



The Digitalization of Japan

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Japan is one of the most wired countries in the world, but cloud adoption is less than half of what it is in many other countries, and fewer than 10% of government administrative procedures in Japan can be completed online. Something is getting lost in translation, as we saw in Sofia Coppola's 2003 film, and that means there may be a large opportunity for growth ahead.

Evolution, Not Revolution

Much of the productivity in different economies around the world has historically come through labor and capital. More recently, however, a large part of productivity has been driven by technology-led innovation—technology that makes it easier for us to access products and services.

At its core, this technology involves digitalization, which is distinct from digitization. Digitization involves moving processes from analog to digital—transitioning from human-based work to machine-based work, often through the internet. It is faster, cheaper, more efficient, and frictionless. Digitalization, meanwhile, goes beyond the mere implementation of technology; it's about driving deep change to entire business models in a way that can provide access to new and differentiated revenue opportunities.

Digitalization isn't revolutionary; it is evolutionary. It has been happening for the better part of 20 to 30 years, since the onset of the internet. But adoption has been different in different countries—faster in the West, slower in emerging markets.

Japan is a peculiarity: although the country is a traditional hub of innovation and home to numerous technology companies, a recent survey by *The Economist* of 30 OECD countries ranked Japan last in providing digital services. Fewer than 10% of its citizens requested anything from the government online in 2018 (versus 80% of Iceland's citizens). Japan is even behind countries considered relative technological laggards, such as Mexico.

Speaking more broadly, IT spend in Japan has been focused on outsourced (or custom) development, rather than packaged or standardized software, with a near 85:15 split versus a more evenly balanced 50:50 ratio in the United States. Adoption of cloud software is less than 20% in Japan, lagging many other countries, where it is over 40%.

Tailwinds to Growth

That means there is likely a huge opportunity for growth, and today a few tailwinds are bringing the topic of Japan's digitalization to the forefront of global investing.

The first is demographics. More than 20% of Japan's population is over 65 years old, the highest proportion in the world. By 2030, one in every three people in Japan will be 65 or older. Digitalization is critical to boosting the country's productivity when much of the population is out of the labor force.

More recently, COVID-19 emphasized some of the problems with the country's paper-based culture. To get licenses and participate in most social programs, for example, Japanese citizens must physically show up at a government office and get a stamp called a "hanko." This was problematic when COVID-19 struck, because the employees responsible for stamping the hanko couldn't get to work, and approvals thus didn't get processed. Productivity declined.

In addition, Suga Yoshihide, Japan's prime minister since September 2020, has made the digitalization of Japan's government one of his priorities, including the setup of a dedicated agency to focus on digital transformation. Government incentives that drive cashless forms of payment is one example of this.

Why the Excitement?

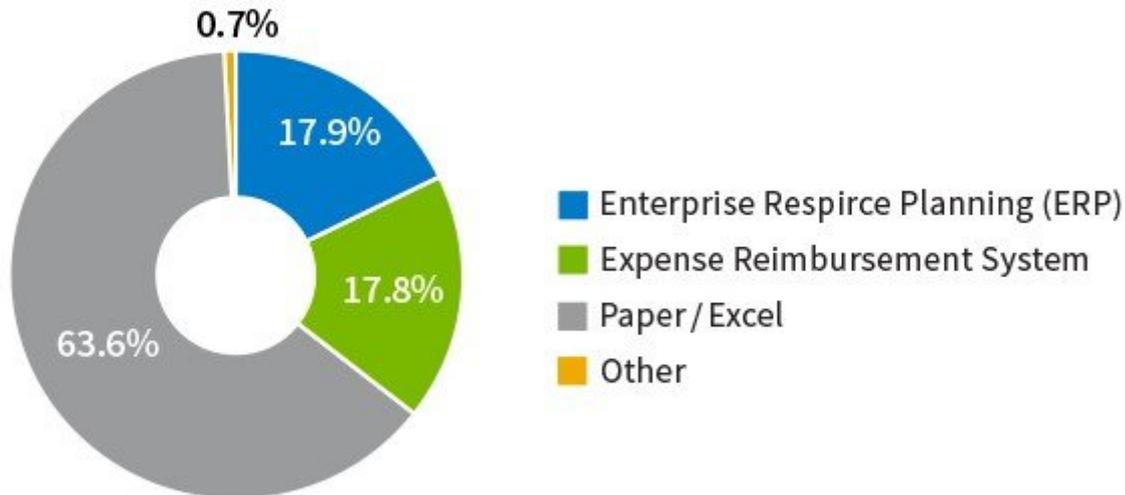
The size of the Japanese economy and the fact that growth in digitalization is coming off a low base presents a compelling opportunity, in our view.

According to the Daiwa Institute of Research, a Tokyo think tank, moving government services alone online could permanently boost per-capita GDP by 1%.

Thus, we see a long runway for growth—we are in the early innings, but the pace of adoption is rapid. For example, e-commerce penetration in Japan, at 10%, is significantly behind that of both developed countries and Asian peers.

Expense Settlement Methods in Japan

Adoption of digitized expense management systems is still under 20%, and a majority of expenses are settled by paper or spreadsheet, suggesting opportunity for growth.



Source: William Blair and company data, as of March 2021.

Opportunities on the Horizon

We see opportunities in three key areas.

The first is software-as-a-service (SaaS), an opportunity that increases as more applications move to the cloud, providing standardized software that can be used by multiple different clients. SaaS business models are common in the West but still rare in Japan. Opportunities include the digitalization of expense management; e-invoicing; cybersecurity; and the facilitation of document e-signing.

The second is IT services. Once a company has purchased software, it requires support services—installation, maintenance, integration, and quality control. There are also opportunities in external software validation and testing. Digital transformation efforts and a focus on customer experience are leading to IT service providers moving away from their legacy, lower-value-additive system integration businesses toward newer-age, higher-value-add innovative services.

Lastly, we see opportunities in online marketplaces, where Japanese citizens can connect with service professionals. Familiar examples include lawyers and accountants (which, while familiar in the United States, are unique in Japan). But end-of-life services marketplaces also offer potential. In the West, we use online communities to find organizers and nannies, but the Japanese use these marketplaces to find elder care professionals and funeral services.

It is also noteworthy that many of these companies are entrepreneur-driven and founder-led, a departure from legacy conglomerates with bureaucratic processes and a culture of seniority outranking merit. In fact, some of these companies are focusing on becoming global best in class on talent management: they emphasize a strong sense of company culture, innovating constantly, hiring the best talent, being competitive, and using best-in-class

technology.

The ESG Component of Digitalization

It is easy to see how digitalization helps facilitate the environmental aspect of environmental, social, and governance (ESG) considerations: it reduces the use of paper and travel transport, so there is less waste and carbon intensity.

From a social angle, the digitalization we have discussed helps the elderly get the care they need, helps small and medium enterprises get online for the first time, and helps a rural demographic access information and services in a transparent way.

In addition, from a governance perspective, digitalization involves the use of innovative practices to drive entrepreneurial organizations with best-in-class cultures and incentive structures that are based on merit and productivity.

Addressing Risks

Sofia Coppola's 2003 film *Lost in Translation* showed us just how foreign Japan's culture can feel; how does that affect our investment case?

Everything is relative. Compared with the United States or Western Europe, Japanese corporates have a lower level of corporate governance disclosure in general. Yet a push for reform over the past five years under former Prime Minister Shinzo Abe has led to an increased focus on areas such as independent board membership and gender diversity. New listing and capital market requirements set to come into effect starting in 2022 could be another catalyst for increasing transparency.

At the same time, language and cultural barriers exist, and skill is required to appreciate the nuances of a highly localized business model—knowledge of local business practices, experience in engaging with corporate management teams, and appreciation of the society's moral norms and constructs.

A good example of this is within cybersecurity. Companies around the world specialize in this service, but in Japan the successful model needs a high level of local contextualization because identity management requires integration with hundreds of locally developed software solutions that enterprises use, along with 24/7 customer support. Integration with the local technology ecosystem is hard for global software providers whose solutions are first developed for use in the United States and then exported to Japan. The same is true for other software, whether it facilitates electronic signatures on documents or provides an expense management platform.

The Role of Active Management

That is why we believe active investment management is so important. It is difficult to take a global solution and apply it to Japan, or for that matter any market with a highly localized culture and context. You cannot take any piece of software, translate it to Japanese, and set it to work. Many local problems require local solutions, and uncovering those solutions requires active management.

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