

Value creation through the sustainable activities of agricultural corporations

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1. Presence and sustainability of agricultural corporations

The number of Japanese agricultural corporations increased 1.5 times between 2010 and 2023 (from 22,000 to 33,000) ⁽¹⁾. Furthermore, in 2020, corporations and other collective management entities accounted for 23.4% of the cultivated land under management and 37.9% of the agricultural product sales amount (Ministry of Agriculture, Forestry and Fisheries (MAFF), 2023). The 2024 partial revision of the Food, Agriculture and Rural Areas Basic Law clearly stated for the first time that the management infrastructure of agricultural corporations was to be strengthened. In addition, the 2024 revision of the Food, Agriculture, and Rural Areas Basic Law newly established the basic principle of "The establishment of a food system in harmony with the environment". In the future, agricultural corporations will need to contribute to the sustainability of local communities and the natural environment and to strengthen their management foundations, as important management issues. However, theoretical and empirical studies on the feasibility of achieving both of these are lacking.

2. Value creation through companies' sustainable activities

"Creating Shared Value (CSV)" is the idea that achieving both sustainable activities and profitability in a company is a management strategy that enhances the company's competitiveness (Porter and Kramer, 2011). CSV first had a major impact on the business world; for example, Corporate Social Responsibility (CSR), which before the 1990s was considered a social contribution activity, began being recognized as activities related to the essence of corporate management in the 2000s. According to a survey by the Japan Association of Corporate Executives, the percentage of executives who evaluate CSR as "core management" had risen to 71% in 2014 (Egawa, 2018), and an international survey found that 64% of CEOs came to the same recognition (PwC, 2016). Furthermore, the Ministry of Economy, Trade, and Industry (METI) defines SDGs management as "achieving both social issue resolution and business" (METI, 2019), and the Tokyo Stock Exchange Inc. has emphasized the importance of clarifying the relationship between the Environment, Social, Governance (ESG) issues faced by a company and its corporate strategies to attract ESG investment (Japan Exchange Group, Inc. and Tokyo Stock Exchange, Inc., 2020). The above trends indicate that CSV is currently considered a major strategic option, at least for large and listed companies.

Therefore, what is the actual situation regarding the relationship between sustainable activities and profitability? We reviewed studies on CSR, for which more research has been accumulated than for those on CSV. A meta-analysis summarizing multiple empirical results found that CSR improves economic outcomes through four factors: its impact on corporate reputation, building relationships with stakeholders, risk reduction, and innovation (Vishwanathan et al., 2020). Furthermore, this study indicates that the above four factors explain only 20% of the relationship between CSR and economic outcomes, and that CSR should contribute to economic outcomes through other mechanisms. For example, CSR affects employee job satisfaction and organizational citizenship behavior (an individual's contributions to organizational effectiveness that are not formal job requirements) (Pérez et al., 2018). For Small and Medium-sized Enterprises (SMEs) as well, CSR and increased economic competitiveness have a positive relationship (Turyakira et al., 2014), although some research results have shown that SMEs are inherently more reluctant to engage in CSR compared to larger companies (Perrini et al., 2007).

3. Demonstration of the value creation process of agricultural corporations

SMEs are more likely to face issues in achieving both sustainable activities and profitability; for agricultural corporations, the research issue concerns whether or not both can be achieved. To study this, we referred to the value creation process (Integrated Reporting, 2021). This framework focuses on the effects (outcomes) of business activities and their outputs (products and services provided) on various types of capital (financial, manufacturing, intellectual, human, social and relationship, and natural).

The results of a survey conducted by the Japan Agricultural Corporations Association (JACA) in fiscal 2022, with 1,205 responses, were used as data to determine the presence or absence of 59 types of sustainable activities, as well as subjective evaluations of changes to six types of capital and two types of financial outcomes.

First, the activities with the highest implementation rates were "Use of compost" (58.1%) for the environment, "Ensuring traceability" (39.1%) for local communities and consumers, and "Conducting regular health checkups" (76.3%) for employees.

Next, using a factor analysis to elucidate 59 types of sustainable activities, six factors were identified: consideration for employees, coexistence with society and nature, sustainable livestock production, sustainable use of agricultural land, climate change measures, and farming with disabled people.

Using the identified factors, structural equation modeling was applied to identify the sustainable activities→ capital→ financial outcomes relationship. Consequently, "value creation capability" was defined as a latent variable that affects the six types of capital, and the impact of sustainable activities on value creation capability was analyzed. The results are shown in Figure 1.

Based on these results, first, the six factors are positively related to value creation capability (however, the coefficient for "sustainable livestock production" was positively significant only for livestock corporations). This suggests that sustainable activities can potentially improve and accumulate various types of capital. Second, value creation capability is positively related to the ordinary profit margin and sales growth rate. This shows that the accumulation and improvement of capital can affect financial outcomes significantly. Third, the indirect effect of each of the sustainable activities on financial outcomes through their impact on value creation capability is positively significant (at the 5% significance level) for six factors ("sustainable livestock production" was limited to only livestock management).

The above analysis suggests that both sustainable activities and profitability can be achieved in agricultural corporations as well, and that improvements to and accumulation of various types of capital will also be realized in this process. In other words, sustainable activities in agricultural corporations are not merely social contribution activities, but a management strategy to enhance competitiveness and indicate that CSV is already being practiced.

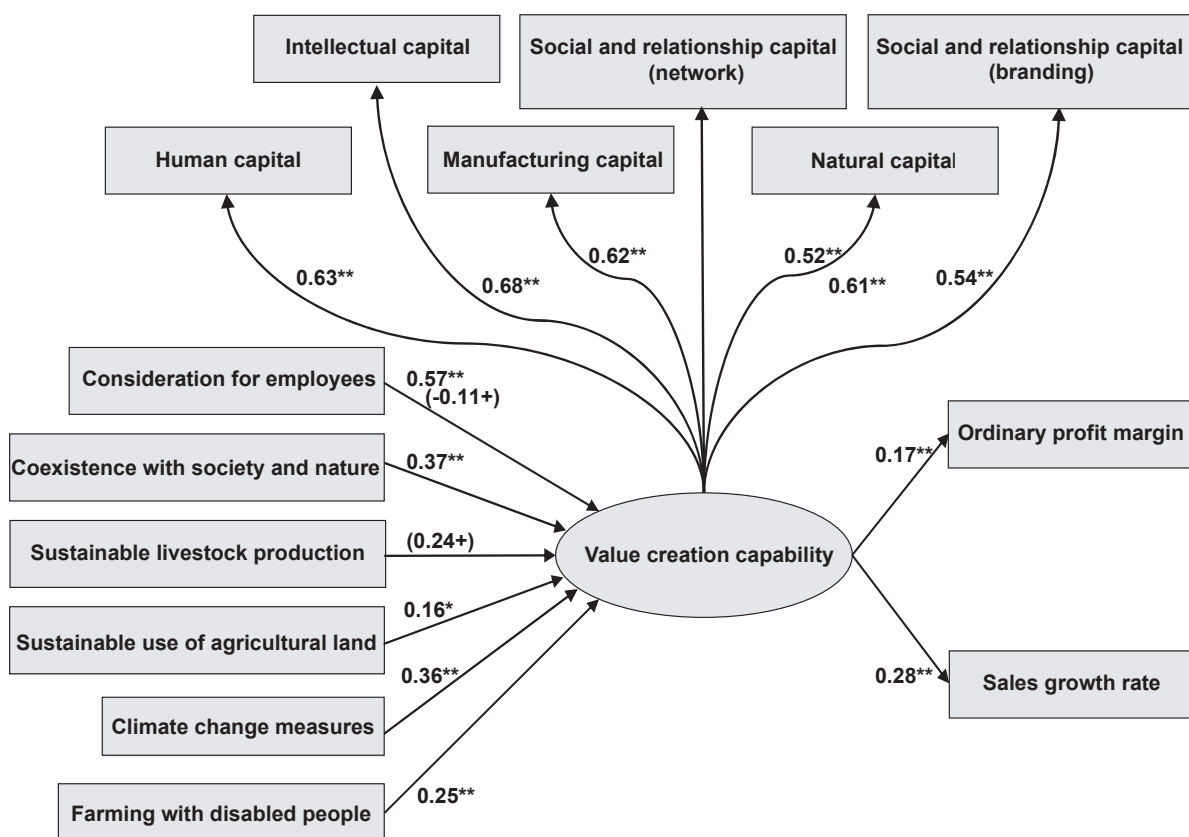


Figure 1 Structural equation modeling of the value creation process

Source: Prepared by the author.

Note: 1) n = 888. Estimation method (WLSMV, lavaan package, R). Goodness of fit (scaled=CFI0.91, scaled RMSEA=0.03, AGFI=0.98).

Only significant coefficients are shown. Paths for years in operation, log (number of employees, etc.), value creation capability from the livestock dummy, the ordinary profit margin, and the sales growth rate are omitted. +p < 0.1; * p < 0.05; **p < 0.01. Numbers in parentheses indicate the results for the intersection term with the livestock dummy.

4. Elucidating the factors of value creation and evaluating their impact

The above quantitative analysis does not clearly show the mechanism leading to value creation. Therefore, as an additional analysis, a survey of actual conditions for the value creation process of nine agricultural corporations was conducted. The results indicate that for sustainable activities to affect management, it is important to implement them after clearly linking these activities to management issues. For example, one corporation that grows vegetables responded to a recent sharp rise in fertilizer and fuel costs by using its own know-how to utilize organic fertilizer (sewage sludge) and to convert waste into fertilizer and fuel, thereby reducing fertilizer and fuel costs. In addition, as labor shortages in agriculture become more serious nationwide, farming with disabled people is promoted by employing people with disabilities; simultaneously, work environments have been improved by acquiring JGAP certification. Consequently, people with disabilities can now work at the same level as people without disabilities, and their salaries are also maintained at the same level. In another example, a corporation growing fruit linked the issue of training young employees with a project to develop processed products using waste peelings from processing mandarin oranges. Moreover, the capital affected by these activities clearly differs for each of the agricultural corporations.

In other words, there is no one sustainable activity that all agricultural corporations should implement in common; rather, each agricultural corporation is required to select those activities that address their business issues and then sublimate them into a business model.

5. Sustainable activities and management issues

Assuming that agricultural corporations can achieve both sustainable activities and profitability, what are the remaining research questions? First, the determinants of achieving both need to be clarified. According to a CSV review article, management strategy, leadership, and organizational capability are important factors (Menghwar and Daood, 2021). Effort to evaluate the value actually created for society and the natural environment has been lacking, and monitoring these results is considered essential to increasing the effectiveness of CSV and to creating greater impacts for society (Porter et al., 2012). Going forward, appropriate evaluations of agricultural corporations, which are becoming increasingly influential, will likely be an important issue for Japanese agriculture.

- (1) Figures for 2010 referred to the 2010 Census of Agriculture and Forestry, and figures for 2023 referred to the results of the 2024 Survey on Movement of Agricultural Structure.

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