

## Innovation and Advancement of Technology: Trend & Policy

by Raphael Tay and Ko Chia Chea

*featuring* Tetsuo Morishita, Prof. Tran Viet Dung and Kim Byoung-Pil

It is undeniable that law and policy play an essential role in promoting innovation and advancement of technology. They can either stifle or cultivate competition, innovation and accountability in the business world. An interesting question that has been prevalent is this: Can the law and regulators keep up with innovation?

We posed pertinent questions to legal academia and professionals who have had the experience and exposure to developments in the region, namely Japan, Vietnam and South Korea, and whom our team has had the privilege and honour of working with or engaging in the past.

We start by exploring the trend of innovation and advancement of technology in the region, and the impact it has had on businesses. Then, we seek their views on the role and impact of the law and policy on these developments.

**TETSUO MORISHITA** has been Professor of Law at the Sophia University Law School in Tokyo, Japan, since 2007. The fields of his academic research are placed in banking and financial law, international business law, and negotiations. He earned his Bachelor of Laws from the University of Tokyo (March 1989) and received an MA in Law from the same university five years later. He worked for Sumitomo Bank for 10 years before moving to Sophia University. He has chaired the Payments Council on Financial Innovation of the Financial Services Agency in Japan (FSA) since 2016. Since March 2014, Professor Morishita has been a member of the Japanese Bankers' Association (JBA) Tokyo Interbank Offered Rate (TIBOR) Oversight Committee.

**PROFESSOR TRẦN VIỆT DŨNG** is Dean of the International Law Faculty at the Ho Chi Minh City University of Law in Vietnam. His expertise is in international investment, M&A, trade and competition, and international

dispute settlement. He has been lecturing at the top law schools in the region and in Europe. Professor Trần combines academic knowledge with practical experience as an international lawyer. He was country manager of KhattarWong Vietnam, legal adviser for the IT Projects Management Office of HCMC's government, and is now senior consultant of Victory LLC.

**BP (BYOUNG-PIL) KIM** is a full-time practice professor with the College of Business at the Korea Advanced Institute of Science and Technology (KAIST). He is also an attorney-at-law licensed to practise in South Korea. He was a partner of Bae, Kim & Lee LLC before joining KAIST in 2018. His teaching subjects include entrepreneurial laws and IP law and corporate strategy. His research focuses on the interaction between technology and law, including regulation on data protection, AI in legal service and ethical issues of AI.

**(1) Is technology a critical part of businesses? If yes, how? If not, do you think that it can play a bigger part, and what is preventing it from playing a bigger part?**

**Morishita:** Yes. In many business areas, how to use new technologies and how to address various legal and regulatory issues raised by them have been critical issues in Japan. For example, fintech is the hottest issue in the finance business in Japan. Also, how to use robots, AI, blockchain, IoT, cloud services and big data have attracted a lot of attention in a wide range of business areas. A lot of experiments have been conducted, and various products and services using such new technologies have been offered. According to the survey by the Ministry of Finance about the use of advanced technologies by industries, about 65% of respondents have been

using one of the new technologies such as IoT, AI, robots, cloud, and big data.<sup>1</sup> The survey shows that robots and the cloud are two leading technologies that have been used. AI is the technology that many respondents want to use, but have not succeeded. The main reasons why it would be difficult to use the technology in their business are lack of human resources and cost effectiveness.

**Trần:** Today, technology plays an important role in economic activities in Vietnam. That role is seen through two points: (i) Technology contributes to creating new business models, challenging old business models. Fields such as transportation, marketing and distribution are typical examples. (ii) Technology contributes to supporting enterprises, optimising cost of production and improving business efficiency. Thereby, it helps enterprises compete better.

**Kim:** Undoubtedly, technology has been critical to South Korea's economic growth. In 2018, South Korea was ranked first in terms of the ratio of research and development (R&D) spending to GDP (4.55%), which was higher than Israel's 4.25%. The total R&D investment from both private and public sectors reached approximately US\$70 billion, which is the fifth largest in the world. A notable feature in South Korea is that R&D activities are primarily centred on large conglomerates. This is in contrast with Israel, a so-called "Startup Nation", where high-tech startups are leading the technological developments. The major challenge is that SMEs fail to earn sufficient surplus to expand R&D spending. For example, in the automobile industry, while Hyundai Motors has grown into the world's fifth-largest carmaker, many local auto parts suppliers have yet to become globally

<sup>1</sup> <[https://www.mof.go.jp/about\\_mof/zaimu/kannai/201803/sentangizyutu091.pdf](https://www.mof.go.jp/about_mof/zaimu/kannai/201803/sentangizyutu091.pdf)> was made from September-October 2018 and 1,277 companies (622 large, 338 middles, and 317 SME

competitive. Several scholars have argued that it is imperative to overcome such polarisation through government policies.

**(2) Has the growth of fintech made financing more accessible for startups and SMEs in recent years? Can it be improved further?**

**Morishita:** The majority of fintech businesses have been targeting retail markets and consumer transactions, and fintech has not made a significant contribution to improve financing for startups and SMEs. However, the use of crowdfunding for fundraising has been increasing. According to a survey by Yano Data Bank, the volume of crowdfunding in Japan increased from about ¥7.5 billion in 2016 to about ¥17 billion (about 90% of the crowdfunding in Japan is social lending). Even when startups and SMEs are not able to borrow money from banks, they may raise funds through crowdfunding. There have been cases where banks introduce crowdfunding platforms to SMEs when they are not able to lend by themselves. By getting more familiarity in public, crowdfunding might be able to increase its presence in fundraising for startups and SMEs.

**Trần:** In Vietnam, fintech is still a new field. Currently, it is limited only to the establishment of payment intermediary tools, such as e-wallet. With the nature of payment intermediary, these tools do not have the function of providing finance to enterprises. However, fintech in Vietnam is seen as an important element in promoting the development of e-commerce.

**Kim:** Regrettably, South Korea is still lagging in fully embracing fintech, which is ironic, given the advanced consumer finance market. South Korean commercial

banks are well-equipped with a convenient and stable online banking system and thanks to a government tax subsidy since the late 1990s, South Korea now has the highest credit card penetration in the world. In contrast, corporate finance and capital markets have been repeatedly criticised for their rigidity and insufficiency, which are distinctively unfavourable for startups and SMEs. Again, this phenomenon is often said to be related to the concentration of financial resources to large conglomerates. The government has taken several financial policies to support startups and SMEs, which in turn are alleged to have resulted in a market distortion without much efficacy. An interesting development is the legalisation of crowdfunding for SMEs in 2016. For the past three years, over 400 SMEs have raised funds of approximately US\$70 million through crowdfunding. This can be a small but significant example for adopting fintech in a broader spectrum.

**(3) How has the growth of technology affected the marketing and distribution channels for businesses?**

**Morishita:** Yes. The growth of technology has affected the development of marketing and distribution channels. Digital marketing is now an essential part of marketing and distribution strategies, and various “ad-technologies” have been introduced. Increasingly, Japanese companies are setting up departments that are in charge of digital marketing. However, the recent report of Boston Consulting Group points out that Japanese companies are behind European and Asia/Pacific companies as fewer companies have succeeded in integrating data from different sources and activating such data across various marketing channels.<sup>2</sup>

<sup>2</sup> “Digital Marketing Maturity in Japan is Half a Step Behind European Companies-BCG Survey”, press release by Boston Consulting Group (9 May 2019) <<https://www.bcg.com/ja-jp/d/press/9may2019-digital-marketing-maturity-index-survey-219760>>

**Trần:** Technology has an enormous impact on both areas, specifically: (i) there is a big shift in marketing activities — from newspaper and television to digital marketing activities, in which the cost for advertising platforms of Facebook and Google accounts form a large part of the total cost of the enterprise; (ii) technology has contributed to the creation of e-commerce trading-floors, drastically changing the distribution industry. Contemporarily, there is a tendency for SMEs to use delivery services (developed from sharing economy) to distribute goods to final customers themselves instead of leaving this to the customer's part as before.

**Kim:** Like anywhere else in the world, e-commerce is exponentially expanding with competition getting fiercer. Lacking a dominant incumbent, e-commerce industry in South Korea is still quite fragmented among traditional retailers and new entrants. Intensive urbanisation and developments in logistics infrastructure made it possible to innovate the distribution channel in a consumer-friendly way. The recent growth of Coupang, a company founded by a Harvard graduate and funded by SoftBank's new Vision Fund, is a noteworthy example. In 2016, it launched a "rocket delivery" service to deliver many of the best-selling products ordered at midnight by 7am the next morning. Coupang recorded a US\$1 billion loss for 2018 largely due to that service, but successfully secured the leading position. Apparently, the Vision Fund is supportive of such cutthroat competition. Other e-commerce companies such as eBay Korea and traditional hypermarket retailers are struggling to cope with the heightened competition.

**(4) What are the new business trends or models which are notable or interesting in recent years, whether in your jurisdiction or elsewhere?**

**Morishita:** In my view, the use of AI, blockchain and data are three key topics which will have a significant impact on businesses as well as on laws. Using AI

for business has become popular in various sectors. Many types of crypto assets have emerged based on blockchain technology. Though there are various scepticisms on crypto assets, many people believe blockchain technology has enormous potential and a bright future. No one would doubt that how to use big data is the key to the success of the business. On the other hand, there are a lot of uncertainties in the laws relating to them. How would conventional contracts and tort laws be applied to AI? What is the legal nature of crypto assets, and which laws would be applied to legal issues relating to blockchain? What kind of rights and obligations would relevant parties have on personal and corporate data? Such legal uncertainties could impede the sound development of new business relying on new technologies and big data.

**Trần:** In Vietnam, there are two new business models formed and developed with the explosion of technology: (i) Sharing economy (typical examples are Uber, Grab, Go-Viet, Ahamove, Airbnb and Nhomma); and (ii) e-commerce (Sendo, Lazada and Foody). E-commerce trading floors have exploded, creating fierce competition with traditional business models. It should be noted that the technological revolution has also changed the consumption habits and the approach of enterprises to business activities. Accordingly, Vietnamese consumers are on the rise for online purchases and cashless payments. Subsequently, to keep pace with the market, enterprises are also inclined to apply payment intermediary activities, digital marketing and logistics rather than opening stores as has been the traditional approach.

**Kim:** Regulatory hostility against sharing economies (particularly, ride-sharing like Uber and accommodation-sharing like Airbnb) stimulated a major social debate in South Korea. Indeed, ride-sharing is prohibited with a few minor exceptions exploiting a regulatory loophole while

accommodation-sharing is partially allowed only for foreign tourists. Many tech platforms have strongly demanded de-regularisation, but the government is still on the side of many small taxi operators and hotel/motel owners. The government has been leading the dialogue between tech platforms and transportation incumbents and recently proposed a compromised plan to innovate regulations on taxi service. But this is a highly political matter, given the potentially devastating effects on the individual taxi drivers. Another notable case is the ongoing dispute on the revision to the Personal Information Protection Act. After the repeated data leakage accidents in 2000s, South Korea enacted a strict privacy protection law, which is allegedly one of the most stringent in the world. In 2018, the government held a so-called “Regulatory Innovation Hackathon” on the issue, an open-ended debate discussing the potential de-regularisation. Several distinguished scholars, legal practitioners and social activists participated and reached tentative agreement to a modest revision. However, the debate is still underway as it turns out to be very difficult to find balance between two conflicting values: the importance of utilising big data in the era of AI and the need to ensure the protection of privacy of citizens.

**(5) What is the policy framework in your country to foster innovation and what can the government do to improve it?**

**Morishita:** The Japanese government is very active in fostering innovation and activating new technologies. In 2016, it introduced “Society 5.0”, the concept for a future society that Japan should aim for. Society 5.0 is a super-smart society where we can resolve various social challenges by incorporating innovations such as IoT, big data, AI, robots and the sharing economy into every industry and social life.<sup>3</sup> In the “Action Plan for the Growth Strategy” published by the government in June 2019, the implementation of Society 5.0 is one of four areas the government should focus on. At a more

concrete level, the Japanese government has been taking various measures to support innovation — for example, in 2018, the Council for Strategy for public and private sector data utilisation in the government-published “Basic policies for the development of the regulatory framework for automated driving” to foster the development of the automated driving system. Also, in 2015, the Financial Services Agency set up the fintech support desk to support fintech companies.

**Trần:** The Vietnamese government has expressed the industrial policy in light of the 4.0 technological revolution. It has taken steps to realise this policy, however, with caution to mitigate the risks of technology. For instance, Vietnam has yet to develop any laws regulating the sharing economy activities, but the government allowed Grab and some other technology-based transportation companies to operate on a pilot basis. In 2019, the prime minister has adopted Decision 999/QĐ-TTg, which confirms the national project to promote the sharing economies. The goal is to ensure an equal business environment among enterprises according to the sharing economic model and traditional economic model while ensuring the legitimate rights, responsibilities and benefits of parties participating in the sharing economic model, including service providers, service users and platform providers.

**Kim:** The government has continuously taken steps towards regulatory reforms with the aim of fostering innovation and boosting economic growth. The Regulatory Reform Committee was established in 1998, currently co-chaired by the prime minister and a former Supreme Court justice. The committee routinely monitors whether there is any superfluous regulation. In addition, the Presidential Committee on the Fourth Industrial Revolution was organised in 2017. It aims to coordinate important policy matters pertaining to new technology with focus on data economy and AI, which are chosen as the strategic investment sectors for innovative growth.

3 “Realizing Society 5.0” <[https://www.japan.go.jp/abonomics/\\_userdata/abonomics/pdf/society\\_5.0.pdf](https://www.japan.go.jp/abonomics/_userdata/abonomics/pdf/society_5.0.pdf)>

**(6) Has the government in your country adopted 'light-touch' regulation and is it an effective way of nurturing innovation?**

**Morishita:** Although the Japanese government is very supportive of innovation and is positive towards reducing unnecessary and unreasonable regulations, it would be difficult, or not appropriate, to say that Japan has adopted “light-touch” regulation, if such regulation means that the government puts more weight on innovation than on people’s rights and lives that should otherwise have been protected by regulations. The Japanese government is trying to find a good balance between the promotion of innovation and development of technologies, and the protection of people’s rights and lives. So, the government would introduce a new regulation if it is necessary to protect people’s rights though it might put additional costs on innovation. I think it is the attitude that Japan should continue with.

**Trần:** The Vietnamese government has openly admitted its support of technology and innovation. Hence, it is hard to confirm that the government adopted “light-touch” regulation to promote innovation. It has permitted the operation of technology companies gradually to assess their impact on society. Thus, Vietnamese consumers are still able to experience the services of various new business models (such as Airbnb and Uber) despite the fact that they are not being recorded by Vietnamese law.

**Kim:** The heavily centralised governance regime in South Korea is often criticised for presenting significant obstacles against local innovation. To address such problems, in 2018, the government adopted a so-called “regulatory sandbox” policy under which, in a specified region, regulations are temporarily suspended for the innovative companies approved by the relevant authority. This policy is expected to encourage local experimentation for new services and business models. Once it became clear what kind of regulations would be appropriate,

the government would later realign the regulations and enforce them. Such a scheme is welcomed by many innovative startups and several companies are already benefiting from the policy. It is too early to evaluate its effectiveness, but it is generally considered a successful start.

**Our views**

The general consensus from the answers is that laws and policies must not be too rigid because this will stifle innovation and the advancement of technology and also, new business models. “Light-touch” regulation such as the use of a “regulatory sandbox” may be suitable for certain countries or industries. At the end of the day, the government must find a balance between cultivating business innovation and protecting public interest.

In addressing this issue, we must understand that one of the root causes is the pervasive resistance to new technology and business models from certain sections of the public, particularly those who are most disrupted by it. These individuals are not necessarily disadvantaged by the new technology and business models — and in fact, may actually benefit from it if they are able to evolve — but because of their hostility to change, they become resistant to it. A prominent example in Malaysia is the hostility shown by conventional taxi drivers towards the ride-sharing service, Grab.

Hostility from a particular section of the public may pressure the government to ban or restrict new technology and business models. Therefore, it is also important for the government to have an effective and informative dialogue to spread awareness and assist with the transition for members of the public who are hostile or concerned with new technology and business models. The technologists and entrepreneurs bringing about the change can also play a part in this and incorporate the philosophy in their marketing and branding strategy.

**LH-AG**