

Issue of Transborder Data Flows in Cloud Computing the Impact on Economic Growth

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Abstract: The nature of cloud computing is to allow the free flow of data. This is demonstrated in the application of public cloud computing which encourages the data to be shared by the internet users with no limitation of geographical boundaries. The service providers of cloud computing can position their service center anywhere in the world. In some jurisdictions, there are laws governing the use of personal data. Amongst provisions is a provision restricting the exportation of personal data to a country which has no enforceable data protection law. Although, this prohibition is required to safeguard the personal data of the citizens of a country it is circuitously limited the cooperation between countries and this will affect the economic development. This study aims at: How does the concept of free flow of data can assist in the economic growth of a country? Is it true that the law and policy restricting the free flow of data can affect the development of economy?

Key words: Data flows, cloud computing, law, economy, personal data

INTRODUCTION

Preamble: Cloud computing as always understood is a technology which is used to store huge sum of data. These services have been available for many years with the came into being of Hotmail, Gmail and social media networks such as Facebook. The US National Institute of Standard and Technology (NIST) have created a working definition compliant with commonly agreed features of cloud computing which reads as: A model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., network, servers, storage, applications and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction (Sriram and Khajeh-Hosseini, 2010).

Due to the said exceptional characteristics of cloud computing, this technology has widely been used in businesses which have made it a big generation in the IT industry. This is supported by the views of Ramnath Chellapa which regards cloud computing as a computing paradigm where the boundaries of computing will be determined by economic rationale rather than technical limits alone (Chowdhury, 2009). There are efforts taken by IT companies to implement energy efficient policies to decrease energy cost. This is increasingly important as the energy costs continue to rise and hardware cost drop. Thus by adopting cloud computing, it enables the downsizing of IT departments and the available resources

may be used to run the core business. The nature of cloud computing is to permit free flow of data. This unrestricted flow of information encourages competition in business activities. In running the business activities, such as research and development, design, production, sales and support services all over the world, the companies will benefit from transborder data flows as they can obtain the best price and services from the best suppliers. Some restrictions on the transfer of data are necessary for public policy reasons, amongst provisions is a provision restricting the exportation of personal data to a country which has no enforceable data protection law. However, it is submitted that the restrictions should be minimized as it is circuitously limited the cooperation between countries and this will affect the economic development.

MATERIALS AND METHODS

The legal study conducted was qualitative in nature. Being so, research methodologies of library research and critical analysis were used in analyzing relevant materials, data and information. This legal study has collected relevant materials, data and information on cloud computing in general. These were critically assessed and analyzed.

Flow of data and its economic benefits

The relationship between flow of data and economic growth: A crossborder data flows have been an important activity as it benefits the development of not only

economic but also political and social worldwide. With the increase use of electronic commerce, the global transfer of substantial amount of personal data occurs. This huge transfer of information have benefited both the companies and individuals as it lowers the necessary cost, more efficient and very convenient to parties in the transaction (Munir and Yasin, 2010).

The globalization of world economy has impacted on various economic activities which include the wholesale reduction of capital controls, for example exchange controls and controls on the international sale on purchase of financial assets. Apart from the earlier, it encourages the liberalization of the international trade through the well accepted General Agreement on Tariffs and Trade (GATT) and efforts taken by the World Trade Organization (WTO) (Kuner, 2010).

The increased globalization of the world economy requires substantial effort in data processing. This leads to the growing importance of personal data processing which contributes to the growing of economy. This is supported with the fact that the industry for data analytics alone is worth over USD 100 billion (Liebenau *et al.*, 2012).

Cloud computing, personal data processing and economic growth: It has been proven that the personal data processing has contributed in economic growth. This globalization is improved dramatically with the increased adoption of cloud computing. Cloud computing functions as a strong engine for the development of businesses around the world. The growth of cloud computing is encouraged by the greater access to advanced computing resources at a low price (Chik, 2006).

The floating nature of this technology enables it to be positioned in a place where the infrastructure, labour and the government policies are more efficient which can assist the growing of a business.

Consequently, cloud computing makes available an innovate choice to all types of businesses across all sectors of economy. This technology has been very useful to a big corporation but it has given more benefits to small-medium size of entities as those companies are lacking in IT resources. With the advent of cloud computing a country where access to technological infrastructures is limited can benefit tremendously from this technology. This is because with this infrastructure, everyone has equal opportunity to access to the same quality of software application (SIIA, 2012).

The application of cloud computing servers may give effect to business productivity in the following 3 ways:

- Decreased time-to-market for new products
- Efficient scaling (up and down) of applications and
- Management time saving

With the replacement of in-house IT, software and support with the implementation of cloud computing technology, it has been evidenced that 5% of greater management time was available for other tasks. As the use of cloud service is highly dependency on data centers, a company may provide business to other firms without having to incur substantial expenses.

Having the earlier discussion in mind, it is submitted that flow of information transborder lessly is very much needed in the business transactions. This indirectly helps in boosting up the productivity of a company. Nevertheless, transfer of data from via cloud services which is mainly based on economic sense and networking perspective faces a legal policy.

These are a number of countries in the world which sets some limitations in the transfer of data outside the geographical location. These restrictions are usually imposed for policy reasons related to privacy, security and landscape protection. These legal or policing issues go beyond only cloud computing transactions but cloud computing providers are amongst players of the internet that likely be imposed liability on.

The current legal developments in Malaysia has witnessed the establishment of a new personal data law called The Personal Data Protection Act 2010.

Personal data protection law transborder data flows restrictions

Malaysian Personal Data Protection Act 2010 (Malaysian PDPA 2010): In Malaysia, the personal data protection bill 2009 was finally tabled on 19 November, 2009 in the parliament and by the lower house passed the bill on 5 April, 2010. By implementation of personal data protection bill 2010, Malaysia can be considered as one of the data protection pioneers in the Asian region (Yen, 2010).

This legislation was passed on 5 April, 2010. The purpose of the act basically is regulating on collection, holding, processing and use of personal data in commercial transaction and also to avoid misuse of personal information. PDPA is applicable to a data user or processor who is established in Malaysia. It also includes a user or processor who is not established in Malaysia but he uses the equipment in Malaysia for the purpose of processing personal data which includes transitional purposes through Malaysia.

Personal data is defined in Malaysian PDPA 2010 as, any information in commercial transactions which is processed or recorded that directly or indirectly relates to a data subject as owner of data including sensitive personal data and expression of opinion about the data subject but does not include any information that is processed for the purpose of a credit reporting business carried on by a credit reporting agency under the Credit Reporting Agencies Act 2010.

In certain circumstances, the Malaysian PDPA 2010 treats personal data differently from sensitive personal data. Indeed, processing of sensitive data needs explicit consent of data subject. Sensitive personal data means any personal data involves information in respect of the data user's physical or mental conditions, such as name, report, identity card number, telephone number, photograph, fingerprint or DNA his political or religious opinion or beliefs, the commission or alleged commission of any offences or any other personal data as may be determined by the Minister with by permission published in gazette (PNMB, 2010a).

Data user's liability: The Malaysian PDPA 2010 has prescribed a number of responsibilities for data user in processing personal, such as data user's requirement to register (PNMB, 2010b). Furthermore, data user should take practical steps to protect the personal data from any loss, misuse, modification, unauthorized or accidental access or disclosure, alteration or destruction under security principle of PDPA (PNMB, 2010c). As earlier mentioned were some examples of duties given to the data user. In addition to that, the Malaysian PDPA 2010 prevents data user from doing certain actions such as disclosure of personal data without consent of data subject (PNMB, 2010d). According to the Malaysian PDPA 2010, data user will be liable if he behaves against the law or his actions result to disclosure or any misuse or destruction in personal data. With regards to the cloud computing technology, the responsible party is the individual who complied with the definition of Malaysian PDPA 2010, i.e, the service provider who is the data user.

Data subject's right: The Malaysian PDPA 2010 establishes certain rights for the data subjects. These are provided for under division 4 of Part II of Act. These rights allow the data subject to complain to the commissioner should his rights been violated. The complaints later provide a basis for the commissioner to carry out an investigation.

The act gives various rights to individuals to safeguard their personal data, such as:

- The right of access to personal data
- The right to prevent processing for the purposes of direct marketing
- The right to correct the personal data
- The right to prevent the collection, holding, processing or use of any personal data which is likely to cause damage or distress
- The right to withdraw such consent

Restrictions on the transborder data flows: According to the PDPA, transferring personal data to a place outside Malaysia is prohibited and amounted to an offence unless the country that involved is specified by the minister of Malaysia in the gazette. In determining countries in the gazette, the minister must ensure that there is a similar law enforced in those particular countries or those countries warrant an adequate protection for data subject's rights and freedoms with regard to the processing, collection, holding or use of personal data. Nevertheless in certain circumstances, the earlier rule would not be applied in a situation where the data subject has assented to the transfer of the personal data or in case of necessity where transfer of personal data is needed, such as for the performance of a contract among the data subject and data user, for the termination of a contract among a data subject and a data user in relation to any legal proceeding, for the purpose of obtaining legal advice to support the basic interest of data subject or for the purpose of public interest (Tee, 2002).

It is not clear on the amount of transfer in the Malaysian PDPA. However, the medium of transfer has been mentioned in the Council of Europe Convention where it defines transborder data flow as the transfer across national borders of automated person's data by whatever medium. Any transfer could be through telecommunications, for instance facsimile services, as well as computer networks, utilization of satellites or even transferring materials via email. It is the obligation of the Malaysian Minister to determine which countries are eligible to send and receive personal data and it can be materialized through the white list. Under section 129 (2) of the PDPA, factors should be considered by the minister in creating the decision are:

- There is in that place in force any law which is substantially similar to this act or that serves the same purposes as this act
- That place ensures an adequate level of protection in relation to the processing of personal data which is at least equivalent to the level of protection afforded by this act

Therefore, the minister must specify countries throughout the world that have data protection law. The list may consist amongst all countries in the European Economic Area (EEA), Japan, Hong Kong, Korea, Canada, Australia, Macao, New Zealand and Argentina. In addition, the minister must investigate whether the law those countries is considerably similar to the PDPA. It seems that the words substantially similar mentioned in the PDPA are to ensure that the related third country has equal data protection law as in the PDPA.

CONCLUSION

Cyberspace technology which includes cloud computing has transformed the way data flows. The sharing of information through global communication allows efficient management of business and offers better alternatives of products and services. In other words, with the radical change in the manner data transacted inside and outside a country has influenced positive growth in economy.

Nevertheless, the growing public concern on the misuse of personal data has led to the enactment of privacy law, such as the Malaysian Personal Data Protection 2010. This law imposes certain obligations and sets necessary rights to individuals and provides prohibition of transfer of data to other countries provided that certain requirements are met.

LIMITATIONS

This cross border limitations as a matter of fact has given an impact on the choice and quality of products and services offered to the consumers around the world. This adverse effect on economy is not only due to the prohibition of cross border transfer but it also occurs because of the different standard of privacy protection from one country to another. This inconsistency of protection has caused difficulties in dealing with transfer of data worldwide. Furthermore, the application of complicated regulations on cross-border restrictions will lead to lose out on business opportunities. This can be happened particularly in the developing countries.

It is submitted that the protection of law is important in ensuring the proper use of data and guaranteeing the rights and interest of individuals. However, the patchwork arrangement of cross-border privacy protections can be minimised through the development of standard privacy rules. These rules should be adopted by corporate sectors in carrying out business transactions over the internet (Wugmeister *et al.*, 2007).

Implementing consistent corporate privacy rules would solve many hassles brought about by various personal data laws adopted by different countries. It allows the management of data in more standard and reliable manner across organizations regardless where the data may be exported. As the companies are accountable for the safeguarding of the data and entertaining complaints posed to them, any individual may obtain proper recourse in a country without data protection law and perhaps more effective recourse in a country where the said law is in existence.

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