# [ Kibe-log ]

Director Representative Executive Officer President and CEO Kibe Kazunari

#### <sup>#17</sup> Factors hindering the implementation of new technologies

Dear Stakeholders, I am Kazunari Kibe, President and CEO of INFRONEER Holdings Inc. Thank you so much for reading the "Kibe-log" again.

In this issue, I would like to think about the mindset of Japanese people that hinders corporate innovation—specifically, the fixed ways of thinking and perspectives.

In this February, I had the opportunity to visit the U.S. professional basketball NBA All-Star game held in San Francisco with Mr. Shinji Shimada, chairman of the Japan Professional Basketball League (B-LEAGUE), of which INFRONEER is an innovation partner.

INFRONEER's business goal is to operate, maintain, and renew aging infrastructures in Japan (including the construction of new infrastructure) by utilizing public-private partnerships (PPP) and other methods. Aging infrastructures includes public facilities such as the arena where B-LEAGUE is based. We visited the Chase Center in San Francisco to learn about the NBA's arena operation, which is known as the world's most prestigious arena operation.

The NBA All-Star game was a great performance, but in fact, it was not the All-Star game that left the biggest impression on me during my business trip to San Francisco. What surprised me most was my first experience with Waymo's autonomous driving taxi.

#### What is blocking the implementation of autonomous driving

As many of you may have already experienced, autonomous taxis such as Waymo are common on the streets of San Francisco. In the past, there were several issues that needed improvement, such as long waits for passengers in one lane-road causing traffic congestion, and the difficulty of merging into lanes during heavy traffic. However, today, autonomous taxis are smoothly navigating the streets without any

major problems.

I took an autonomous taxi to the Chase Center in San Francisco, where the All-Star Game was held. The driving felt like that of a cautious driver, with smooth acceleration, braking, right and left turns, and overtaking, and there was no sense of discomfort. Getting in and out was also easy; you simply download the dedicated app on your smartphone and hold a QR code over the car door.

Currently, they are not allowed to drive on freeways, but they will be able to drive on those roads in the near future. Japan is also conducting feasibility studies on autonomous driving, but honestly speaking, I felt that there is a large gap in the progress of autonomous driving between Japan and the U.S.

This technological evolution was also strongly felt in Shenzhen, China.

Last December, I was in Hong Kong for investor relations activities. I had some time before my flight home, so I asked a local employee of a joint venture company with China to give me a hands-on delivery service by a delivery drone. In Shenzhen, delivery drone services started last year, and fast food can be delivered through a delivery app. We tried that.

When we were waiting for the drone at the pick-up site, we saw It flying 200 meters above the ground between skyscrapers and coming to us with a "boom" sound from its propellers. Then it landed on top of a vending machine-like facility and began unloading the merchandise. We entered the PIN number and the product came out. Currently the delivery is mainly available for food and beverages but I thought that drone delivery would soon become more common. (There are reports saying that the company will increase the pickup locations to 2,000 by the end of this year.)

I have always believed that the lack of progress in autonomous driving and drone delivery in Japan is due to Japanese regulations. I believed that the reason for the lack of progress in pilot tests and implementation in real world is due to the many legal restrictions, such as the Road Traffic Law and the Civil Aviation Law. If this is the case, then Japan should utilize the special zone system to ease regulations in that zone and actively encourage the development of autonomous driving and drone delivery to catch up with the U.S. and China.

However, I have recently changed this view. There is no doubt that laws such as the Road Traffic Law and the Civil Aviation Law impose practical constraints on the pilot testing and implementation of new technologies in real world. But even if the regulations were eased, I honestly doubt that technology will be adopted as fast as it is in the U.S. and China.

So why is technology implementation and innovation not progressing faster in Japan?

I believe that, at its core, the Japanese mindset is hindering innovation. One of the reasons I have come to believe this is the recent "My Number Health Insurance Card" turmoil.

#### Why do Japanese people hate "numbers"?

The issuance of paper Health Insurance Cards came to an end last December along with the transition to the "My Number Health Insurance Card", which combines the My Number Card (like a U.S. Social Security Card) and the Health Insurance Card. Then various criticisms were raised over the suspension of new issuance of traditional paper Health Insurance Cards, seeing errors in linking the My Number Card to the Health Insurance Card, malfunctions in the card-readers, and lack of necessary support for the elderly and other information-vulnerable groups.

However, it is common practice in developed countries to assign some sort of ID number to each citizen and centrally manage everything such as taxes, pensions, health insurance, and medical information. Cash relief during the COVID-19 pandemic should have been limited to those whose incomes had fallen badly, but because the authorities were unable to ascertain the income situation of everyone, they had no choice but to provide a uniform amount of cash to everyone.

Frankly speaking, "My Number" is just a number. Even if someone else were to find out my number, it would not be misused because it requires identification with a picture of my face.

It is the same even if you have my account number, it doesn't mean you can withdraw cash. In this way, I feel that the controversy over the My Number Health Insurance Card is a case that really shows the characteristics of Japanese people who dislike "numbers".

Long time ago, I once researched why the introduction of credit cards was delayed in Japan among developed countries. A credit card is a card on which the subscriber's number, name, bank account, and other information are recorded. I thought that the attitude of avoiding credit cards was a sort of refusal to expose of one's own data.

In fact, my research revealed the fact that the introduction of credit cards took a long time, especially in Japan and Germany. So, upon further research on Germany, the Nazi oppression during World War II was the underlying reason for this. The Nazis used the personal information of its citizens to religiously oppress the Jews. That bitter experience led to a rejection of the state's access to personal information.

In contrast, I am not sure of the fundamental reason why Japanese people dislike the number system so

much.

Perhaps there may be some reflection on the prewar controlled system inclined toward militarism, as seen in the media's simultaneous reaction to the threat to privacy and "freedom of speech" at the time of the enactment of the Basic Resident Registration Network System (Juki Net) and the Personal Information Protection Law. Another possibility is that the Japanese culture that prefers anonymity is deeply rooted in the hearts of Japanese people, as seen in the use of Haigo and Gago (penname of haiku and waka poems).

Or it could be a lack of trust in the country itself.

When I once had a meeting with a professor of economics at the University of Lithuania, a university known for its e-government, the official told me that the consumption tax rate correlates with public trust in the country (at that time, the consumption tax rate in Lithuania was low). Nordic countries are famous for their high tax burden and high welfare. He said that people have the feeling that taxes are considered savings and deposited for the social security benefits they will receive in the future. If they do not trust the country, they would not feel that they are "depositing" their taxes.

#### If you do not try, innovation will never happen.

In addition to this sense of rejection regarding the number system and the handling of personal information, we cannot ignore the risk aversion of the Japanese people. Perhaps it is the difference between farmers and hunters, but the Japanese have a national tendency to prefer maintaining the status quo or gradual change rather than taking risks and trying new things.

For example, there was an accident in 2018 in which Uber Technologies' autonomous driving vehicle hit and killed a pedestrian. Although for this Uber was strongly criticized in the society, the test driving of autonomous driving vehicles itself was never banned, which led to the current spread of autonomous driving taxis.

Accidents like the Uber case must be avoided at all costs, and for this reason, safety and other measures must be fully considered. However, to implement a new technology into society, it is essential to go through the process of actually trying it out and then fixing any problems as they arise.

However, because Japanese people are extremely risk averse, the initial process of "trying things out" is too slow and the scale of the process is too small. Even if they try to start something new, if they are criticized,

they will stop taking on new challenges, pandering to society. The world of politics is a typical example.

Japanese companies should have the technology to enable autonomous driving and drone delivery, but there is no place to test new technologies due to the risk averse citizens.

That won't help us win the competition with U.S. and Chinese companies. Some Japanese companies have already decided to move overseas to try out new technologies, giving up on Japan. I believe that such companies will increase in number.

The situations of autonomous driving and drone delivery described above are only examples.

From now ow, a major social experiment on how to integrate AI into the framework of society will begin. What will happen then is fierce competition among companies to analyze large amounts of data and create innovations. I am quite pessimistic about whether the Japanese mindset of numbers, data and risk aversion can stand up to this competition.

INFRONEER is prepared to boldly challenge this mindset.