021). Foreign Direct Investments In Indian Medicinal And Pharmaceutical Industries. *NVEO-NATURAL VOLATILES & ESSENTIAL OILS Journal| NVEO*, 1405-1411.
13. Patel, R (2018). FDI Inflows In Indian Pharmaceutical Industry: An Analytical Study.
14. Paul, R. (2014). FDI In The Pharmaceutical Sector: Dampener Or Booster?. *Gian Jyoti E-Journal*, *4*(1), 97-111.
15. Pawar, M. M., & Argade, N. Impact Of Foreign Direct Investment On Drugs & Pharmaceuticals Industry: An Indian Outlook.
16. Pradhan, J. P. (2002). FDI Spillovers And Local Productivity Growth: Evidence From Indian Pharmaceutical Industry. *Artha Vijnana*, *44*(3-4), 317-332.

17. R., S., Sheelan (2022). RADICAL CHANGE IN FDI POLICY REGIME IN THE PHARMACEUTICAL SECTOR.
18. Sharma, N., & Sidhu, A. S. (2014). AN EMPIRICAL ASSESSMENT OF THE IMPACT OF FOREIGN DIRECT INVESTMENT ON EMPLOYMENT IN INDIAN PHARMACEUTICAL INDUSTRY.
19. Sharma, N., & Sidhu, A. S. (2014). AN EMPIRICAL ASSESSMENT OF THE IMPACT OF FOREIGN DIRECT INVESTMENT ON EMPLOYMENT IN INDIAN PHARMACEUTICAL INDUSTRY.
20. Sharma, N., & Sidhu, A. S. (2014). AN EMPIRICAL ASSESSMENT OF THE IMPACT OF FOREIGN DIRECT INVESTMENT ON EMPLOYMENT IN INDIAN PHARMACEUTICAL INDUSTRY.
21. Sheelan, S. R. (2022). RADICAL CHANGE IN FDI POLICY REGIME IN THE PHARMACEUTICAL SECTOR.
22. Suri, F. K., & Banerji, A. (2017). Exports Cause Outward Foreign Direct Investment In Indian Pharmaceutical Industry?. *Journal Of Health Management*, *19*(4), 584-601.
23. Tewathia, N. (2014). Foreign Direct Investment In Indian Pharmaceutical Industry: An Assessment. *International Journal Of Social Science And Humanities Research*, *2*(3), 20-26.
24. Yadav, D. V. (2017). An Analytical Study Of Foreign Direct Investment In Pharma Sector Of India. *International Journal Of Law*, *3*(5), 40-42.