

Position Paper – DATA LOCALIZATION

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According to a 2016 report by McKinsey & Company, the significant increase in flows of data and information now generate more economic value than global goods trade. These larger flows of data are exerting more impact on global GDP growth than traditional trade and services. This tremendous growth is possible due to the world being connected more than ever. The report also highlighted that global cross-border bandwidth has grown 45 times between 2005 to 2016 and the growth is expected to continue in the future.¹ Despite the tremendous growth and the increased influence that digital trade is having on the global economy, there are potential policy challenges and risks that may surface which could stunt the growth of the digital economy.

Most governments recognize that innovations powered by cloud computing offer huge potential benefits connecting their countries to the global digital economy. Governments also understand that cloud computing, applications and data processing require that data has free flowing movement across international borders. However, some governments are considering imposing data localization policies and restrictions which could significantly impact the growth of the digital economy. According to PC Magazine, data localization is defined as storing user data in a datacentre on the Internet that is physically situated in the same country where the data originated.² Data localization policies can have significant costs, reduce economic opportunity, increase physical and cyber security vulnerabilities, close markets and

restrict access to goods and services for consumers.

The Importance of Cross Border Data Flow

The flow of data across borders now drives global economic growth more than the flow of goods³. If all businesses, small, medium or large, can access inexpensive storage, then any company can compete on a global stage. If one company is forced to store data locally as opposed to a competitor in a neighbouring country, their costs will be higher and this will affect how they compete in today's global marketplace. Requiring companies to store data in their own country hurts micro, small and medium sized enterprises (MSMEs) the most as it prevents them from leveraging lower cost global cloud platforms that are available today. In addition, larger companies are more likely to have the funds to build datacentres whereas smaller firms can be shut out of the domestic and international digital marketplace completely if they cannot access affordable computing and data services. Data localization also hurts consumers resulting in less choice of services and increased prices, making local companies less competitive because local storage increases costs and complexity of doing business⁴.

The Downside of Data Localization

Security – Cyber & Physical

Some governments currently promote data localization as a method of keeping their data more secure and within their own borders. Data localization policies aimed at keeping data within a nation's borders have a negative impact on both the privacy and security of data and it is argued that storing information in one physical location could actually increase

¹ <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows>

² <http://www.pcmag.com/encyclopedia/term/66382/data-localization>

³ www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows

⁴ US-Asean Business Council "Enabling Cross Border e-Commerce Trade in Asean" April 2016

vulnerability⁵. In fact, local storage in a single place can create an attractive target for cybercriminals and incremental surveillance⁶.

Cybercrime is often the result of poor security protocols and insufficient cyber security policies for many businesses and individuals. In many cases MSMEs cannot afford to have robust secure IT infrastructures that are typical in large global cloud service providers. Large international datacenters usually invest heavily in the physical and cybersecurity at levels that would not be possible for MSMEs. MSMEs therefore benefit from access to world-class security provisions in global datacenter infrastructure.

Localized datacenters are also more vulnerable to natural disasters that may strike in a country. Unlike datacenters that have backup redundancy datacenters in other global locations, nationalized datacenters may result in a complete loss of data, causing severe economic damage to the local economy. If a natural disaster were to occur, there could be disastrous outcomes for individual businesses and the economy in general. Even ordinary events could lead to loss of data and websites going down – for example in 2011, a Dublin data centre was hit by lightning and was down for a weekend and other data centres have been damaged by flood, fire, and even a truck driver driving into one. Burglars broke into a data centre in the UK which resulted in customers losing access to voice calls, texts and the internet on their mobile phones⁷.

Economic Impact

A recent ECIPE report analyzed the economic costs of data localization policies. The report

found that any economic gains that were realized by data localization policies were not significant enough to offset the losses in the general welfare and output in the economy. The study looked at seven countries and measured the economic impact on GDP by data localization policies. In all seven countries, the economic impact related to the localization policies showed a reduction in GDP. For example, the ECIPE report looked at the impact of proposed data localization policies and found that had Vietnam's Decree 72 been fully implemented, it could have reduced their GDP by 1.7% (US\$1.5 billion)⁸. Data localization disadvantages new and growing businesses that want to compete on a global stage as well as traditional companies that rely on the internet. It makes the countries' markets less attractive for foreign companies to invest due to increased barriers to entry.

Opportunity

Access to cloud computing creates opportunities for businesses of all sizes to drive innovation and efficiency in their operations. In a recently published article in the Harvard Business Review, Michael Porter and James Heppelmann argue that data-fuelled technologies have the potential to drive a sharp increase in innovation, productivity gains, and economic growth⁹. The McKinsey Global Institute estimates that the international flow of data contributed US\$2.8 trillion to the global economy in 2014 and is expected to contribute up to US\$11 trillion in 2025.¹⁰

Policy Recommendations

⁵ Bauer et al., The Costs of Data Localization, ECIPE Occasional Paper 3/2014

⁶ US-Asean Business Council "Enabling Cross Border e-Commerce Trade in Asean" April 2016

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<http://www.computerworlduk.com/galleries/infrastructure/ten-datacentre-disasters-that-brought-firms-offline-3593580/>

⁸ Bauer et al., The Costs of Data Localization, ECIPE Occasional Paper 3/2014

⁹ <https://hbr.org/2014/11/how-smart-connected-products-are-transforming-competition>

¹⁰ www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows

Promote an Open Internet

An open internet is essential for recognizing the Internet's true potential as it boosts international trade, supports internet-enabled innovation and increases productivity and growth.¹¹

Establish Trade Rules that protect cross border data flows

When developing multinational trade agreements such as the Regional Comprehensive Economic Partnership (RCEP), one should provide opportunities to make requirements for cross border data flow and restrict forced localization of computing facilities while also permitting exceptions to the extent necessary to protect the privacy of personal data and achieve other legitimate policy goals.

Permit Data Flows in Domestic Legislation

Today, many if not most companies utilize a variety cloud services which involves the flow of data across borders. Governments should avoid making policies that prohibit such transfers or that require the data to remain within borders (data localization). Such policies will have a negative economic impact on MSMEs and limit their participation in the global digital economy.

Promote E-Commerce

E-commerce has enormous potential, even more so in emerging markets, to increase GDP, create jobs and promote growth. Governments should do all they can to encourage and promote the use of e-commerce to allow MSMEs to access the global market. Customs procedures should also be simplified where possible and customs duties or other taxes on cross border trade carefully

considered, especially on low value shipments which typically are sold by MSMEs.

Establish Compatible Rules

The cost of compliance can be significant and can eradicate any profit a small to medium size business can make. Governments are therefore encouraged to establish compatible rules through trade agreements to reduce the compliance burden.

Engagement with Industry

Government engagement with industry and related associations can help facilitate discussions that result in solutions that ease concerns and enable the full benefits of the global digital economy.

Conclusion

Data localization policies can stunt economic growth that is taking place in an increasingly digital world. These policies usually tend to hurt the MSMEs the most by restricting access to the global digital economy. While security, data and privacy concerns are normally cited when developing such policies, it has been argued that such localization policies actually do not improve security, data and privacy standards.

About AIC

The Asia Internet Coalition (AIC) seeks to promote the understanding of Internet policy issues in the Asia Pacific region.

For more information, visit www.aicasia.org

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[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP\(2015\)17/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP(2015)17/FINAL&docLanguage=En)