

Building Business Ecosystems and Accelerating Reform through DX

Value Creation Starting with Light Economy

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After first working at The Long-Term Credit Bank of Japan studying investment banking in the IT sector, he joined the Ministry of Economy, Trade and Industry from Sony Corporation as one of the ministry's first round of mid-career hires. He remained at the ministry until 2010, with roles that included serving as the Director for Information Economy, Information Policy Unit, Commerce and Information Policy Bureau; as Director of the Information Service Industry Division, in the Minister's Secretariat (with responsibility for boosting demand); and as Director for the New Industry & Job Creation Policy, Economic & Industrial Policy Bureau. He then joined Sharp Corporation where he was engaged in work on new cloud-based services, serving as head of the newly created Cloud Computing Technology Development Group and as deputy head of the Research & Development Group. He left Sharp in 2012. After serving as a board member of Hitachi Consulting Co., Ltd., he took up his current position in 2014.

Why is it Necessary to Build Business Ecosystems?

The world is currently in the midst of the unprecedented threat posed by the coronavirus pandemic. It is as if the socioeconomic system, which in the past has concerned itself solely with the progress of humanity and that had been in a gradual process of revision driven by recent developments such as the Sustainable Development Goals (SDGs), has now been delivered a serious warning from a global ecosystem that is reaching its limits.

Nevertheless, even though a state of emergency has been declared in Japan, people are struggling on and it is not as if finance, logistics, and other forms of economic activity have come to a halt. Among the things distinguishing our current predicament from the Spanish flu of a century ago is our ability to have goods brought to our homes by delivery services and pay for them online. It also seems likely that the practices adopted at business and educational facilities out of concern for social distancing will have acquired such momentum that they will carry on into the post-pandemic society.

A key reason for this is none other than the global spread of the computer networks that now play such a fundamental role in modern life, and how they have come to underpin our economic activity. Looking back at the past 20 years, worker productivity has improved dramatically in step with the provision of IT infrastructure and its increased sophistication. This is true even in Japan, an economy noted for its low labor productivity relative to Europe and America.

Meanwhile, in a development obvious to all, the emergence of new business models created by players capable of taking advantage of information technology is driving a rapid power shift within markets. One of the more notable examples of this trend came in 2019 when total spending on Internet advertising surpassed that on television. Along with the popularity of video streaming services, the device of choice for consuming this content is changing from the television to the smartphone. Markets have undergone significant changes. Whereas Japan's recent Heisei era was dominated by mass media, personal media looks set to predominate in the new Reiwa era. Users are the final arbiters and it is they who will be the key to markets in the future as the survival of existing businesses will come down to their ability keep pace with trends through the collection and analysis of user data.

As exemplified by the SDGs and environmental, social, and governance (ESG) investment, global initiatives aimed at overcoming societal challenges are also giving rise to new trends in business such as the sharing economy.

Conscious of these developments, I have since my appointment as President of Hitachi Consulting in 2014 been engaged in the establishment of business ecosystems based around the use of digital transformation (DX) to support corporate reforms, the aim being to create business and social value while ensuring that digitalization takes on an integral role.

A business ecosystem is a social network that is made up of all those involved in the delivery of a product or service, including users, and exists in a continual process of dynamic change. Through the establishment of business ecosystems, our mission is to facilitate the creation of new value by encouraging corporate customers to undertake a strategic realignment toward the digital economy, accelerating the shift away from the sale of products and toward service-oriented business models.

Co-creation with Venture Business as a Starting Point

While these changes have been going on, Hitachi Consulting, having direct contact with users, has been actively involving itself in collaborative creation (co-creation) with venture businesses in order to build business ecosystems that create new value.

One example is a commercial joint-venture with Hakuodo group company Spontena, Inc., undertaken in March of this year. Spontena is a venture business that supplies services that use chatbots to address labor shortages, cost cutting, and other issues facing its customers. It has its own natural language processing engine and has leveraged its expertise in this field, an essential technology for interactive service development, together with its knowledge of user interfaces and user experience (UI/UX) to supply such systems to a variety of different industries in Japan.

Users who adopt the Spontena service are able to use its LINE* app to handle transactions such as goods delivery requests or customer inquiries automatically, without using a call center. Prior to the joint-venture, Hitachi Consulting was among Spontena's first users, participating in a proof-of-concept (PoC) project that included the use of LINE for things like attendance management and travel expense reimbursement. The joint-venture followed from the success of this trial. In addition to investing in the business, a new DX consulting division was also established through the appointment of a Hitachi Consulting employee as Chief Digital Officer (CDO) at Spontena, with the intention being to operate a DX consulting business.

Behind these developments was both our understanding of chatbots and other tools of the light economy that users can access without feeling intimidated, and our unique position of being able to take a design-oriented approach while also having a familiarity with heavy industry and other big business, including social infrastructure, through being part of Hitachi Group. That is, we are able to build new business ecosystems that combine both venture and existing legacy businesses and use the shift to the light economy as a springboard for encouraging operational reforms and the upgrading of core business systems at legacy businesses. These activities have the potential to contribute to things like work style reform, organizational restructuring, and human resource management not only at legacy businesses, but also at local government organizations in the region, with interest also being expressed from within the Hitachi Group.

We are already engaged in a variety of other initiatives that link legacy and venture businesses together. These include

support for the implementation of a commercial payments platform for small transactions being undertaken by a major bank in partnership with a venture business that works with blockchain technology, and contributing to cost reduction by partnering with a Japanese venture business involved in robotic process automation (RPA) on a PoC project at a beverage manufacturer that involves the application of artificial intelligence (AI) to production plans that respond quickly to demand fluctuations.

We have also participated in business development for the Mairisuku (My Risk) health risk prediction service, working with Legral Co., Ltd., a venture business in the field of health information analysis. Hitachi, Ltd. is involved in the commercialization of the service, having entered into a licensing agreement, and it is now being rolled out to a variety of businesses through welfare service companies and other intermediaries. The service uses a revenue sharing arrangement based on the number of subscribers, something that both supports rapid system deployment and is characteristic of the light economy.

Sense of Crisis at Legacy Businesses and Changing Attitudes

As indicated by these steady efforts, what we are seeking to do is to utilize DX to address the issues of concern to Japanese companies. In particular, Japanese companies around the time when I was appointed company president were still well behind in the process of digitalization and there was a need to work closely with them, first to explain the need for DX, and then to prepare IT plans and start putting them into practice.

Meanwhile, along with work on addressing specific issues, I also see a need for greater emphasis on value creation in the future. One consequence of the rising awareness of this is that, whereas the bulk of our income up until a few years ago came from business consulting on things like the upgrading of core business systems as part of the DX process, innovation consulting has now become one of the main pillars of our operations. This involves utilizing initiatives such as the partnerships with venture businesses mentioned above to create new businesses and services based on digital technology. Along with Hitachi's strength in the upgrading of enterprise systems, the features that distinguish us arise out of our involvement, both in the application of user data harvested from smartphone apps, and support for building customer value chains. Both of these are essential when it comes to establishing ecosystems made up of both legacy and venture businesses.

In fact, these activities have brought a shift in thinking at legacy businesses. There was little understanding of business

* LINE is a registered trademark of Line Corporation.

ecosystems up until a few years ago, but many managers understand their importance. Moreover, although areas like procurement and legal in particular have presented an obstacle at legacy businesses setting out to launch a new initiative with a venture business, organizations always have key people willing to put in the effort needed for things like flexible changes to inhouse rules. As consultants, we seek to act as a buffer between the two while also striving to share a vision across the entire ecosystem by presenting a grand design that looks to the future.

One good example took place at Chubu Electric Power Co., Inc. where I was involved as an advisor. Chubu Electric Power established a business development division in April 2019, aiming to expand into other business fields by building a business ecosystem. While it may seem counterintuitive for a power company to want to expand into other business fields, it was a result of power companies redefining their future mission as being not only to supply electric power, but also to serve as a foundation for economic development. Their intention is to leverage their existing electricity distribution network and relationships with customers to develop social service businesses such as healthcare.

Similarly, a transition to mobility as a service (MaaS) is underway in how people think about cars, such that simply selling vehicles will no longer be a sustainable business. With respect to an automotive industry that is going through a once-in-a-century transition, we have gained experience from expanding the scope of the Global e-Service for supporting the management and maintenance of construction machinery that Hitachi Construction Machinery Co., Ltd. has been operating successfully, and we are also working to expedite

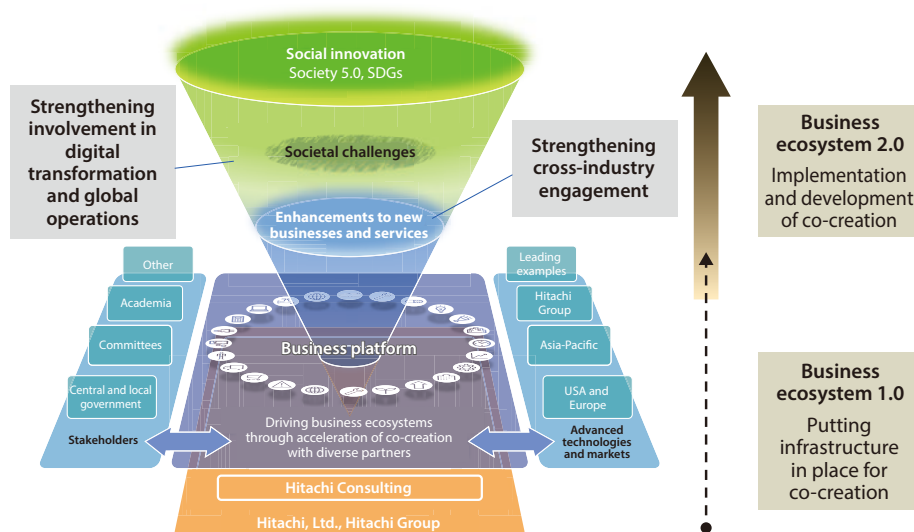
the move to connected cars with the aim of generating industry impact from Japan in areas like security platforms for network-linked cars.

I believe that data free flow with trust (DFFT) will be important for accelerating these trends, along with further data collection and analysis that extends all the way to core business systems.

Human Resource Development in the DX Era and Commercialization of Knowledge

Clearly, achieving our mission will require both existing staff skilled in business improvement and equipped to address business issues, and also people with skills in business planning who are oriented toward service development. As well as working in small teams of two or three people to develop a vision and being able to articulate their business in simple and brief terms (a few lines of text), the desirable skills for the latter group also include a degree of programming ability sufficient to engage in agile development (simple AI analytics or the development of prototype software). We are investing in education to help achieve this, including by sending staff to study at the UTokyo Data Science School of UTokyo Extension Co., Ltd.

Our staff assessment also includes asking people who are promoted to a directorship to write a paper on business ecosystems on which they are then evaluated. This involves people looking back over their past careers to consider what sort of business ecosystems should be established in the fields where they have worked. To implement MaaS, for example,



Hitachi Consulting's Vision for its Future

Part of the Hitachi Group, an organization that combines comprehensive IT capabilities with experience in social infrastructure, Hitachi Consulting is a consulting firm that delivers social innovation through multidisciplinary co-creation.

this involves redefining the mission of automotive companies and considering such questions as who to choose as an innovation partner and what sort of ecosystem building to undertake, what sort of new services and industries can be created in the process of doing so, and what role the paper's author believes they can play. The author then meets with me to discuss these matters.

Essential to this discussion is to read and understand the mid-term management plan for the relevant company and to acquire an appreciation of how its managers think. Also needed is the clarification of benchmarks regarding the relevant industry trends, including what is happening overseas. In some cases, it may also be necessary to take note of developments in completely different industries. As well as enhancing the flexibility of our workforce so that people can experience a number of different projects, this is also a means of avoiding the silo effect, including by documenting interactions with other departments in operational reports.

Collaborations with universities are another important activity. Hitachi Consulting has staff in leadership roles attend the Design Academy of the Institute of Industrial Science at the University of Tokyo, and we also have seconded staff working at the Keio University Shonan Fujisawa Campus (SFC) and participating in joint research on things like trust service platforms for implementing DFFT and the ethical issues and solutions relating to coexistence with robots. We are also planning to engage in co-creation and other such work with the Department of Innovation Science at the Tokyo Institute of Technology, including seconding staff to work as researchers, establishing a satellite office, and holding business ecosystem design workshops and discussion meetings.

What we hope to achieve through these initiatives is to have our staff engage in corporate innovations that have an industry impact. By building experience in this area, we hope in the near future to become a consulting firm with a social impact.

How to Achieve a Japanese Style of Innovation

The Japanese economy and Japanese companies have been in a state of stagnation for much of the past 30 years, during which time platform companies like Google, Amazon, Facebook, and Apple have been carrying all before them in the IT sector in particular. On the other hand, there is also a sense in which current business trends based around the resolution of challenges facing society, as exemplified by the SDGs and ESG investment, offer a glimpse of Japan's advantages.

Whichever view you take, just as we have focused to date

on resolving the concerns of Japanese businesses, I myself am conscious of the numerous possibilities open to these companies. In practice, even in the IT industry, the majority of major Japanese vendors are still in business and have not succumbed to foreign competitors. The number of managers and programmers proficient in the light economy is also on the rise, especially among the younger generation. In this sense, I believe that Japanese companies will be able to innovate in their own way, which is different from Silicon Valley.

Rather than simply imitating Silicon Valley by, for example, pursuing co-creation between venture and legacy businesses or with other types of business, I believe that the building of new ecosystems within Japan is where we need to start. I also believe that Japan's destiny depends on whether or not our innovators, which is to say the people who play a central role in creating new value, are able to launch small ventures of 10 or so people, and on how we can foster large numbers of such people. While it seems likely that many of these innovators are currently to be found in legacy businesses, Japan is unlikely to be dragged down so long as they are able to acquire experience as managers, even if it be in a small business, and go on to create new services, industries, and value.

Looking back at history, Hitachi and many of Japan's other legacy businesses were founded in the turbulent times that followed the end of the First World War, almost exactly 100 years ago. Namihei Odaira worked at Tokyo Dento (what is now Tokyo Electric Power Company Holdings, Inc.) before going on to found Hitachi, Ltd., and Konosuke Matsushita worked for Osaka Electric Light Company (now Kansai Electric Power Co., Inc.) prior to founding Matsushita Electric Industrial, Co., Ltd., the company that became Panasonic Corporation. Just as the world we live in is undergoing major changes, so too are people's attitudes changing, especially among the young, and we can anticipate a rise in social mobility. Not only are these men and women digital natives who have grown up surrounded by electronic devices, they also belong to a generation with a visceral appreciation of the need for overcoming societal challenges, having had experience of recent natural disasters such as earthquakes and severe typhoons. As we overcome the threat posed by the new coronavirus, there is no doubt that the pace of DX will increase further and people's attitudes will continue to change.

Given constricted markets with no prospect of any significant increase in Japan's population, large increases in sales will be difficult to achieve. Nevertheless, by building new business ecosystems in partnership with diverse innovators, we should be able to find our way forward. There is no doubt that alliances with superior venture businesses will be integral to our future.