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IMPACT OF DATA LOCALISATION ON THE GDP OF SELECTED ECONOMIES

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Abstract *Data localisation has increased the security of the data generated within the boundaries of a specific economy where the data was generated. Data is huge mass data generated by various sectors and the safety of confidential data generated is a priority for any nation. The aim of the research is to study the data localisation effect, compare its effect on the GDP of various countries, and to normalise and predict the GDP after data localisation is implemented in a particular country. The outcome of the paper is that Nigeria and Vietnam have greater GDP compared to India. From the study, it is found that out of nine countries taken for the study, eight countries have data localisation effect on its GDP, while one has no effect even after implementation.*

Keywords: *Data Localisation, Decision Tree, GDP, Time Series*

INTRODUCTION

Data localisation is the act of storing data on any device that is physically present within the borders of a specific country where the data was generated. Free flow of digital data, especially data which could impact government operations or operations in a region, is restricted by some governments. Many attempts are made to protect and promote security across borders, and therefore, encourage data localisation. While some arguments support data localisation, some feel that misguided policies on data localisation could cause serious harmful consequences to citizens and economies alike. Data is the lifeblood of the modern global economy. It is defined that "data localisation" measures are those that specifically encumber the transfer of data across national borders. These measures take a wide variety of forms, including rules preventing information from being sent outside the country, rules requiring prior consent of the data subject before information is transmitted across national borders, rules requiring copies of information to be stored domestically, and even a tax on the export of data.

REVIEW OF LITERATURE

- Bailey, Parsheera and Bailey (2018), the authors have examined the three main sets of arguments that are generally used for making a case for data localisation. Firstly, there is a claim that local hosting of data will enhance its privacy and security by ensuring that an adequate level of protection is given to data. Secondly, it is argued that lack of government access to data impedes the law enforcement and regulatory functions of the state, which can be addressed through localisation. Third, there is the narrative on the economic benefits that will accrue to the domestic industry, in terms of creating local data infrastructure, employment, and contributions to the ecosystem. They have examined that India's position on data localisation must ultimately be weighed against the government's aspirations to create a 'Digital India', and the need for strategic thinking on whether a closed data economy or an open one would be more conducive to meeting those goals.
- Innovation (2018), It was noted that regulatory frameworks for data privacy are critical to facilitate cross-border data flows in India and around the world. The study applied research on various regional data privacy frameworks and their key principles, as well as diving into individual countries to identify the approaches they had taken to establish a national data privacy framework. It was found that governments have worked hard to develop and implement data privacy frameworks that can effectively protect the data of their citizens.
- Bauer, Ferracane and Marel (2016), the authors observed how the economic costs of data localisation and associated regulations on the free flow of data affect downstream economies in a group emerging economy. The objective is to attempt to quantify the economic impact of several regulations of cross-

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border data flows and data localisation measures. The study applies an indirect top-down approach based on observable regulatory variables and econometric methods to calculate economic costs in terms of factor productivity losses. The results demonstrate that the communication services sectors show comparatively large productivity losses due to their high dependency on data inputs covered by data regulations.

- United Nations Conference on Trade and Development (UNCTAD) (2016), the current landscape was reviewed; possible options for making data protection policies were analysed. The objective of the study was to know how to enhance international compatibility in the protection of data and privacy, especially in relation to international trade. This study has taken stock of the current situation and tried to identify possible ways forward towards a system that provides an appropriate balance between data protection and data flow. The study recognised that there are various concerns about data protection and privacy, from consumers to businesses and governments. The challenge for data protection and privacy laws is therefore to balance these different concerns and interests.
- Doremus (2016), the author noted that cross-border information flows underlie nearly every aspect of the modern economy. The objective of the study was to find whether it is possible to balance the need for a free flow of information across borders with legitimate government concerns related to public order, consumer privacy, and security. The paper was an analysis of the current international regime on cross-border information flow. The author argues that specific binding trade language promoting cross-border flows, combined with continued international cooperation, will enhance, rather than undermine, public order, national security, and privacy.
- Mishra (2015), the author noted that it is a more comprehensive and viable policy approach to view trade negotiations for the free flow of data as a political economy issue, rather than a strictly economic one. The objective was to study data localisation laws from an international political economy perspective, its repercussions, and its policy implications for rules governing digital trade. It applied an international political economy approach, a more comprehensive analysis of policy rationale behind such laws, compared to a purely economic approach, which only focuses on economic losses resulting from protection. It is found that different countries may have different policy rationales for implementing data localisation.
- Of, L.O.W. (2015), the author observed that data localisation measures and regulations requiring companies to store and process data on servers physically located within national borders are increasing around the world. The objective of the paper was to find out data localisation developments in different countries. The results showed that many firms are beginning to address localisation and other issues concerning the storage and use of data. They are working to better encrypt and protect data.
- Marel (2014), the author has analysed that the more immediate effect of data localisation measures the impact on economic recovery and that the growth is even more dangerous. It aims to quantify the losses that result from data localisation. This study has shown that the impact is a direct consequence of the complex relations between cross-border data flows, supply-chain fragmentation, and domestic prices. The scenarios are calculated using several economic shocks caused by data restrictions. It was found that the negative impact of disrupting cross-border data flows should not be ignored.
- Agarwal (2013), It is noted that data protection emphasises individual liberty, and the individual's liberty is under threat from the interference of a stranger. The objective of the paper was to strengthen the outlook of data protection as a right in this technological liberalisation age, and to establish the right to privacy and data protection as fundamental rights. The efficacy of the present legal framework is to analyse and provide a sophisticated protection concerning the privacy issues. It explores the nature of right has been affected to an individual by encroachment of data protection in relation with other law. It was found that data protection should be given special status as a right, and the facets of data protection, like data collection, processing, storage, security, and access should have a platform in the legal framework. The awareness about the rights-based approach to data protection and privacy has to spread worldwide unanimously.
- Ardhapurkar, Srivastava, Sharma, Chaurasiya and Vaish (2010), the authors deal with the privacy issue from the Indian perspective with respect to challenges in three different dimensions – legal, technical, and political domain. The objective of this paper was to find a framework to be used for data protection. A framework was formed by using data mining cloud computing. In the proposed system, an attempt has been made to cover various domains as per the present scenario, keeping the fast advancements in technology and emerging domains in mind. The proposed system has given a scope for advancement, so that, without interfering in other domains, new domains can be added.

RESEARCH GAP

From the extensive literature survey, it is evident that there are very few studies on the effect of data localisation on the Indian GDP. Hence, this study focuses on the effect of data localisation on the Indian economy.

Research Methodology and Need for the Study

To examine the impact of data localisation on the GDP of the country, the study has been undertaken. It analyses the values through the time series for obtaining the predicted values of the GDP after applying data localisation to the GDP values. A comparison has been done with the predicted values and the actuals to examine the impact on countries.

The data used for the study has been gathered from the World Economic Outlook published by the IMF. Only the countries which have implemented data localisation were selected for the study. For the analysis, 19 years' data has been used.

The ARIMA model was used for forecasting the GDP prices, and as a result, various levels were checked and obtained at this lag order, which proved the best model depending on the GDP values of each nation. The information criteria was applied, and as a result, Akaike and Schwarz information criteria technique were applied for the study, ensuring that the forecasted values were within the range of actuals, thus minimising variation; this helps large stakeholders in strategic decision-making.

OBJECTIVES OF THE STUDY

- To study the effect of data localisation on GDP.
- To compare data localisation effect on GDP of different countries.
- To normalise and stationary the values of GDP.
- To predict the values of GDP after implementing data localisation.

DATA ANALYSIS AND INTERPRETATION

Table 1: Showing Data Localisation Implementation as on 2019

Country Name	Year of Implementation
Brazil	2018
Australia	2018
China	2017
India	2018
Indonesia	2012
Korea, Rep.	2011
Nigeria	2018
Russian Federation	2015
Vietnam	2019

Table 1 clearly indicates data localisation implemented in certain countries, with the year of implementation.

Table 2: Showing GDP of the Data Localised Countries (in Billion $)

Country Name	2000	2001	2002	2003	2004	2005	2006
Brazil	6.55421E+11	5.59E+11	5.08E+11	5.58E+11	6.69E+11	8.92E+11	1.11E+12
Australia	4.15034E+11	3.78E+11	3.94E+11	4.66E+11	6.12E+11	6.93E+11	7.46E+11
China	1.21135E+12	1.34E+12	1.47E+12	1.66E+12	1.96E+12	2.29E+12	2.75E+12
India	4.62147E+11	4.79E+11	5.08E+11	6E+11	7E+11	8.09E+11	9.2E+11
Indonesia	1.65021E+11	1.6E+11	1.96E+11	2.35E+11	2.57E+11	2.86E+11	3.65E+11
Korea, Rep.	5.61633E+11	5.33E+11	6.09E+11	6.81E+11	7.65E+11	8.98E+11	1.01E+12
Nigeria	69448756933	7.4E+10	9.54E+10	1.05E+11	1.36E+11	1.76E+11	2.36E+11
Russian Federation	2.59708E+11	3.07E+11	3.45E+11	4.3E+11	5.91E+11	7.64E+11	9.9E+11
Vietnam	31172518403	3.27E+10	3.51E+10	3.96E+10	4.54E+10	5.76E+10	6.64E+10

World Economic Outlook: IMF 2018.

Country Name	2008	2009	2010	2011	2012	2013	2014
Brazil	1.69582E+12	1.667E+12	2.21E+12	2.62E+12	2.47E+12	2.47E+12	2.46E+12
Australia	1.05258E+12	9.2645E+11	1.14E+12	1.39E+12	1.54E+12	1.57E+12	1.46E+12
China	4.59821E+12	5.11E+12	6.1E+12	7.57E+12	8.56E+12	9.61E+12	1.05E+13
India	1.18695E+12	1.3239E+12	1.66E+12	1.82E+12	1.83E+12	1.86E+12	2.04E+12
Indonesia	5.10229E+11	5.3958E+11	7.55E+11	8.93E+11	9.18E+11	9.13E+11	8.91E+11
Korea, Rep.	1.00222E+12	9.0193E+11	1.09E+12	1.2E+12	1.22E+12	1.31E+12	1.41E+12
Nigeria	3.37036E+11	2.9188E+11	3.63E+11	4.1E+11	4.59E+11	5.15E+11	5.68E+11
Russian Federation	1.66085E+12	1.2226E+12	1.52E+12	2.05E+12	2.21E+12	2.3E+12	2.06E+12
Vietnam	99130304099	1.0601E+11	1.16E+11	1.36E+11	1.56E+11	1.71E+11	1.86E+11

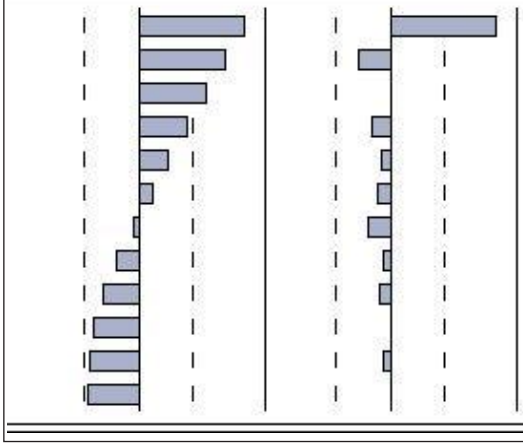
World Economic Outlook: IMF 2018.

Country Name	2015	2016	2017	2018
Brazil	1.80221E+12	1.79399E+12	2.0555E+12	1.3451E+12
Australia	1.34903E+12	1.20804E+12	1.3234E+12	1.1207E+12
China	1.10647E+13	1.1191E+13	1.2238E+13	1.3407E+12
India	2.10239E+12	2.27423E+12	2.6008E+12	1.9229E+12
Indonesia	8.60854E+11	9.32256E+11	1.0155E+12	1.0225E+12
Korea, Rep.	1.38276E+12	1.4148E+12	1.5308E+12	1.163E+12
Nigeria	4.94583E+11	4.0465E+11	3.7575E+11	3.9727E+11
Russian Federation	1.3684E+12	1.28473E+12	1.5775E+12	1.1791E+12
Vietnam	1.93241E+11	2.05276E+11	2.2378E+11	2.4127E+11

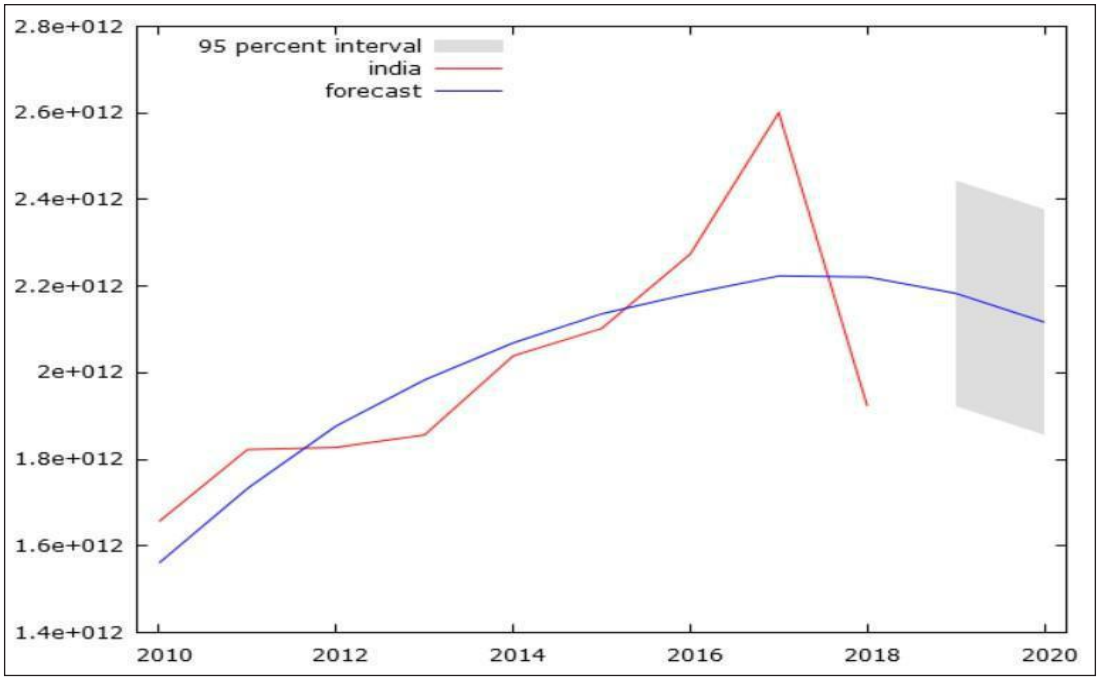
World Economic Outlook: IMF 2018.

Table 3: Showing Autocorrelation and Partial Correlation of Indian GDP

Sample: 2000 2018
Included observations: 19



Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.877	0.877	17.042	0.000
		2	0.709	-0.260	28.829	0.000
		3	0.558	0.015	36.598	0.000
		4	0.404	-0.150	40.931	0.000
		5	0.253	-0.068	42.761	0.000
		6	0.111	-0.101	43.139	0.000
		7	-0.040	-0.175	43.193	0.000
		8	-0.175	-0.058	44.304	0.000
		9	-0.287	-0.093	47.589	0.000
		10	-0.361	0.012	53.371	0.000
		11	-0.408	-0.062	61.668	0.000
		12	-0.424	0.009	71.903	0.000



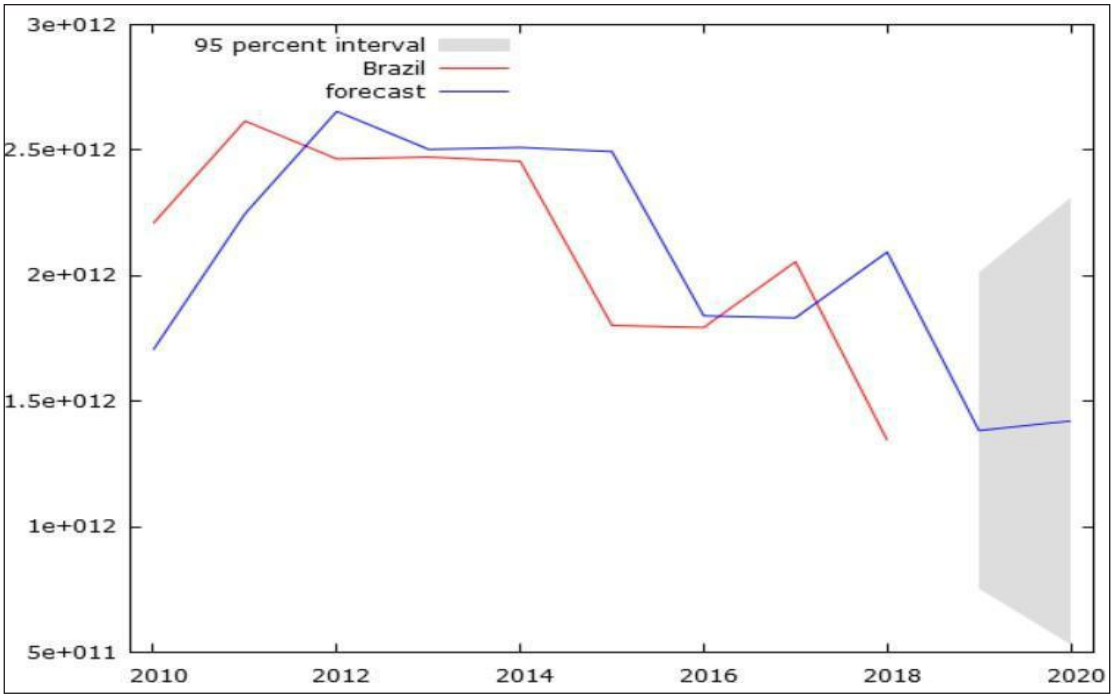
Graph 1: Showing Actual and Forecasted GDP Values of India

Interpretation: Table 3 shows the autocorrelation and partial autocorrelation values for the Indian GDP values, through the help of a Correlogram. The table shows a p-value less than 5%, indicating the significance of the selected GDP after differencing the original GDP data to make it stationary and avoid the white noise in the GDP value. Graph 1 indicates the estimated and actual values, and the forecasted value for future years based on the same. The chart shows that the actual and the estimated are moving in the same direction, except for little shocks which ensure the accuracy of the forecasted GDP values. The forecasting was done only for a few years to avoid future uncertainty.

Table 4: Showing Autocorrelation and Partial Correlation of Australian GDP

Sample: 2000 2018
Included observations: 19

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.888	0.888	17.462	0.000
		2	0.731	-0.267	30.009	0.000
		3	0.556	-0.149	37.717	0.000
		4	0.372	-0.137	41.393	0.000
		5	0.196	-0.079	42.490	0.000
		6	0.026	-0.129	42.511	0.000
		7	-0.137	-0.143	43.131	0.000
		8	-0.277	-0.081	45.918	0.000
		9	-0.350	0.144	50.819	0.000
		10	-0.447	-0.389	59.692	0.000
		11	-0.487	0.181	71.538	0.000
		12	-0.452	0.186	83.200	0.000



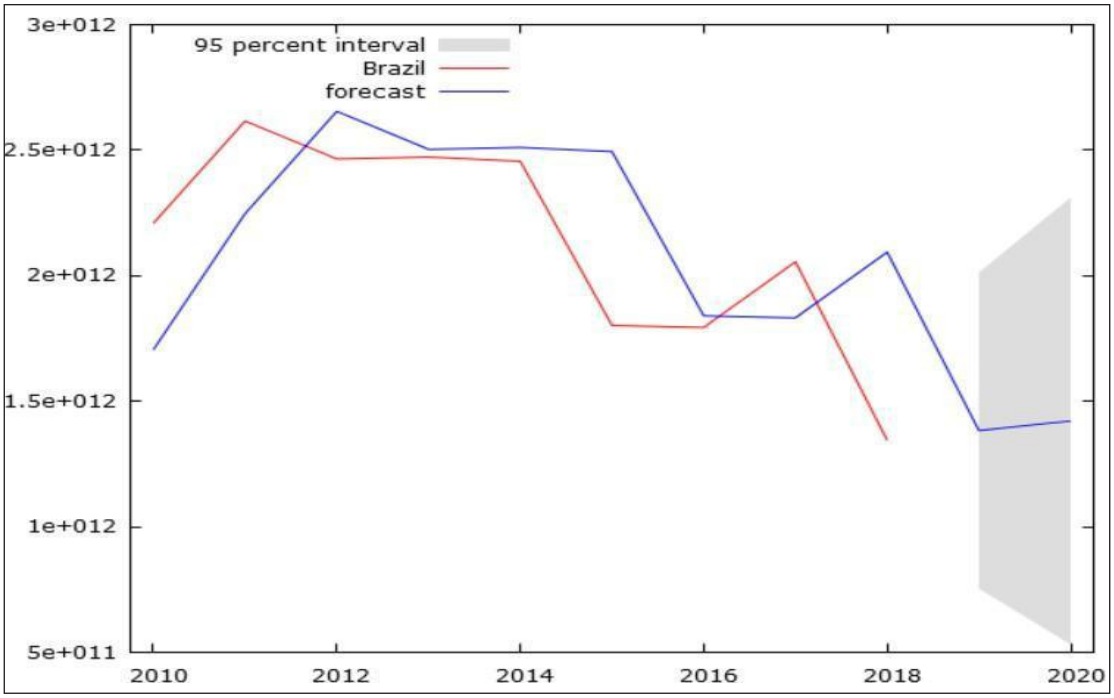
Graph 2: Showing Actual and Predicated Values of Australian GDP

Interpretation: Table 4 shows the differenced correlogram, proving that there is no autocorrelation, making variance constant and mean equal to zero. The p-values at different lag orders indicate the significance of the selected GDP values, which helps in further estimation of the GDP. The chart shows the shaded area and forecasted values till 2020; the shaded area shows the upper boundary and lower boundary. It can be visualised that the actual and the estimated move in the same direction, avoiding too much of variation in the forecasted GDP values of Australia.

Table 5: Showing Autocorrelation and Partial Correlation of Brazil GDP

Sample: 2000 2018
Included observations: 19

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.869	0.869	16.749	0.000
		2	0.723	-0.132	29.027	0.000
		3	0.563	-0.141	36.933	0.000
		4	0.314	-0.477	39.547	0.000
		5	0.092	-0.064	39.788	0.000
		6	-0.083	0.035	40.001	0.000
		7	-0.270	-0.132	42.424	0.000
		8	-0.394	-0.020	48.062	0.000
		9	-0.437	0.079	55.699	0.000
		10	-0.480	-0.123	65.913	0.000
		11	-0.442	0.122	75.645	0.000
		12	-0.351	-0.001	82.682	0.000



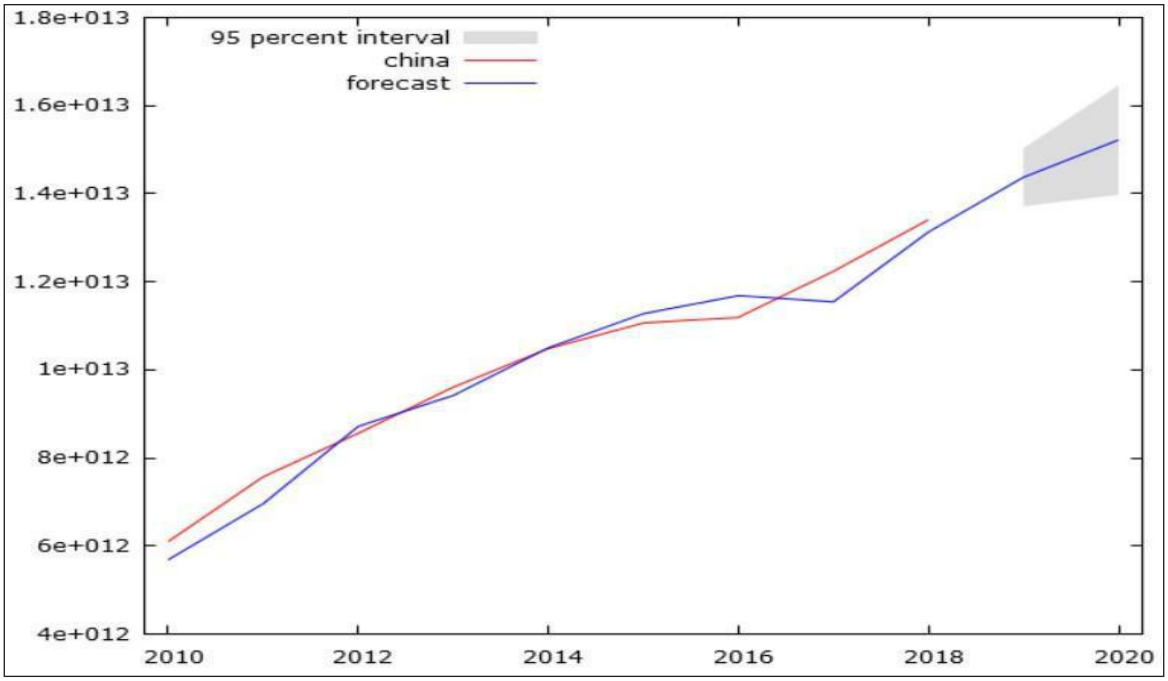
Graph 3: Showing Actual and Predicated Values of Brazil GDP

Interpretation: It is understood from Table 5 that the autocorrelation and partial autocorrelation prove stationarity after differencing the original GDP values of the nation, and its probability values are proving significant at 5% level of significance. It can also be visualised from Graph 3 that the estimated and actual values are moving in the same direction, which avoids the variance in the near future with respect to its mean values.

Table 6: Showing Autocorrelation and Partial Correlation of China GDP

Sample: 2000 2018
Included observations: 19

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.862	0.862	16.488	0.000
		2	0.724	-0.077	28.794	0.000
		3	0.586	-0.078	37.370	0.000
		4	0.428	-0.168	42.247	0.000
		5	0.263	-0.140	44.219	0.000
		6	0.101	-0.119	44.535	0.000
		7	-0.049	-0.098	44.616	0.000
		8	-0.184	-0.084	45.839	0.000
		9	-0.280	-0.003	48.974	0.000
		10	-0.357	-0.059	54.613	0.000
		11	-0.416	-0.075	63.240	0.000
		12	-0.435	0.007	74.046	0.000



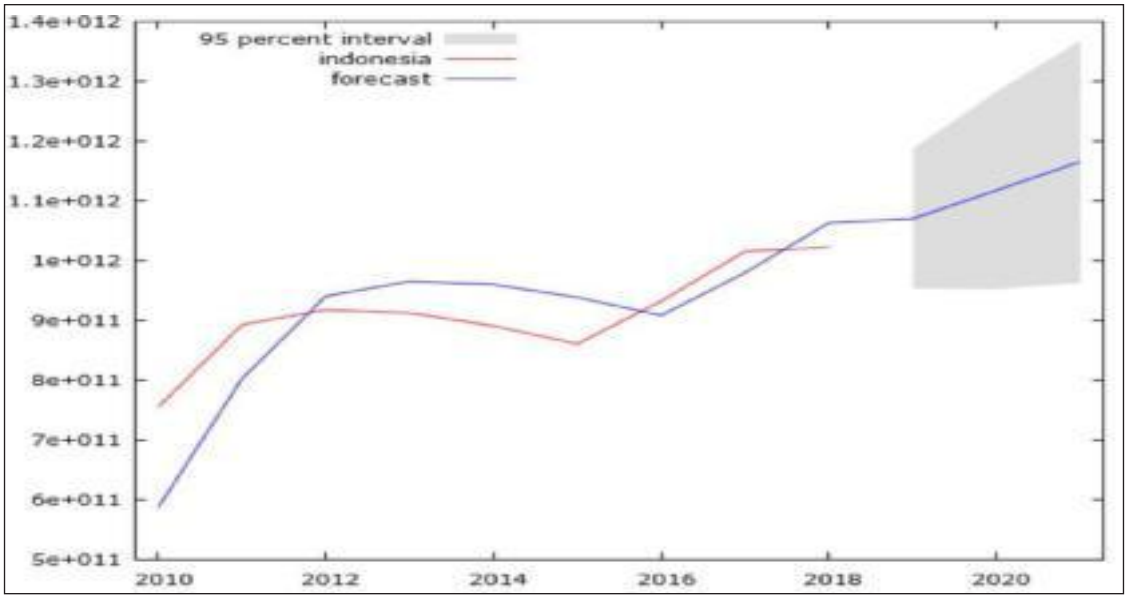
Graph 4: Showing Predicted Values of China GDP for Future Period

*Interpretation***:** From Table 6 and Graph 4, it is understood that the GDP values of China is stationary after differencing and can be represented by many methods. In this paper, the authors have used correlogram to check the autocorrelation and made it eligible to forecast after removing the seasonality and irregularities in the GDP values. The chart visualises that the actual and estimated GDP are moving in the same direction, ensuring the influence of variance towards its mean when the values are forecasted for the near future.

Table 7: Showing Autocorrelation and Partial Correlation of Indonesia

Sample: 2000 2018
Included observations: 19

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.877	0.877	17.067	0.000
		2	0.723	-0.205	29.329	0.000
		3	0.576	-0.037	37.611	0.000
		4	0.439	-0.060	42.746	0.000
		5	0.286	-0.178	45.077	0.000
		6	0.119	-0.161	45.514	0.000
		7	-0.051	-0.160	45.600	0.000
		8	-0.216	-0.163	47.290	0.000
		9	-0.342	-0.025	51.969	0.000
		10	-0.421	0.013	59.842	0.000
		11	-0.451	0.066	69.973	0.000
		12	-0.435	0.096	80.773	0.000



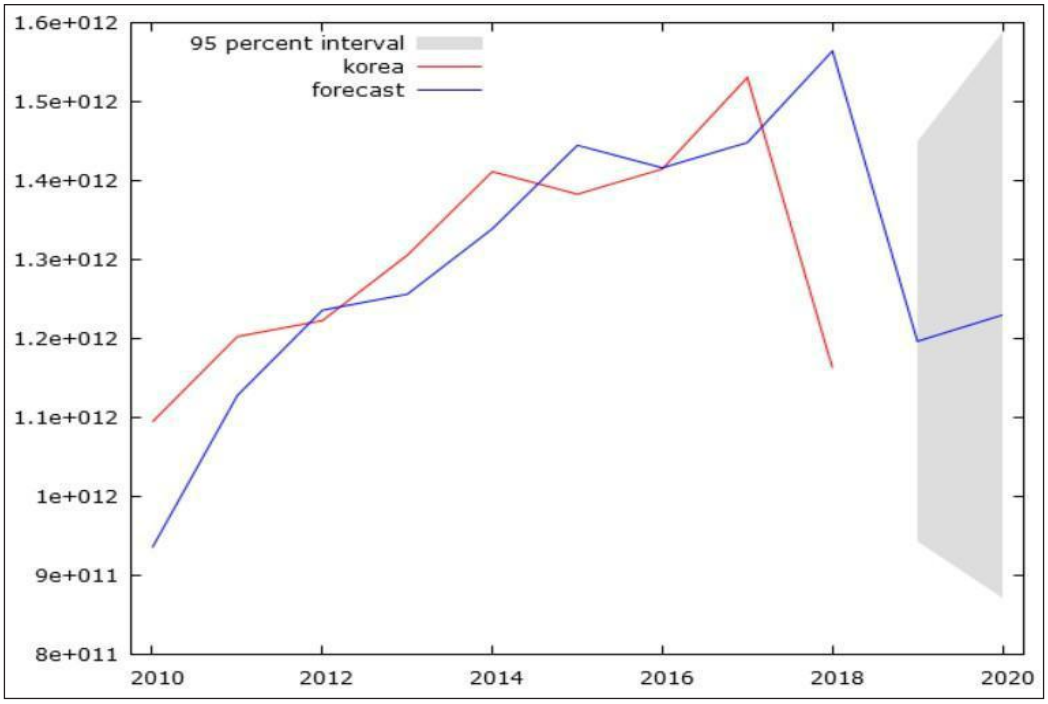
Graph 5: Showing Actual and Predicated Values of Indonesian GDP

Interpretation: Table 7 indicates that the Indonesian GDP values are differenced; and its forecasted future values help in building long-term strategies, ensuring better corporate governance by the companies planning business abroad or MNCs.

Table 8: Showing Autocorrelation and Partial Correlation of Korea GDP

Sample: 2000 2018
Included observations: 19

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.839	0.839	15.609	0.000
		2	0.634	-0.238	25.034	0.000
		3	0.469	0.038	30.527	0.000
		4	0.294	-0.192	32.831	0.000
		5	0.141	-0.020	33.395	0.000
		6	0.045	0.033	33.457	0.000
		7	-0.027	-0.050	33.481	0.000
		8	-0.081	-0.015	33.720	0.000
		9	-0.139	-0.127	34.487	0.000
		10	-0.239	-0.226	37.019	0.000
		11	-0.333	-0.067	42.560	0.000
		12	-0.398	-0.076	51.611	0.000



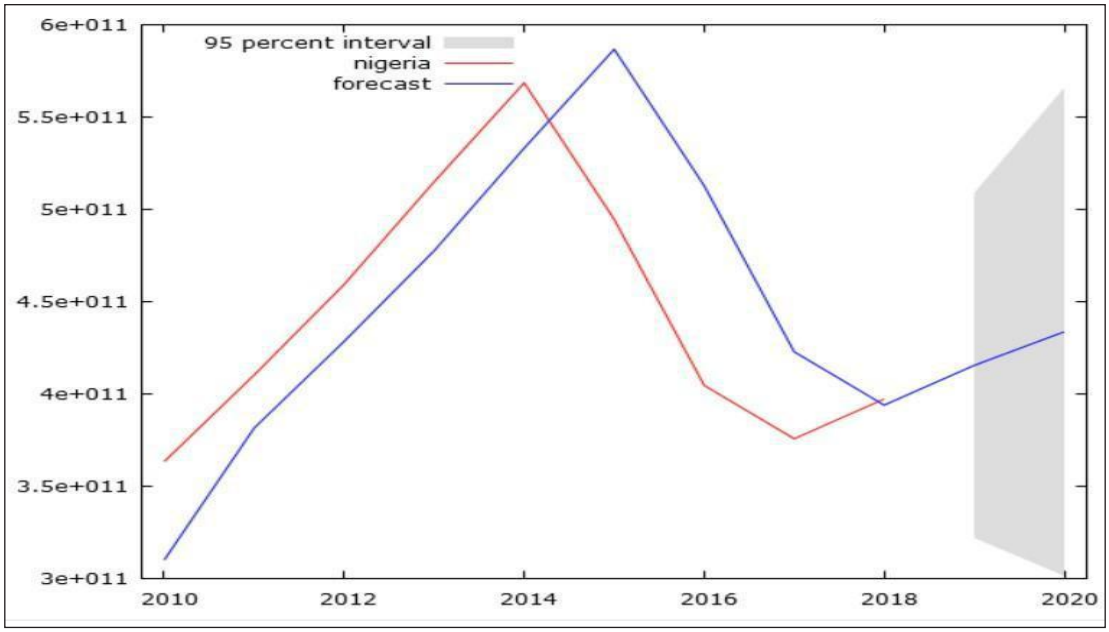
Graph 6: Showing Actual and Predicated Values of Korean GDP

Interpretation: Table 8 and Graph 6 show the GDP values of Korea, which is one among a fast improving nation. The original GDP data of the nation is considered and the same is used for normalising and differencing, which is later used for prediction analysis, visualised in Graph 6.

Table 9: Showing Autocorrelation and Partial Correlation of Nigeria GDP

Sample: 2000 2018
Included observations: 19

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.881	0.881	17.205	0.000
		2	0.727	-0.220	29.608	0.000
		3	0.559	-0.135	37.396	0.000
		4	0.376	-0.168	41.150	0.000
		5	0.185	-0.158	42.122	0.000
		6	0.027	0.012	42.145	0.000
		7	-0.111	-0.085	42.554	0.000
		8	-0.235	-0.109	44.550	0.000
		9	-0.324	-0.025	48.736	0.000
		10	-0.411	-0.201	56.219	0.000
		11	-0.460	0.019	66.765	0.000
		12	-0.461	0.047	78.903	0.000



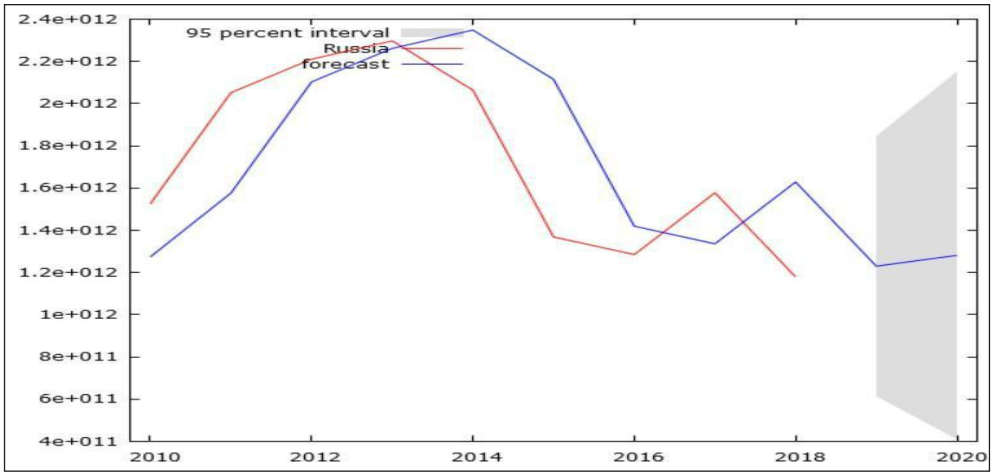
Graph 7: Showing Actual and Predicated Values of Nigeria GDP

Interpretation: Table 9 and Graph 7 show the GDP values of Nigeria; its values are differenced for minimising variance and autocorrelation, as the GDP values are time-oriented variables which fluctuate based on time. This can be visualised in the graph, which shows the actual and estimated values and forecasted GDP values till 2020.

Table 10: Showing Autocorrelation and Partial Correlation of Russia GDP

Sample: 2000 2018
Included observations: 19

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.828	0.828	15.204	0.000
		2	0.627	-0.186	24.446	0.000
		3	0.457	-0.017	29.660	0.000
		4	0.265	-0.205	31.533	0.000
		5	0.106	-0.020	31.851	0.000
		6	-0.043	-0.145	31.908	0.000
		7	-0.226	-0.255	33.604	0.000
		8	-0.339	0.032	37.767	0.000
		9	-0.350	0.127	42.649	0.000
		10	-0.433	-0.388	50.959	0.000
		11	-0.451	0.130	61.091	0.000
		12	-0.380	0.107	69.342	0.000

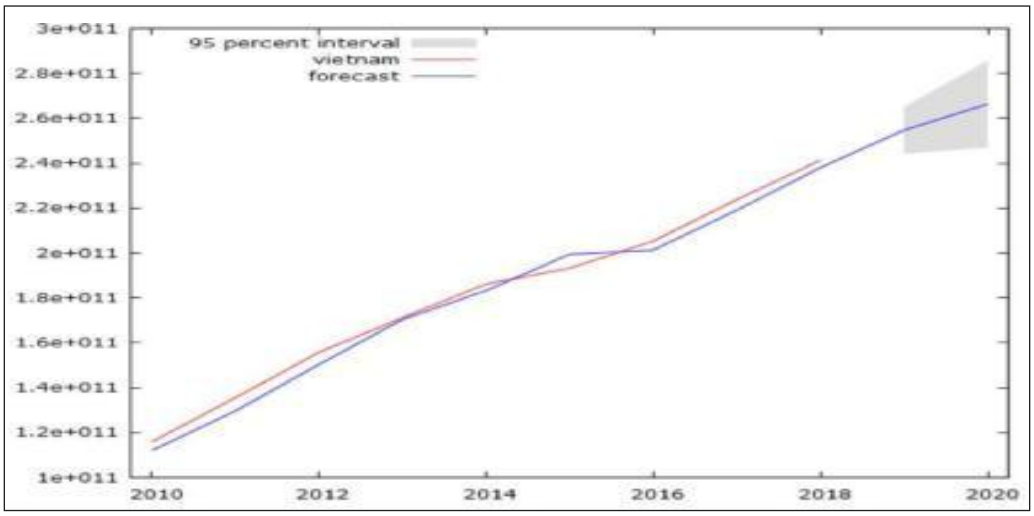


Graph 8: Showing Actual and Predicated Values of Russia GDP

Table 11: Showing Autocorrelation and Partial Correlation of Vietnam

Sample: 2000 2018
Included observations: 19

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.857	0.857	16.261	0.000
		2	0.709	-0.091	28.069	0.000
		3	0.564	-0.078	36.006	0.000
		4	0.414	-0.111	40.571	0.000
		5	0.255	-0.142	42.424	0.000
		6	0.105	-0.091	42.762	0.000
		7	-0.037	-0.106	42.808	0.000
		8	-0.158	-0.060	43.715	0.000
		9	-0.245	-0.009	46.100	0.000
		10	-0.323	-0.103	50.737	0.000
		11	-0.395	-0.111	58.502	0.000
		12	-0.425	0.007	68.788	0.000



Graph 9: Showing Actual and Predicated Values of Vietnam GDP

Interpretation: From Table 11 and Graph 9, it is understood that the GDP values of Vietnam is stationary after differencing and can be represented by many methods. In this paper, the authors have used correlogram to check the autocorrelation and made it eligible to forecast after removing the seasonality and irregularities in the GDP values. The chart visualises that the actual and estimated GDP are moving in the same direction, ensuring the influence of variance towards its mean when the values are forecasted for the near future.

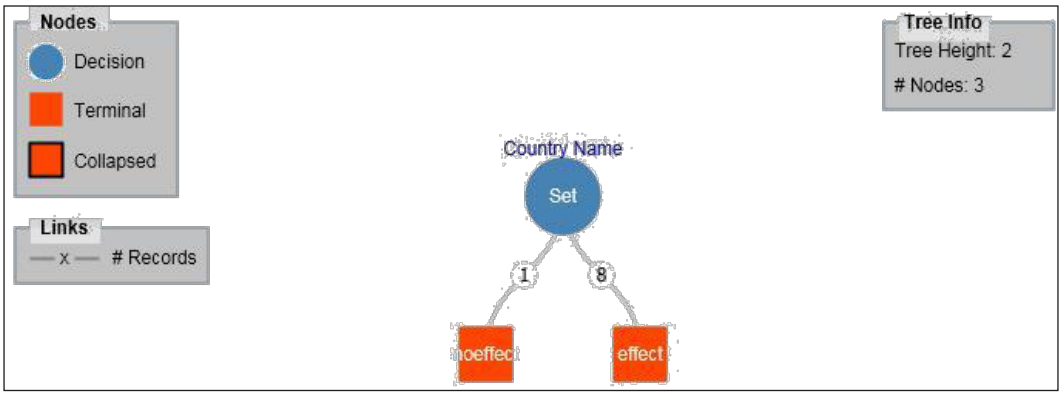
Table 12: Showing the ARIMA Optimum Model of Various Countries' GDP

Country GDP	ARIMA	Akaike	Schwarz
INDIA	2,0,2	1049.441	1055.108
AUSTRALIA	2,0,1	1032.61	1037.34
BRAZIL	0,1,0	1007.88	1009.66
CHINA	1,1,0	1013.04	1015.71
INDONESIA	0,1,0	947.29	949.08
KOREA	0,1,0	975.11	976.89
NIGERIA	0,1,0	939.22	941
RUSSIA	0,1,0	1007.11	1008.89
VIETNAM	0,1,1	863.71	866.38

Interpretation: Table 12 shows the ARIMA model used for forecasting the GDP prices, and as a result, various levels were checked and obtained at this lag order which proved best model depending on the GDP values of each nation. The information criteria was applied, and as a result, Akaike and Schwarz information criteria technique were applied for the study, ensuring that the forecasted values were within the range of actuals, thus minimising variation; this helps large stakeholders in strategic decision-making.

Table 13: Showing the Accuracy Metrics of the Model

Confusion Matrix									
Actual/ Predicted	Effect					No effect			
Effect			8					0	
No effect			0					1	
Error Report									
Class	#cases			#Errors			%Errors		
Effect			8		0			0	
No effect			1		0			0	
Overall			9		0			0	



Graph 10: Showing the Decision Tree of the Effect of Data Localisation Laws

Interpretation: From the above analysis, it is understood that the effect of data localisation has an impact on the GDP of countries and its effect is minimal only for a few countries. Among the nine countries (India, Australia, Brazil, China, Indonesia, Korea, Nigeria, Russia, and Vietnam), Nigeria showed no effect of data localisation laws, whereas countries like India, Australia, Brazil, China, Indonesia, Korea, Russia, and Vietnam had an effect of data localisation; the same can be visualised through the confusion matrix and the decision tree applied in the study.

FINDINGS

- It is found that data localisation has an effect on eight countries – India, Australia, Brazil, China, Indonesia, Korea, Russia, and Vietnam, whereas it has no impact on Nigeria's GDP.
- From the confusion matrix, it is clear that the sensitivity and specificity prove that that there is one country (Nigeria) which does not have any effect due to the implementation of data localisation.

- The correlogram picked after differencing and is stationary.
- The chart after correlogram shows the estimated and actual GDP values, which is useful for forecasting the future GDP value.
- The shaded area in the forecasted charts of all nine selected countries indicate the upper and lower band, and the line shows the forecasted value for very short periods, as predicting for a shorter period is accurate in eliminating the long-term shocks and deviations in the forecasted GDP values with its actuals.
- The decision tree with nodes are used as an analytic technique, apart from the time series, which helps show the accuracy of the predicted values.
- The probability values of all correlogram show significance of the GDP values as it is below the specified threshold of 5%. Large categories of investors, governments, companies, professionals, and the young generation look for the safety of the data encrypted and received; and as a result, India, along with seven other countries have an effect, which needs careful attention, along with the protection of the data generated by these countries.

CONCLUSION

Data localisation is buzzing and trending as there is a lot of opposition from many countries to minimise the cost and have control over the data generated and control over the market share of these countries. Economies like India, China, Australia, and so on produce large quantum of data daily, and as a measure of safety, economies like India want to localise the storage of data within the boundaries of the nation. Large stakeholders are often interested in the news to ensure the safety of the generated data. The authors have applied a basic time series model on the GDP, as it fluctuates based on time. Correlogram and forecasted values for the short term are used to check the effect; eight countries had an effect and one did not have any effect of localising the data.

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