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RESEARCH ARTICLE

FARM STRUCTURE AND STRATEGY IN DIRECT MARKETING CHANNEL BY DAIRY FARMERS OF SAGA PREFECTURE, JAPAN

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ABSTRACT

This paper describes the farm structure and strategy of dairy farmers who sell milk and milk products to the consumer directly. Among 86 dairy farms, only 3 farms are involved in direct marketing channel in Saga Prefecture. These 3 farms are selected for this research. Farmers are concerned about income from milk sales which has been decreased since 1990. Most of the dairy farmers are prisoners of market price. They could cut their costs, but stuck with the market price. They have no control over that price. Even though, very efficient farmers watch their potential profits drive off the farm with the milk truck. That's why, these 3 farmers tried to develop farm structure and strategy to retain in the market.

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INTRODUCTION

Family labor income from raw milk has been decreasing day by day in Tofuken. In Addition, feed price has increased in 2007-08 suddenly that affected on the cost of production (i.e. cost of milk) and ultimately income from raw milk has drastically reduced (Figure 1). To re-construct the income, authority has taken decision to increase the farm-gate price of raw milk by 10 yen per kg which has directly contribute to increase the income level of dairy farmer. Although, the sales price has been increased, the income from raw milk is less than 30 yen per kg in 2010 while that was more than 50 yen in 1990s. But in these circumstances, income can be increasing through expanding the scale size of farms that means increasing the herd size or establishing processing unit i.e. direct marketing to the customers. Therefore, this study concerned to identify farm structure and strategy of direct marketing of dairy products to the customers. In Saga Prefecture, most dairies do not involve in direct marketing. Among 86 farmers, only 3 farmers in Saga Prefecture involve in direct marketing to the customers. They are legally sold raw and pasteurized; homogenized and non-homogenized milk and milk products. Additionally niche products such as cheese, yogurts, milk coffee and milk pudding are emerging. Farmers were thinking about this situation and tried to find out the alternative way to increase the income of family labor. Direct selling to the customers can revive the income level of the

farm. Therefore the study has concerned the objectives: to find out how to take back income on the farm through direct marketing, to find out farm structure and strategy of direct supply chain channel, to find out unique feature of milk products that can attract customers.

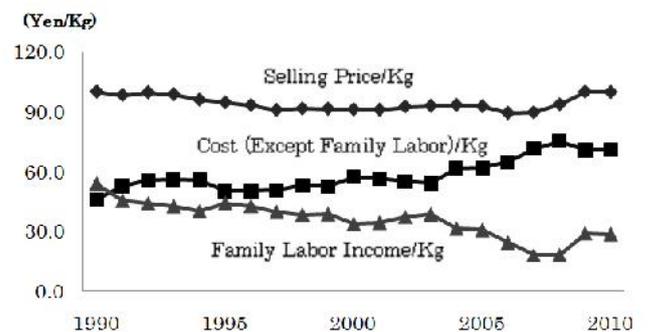


Figure 1. Family Labor Income from Raw Milk/Kg in Tofuken, Japan

Source: "Livestock Production Cost" Ministry of Agriculture, Forestry and Fisheries, Japan

Background of the study

Production and consumption pattern of milk and milk products in Japan

Consumption of drinking milk has reduced to 87 g/day/person in 2010 while it was 92.9 g/day/person in 1980. It indicates that

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Japanese habits of drinking milk have been reducing day by day. But, consumption of milk products (butter, cheese, yogurt, ice-cream etc.) has been increased to 149.2 g/day/person in 2010 while it was 84.9 g/day/person in 1980. Specially, consumption of milk products has been increased after 1990s (Figure 2). Domestic production of milk and milk products has also been increased to 3451 thousands ton in 2010 from 2311 thousands ton in 1980. Domestic production of raw milk has also been decreased to 4107 thousands ton in 2010 while it was highest in 1994 (5263 thousands ton).

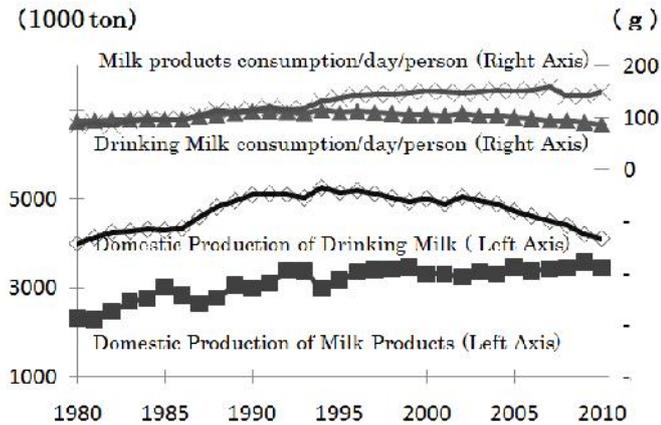


Figure 2. Production and Consumption pattern of Milk and Milk Products, Japan

Source: "Food Supply and Demand" Ministry of Agriculture, Forestry and Fisheries, Japan

### Milk Distribution Channel in Saga Prefecture

The description of the distribution channel of raw milk of Saga Prefecture will start at farm level. First, there is group of farmers whose are known as raw milk producer.

Second, intermediaries include two milk processing company inside prefecture and three milk processing company outside prefecture, supermarket, school and other sellers. At first, raw milk has supplied to Glico Milk processing company (excludes Murayama Milk Plant's requirement) through 4-10 tons capacity tank lorry for storing in cooling station. Then, raw milk supply to three milk processing company outside prefecture (Meiji, Fukuoka; Kumamoto Nyugyou, Kumamoto and Kounyusha, Kumamoto) through 15 tons tank lorry. Murayama Milk plant collects raw milk from farmers directly. This part of the distribution channel is monitored and managed by Kyushu Seinyu Hanren. The processing company supplies their milk products through school and supermarket in this area. Murayama Milk Plant also supplies milk products to Itoshima's Itomonogatari. Three farms of the case study not includes in this distribution channel. They are getting their milk from own farm's production and rest of the milk sold to Glico Milk processing Company, Saga. In that way, other farmers also sold their milk to other processing company outside of Saga prefecture (Figure 3).

### MATERIALS AND METHODS

There are 86 dairy farms in Saga Prefecture (2011). Most of the farmers have sold raw milk to the processing company. Only 3 famers have established their own (small) processing unit to do direct sales to customers. These 3 farms were chosen as a sample farm for collecting data with a structured survey questionnaire included the questions for acquiring information about household characteristics, short history of the farm, marketing channel etc. This study also considered secondary sources for analyzing purposes. Marketing Mix and SWOT Analysis has been used to analyze the farms structure and strategy to enter direct marketing channel. Marketing Mix is known as 4p (product, price, place, promotion). Product is the combination of goods and services that the farms offer to their market.

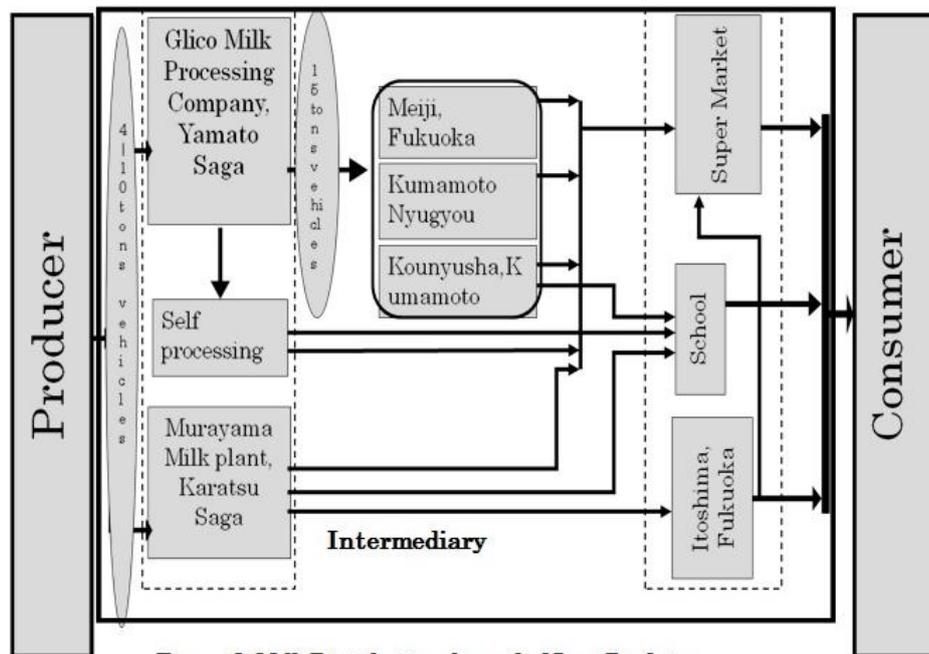


Figure 3: Milk Distribution channel of Saga Prefecture

Source: Survey Data 2012

Price is the amount of money that customers pay to obtain the goods and services. Distribution (Place) includes the activities of farms that make the goods and services available to the target consumers. Promotion is the activities that raise awareness the benefits of goods and services and encourages aims customers to buy it. SWOT Analysis of farms provides us with an in-depth strategic analysis of the farm’s businesses and operations. The analysis will give us a clear and an unbiased view of the company’s key strengths and weaknesses and the potential opportunities and threats.

**Case Study: Farm Structure and Strategy**

General characteristics of three farms have described below:

**Structure and Strategy of Farm A**

Crop production could not be easily expanded to increase the income of households. That’s why; the owner of this farm has attracted to the constant price of milk and started dairy farming. Gradually, he involved in direct marketing through producing milk and milk products (Table 1). This farm posses its own structure to supply in farmer’s market, supermarket within the region. Completing analysis about farms structure, Marketing Mix (Table 2) and SWOT analysis (Table 3) has been analyzed: Farm A’s strategic objectives to reach the direct marketing channel is closely linked to a greater satisfaction of end user, providing the minimal wait time, given that product delivery is immediate. Hence, value is added to the product. With this, the action of the farm in this channel was heavily focused on a strategy of overcoming the price perception and convenience of local traditional retail.

**Table 1. General Characteristics of Farm A, B & C**

Particulars	Farm A	Farm B	Farm C
Starting of Direct Marketing	1988	2002	1995
Processing Unit	1988	2012	1997
No of Cows	30 Milking Cows	62 Milking Cows	75 Milking cows
Milk Sells to processing Company	No	Yes (other than self processing)	Yes (other than self processing)
Setting up cost	100 Million Yen	7 Million Yen	15 Million Yen
Annual Sales Turnover	-	90 Million Yen (Including Milk Sales Turnover)	100 Million Yen (Including Milk Sales Turnover)
Annual Profit	-	20% of sales (Family Labor wage not Deducted)	15 Million Yen (Family Labor wage not Deducted)
Labor	4 Permanent & 6 Temporary (Processing unit) with Family Labor	Family labor only	3 Employees for Farming and 2 employees for processing unit with Family Labor
Initial Products of this channel	Pasteurized milk and Ice cream	Ice-cream	Ice-cream
Present Products	Non-homogenous pasteurized milk, Plain Yogurt, Drinking Yogurt, Macha and Coffee Milk, Various Kinds of Cheese & Ice-cream.	Cheese and Ice Cream.	Raw material for Soft Ice-cream.

Source: Survey Data, 2012, Note: (-) denotes data is not available

**Table 2. Marketing Mix Analysis of Farm A, B & C**

Farm	Price	Promotion	Place (Distribution)	Product
A	❖ Higher prices than other channels	❖ Investment for launching new products. ❖ Sold out tools	❖ Farmer’s Market and Supermarket is main distribution channel	❖ Regional preferences considered
B	❖ Higher prices than other channels	❖ Investment for launching new products	❖ Farmer’s Market, Restaurant and Internet are main distribution channel	❖ Unique tasty cheese
C	❖ High prices than other channels	❖ Dairy Academy for awareness of people ❖ Sell through soft ice-cream sellers	❖ Farmer’s Market and soft ice-cream sellers shop is main distribution channel	❖ Tasty raw material for Soft ice-cream

Source: Authors, based on data and interviews.

**Table 3. SWOT Analysis of Direct Marketing Channel for Farm A**

SWOT	
Strengths	Weakness
- Income has been increased	- High Risk of credit
- Ease supply channel	- Intermediary Dependence
- Produced for other farmers	- Low chain fidelity
- Non-homogeneous milk products	- High Cost of Establishment
Opportunities	Threats
- Exploring regional preferences	- Competition from Big Companies
- Direct communication to consumers	- Enter into TPP
- Food habits of people changed to dairy products	- Learning time for farm A

Source: Developed by Authors based on interviews, using Porter’s Model (1997).

Note: TPP denotes Trans-Pacific Partnership Agreement.

**Structure and Strategy Farm B**

Selling Milk to processing company is not the only way to expand the business. That’s why, the owner of this farm started to sell Ice-cream which has produced by ‘Farm A’ but raw milk and other raw material have been supplied by ‘Farm B’. In the time being, he also started cheese processing unit in 2012 (Table 1). For completing about farm’s structure, Marketing Mix (Table 2) and SWOT analysis (Table 4) of the farm has been done:

**Table 4. SWOT Analysis of Direct Marketing Channel for Farm B**

SWOT	
<b>Strengths</b>	<b>Weakness</b>
- Profitability has been increased	- Time consuming
- Ease supply channel	- High Cost of Establishment
- Successor has engaged	- Intermediary Dependence
- Unique Taste	- Low chain fidelity
<b>Opportunities</b>	<b>Threats</b>
- Exploring regional preferences	- Enter into TPP
- Direct communication to consumers	- Learning time for farm
- Consumption of cheese increased	

Source: Developed by Authors based on interviews, using Porter’s Model (1997).

Farm B’s strategic objectives to reach the direct marketing channel is providing the fresh and unique products to achieve greater satisfaction of end user. The farm has then a strategy to “skip over” the traditional intermediaries of the traditional distribution channels, so as to offer its products with more added services directly to the end consumer, reducing the number of intermediaries and focusing the channel flows with reliable agent.

**Table 5. SWOT Analysis of Direct Marketing Channel for farm C**

SWOT	
<b>Strengths</b>	<b>Weakness</b>
- Profitability and awareness increased	- Soft Ice cream sellers shop reduced
- Ease supply channel	- High Risk of credit
- Resource circulation	- Low chain fidelity
<b>Opportunities</b>	<b>Threats</b>
- Approaching Exploring to all consumers	- Enter into TPP
- Direct communication to consumers	- Learning time for farm
- Possibility to start dairy schooling	

Source: Developed by Authors based on interviews, using Porter’s Model (1997).

**Structure and Strategy Farm C**

Owner of this farm also started to sell ice-cream which was produced by Farm A. But, raw milk and other raw material supplied by Farm C. Gradually, he also involved in production of raw material for soft ice-cream in 1997 (Table 1). For completing about farm’s structure, Marketing Mix (Table 2) and SWOT analysis (Table 5) of the farm has been done:

Farm C’s strategic objectives to reach the direct marketing channel is providing the good quality raw material for soft ice-cream The farm has then a strategy to “skip over” the traditional intermediaries of the traditional distribution channels, so as to offer its products with more added services directly to the end consumer. All those three farms took raw milk from their own production for producing milk products as there is law regarding that farmers can use the facility for taking raw milk from their farm by themselves up to 1500 Kg per day for processing.

**Conclusion and Recommendation**

An analysis regarding performance of three dairy farms and their distribution strategies, and the market opportunities to support the decision regarding the structure of direct marketing channel for other farmers has been developed. The main strategic choices involved about how to reach the chosen segments, how marketing flows should operate and which members of the channel would be responsible for these flows. Hence, decisions of how to fulfill the needs of the targeted segments were structured, along with the objectives of the channel analyzed, and how marketing channel members should be chosen and evaluated in the structuring process. As, Direct marketing channel can ensure the freshness of the product, ease supply chain channel that can earn additional income for the farmers as family labor income decreased rapidly. Important advice to other farmers for considering an alternative enterprise through direct marketing channel such as: distinguish and high quality product has to be produced, has to work hard with this marketing channel through continuous communication, has to maintain comfortable environment for cattle, has to acquire knowledge to minimize labor requirements and build relationships through channel contacts as income allows.

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