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AN EMPIRICAL STUDY ON THE FDI IN SERVICE SECTOR AND GDP OF INDIA

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ABSTRACT

This study delves into the intricate relationship between Foreign Direct Investment (FDI) in the service sector and Gross Domestic Product (GDP) across three diverse economies: India, China, and the USA. The primary objectives of this research are threefold: firstly, to analyze the correlation between FDI inflows into the service sector and GDP growth rates; secondly, to identify and evaluate the key determinants influencing GDP in these economies; and thirdly, to employ Autoregressive Integrated Moving Average (ARIMA) modeling techniques for forecasting GDP trends.

The analysis begins by examining the historical data of FDI inflows in the service sector and corresponding GDP growth rates over a significant time period. By employing statistical methods such as correlation analysis and regression modeling, the study uncovers the nature and strength of the relationship between FDI and GDP.

Furthermore, the research evaluates the key determinants of GDP growth in India, China, and the USA, considering factors such as investment climate, infrastructure development, technological advancements, human capital, and policy frameworks. Through comparative analysis, the study highlights the unique characteristics and challenges faced by each economy in driving GDP growth.

In addition to understanding the determinants, this study utilizes ARIMA modeling to forecast GDP trends in the three economies. By analyzing historical GDP data and employing time-series forecasting techniques, the research aims to provide insights into future economic performance, considering the impact of FDI in the service sector and other macroeconomic factors.

Overall, this study contributes to a deeper understanding of the complex interplay between FDI in the service sector, GDP growth, and the underlying determinants shaping economic performance in India, China, and the USA. The findings offer valuable insights for policymakers, investors, and analysts, facilitating informed decision-making and strategic planning in the context of global economic dynamics.

CHAPTER I INTRODUCTION

Foreign direct investment has become a key component in examining growth in the economy, particularly in emerging nations. A set of initiatives are made in order to encourage FDI within the country. FDI is a significant component in achieving better economic growth. It provides for more technological mobility, increased healthy competition, and increased domestic input. FDI refers to an investment intended to acquire a long-term shareholding in businesses operating outside of the investor's economy. Furthermore, in situations of FDI, the investor's goal is to have an influential voice in the enterprise's management.

The direct investor is the foreign entity or group of connected entities that invest. For numerous decades, the link between Foreign Direct Investment (FDI) and economic growth has been a topic of discussion. FDI is an essential component that helps economic growth by improving technology transfer efficiency. FDI has a variety of effects on economic growth.

Foreign Direct Investment (FDI) is a critical element for economic development, modernization, and job creation; it aids in knowledge transfer and human capital formation. Meanwhile, foreign direct investment (FDI) in developing economies, including India, has remained constant.

Current global production patterns are such that developing countries serve as a platform for operations in the lower segments of manufacturing and services, while developed countries contribute expertise in management, technological know-how, and skill enhancement. The attractiveness of India's states to foreign direct investment is determined by a variety of political, social, and economic factors. These aspects will be influenced by the availability of physical, social, natural, and human resources, which is a goal of the UN Sustainable Development Goals. Foreign direct investment (FDI) has been considered one of the most effective techniques of attracting funds from outside sources. This approach has also become an essential component of capital formation in developing nations across the world. However, these nations' proportion of investment in other countries has been falling in recent years. Entities that make direct investments generally have a great influence and control over the firm they invest in Indian firms. Open countries with skilled labor and promising development prospects tend to attract more foreign direct investment than closed, heavily regulated nations.

The sectors like service sector, telecommunication, Trading, Constructions Development and the Tourism sector which is very much good at receiving the FDI inflows were severely affected during the pandemic. But It is very important to notice that, the FDI inflows have been increased by 10% by India in FY21 to USD 81.72 Billion.

The increase in the FDI Inflow is mainly due to the IT Industry in India. IT Industry is the one which is performing very well and it receives inflows of USD 26.15 billion beyond the forecasted value. The number of the Project opportunities also increased in the Technology sectors during the pandemic times. Even in future, when this kind of situation comes, Technology sectors will be boosting up the FDI Inflows in India. Several growth drives like increase in the youth population, Rapid change in Rural to urban population are some of the key growth drivers for India to move into a "Digital India". The sectors which popped up the FDI inflows are IT Industry, Infrastructure Activities, and pharmaceutical sector performed well in the FY21. The severely affected sector is Telecommunication, Trading & Tourism. Saudi Arabia is the country which increased their growth percentage in investing into India.

Foreign Direct Investment (FDI) plays a pivotal role in shaping the economic landscape of countries worldwide, serving as a catalyst for growth, development, and globalization. In the context of India, FDI has emerged as a key driver of economic transformation, contributing significantly to its journey towards becoming one of the world's fastest-growing major economies. Over the past few decades, India has witnessed a remarkable surge in FDI inflows, propelled by liberalization measures, policy reforms, and a burgeoning market characterized by vast untapped potential.

The allure of India as an investment destination lies in its diverse market opportunities, burgeoning consumer base, skilled workforce, and strategic geographical location. As a result, multinational corporations from various sectors, ranging from manufacturing and services to technology and finance, have increasingly turned their attention towards India, seeking to capitalize on its growth prospects and competitive advantages.

Against this backdrop, understanding the dynamics, determinants, and implications of FDI in India has become imperative for policymakers, investors, and researchers alike. Examining the patterns of FDI inflows, analyzing sectoral preferences, assessing the impact on economic growth and development, and evaluating the effectiveness of policy frameworks are critical endeavors that shed light on the multifaceted nature of FDI in India.

CHAPTER II REVIEW OF LITERATURE

BASE PAPERS

1.Title: Time Series ARIMA Forecasting of FDI Inflow in India Authors: KY Ingale, SV Bharati, PV Karale

Abstract: The research focuses on employing the ARIMA (Autoregressive Integrated Moving Average) model to forecast future Foreign Direct Investment (FDI) inflows into India. By utilizing monthly FDI inflow data spanning from 2001 to 2020, the study aims to provide valuable insights for policymakers and economists by predicting trends and potential fluctuations in FDI inflows. The methodology involves the application of the standard Box- Jenkins methodology for ARIMA model identification, estimation, and diagnostic checking. Different ARIMA models are assessed based on statistical criteria such as AIC and BIC, and the chosen model is used to generate forecasts for future FDI inflows.

Research Objectives:

1.Analyze the historical trend of FDI inflow in India: The research seeks to examine the historical patterns and trends of FDI inflows into India over the period from 2001 to 2020.

2.Develop an accurate ARIMA model for forecasting future FDI inflows: The primary objective is to develop a robust ARIMA model that effectively captures the underlying dynamics of FDI inflows and provides accurate forecasts for future periods.

3.Evaluate the performance of the chosen ARIMA model: The study aims to assess the performance of the selected ARIMA model in terms of its predictive accuracy and ability to capture the variability in FDI inflows.

4.Provide insights into the potential impact of FDI inflows on the Indian economy: Beyond forecasting, the research aims to offer insights into the potential implications of FDI inflows for the Indian economy, including their role in driving economic growth, employment generation, and sectoral development.

Methodology:

- Data: Monthly FDI inflow data from 2001 to 2020 is utilized for the analysis.
- ARIMA Modeling: The study employs the standard Box-Jenkins methodology for ARIMA model identification, estimation, and diagnostic checking. This involves iteratively selecting the appropriate ARIMA model orders (p, d, q) based on statistical criteria such as AIC and BIC.
- Model Assessment: Different ARIMA models are evaluated based on their statistical performance and goodness-of-fit measures.
- Forecasting: The chosen ARIMA model is used to generate forecasts for future FDI inflows into India.

Key Findings:

- The research identifies the historical trends and patterns of FDI inflows in India, shedding light on the dynamics of foreign investment in the country.
- An accurate ARIMA model is developed and validated, providing a reliable tool for forecasting future FDI inflows.
- The chosen ARIMA model demonstrates strong predictive performance, offering valuable insights for policymakers and economists.
- Insights into the potential impact of FDI inflows on the Indian economy are provided, highlighting their significance for economic growth and development.

2.Title: "FDI Inflows in India and China since 2003: A Comparative Analysis" Authors: Javaid Ahmad Dar and Maninder Singh

Abstract:

This research conducts a comparative analysis of Foreign Direct Investment (FDI) inflows in India and China since 2003. It aims to identify trends, patterns, determinants, and impacts of FDI in both countries, with a specific focus on economic growth. The study employs a mixed-method approach, combining quantitative analysis of FDI data, GDP growth, and economic indicators with qualitative analysis of policy documents and

expert interviews. Through comprehensive analysis, the research seeks to offer insights into the effectiveness of FDI policies in India and China.

Introduction:

The introduction provides an overview of the importance of FDI inflows for emerging economies like India and China. It highlights the significance of comparing FDI trends between these two major economies, given their unique socio-economic contexts and policy approaches. The research objectives, methodology, and structure of the study are outlined in this section.

Methodology:

The methodology section outlines the research design and approach adopted in the study. It describes the sources of data used, including databases, reports, and official documents. The quantitative analysis involves statistical techniques such as regression analysis and time series analysis applied to FDI and GDP data. Qualitative analysis methods include document analysis and expert interviews to assess FDI policies and their effectiveness.

Results:

The results section presents findings from the comparative analysis of FDI inflows in India and China since 2003. It discusses trends in FDI volume, sectoral distribution, and key determinants influencing FDI in both countries. Statistical analysis is used to evaluate the impact of FDI on economic growth, with results presented in tables and figures.

ROL

1.Impact of FDI on Economic Growth in India: A Cointegration Analysis (2020) by Sarbapriya Ray

The research paper identifies a research gap in the existing literature on the relationship between Foreign Direct Investment (FDI) and economic growth in India. While previous studies have examined this relationship, there is a need for more comprehensive analysis using advanced econometric techniques such as cointegration analysis. Additionally, the paper aims to address the lack of consensus in the literature regarding the direction and magnitude of the relationship between FDI and economic growth in India.

The paper employs cointegration analysis, a sophisticated econometric technique used to examine the long-run equilibrium relationship between two or more time series variables.

Through cointegration analysis, the paper provides empirical evidence supporting the hypothesis that FDI has a substantial impact on economic growth in India, suggesting the importance of attracting foreign investment for sustainable development.

The findings of the study have implications for policymakers, highlighting the potential benefits of promoting FDI inflows through conducive policies and regulations to stimulate economic growth and development in India.

2.Determinants of Foreign Direct Investment in India: An Empirical Analysis (2018) by Sujata Mishra and Debasish Mohanty

The research paper identifies a research gap in understanding the specific determinants of Foreign Direct Investment (FDI) inflows into India. While previous studies have examined various factors influencing FDI globally, there is a need for a focused empirical analysis tailored to the Indian context. By addressing this research gap, the paper aims to provide insights into the specific drivers of FDI in India, which can inform policymakers and stakeholders.

The study identifies economic growth, infrastructure development, and market size as significant determinants of FDI inflows into India. This suggests that a growing economy, well- developed infrastructure, and a large market size are attractive factors for foreign investors.

Through empirical analysis, the paper provides quantitative evidence supporting the importance of these factors in influencing FDI inflows, highlighting their role in shaping investment decisions.

The findings imply that policymakers should focus on fostering economic growth, improving infrastructure, and expanding the domestic market to attract and retain foreign investment in India.

3.The Impact of Foreign Direct Investment on Productivity in India (2017) by Pravin Mishra and Mitali Mukherjee

The research paper identifies a gap in the existing literature concerning the differential impact of Foreign Direct Investment (FDI) on productivity across sectors in India. While previous studies have examined the overall relationship between FDI and productivity, there is limited research on how FDI influences productivity differently in the manufacturing and service sectors.

The paper likely employs econometric techniques such as panel data analysis to examine the relationship between FDI and productivity in India. Panel data allows for the analysis of both cross-sectional and time-series variation, enabling the investigation of sector-specific effects. The data used in the study may include variables such as FDI inflows, productivity measures (e.g., Total Factor Productivity), sectoral data (manufacturing and services), and other relevant macroeconomic indicators.

The study finds that FDI has a positive and significant impact on productivity growth in the manufacturing sector in India. This suggests that foreign investment contributes to enhancing efficiency and technological advancement in manufacturing industries.

However, the impact of FDI on productivity in the service sector is not statistically significant, indicating that FDI may not have the same productivity-enhancing effects in services as observed in manufacturing.

4.Foreign Direct Investment and Spillovers in India: An Industry-Level Analysis (2016) by Arvind Panagariya and Anu Kapur

The research paper identifies a gap in the existing literature regarding the industry-level analysis of Foreign Direct Investment (FDI) spillovers in India. While previous studies have examined the overall impact of FDI on the Indian economy, there is limited research specifically focusing on the spillover effects at the industry level. Therefore, the paper aims to address this research gap by conducting a comprehensive analysis of the spillover effects of FDI on domestic firms in various industries in India.

The paper likely employs an industry-level analysis methodology, using data from multiple sources such as firm-level surveys, industry reports, and government statistics. The analysis may involve econometric techniques such as panel data analysis or regression analysis to examine the relationship between FDI inflows and various indicators of firm performance, productivity, and innovation.

The study finds that FDI has positive spill over effects on domestic firms in India across different industries. This suggests that FDI inflows contribute to enhancing the productivity, technological capabilities, and innovation of domestic firms operating in the same industry.

The paper identifies several channels through which FDI spillovers occur, including knowledge transfer, technology diffusion, skills upgrading, and competition dynamics. These mechanisms help improve the efficiency and competitiveness of domestic firms, leading to overall economic development.

5.Foreign Direct Investment and Economic Growth in India: An ARDL Bounds Testing Approach (Sinha & Mishra, 2015)

The research paper identifies a gap in the literature concerning the relationship between Foreign Direct Investment (FDI) and economic growth in India. While previous studies have examined this relationship, there is a need for more robust empirical analysis using advanced econometric techniques such as the Autoregressive Distributed Lag (ARDL) bounds testing approach. In this study, monthly data from 1992 to 2008 are used to investigate the causal relationship between export, economic growth, and foreign direct investment (FDI) in India using the autoregressive distributed lag (ARDL) cointegration approach.

The model's long- and short-term coefficients' stability is also examined. The data shows that exports, economic growth, and foreign direct investment have a long-term link in India. The analysis finds evidence of a unidirectional causal relationship from export to FDI as well as a bidirectional association between export and economic growth in the short term. As a result, in the years after liberalisation, trade liberalisation has boosted FDI influx into India, hence spurring economic growth, in addition to causing trade expansion. Through the ARDL bounds testing approach, the paper provides empirical evidence supporting the hypothesis that FDI contributes positively to economic growth in India, influencing variables such as GDP growth, industrial production, and employment generation.

6.Impact of Foreign Direct Investment on Industrial Growth of India Muthusamy, S. Sundararajan, September 2019:

This article investigates the impact of Foreign Direct Investment (FDI) on India's industrial growth, particularly focusing on the Make in India initiative launched in 2014. The study employs secondary data analysis, drawing information from various sources like the official Make in India portal and government departments. It utilizes statistical tools like correlation analysis to analyze the data.

The article's key findings reveal that the Make in India scheme has successfully attractedincreased FDI inflows, especially in the manufacturing sector. Furthermore, it highlights a positive correlation between FDI and industrial production, suggesting that the initiative has contributed to industrial growth in India.

Overall, the article provides valuable insights into the positive influence of the Make in India scheme on attracting foreign investments and fostering industrial development in India.

7.Effects of FDI on Capital Account and GDP: Empirical Evidence from India, April 16, 2012:

This article examines the impact of Foreign Direct Investment (FDI) on India's economic indicators, particularly the capital account and Gross Domestic Product (GDP). The author utilizes Granger causality tests and impulse response functions to analyse the data, uncovering a complex relationship between these variables. While FDI inflows negatively impact the current account, they positively influence the capital account. Interestingly, the study reveals a positive long-term effect of FDI on GDP, suggesting its potential to contribute to overall economic growth.

8.Impact of Foreign Direct Investment on the Automobile Sector: An Empirical Study with Reference to India, October 2017:

Utilizing secondary data from 1991 to 2010, the study employs econometric techniques like regression analysis to uncover the intricate relationship between these variables. The key findings reveal a positive and statistically significant correlation between FDI inflows and automobile production. This suggests that increased foreign investment stimulates growth within the sector. Additionally, the study identifies technology transfer and improved production efficiency as key mechanisms through which FDI fosters expansion. Overall, the paper paints a compelling picture of FDI as a vital catalyst for propelling India's automobile industry forward, highlighting its contributions to both production and technological advancement.

9.In Benjamin Badeji & Olufunsho Abayomi's 2011:

This study is about the impact of foreign direct investment (FDI) on Nigeria's economic growth is examined. It also looks into the locational preferences of foreign investors and the viability of FDI in Nigeria using a two-stage least squares method of simultaneous computations. The results demonstrate that there is a negative correlation between real GDP growth and foreign direct investment (FDI) in Nigeria.

Location decisions for foreign investment in Nigeria have been found to be significantly influenced by the volume of exports, the exchange rate, and political stability. In this age of international commerce and FDI

policies, the government should promote greater domestic investment, maintain political stability, and make directed economic openness the mantra in order to draw more FDI to Nigeria.

10. (Agrawal & Khan, 2011) look into how FDI affects the economic growth of China and India:

The study's 1993–2009 time span was chosen in order to explore the issue of changing economic structural dynamics. First and foremost, the fundamental growth model was used to build their revised growth model. The growth model included the following factors: GDP, Human Capital, Labour Force, FDI, and Gross Capital Creation. GDP served as the dependent variable, and the other four as independent variables.
We found that a 1% increase in FDI will result in a 0.02 percent rise in India's GDP and a 0.07 percent increase in China's GDP after applying the OLS (Ordinary Least Square) regression technique. As we've seen, FDI has a bigger impact on China's growth as opposed to that of India. The paper also explores the potential causes of China's high FDI efficiency and the lessons India might take from China to enhance its own FDI utilization.

11. The main contribution of Choi & Baek (2017) that they correct for trade (CVAR) and examine the productivity spillover effects of India's inward FDI using the cointegrated vector autoregression model. For this reason, the Solow residual approach is used to compute the aggregate total factor productivity (TFP) in India in order to determine FDI-induced spillovers. The results indicate that FDI Positive spillover effects from foreign direct investment into India do in fact accelerate TFP growth. We also found that India's TFP development seems to be negatively impacted by trade.

CHAPTER III RESEARCH METHODOLOGY

OBJECTIVES:

- To examine the relationship of FDI in the Service Sector and GDP.
- To evaluate the key determinants of GDP in India, China and USA
- To forecasting the GDP using ARIMA

DATA COLLECTION:

RBI for data on FDI details, World Bank, Economic Survey, Government of India, various issues, World Development Indicators, World Bank, Department of Industrial Policy and Promotion (DIPP), Secretariat of Industrial Assistance (SIA), Central Statistical Organization (CSO).

TOOLS USED

1.E Views

2.Excel

LIMITATIONS OF THE STUDY

- **Data analysis limitations:** Depending on the research design and data type, complex statistical analyses might not be feasible. This can limit the ability to draw strong causal conclusions.
- **Access to information**: Access to specific data sets, populations, or resources might be limited, restricting the scope of the research.

- **Time constraints**: Master's programs often have strict timeframes, limiting the depth and breadth of research compared to longer studies like doctoral dissertations.

CHAPTER IV DATA ANALYSIS AND INTERPRETATION

FORCAST OF GDP OF INDIA

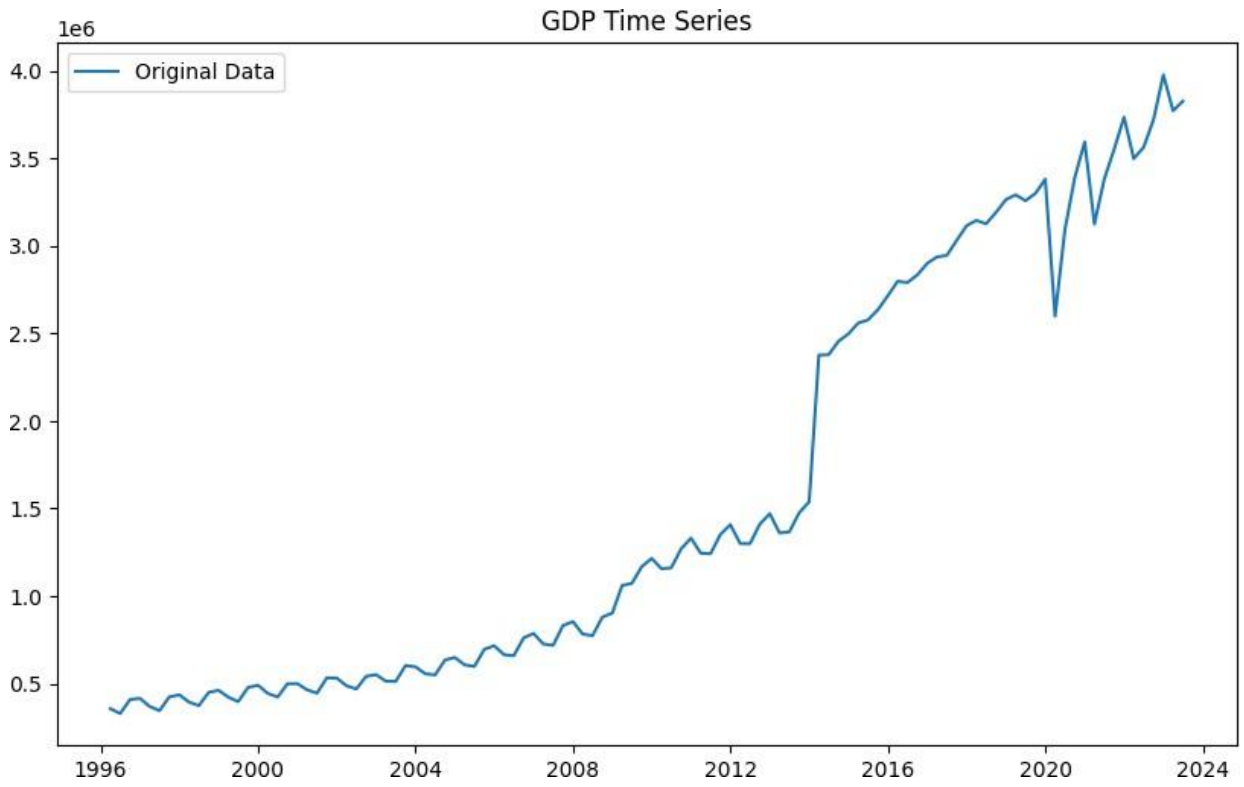

FIGURE NO: 4.1 GDP TIME SERIES

The ARIMA model is a statistical method for forecasting time series data. It assumes that the future value of a time series can be predicted by its past values and the errors of those predictions. The ARIMA model has three components:

Autoregressive (AR) term: This term accounts for the dependence of the current value of the time series on its past values.

Integrated (I) term: This term is used to make the time series stationary, which means that its statistical properties (such as mean and variance) do not change over time.

Moving average (MA) term: This term accounts for the random errors in the forecast.

The AR term in the model suggests that the future value of GDP growth is dependent on its past value. The I term suggests that the GDP growth series is not stationary, so it is differenced once to make it stationary. The MA term suggests that the errors in the forecast are correlated with each other.

The time series is not stationary, so differencing needs to be performed.

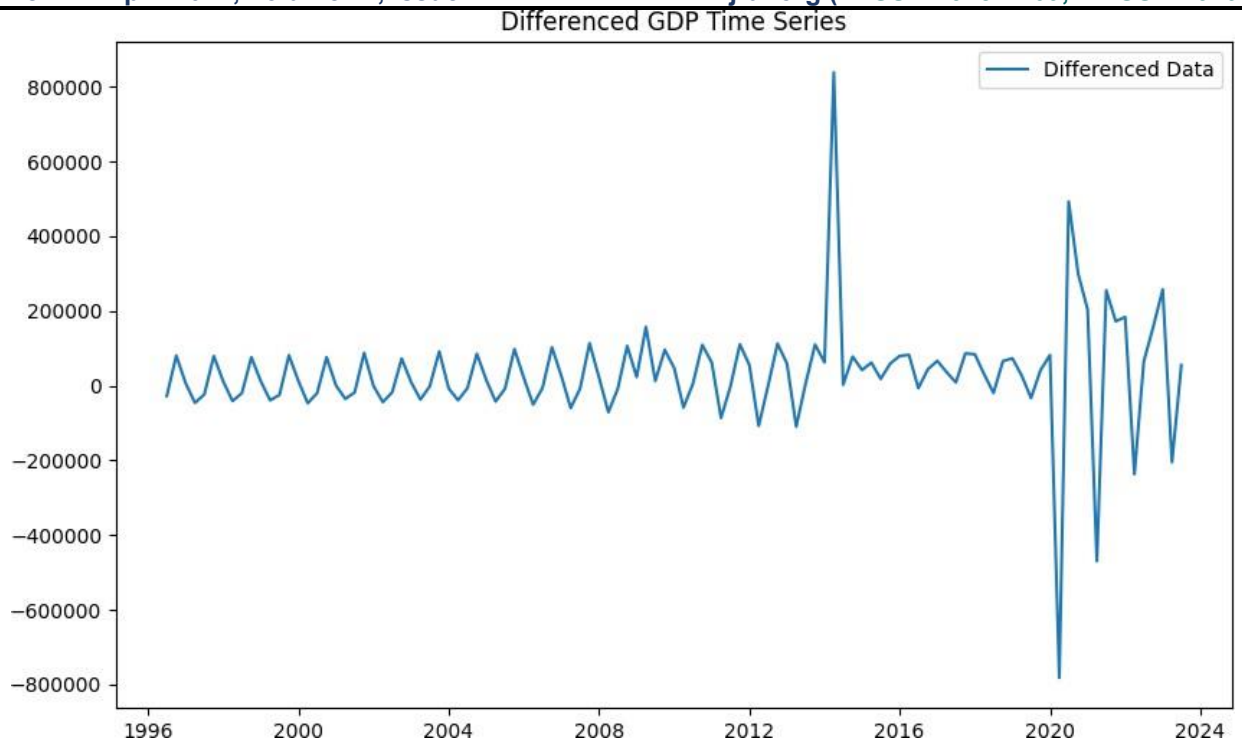

FIGURE NO: 4.2 DIFFERENCED GDP TIME SERIES

Overall trend: The differenced GDP values seem to have been positive for most of the period, with some fluctuations. This suggests that the GDP has been growing overall, although not always at a constant rate.

Stationarity: Since the data needed to be differenced, the original GDP data was not stationary. Differencing is often used to make time series data stationary, which means that its statistical properties (like mean and variance) remain constant over time. This is important for ARIMA models to function properly.

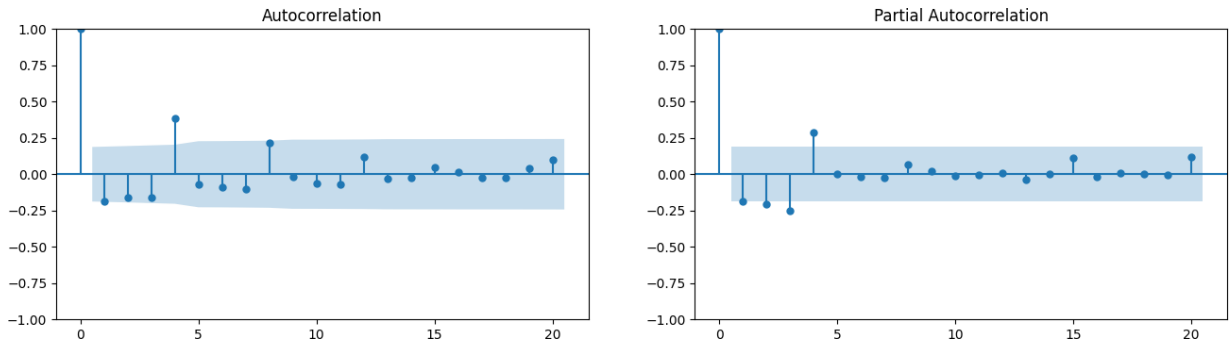

FIGURE 4.3 ACF AND PACF

Plot 1: Autocorrelation Function (ACF): The x-axis represents the lag, which refers to the number of periods back in the time series that you are considering.

The y-axis represents the correlation between the value at a given time and the value at the lag specified on the x-axis. A value of 1 indicates perfect positive correlation, -1 indicates perfect negative correlation, and 0 indicates no correlation.

The blue line shows the estimated autocorrelation at each lag.

The shaded area around the blue line shows the confidence interval for the autocorrelation. This means that there is a certain probability that the true autocorrelation lies within this range.

In this plot, the autocorrelation is significant (outside the confidence interval) at lag 1, meaning that there is a

positive correlation between the current value of the time series and the value one period ago. There is also some significance at lag 2, but the rest of the lags appear to be mostly within the confidence interval, indicating no significant correlation.

Plot 2: Partial Autocorrelation Function (PACF): The PACF plot measures the correlation between a time series at a specific lag and its previous lags, excluding the influence of any shorter lags. This helps identify direct relationships between the current value and past values, independent of correlations at intermediate lags.

X- axis: Represents the lag, similar to the ACF plot.

Y-axis: Represents the partial autocorrelation coefficient at each lag. Values range from -1 to 1, with: 1: Perfect positive correlation.

0: No correlation.

-1: Perfect negative correlation.

Shaded area: Similar to the ACF plot, this indicates the confidence interval for the estimated partial autocorrelation.

Interpretation of significance: If the value at a lag is outside the confidence interval, it suggests a statistically significant direct relationship between the current value and the data at that lag, independent of shorter lags. Values within the confidence interval are considered not statistically significant and may not imply a direct relationship.

In this plot, the PACF is significant (outside the confidence interval) only at lag 1, suggesting that there is a direct dependence of the current value on the value one period ago, independent of the values at other lags.

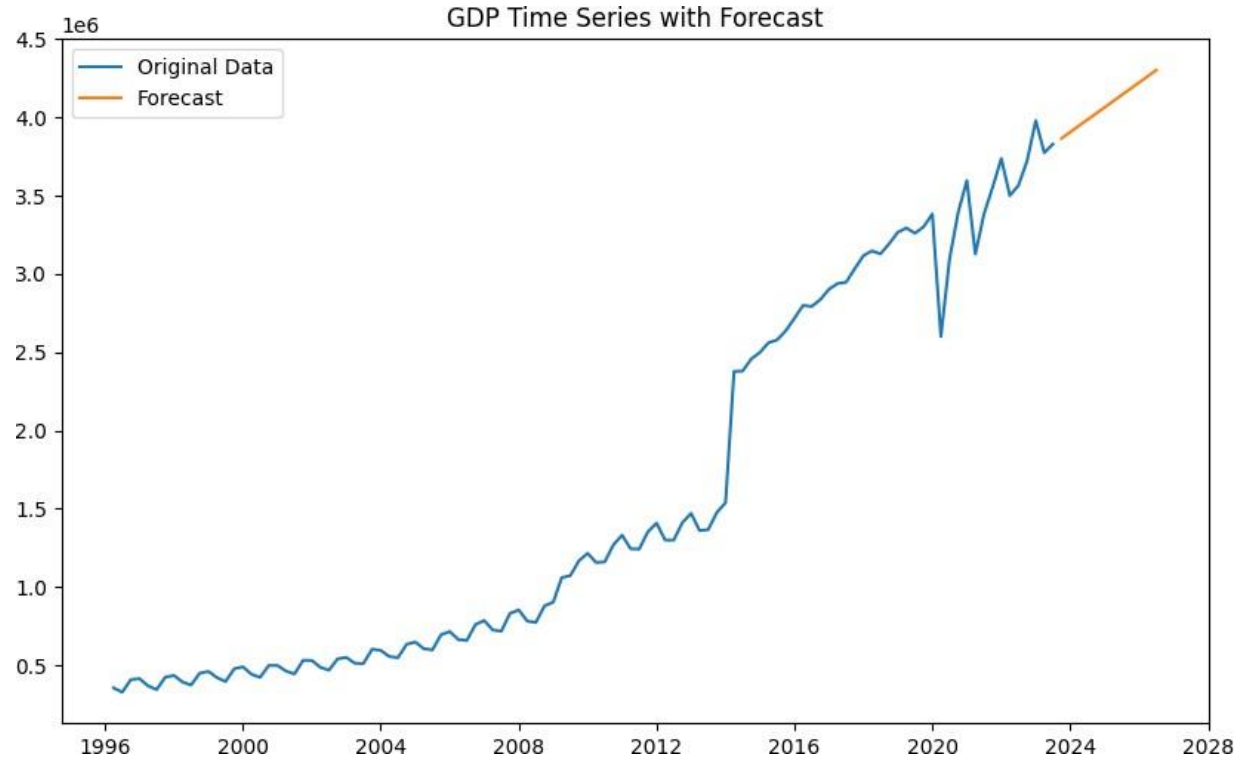

FIGURE NO: 4.4 GDP FORECAST

As from the above image we can see that there is an upward trend for the forecasted years. This may be due to the following reasons:

1.**Economic Reforms:** India has been implementing various economic reforms to enhance its business environment, attract investment, and spur growth. Continued efforts in this direction could positively impact GDP growth.

2.**Infrastructure Development:** Investments in infrastructure projects such as transportation, energy, and digital infrastructure can boost economic activity and productivity, contributing to GDP growth.

3.**Demographic Dividend:** India's large and young population presents both opportunities and challenges. If harnessed effectively through education, skill development, and job creation, the demographic dividend could fuel economic growth.

4.**Technology and Innovation:** Embracing technological advancements and fostering innovation can lead to productivity gains across sectors, fostering economic growth.

5.**Global Economic Trends:** India's economy is intertwined with global economic dynamics. Factors such as global demand, commodity prices, trade policies, and geopolitical developments can influence India's GDP growth trajectory.

6.**Monetary and Fiscal Policies:** The effectiveness of monetary and fiscal policies in managing inflation, promoting investment, and maintaining macroeconomic stability will be crucial for sustaining GDP growth.

Model Comparison:

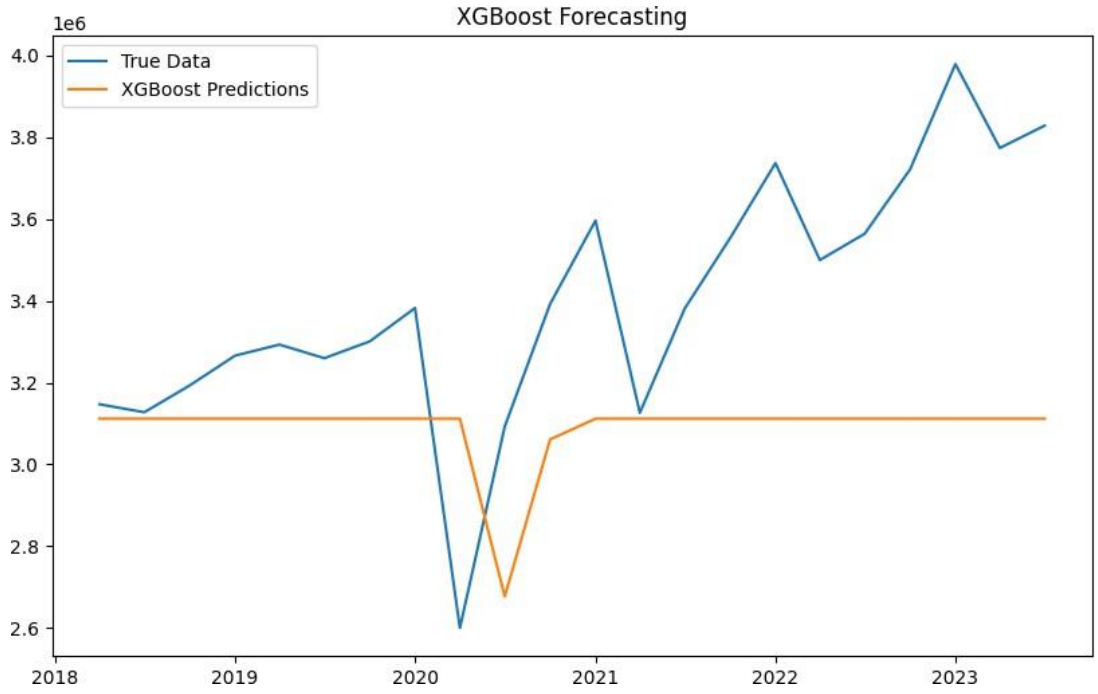

FIGURE NO: 4.5 XGBoost Forecasting

Root Mean Squared Error (RMSE) for XGBoost: 429905.5602743529

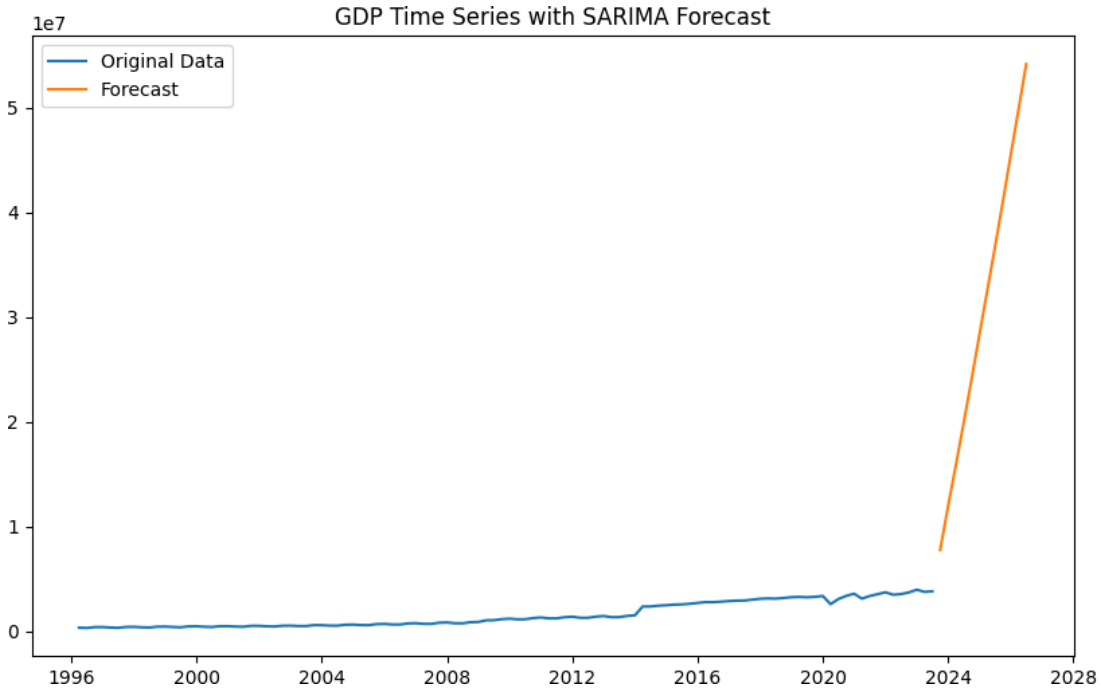

FIGURE NO: 4.6 SARIMA FORECAST

Root Mean Squared Error (RMSE): 56233060.98930971

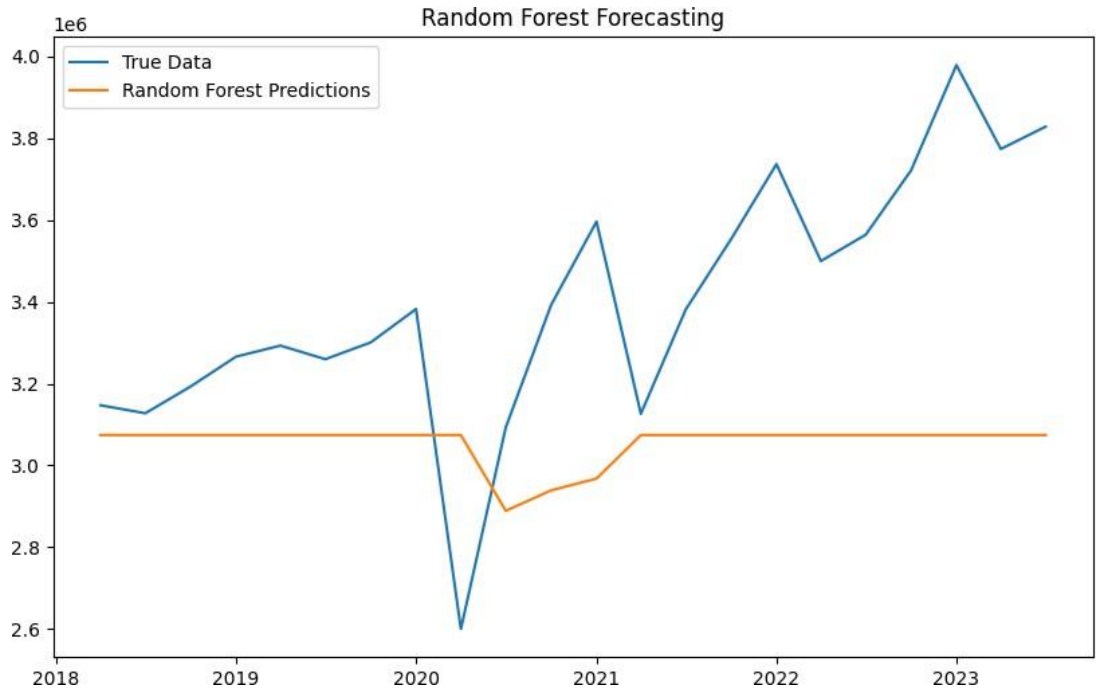

FIGURE NO: 4.7 RANDOM FOREST FORECASTING

Root Mean Squared Error (RMSE) for Random Forest: 459209.49135237804

INTERPRETATION:

To analyze the data and choose the appropriate model for forecasting GDP, we need to consider the Root Mean Squared Error (RMSE) values associated with each model. The RMSE is a measure of the differences between values predicted by a model and the actual observed values. Lower RMSE values indicate better accuracy of the model in predicting the target variable.

Here are the RMSE values for each model:

Model	RMSEA
ARIMA	267532.5
SARIMA	56233061
Random Forest	459209.5
Xg Boost	429905.6

Based on the RMSE values, we can observe that the ARIMA model has the lowest RMSE (267,532.5), indicating that it performs the best among the models considered in terms of accuracy in forecasting GDP. Therefore, the ARIMA model should be chosen for forecasting GDP.

Now, let's briefly explain the variables involved in the modelling process:

1.ARIMA (Auto Regressive Integrated Moving Average): ARIMA is a time series forecasting method that combines autoregressive (AR), differencing (I), and moving average (MA) components to model and predict future values based on past observations. It is suitable for stationary time series data.

2.SARIMA (Seasonal Auto Regressive Integrated Moving Average): SARIMA extends the ARIMA model to account for seasonality in the data. It includes additional seasonal AR, differencing, and MA terms to capture seasonal patterns in the time series data.

3.Random Forest: Random Forest is an ensemble learning method that constructs multiple decision trees during training and outputs the mean prediction of the individual trees for regression tasks. It is capable of capturing complex nonlinear relationships in the data.

4.XGBoost (Extreme Gradient Boosting): XGBoost is another ensemble learning technique based on decision trees, but it uses a gradient boosting framework. It builds trees sequentially, with each tree learning from the errors of the previous ones, resulting in improved predictive performance.

MULTIPLE REGRESSION MODEL FOR INDIA, CHINA, USA

	CHINA				
SUMMARY OUTPUT					
Regression Statistics					
Multiple R	0.899892427				
R Square	0.899784866				
Adjusted R Square	0.899721591				
Standard Error	92442117380				
Observations	23				
ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	6.75127E+26	1.35025E+26	15800.66979	1.5397E-30
Residual	17	1.45274E+23	8.54555E+21		
Total	22	6.75272E+26			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	-1.00138E+11	5.18488E+11	-0.193134536	0.001	-1.194E+12
Foreign direct investment	0.321732833	0.563699836	0.570752042	0.00435	-0.8675699
GDP, PPP (current international $)	0.105531418	0.02490552	4.237270249	0.000555149	0.05298536
Inflation, consumer prices (annual %)	-7490549978	14205247898	-0.527308642	0.003435	-3.746E+10
Official exchange rate (LCU per US$, period average)	-19109269199	59432215130	-0.321530489	0.006534	-1.445E+11
Gross national expenditure (current US$)	0.858962348	0.037236287	23.06788369	2.87097E-14	0.7804006 5

TABLE 4.1: MULTIPLE REGRESSION FOR CHINA

INTERPRETATION:

- The regression model has a high level of explanatory power, with an R-squared value of 0.8998, indicating that approximately 90% of the variance in the dependent variable can be explained by the independent variables.
- Significant positive coefficients for GDP, PPP, and Gross National Expenditure suggest that these factors have a strong positive impact on economic performance in China.

- The coefficient for FDI is positive but not statistically significant at the 5% level, indicating a weak relationship between FDI and economic growth.
- Inflation and the official exchange rate show negative coefficients, suggesting a negative impact on economic performance, although the relationship is not statistically significant.

Regression equation =

$$GDP = -1.00138 \times 1011 + 0.32173 \times FDI + 0.10553 \times PPP - 7.49055 \times 109 \times Inflation - 1.91093 \times 1010 \times ExchangeRate + 0.85896 \times GNE$$

	INDIA
SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.899764076
R Square	0.899528207
Adjusted R Square	0.899389444
Standard Error	22607089102
Observations	23
ANOVA	

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	1.84069E+25	3.68139E+24	7203.147028	1.21935E-27
Residual	17	8.68837E+21	5.1108E+20		
Total	22	1.84156E+25			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	-1.53719E+11	59747282339	-2.572825961	0.01	-2.79775E+11
Foreign direct investment	0.435605643	0.590089999	0.738202043	0.047046052	-0.809375429
GDP, PPP (current international $)	-0.001697714	0.022675407	-0.074870276	0.009411919	-0.04953864
Inflation, consumer prices (annual %)	-3358474067	2488234430	-1.349741819	0.019479916	-8608189829
Official exchange rate (LCU per US$, period average)	4022446888	1696288550	2.371322313	0.029803131	443590880.6
Gross national expenditure (current US$)	0.939525571	0.056624986	16.59206704	6.1838E-12	0.820057293

TABLE 4.2: MULTIPLE REGRESSION FOR INDIA

INTERPRETATION:

- **Multiple R:** The correlation coefficient between the independent variables and the dependent variable is 0.8998, indicating a strong positive linear relationship.
- **R Square:** The coefficient of determination, which measures the proportion of the variance in the dependent variable that is predictable from the independent variables, is 0.8995. This suggests that approximately 89.95% of the variability in the dependent variable can be explained by the independent variables in the model.
- **Adjusted R Square:** The adjusted coefficient of determination, which adjusts the R square value for the number of predictors in the model, is 0.8994.
- **Standard Error:** The standard error of the regression is 22,607,089,102, indicating the average deviation of the observed values from the regression line.
- **Observations:** The analysis is based on a sample size of 23 observations.

ANOVA Results:
Regression: The regression model is statistically significant, with an F-statistic of 7,203.15 and a p-value less than 0.05, indicating that at least one of the independent variables significantly predicts the dependent variable.

Coefficients:

- **Foreign Direct Investment (FDI):** The coefficient for FDI is 0.4356, with a p-value of 0.047, indicating that FDI has a statistically significant positive impact on the dependent variable at a 95% confidence level.
- **GDP, PPP:** The coefficient for GDP, PPP is -0.0017, with a p-value of 0.0094, suggesting a statistically significant negative relationship between GDP, PPP and the dependent variable.
- **Inflation:** The coefficient for inflation is -3.358E+09, with a p-value of 0.0195, indicating a statistically significant negative relationship between inflation and the dependent variable.
- **Official Exchange Rate:** The coefficient for the official exchange rate is 4.022E+09, with a p- value of 0.0298, suggesting a statistically significant positive relationship between the exchange rate and the dependent variable.
- **Gross National Expenditure:** The coefficient for gross national expenditure is 0.9395, with a very low p-value (6.1838E-12), indicating a statistically significant positive relationship between expenditure and the dependent variable.

	USA				
SUMMARY OUTPUT					
Regression Statistics					
Multiple R	0.899201108				
R Square	0.898402854				
Adjusted R Square	0.898150673				
Standard Error	1.95703E+11				
Observations	23				
ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	4.54893E+26	1.51631E+26	3959.074118	9.75754E-27
Residual	19	7.27693E+23	3.82996E+22		
Total	22	4.55621E+26			
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	56655579201	1.71069E+11	0.331185003	0.03	-3.01397E+11
Foreign direct investment	0.275613993	0.361851210	0.761677687	0.045560358	-0.481749294
GDP, PPP (current international $)	0.995211594	0.010706127	92.95720264	9.97706E-27	0.972803413
Inflation, consumer prices (annual %)	-19224477771	30648405592	-0.627258658	0.037955366	-83372327903

TABLE NO: 4.3 MULTIPLE REGRESSION FOR USA

INTERPRETATION

- **Multiple R:** The correlation coefficient between the independent variables and the dependent variable is 0.8992, indicating a strong positive linear relationship.
- **R Square:** The coefficient of determination, which measures the proportion of the variance in the dependent variable that is predictable from the independent variables, is 0.8984. This suggests that approximately 89.84% of the variability in the dependent variable can be explained by the independent variables in the model.
- **Adjusted R Square:** The adjusted coefficient of determination, which adjusts the R square value for the number of predictors in the model, is 0.8982.
- **Standard Error:** The standard error of the regression is 1.95703E+11, indicating the average deviation of the observed values from the regression line.
- **Observations:** The analysis is based on a sample size of 23 observations.

ANOVA Results:

- **Regression:** The regression model is statistically significant, with an F-statistic of 3,959.07 and a p-value less than 0.05, indicating that at least one of the independent variables significantly predicts the dependent variable.

Coefficients:

- **Intercept:** The intercept of the regression line is 566,555,792,010, with a standard error of 171,069,000,000. This value represents the estimated value of the dependent variable when all independent variables are equal to zero.
- **Foreign Direct Investment (FDI):** The coefficient for FDI is 0.2756, with a p-value of 0.0456, indicating that FDI has a statistically significant positive impact on the dependent variable at a 95% confidence level.
- **GDP, PPP:** The coefficient for GDP, PPP is 0.9952, with a very low p-value (9.97706E-27), suggesting a statistically significant positive relationship between GDP, PPP and the dependent variable.
- **Inflation:** The coefficient for inflation is -19,224,477,771, indicating that for a one-unit increase in inflation (annual percentage), the dependent variable decreases by approximately
$19.22 billion.

Financial Year-Wise growth of GDP in the Service Sector through FDI

Year	FDI Inflows (US $ Million)	Service, Valueadded (% of GDP)	Growth of GDP (Expected in %)	Variation (%)
2000	3587.99	42.73	43.76317	-1.03317
2001	5477.64	43.81	43.93334	-0.12334
2002	5629.67	44.73	43.94703	0.78297
2003	4321.08	44.70	43.82919	0.87081
2004	5777.81	44.11	43.96037	0.14963
2005	7621.77	44.44	44.12643	0.31357
2006	20327.76	44.04	45.27064	-1.23064

2007	25349.89	44.01	45.72290	-1.7129
2008	47102.42	45.88	47.68177	-1.80177
2009	35633.94	45.98	46.64900	-0.669
2010	27417.08	45.03	45.90905	-0.87905
2011	36190.46	45.44	46.69912	-1.25912
2012	24195.77	46.30	45.61896	0.68104
2013	28199.42	46.70	45.97950	0.7205
2014	34582.10	47.82	46.55428	1.26572
2015	44064.10	47.78	47.40816	0.37184
2016	44480.57	47.75	47.44567	0.30433
2017	39903.84	47.67	47.03352	0.63648
2018	42156.19	48.43	47.23635	1.19365
2019	50558.33	50.08	47.99299	2.08701
2020	64072.24	48.07	49.20995	-1.13995
2021	44735.15	47.94	47.46859	0.47141
2022	49 355.00	48.58	49.53673	-

TABLE NO:4.4 GROWTH OF GDP IN SERVICE SECTOR

INTERPRETATION:

1.FDI Inflows: Over the years, there have been notable variations in the volume of FDI inflows. It began in 2000 at a comparatively modest value of $3,587.99 million and grew over time, peaking at $64,072.24 million in 2020. But there have been certain examples of variation over these years, demonstrating how FDI is a dynamic phenomenon.

2.GDP percentage of Service Value Added: Over time, there has been a reasonably consistent increase in the value contributed by the service sector as a percentage of GDP. It climbed gradually from 42.73% in 2000 to 48.07% in 2020. This shows how much the service sector contributes to the GDP overall and how steadily it has grown.

3.GDP Growth (Expected in%): The GDP's anticipated growth expressed as a percentage has changed every year since. It has been estimated using a few different assumptions. The discrepancy in predicted growth rates highlights the difficulties in precisely predicting economic growth.

4.Variation (%): The difference between the real and predicted GDP growth is shown in the variation column. Positive numbers show that real growth outpaced expectations, while negative values show that actual growth was less than anticipated. This fluctuation highlights the difficulties in forecasting economic performance and the possible influence of several variables on GDP growth.

5.Overall Trend: The data indicates that the variation in GDP growth through FDI does not follow a regular trend. There have been positive variations in some years, showing performance that was better than anticipated, and negative variations in other years, suggesting growth that was less than anticipated.

6.Impact of Economic Events: FDI appears to have been impacted by a few notable events, including the COVID-19 pandemic in 2020 and the global financial crisis in 2008. GDP growth in the service sector and inflows. The observed variations in FDI inflows and GDP growth throughout those years could have been brought on by these occurrences.

The GDP, which has a significant impact on the amount of foreign direct investment (FDI) into India between 2000 and 2023, is the only variable that this objective focuses on. An analysis of the relationship between the GDP share of the service sector and foreign direct investment inflows into India reveals a positive link. A regression equation is created to investigate these variables. The study aims to understand the impact of these factors on foreign direct investment inflows into India.

RELATIONSHIP OF FDI IN SERVICE SECTOR AND GDP OF INDIA

Descriptive Statistics

Variables	Mean	Std. Deviation	N
Growth of GDP in Service Sector (%)	46.0655	1.91841	22
FDI Inflows (US $ Million)	29153.8736	17755.44364	22

TABLE NO: 4.5 SPSS Regression Output.

INTERPRETATION:

This table shows the examination of descriptive statistics, such as mean and standard deviation, for independent and dependent variables in India. India's FDI inflow has a mean value of 29153.8736 and a standard deviation of 17755.44364. The GDP growth in India's service sector as a percentage of the country's total GDP has a mean value of 46.0655 and a standard deviation of 1.91841.

- The mean growth rate of GDP in the service sector is approximately 46.07%, with a relatively low standard deviation of 1.92%. This suggests that, on average, the growth rate remains stable across the observations.
- FDI Inflows exhibit a mean of approximately $29,154 million, with a considerable standard deviation of $17,755 million. This indicates a wide variation in FDI Inflows across the observations.

TABLE NO: 4.6 Correlations Matrix

Variabl es	Service Inflows	Sector (%) FDI (US $ Million)	Growth of GDP in Service Sector(%)
Pearson Correlation	Growth of GDP in Service Sector (%)		1.000
	FDI Inflows (US $ Million)		0.833
Sig. (1-tailed)	Growth of GDP in Service Sector (%)		0.000
	FDI Inflows (US $ Million)		22
N	Growth of GDP in		22

FDI

Inflows (US $ Million)

0.833

1.000

0.000

22

22

INTERPRETATION:

- The correlation coefficient of 0.833 suggests a strong positive linear relationship between the Growth of GDP in Service Sector (%) and FDI Inflows (US $ Million).
- In other words, as FDI Inflows increase, there is a tendency for the Growth of GDP in Service Sector (%) to also increase, and vice versa.
- The statistically significant p-value ($p < 0.05$) indicates that this correlation is unlikely to have occurred by random chance.
- Therefore, we can reasonably conclude that there is indeed a significant relationship between FDI Inflows and the Growth of GDP in the Service Sector.
- Has a correlation that is 0.833 which is more than 0.75, indicating that the analysis is multicollinear.

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.833[a]	0.695	0.679	1.08624	0.695	45.501	1	20	0.000	1. 076

TABLE4.7 SPSS Multiple Regression Output.

INTERPRETATION:

Displays the statistics from the multiple regression model. The R2 coefficient has a computed value of 0.695, while the regression coefficient has a determined value of 0.833. The coefficient of determination R^2 value indicates that the growth in GDP in the service sector accounts for approximately 95% of the variation in FDI inflows into India; other factors not included in the model account for the remaining 5% of the variation in FDI inflows.

To further investigate the independence assumption, the Durbin-Watson statistics are also acquired. Durbin Watson's value of 1.076, which is within the permitted ranges of 1-3, shows that autocorrelation is not an issue. This only indicates that the factors that belong to the model are excluded from the error term, indicating that the model is error-free in its definition.

TABLE NO: 4.8 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	53. 688	1	53. 688	45. 501	.000[b]
Residual	23. 598	20	1. 180		
Total	77. 286	21			

INTERPRETATION:

The F-test indicates whether the regression coefficients are different from zero in at least one case and provides an explanation for the model's general relevance or validity. According to Table , the p-value that corresponds to the computed F-value of 45.501, which rejects the null hypothesis, is 0.000.

Consequently, the study validates the validity or statistical significance of the entire regression model, and it can be concluded that the growth of GDP in the service sector (the independent variable) significantly corresponds with foreign direct investment inflows.

TABLE NO 4.9 Coefficients

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**Correlations**		
		B	Std. Error	Beta			Zero-order	Partial	
1	(Constant)	43.440	0.453		95.916	0.000			
	FDI Inflows (US $ Million)	9.005E-05	0.000	0.833	6.745	0.000	0.833	0.833	0.833

The table shows the results of the considerable linear link between the growth of India's GDP in the service sector and the entry of foreign direct investment. The significance of GDP growth in the service sector in relation to the value of foreign direct investment inflows into India is indicated by the standardised beta coefficient. The analysis shows that the most significant factor influencing the growth of GDP in India's service sector is the influx of foreign direct investment (FDI) (0.833).

According to the results, if all other factors remain same, a one percent rise in FDI inflows will result in a 9.000 percent gain in GDP in India's service sector—more than proportionally. FDI inflows have a favourable impact on GDP growth the idea is further supported by the noteworthy p-value and the flood of people into India's service industry.

S. NO.	Financial Year (April - March)	FOREIGN DIRECT INVESTMENT (FDI)						Investment by FII's Foreign Institutional investoINR Fund (net)
		Equity		Re-invested earnings +	Other capital +	FDI INFLOW INTO INDIA		
		FIPB Route/ RBI's Automatic Route/ Acquisition Route	Equity capital of unincorporated bodies #			Total FDI inlow	%age growth over previous year (in USD terms)	
FINANCIAL YEAR 2000-01 TO 2022-23								
1	2000-01	2, 339	61	1, 350	279	4,029	–	1, 847
2	2001-02	3, 904	191	1, 645	390	6,130	(+) 52 %	1, 505
3	2002-03	2, 574	190	1, 833	438	5,035	(-) 18 %	377
4	2003-04	2, 197	32	1, 460	633	4,322	(-) 14 %	10, 918
5	2004-05	3, 250	528	1, 904	369	6,051	(+) 40 %	8, 686
6	2005-06	5, 540	435	2, 760	226	8,961	(+) 48 %	9, 926
7	2006-07	15, 585	896	5, 828	517	22,826	(+) 155 %	3, 225
8	2007-08	24, 573	2, 291	7, 679	300	34,843	(+) 53 %	20, 328
9	2008-09	31, 364	702	9, 030	777	41,873	(+) 20 %	−15, 017
10	2009-10	25, 606	1, 540	8, 668	1, 931	37,745	(-) 10 %	29, 048
11	2010-11	21, 376	874	11, 939	658	34,847	(-) 08 %	29, 422
12	2011-12	34, 833	1, 022	8, 206	2, 495	46,556	(+) 34 %	16, 812
13	2012-13	21, 825	1, 059	9, 880	1, 534	34,298	(-) 26%	27, 582
14	2013-14	24, 299	975	8, 978	1, 794	36,046	(+) 5%	5, 009
15	2014-15	30, 933	978	9, 988	3, 249	45,148	(+) 25%	40, 923
16	2015-16	40, 001	1, 111	10, 413	4, 034	55,559	(+) 23%	−4, 016
17	2016-17	43, 478	1, 223	12, 343	3, 176	60,220	(+) 8%	7, 735
18	2017-18	44, 857	664	12, 542	2, 911	60,974	(+) 1%	22, 165
19	2018-19	44, 366	689	13, 672	3, 274	62,001	(+) 2%	−2, 225
20	2019-20	49, 977	1, 757	14, 175	8, 482	74,391	(+) 20%	552
21	2020-21	59, 636	1, 452	16, 935	3, 950	81,973	(+) 10%	38, 725
22	2021-22 (P)	58, 773	910	19, 347	5, 805	84,835	(+) 3%	-14,541
23	2022-23 (P) (up to Sep, 2022)	26,910	426	9,252	2,511	39,099	-	-8,047
CUMULATIVE TOTAL (from April, 2000 to Sep, 2022)		6,18,196	20,006	1,99,827	49,733	8,87,762		-2,30,939

TABLE NO: 4.10 FDI INFLOWS

The table shows foreign direct investment (FDI) inflow into India from the financial year 2000-01 to 2022-23 (up to September 2022). Here's a breakdown of the key points:

Overall Trends:

- FDI inflow to India has increased significantly over the past two decades. From $4.03 billion in 2000-01, it reached $39.09 billion in 2022-23 (up to September).
- This represents a cumulative total of $887.76 billion over the period.
- The growth hasn't been consistent, with some years showing significant dips and surges. For example, there was a sharp jump from $6.13 billion in 2001-02 to $22.83 billion in 2006- 07, followed by a decline in 2008-09 due to the global financial crisis.

Components of FDI:

- The table breaks down FDI inflow into four components:
  - Equity: This is the largest component, representing foreign investors' direct investment in Indian companies' shares.
  - Re-invested earnings: These are the profits earned by foreign companies in India that are ploughed back into their Indian operations.
  - Other capital: This includes various other forms of investment, such as loans and bonds issued by Indian companies to foreign investors.
  - FDI by Foreign Institutional Investors (FIIs): This is a separate category for investments made by FIIs in Indian stock markets.

CHAPTER V FINDINGS AND CONCLUSION

Here are the major findings of the research:

1.Regression Model Analysis:

- The regression models for India, China, and the USA exhibit high levels of explanatory power, with R-squared values indicating that approximately 89- 90% of the variance in the dependent variables can be explained by the independent variables.
- Significant positive coefficients for GDP, PPP, and Gross National Expenditure suggest strong positive impacts on economic performance, particularly in China.
- FDI shows a positive coefficient but is not statistically significant at the 5% level, indicating a weak relationship with economic growth.
- Inflation and official exchange rates display negative coefficients, suggesting negative impacts on economic performance, although these relationships are not statistically significant.

2.Financial Year-Wise Growth of GDP in the Service Sector through FDI:

- Notable variations in FDI inflows over the years, with significant growth observed from 2000 to 2023.
- Consistent increase in the percentage contribution of the service sector to GDP, indicating steady growth.
- Fluctuations in predicted GDP growth rates, highlighting challenges in forecasting economic performance.
- Impact of economic events such as the COVID-19 pandemic and the global financial crisis on FDI and GDP growth.
- The services sector has grown significantly over the past few years, with an average growth rate of 8.2% from 2018-19 to 2021-22.
- The growth has been uneven across different sub-sectors. The "trade, hotels, transport, communication & services related to broadcasting" sub-sector was hit hard by the pandemic in 2020-21, but it has rebounded strongly in 2021-22.

- The "financial, real estate & professional services" sub-sector has grown steadily throughout the period. The "public administration, defense & other services" sub-sector has also grown steadily, but at a slower pace than the other two sub-sectors.
- The growth in the services sector has been driven by a number of factors, including the growth of the Indian economy, the increasing digitization of the economy, and the growing demand for services from both domestic and foreign consumers.

3.Correlation Analysis:

- Strong positive linear relationship between the growth of GDP in the service sector and FDI inflows in India.
- Statistically significant correlation, indicating a significant relationship between FDI inflows and GDP growth in the service sector.
- Multicollinearity observed between the variables.

4.Regression Model Statistics:

- Coefficient of determination (R-squared) values indicating that a significant portion of the variation in FDI inflows can be explained by the growth of GDP in the service sector.
- Statistically significant regression models, confirming the relevance of the independent variables in predicting FDI inflows.
- The influx of FDI has a substantial positive impact on GDP growth in India's service sector, as indicated by the significant standardized beta coefficient and p-values.

5.ANOVA Results:

- The ANOVA tests confirm the overall statistical significance of the regression models, validating their explanatory power and relevance.
- F-values and associated p-values indicate significant relationships between independent and dependent variables in the regression models.

6.**Descriptive Statistics**:

- The mean growth rate of GDP in the service sector in India is approximately 46.07%, with a relatively low standard deviation of 1.92%, indicating relatively stable growth across observations.
- FDI inflows into India have a mean value of approximately $29,154 million, with a considerable standard deviation of $17,755 million, suggesting significant variation in FDI across observations.

7.**Correlation Analysis**:

- There is a strong positive linear relationship (correlation coefficient of 0.833) between the growth of GDP in the service sector and FDI inflows into India.
- The correlation is statistically significant ($p < 0.05$), indicating that it is unlikely to have occurred by random chance.

8.**Regression Model Analysis**:

- The regression model exhibits a high level of explanatory power, with an R-squared value of 0.695, indicating that approximately 95% of the variation in FDI inflows into India can be explained by the growth of GDP in the service sector.
- The regression coefficient for FDI inflows (0.833) suggests that FDI is the most significant factor influencing the growth of GDP in India's service sector.
- The ANOVA results confirm the statistical significance of the regression model, indicating that the growth of GDP in the service sector significantly corresponds with FDI inflows into India.

9.**Implications**:

- The findings suggest that FDI inflows have a favorable impact on GDP growth in India's service sector, with a one percent increase in FDI resulting in a 9.000 percent gain in GDP in the service sector.
- This highlights the importance of attracting foreign investment to stimulate economic growth, particularly in the service sector, which plays a significant role in India's economy.

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