

Composable Management and Digital Transformation to Achieve Accelerated Growth

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Abstract

Digitization, which makes use of the fact that people, things, experiences, and money continue to be connected by data, is continuing to make progress even in the novel coronavirus infection (COVID-19). This paper describes a composable approach to tackle these changes and accelerate growth. A composable approach is an effort to restructure and to recombine the models of society, enterprise, operations, organizations, and systems. This paper outlines the background to explain why such efforts are needed; how these enterprises, operations, organizations, and systems should be constructed to enable these innovations to take shape; and what needs to actually be done to move forward. NEC is supporting our customers as they accelerate their transformation and growth by providing DX offerings that enable them to engage in that final step of composable transition and evolve from a digital shift to a digital transformation (DX).



DX, digital transformation, digital shift, organized, DX offering, configurable

1. Introduction

In the book *Managing in the Next Society*, Peter Drucker states that everything can be outsourced except for its mission, its vision, and its values. He also states that the biggest challenges for a company in the next society is to establish its purpose as a company and to create a set of pillars or values. According to Drucker's message, companies are now able to recombine their business models, functions, and organizations except for the directions, purpose, and values for which they are aiming. On the other hand, companies that cannot do this will be left behind. This paper describes how to restructure and recombine business models and organizations while inheriting the purpose and values of the company itself.

By effectively utilizing digital technology, companies can restructure and recombine business models of companies and societies. Companies can use this composable approach to solve the current problems of customers and any other beneficiaries as well as solve any long-term issues that contribute to sustainable growth. This paper will describe structures that can be used for

these purposes¹⁾.

2. Connection creates value. Accelerating Changes in Intangible Assets

Although we are now experiencing major changes because of the spread of the novel coronavirus infection (COVID-19), mankind has experienced countless times the acceleration of changes that had begun during and after such a crisis. In terms of the future after going through the COVID-19 pandemic, it can be said that the pace of change will be accelerated through the use of digital technology.

As of 2010, approximately 4,390 million people (57% of the world's population) are now connected to the Internet, and approximately 510 million people (67% of the world's population) use mobile devices. It is estimated that 25.3 billion devices are linked to the Internet at the same time²⁾, but this number will accelerate further in the future. The functions of each device can be simulated based on the digitization, visualization, and accumulation of data, enabling a variety of predictions to be made. Data and numbers can now be used to indicate the past

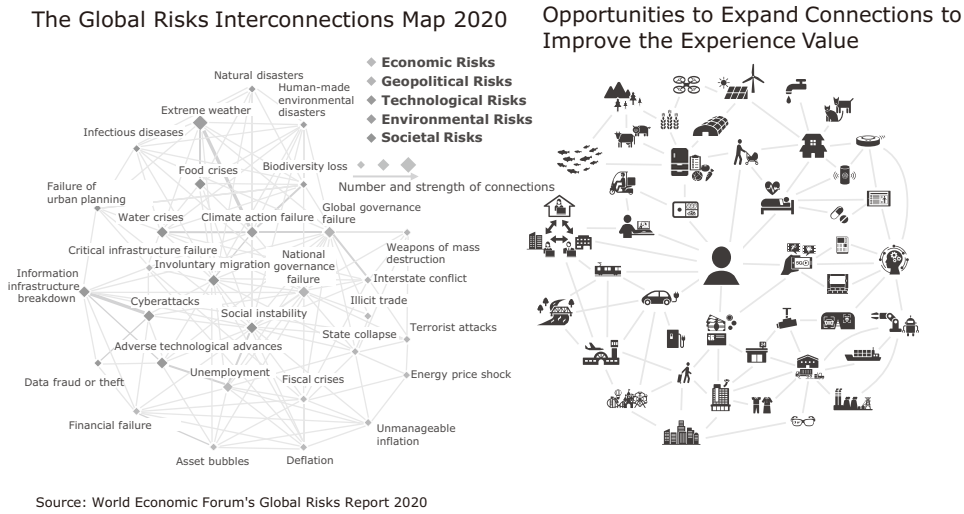


Fig. 1 Interconnections for interdependence, opportunities, and risks.

Ratio of Intangible Asset Value for the S&P 500 in the U.S.

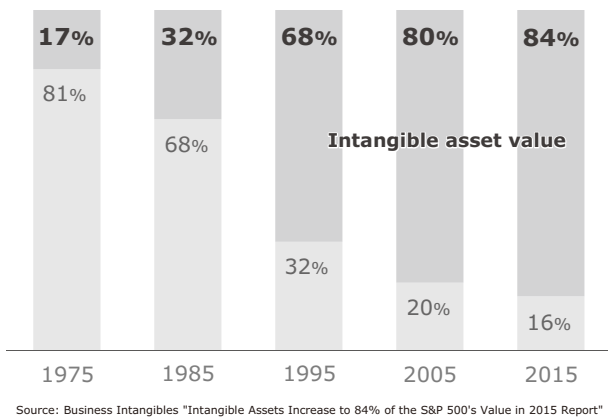


Fig. 2 Growth of intangible asset value.

and future, and the accuracy of those predictions is also improving at an accelerating rate. As exemplified by the pictograph from the World Economic Forum's Global Risk Report 2020³⁾ on the left side of **Fig. 1**, the risks faced by people are essentially intertwined in a world that continues to be connected. Societal, economic, geopolitical, environmental, and technological risks are linked. These areas are risks as well as opportunities for great innovation. In particular, great potential for transformation can be found in areas related to environmental, social, and governance (ESG) as well as those related to sustainable development goals (SDG). Furthermore, as shown in the pictograph on the right in Fig. 1, people's lives and

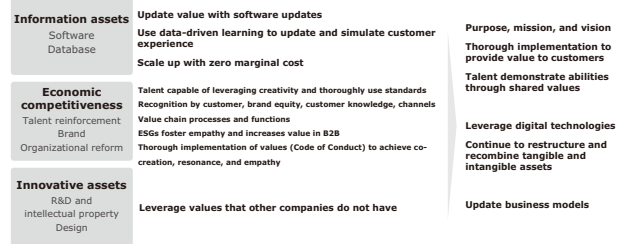


Fig. 3 Three pillars of intangible assets and creation of added value.

the companies as well as the activities of companies and other such organizations involved in their lives will all be connected. The use of digital technology is also the reason for the creation of value and future growth.

The value of intangible assets is important in a world where it is presupposed that we are all becoming increasingly interconnected and interdependent through digital technology such as the Internet and that modern networks are expanding and becoming increasingly interdependent. In the past 50 years, the corporate value created by intangible assets has continued to increase (**Fig. 2**).

Intangible assets refers to the following assets in the Cabinet Office's reference materials (**Fig. 3**).

For example, information assets cost almost nothing to copy aside from the initial fixed costs. The marginal cost approaches zero, and increasing the number of users by one costs almost nothing. By effectively

leveraging a company's networking and complementary values, you can significantly increase the scale of a company's value. Information value updates are faster than those for hardware. Artificial intelligence (AI), such as machine learning and deep learning, can also be used to update and accelerate the provided value and the value structure.

People and organizations are said to be important for economic competitiveness. In particular, value is demonstrated in three ways: code of conduct and value standards, self-reliance and self-sustainability, as well as diversity. A code of conduct and value standards set the value standards that are aligned with the direction in which companies are aiming, and those values are thoroughly enforced in individuals and organizations. Value standards that are shared and acted upon bring people together. By thorough implementation of activities and governance that reflect these value standards, current productivity as well as medium- to long-term ESG contributions can also be put into practice.

The strategy is to select the resources that companies and organizations can use. In other words, the future strategy is likely to be one where value is created in line with a company's purpose and intangible assets such as information and data, organizational competitive advantage, and intellectual property are chosen in a limited amount of time in addition to people, things, and money.

3. Trade-off Reconciliations for Customers as a Source of Value

In this paper, we will discuss how digital technology can be leveraged through the use of interconnections and data in the following three sources of value:

- (1) The reconciliation of conventional trade-offs
- (2) The connection of customer journeys and customer experiences
- (3) The integration of a value chain to create value

With regard to the reconciliation of conventional trade-offs (1) in particular, many companies are now required to incorporate ESG as an economic value. Companies that respond to this are attracting investment. In addition to the traditional accounting values, there is a demand for factual proof of contributing to ESG.

An addition to the initial e-commerce (EC) business model drawn up by Jeff Bezos the founder of Amazon is shown in **Fig. 4**. Customers now assume it is commonplace to have a vast selection of products, low prices, and fast delivery. However, trade-off reconciliations were implemented at the time, and the company continues to update and grow.

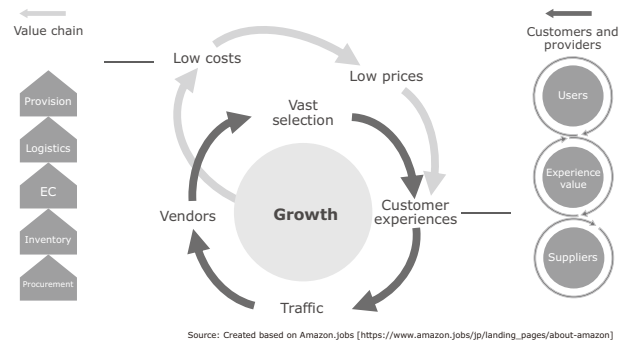


Fig. 4 Amazon's business model according to Jeff Bezos.

Furthermore, Amazon is also continuing to incorporate the continuous connection with customer experiences in (2). E-commerce (EC) has spread to cover almost everything one needs in life and includes not only the buying and selling of music and videos but also the making and delivery of the necessary hardware. Based on the company's vision of being Earth's most customer-centric company, Amazon continues to connect with the experiences and journeys of beneficiaries and customers. With regard to the integration of the value chain to create value in (3), the integration of the EC's value chain continues, and each of the functions in the value chain are provided as value as well. The Fulfillment by Amazon (FBA) service provides value to merchants and marketplace sellers by using each of the EC-related functions as a service. Amazon Web Services (AWS) and other services can be said to have been born out of the value chain⁴.

4. Growth Through Continuous Reconstruction and Recombination to be Composable

Using digital technology as leverage, there are three points to remember so that the structure and functions of enterprises, operations, organizations, and systems can be constructed and function in a composable manner for continued growth.

- (1) The future directions of the purpose of the company are clearly shown in its purpose, mission, vision, and other statements.
- (2) The purpose, mission, vision, and values foster empathy in people, their behaviors become routines, and they continue to act in accordance with these guidelines even when business models are restructured and recombined.
- (3) Reconstruction and recombination are possible.

All of the activities corresponding to these three points such as a company's activities, selection of resources,

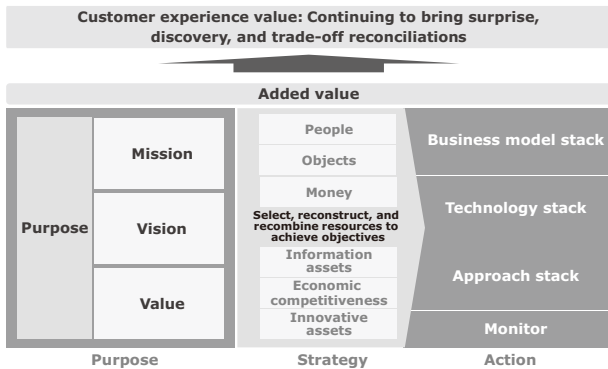


Fig. 5 Composable stack.

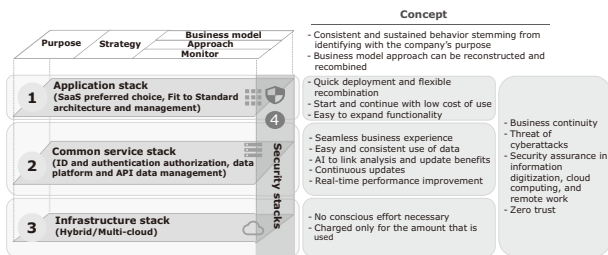


Fig. 6 Technology stack.

support for people’s actions, customer experiences, and value chains are structured so that the purpose, mission, vision, and values are inherited even though the operations continue to be restructured and recombined.

In a world where these three points are linked and the rate of change continue to accelerate, composable stacks are required to increase the degree of freedom in business models and strategies for their implementation, to continue innovation, and to continue growth. The overall structure of a composable stack is shown in Fig. 5.

In addition, the technology stack (or tech stack) is divided into four stacks to incorporate a composable strategy using technology (Fig. 6).

(1) Application stack

Enables the quick introduction, recombination, and expansion of functions and applications that are directly required at the business site. To do this, priority is given to using a combination of standard functions.

(2) Common service stack

Separates the functions that were previously available for shared usage and that were built into each individual system and now provides them as a new common service. This service reduces the burden of function development on the business site while

also improving the user experience. This is an important area for application programming interface (API), identification (ID), and data platforms as well as data management and composable approaches.

(3) Infrastructure stack

Supports the acceleration of scaling the business model. It is essentially cloud-based so you can concentrate on business areas such as cost management and service quality without having to worry about maintenance and management. It responds to the growth of the business organization and no conscious effort is required.

(4) Security stack

Security is essential when reconstructing and reconfigure composable systems. Provided across the aforementioned three stacks to ensure the security of each stack.

5. Ten Key Points in Advancing Digital Change

How can we continue to leverage our business models and technology stacks and use a composite approach to respond to changes in the business environment and society, reconstruct and reconfigure our company and organization’s models ahead of others, and continue to grow? There are 10 points to consider:

- (1) Establish the purpose and value of a company or organization as a premise
- (2) Clarify the aims of companies and organizations by having scenario planning and an impact on purpose and by using the sensemaking process to understand and realize the strategies
- (3) Conduct continuous dynamic reviews of global trends and the company’s efforts
- (4) Review the value of products from the viewpoints of customers and beneficiaries
 - Expansion based on the journey of the value of the customer experience
 - Integration of the value chain to create that value
- (5) Agile approach for realization of new values and continual updates
- (6) Small start and minimum viable product (MVP)
- (7) Digital technology for reform of human capital¹⁵⁾
- (8) Develop better knowledge of corporate culture as a value
- (9) Top management commitment
- (10) Monitoring and feedback on these practices

The basic philosophy is to verify and incorporate these three aspects: business values, values as seen from the perspective of customers and beneficiaries, and the implementation of technology. These must be consistent with the purpose and value standards as a company or

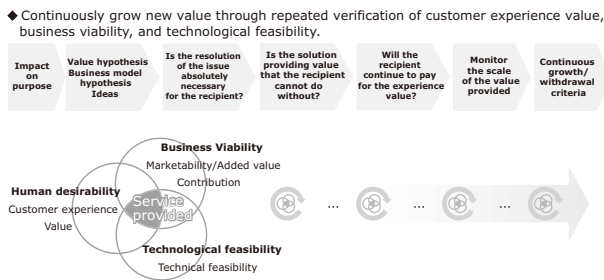


Fig. 7 Agile approach to digital transformation.

organization. Also, the business value here is the result of a business model that combines ESG and economic value. As shown in **Fig. 7**, we will grow from the minimum values of our MVP, update the values, scale, and continue to grow while trying it out on our customers and beneficiaries to move forward.

6. Conclusion

In addition to these organized approaches, NEC provides numerous DX offerings to help customers restructure and recombine models of enterprises, operations, organizations, and systems as they continuously update. With regard to the overall strategy or individual items described in this paper, we are ready to leverage NEC'S digital technology and help customers create value and solve problems or issues that together we should aim to address now for the continued success of our customers.

* Amazon is a trademark or registered trademark of Amazon.com, Inc. or its affiliates.

* All other company names and product names that appear in this paper are trademarks or registered trademarks of their respective companies.

References

- 1) MOMOTANI Eiki: Composable Management: DX Strategy for Accelerated Growth, President Inc., December 2021
- 2) Ministry of Internal Affairs and Communications (MIC): Information and Communications White Paper, 2020 <https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/r02/pdf/index.html> (Japanese) https://www.soumu.go.jp/main_sosiki/joho_tsusin/eng/whitepaper/2020/index.html (Summary in English)
- 3) World Economic Forum: Global Risk Report 2020, January 2020
- 4) About Amazon https://www.amazon.jobs/en/landing_pages/about-amazon
- 5) TODA Masahito: DX Offerings to Support Transformation of Organizations and Human Capital, NEC Technical Journal Vol.16 No.2 (This Issue), pp.81-85, June 2022

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