



# Data Localization:

A REVIEW OF PROPOSED DATA LOCALIZATION LEGISLATION  
IN INDIA, WITH LEARNINGS FOR THE UNITED STATES

Dr. Pavan Duggal<sup>1</sup>

*December 2019*



## SUMMARY

Data localization, the act of storing data within the borders of a specific country where the data was generated, reflects the growing challenge for countries to adapt pre-digital modes of national sovereignty and economic competition to a digital industry that thrives on borderless and seamless exchange of information. The initial draft of India's Personal Data Protection Bill, 2018 can be viewed as a first attempt to find a policy framework that enables countries to benefit from their own information and data "assets," while encouraging the continued development and growth of the digital industry.

The arguments for such "data sovereignty" merit respect and consideration. However, data localization possesses the potential to create a host of unintended consequences that would weaken economic growth and democratic rule of law.

This paper suggests that countries such as India and their major global trading partners such as the U.S. would do better to find alternative methods to balance approaches that encourage continued data-driven economic growth, entrepreneurship, and innovation. At the same time, industry, government, and civil society stakeholders should seek provisions to ensure that data is treated safely, securely, and valued appropriately.

Thus, the process and development of the draft Data Protection Bill, 2018 should be viewed not as an endpoint, but as a constructive means of bringing necessary stakeholders to the table to find an appropriate balance that provides the necessary incentives for industry while ensuring that citizens are able to participate and enjoy economic and social benefits of the use and application of data and information that they provide.

## INTRODUCTION

Data localization is increasingly seen as a mechanism to consolidate and strengthen the cyber sovereignty of countries. A growing list of countries are devising new legislation and legal provisions which could have an impact upon data localization. For example, the Chinese Cyber Security law under Article 21 has provided that an operator of critical information infrastructure has to store “personal information” and “important data” within China, unless the business passes the government security assessment.<sup>2</sup>

Similarly, in Russia, the new law No. 242FZ represents the Russian legal position on data localization as an integral element of cyber security protection. This law mandated that the data of Russians must be physically located in Russia, if entities have to do business with Russians.

At present, no data localization effort has generated more attention than India’s draft Personal Data Protection Bill, 2018. India is the second biggest e-commerce market in the world after China, and because of its democratic tradition and constitutional stability, any provision on data localization that India may make could have significant impact upon how trans-border flows of information take place and on how one of the biggest e-commerce markets of the world is likely to evolve in terms of its growth and progress.

## DATA LOCALIZATION – DEFINITIONS & CONCEPT

The concept of data localization has existed for some time. This concept is based on the fundamental principles which stipulate that data, being a critical resource in the context of today's digital world, must be localized and be made locally available within the territorial boundaries of a country.

Data localization has been defined in various ways:

- Data localization 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.<sup>3</sup>
- Data localization is...storing user data in a datacenter on the Internet that is physically situated in the same country where the data originated.<sup>4</sup>
- The term localization generally refers to requirements for the physical storage of data within a country's national boundaries, although it is sometimes used more broadly to mean any restrictions on cross border data flows.<sup>5</sup>
- Data localization [is] the practice of limiting the storage, processing and/or movement of data to specific geographies.<sup>6</sup>

Intrinsic to the concept of data localization is the notion that data can be considered a national resource. Countries increasingly believe that data, as such a national resource, must be made the basis for enhancing the evolving concept of cyber sovereignty. For example, Freedom House's 2018 Freedom on the Net report finds a rise in digital authoritarianism, and cites among its countries of concern Bangladesh, China, Egypt, India, Iran, Myanmar, Russia, Singapore, and Turkey among others. The report also notes a decline in internet freedom in the United States.<sup>7</sup>

Data is also often being seen as an instrument for exerting jurisdiction, and hence we are beginning to start hearing calls for data-based jurisdictions from countries and regions ranging across Brazil, Canada, China, the EU, Russia, the UK, and the United States, among others.<sup>8</sup>

Many countries believe that data is the "oil" of the new economy.<sup>9</sup> Data and the digital economy are expected to fuel growth of various new sectors and create massive employment. Currently researchers estimate that "the digital economy is worth \$11.5 trillion globally, equivalent to 15.5 percent of global GDP and has grown two and a half times faster than global GDP over the past 15 years."<sup>10</sup> In the United States, the Bureau of Labor Statistics forecasts that employment in the digital sector will grow 13% between 2016 and 2026, the fastest among all industry forecasts.<sup>11</sup>

Physically locating data within a particular geography enables governmental control on data to be more effectively enforced. Some experts believe that data localization minimizes the conflict of jurisdiction that has the potential to arise due to cross border data sharing and delays in the delivery of justice in the case of a data breach.<sup>12</sup>

While the Internet was designed as a boundary-less medium, countries are beginning to develop artificial boundaries and barriers in cyberspace. Freedom House's October 2018 report, "Freedom on the Net," notes the rise in digital authoritarianism.<sup>13</sup> Data localization is the latest manifestation of this trend. The Information Technology Industry Council Data Localization Snapshot in 2017 counted 13 countries with data localization policy proposals under active

consideration by the government. These countries range across the development spectrum and include Australia, Canada, China, Germany, India, Indonesia, Kazakhstan, Korea, Nigeria, Russia, Turkey, the United States, and Vietnam.<sup>14</sup>

Global industry has often seen data localization as a driver of higher costs for global business. Localizing data also has ramifications for global companies as they become exposed to variety of national and local regulatory compliance requirements which can require substantial investments. According to a United States International Trade Commission (USITC) report, data localization measures and specific laws pertaining to the flow of data have forced companies to leave specific markets and could impede the development of information technology.<sup>15</sup>

From the global industry perspective, data localization could directly and detrimentally impact the growth of cross-border flows of information and data sharing. For example, Kazim Rizvi, a public policy entrepreneur and founder of an emerging policy think tank, The Dialogue, states that, “Data localization will be a step backward for the digital payments industry. Not only would it make it costlier for the international banks to operate, but it would also reduce the incentive for them to innovate and try out new forms of payment on the front and back end.”<sup>16</sup>

## THE INDIAN APPROACH TO DATA LOCALIZATION

India has a variety of different initiatives which have some elements pertaining to or impacting data localization.

### Early Approaches

The beginnings of data localization legal approaches in India can be seen to be emerging in a stronger manner in the second decade of the twenty first century. These have been manifested in the following:

- a. Draft National Policy Framework on Electronic Commerce in India, released by the Ministry of Commerce and Industry in July 2018.<sup>17</sup>
- b. Proposed amendments to the Drugs and Cosmetics Rules, 1945, released by the Ministry of Health and Family Welfare in August 2018.<sup>18</sup>
- c. National Digital Communications Policy, 2018, released by the Department of Telecommunications, Ministry of Communications in May 2018 and approved by the Union Cabinet in September 2018<sup>19</sup>
- d. Reserve Bank of India Notification dated 6 April 2018 entitled “Storage of Payment System Data.”<sup>20</sup>

On 6th April 2018, the Reserve Bank of India (RBI) issued a circular mandating provisions ushering in the requirements of data localization in the banking sector in India. The Circular states that “All system providers shall ensure that the entire data relating to payment systems operated by them are stored in a system only in India. This data should include the full end-to-end transaction details/information collected/carried/processed as part of the message/payment instruction. For the foreign leg of the transaction, if any, the data can also be stored in the foreign country, if required.”<sup>21</sup> The primary objective of this policy appears to be to facilitate supervision and monitoring of payment systems in India by the RBI in order to detect suspicious or fraudulent activity.<sup>22</sup>

This was India’s first foray in the area of data localization. By this notification, The Reserve Bank of India has tended to elaborate the Indian approach on data localization.

### India’s Personal Data Protection Bill, 2018

These initiatives have set the stage for India’s Personal Data Protection Bill, 2018 -- which has not been passed by the Indian Parliament at the time of writing -- to set out potential requirements for data localization. However, the Personal Data Protection Bill adopts a more relaxed approach than initiatives such as that of the Reserve Bank of India, in the sense that the Bill does not require data to be physically present in India so long as one serving copy of the personal data is physically available in India. The draft Bill does propose a number of data localization requirements. The draft Bill:

- a. Adopts the principle of extra-territorial applicability of its provisions. The Bill shall be applicable to processing<sup>23</sup> of personal data:<sup>24</sup> (i) where personal data has been collected, disclosed, shared or processed in any manner within the Indian territory; and (ii) where the processing has been undertaken by the government, by any Indian company, by

any Indian citizen or any person or body of persons that has been incorporated under the Indian laws.<sup>25</sup>

- b.** States that processing of personal data shall be conducted in a manner that is fair and reasonable and in a manner that respects one's right to privacy.<sup>26</sup>
- c.** Requires entities to ensure that the personal data that is processed is complete, accurate, not misleading and kept updated at all times.
- d.** Stipulates that the personal data shall be processed only for purposes that are clear, specific and lawful. Furthermore, the law mandates that processing of personal data shall be limited only to the purpose that has been specified or any incidental purposes reasonably expected by the data principal.
- e.** Mandates limiting the collection of personal data, to such data that would be necessary for processing.
- f.** Mandates the retention of personal data only for the time period necessary to fulfill the purpose related to the processing.
- g.** Mandates the data fiduciary to undertake a periodic review of all its stored personal data to ensure that personal data has not been retained for more than the necessary time period.
- h.** Obligates the data fiduciary to provide the data principal with adequate notice before collection of personal data, or as soon as reasonably possible if the personal data has not been collected directly from the data principal. Personal data or sensitive personal data can be processed for complying with any provision of the law or any order of a court or tribunal.<sup>27</sup>

With regard to the potential implementation of data localization mechanisms, the draft Bill discusses the restrictions on cross-border transfer of data:

- 1.** Data Fiduciary has a duty to store data on a server or data center located in India or mirror such data in India;
- 2.** Critical personal data as notified by Central Government shall only be stored and processed in India.<sup>28</sup>

The Bill categorically states that every data fiduciary shall ensure the storage, on a server or data center located in India, of at least one serving copy of personal data to which this Act applies. The bill would seek data localization mechanisms to be implemented through data fiduciaries. Further, the Central Government would be given the discretion to mandatorily notify the categories of personal data that are deemed to be critical data that shall only be processed on the server of data centers located in India.

The Bill seeks to pave the way for transferring data outside the territorial boundaries of India under categories of sensitive data, if particular circumstances are fulfilled. However, this section is not applicable to critical personal data.

Speaking in favor of data localization, Kiran Vasireddy, at Paytm (an Indian e-commerce payment system and digital wallet company) is of the view that, "Data should be stored locally. The moment data leaves the country, it falls under various jurisdictions, which in many cases, are beyond our control. It is important to keep all the data here so that the laws of the land can be made applicable to them."<sup>29</sup> And also in a letter addressed to the top executives of IAMAI (the Internet and Mobile Association of India) and the Payments Council of India, Paytm expressed that "This is the moment

for us to support our nation and promote ‘Data Sovereignty’ over ‘Data Monopolisation,’ which is possible through data localization.”<sup>30</sup>

Data localization has received strong support from influential stakeholders such as India’s central bank, the Reserve Bank of India, many of India’s homegrown tech companies and startups,<sup>31</sup> and India’s richest man, Reliance Chairman Mukesh Ambani,<sup>32</sup> among others. Ambani speaks for many as he argues for the Indian government to adopt regulations ending “data colonization” by non-Indian companies. Calling data the “new oil and wealth” in the current age, calls for the country to “migrate...control and ownership of Indian data back to India. In other words, Indian wealth back to every Indian.... India’s data must be controlled and owned by Indian people and not by corporates, especially global corporations.”<sup>33</sup> Ambani’s view reflects concerns that India technology industries will be at a competitive disadvantage without the protection of data localization. The logic suggests that local job growth and wealth creation will be constrained, as profits from the technology sector as transferred outside the country.

Opponents of data localization counter with a range of arguments, summarized below:

- a. Prohibitive costs. Maintaining multiple local data centers may lead to significant investments in infrastructure and higher costs for global companies.
- b. Infrastructure deficiencies. The infrastructure to enable for efficient data collection and management is lacking in India.
- c. The raise of the Splinternet. Also called the ‘fractured internet,’ data localization could cause a domino effect of national data protectionist policies.
- d. Encryption. Even if the data is stored in the country, the encryption keys may still remain out of the reach of national agencies.
- e. Inefficiency. Forced data localization can create inefficiencies for both businesses and consumers. It can also increase the cost and reduce the availability of data-dependent services.<sup>34</sup>

The proposal, as a result, has generated a massive debate that generates polarizing disputes regarding whether the policy will increase or decrease growth, jobs, international investment, trade and diplomatic relations, escalating tit-for-tat policies, and a raising trend of cyber sovereignty driving more and more restrictive regulations.<sup>35</sup> The potential consequences for multinational companies in the U.S. and elsewhere from the Indian experience are described below, with thoughts on steps companies should consider to help ensure that the restrictive data localization frameworks proposed in India do not arise elsewhere.



## IMPACT OF PERSONAL DATA PROTECTION BILL, 2018 ON INDIAN INDUSTRY

Data Localization requirements could impact Indian industry in a range of ways, which we review below.

### Reducing growth

It's been suggested that India may incur nearly a one (1) percent loss in gross domestic product (GDP) in the short and medium term if the country goes ahead with forced data localization in its current form.<sup>36</sup> Furthermore, along with the impacts on GDP (noted above) a European Centre for International Political Economy study finds localization will also hit India's projected growth by 20%.<sup>37</sup>

It could also impact India's Ease of Doing Business Ranking if data, on which economies of the future are being built, becomes an expensive commodity.<sup>38</sup>

### Affecting India's technology entrepreneurship and technology-based growth

While startups have been among the supporters for data localization, analysts both inside and outside of India have produced analysis suggesting that the Data Localization requirements could prejudicially impact Indian startups. According to an article in Business Today, "Startups will be the most affected as it will cost more to setup and run business as start-ups may not get to store data on cheaper alternatives, such as the cloud infrastructure, if all data is forced to be located in India."<sup>39</sup>

Data Localization requirements could also prejudicially impact the Indian IT sector, based on the global service delivery model that works on the principle of seamless workflow between off shoring services to Indian IT companies, and support provided by Indian IT professionals both offsite (i.e., remote support), and onsite services, as required.<sup>40</sup> It is possible that global firms will be less likely to contract with these Indian firms.

### Challenges to democracy

The prejudicial impact of Data Localization on the rights and liberties of people has also been highlighted. It has been suggested that Data Localization could potentially reflect an authoritarian regime and is seen as a tool to enable local surveillance.<sup>41</sup> It also increases cyber vulnerability and restrict the access of SMEs (small and medium enterprises) to global services.<sup>42</sup>

### Impacts on Traditional Sectors

Other industries could be affected too. According to a study conducted by the British think tank Chatham House and the Centre for International Governance (CIGI), new rules on the regulation of cross-border consumer data for producers could also have detrimental economic effects (see Bauer et al.2014). This is because data services regulations have a side effect of restricting transactions between domestic and foreign-using operators, which in turn limits the efficient sourcing of data processing activities.<sup>43</sup> India has implemented localization laws in specific areas such as corporate law, the insurance

sector, and the telecom sector. The study claims that the regulations have increased prices and decreased productivity in India, resulting in a loss of 0.25% of real GDP annually. The study also quantified total factor productivity (TFP) costs that India will incur due to the new regulations. The losses are expected to be around 1.35% in the communications sector, 0.50% in the ICT business services sector, and 0.20% in the finance and insurance sector.<sup>44</sup>

## LESSONS MULTINATIONAL COMPANIES CAN LEARN FROM INDIA'S PERSONAL DATA PROTECTION BILL, 2018

The U.S. can learn a number of lessons from India's Personal Data Protection Bill, 2018 with regard to Data Localization.

### Increased costs of doing business

The first lesson is that the Data Localization is likely to increase the cost of doing business in India. Data Localization is expected to contribute to the increasingly spiraling costs towards compliance with local laws in the context of American companies and their operations in India. For example, MasterCard recently stated that around \$350 million of its \$1 billion investment in India is going to be spent on compliance with the Reserve Bank of India's localization mandate.<sup>45</sup>

### Restricted data flows

It is also expected that the data localization restriction could have a direct prejudicial impact upon cross border data flows which is likely to hit a large number of U.S. companies. Data localization and the restrictions on cross-border data flows have been a key concern for U.S. companies operating in India, especially payments companies like Visa and MasterCard. As discussed in an analysis conducted by The Atlantic Council, "Requiring financial data localization will increase costs for firms operating in India as they set up data storage and processing infrastructure in the country and potentially lose their economies of scale in data analytics. Firms may choose to pass on some of the increased costs to their customers, making their services in India more expensive."<sup>46</sup>

### Increased barriers to market entry

Technology and other international industry associations forecast Data Localization requirements will act as a barrier for companies in terms of their operations in India.<sup>47</sup> This relates to the next potential consequence.

### Decreased corporate investment in India

It has further been opined that data localization will severely affect the level of investment by American giants in India, straining the already strained economic relationship between the two countries.<sup>48</sup> U.S. Senators John Cornyn (R-TX) and Mark Warner (D-VA) stated that, "Data localization requirements, such as those contained in the draft data protection bill and draft national e-commerce policy framework, will have negative impacts on the ability of companies to do business in India, may undermine your own economic goals, and will likely not improve the security of Indian citizens' data."<sup>49</sup>

### Creating trade barriers

Data localization restrictions in the proposed legislation could constitute a trade restriction and an impediment to a global digital economy, which relies on the cross-border flow of data. The stance taken by companies such as Google and Facebook against data localization<sup>50</sup> comes as no surprise, since they would likely incur huge costs in setting up data centers in India if the localization mandate was implemented.<sup>51</sup>

## CONCLUSION

Countries are now waking up to the importance of data as a national resource. Some state actors are directly linking data to the emerging concept of cyber sovereignty. Other nation states are considering the route of data localization in order to achieve the goal of monetization of such data, within the territorial boundaries of such states.

Data Localization as a paradigm may appear to be interesting and attractive, but it comes with its own sets of challenges. This paper has demonstrated the pros and cons of adopting data localization with reference to the experience of the Indian sub-continent.

It would be imperative to analyze and forecast the potential costs and benefits of a data localization legal regime in order to determine whether India or other countries should embark on a journey which could damage its e-commerce prospects and e-commerce market growth.

U.S. industry has to closely look at how Indian policy on data localization is emerging. This is all the more so as any provisions on data localization, could have an immense impact upon not just existing trade and business relationships and arrangements, but also trade prospects. There has been significant change in India's approach on data localization from the time of the RBI Notification to the proposed Personal Data Protection Bill. It cannot be ruled out that further changes may take place in Indian policy on data localization.

It is therefore imperative that the appropriate lessons of data localization from other jurisdictions should be applied to the Indian context to ensure that the Indian approach on data localization is balanced and harmonized to protect local industry on the one hand and sufficiently enable and empower global industry market players to play their very significant role in the economic development and growth of India in the coming times on the other.

## ENDNOTES

<sup>1</sup> Advocate, Supreme Court of India and Chairman, International Commission on Cyber Security Law. Dr. Duggal is an internationally renowned expert authority on Cyberlaw and Cybersecurity law. He has been acknowledged as one of the top four Cyber Lawyers in the world. He can be reached by email at [pavan@pavanduggal.com](mailto:pavan@pavanduggal.com). More about Dr. Pavan Duggal is available at [www.pavanduggal.com](http://www.pavanduggal.com).

<sup>2</sup> Eric W. Huang, China: An Overview Of China's New Cybersecurity Law, *Mondaq*, (May.10, 2019, 1:35 pm) <http://www.mondaq.com/china/x/714616/Data+Protection+ Privacy/An+Overview+of+Chinas+New+Cybersecurity+Law>

<sup>3</sup> TECHOPEDIA Definition - What does Data Localization mean? Data Localization (May.09, 2019, 3:31 pm), <https://www.techopedia.com/definition/32506/data-localization>

<sup>4</sup> Encyclopedia, Definition of: data localization, (May.09, 2019, 3:50pm), <https://www.pcmag.com/encyclopedia/term/66382/data-localization>

<sup>5</sup> Rishab Bailey and Smriti Parsheera, Data localisation in India: Questioning the means and ends (May.09, 2019, 3:55 pm), [https://www.nipfp.org.in/media/medialibrary/2018/10/WVP\\_2018\\_242.pdf](https://www.nipfp.org.in/media/medialibrary/2018/10/WVP_2018_242.pdf)

<sup>6</sup> Jyoti Pandai & Jeremy Malcolm, The Political Economy of Data Localization, *The Open Journal of sociopolitical studies* 512, 513 (2018) (May.09, 2019, 4:21 pm), <http://siba-ese.unisalento.it/index.php/paco/article/download/19553/16635>

<sup>7</sup> See Adrian Shahbaz, Freedom on the Net: 2018. *Freedom House*. October 2018. Retrieved from [https://freedomhouse.org/sites/default/files/FOTN\\_2018\\_Final%20Booklet\\_11\\_1\\_2018.pdf](https://freedomhouse.org/sites/default/files/FOTN_2018_Final%20Booklet_11_1_2018.pdf)

<sup>8</sup> Jonah Force Hill, Matthew Noyes, Rethinking Data, Geography, and Jurisdiction: Towards a Common Framework for Harmonizing Data Flow Controls. *The New America Foundation*. February 2018. P.9, 11, 12.

<sup>9</sup> The Economist, "The world's most valuable resource is no longer oil, but data." May 6, 2017. Retrieved from <https://www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data>

<sup>10</sup> Makada Henry-Nickie, Kwadwo Frimpong, and Hao Sun, "Trends in the Information Technology sector." *Brookings*. March 29, 2019. <https://www.brookings.edu/research/trends-in-the-information-technology-sector/>

<sup>11</sup> <https://www.bls.gov/ooh/computer-and-information-technology/home.htm>

<sup>12</sup> DRISHTI, DATA LOCALISATION, (May.09, 2019, 4:21 pm), <https://www.drishiias.com/to-the-points/paper3/Data-Localisation>

<sup>13</sup> Shahbaz, 2018.

<sup>14</sup> ITI, "Data Localization Snapshot." January 19, 2017. Retrieved from <https://www.iti.org/public-policy/SnapshotofDataLocalizationMeasures1-19-2017.pdf>

<sup>15</sup> William Alan Reinsch, "A Data Localization Free-for-All?" *Center for Strategic and International Studies*. March 9, 2018. <https://www.csis.org/blogs/future-digital-trade-policy-and-role-us-and-uk/data-localization-free-all>

<sup>16</sup> Kazim Rizvi, What will it cost India to commit to data localisation? (May.09, 2019, 4:40 pm), *QRIUS*, <https://qrius.com/data-localisation-india/>

<sup>17</sup> Electronic Commerce in India: Draft National Policy Framework, (May.10, 2019, 1:35 pm) <https://www.medianama.com/wp-content/uploads/Draft-National-E-commerce-Policy.pdf>

<sup>18</sup> MINISTRY OF HEALTH AND FAMILY WELFARE, NOTIFICATION New Delhi, the 28th August, 2018, (May.10, 2019, 1:35 pm) [http://www.cdsc.nic.in/writereaddata/2018\\_08\\_28\\_Draft%20GSR%20817\(E\)\\_Sale%20of%20Drugs%20by%20E-Pharmacy.pdf](http://www.cdsc.nic.in/writereaddata/2018_08_28_Draft%20GSR%20817(E)_Sale%20of%20Drugs%20by%20E-Pharmacy.pdf)

<sup>19</sup> <http://dot.gov.in/sites/default/files/Final%20NDPC-2018.pdf?download=1>

<sup>20</sup> Reserve Bank of India, Storage of Payment System Data, RBI/2017-18/153, (May.10, 2019, 1:35 pm) <https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=11244&Mode=0>

<sup>21</sup> <https://www.rbi.org.in/scripts/NotificationUser.aspx?id=11244>

<sup>22</sup> <https://cis-india.org/internet-governance/resources/the-localisation-gambit.pdf>

<sup>23</sup> The term processing in relation to personal data has been defined under Section 2 (32) of the draft Personal Data Protection Bill, 2018 to mean an operation or set of operations performed on personal data, and may include operations such as collection, recording, organisation, structuring, storage, adaptation, alteration, retrieval, use, alignment or combination, indexing, disclosure by transmission, dissemination or otherwise making available, restriction, erasure or destruction.

<sup>24</sup> The term personal data has been defined under Section 2(29) of the draft Personal Data Protection Bill, 2018 to mean data about or relating to a natural person who is directly or indirectly identifiable, having regard to any characteristic, trait, attribute or any other feature of the identity of such natural person, or any combination of such features, or any combination of such features with any other information.

<sup>25</sup> Section 2(1) of the draft Personal Data Protection Bill, 2018.

<sup>26</sup> Suneeth Katarki, Namita Viswanath and Ivana Chatterjee, India: The Personal Data Protection Bill, 2018 - Key Features And Implications, *Mondaq*, (May.09, 2019, 4:21 pm), <http://www.mondaq.com/india/x/727550/data+protection/The+Personal+Data+Protection+Bill+2018+Key+Features+And+Implications>

<sup>27</sup> Suneeth Katarki, Namita Viswanath and Ivana Chatterjee, India: The Personal Data Protection Bill, 2018 - Key Features And Implications, *Mondaq*, (May.09, 2019, 4:21 pm), <http://www.mondaq.com/india/x/727550/data+protection/The+Personal+Data+Protection+Bill+2018+Key+Features+And+Implications>

<sup>28</sup> Madhura Bhandarkar, DATA LOCALIZATION: IS IT A SOLUTION TO PRIVACY CONCERNS?, *RGNUL*, (May.09, 2019, 4:30 pm), <http://rsrr.in/2019/02/05/data-localization-solution-to-privacy-concerns/>

<sup>29</sup> Bhumika Khatri, Paytm Continues To Support Data Localisation, Says Mirroring Data Is Not The Solution, *INC42*, (May.10, 2019, 1:58 pm) <https://inc42.com/buzz/paytm-continues-to-support-data-localisation-mirroring-data-not-the-solution/>

<sup>30</sup> Pratik Bhakta, India's data localisation policy will benefit the startup ecosystem: Paytm, *ETech*, (May.10, 2019, 1:55 pm) <https://tech.economicstimes.indiatimes.com/news/internet/indias-data-localisation-policy-will-benefit-the-startup-ecosystem-paytm/65881255>

<sup>31</sup> Rahul Sachitanand, "All about India's data localisation policy." *The Economic Times*. October 21, 2019. <https://economicstimes.indiatimes.com/tech/ites/all-about-indias-data-localisation-policy/articleshow/66297596.cms>

<sup>32</sup> Ronak D. Desai, "India's Data Localization Remains A Key Challenge For Foreign Companies." *Forbes*. April 30, 2019. <https://www.forbes.com/sites/ronakdesai/2019/04/30/indias-data-localization-remains-a-key-challenge-for-foreign-companies/#51379db0e0a3>

<sup>33</sup> Desai, 2019.

<sup>34</sup> Drishti, Data Localisation, (May.10, 2019, 10:45 am) <https://www.drishtias.com/to-the-points/paper3/Data-Localisation>

<sup>35</sup> Sachitanand, 2019.

<sup>36</sup> Aprajita Sharma, Data localisation may hit GDP, ease of doing business ranking, says report, *Business Today*, (May.10, 2019, 10:25 am), <https://www.businesstoday.in/current/economy-politics/data-localisation-may-hit-gdp-ease-of-doing-business-ranking-says-a-report/story/292799.html>

<sup>37</sup> Rizvi, *Supra* Note 6

<sup>38</sup> *Ibid*

<sup>39</sup> *Ibid*

<sup>40</sup> RV Anuradha, India: Why the Personal Data Protection Bill spells trouble for India's IT sector, Clarus Law Associates, *Mondaq* <http://www.mondaq.com/india/x/737032/IT+internet/Why+the+Personal+Data+Protection+Bill+spells+trouble+for+Indias+IT+sector>

<sup>41</sup> See Shahbaz, 2018.

<sup>42</sup> Sudhir Gupta and Kaushal Mahan, Data localisation norms could negatively impact India's GDP, *HINDUSTAN TIMES*, (May.10, 2019, 11:55 am), <https://www.hindustantimes.com/analysis/data-localisation-norms-could-negatively-impact-india-s-gdp/story-A8HNFTjIDBM550HjiKbprO.html>

<sup>43</sup> [https://www.cigionline.org/sites/default/files/gcig\\_no30web\\_2.pdf](https://www.cigionline.org/sites/default/files/gcig_no30web_2.pdf)

<sup>44</sup> Rizvi, *Supra* Note 6

<sup>45</sup> Nikhil Pahwa, U.S. Trade Secretary Wilbur Ross highlights data localisation, high tariffs on electronics, telecom products in India as trade issues, *MEDIANAMA*, (May.09, 2019, 4:50 pm), <https://www.medianama.com/2019/05/223-us-trade-secretary-wilbur-ross-highlights-data-localisation-high-tariffs-on-electronics-telecom-products-in-india-as-trade-issues/>

<sup>46</sup> Kalika Likh, "India's data localization efforts could do more harm than good," *The Atlantic Council*. February 1, 2019. <https://www.atlanticcouncil.org/blogs/new-atlanticist/india-s-data-localization-efforts-could-do-more-harm-than-good/>

<sup>47</sup> Desai, 2019.

<sup>48</sup> Gyanendra Mohan Rashali, Data Localization: Lessons to Take From India's King of Good Times, *Dataquest*, (May.09, 2019, 4:59 pm), <https://www.dqindia.com/data-localization-lessons-take-indias-king-good-times/>

<sup>49</sup> RBI's data localisation policy will adversely impact US business in India: Senators, *HINDUSTAN TIMES*, (May.09, 2019, 5:52 pm), <https://www.hindustantimes.com/india-news/data-localisation-policy-will-adversely-impact-us-business-in-india-senators/story-KBrpJFSf1xjwlfhMKXsAj.html>

<sup>50</sup> Josh Constine, "Zuckerberg warns of authoritarian data localization trend." *TechCrunch*. April 26, 2019. <https://techcrunch.com/2019/04/26/facebook-data-localization/>

<sup>51</sup> Pranav M.B., Vipul Kharbanda and Amber Sinha, The Localisation Gambit: Unpacking policy moves for the sovereign control of data in India, *The centre for internet & society*, (May.10, 2019, 10:15 am), <https://cis-india.org/internet-governance/blog/the-localisation-gambit-unpacking-policy-moves-for-the-sovereign-control-of-data-in-india>