I Trade-off Problems

Sustainable development can be modeled along three dimensions: economy, environment, and society (Keiner, 2005). However, when firms pursue sustainability, one more dimension should be considered: business sustainability. Strategic alignment of these four dimensions sometimes requires trade-offs. For example, consider a construction company that builds a wooden house: wood will be consumed thus emitting CO₂ and a situation will arise where more happiness for families buying houses also means greater harm to the natural environment.

In a competitive business environment and with limited internal resources, firms must short-term seek profits. Meanwhile, the concept of a “sustainable competitive advantage” is a key theme within the tradition of the resource-based view (RBV). From this perspective of RBV, Barney (1997, p.164) argued that “firms that possess and exploit costly to imitate, rare, and valuable resources in choosing and implementing their strategies may enjoy a period of sustained competitive advantage.” Possession and exploitation of natural resources can lead to sustained business success, but as long as business segments prioritize competitive advantage, ecological sustainability cannot be achieved in the long run. How can executives cope with this managerial myopia? One practical solution is to establish within organizations a corporate social responsibility (CSR) committee at a high level superior to individual business segments. In this way, firms can coordinate all of their CSR activities.

Figure 1 illustrates a time series showing data on the frequency of newspaper articles related to the appointment of CSR officers and the attendant organizational changes in Japanese companies. 2,093 articles since 2003 indicate that the seasonal variations and annual fluctuations in the number of these appointments are stable and cyclical over the period, even after the Great East Japan Earthquake. These data reflect Japanese firms’ commitment to sustainable development. Despite these substantial corporate efforts, however, there is no doubt that the environment is being harmed.

II The Crisis of Sustainability

The crisis of sustainability was first discussed in The Limits to Growth (Meadows et al., 1972) by the Club of Rome about 40 years ago. The strongest feature of the book was its conceptualization of Earth as a single dynamic system wherein the world was explained as a set of unfolding behavior patterns such as growth, decline, oscillation, and overshoot (Meadows et al., 2004, p.4). The core question was “how the expanding global population and material economy might interact with and adapt to Earth’s limited carrying capacity over the coming decades” (2004, p.137). Computer simulations discussed in the three editions of the book (1972, 1992, 2004) indicated the following:

1. “If the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the
limits to growth on this planet will be reached sometime within the next hundred years” (1972, p.23).

(2) “Human use of many essential resources and generation of many kinds of pollutants have already surpassed rates that are physically sustainable (1992, p.xvi). ...We would like to conclude this book by mentioning five other tools we have found helpful.... They are: visioning, networking, truth-telling, learning, and loving” (1992, pp.223-224).

(3) “The result of those simulations is, in nearly every scenario, overshoot and collapse of the planet’s economy and population (2004, p.10). ...Our experience since then has affirmed that these five tools are not optional; they are essential characteristics for any society that hopes to survive over the long term” (2004, p.271).

Another organization called the Club of Budapest was founded in 1993 by E. Laszlo. He views natural systems as wholes with irreducible properties (1972, pp.33-34) and says that “they are goal-oriented, self-maintaining, and self-creating expressions of nature’s penchant for order and adjustment” (p.118). His perspective overlaps with the “Gaia hypothesis” of J. Lovelock (1979). Laszlo explains in Macroshift (2001) that “we are operating at the outer edge of the planet’s capacity to sustain human life” (p.32). “Earth is a finite system, with finite space, resources, and regenerative potentials, and we are now exceeding the effective range of these limits” (p.32). In the process of the macroshift, “societal evolution which encounters the system’s limits to stability initiates bifurcation and chaos” (pp.11-13).

III The Present Situation in Japan

At present, the world seems to face many unprecedented bifurcations on social, economic, and ecological dimensions: mature economy vs. emerging economy, haves vs. have-nots, religious and ethnic conflicts pitting one group against another, and so forth. Also, natural disasters occur very frequently around the globe. We can see chaotic situations everywhere. The subsystems of the Earth system as a whole behave inconsistently.

The first example is the global population. Rapid population growth is a critical global issue, whereas a declining population and an aging society are serious problems in Japan. The second example is the energy supply. There is currently a vigorous debate in Japan over nuclear energy vs. non-nuclear clean energy. Although nuclear power plants reduce CO2 emissions, nuclear accidents cause severe radioactive contamination of the planet. The third example is the fluctuation of global regulations and standards pertaining to sustainability. So far, Japanese companies have continued to implement their CSR plans and activities despite the global financial crisis in 2008 and the Great East Japan Earthquake in 2011. Recently, more companies have adopted the ISO 26000, which went into effect in November 2010. In the meantime, the 17th Conference of the Parties (COP17) concluded in Durban in December 2011 with the announcement that a second term of the Kyoto Protocol would come into force in January 2013. However, some countries including Japan decided not to join the extension because of the poor coverage of global emissions. At COP18 in 2012, Russia, Canada, New Zealand, and Japan ultimately refused to commit to a second period. In this situation, where there are neither global agreements nor regulations, total optimization of the whole system may not be guaranteed, even if every local system seeks partial optimization.

Conditions to assure total optimization of the
whole system:

a) Total amount: The sum of the CSR activities of each company, plus the sum of the individual activities of those who voluntarily spend time and money to prevent environmental destruction, should be more than the total amount of effort toward preventing environmental destruction.
b) Speed: The speed of CSR activities of each company should exceed the speed of environmental destruction.

IV Forecast

A new version of *The Limits to Growth* was published in 2012 (Randers, 2012). According to the book’s author, we have five central issues involving the change of systems: capitalism, economic growth, democracy, intergenerational equity, and humankind’s relationships with Earth’s climate.

The following global development forecasts are made to 2052:

a) The global population will stagnate earlier than expected
b) The global GDP will grow more slowly than expected
c) Productivity growth will be slower than in the past
d) The growth rate in global consumption will slow after peaking in 2045

As a consequence of increased social investment, resource and climate problems will not become catastrophic before 2052. A simulation of updated systems dynamics also indicates the following:

a) Climate will be the most pressing constraint over the next 40 years. It is pointed out that we have already overshot.
b) The updated model tends to show uncontrolled collapse soon after 2052.

The new edition of the book gives another insightful suggestion about what this article calls bifurcation. “The world will certainly not be uniform or flat—the sentiment and conditions in the five regions will differ dramatically” (p.356). Especially, “during the next forty years, China will soar, and for those of us who belong to neither the Chinese nor the US empire, it will be important to try to adapt to major cultural change associated with a shift from US to Chinese supremacy” (p.283). With regard to OECD member countries (including Japan), this group will “slide down in the hierarchy, but with a reasonably high level of life satisfaction among inhabitants” (p.287). Japan symbolizes a “grocline” country where the combination of individual growth and social decline occur together (p.95-97). Grocline indicates “a long-term possibility to bring back to a sustainable planet” because “it could slim the human footprint until it fits within the carrying capacity” (p.97). The author predicts that the “grocline situation will become norm in the last third of the twenty-first century” (p.97). However, “it will arrive too late” (p.96). Hence, Takenaka states that Japan should show the good example to the world as an advanced grocline country.

V GBI for Sustainability

Envisioning total optimization of sustainability is the mission of the Global Business Initiative (GBI). How should action to promote total optimization for sustainability be envisaged?

The first consideration is the reconstruction of the material and energy supply chain model. Japanese firms face a “sextuple whammy” (a strong yen, a high corporate tax rate, delayed participation in free trade agreements, strengthened labor regulation including a ban on dispatch labor in the manufacturing industry, stronger environmental regulation, and electric power shortages). Japanese firms must create a new vision and build new business models which will head for total optimization under the wave of “Abenomics”.

The second consideration is to prevent the decline of the Japanese national economy. The bottleneck here is the shrinking population. According to the National Institute of Population and Social Security Research, the population is expected to decrease to less than 100 million (99.13 million) in 2048 based on the results of the medium-fertility projection. If the Japanese economy loses its vigor, CSR activities aimed toward promoting sustainabil-
ity will also fade out. To keep GDP at the present level, GDP per capita must be increased to about 1.3 times its current level. Japan should cope with this situation and take leadership as a symbol of a global country.

The third is to continue to encourage the Japanese peoples’ high awareness and strong support of global environmental protection, despite the failure of the Kyoto Protocol framework. Organizational theory indicates that “daily routine drives out planning” (March and Simon, 1958, p.206). In general, employees are highly motivated when the first factory of the firm is implementing the ISO 14000s system. However, it is often difficult to maintain the original enthusiasm at the second or third factory. Japanese firms should keep themselves motivated and continue to show leadership in sustainability through CSR activities.

Finally, this article would like to point out the importance of demonstrating the virtues of the Japanese people. The essence of CSR is in absolute value creation instead of the pursuit of relative competitive advantage. Japanese characteristics expressed by harmony, integrity, delicate sensibility, and kaizen (continuous improvement) resonate with each other. The GBI seeks to find its purpose in the promotion of continuing efforts to leverage these strengths and tackle the trade-off problems we face.

Notes

1 We extracted all the articles that contain the word “CSR” from the morning edition of Nikkei Keizai Shimbun from 1 January 2000 to 5 October 2012. In total, 3,064 articles were found. Then, we selected articles related to the appointment of CSR officers and the attendant organizational changes in Japanese companies from 1 January 2003 to 5 October 2012. Consequently, 2,093 articles remained in our sample.

2 The United States, other OECD member countries (including Japan), China, BRISE countries (Brazil, Russia, India, South Africa, and 10 other large emerging economies; Indonesia, Mexico, Vietnam, Turkey, Iran, Thailand, Ukraine, Argentina, Venezuela, and Saudi Arabia), and the rest of the world.

3 Twenty-six sentences were found in the report which includes “Japan” or “Japanese” (p.55, p.68, p.69, p.87 (twice), p.95 (nine times), p.97, p.107, p.142, p.192, p.265, p.280, p.286, p.334, p.341, p.342, p.355, p.357).

4 He gave this comment in the Japanese translation of the book in the chapter titled ‘2052 今後40年のグローバル予測’ (pp.464–471).

References

Keiner, M. (2005), History, Definition(s) and Models of “Sustainable Development”, ETH, Eidgenössische Technische Hochschule Zürich (http://dx.doi.org/10.3929/ethz-a-00495678).