

Competitive Advantage Factors in Vertically Diversified Brand Chicken Business: A Partial Value Chain Analysis of a Japanese Poultry Wholesaler

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Abstract

We aimed to clarify the competitive advantage of a vertically diversified brand chicken business as a method of creating a sustainable poultry business, using a part of Porter's value chain framework to extract strengths and linkages of a company's marketing in a case study of one enterprise adopting this business model. Company T1 achieved vertical diversification of its production, processing, distribution, sales, and restaurant businesses through its original brand chicken, produced on a direct-management farm and cooperative farms under uniform quality control. T1 internalized its poultry farming and never abandoned this model, despite its low profitability, because its original brand H chicken was a high-quality product at the core of T1's marketing strategy. We concluded that this high-quality original product resulted in a successful vertically diversified business within the poultry industry. To achieve this success, efforts are needed to maintain high levels of quality using sophisticated human resource approaches.

Discipline: Social Science

Additional key words: broiler integrator, communication skills, internalizing poultry farming

Introduction

The demand for chicken by Japanese consumers has increased along with growing public interest in health; thus, the import volume of chicken has increased. The price for domestic farmyard chicken has declined, and domestic production has shown a decreasing trend since the mid-1980s (Fig. 1). In domestic chicken production, integration with poultry farmers has been developed by producing organizations, wholesalers, or major trading firms through contract farming since the late 1950s. As for broiler integration, the stability of farm income was secured by the late 1980s due to contract farming using a fixed price system. However, integrators expanded the procurement share of their direct-management farms in view of the aging and retirement of contract farmers, resulting in difficulties with capital accumulation by farmers (Miyata 2016). This meant that vertical diversification was required for integrators to ensure a continued domestic broiler supply by increasingly fewer poultry farmers.

Vertical diversification is one of three types of

diversification strategy for branching out into the production of components, parts, and materials (Ansoff 1957). Niiyama pointed out that the diversification of business in the livestock sector had three strategically important aspects: (1) the possibility of increasing gross profit by expanding business scale, (2) the possibility of absorbing changes in risk within a single-sector market, and (3) the stabilization of marketing channels and an increase in value added by approaching the final consumer market (Niiyama 1997). However, vertical diversification for broiler integrators is challenging because broiler farming is a low-profit sector in the Japanese poultry industry, as described below. Broiler integrators are expected to innovate in order to enhance their own management sustainability.

The Japanese Ministry of Agriculture, Forestry and Fisheries (hereinafter, MAFF) has stated, "The food value chain mechanism that combines primary industry with secondary and tertiary industry remains weak, and the potential of a food value chain has yet to be sufficiently utilized. The food industry is expected to contribute to the formation of a food value chain, starting with the

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Received 24 June 2019; accepted 6 March 2020.

circulation of resources and utilization of marketing power, information, communication technology, and other resources” (MAFF 2012). The value chain concept, introduced by Porter in 1985, is a method of considering marketing activities using certain processes, in order to add value to raw materials and yield a finished product (Porter 2008). As Porter pointed out, “A company’s value chain is a system of interdependent activities that are connected by linkages. The careful management of such linkages is often a powerful source of competitive advantage due to the difficulty that rivals have in perceiving them and in resolving trade-offs across organizational lines” (Porter 2008).

Few Japanese agronomic studies have analyzed the value chain concept for the food industry. In a case study of cooperation among the medical, social welfare, agriculture, commerce, and manufacturing sectors, Saito highlighted the validity of a food value chain constructed in collaboration with various industries and business categories related to the food sector (Saito 2017). In another case study of the food value chain concept, Hosono and Abe reported that a higher demand for domestic low-marbled beef is expected through a supply chain constructed by food manufacturers, as a core element (Hosono & Abe 2017). Hosono pointed out that constructing a domestic lemon supply chain in a collaboration between local government and agricultural cooperatives contributed to promoting domestic lemon production (Hosono 2018).

In value chain analysis of poultry farming, Khaleda

indicated the validity of the contribution by NGOs through constructing a poultry value chain for sustainable small-scale poultry farming in Bangladesh (Khaleda 2013). McLeod et al. indicated the importance of a poultry value chain with safety and security to stop the spread of avian influenza (McLeod et al. 2009).

Saito explained the food value chain as a means of constructing a food system that connects farming to consumption, with a competitive advantage (Saito 2017). This is similar to the outline of MAFF’s statement and other studies; however, these definitions of a value chain differ from that of Porter as a tool for analyzing a company’s marketing activities. No studies have investigated the competitive advantage factors of a vertically diversified poultry business using Porter’s value chain analysis.

To acquire a competitive advantage, it is important to clarify structure and function in a vertically diversified poultry business by internalizing farming, manufacturing, retailing, and the restaurant business, such as in original brand chicken. We aimed to clarify the competitive advantage factors of a vertically diversified brand chicken business as a method of creating business sustainability for poultry wholesalers by internalizing poultry farming, despite obtaining a low profit, using a part of Porter’s value chain framework in a case study of one enterprise that has adopted this business approach. However, this study focused on the business activities of an individual enterprise as one of the processes to consider regarding competitive advantage factors for the entire poultry

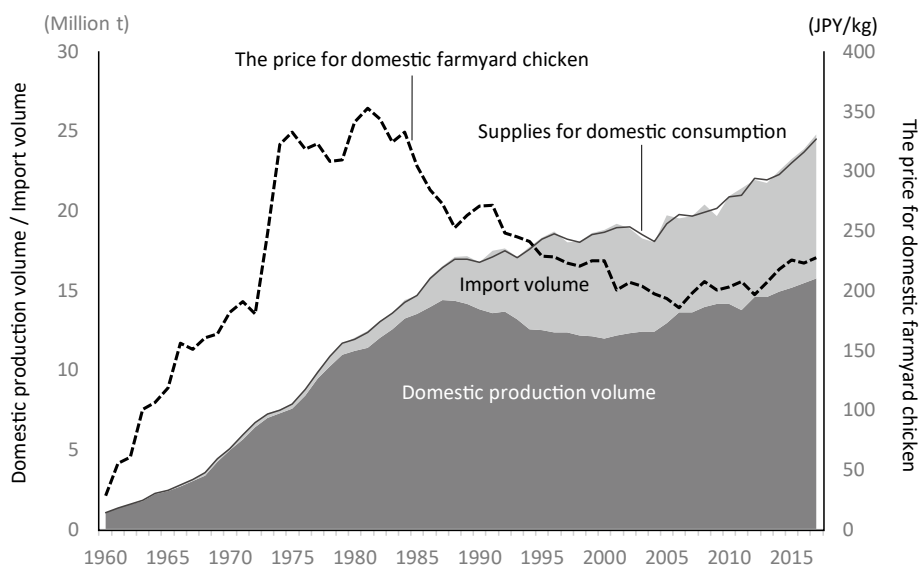


Fig. 1. Outline of chicken supplies for domestic consumption in Japan
 Drawn from data of the “Food Balance Sheet and Agricultural Income Statistics,” edited by the Japanese Ministry of Agriculture, Forestry and Fisheries. The price for domestic farmyard chicken is calculated as domestic chicken production output divided by domestic chicken production volume.

wholesale market, which is a future task.

Materials and methods

1. Outline of the investigated enterprise

The object of investigation in the present study was Company T1, a poultry wholesaler, according to the Japan Meat Yearbook (Shokuniku Tsushin-sha 2016). T1's headquarters was established in Fukuoka Prefecture in 1987. In FY2018, T1 had capital of 64 million JPY and revenue of 12.86 billion JPY. T1 is involved in poultry farming, chicken processing, the restaurant business, and retail trade in addition to its main business of poultry wholesaling. In FY2018, T1 had about 800 employees, including 250 regular and 550 part-time workers. T1 began as a poultry retailer in 1949 and then opened a diner offering chicken hot pot dishes in Fukuoka in 1962; the company began its poultry farming business in Karatsu, Saga Prefecture in 1979. Then in 1988, the company began the production and wholesaling of its brand H chicken, and later opened a Japanese-style chicken hot pot restaurant in 1994. T1 belonged to a poultry wholesale enterprise group with four companies that included two other companies in Fukuoka Prefecture and one company in Saga Prefecture. A cooperative (T2) that handled poultry slaughtering and heat processing was established through an investment made by these four companies.

Poultry wholesalers including T1 are at the core of broiler integrators in Japan. In 2015, there were 82 poultry wholesalers in the country, with sales of over 100 million JPY each. The total sales of these 82 companies was 790 billion JPY. Eighteen companies with sales of more than 10 billion JPY accounted for 73% of total sales, and four companies with more than 50 billion JPY in sales accounted for 37% (Table 1). Poultry wholesalers' sales were concentrated in large-scale companies. T1's poultry wholesale and other businesses had sales of more than 10 billion JPY, and has increased in recent years (Fig. 2),

making it an excellent example of a vertically diversified business.

2. Methods

We aimed to clarify the competitive advantage regarding the vertically diversified brand chicken business, using the example of T1's brand H chicken. Management information regarding T1's brand H chicken was obtained during an interview with T1's managing director. We used a part of Porter's value chain framework to extract the strengths of T1's vertically diversified brand chicken business as competitive advantage factors, shared among five primary activities (inbound logistics, operations, outbound logistics, marketing and sales, and service) and four support activities (procurement, human resource management, technological development, and firm infrastructure). We then considered the linkages among these elements. This method permits the capture of costs, strengths, and weaknesses for cost reduction and differentiation (Porter 2008).

Results and discussion

1. Business outline of company T1

As a result of interviewing the managing director,

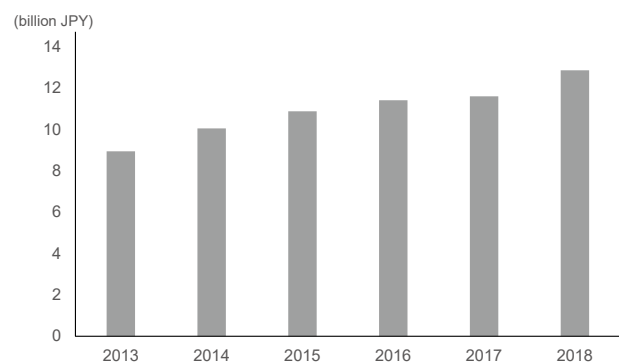


Fig. 2. Annual revenue of T1 (FY2013-2018)

Data from Tokyo Shoko Research Ltd.

Table 1. Situation of poultry wholesalers in Japan, broken down by sales volume (2015)

Poultry wholesalers	Breakdown by sales volume (billion JPY)					
	Total	Under 1	1-5	5-10	10-50	Over 50
Number of companies	82	16	34	14	14	4
Sales amount (billion JPY)	790	10	99	106	284	290
Proportion of sales (%)	100.0	1.3	12.6	13.4	36.0	37.6

Data from the Japan Meat Yearbook 2015-2016, Shokuniku Tsushin-sha Co., Ltd.

we developed a business outline of T1. First, the company was primarily focused on poultry farming. T1 found it necessary to procure chicken with a fixed quality and quantity for its chicken hot pot and wholesale businesses, in addition to retail sales. The motive to begin poultry farming was to provide a stable supply of chicken.

T1 began production and sale of its original brand H chicken in 1988 as suggested by a feed additive manufacturer. The H branding of chicken involved three aspects: chickens raised in open poultry houses, with exclusive feed and food security, and safety. Open poultry houses meant that T1s chickens were exposed to fresh air and sunlight, which reduce stress among chickens raised in a more natural environment.

Brand H chickens were fed T1's exclusive feed, developed jointly with a feed additive manufacturer. The fermented feed included rice bran and soybean lees as the main ingredients, with seaweed and herbs added to improve the chickens' intestinal environment. The feed additive manufacturer directly supplied farms with this exclusive feed, for consolidated feeding. Finally, to maintain food security and safety, T1 promoted uniform safety and quality control, from chick raising to processing and distribution, under standards established by T1 and based on the poultry meat inspection system.

A direct-management farm and cooperative farms comprised the brand H chicken breeding farms. A total 500,000 chickens were shipped annually from the direct-management farm in Saga Prefecture. There were about 30 cooperative farms in Saga, Fukuoka, and Nagasaki prefectures. To minimize the risk of a bird flu outbreak, the cooperative farms were geographically dispersed.

For quality control on the cooperative farms, two-and-a-half T1 staff members visited the farms every day, with two employees dedicated to quality control; one was a production department chief who was a licensed veterinarian, and the other had work experience at a feed company and knowledge of medicine. Another part-time veterinarian (representing the one-half employee) was involved in quality control. Regarding technical management, the cooperative farms could improve their product quality by using the latest technical information shared by the T1 staff, although not required by T1. Meetings between T1 and the cooperative farms were held at least twice a month, and T1's chairperson attended all the meetings. Thus, T1 could ensure a quality relationship of mutual trust and good communication with the cooperative farms.

The second aspect of T1 is that the company operated a restaurant business. The motive for opening a chicken hot pot restaurant was due to T1's good reputation as a retailer and restaurant supplier; thus, T1's founder

felt that consumers could be assured of good quality by directly supplying chicken hot pot dishes to the public. In 2018, there were 19 Japanese-style chicken hot pot restaurants managed by T1 nationwide.

The restaurant menu featured brand H in the chicken hot pot dish, made with T1's original broth. Meals were cooked and served to guests in a private room by a kimono-wearing hostess who had received in-house training. The hostess explained the special qualities of the dish to customers. This elegant service was aimed at improving the T1 brand as well as the brand H chicken. T1 developed its restaurant business, with 47 stores throughout Japan including 19 Japanese-style chicken hot pot restaurants, and with over 1 million customers served annually.

The third aspect was T1's processing, wholesale, and retail business. Raw meat was prepared and packed at T1's own factory. Commodities such as partially cooked chicken cutlets and deep-fried chicken were produced at another T1 factory. Cooked commodities such as chicken meatballs and burgers were procured from the cooperative T2. Other processed commodities such as chicken pot soup, ponzu sauce, and curry were procured from cooperative enterprises. Wholesale destinations were large retailers such as supermarkets. The retail business involved a prepared chicken hot pot meal, prepared under quality-controlled conditions at T1 headquarters, with home delivery to customers.

All raw materials were brand H chicken, raised on the direct-management farm or cooperative farms. All chickens were slaughtered by T2 and processed in a captive factory, group factory, or by cooperative enterprises. T1 commercialized its chicken brand through a variety of items and products. T1 also commercialized poultry manure as compost in its agricultural division, contributing to regional agriculture with effective utilization of a poultry farming by-product.

2. Strengths of the T1 brand H chicken business

We extracted the strengths of T1's brand H chicken business with Porter's value chain framework using information obtained in the interview with T1's managing director (Fig. 3). First, T1's primary activities are addressed. Regarding inbound logistics, "Internalized material production" was extracted because T1 produced its brand H chicken on a direct-management farm or cooperative farms. Regarding operations, "Various production processes in manufacturing" was extracted as T1 handled cutting, packing, and processing production at a captive factory, group factory, or cooperative enterprises. Regarding outbound logistics, "Various business divisions" was extracted because various items

produced by T1 were distributed to divisions that were suited to the form of production. Regarding marketing and sales, “Various products integrated with original brand” was extracted due to the wholesaling of various commodities produced using T1’s chicken brand to mass retail stores. Regarding service, “Chicken Hot Pot restaurant business” was extracted because customers could be assured of good quality with T1 directly supplying its own chicken hot pot dishes.

Second, we evaluated T1’s support activities. Regarding firm infrastructure, “Vertically diversified business through its original brand chicken” was extracted given the main characteristics of T1’s management. T1 could diversify its business vertically because the company could set its original brand chicken, produced on a direct-management farm and cooperative farms, as the core of the company’s marketing strategy.

Regarding human resource management, we extracted “Sophisticated skills for each business process, based on communication skills” as human resource strategies based on communication skills that resulted in T1’s successful diversification. For example, daily visits to farms by staff members helped to maintain the quality of the raw materials, and customers could be assured of high quality with the presence of restaurant hostesses

who explained the special qualities of the hot pot dish. Regarding technological development, “Developing with business partners” and “Introducing the latest technology” were extracted owing to the joint development of T1’s exclusive feed with a feed additive manufacturer. Regarding procurement, we extracted “Food security and safety” because T1 established standards for food safety and quality control based on the poultry meat inspection system.

We assessed the added value of each of T1’s business sectors to understand T1’s management linkages. Figure 4 shows the gross profit margin (GPM) of each industrial sector related to T1’s businesses including poultry farming, livestock product manufacturing, agricultural livestock and aquatic product wholesaling, food and beverage retailing, and the food service industry during FY2014-2016. GPM was calculated as revenues minus operating expenses divided by revenues, to measure how high-value-added products were supplied by an enterprise. We must consider that it is not simple to compare because the GPM of manufacturers, wholesalers, retailers, or the food service industry did not include the poultry sector alone (see Fig. 4). We were unable to conduct financial analyses in addition to checking GPM as it was difficult to obtain details of the financial

Support activities	Firm infrastructure	Vertical diversification of T1’s poultry production, processing, distribution, sales, and restaurant business through its original brand H chicken, produced on a direct-management farm and cooperative farms. Risk management to minimize risks of a bird flu outbreak.				
	Human resource management	Sophisticated skills based on communication skills: (1) In poultry farming, two-and-a-half T1 staff members visited the farms every day, and meetings with T1 and cooperative farms were held at least twice a month with T1’s chairperson attending. (2) In the restaurant business, meals were cooked and served by a kimono-wearing hostess who had received in-house training on explaining the special qualities of the dish to customers.				
	Technology development	Developed with business partners and introducing the latest technology: (1) Open housing so chickens are exposed to fresh air and sunlight; (2) exclusive feed, developed jointly with a feed additive manufacturer, including rice bran and soybean lees with added seaweed and herbs, and other ingredients.				
	Procurement	Food security and safety with establishing standards for food safety and quality control based on the poultry meat inspection system.				
		Farming: Internalized material production, producing T1’s brand H chicken on a direct-management farm or cooperative farms.	Processing: Various production processes in manufacturing, with slaughtering, packing, and processing at a captive factory, group factory, or cooperative enterprises.	Distribution: Various business divisions of T1’s poultry production, processing, distribution, sales, restaurant business, and recycling.	Wholesaling: Various products integrated with the original brand due to the wholesaling of various commodities produced using T1’s brand H chicken to large retail stores.	Food service: Chicken hot pot restaurant business with T1’s brand H chicken and original soup recipe, to assure consumers of good quality.
		Inbound logistics	Operation	Outbound logistics	Marketing and sales	Service
		Primary Activities				
		Margin				

Fig. 3. Value chain analysis of company T1

Drawn from the author’s research and an interview with T1’s managing director

indicators of the broiler and related sectors. We could determine the trend in GPM of each business in relation to T1's business. The GPM of broiler farming was 3%-8%, the lowest among these businesses. The GPM of the food service industry was 49%-52%, the highest among the businesses. T1's GPM was 33%-38%, between the 27% of retailers and the 49%-52% of the food service industry. T1 internalized broiler farming despite its low GPM and never abandoned this approach because its brand chicken farming was the core of T1's marketing strategy. Figure 2 (cited previously) shows T1's increasing annual revenue; this is one of the indicators of T1's success in its vertically diversified brand chicken business.

3. Competitive advantage of T1's vertical diversification using its original brand chicken

T1 achieved vertical diversification of its production, processing, distribution, sales, and restaurant business mainly via its original brand chicken, produced on a direct-management farm and cooperative farms under uniform quality control. We extracted the competitive advantage factors and then considered the linkages among these factors, as described below.

First, T1 internalized its poultry farming and never abandoned this model despite its low profitability because

as a high-quality product, T1's original brand H chicken represented the company's core marketing strategy. The brand H chicken led to the restaurant business and other business sectors yielding a high profit.

Second, T1's vertical diversification was successful because the company maintained the high quality of its brand chicken using a sophisticated human resource strategy based on good communication skills. T1's human resource model helped to create and maintain trust among the cooperative farmers, thereby helping to maintain the quality of T1's products. Customers could also be assured of the good quality of the products in T1's restaurants. We identified these results by extracting T1's strengths using Porter's value chain framework.

Nohguchi reported that the characteristics of material differentiation, such as cultivation technology, are transferred directly to products and transmitted to consumers in successful cases of vertical diversification by agricultural corporations (Nohguchi 2001). Hamada pointed out the importance of considering innovation as an enterprise-wide issue related to corporate strategy (Hamada 2016).

According to results of the present case study, we concluded that a high-quality original product led to the creation of a successful vertically diversified business within the poultry industry. For achieving such success,

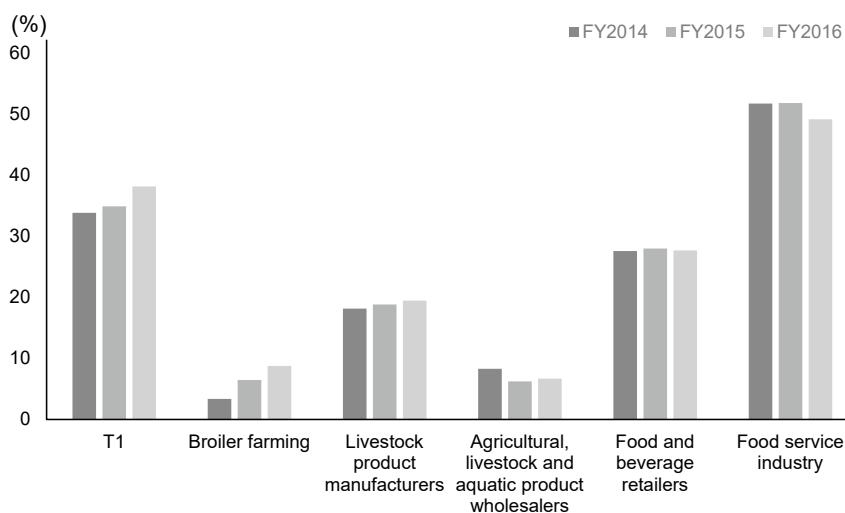


Fig. 4. Comparison of gross profit margin of T1 and its related industry sectors

Data of company T1 were taken from the actual status as announced by Tokyo Shoko Research Ltd. Data of broiler farming were taken from the average of organizational management farms in the "Report of Statistical Survey on Farm Management" of the Japanese Ministry of Agriculture, Forestry and Fisheries. Data of livestock product manufacturers, agricultural livestock and aquatic product wholesalers, food and beverage retailers, and the food service industry were taken from the average of each in the METI Business Activity Basic Survey. When comparing the gross profit margin (GPM) of T1 with the others, we must consider that the GPM of manufacturers, wholesalers, retailers, or the food service industry does not include the poultry sector alone.

efforts are needed to maintain high quality by incorporating advanced human resource strategies.

Despite our findings regarding the competitive advantage factors and linkages of T1's vertically diversified brand chicken business, much remains to be clarified. In this study, we only identified the competitive advantage factors of vertical diversification conducted by an individual poultry enterprise. As mentioned above, considering this from the viewpoint of the entire market of poultry wholesales is a future task. Thus, the following directions in vertical diversification should be considered, for the sustainable management of poultry integrators: (1) commercializing all materials as various commodity items, including in regions with low meat demand, (2) contributing to regional agriculture by building a relationship of trust with cooperative farms, and (3) strengthening relationships with regional farmers, such as by supplying them with poultry manure compost.

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