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From Productivism to Flexible Specialization? Experiences from a Restructuring Process in the Norwegian Dairy Industry*

by
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Abstract

In this paper we will ask how "local action" coordinated with "central action" from within the cooperative organization of "TINE Norwegian Dairies" may soften the structural changes that are taking place in the Norwegian dairy sector. We will look at what strategies the local and central actors are choosing. Here we want to show some of the socio-economic effects of global trends down to the local level. We would like to show the links between the global and the local trends, and at the same time show what types of opportunities and coping strategies are available to those who make their living from milk production. Is it possible in this situation for a formerly volume-oriented dairy cooperative to focus instead on value and value added?

The restructuring of the Norwegian food industry

Essential changes are taking place in the production and distribution of food in Norway, as well as in most advanced industrial countries. Technological change, with mechanization, increased productivity, and reduction in the use of labor power, has been rapid during some periods (1960-75) and slower during others (1975-93).[1] But the general tendency has clearly been in the direction of larger operational units, even though in some periods Norway has had policies of supporting small and medium-sized farms (Almås, 1993). In the processing industry, which in Norway has mainly been organized as farmers' cooperatives, there have also been significant structural changes (Almås, 1989; Reitan, 1993; Onsager and Johansen, 1993). The focus has been on closing down plants in the dairy and slaughtering sectors.

The private food processing industry has experienced less dramatic changes, although many small businesses have gone under. Recently, we have seen an

* We should like to thank Ruth Gasson for stimulating comments and editorial work.

[1] During the period from 1960-75 labor input in the Norwegian food industry declined by 7,500 man years per year, while the decline was 3,000 man years per year during the period 1975-96.

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increasing restructuring in the distribution link. The media have been especially preoccupied with the growth of large chains in the grocery stores, but the food distributors have also adapted their structure significantly (Jacobsen and Dulsrud, 1993). This development has obviously not only included food, but the whole spectrum of consumer goods. We cannot hide the fact that, in addition to technological change and the general integration into larger international markets, political deregulation has had a significant influence on these processes (Halvorsen and Sørensen, 1991).

From a research point of view, it is important to look at who will be the winners and who will be the losers in the present processes of change. In this paper we will look at the restructuring process in the milk processing industry in Norway, where since the turn of last century farmers have organized dairy cooperatives. After the farm crisis in the 1930s, Norwegian farmers regarded cooperation as a better way to handle the marketing of milk products than individual action in a free market. State intervention through laws and subsidies for exporting surpluses, was preferred both by the majority of the farmers and the consumers (voters). However, this changed in the late 1980s, when Norwegian farm policy moved very rapidly towards a more deregulationist regime. Although some of the measures from the 1930s were kept in place, the milk market was partly deregulated, and new private producers entered the market for dairy production. International pressure (GATT, WTO, EU) as well as a change in the national political climate contributed to this shift in policy. The political deregulation of the food sector, as we have seen in Norway and in other European countries (Marsden and Arce, 1993), has created a new research agenda in rural studies.

From volume of sales to realizing value?

Centralization and concentration in the non-farming sectors of the agro-food system has been a key feature of recent restructuring. In the upstream sectors (*i.e.* those supplying agriculture with manufactured inputs) the stagnation of markets resulting from declining economic fortunes in agriculture has prompted rationalization and concentration. Fertilizers, seeds, agrochemicals, farm machinery and animal feeds are all sectors which have experienced significant corporate mergers and takeovers in Europe since the early 1980s. Farm input suppliers seek to maintain their market share by encouraging brand loyalty and through the continual innovation of new technologies. Farm husbandry practices become increasingly influenced by the suppliers of inputs and farm businesses become tied to input suppliers through the development of credit links (Marsden *et al.*, 1990) and through the provision of combined "packages" of technologies, as well as through specialist advisory services (Munton *et al.*, 1990).

Concentration has accelerated during the 1980s and 1990s in the downstream sectors of the agro-food system, especially as a result of a string of major takeovers, mergers and leveraged buy-outs. Much of this restructuring was aimed at realizing "fictitious" capital accrued through the market value of brand names or providing opportunities to penetrate new international markets. There has also been a continual shift in the power of different interests in the agro-food system in most advanced economies in recent decades. Food retailers have been in the ascendancy, both in terms of their economic power in negotiations with food manufacturers and their increasing influence over agricultural production practices. Often, supermarket power has been enhanced by changing regulatory arrangements, rather than simply through the operation of market forces. Power in the food system has moved towards a small group of the largest food retailers who sought to grow further by expanding market share.

Former and future developments in the policies of the EU are likely to have an important influence over the future of the shape of the agro-food system in Europe. The 1986 *Single European Act* signalled the move towards a single market within the then European Community, with a view to removing internal impediments to trade and facilitating the free movement of goods, persons, services and capital. Later the Maastricht Treaty has opened the way for more harmonization of food markets, but the single market is still in its "early days" and we cannot be conclusive about its impacts on the agro-food system. In the food manufacturing sector, the single market and a common European currency are likely to facilitate the rationalization of production and the further concentration of ownership. Companies with a plant in more than one country may find it more viable to reorganize so that a single, larger plant serves a region of the EU or even the entire EU (Swinbank and Harris, 1991). Also, single-purchasing and sourcing strategies covering plants in more than one country are likely to become more attractive, such that manufacturers will be able to buy agricultural produce from wherever they are cheapest in the EU. Swinbank (1990:10) also suggests that the move to a single European market could strengthen the hand of food retailers in their negotiations with food manufacturers about which product lines to stock.

Recent regulatory reforms have sought to encourage the liberalization of agricultural trade and reduce state subsidies for farm commodity production. In combination, the 1992 reforms of the Common Agricultural Policy and the GATT Deal represent a marked shift in this direction. In the GATT negotiations, the accepted indicator of the extent of state protection for agriculture was the "Producer Subsidy Equivalent" (PSE) which measures not only the taxpayer cost of support but also the extent to which consumers and users are paying more than they would for unsubsidised agricultural output. GATT has demanded a reduction of such support, and the Norwegian government has sought to comply fully and even before time with the present WTO agreements on agriculture. However, it is difficult at this early stage to be sure of what the impacts of these new regulatory arrangements will be. Some analysts fear that cutting price support will merely accelerate the concentration of production on fewer farms and more farmers will be forced off the land (Lang, 1992:36). Indeed, even proponents of the liberalization of agricultural trade acknowledge that fewer people will be able to earn a full-time living from agriculture. However, in this paper we will try to find out if the farmer-owned food industry in Norway is willing and able to change its focus from selling volume to realizing value.

The structure of the Norwegian food sector

Primary production

Norwegian primary production would from a European perspective be seen as dominated by small farms. The average farm still has only 12 hectares of cultivated land.[2] In dairying, the average numbers of cows is 12 per farm. Every year, approximately 3,000 farms are closed down, so that there are only 80,000 farms in operation in this country today, compared to 213,000 in 1949.[3] Labor input has steadily decreased in recent decades, with a slowing down in the mid 1970s. Ninety-three percent of all the farms are owned by the families that operate them. However, 39 percent of all the farms rent land from neighbors who have closed down; an average of 6 hectares per farm is rented. Of the total number of farms, only 3,000 farms have more than 30 hectares. More than 30,000 farms, mainly in Trøndelag and the flat areas in eastern Norway, produce grain. This is also where the largest (in area) farms are located, but 17,000 of the farms that produce grain have less than 10 hectares of cultivated land. The average yield of grain crops varies greatly, from 4,020 kg per hectare in 1991, down to 3,810 kg in 1992 (all grains).

Only 23 percent of the farmers have more than 90 percent of their income from the farm. Most of the part-time farms concentrate on grain or meat production. Altogether some 27,000 farms have sheep, and 7,000 farms have beef cattle. Of the 29,000 farms that produce milk, most are full-time farms. Milk production is strictly regulated by quotas that are historically based. The average production per cow is 6,300 kg milk per year. 8,000 farms produce pigs for slaughtering, and 5,000 farms have hens. Both of these feed-dependent types of production have upper limits for support. This has led to a structure dominated by smaller units than are typical in our neighboring countries. The average number of animals per holding is 89 pigs for slaughtering, 18 pigs for breeding, and 755 hens for producing eggs. In addition to these types of production, there are more specialized types such as raising fur-bearing animals, fruit and berry cultivation, potato and vegetable production. Here too, the structure is dominated by many small units and combinations of types of

[2]These statistics are from Agricultural Statistics 1995, published by the Central Bureau of Statistics.

[3]At the same time, there are 183,000 holdings over 0.5 hectares, showing that the number of holdings has declined very little in comparison to the number of operated farms.

production.

Norwegian agriculture has become much more specialized since the Second World War, but the combination of farming and forestry is still important in the inland regions. However, it is the combination of farming and other employment that is most common. Through pricing policies, a regional shift of milk production has favored the grass producing areas of the country, in other words the fjord, valley and mountain regions of southern and northern Norway. Similarly, grain production has been channeled to the flat regions of eastern Norway and Trøndelag. In spite of farm production being spread across the whole country, domestic food production supplies the Norwegian market with only 52 percent[4] of total food consumption. A very small portion of agricultural production goes to export, mostly Jarlsberg cheese that is exported to the EU, USA and Japan.

One third of the work in agriculture is performed by women. 57 percent of the men and 42 percent of the women have incomes from outside the farm. Of those who have off-farm incomes, 56 percent of the women, and 22 percent of the men work in the public or private service sector. 57 percent of all of the farms have more than half of their incomes from outside the farm. 12 percent of the work performed in Norwegian agriculture is performed by hired help from outside the farm family. Most hired help comes from publicly financed farm relief service workers or holders' substitutes. However, in spite of the closing down of small farms and the concentration of production, Norwegian primary agriculture is still dominated by small and medium-sized farms spread over the whole country. We find the largest farms in the best agricultural areas in Jæren, Trøndelag, and eastern Norway. The rest of the country, especially the fjord and mountain regions in the South, and all of northern Norway, have a greater share of smaller farms. Part-time farming dominates in all parts of the country, and is strongest around the large cities and in Sørlandet (the southern parts of Norway)

The basis for this structure was the agricultural political system created in the 1930s, with the start of the farmer-owned milk depots, meat cooperatives and the Trade Law of 1930 (Furre, 1971). This nearly corporate system, based on federal regulations and cooperation with the leading farmers' cooperatives in the most important sectors, was expanded after the war with the help of such measures as the "Hovudavtalen" (federal agricultural agreement) for agriculture of 1950. This system, with agricultural agreements between the state and agriculture's two trade organizations (The *Norwegian Farmers' Union and the Norwegian Smallholders' Union*), along with relatively stable prices achieved through protected borders and duty-financed exports of surplus production, lasted right up to the beginning of the

[4]The National Council for Nutrition: *The development of Norwegian diet 1996*. The degree of self-sufficiency, the share of food consumption produced in Norway has increased from 49 percent in 1989 to 52 percent in 1996 and varies between these limits according to fluctuations in grain crops. Both fish and agricultural products are included, at a time when we export the major part of our fish.

1990s. As a result of both internal and external pressure, this system is now under reform (Almås, 1993). This reform will also have an influence on the relationship between the primary producers and the agro-food processing industry. Observers have pointed out that this can be fateful for the relation between Norwegian agriculture and the Norwegian food processing industry (Steen, 1991:155). We will now move on to look at the restructuring in this sector.

The Norwegian dairy sector as a case

The food industry in Norway has 40,000 employees, and 42 percent of these work in that part of the industry that is owned by the farmers themselves, the cooperative sector (Onsager and Johansen, 1993:23). The two largest enterprise groups in the cooperative sector are milk processing, *i.e.* TINE Norwegian Dairies, and meat processing. Both groups employ more than 5,000 (Landbrukssamvirket, 1993). There has been a great reduction in the number of dairies – from 251 in 1970, to under 90 today. Looking at the period 1980-90, we see that 53 dairies (26 percent) were closed down, while the reduction in employment was 5.9 percent (Onsager and Johansen, 1993:30). In other words, there is a sharp contrast between the rapid rate of plant closure, which is the highest in the whole processing industry, and the relative stability in employment in a decade when the decline in employment in industry as a whole was 25.3 percent.

Almost all dairies in Norway are cooperative companies, and owned by the milk producers. The companies cover different geographic regions of Norway and certain tasks are delegated to common units. TINE[5] is a federal organization and the two most important common units in TINE are:

- *TINE Norwegian Dairies* which are owned by the country's 13 dairy companies[6] and have overall responsibility for production planning, distribution, marketing and quality assurance of milk products;
- *The National Association of Norwegian Milk Producers* (NML) which functions as a pressure organization for dairy farmers in Norway. The Association is working for better economic and social conditions for milk producers.

TINE has today 25,400 producers of cows' milk and almost 900 members producing goats' milk, and they are all cooperative part-owners in one of the dairy companies. The companies are today responsible for production at 83 plants all over Norway. TINE has about 5,100 employees in total (TINE, 1997).

TINE is the largest food industry in Norway with total sales of 10,500 million NOK. They produce 1,700 million litres of cows' milk and 24 million litres of goats'

[5]TINE is the trademark for most of their products, but here we also use TINE as short for The Norwegian Dairies Cooperative, all the companies and the common units.

[6]After mergers and plans for mergers there will be 9 dairy companies from 1998.

milk a year. TINE accounts for almost 100 percent of the milk supply from the farmers.

TINE was launched as a trademark for products from the Norwegian dairy cooperative in 1992, as a part of their corporate label strategy. Internationally, they use "TINE Norway".

The members assume that TINE is working efficiently to increase the profitability of their economic activity. In a dairy cooperative, profit is not viewed as the result for the company itself, but as a premium paid to the members for the milk they deliver. It is relevant to discuss whether payment to the farmer per litre of milk delivered is the only and the best way to rate a dairy cooperative enterprise's efficiency. Members want additional membership functions from the cooperative (security of delivery, quality and food safety image, membership services and so on). Economic payment is important all the same, and in this paper we will not discuss the combinations of goals that are particular to cooperatives.

Productivism – a part of TINE's strategy?

Productivism can be described as mass production where high efficiency is given priority in order to achieve low prices for the consumer. Productivism is linked to classical economic theory where firms try to optimize production factors to minimize costs. There is no doubt that TINE has, and still is, strongly influenced by productivism, but the extent of this influence is not known. TINE's options, from classical economic theory, for increasing the milk price to the farmers, have been first of all related to reducing costs in the dairies. The following factors support this claim:

- In 1950, a Federal Agricultural Agreement (Hovedavtalen) between the Government and the Farmer Associations was established. After annual negotiations a maximum target price per litre of milk is set. This system is still in function and in principal it is not possible for TINE to accept a higher price. If that happens, import of milk is allowed;
- The total production of milk per year is determined politically by the authorities and divided among the farmers under a system of quotas. The milk market has mainly been restricted to the domestic market. Import of milk and milk products from other countries has not been possible, except for cheese quotas from the European Union. At the same time high costs in the Norwegian agriculture and dairy sector made it very difficult to export to other countries.[7] Norwegian people are heavy milk consumers, but high costs means that the milk market has been limited, giving monopoly profits for TINE;

[7] Some products have been exported successfully. The value of exports is approx. 5 percent of total sales from TINE.

- There is no free competition among dairy companies that belong to TINE. They are exempt from the Law of competition.

TINE could be considered as a monopolist until 1997 (a new regulation of the milk market will be in place from July 1997). TINE can regard the total volume of milk produced and the price of the most important milk products as fixed. If TINE's job is to maximize the price to the farmer,[8] they have two primary tasks: First of all, sell the milk produced in the market (juice and lemonade are today the most important substitutes and competitors to drinking milk). Second they must seek to allocate the volume of milk between products and markets that minimize costs in the dairy industry and maximize market profits, which are then returned in the form of the milk price to their members – the farmers.

Milk for drinking is the product that gives the best net profit to TINE and the members per litre produced (Nævdal, 1996). That means they have an economic incentive to produce as much milk for consumption as possible. A hypothesis may be that this price system leads to a volume orientation in TINE's strategies. If this hypothesis is correct, this may explain why TINE follows a productivist strategy, focusing on costs and technologically efficient solutions.

Mergers: a change in perspective – from dairy to enterprise

In the 1960s a period of merges started in the dairy sector. Later, in 1980 the milk producers' association (NML) decided that all cooperative dairies should merge into 10 regional dairies. Not all of the 174 independent dairy cooperatives wanted to merge. But in 1985 the merger process had resulted in 19 independent dairy cooperatives. They cooperate among themselves extensively, but in a legal sense they are independent.

A new merger process started in 1992. NML decided that 5 regional enterprises would be the best. Still not all the enterprises want to merge. By spring 1997 the result was 3 regional cooperatives and 6 cooperatives that want to stay independent, 9 units in total.

TINE's central organization granted 200 million NOK to the merging process. The companies who merged got these grants from the common capital pool. This was meant as a "carrot" for merging. Those cooperatives who did not participate in the planned mergers, "lost" this money. This economic incentive from TINE shows their active role in the merging process, which was supposed to create a more efficient production structure.

Rationalize production

The number of dairies, condenseries and ice cream plants owned by TINE was reduced by 66 percent from 1970 to 1996, from 253 plants to 87. In the same

[8] It is not certain that maximizing price is the only or predominant interest of farmers who are members of TINE.

period, the number of employees was reduced by 23 percent (*Landbrukssamvirkets felleskontor, 1995*; Agricultural Statistics, 1996; TINE, 1997; Norsk Iskrem, 1997). The number of plants have declined faster than the number of employees.

The volume of cow and goat milk delivered to dairies has increased 11 percent from 1970 to 1996, from 1,545 m. litres (Budsjettnemnda for jordbruket 1990) to 1,709 m. litres (TINE, 1997). In addition we can assume that the number of processed products and level of processing have increased too.

These indicators show that the production system in TINE was rationalized during this period. TINE has concentrated production in fewer and larger dairies. TINE is preparing for competition and lower prices. During the 1990s, the Norwegian Government said that it is very important to provide lower food prices for consumers. TINE acknowledged their tasks:

> ...For us it means that we must keep on rationalizing and keep on improving our industrial structure, while all the time evaluating what is the right and optimal number of locations of production for the dairy cooperative. And we must continue the organization process to get a cooperative with 5 regional dairy enterprises. (Einar Enger, Managing Director TINE, Annual Report 1995).

It is the responsibility of TINE Norwegian Dairies to draw up overall production plans and allocate production for cheese, butter and special products. That means primarily to locate production in as few dairies as possible in order to benefit from scale advantages. They are able to optimize production and invest in new technology.

Each individual dairy company is responsible for the production, distribution and sale of drinking milk and yogurt while TINE Norwegian Dairies buys cheese and butter from the dairies and markets them as its main products. In spite of each company's responsibility for drinking milk and yogurt, the products are marketed under same label – "TINE". TINE Norwegian Dairies have their own packing plants.

A relevant question could be: Has the rationalization process led to lower costs? This question will not be discussed in this paper, but the answer is by no means obvious.

Distribution and marketing

TINE Norwegian Dairies sell their products via three main channels: retail grocery stores, large-scale catering institutions (such as canteens, schools, restaurants and hospitals) and industrial food producers.

The retail grocery trade purchases about 85 percent of the dairy cooperative's industrial volume and constitutes, as such, TINE Norwegian Dairies' most important market sector.

The grocery chains are continually strengthening their market position and the four dominating chains control altogether 97 percent of the total grocery turnover in

Norway. The stores are an important marketing channel for dairy products. TINE Norwegian Dairies has worked to achieve tighter relations with the grocery chains and has also collaborated with them on strategic product promotion in the shops. It is important for TINE to keep its power in the market to match the grocery chains.

Their products are facing ever-increasing competition, and in the fall of 1996 the private processor company Synnøve Finden launched their new natural hard cheese. This company was formerly a small niche producer for speciality cheese products, but has now changed its strategy to become an overall competitor of TINE. This new strategy, which means more competition in the dairy sector, has been welcomed by the Norwegian Government.

Sales to large-scale catering customers are increasing. The three major sectors here are public institutions, canteens/catering institutions and school milk. Liquid products achieved a sales increase within the large-scale catering sector – the only area where there has been a growth in TINE milk products sales. Sales to the food industry have risen by 11.4 percent in 1996. This applies particularly to liquid products, where sales have increased by nearly 25 percent compared to the previous year. TINE's main industrial customers operate in the ice cream, chocolate, pizza/convenience foods, bakery and meat/fish sectors.

TINE says that efforts to reduce transport costs to a minimum will continue in 1997. A key factor in this work is the nationwide establishment of Agricultural Fresh Foods Distribution centres through which agricultural cooperative organizations collaborate in the joint transport of milk and other agricultural products (TINE Norske Meierier, 1997).

Centralized product development

TINE has more than 200 products in its range. Most of the products have small sales figures, 6-7 products (drinking milk and cheese) carry 90 percent of the volume. TINE has its own R&D centre and is responsible for product development for all the companies.

The fact that TINE has a centralized system for product development, implies that it lacks a system to handle external ideas for new products. Even their own members and employees outside the central organization are considered as externals. From our R&D project[9] with TINE we can give two examples.

Example 1:

In an R&D project for developing new business locally in closed dairies, a dairy farmer and member of TINE had an idea for a new drinking milk product. He and we tried in different ways to get TINE involved in this idea, without success. After

[9] In 1995 we started a five year project where the Centre for Rural Research is to contribute to the restructuring of TINE. This is an R&D project where our focus is to achieve a better process for restructuring and to find new organizational and production solutions. We use cases (concrete dairies and companies) as working method.

several rounds of discussions and "negotiations", the main problem turned out to be that TINE had no system or corporate bodies for handling such initiatives from members and employees.

Example 2:

A number of milk farmers in remote and mountainous areas produce butter and cheese on their own farms. TINE is not allowed to sell this butter to other customers. The formal reason given is that the Food Security Control does not allow sale of unpasteurized milk. TINE received 97 tons of farmed and mountain-produced butter and 30 tons of home-produced cheese in 1996. 100-150 producers delivered this volume (Bondebladet, 1997). Mostly, these farms are located in areas where it is difficult for TINE to collect fresh milk in their standardized transport procedures. TINE then has to destroy this butter and cheese and use it for milk powder for calf feed. At the same time, restaurant chefs really want to buy this farm produced butter and cheese because of the good taste (*op. cit*). These examples show that TINE has problems bringing small scale niche products to the market.

Espeli (1993) shows that without doubt import restrictions in Norway have led to lower productivity and slower restructuring in the food industry in general. On the other hand, the dairy industry, which had no domestic competition, has been most innovative in product and export development. He explains this by saying that the perceived danger of TINE being a "lazy monopolist" may undermine the political legitimacy of the restrictions. This means that TINE's monopolistic situation has led to a sort of pressure towards competition without real competitors in the national markets. Another explanation may be of course that the leadership of TINE expected that something would happen with their monopoly sooner or later, which encouraged them to take precautions and train for competition.

Preliminary conclusion

We have now indicated that TINE has shown clear signs of productivism in its strategies up to now. One explanation is that the former price- and market system was an incentive for an effective volume production, but will not function in a new market situation of increased competition. Our study indicates that TINE's productivist, volume strategy:

- has centralizing effects for the organization, which creates internal friction among members and centralized functions in the organization which could be decentralized;
- this in turn may make TINE a loser in two ways: firstly if a strong foreign competitor gains a foothold in the Norwegian market, TINE will lose on price competition anyway, and secondly TINE can lose its close ties with consumers and producers if it centralizes production too much.

The next question is what TINE can do to integrate more flexible specialization into its overall strategy for today.

Challenges ahead for TINE

As discussed above, the Norwegian cooperative dairy industry has been through a restructuring process during the last 30 years. Previous strategies have focused on reducing costs through large scale production, *i.e.* bulk production strategies. In this section we will discuss whether this is the best strategy to follow to meet the challenges of the cooperative dairy industry.

Consumer trends

In Norway there has been a change in consumer in recent years. Some of the main changes may be summarized as (Reinert, 1997; Linneberg, 1997):

- increasing demand for variation and choices among alternative food brands;
- increasing focus on quality and health in connection with food;
- increasing focus on food as part of the culture. This means an increasing demand for distinctive characteristics, traditional and locally processed food;
- increasing focus on food in connection with values and way of life, eating as lifestyle;
- increasing focus on ethnic food.

These trends, combined with an increasing level of income among consumers, may influence the strategy of TINE Norwegian Dairies. The trends show that there are consumer groups that are willing to pay higher prices for products of higher quality. A focus on a niche strategy directed towards specific consumer segments/groups, may increase both sale and profitability of products.

Increasing competition

The Norwegian Government has opened the way for both domestic and international competition on dairy products. This situation may influence the present productivist strategy of TINE in various ways.

TINE's current organization is mainly built to achieve efficient manufacture of bulk products, in other words an organization meant to compete on price. The fact is that the Norwegian Dairy Industry has limited possibilities for competing with foreign producers on price. If the Government removed the restrictions on imports, we assume there would be rather few dairy farmers left in Norway. TINE's competitive edges have to be such factors as quality and food safety, production of traditional and locally processed food, and closeness to the Norwegian market. If we assume there will be international free trade on dairy products, however, the present bulk strategy of TINE will fall between two stools. In such a situation, qualitative aspects such as taste, variation, culture, and tradition may not be enough to defend the low price bulk market for drinking milk.

Domestic competition has just been established in Norway. The competitors are so far not focusing on qualitatively different products from TINE's, but their products are selling well. As a result, TINE has had to reduce production of competing products, a situation that has led to over-capacity in some TINE dairies. Another problem in connection with new domestic competition is that TINE is losing its supply of milk in some regions to the competitors. This situation is disturbing for the production structure of the organization. TINE has realized that the domestic competition has to be taken seriously, and that a new kind of action has to be taken to meet/overcome the threats from this internal competition.

The situation among member farmers of TINE dairies

The following three development traits illustrate how the position of Norwegian farmers has deteriorated over the last few years.

The development of the agriculture sector. From the farmers' point of view, the development can be described as a situation where there is:

- an increase in the price of input factors
- pressure to produce more cost-effective
- a reduction in the price of milk and milk-related products

A farmer's opportunity to influence his own income from traditional agriculture production has decreased. One result of this development is that many farmers give up every year. Another result is that farmers look for alternative activities as a supplement to the income from traditional production.

The restructuring process of the dairy cooperative. There has been much discussion and negative attitudes toward the restructuring of the dairy cooperatives among its members. Members have fought against closing down local dairies, and many members do/did not understand why this process has been necessary. Local rural areas suffer from the closing down by losing important places of employment and competence. The farmer loses the close connection to the dairy and the dairy as a social meeting place, and the distance to the place where decisions are taken is increasing. This means that the participatory democracy in the dairy cooperative is changing from one-member-one-vote to democracy by representation. In sum, many farmers feel they have lost some of the main benefits of being a member of the dairy cooperative, and there is reason to believe that loyalty to the dairy cooperation movement is becoming weaker as a result of the restructuring process. A main challenge for the dairy cooperative is therefore to keep its members' loyalty and find new ways to increase and make visible the benefits of being member of the cooperative.

The general development in rural areas. Many rural areas of Norway find that people are moving to more centralized areas. Young people have to leave home to get an education, and only relatively few return when they enter the labor market. In particular, very few young women return.

In recent years, a general restructuring process has been going on, which has led to the closing down of many services in rural areas. In some areas the local post office, the bank, the local consumer cooperative and school have all been closed down. The level of services and opportunities has been reduced, with the result that the advantages of living in rural areas are decreasing.

Local efforts and initiatives among farmers

The development outlined above has led to a focus on the need for new employment and a small but increasing number of farmers are planning to establish small-scale milk processing on their own farms as a supplement to their traditional milk production processed by the dairy cooperatives. Many of these *entrepreneurs* have met problems in various ways, both in connection with the established cooperatives, and with respect to Government laws and regulations. They also lack the necessary competence in production processes, and knowledge of the market, etc. (Borch, 1997). So far there has been no support from TINE dairies for these initiatives from their members. TINE has little experience of working with this type of small-scale production, marketing and distribution, and has no system to handle these kinds of ideas from members or others outside the organization.

Other farmers have changed from traditional milk production to ecological production on the basis of increasing demand for such products. TINE has adapted to this development to some degree. Some dairies have been set up to take ecological milk. But to receive the growing volume of production, TINE will have to establish even more dairies for this purpose in the near future.

Flexible Specialization – a new strategy for TINE?

According to the strategy document "TINE 2000", TINE has realized that the organization faces new challenges that need to be met by new solutions. The strategy document points out the main challenges, defines goals and strategies to reach the goals. How to carry out these strategies is, however, not specified.

The focus of this paper has been the restructuring process inside TINE. This process is seen in connection with other development traits that might influence the new strategy of TINE. In the last part of this paper we discuss some aspects of this strategy, where flexible specialization through a combination of mass and niche production is suggested.

Central elements in a new strategy of flexible specialization in production relate to market, localization of production and production method.

Mass or *bulk production* regards the market as homogeneous. The localization and the method of production are primarily allocated after production and transportation cost analysis. *Niche production* is more market oriented and regards the market as groups of consumers with different needs. *Local production* is based on a local distinctive characteristic and the location of production is important. Local products can be considered as niche products, but in a certain local area they can be market leaders. Connections to certain regions can give preferences. Local products can also be farm produced. *Small-scale products* refer to production method. Niche production and local production are normally small-scale products, while bulk production is normally large-scale.

In this paper we use niche production as a generic term for strategies other than bulk production.

TINE is dependent on large-scale production for processing and selling the bulk of milk produced by its members. Therefore, it is not a question about volume production or not. However, niche production directed towards specific groups of consumers could be an interesting supplement to the volume strategy of today. TINE has elements of niche production strategy already. In the last few years they have, for instance, launched milk products especially aimed at children (Litago) and women (functional food; Biola). This niche focus is limited and there is a need for a broader strategy.

A focus on a niche product adapted to specific consumers' needs might increase the organization's influence on the market and profit in the long run. It is important to be early in such an innovation process, to build up knowledge and competence before potential competitors enter the market place.

Another argument for TINE to support their members small-scale production, is to increase the members' benefits from the organization and thus enhance member loyalty. TINE is not a monopoly organization any more, which means that their members may soon have the option to quit if they feel that their member benefits are decreasing. The members have two clear options as Hirschman has pointed out: exit or voice (Hirschman, 1970).

Establishing a group to handle local small-scale production

According to a new strategy document, TINE is going to "encourage local initiative to establish product variation and product identity...". This means that the cooperative organization is going to get involved in members' commitments of small scale production. As a first step, TINE has decided to establish a group of people responsible for dealing with ideas from members of the cooperative organization. The competence, role and work of this group is not yet defined in detail.

Closing remarks

There are many questions to be answered in connection with TINE's support of niche and small-scale production:

- *How to restructure* the organization to reflect a change of focus from selling volume to realizing value: This is not only a challenge for TINE, but for the whole production chain. A main task for TINE is to dispose of all the milk produced, and when the production system is geared to maximize milk production, volume will be important also for TINE. A change of focus to value must include the farmers;
- *How to diversify* in an organization like TINE where centralization and standardizing are the norm: Mergers and launching the common brand "TINE" have provided a concentration of control and power. If niche production is to be stimulated, TINE will have to hand over power to single persons and dairies. This will be to reverse the situation of today. TINE Norwegian Dairies must permit the launching of products that are not branded "TINE". The most difficult challenge may be to accept different prices and income internally in TINE (both farmers and dairies). If single persons and dairies are to carry the risk of launching niche products, they must also have the chance of realizing value. This factor may come into conflict with the strong egalitarian view among Norwegian farmers. The regulations and price system for the milk market is based on this egalitarian view among other things;
- *How to organize* the support: In what way is TINE going to be involved in developing processes and in R&D product development and marketing?

Only time will show the extent to which TINE is able to *combine mass production and niche production in a strategy of flexible specialization.* However, if the dairy cooperative movement is not able to combine these two strategies, there is a danger of a fatal split in farmers' ranks. This danger will even increase if foreign competitors enter the Norwegian market.

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