Sustaining Competitive Advantage after Corporate Transformation: The Case of Hitachi

TSUYOSHI KIMURA
Professor, Graduate School of Business Administration, Rikkyo University

Abstract

For companies rising back as a result of Corporate Transformation (CT), there is the issue of how long the regained competitive advantage could be sustained. While the existing literature mainly focused on the processes to restore competitive advantage, this study puts the spotlight on the sustainability of a company’s competitive advantage after CT. It thus attempts to identify the key factors necessary to sustain the regained competitive advantage over a period of time. Based mainly on Kimura’s study (2013) which analyzed CT cases from the perspective of Dynamic Capability, this study attempted to analyze the CT case of Hitachi, Ltd. From the case analysis, it could be confirmed that in order to overcome the next environmental change and to sustain the regained competitive advantage after CT, it is effective, at the point of CT, to embed processes that continue to function through the mid- to long-term periods.

Keywords:
corporate transformation, dynamic capability, business model, sustainable competitive advantage, Hitachi

INTRODUCTION

With the inherent volatility of the business environment, even once successful companies could easily lose their competitive advantages. Some of those companies would try to reclaim their position by undergoing Corporate Transformation (CT), a business process which has been roughly divided into two types: “discontinuous and large-scale” and “continuous and small-scale.” This study deals with the former in which companies exert efforts to resuscitate themselves from their critical situation and to survive in the market.

Some companies were able to recover through CT, with some of them maintaining the regained competitive advantages while others failing to do so. Most studies on CT focused on the steps and leadership towards the transformation process. We found there are few studies that focused on longer time periods and on ensuring sustainability of the regained competitive advantage. Noting this, we intended to analyze in this study a company’s performance over a longer time frame and to discuss the variables that enable it to sustain the regained competitive advantages.

In other words, this study would like to find out what kind of CT could realize revitalization of a company’s competitive advantage as well as ensure its sustainability after CT. We argue that we could find some answers from the perspectives of Dynamic Capability (DC), a concept which suggests the necessity of “resource base conversion” for companies to sustain competitive advantage in fast-changing environments. CT usually involves resource base conversion. However, as existing DC perspectives solely deal with resource base conversion, we believed this would not be sufficient without making some adjustments. For a case analysis on CT, this study included the variable of “strategy conversion” aside from resource base conversion in its working definition of DC. With these factors taken into account, we now aimed to find out the answer by analyzing the CT case of Hitachi, Ltd (Hitachi), a global and highly-diversified Japanese company traditionally known for its electronic products and machinery.

This paper first provides a review of previous
studies on the concepts of CT and DC, then presents the direction of this study. After an explanation of the methodology used, the case analysis of Hitachi’s CT is discussed. The final part enumerates the contributions and limitations of this study.

LITERATURE REVIEW

Corporate Transformation and Dynamic Capability Perspectives

In this section, we reviewed the concepts of Corporate Transformation (CT) and Dynamic Capability (DC) to form the framework for the case analysis. In CT studies, there are mainly two perspectives: “Who or what had driven” the CT initiatives (e.g., Kotter, 1990, 1996; Nadler, 1998; Tichy & Devanna, 1986); and “What has been changed,” concretely, in terms of strategy, organization, operational process, or corporate culture (e.g., Clark & Soulsby, 2007; Dixon & Day, 2007; Dixon, Meyer, & Day, 2010; Kanai, 1991; Lippitt, Watson, Westley, & Spalding, 1958; Newman, 2000; Nonaka, Takeuchi, & Umemoto, 1996; Pettus, Kor, & Mahoney, 2009, Tichy & Cohen, 1997; Vera & Crossan, 2004).

Some studies on CT have been associated with Capability-Based View, a concept developed as a response opposing Resource-Based View, which focuses on utilizing only resources which the company owns (e.g., Grant, 1991, 1996; Leonard-Barton, 1992; Prahalad & Hamel, 1990; Senge, 1990; Stalk, Evans, & Sgulman, 1992).

Meanwhile, studies pertaining to DC, that focused on adaptation to changes, have abound without abatement due to the increasingly turbulent business environment in recent years. DC, in fact, is a relatively new and emerging area of study, with its evolving definition reaching some level of consensus but has yet to be generally accepted (Ambrosini & Bowman, 2009; Wang & Ahmed, 2007), in particular, the definition of DC as “intentional efforts to change the firm’s resource base” (Ambrosini & Bowman, 2009; Helfat et al., 2007). Various functions have been referred to as DC in several case studies, such as managerial capability (e.g., Adner & Helfat, 2003; Rosenbloom, 2000), acquisition process (e.g., Karim & Mitchell, 2000), organizational structure reconfiguration (e.g., Karim, 2006), and R&D and product innovation (e.g., Danneels, 2002; Eisenhardt & Martin, 2000; Helfat, 1997). By focusing on the common sub-processes of DC in the studies mentioned, Teece (2007) had thus synthesized DC as consisting of three sub-processes: sensing, seizing, and reconfiguring.

Converging the identified elements into the definition of DC, we proposed that resource base conversion be considered as a reconfiguration of both resources and processes, that is, the process entails utilizing the company’s resources. We also adopted into our definition of DC the capability of “strategy conversion” in addition to resource base conversion as suggested by Kawai (2013b), since the generally accepted definition of DC focuses only on resource base conversion (Ambrosini & Bowman, 2009; Helfat et al., 2007). Although Teece (2014) included strategy in his discussion on DC, it didn’t state “strategy conversion” in the discussion. While there have been discussions of DC as a source of sustained competitive advantage, which have yet to reach a clear consensus (Peteraf, Stefano, & Verona, 2013), we strongly support the view that inclusion of strategy conversion, in addition to resource base conversion, is essential for DC. Furthermore, we thought it is more appropriate to define DC more comprehensively in line with Teece’s (2007) definition of DC—as the “sensing” and “seizing” sub-processes correspond to strategy conversion while the “re-configuring” sub-process corresponds to resource base conversion. The company’s “intention” in Ambrosini & Bowman’s (2009) definition of DC could be interpreted as corresponding to the company’s “strategy.”

On the issues of assessing DC, Helfat et al. (2007) proposed the concepts of “technical fitness” and “evolutionary fitness.” The former is described as to whether DC has contributed to enable resources or processes to function as intended, but not necessarily to gain competitive advantage. The latter refers to how well DC ensures that an organization stay in business and earn profits by creating, extending, or modifying its resource base. Resources or processes, which technically fit, may or may not contribute to evolutionary fitness. This classification of the two types of DC evaluation would suffice for the purpose of this study.
Research Direction Based on the Literature Review

From the literature review, we can summarize Dynamic Capability (DC) as the capability to reconfigure a company’s Operational Capability (OC) as well as to enable a company to adapt to the environment and evolve (e.g., Helfat et al., 2007; Teece, 2007; Zahra, Sapienza, & Davidsson, 2006; Zollo & Winter, 2002). Strictly speaking, OC aims to make a living for the firm (Winter, 2003). As to the relationship between the two concepts, DC and OC, Helfat & Peteraf (2003) argued that DC indirectly influences a company’s performance by its effects on OC.

To answer our question of what kind of Corporate Transformation (CT) is needed to be achieved in order to regain competitive advantage as well as sustain the advantage afterward, we applied the concepts of OC, a potential source of competitive advantage, and DC, to reconfigure OC to fit to the environment. Our rationalization is that CT is the behavior adopted by a company to reconfigure OC by deploying DC, thus resulting in the reconfigured OC being a potential source of competitive advantage. Whether this competitive advantage is only temporary or sustainable over the long term (Ambrosini & Bowman, 2009, p. 43) is the main question posited in this study since no existing studies in the literature have been found to answer this question. Kimura (2013) had proposed analytical frameworks and by using these, he analyzed the CT cases of Nissan Motor Corporation, Panasonic Corporation, and Asahi Breweries, Ltd., which could offer clues to answer our research question.

In this study, we analyzed Hitachi’s CT case by utilizing the same analytical frameworks used in the case analysis for the aforementioned companies, for the reason that we believe the tool would prove effective to analyze another CT case. Moreover, the results of this study could support the validity of one of the hypotheses Kimura (2013) previously posited which could shed light on the specifics of CT that help realize competitive advantage sustained after the CT.

Hypothesis: It is possible for a company that has regained competitive advantage by CT to overcome the next, or even a major, environmental change and to sustain competitive advantage with relatively minor “strategy conversions” or “resource/process conversions” if “processes which function well in the mid- to long-term” were embedded at the point of the CT.

RESEARCH METHOD

This study attempts to analyze the Corporate Transformation (CT) case of Hitachi using the analytical frameworks designed by Kimura (2013) based on the replication logic of Eisenhardt (1989). We now present the three frameworks for the case analysis and the methods.

Analytical Framework (1): CT and Subsequent Environmental Change

FIGURE 1 shows the first framework employed to analyze Corporate Transformation (CT) and its subsequent environmental changes. Companies develop Business Models (BMs) ideally to correspond to the changing environment. When the environment shifts from Environment 1 (EV1) to EV2, the existing BM1 that was effective in EV1 may become inadequate and lose its competitive advantage (as reflected on the right end of BM1 where it does not correspond to the end of EV1). BM1 must change to BM2 by CT to regain competitive advantage and survive in the market. Since continuous changes are highly probable in volatile environments, EV2 may shift to EV3. The company, then, must adjust its business model to BM3 to adapt to the new environment.

BM is defined as a “necessary system to make and execute the strategy” and its components include “strategy, process, and resource” (Chitose & Kimura, 2016). Processes enable the strategy to be executed while resources are necessary to develop processes. In this paper, we refer to the combination of process and resource as “resource base.” Incorporating the keywords from the various relevant definitions, CT is thus defined as a comprehensive reconfiguration of BM, that is, the conversion of its three components (resource, process, and strategy) all at once on a large scale for the purpose of recovering its former competitive advantage. On the other hand, Dynamic Capability (DC) is the capacity to reconfigure any of the BM’s three components. Therefore, CT is considered
here as a special case of a company deploying DC. How do we assess the sustainability of a company’s competitive advantage? We define competitive advantage in this paper as a situation in which a company maintains superior performance relative to its competitors in terms of profit and growth. Sustainable competitive advantage requires maintaining the conditions perhaps by overcoming at least one environmental change after the CT. If there have been no environmental changes in the post CT period and if the company was able to sustain the regained competitive advantage for a period of more than six years under the situation, this can also be considered sustainable competitive advantage. Since 2000, mid-term business plans in Japan usually cover three years while long-term spans two “mid-term” periods or six years.

With these working definitions of the key terms, we can now identify performance measures for CT and DC. CT is considered a success when a company has recovered from a critical situation and has continued doing business by reconfiguring all three components of BM comprehensively. Two case scenarios could occur post-CT. One case is when a company could overcome the next environmental change without executing another CT. The other is when a company cannot overcome the change and probably requires the execution of a new CT to do...
so. The former is preferred. The assumption is that some of the CT measures may function as embedded process or EP (as shown in FIGURE 1) and thus contribute to overcome the post-CT environmental change, EV2 to EV3.

Analytical Framework (2): CT Process
The second framework pertains to the Corporate Transformation (CT) process. Business Model (BM) reconfiguration is described as three sub-processes as shown in FIGURE 2. The first sub-process is the “perception of the necessity of CT and determination of its direction.” The next is “strategy conversion,” that is, to convert the existing strategies into new ones in line with the direction determined in the first sub-process. It involves making corporate strategies and competitive strategies. The last is “resource base conversion,” which is to rearrange resources and processes including R&D, procurement, production, sales and other supporting functions. Since CT is a special case of DC deployment as defined earlier, there is a corresponding relationship between the CT sub-processes and DC as shown in FIGURE 2 (the arrows between DC and CT indicate the correspondence between them, while the arrows in the CT Process denote the flow in the CT steps).

Analytical Framework (3): Structure of Embedded Process and Competitive Advantage
The third framework concerns the relationship between embedded processes and competitive advantages. We referred to covariance structure analysis and applied it to the case study. We understand that several samples are required for covariance structure analysis, nevertheless, for the case study we designed an analytic framework using the methodology. In concrete terms, to understand the structure of the embedded processes, we identified the transformation measures (observable variables) and deduced the embedded processes (latent variables). Next, we identified variables to compose the model but not the causal relations among variables. We also asked each of the managers to evaluate the transformation measures that they think contributed to development of the embedded processes. Based on their response, we inferred the structural relationship between the observable variables and the latent variables. The evaluators also ascertained if the embedded processes contributed to develop BM3.

FIGURE 3 Analytical Framework for Structure of Embedded Processes and Competitive Advantages.

1 According to Kimura (2013), the CT case of Nissan corresponds to first case scenario, the preferred one, while that of Panasonic corresponds to the latter.
2 This study adopted the “PLS (Partial Least Squares)” model in covariance structure analysis.
3 Our concept of process is similar to the “key processes” of Johnson, Christensen, & Kagermann (2008), which is one of the components of BM. In concrete terms, it includes not only “processes” such as product development, procurement, manufacturing, marketing, but also “rules and metrics” (e.g., margin requirements for investment, credit terms, lead times, supplier terms, etc.) and “norms” (e.g., opportunity size needed for investment, approach to customers and channels, etc.). We use the term “embed” because the processes are not short-term measures but long-term solutions as patterns of operational routines.
tween “embedded processes” (latent variables) and “transformation measures” (observable variables), we requested relevant Hitachi managers to accomplish an evaluation. The observable variables for the latent variable “regain and sustain the competitive advantage” are “profit” (i.e., average net profit) and “growth” (denoted as CAGR\(^4\)), referring to Helfat et al.’s (2007) definition of “evolutionary fitness” that measures a company’s survival and growth.

Two points are to be noted on the model. First, the “embedded process” contributes to “regain and sustain competitive advantage” but not necessarily guarantees its realization. In other words, with reference to Helfat’s, et al. (2007) performance evaluation of DC, “embedded processes” by DC contribute to “regain and sustain competitive advantage” as they have “technical fitness,” but not “evolutionary fitness” to ensure its realization. The second point pertains to “embedded processes” which were developed by some interrelated “transformation measures” and became operational routines in the organization. They could not be directly observed but could only be gauged roughly through the “transformation measures” (observable variables), thus, resulting in the use of the term “embed.”

Case Analysis Method

In this study, we analyzed the case of Hitachi since the company was able to recover from its critical situation by Corporate Transformation (CT). Based on market conditions, we defined the following periods: Environment 1 (EV1) as ranging from the 1990s to 2008, EV2 as 2009 to 2012, and EV3 as 2013 to 2015. We also categorized the Business Model (BM) reconfiguration as BM1 to BM2 then BM2 to BM3.

First, we analyzed secondary data such as investor relations (IR) information, annual reports, and news releases based on the analytical framework. Second, we interviewed Hitachi’s managers to obtain the primary data.\(^5\) Third, we consolidated the primary and secondary data to analyze the case, maintaining objectivity as much as possible. This paper deals with the case of a large company’s transformation, looking at the big picture, thus, we did not obtain all the necessary information as primary data. In lieu of interviews with top company management, we referred to publications and news articles of top management and analyzed those secondary data. We also established that the interviewees were qualified based on their roles and responsibilities in the organization and their service records.

CASE STUDY: HITACHI

We analyzed Hitachi’s Corporate Transportation (CT) case using the three frameworks. Changes in Hitachi’s external environment, strategy and resource base conversions by CT, and the company’s performance in Environment 2 (EV2) and EV3 along with the key success factors for each period were analyzed in that order.

Environmental Changes for Hitachi

Changes in Hitachi’s external environment, which are described in terms of market and industry trends, are shown in TABLE 1. These correspond to the shift of environments in FIGURE 1.

Since the domestic market had stopped growing in Environment 1 (EV1), domestic electronic manufacturers started to expand exports to China and other Asian markets. In EV2, when the global economy struggled due to the Lehman Brothers’ bankruptcy in 2008, most domestic companies faced difficult business conditions (e.g., strong yen, shrinking global market demands, difficulty of acquiring new funds or loans as financial institutions themselves struggled, among others). The global economy only

---

\(^4\) Compound Average Growth Rate.

\(^5\) We interviewed four of Hitachi’s active employees (designated as E1, E2, E3, and E4). They all held management-level positions and have had direct experiences with regard to CT and pre- and post-CT period (EV1/2/3). Evaluations were conducted in the period from April to September 2017. We interviewed: A from the planning department twice in April 2017 and twice in May 2017 (total of four hours); B from the sales department, once in May 2017 and once in September 2017 (total of four hours); C from the products department, once in June 2017 and once in September 2017 (total of two hours); and D from the solutions department, once in June 2017 and once in September 2017 (total of two hours). All interviews were conducted in each interviewee’s office at Hitachi, Ltd.
TABLE 1 Changes in External Environment for Hitachi

<table>
<thead>
<tr>
<th>EV1 (around 2000 to 2008)</th>
<th>EV2 (around 2009 to 2012)</th>
<th>EV3 (around 2013 to 2015)</th>
</tr>
</thead>
</table>

started showing some signs of recovery in late EV2, but it was a far cry from the pre-Lehman-bankruptcy period. Most domestic competitors still struggled. One good news was that the demand in emerging markets, such as the BRICS countries (i.e., Brazil, the Russian Federation, India, China, and South Africa), strongly and quickly regained ground. In EV3, incidents, such as the aftermath of the 2011 Great East Japan Earthquake and tsunami, the deluge in Thailand, strong-yen trend, and Europe’s debt crisis, negatively impacted domestic electronic manufacturers’ performance. In emergent markets, competition intensified not only among existing global competitors but also among local ones. An illustrative example reflecting this trend was in the smartphone market, in which market growth rate in the Asia-Pacific region exceeded that of the developed markets. In particular, two Chinese manufacturers, Huawei and Lenovo, entered the top five in global market share. This rapid change in market environment required electronics manufacturers in Japan to change their business structures which had been export oriented.

Based on the first analytical framework as shown in FIGURE 1, we analyzed the Business Model (BM) reconfiguration from BM1, the pre-CT BM which fits to EV1, to BM2, the BM developed by the Corporate Transformation (CT) to fit to the new environment (EV2).6

Business Model (BM) Reconfiguration from BM1 to BM2

We also analyzed Hitachi’s BM reconfiguration, or strategy conversion and resource base conversion, from BM1 to BM2 based on the second analytical framework as shown in FIGURE 2.

Perception of the necessity of CT and determination of its direction

Environment 1 (EV1) is the period of Hitachi’s performance slump following the collapse of Japan’s bubble economy. Among its contemporaries, Hitachi struggled during the period and generated net losses in 2006–2007. While the company tried to restructure its business by selling off some loss-making business (e.g., semiconductors), downsizing by offering an early-retirement program, and shifting to a committee governance structure, those efforts were not enough to bolster the company.

Around 2009, the environment turned to EV2, and the whole industry was affected by the economic downturn triggered by the Lehman Brothers’ bankruptcy in 2008. All players struggled in the industry, and Hitachi was no exception. In fact, Hitachi was considered the worst among its contemporaries. The company recorded a 787 billion yen net loss in 2008—the largest net loss in the history of Japanese manufacturing at that time. In April 2009, Mr. Takashi Kawamura was made president of Hitachi to revive the company and he immediately initiated the “100-day plan” with five vice presidents of the company.

Strategy Conversion

Corporate strategy. Under BM1, Hitachi started shifting its management resources from its traditionally strong areas of electric power and industrial infrastructure to information and electronics. When Mr. Kazuo Furukawa was inaugurated company president of Hitachi in 2006, corporate growth strat-

---

6 Business model reconfiguration was divided into strategy conversion and resource base conversion. In strategy conversion, corporate strategy and competitive strategy were both analyzed. In resource base conversion, which includes both resources and processes, major components were analyzed, referencing Chitose & Kimura (2016) and Johnson et al. (2008).
egy was aimed towards globalization in two areas of focus: social innovation and infrastructure technology. FIV has been introduced in 2002 to manage profitability of each business. However, with the high value put on group synergy by Hitachi, it did not cut off unprofitable businesses. In BM2, Hitachi relinquished being a “general” electronics manufacturer, with corporate strategy drastically shifting to social innovation business, that is, a blend of infrastructure business, such as electricity and industry, and the ICT sector. In Hitachi’s terminology, it is an integration of Operational Technology (OT) and Information Technology (IT), concurrent areas in which even major global competitors struggled in. Based on the new strategy, Hitachi did not only sell off businesses which had little to do with social innovation, but also made some group companies in related areas wholly owned subsidiaries.

**Competitive strategy.** Under BM1, Hitachi made attempts to increase the proportion of its top share businesses (with targets of 30% to 40% in total company sales) as well as its overseas sales. In BM2, social innovation was reinforced in each business area. Dividing the value chain into upstream, middle-stream, and downstream, the company shifted its management resources to upstream (e.g., R&D and material production) and downstream (e.g., customer interface). Each in-house company was graded as follows: good, average, below average, and need measures, then provided directions according to the grade. Each in-house company was also required to explain its strategy to stakeholders and to commit its targets at each company’s Investor Relations Day (Hitachi IR Day).

**Resource Base Conversion**

**Organizational structure.** In BM1, Hitachi adopted a divisional management system. While each division worked on measures to globalize its business, they were mainly incremental improvements within the division and earned little success. In BM2, the company developed six polar structures (i.e., Americas, Europe, India, Southeast Asia, China, and Japan) and decentralized by reinforcing overseas subsidiaries. It also introduced an in-house company system, holding seven in-house companies within Hitachi and around 40 business entities making up one whole group.

**R&D.** In BM1, the company allocated 15% of its R&D personnel to each division, aiming to link each R&D function to the division’s sales revenue. In BM2, Hitachi shifted to a local market-driven R&D structure, especially for China, Americas, Europe and Asia, in which each local unit became responsible for planning and risk management. The number of overseas R&D personnel doubled to 300, resulting in 90% of its R&D personnel located in overseas subsidiaries. Likewise, personnel with PhD degrees also increased in number to 30% in R&D related departments.

**Procurement.** In BM1, although Hitachi tried to effectively control the group companies’ costs, such as material costs and indirect costs, each subsidiary still maintained some degree of autonomy. In BM2, the company expanded global central-buying with the Hitachi Smart Transformation Project in 2011. It was a cross-company project involving more than 900 group companies, and the position of Chief Transformation Officer (CTrO) was created to lead the project.

**Production.** In BM1, Hitachi tried to reinforce “mono-zukuri (manufacturing),” which was traditionally the company’s strength, and also created a “mono-zukuri reinforcement department,” which focused on improving the supply chain management as well as digitalization and globalization of experienced workers’ skills. In BM2, Hitachi re-evaluated the balance between in-house production and outsourcing, aiming to integrate management resources into its social innovation businesses. The company then restructured production facilities worldwide and strengthened its partnerships with electronics manufacturing service (EMS) companies. The process could be described as a globalization of the value-chain-centered production and, at the same time, a shift from a centralized structure (product is manufactured in Japan then exported) to a decentralized one (local production for local consumption or

---

7 Future Inspiration Value: Hitachi’s internal economic value-added evaluation index in which the cost of capita is deducted from after-tax operating profit.
selection of the best location for each product).

**Sales.** In BM1, Hitachi tried to globally reinforce cross-company business propositions within the group as well as enable a “one-window” sales concierge system to encourage proposal-based sales. The desired effects, however, were not attained since the scope of its business was too broad. In BM2, the company classified customers by industry and also analyzed sales data of the group companies. In addition to appointing sales directors for each sales category, integrated sales strategies were developed to target each customer category.

**Human resource management.** In BM1, Hitachi started the Hitachi Global Leadership Program to develop global talents and deploy them to suitable positions. However, since most employees developed their careers within the same department, their loyalty was to the department rather than to the company, which resulted in department optimization culture. In BM2, the company established a Global HR Department and introduced a Global Grading System for managers and higher levels, whose position would be assessed using the integrated system worldwide. Moreover, a Global HR Database consisting of approximately 250,000 employee information was introduced in 2011. With the globally standardized job grading, the company did not only evaluate each employee’s performance with a unified system but also appointed local talents to leadership positions locally or offered them global career tracks. Even when several HR related systems were being introduced as part of Corporate Transformation (CT) to motivate employees, Mr. Takashi Kawamura, company president during the period, held general assembly meetings all over the world to get everyone on the same page. The legacy was perpetuated by his successors, Mr. Hiroaki Nakanishi and Mr. Toshiaki Higashihara, to ensure a change in mindset for every employee of Hitachi.

**Result of the CT (Hitachi’s Performance in EV2)**

The Corporate Transformation (CT) measures resulted in Hitachi’s successful recovery from its critical situation, enabling a V-shaped turnaround, with the company generating record high net profits in 2010. **TABLE 2** shows the performance comparisons of Hitachi and its competitors in Environment 1 (EV1) and EV2. Hitachi placed top relative to its competitors in both profit and growth with Business Model 2 (BM2), thus successfully regaining its competitive advantage in EV2.

We analyzed the success factors of the CT with two steps using the framework in **FIGURE 3**. The first step involved recognizing what processes were embedded by the CT, and the second step was analyzing which CT measures contributed to develop each process.

In the first step, we could identify four processes embedded by the CT, which are as follows: localization of overseas businesses (H-a), autonomous business units (H-b), selecting and replacing businesses (H-c), and reinforcement of social innovation business (H-d). Each process was newly developed or reinforced by the CT measures.

The second step required analyzing how the four processes were developed. To accomplish this, we

**TABLE 2 Hitachi’s Performance Change by Corporate Transformation (CT)**

<table>
<thead>
<tr>
<th></th>
<th>EV1 BM1 (Pre-CT) 4 year average (2005-08)</th>
<th>EV2 BM2 (CT) 4 year average (2009-12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Profit (billion yen)</td>
<td>-201</td>
<td>164</td>
</tr>
<tr>
<td>Industry</td>
<td>-12</td>
<td>-374</td>
</tr>
<tr>
<td>CAGR</td>
<td>Hitachi 1.9%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Industry</td>
<td>-0.1%</td>
<td>-1.6%</td>
</tr>
</tbody>
</table>

*Note.* Industry includes Hitachi, Panasonic, Sony, and Toshiba (with annual revenue of more than 500 billion yen). CAGR stands for Compound Average Growth Rate.
requested four managers from Hitachi (E1, E2, E3 and E4) to evaluate not only the validity of the embedded processes but also which CT measures they think contributed to develop those processes. We designed the evaluation instrument mainly following the format in TABLE 3 using checkboxes. To maintain objectivity, we did not provide prior information of our hypothesis to the four evaluators.

TABLE 3 shows the evaluation results. The four evaluators (E1 to E4) marked the indicators reflecting which of the CT measures (left rows) corresponded to the embedded processes (right columns).

From the table, we could gather confirmation of the validity of the four embedded processes. We also learned more by means of the evaluators’ estimations of the structure of embedded processes, to the effect that we could identify which CT measures contributed to develop each process. We also confirmed from the analysis that the four processes embedded by the CT were developed by related transformation measures and became important operational routines. One example is “localization of overseas businesses” which had been developed by such measures as “development of six polar structure,” “localization of R&D functions,” and “global grading system,” and hence, became embedded in

<table>
<thead>
<tr>
<th>CT Measures</th>
<th>Localization of overseas businesses</th>
<th>Autonomous business units</th>
<th>Selecting and replacing businesses</th>
<th>Reinforcement of social innovation business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy Conversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sell out business and make some listed companies wholly-owned subsidiaries</td>
<td>E2, E3</td>
<td>E1, E2, E3, E4</td>
<td>E1, E3, E4</td>
<td></td>
</tr>
<tr>
<td>Integration of ICT and social infrastructure businesses</td>
<td>E3</td>
<td>E2, E4</td>
<td>E1, E2, E3, E4</td>
<td></td>
</tr>
<tr>
<td>Competitive Strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentration on upstream and downstream in value chain</td>
<td>E1</td>
<td>E1, E2, E4</td>
<td>E1, E2, E3, E4</td>
<td></td>
</tr>
<tr>
<td>Grading system for in-house companies</td>
<td>E1</td>
<td>E1, E2, E3, E4</td>
<td>E4</td>
<td></td>
</tr>
<tr>
<td>Each company’s own IR Day</td>
<td>E1</td>
<td>E1, E2, E3, E4</td>
<td>E4</td>
<td></td>
</tr>
<tr>
<td>Resource Base Conversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Org. Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-house companies and empowerment</td>
<td>E1, E2, E3, E4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of the six pole structure</td>
<td>E1, E2, E3, E4</td>
<td>E4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Localization of R&amp;D functions</td>
<td>E1, E2, E3, E4</td>
<td>E3, E4</td>
<td></td>
<td>E3</td>
</tr>
<tr>
<td>Procurement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smart Transformation Project</td>
<td>E4</td>
<td>E4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restructuring of production unit and partnership with EMSs</td>
<td>E4</td>
<td>E3, E4</td>
<td>E2, E3</td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assigning a sales director for each sales category</td>
<td>E3</td>
<td>E3, E4</td>
<td>E2, E4</td>
<td>E1, E2</td>
</tr>
<tr>
<td>HRM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global grading system</td>
<td>E1, E2, E3, E4</td>
<td>E4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talent management</td>
<td>E1</td>
<td>E4</td>
<td>E3, E4</td>
<td></td>
</tr>
</tbody>
</table>
the organization.

Hitachi’s Performance in Post-CT (EV3)

Environment 2 (EV2) to EV3 manifested changes in the external environment, such as the 2011 Great East Japan Earthquake, which impacted negatively on the whole country, including electronics manufacturers. TABLE 4 shows the performance comparisons of Hitachi and its competitors in EV2 and EV3.

Hitachi outperformed the competition in both EV2 and EV3, showing strong performance in profit and growth. That means the company was able to sustain the competitive advantage regained by the Corporate Transformation (CT). Panasonic, the second largest in sales revenue, also successfully recovered from the large amount of net loss (more than 700 billion yen) in 2012, but its CAGR was negative. Sony, on the other hand, showed positive CAGR, but generated net loss in the same way as Toshiba did. In summary, we could infer from the data that Hitachi was able to sustain its regained competitive advantage in EV3, which has been attributed to Hitachi’s Business Model’s (BM) fit to the new external environment. The company’s shift to BM3, by globalizing its social innovation business, caused Hitachi’s business acceleration. In May 2013, the company announced its 2015 mid-term business plan, in which Hitachi declared its intention to further expand its social innovation business worldwide, after earning so much success in the domestic market.

The fact that Hitachi did not have to go through another CT process (i.e., reconfigure strategy and resource base comprehensively at once), we could surmise that the company was able to adjust the business model, from BM2 to BM3, to fit to the new environment (EV3), i.e., global competition intensified especially in emerging markets. In the interviews, all four evaluators estimated that the four embedded processes embedded by the CT influenced to develop BM3. Therefore, we can objectively state that the four processes embedded by the CT continued to function in BM3 and contributed to sustaining the regained competitive advantage.

DISCUSSION

Hitachi was able to get back on its feet, rising from its critical condition by Corporate Transformation (CT). CT measures resulted in four processes being developed and embedded in the Business Model (BM), with the embedded processes effectively functioning in the mid- to long-term period and, thus, enabling the company to overcome the environmental change to EV3.

Kimura (2013) analyzed Nissan’s CT case and found that four processes were embedded by the CT measures installed by Mr. Carlos Ghosn around the year 2000. Nissan quickly recovered from its slump and was able to sustain the regained competitive advantage. Nissan overcame subsequent environmental changes by adjusting its BM to fit to the new environment and further sustained its regained competitive advantage successfully.

A comparison of the two case analyses for Nissan

<table>
<thead>
<tr>
<th>TABLE 4</th>
<th>Hitachi’s Performance in Post-CT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EV2 BM2 (CT)</td>
</tr>
<tr>
<td></td>
<td>4 year average (2009-12)</td>
</tr>
<tr>
<td>Net Profit (billion yen)</td>
<td>Hitachi</td>
</tr>
<tr>
<td>Industry</td>
<td>-374</td>
</tr>
<tr>
<td>CAGR</td>
<td>Hitachi</td>
</tr>
<tr>
<td>Industry</td>
<td>-1.6%</td>
</tr>
</tbody>
</table>

Note. Industry includes Hitachi, Panasonic, Sony, and Toshiba (with annual revenue of more than 500 billion yen). CAGR stands for Compound Average Growth Rate.
and Hitachi would clearly show the same pattern in CT and post-CT performances. Therefore, validation of the hypothesis derived by Kimura (2013) was supported via the Hitachi case analysis. We, here-with, restate our hypothesis to reflect the findings of this study, as follows:

*Hypothesis:* It is possible for a company that has regained its competitive advantage by CT to sustain it—if processes, that have been developed by related measures, were embedded at the point of the CT.

We would now discuss the contributions of this study in relation to existing studies. First, having analyzed CT covering a longer time range, this paper reconfirmed the effectiveness of embedding processes which functioned in the mid- to long-term as CT. This study thus contributes to the literature on CT by introducing a longer time period and a dynamic perspective.

Second, this study also contributed to the Dynamic Capability (DC) perspective. We defined CT as a comprehensive reconfiguration of the BM, i.e., conversion of all three of its components—resource, process, and strategy—at once on a large scale with the objective to regain its lost competitive advantage. While the existing literature define DC as only “resource conversion” capability, this paper considers DC as the capability to realize CT, thus “comprehensive reconfiguration” refers not only to the “resource base” (i.e., resources and processes) but to “strategy” conversion as well. To put it another way, while existing DC literature concerns itself mostly with micro-level DCs such as Mergers and Acquisitions (M&A), R&D and product innovation, this study considered DC as macro-level capability, which includes strategy conversion. Hence, incorporating strategy conversion in the definition of DC seemed for our purpose to be more practical.

Third, the analytical frameworks applied to the case studies could contribute to enhance the case study research method. This study used the framework to determine the relationship between embedded processes and competitive advantages by means of covariance structure analysis. However, simple variables were used to represent complicated situations, in which “embedded processes” and “sustainable competitive advantage” were considered latent variables. Then, we analyzed how the “embedded processes” developed from CT measures (observable variables). The framework of this case study method could contribute to qualitative research methods.

**CONCLUSION**

**Implications**

We conducted a case analysis of Hitachi’s Corporate Transformation (CT) to find out what kind of CT measures could realize competitive advantage to be restored and sustained after CT. By achieving this, the case analysis would provide additional support to validate Kimura’s (2013) hypothesis. In addition, we also confirmed the processes embedded by the CT functioned effectively to overcome the next environmental changes.

We would like to add three more practical implications we have obtained from the case analysis. First is the importance of speed in strategy formulation and its execution. In the “100-day plan” (as in the first sub-process, “perception of the necessity of CT and determination of its direction,” in Figure 2), mid-term growth strategy was discussed and agreed to by then company president, Mr. Takashi Kawamura, and five members of the senior management team. His predecessor, Mr. Kazuo Furukawa, was actually the one who first proclaimed that the company should shift to social innovation business and generic technology products. The major difference between the two leaders was execution capability and speed. As soon as he became company president, Mr. Kawamura immediately sold off some businesses that had little to do with social innovation and made some listed group companies related to social innovation wholly owned subsidiaries. By experiencing the speedy execution of strategy, the sense of urgency was felt by Hitachi employees, thus their support to implement CT measures has been gained.

The second point is that one of the embedded processes was to empower each business unit and prompt emergent actions from the *genba*, which is the equivalent to “autonomous business units (H-b).” The strategies and quantitative targets of each stra-
Strategic business unit (in-house companies and other units) as well as the whole company were publicized to all stakeholders, thus, in effect, making a public commitment. This practice made every company employee take his/her role seriously in resuscitating the company by achieving the targets.

The third point is that strong leadership at the top continued after Mr. Kawamura initially led the CT. His successors, Mr. Hiroaki Nakanishi and Mr. Toshiaki Higashihara carried on demonstrating strong leadership, which also contributed to Hitachi keeping up the regained competitive advantage. We could say with conviction that dynamic managerial capability is a large part of Hitachi’s Dynamic Capability (DC).

We are now facing the fourth industrial revolution, which is marked by emerging technology breakthroughs in fields such as robotics, artificial intelligence, blockchain, and IoT (Internet of Things), among others. Companies need to reconfigure strategies and resource base to adapt to such drastic changes in the external environment, and to do so, points learned from this study could be applied. To cope with the forthcoming environmental changes, which are going to be more frequent, more rapid and larger in scale than before, companies are required to act more promptly.

Limitations and Future Research Directions

We now discuss the limitations of this study and suggestions for future research. First, by conducting another case analysis which validated the hypothesis derived by Kimura (2013), we proposed that more case analyses are required to infer generalizations from. Second, since this study largely focused on macro perspectives (i.e., top management), perspectives from the other side, micro and middle management, also need to be looked into. For example, in this paper, we consider the introduction of the Global Grading System as a macro organizational perspective. If the effect on employees’ motivation as a result of this new system introduction could be added as a variable in future research, we could analyze Corporate Transformation (CT) more extensively. Third, we need more case analyses to improve on and establish the analytical method using covariance structure analysis.

We intend to do more research related to CT to add more comprehensive information to the CT literature.

REFERENCES


Grant, R. M. (1991). The resource-based theory of


**Tsuyoshi Kimura** is a professor at Rikkyo Business School (Graduate School of Business Administration). He is also a visiting professor at Chuo Graduate School of Strategic Management, where he received his DBA and MBA (Strategy). He also pursued an MBA (International Management) at the University of Dallas. He has work experiences in general management and strategic planning positions in various global companies such as General Motors, Adidas and Quiksilver.

E-mail: tk.stage2@gmail.com