Abstract: The deterioration of corporate performance is inevitable, and generally, corporations choose measures such as curtailing investment and reorganizing personnel. However, in the case of Kyoritsu Electric Corporation, the company’s subsequent core strategy was determined amidst deteriorating performance, and aggressive investments were made in human resources, facilities, and M&A, which were deemed good opportunities. These decisions led to industrial adaptations and peripheral expansions using core technology, overseas expansion, and organizational growth in subsequent periods of economic recovery. Furthermore, before experiencing the downturn in performance, the company engaged in activities such as exploring customer-driven ideas, searching for industries with potential technology adaptation, internally retaining funds, securing procurement methods, developing an internal organizational structure, eliminating vertical organizations, and delegating authority. In other words, the company conducted organization building as a “provision” for withstanding such situations. Although Chandler (1962) advocates “structure follows strategy” for periods of organization building after growth in boom periods, the company turned recession into a turning point for growth by choosing a behavior pattern opposite to
1. Introduction

When verifying coincident indicators\(^1\) in composite indices (CI) that demonstrate economic trends in corporate tax revenue of Japan’s general tax revenue accounting (Figure 1), a correlation is seen between economic trend CI coincident index and corporate tax revenue. The economy certainly influences corporate performance, and economic downturns decrease an organization’s propensity to change (Takahashi, 2013) and affect corporate performance. Furthermore, creating legitimacy for resource mobilization for innovation is difficult during economic downturns (Takeishi, Aoshima, & Karube, 2007, 2012). However, are the corporate behaviors that companies take during times of economic downturn, such as limiting investment and reducing workforce, always negative?\(^2\) Are there no positive corporate behaviors during times of economic downturn? These are the two initial research questions in this paper.

Chandler (1962) derived the famous proposition “structure follows strategy” by following the history of America’s modern large-scale organizations through their birth, establishment, development, and reorganization. Organization building often falls subject to growth strategy, and during periods of rapid growth the need for organization

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\(^1\) Mizuno and Takahashi (2002) compiled statistical data related to the economy and corporate facilities investment (and cash flow).

\(^2\) The composite index of economic indicators was 100 in 2005. In addition, the numbers show average values for each year.
Make provision for future growth under adverse circumstances

However, these findings were merely the result of researching the operational history of four large corporations in the United States and are not necessarily an indicator of inevitability. At the very least, is there a possibility of the inverse of Chandler’s proposition, wherein growth strategy only becomes possible once organization building has been previously put into place? This is our second research question.

Figure 1. Fluctuations of economic trend CI coincident index and corporate tax income

Sources: Economic and Social Research Institute, Cabinet Office Business Statistics Department, Indicators of Economic Trends; National Tax Administration Agency, General Tax Revenue.

building is the indicator that often follows (Takahashi, 2006). Because of this, Chandler’s theories have often become the subject of criticism (Leslie & Wada, 2001)
2. Case Study

The subject of this paper is Kyoritsu Electric Corporation, established in 1959 with its company headquarters in Shizuoka City, Shizuoka Prefecture, Japan. In the initial stages, the company operated as an engineering trading company and focused on industrial meters and measuring devices used in the automobile industry. However, by June 2013, it began focusing on its core technology of measurements, controls in intelligent FA systems (integration of IT and factory automation), and general IT systems. Kyoritsu has cross-boundary operation in industries such as automobiles, electronics, semiconductors, paper products, food,

![Economic trend CI coincident index (■) Kyoritsu Electric Corporate revenues(◇/unit: million yen)](image)

**Figure 2.** Comparison of fluctuations in economic trend CI coincident index and Kyoritsu Electric Corporate revenues

*Sources:* Economic and Social Research Institute, Cabinet Office Business Statistics Section, *Indicators of Economic Trends*; Kyoritsu Electric Corporation, *General Tax Revenue.*
drugs, cosmetics, chemicals, distribution, construction, government, environment, machinery, and public works. In 1998, the company was listed on JASDAQ and aggressively undertook broad business expansion, including overseas expansion and M&A. By April 2013, the company expanded its business and R&D activities into a group comprising 13 corporations (seven internal subsidiaries) in 14 locations in eight foreign countries. Even though it appears that this company has experienced favorable expansion over time, there are four times when the company experienced periods of performance downturns; these periods were when the economy experienced successive major downturns (Figure 2). This paper is a case study that focuses on the corporate behavior of Kyoritsu Electric Corporation during these times of performance downturn.

2.1. The first organization building

The current president, Masahiro Nishi, inherited the leadership of the company in 1982 from his father, a manager who took pride in craftsmanship. The rank and file on the shop floor were used to taking directions from their former leader, and fell into disarray. From this experience, Nishi realized the risk of individualized top-down organizational decision-making and embarked on organization building. Specifically, Nishi implemented the development of management philosophy, the formulation of management plans, personnel evaluations, revision of pay scales, and management by objective. His goal was a strong business expansion with an emphasis on technological development, rather than the company’s original role as an engineering trading company. Therefore, the company focused on developing increased ability to employ competent engineers for maintenance and system

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4 Coincident indices were compiled to match Kyoritsu’s accounting period. The company’s fiscal year is from July 1 to June 30. Furthermore, the numbers are average values for each year (beginning in July).
development. Nishi visits universities to tell of the benefits of working in Kyoritsu Electric Corporation and explains how engineers employed in the company are nurtured with tender care. Efforts are made to improve the working environment through individual interviews conducted twice per year, to ensure that physical and psychological distance between management and the shop floor does not occur with the increase in the numbers of employees. In addition, the company focused on family-oriented aspects through company events. They did this because increasing employees’ desire to work is important in businesses that conduct intricate system development on the basis of customer needs. In 1985, Nishi informed employees of the decision to “be a listed company.” The direction of Kyoritsu Electric Corporation had been decided. Technological development and prototype operations were strengthened more than before, and efforts were concentrated on product development for fulfilling customer needs. Gradually, formal procedures were accomplished in the pursuit of the goal of becoming a listed company.

2.2. The first recession

The first economic downturn, caused by the impact from the meltdown of the bubble economy in 1990, occurred under these conditions. The performance downturn continued until 1993. One decision that Kyoritsu Electric Corporation made during this period was to formulate a policy to increase research and development (R&D) personnel from 70 to 100 over three years with an eye toward business expansion. The background behind this decision was the opportunity to easily employ superior personnel because large corporations were reducing system engineers due to the economic downturn. In addition, multipurpose facilities were built for

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5 According to Nishi, assuring some type of response to requests and opinions and providing a guarantee against demotions are also important when conducting individual interviews.
exhibitions, seminars, and meetings for technological development as a means for external communication and focusing on the company’s technological strengths. Interest rates fall during economic downturns compared to boom times, which means there are also benefits from a funding perspective.

As the economic downturn ended, the company had already completed much of the preparations it needed for its long-term goal of being a listed company. The company planned to raise 750 million yen in funding through an initial public offering (IPO), the funds of which would be used for the expansion of research facilities and the strengthening of R&D structures such implementing devices for hardware development, strengthening computer networks, and increasing computer aided design (CAD) systems (Nihon Keizai Shimbun, Regional Economics, July 8, 1995).

Over-the-counter trading of the company stock through JASDAQ began June 1998. In accordance with the public trading of the stock, management duties increased and the management team became extremely busy. To deal with these issues, individual interviews of employees were changed to group interviews and managers were further empowered. The empowerment of managers was not only for reducing the work of top managers through dissemination of authority that had accumulated at the top, but also for including procedures for human resource development by managers.

2.3. The second recession

The timing for the second recession occurred roughly when the company was listed in 1998. The market environment during that time saw bankruptcy of major financial institution and a credit crunch for corporations. Moreover, it was an era of rapid decline in the business environment for corporations spurred by an increase in the consumption tax instituted for the financial rebuilding of Japan. At this time, Kyoritsu Electric Corporation was operating debt-free
due to the funding it received from being a listed company. However, the operating environment of customers had deteriorated with the market environment, and because facility investment had been suppressed, the company’s performance also suffered. Furthermore, the failure of the business model, which had heretofore been a model of high profitability, coupled with the decline in individual orders and accompanied by the commoditization of the personal computer became factors in the decline of corporate performance.

Nishi said the following about the conditions during that time: “This has been the worst operating period for us. We were unable to arrive at a solution no matter what we did. After thoroughly thinking it through and facing our reality, we began to see things more clearly. And we began to capitalize on our company strengths. Our direction was ‘strengthen our M&A strategy focused on intelligent FA technology and strengthen our overseas presence’” (Kyoritsu Electric Corporation’s informational session handout, September 5, 2012 edition, p. 3).

Based on this policy, the company took three concrete measures. The first was the deployment of core technology to multiple industries. To facilitate this, the company changed a portion of their organization. They formulated a flat organizational structure through the elimination of divisions separated by specific industries and technological fields and changed to a structure in which teams were formed on the basis of projects. This was to develop businesses and products not limited to traditional business types and areas of specialization. One noteworthy example is the deployment of IT control technology, which had theretofore been used in R&D and the rationalization of production industry, for possible applications of chemical measurement in the drug industry. Second, technology was deployed in areas peripheral to the company’s core technology. The business expanded through the diversified use of M&A, investment, and business alliances while taking into account the speed and
importance of business expansion. Third, the company’s core technology was deployed overseas. Overseas deployment consisted of two types of businesses. The first type of business was generated by customers transferring production operations overseas. The resultant increased need for consumables used in FA system, related product needs, and preventative maintenance needs. The second type of business was mass production manufacturing operations. Local factories were constructed for products that merited overseas production with beneficial expenses and labor costs. This type of overseas deployment resulted from a determination that increasing the competitiveness of the company’s business strategy is extremely important.6

2.4. The third recession

The third recession occurred in 2001 and was attributable to economic uncertainty in the United States, originating from multiple terrorist attacks and a global decline in the demand for IT products. Impacted by this market environment, Kyoritsu Electric Company also experienced a temporary decline in performance in 2002. In response to such circumstances, the company embarked on regional and industrial risk hedging by aggressively taking up the peripheral deployment of core technology. It did so through acquisitions and expansion of locations in the Asian region to pioneer new demand overseas, cut costs by transferring a portion of FA system R&D, and ensure overall production volumes.

During this period, investments and purchases of businesses could be undertaken at lower cost as struggling businesses attempted to sell off assets amid increasing investment demand from other companies whose business had declined. In other areas, the company established a R&D center in Canada, a nation with an

6 By December 2012, this was not consolidated in financial statements because it was not a large percentage of the company’s revenue.
agglomeration of advanced semiconductor technology, as a forward-looking investment for the expansion of the company’s business to strengthen the development framework for semiconductor substrate inspection devices.

2.5. The fourth recession

The fourth recession was caused by the Lehman Brothers financial crisis in September 2008. In June 2010, the company recorded its first ever current account deficit. In spite of the company’s decision to freeze new overseas investment during this period, existing overseas locations in Thailand were expanded because business demand was deemed to be high. Furthermore, growth industries in addition to manufacturing were explored, and “business improvement seminars in order to utilize IT for medical products” were held as the company embarked on the hedging of business risk by ceasing to excessively rely on specific industries. After demand was restored, the company did not need to explore new business deployment, but only verify corporate behavior in the anticipation of economic recovery.

On the other hand, an interesting phenomenon was discovered during this period. Sales personnel and engineers who had felt a sense of trepidation during this period had taken it upon themselves to begin cooperative sales by proactively initiating user-focused suggestions to customers. One factor that spurred this phenomenon was the extra time engineers had on their hands from a decrease in business during the recession. There were several cases that bore fruit from similar spontaneous behavior by crossing departmental walls.

3. Understanding of the Case Study

Our initial research question was “Are there any positive corporate behaviors during times of economic downturn?” By exemplifying
Kyoritsu Electric Corporation, we observe that the company was able to employ outstanding software engineers who they could not have employed during boom times because large corporations were reducing their numbers of system engineers during the first recession. Furthermore, the company was able to obtain lower cost funding due to lower interest rates to establish technological R&D locations. During the second recession, the company transformed their business model to one of “strengthening M&A strategy by focusing on intelligent FA technology and strengthening overseas presence” because of deteriorating performance due to the commoditization of personal computers. This was the origin of the company’s 2013 strategy. In the third recession, the company was able to purchase businesses and make investments at lower costs as struggling businesses attempted to sell off assets amid increasing investment requests. Furthermore, the company was able to preserve overall production volumes not by solely relying on domestic markets in Japan, a then struggling economy, but by discovering new demand overseas. During the fourth recession, engineers had excess time because of a fall in business and took it upon themselves to conduct cooperative sales. In other words, they partnered with sales personnel to understand customer needs and exhibit behaviors focusing on users and customers. This resulted in the coordination of activities among specialists within an organization (two or more people) to overcome the constraints of environment and relationships (Barnard, 1938). From the above, we see that corporate behavior was caused by the recession, and this became a turning point for the

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7 Kyoritsu Electric Company established new technological development locations during the recession and forged ahead into new businesses (through acquisitions and investments). Adversity faced by the company led to March’s (1991) search for knowledge.

8 Most of the transactions at Kyoritsu Electric Company were B2B. Kuwashima (2013) noted that using engineers to sell to a customer’s end-users is a “customer’s customer” strategy.
growth of the company.

The second research question revisits Chandler’s (1962) proposition that structure follows strategy. It is the question of whether the idea that organization building follows strategy and corporate behavior is a foregone conclusion. Kyoritsu Electric Corporation was definitely exhibiting corporate behaviors to manage the situation even before the recessions struck. For instance, the company was conducting organization building to establish an internal corporate structure before the first recession and was exhibiting corporate behaviors in line with their goal of being a listed company. Before the second recession, the company had adequate funds to expand into new businesses because of the direct investment obtained from public listing. Before the third and fourth recessions, the company was actively embarking on industry deployment of their core technology, expansion into peripheral businesses with their core technology, and overseas expansion of their core technology based on their strategic direction established during the second recession. In other words, it became clear that the company was embarking on prior organization building as a “provision” to deal with the inevitable or recessions even before they occurred.9 Could the example of this company be considered the inverse of Chandler’s (1962) proposal?

4. Discussion

Kyoritsu Electric Corporation faced four periods of economic recession over the past 29 years; however, the company exercised

9 Lawrence and Lorsch (1967) discussed the importance of flexible organizational structures and decentralized decision making to deal with environmental changes when forecasts are impossible due to the instability of the external environment. However, in the event that conditions of instability cannot be determined beforehand, prior preparation is important to establish such an organization.
corporate behavior that was made possible by the adversity\textsuperscript{10,11} of those recessions. Moreover, the positive choices that the company made, although painful, eventually bore fruit and became turning points for growth. Furthermore, what enabled those positive decisions in times of recession was the prior organization building undertaken as “provisions” for withstanding such conditions. The provisions taken by Kyoritsu Electric Corporation can be summarized by the following five items:

(a) The company began organization building based on the experience of the disarray on the shop floor that ensued after the sudden death of their former leader.
(b) The company began recruitment efforts targeted at universities with the ulterior motive of expanding into strong businesses with more emphasis on technology development than on technology sales.
(c) The company tweaked the working environment to implement individual interviews to ensure that physical and psychological distance between management and the shop floor did not increase with the increase in the numbers of employees.
(d) The company specified each area of improvement required to become a listed company and dealt with each one with the goal of going public.
(e) As the company grew busier in their operations because of the expansion in the scale of the organization and by the virtue of

\textsuperscript{10} Collins and Hansen (2011) capture the concept of “adversity.” This research focuses on success factors through which companies and managers are able to achieve rapid growth by overcoming adversity while facing the reality of instability. This research proposes maintaining a certain pace even in uncontrollable conditions by (1) instilling confidence that can be achieved in spite of adversity, (2) reducing the probability of catastrophe even before chaos, and (3) instilling confidence and enabling self-control to face the inevitable.

\textsuperscript{11} Quinn and Cameron (1983) refer to “crisis” as an issue faced during the process of organizational growth.
being listed, they were acutely aware of the importance of authority delegation before limitations on management were reached, and proactively delegated authority.

In essence, Kyoritsu Electric Corporation conducted prior organization building as a provision before exhibiting positive corporate behaviors contrary to Chandler’s (1962) proposal. Thus, the company was able to take advantage of opportunities presented by recessions, while other companies were merely wringing their hands and looking on in dismay. After Nishi became president of the company, revenues at Kyoritsu Electric Corporation expanded approximately 17 times, the rate of growth seen before he assumed the position.\(^{12}\)

5. Conclusion

By exemplifying Kyoritsu Electric Corporation, our research proves that the adversity of recession can be a growth opportunity for organizations, and there are also cases of prior organization building as strategy and corporate behavior, notwithstanding Chandler’s (1962) proposal that organization building follows strategy and corporate behavior. What makes this possible are the “provisions” taken during the times of normalcy. This research evidences an important conclusion: the key to whether corporations can face and overcome adversity and use that adversity to spur organizational growth depends upon whether the company continuously implements “provisions” on a day-to-day basis. This point reminds us of the guidance of “preparedness on a day-to-day basis,” espoused in Fujimoto (1997, 2012). Fujimoto indicates that the reason that Toyota Motor Corporation was able to maintain competitiveness and

\(^{12}\) The company’s 1983 sales was 1,552,000,000 yen, while the 2012 sales was 26,873,000,000 yen.
increase competence was “the seed of ‘preparedness’ shared by members of the company with regard to competitiveness.” This “preparedness on a daily basis” becomes the “provision,” and the cumulative effect leads to the “selection of positive corporate behaviors that, while difficult, breach the impossible” for overcoming adversity, which is understood to promote organizational growth.

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