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Dairy products and the role of the middleman

Mohammed Shunnaq

Introduction

The topic of the milk industry and milk distribution has ironically been neglected by anthropologists in Jordan and the Middle East. The milkman deserves to be studied in the context of accelerating urbanism. Although milk is associated with cattle herders, it has become an important source of industrial and commercial enrichment. So many rich families have built up their fortunes through milk trade unlike the traditional cattle raisers or traders. The present milk sellers are viewed by the people in terms of the market profit rather than the tribal tradition which disapproved of the sale of milk. Yet there are lingering rural negative stances against milk sellers. A central reason for deriding milk sales is a widespread conviction that milk sellers cheat in their products. In addition to the former aversion produced by the association of milkmen with herds.

On the whole, the widening milk industry in Jordan confirms the rising influence of profit and growing capitalism on the traditional values with their emphasis on descent related status. Thus, the milk seller's rise on the social scale in contemporary Jordan is indicative of the receding control of tribal norms in the face of the temptation of money.

Location and general characteristics of Irbid

The province of Irbid is bordered by Syria to the north, the district of Balqa'

to the south, Israel to the west, and the district of Mafraq to the east. This province lies in the northern part of Jordan and is considered one of the most fertile provinces in the kingdom. All the land of this province is used for agriculture except some rocky areas that cannot be reached by agricultural machines. These are used as pastoral lands for livestock and cattle in the area. This province includes three main cities: Irbid, Jerash and Ajloun.⁽¹⁾ The inhabitants of the surrounding villages head for those three major centers to sell their products and buy necessities. As for Irbid, it is considered the capital of the province with a leading market – the largest in this district – not only for milk but also meat products.

Farmers of the province of Irbid depend mainly on mixed farming as is the case in Egypt particularly in the semi-desert areas (Al-Arabi 1982; 153-227). The significance of animal husbandry is sometimes underplayed by describing the society as an "agricultural one". Farmers in this area tend to breed 3 main types of cattle: cows, sheep, and goats, aside from raising some animals for work such as mules, horses and, donkeys. Some farms specialize in raising poultry either for meat consumption or egg production. It is also noticed that some households with limited resources keep pigeons to provide meat (see Mahjoub n.d.: 137-165).

From the beginning of this century until the 1970's, the breeding of cattle for milk depended on extensive grazing. Due to the recent contact with advanced

countries (i.e. Holland, England, Belgium, etc.) concerning this sector during the last two decades, the idea of raising animals in farms has been transferred to Jordan. Among farmers, special concern has been given to the establishment of cow farms. The number of such farms in the province of Irbid exceeds 150 with 10 to 50 head in each. Some farms contain up to 200 head of cattle. There are also some farmers who raise smaller numbers of cows and some households which maintain one or two cows aside from their agricultural activities to support their economy. The number of cows in the province of Irbid totals 23.3 thousand cows (Ministry of Agriculture, 1992).

On the other hand, the number of sheep and goats decreased at the beginning of the 1970's. This decline is largely the result of the high price of fodder, the need for larger stables or enclosures, the exploitation of farming land for crop-production at the expense of grazing land, and the great increase in population and its demand for meat. In the economy of Bamana, Mali, for instance, we have a different situation. In addition to their predominant focus on crop cultivation farmers hold animals: goats, sheep, and cattle. Similarly to what we see in Jordan now, only few people in Bamana try to accumulate large flocks of sheep and goats. In general Bamanians view these as a quick investment opportunity or as a means of "saving" their earnings in form of a purchased animal. The Fulbe, on the other hand, see cattle primarily as a productive asset (for milk) and as a form of investment (Grayzel 1990; 41).

As to the milking process, it is noticed that farmers usually use traditional ways of milking cattle. Only a very few who own large farms, in which the total number of cows exceeds 30 head, use new technological methods.

Transportation of Milk

The significance of the market for rural dairy production should not to be underestimated. After milking, the milk is put into 20 liter containers and is then brought to the market to be sold. The city of Irbid includes 70 shops for milk and dairy products and 5 additional for cheese products. According to the records of the Chamber of Commerce however, the licensed dairies in Irbid amount to only sixty-two shops.

The statistics of my study, which was conducted in the period from Oct. 1994 to Feb. 1995, show that a total of 7,690 liters of cow milk reach those shops for dairy products daily in addition to a quantity of 1,684 litres of sheep and goat milk. The demand for sheep milk products and, to a lesser extent, goat's milk, according to William & Fidelity Lancaster, is largely the result of a greatly increased population both nationally and in its urban concentrations (Lancaster & Lancaster 1990;192). The milk is supplied by the villages surrounding Irbid City.⁽²⁾

Modern and swift transportation facilities and a modern road system have given farmers more freedom of choice and they are no longer restricted to the nearby areas surrounding their villages. Dairy foods in Jordan are not now dependent upon the "three variables, namely, distance, atmospheric conditions, and the composition of milk" as in India where the villages have to be close enough so as to fall within "the perishability boundary" of milk (George 1990;125,131). In their distribution of milk, they have come to rely on the increase or decrease of prices and urban supply and demand for dairy products, not only meeting the demand of rural areas.

We notice that dairy shops are concentrated near roads coming from various villages around Irbid. This is mainly

due to the fact that farmers use to be, and still are to a certain extent, constrained to transport their milk-cans in buses to Irbid city. The city has 5 bus stations which facilitate transportation to all nearby and distant villages. Those are "Alaghoar Al-Shamalia" bus station around which 7 milk-shops are located, "Al-Seru villages" bus station where 9 shops can be found, the "Eastern villages" bus station with 10 shops around it, the "Northern villages" bus station surrounded by 15 shops and finally, "Al-Kfarat" bus station around which 11 dairy shops are centered. The remaining milk shops are distributed throughout Irbid city mostly on main roads or the approach roads of the city.

Milk products

Only a small amount of fresh milk is sold by dairy shops in Irbid to meet the urban demand and that is for two reasons. Firstly, the middleman sells the milk at a high price that sometimes reaches half a dinar (75 cents) per liter⁽³⁾, and according to the nutritional habits in the Mediterranean muslim countries, (Boyazoglu & Flamant 1990; 370), processed liquid milk has always been very popular, although cow's milk butter is still a rarity because it is in fact transformed into ghee, and, despite its high price, is the preferred product for cooking purposes. Secondly, the middleman prefers to sell milk after it has been processed to increase his profit. After processing, the middleman sells yoghurt, curdled sour milk, (the yoghurt is put into a cloth bag to separate the by-product whey) butter, ghee, and dried yoghurt (*jameed*). Depending on the type of milk, each derivative increases the profit of the middleman.

The first type of milk, bovine, reaches the dairy shops in abundance daily. Each shop receives an average of 110 litres a day all year round. To transform the

milk into yoghurt approximately half of its amount in water is added to give a final amount of 165 kgs. A considerable part of this is sold to the people in the surrounding area. The rest is churned in order to separate out the butter. After removing the butter, the same amount of water is added again to make buttermilk (*makheedh*). The rest is put in special bags to get an extra curdled sour milk. Some salt and wheat are added to increase weight as a form of cheating.

Fresh butter is made and sold daily. However, as it can turn rancid quite quickly even if kept at cold temperatures, that which is not sold immediately is boiled for an hour, impurities (including water) removed and becomes ghee which is stored in tin cans or in bottles. As for extra curdled sour milk, it is moulded into the shape of small balls and put in olive oil since this oil will preserve it along with the salt. On the other hand, it could be put into the sun to dry in the shape of solid white balls (dried yoghurt) or "*jameed*".

The second type, ovine milk, is considered fairly expensive. It is already expensive when it reaches the middleman. This is due to the costly nature of milking as well as to the fact that it is rare and seasonal. As for the components of this milk, it is far richer than bovine; there is a higher butterfat content and it is capable of receiving and absorbing a greater amount of water when making yoghurt. Ovine milk and its by-products are more expensive than the bovine ones. Despite this, people prefer it over bovine milk.

In addition to those two types of fresh milk in Irbid, there is government subsidised powdered milk. The residents of Irbid province, especially those in the city, have become used to consuming this type of powdered milk daily, either as liquid or for making yoghurt.

Conventional means of producing milk products

Upon receiving the milk, the middleman is responsible for producing some milk products so as to preserve it, and prolong the possibility of utilizing milk, apart from facilitating its consumption by city residents as well as those in the villages. Then, many milk products are produced, such as cheese, yoghurt, extra curdled sour milk, butter, buttermilk, and ghee. Every product of these undergoes a process of treatment and transformation as shall be illustrated in the following:

Producing cheese

Middlemen in Irbid prefer to use ovine milk when it comes to producing cheese. This is due to the fact that this kind of milk maintains its original weight after the process of boiling once the curdling enzyme is added. Moreover, this type of milk contains a high level of fat. In order to have 35 kgs of boiled-and-ready-to-eat cheese, one enzyme tablet is added to coagulate 50 litres of milk. In about forty minutes, the milk becomes ready to be treated as a curdled liquid. It is then poured into a container, covered with cloth, cut, and covered again with cloth until the extra water has drained out; salt is also sprinkled over the cloth to improve drainage. After five days, the resulting pieces are taken and boiled in salt and water. Then, they become ready to eat.

This cheese is sold later to the people for everyday use. Similarly, it is sold to patisserie shops in order to make traditional sweets, and this represents the biggest portion of consumption. When I carried out a survey regarding the centres for buying and selling milk and dairy products, I found that five stores are solely concerned with producing cheese. The owners of those dairies or

centres go out to the sheep and produce the cheese there transporting it in tin cans of 10 kgs. capacity. Examples of places where those people go to produce milk products are Mafraq and surrounding villages, and Ramtha area. However, only a small proportion of this cheese is sold in Irbid or Amman; the bulk of it is exported to the Gulf states.

Each one of those who specialize in cheese production is capable of producing up to 500 cans, about 5,000 kgs annually. This concern with and interest in cheese production is due to the importance of sweets and the patisserie market in Jordan and the Gulf states having in mind that such traditional sweets depend to a great extent on cheese as a basic ingredient.

Yoghurt

Most dairies in Irbid are involved in yoghurt production since it is the easiest and most common way of preserving milk. Since yoghurt is one of the basic foods of residents, it has a large prospective market as straight yoghurt although a great part of it is consumed because it is a basic ingredient of many local dishes. Moreover, yoghurt is considered an essential component of the national traditional dish in Jordan, "*Mansaf*," which consists of yoghurt, rice, and meat boiled and cooked in yoghurt. Usually, it is served on festive occasions but is, increasingly, becoming a weekly dish for many a family in Jordan.

Yoghurt is produced by heating milk to 95°C. Before heating, a certain amount of water (2 litres) is added to each 10 litres of milk. It is then left till it cools to 45°C, when 400 ml of yoghurt is added to every ten litres. Afterwards, it is left for seven hours until the fermenting bacteria transform it to a curdled milk or yoghurt.

More often than not, it is sold in the markets and preserved in refrigerators

for up to one week. Afterwards, it is put in cloth bags or in a special machine to shake it the way "*shiqua*" do in order to separate the fat from the yoghurt.

These same centres also sell butter-milk and butter. The first one is sold to the people to be drunk in summer or used in cooking. The butter is likewise sold to the residents of Irbid. The interesting part regarding both products is that if "*makheedh*" (buttermilk) is not sold, it is put in special cloth bags to become curdled sour milk. As for butter, it is boiled to produce butter ghee. All of these products have a ready sale.

The process of transforming butter to ghee is a means of preserving ghee for a longer period of time, and so that it could be sold in the seasons where there is an abundance of milk. This type of ghee is preferred by the residents of the province of Irbid. As for the curdled sour milk, it is transformed in two ways. The first is when the middle man forms it into the shape of small balls which are covered in olive oil in order to preserve them. The second way is to put them in the sun to dry: they are sold all over Jordan as solid white balls called "*jameed*".

All of these products have fixed prices and regular agents who buy them from the middleman. This processing of milk is, nowadays, the basis for a respectable commerce.

Milk products and the economy based on it

This sector depending on the transformation of milk into many products started to prosper in the last two decades as a result of the increasing profits in milk sales. Until the year 1970 there were only seven stores specializing in these transformational processes. This number was doubled by the year 1980. Afterwards, and up to the moment this study was conducted, there were 70 stores and five ones specialized in producing cheese only.

This implies that such an economy is a remarkably profitable one, which resulted in the prospering of this sector and the increase in the number of stores specializing in it. The middleman benefits economically from this. Once the milk gets to the middleman the production process starts; part of the milk is set aside for cheese, another for yoghurt, another for curdled milk. This very last product undergoes further transformational processes resulting, each time, in a new milk product; after yoghurt, one gets "*makheedh*", butter, then ghee and curdled sour milk preserved in olive oil. The milk undergoes continuous transformative processes until it reaches its final solid stage, "*jameed*".

The amount of milk that gets daily to the dairies or to milk selling and buying centres is about 7,690 litres of cow milk, and of sheep milk about 1,684 litres daily during the season only because ovine milk is not available throughout the year unlike the bovine milk.

The income of each of these centres can be worked out mathematically; each gets 110 litres of bovine milk daily throughout the whole year, and 25 litres of ovine milk. The distribution of transforming milk is shown in the manner illustrated in Table 1 for bovine milk and Table 2 for ovine milk.

When the middleman sells fresh milk without any processing, his daily profit will be 10 JD (Jordanian Dinars) from bovine milk, and 1.5 JD from ovine milk making a total of 11.5 JD. The common rent fees of stores in Irbid is around 70 JD per month, as well as the daily expenditures.

Methods of cheating with milk and its products

The process of cheating can begin even before the process of milking. Some farmers, especially cow farmers, resort to the addition of large quantities of

common salt to the fodder so as to force the cow into drinking enormous amounts of water. This increases the abundance of milk, but leaves it watery, less concentrated, and lacking in taste. It is noticed that already at this early stage in dairy production, milk is manipulated so that both its nature and quality are affected.

As for the second stage of the process, the middleman plays his role by adding water to the fresh, pure milk before selling it. Cheating does not necessarily stop here, it can become a lengthy process with various methods applied depending on the resulting product. Each stage of transformation requires a different means of "stretching" the quantity of the final product. When converting milk into yoghurt, the fresh milk is mixed with powdered milk⁽⁴⁾ available in the market. The addition of such inexpensive powder results in a larger quantity of yoghurt. This product is then sold as "yoghurt from fresh milk". Moreover, after transforming yoghurt into a condensed form (*laban jameed*) flour and salt may be added. The same process is followed to produce dried yoghurt (*jameed*). On the one hand, this leads to an increased profit of the mediator who meets the increased demand of dairy products, but on the other hand, it is at the expense of the consumer who is tricked into buying low quality with high prices.

Other adulterative steps can be taken with the extraction, marketing, and selling of butter. Numerous middlemen mix this product with other animal fats or add vegetable fats when forming butter into ghee. During the processing of milk into various sort of cheese, some amalgamate sheep and cow milk and add some calcium preparation to increase its solidity. This, aside from the supplementation of table salt to cheese, leads to a longer preservation that exceeds the

normal expected time span. The main motif among middlemen for such illegal actions is to gain the highest possible profit regardless of the twisted methods.

A lot of citizens tolerate the type of milk products available in the market. However, when a citizen desires to obtain a high quality of dairy products, he has to depend on himself and his personal skills in order to attain excellent results free from any manipulation. The high quality achieved in the production of dairy products domestically is associated with production costs higher than the local market prices in Irbid city. Cheese, for instance, reaches a total of 2,600 fils (\$ 3.7) per kilo in the local market but would cost 3,000 fils (\$ 4.3) when processed at home. Thus, the consumer finds no choice but to put up with additional cost and effort if the desired quality is to be obtained.

Dairy products: marketing and indicators of variation in this profession:

The individuals of a society usually impose certain cultural and ideological stereotypes upon some crafts and professions. These craftsmen or professionals become qualified by such attributes restricted to them. The status of the daily processors (middlemen) in the Jordanian community have been placed in a stereotypical frame since the beginning of the 20th century. They were considered to be from a low social status and did not enjoy the respect and appreciation of local community members.

Numerous justifications followed this degraded perception of the middleman. Arguments did not separate them from the cultural system which was nourishing the model and ideological pattern. The reasons and arguments for

the middleman's low position in the eyes of the community seem to relate to their perceptible conduct such as a lack of cleanliness or dishonesty.

The profession of the milk seller who was involved in the whole process beginning with milking the cattle and ending in the sale of the products augmented among citizens the idea of the uncleanness of the seller. This resulted in feelings of aversion and loathing toward middlemen. A similar case was also pointed out by Al-Raa'i regarding the development of the Bedouin society in Lebanon (Al-Raa'i, 1987, 59-101). Furthermore, the shepherds who used to prepare milk and yoghurt for selling occupied a very low social status in the social structure of rural and even tribal society. The cattle which form the resource of yoghurt production, were another reason for such feelings of dislike among community members. Animals were related to nauseous odors and filth in their stables and surrounding areas – aspects which were sufficient to offend people.

The selling of milk or dairy products had not been realized as a profession in the bedouin culture. Bedouins did not sell milk products despite the fact that yoghurt forms a basic resource among tribal communities in Jordan. The main causes for such conduct were: (1) the availability of milk and its products among all members of the Bedouin society, (2) the Bedouin mentality indirectly perceives the idea of marketing and selling as a "swindle", since the seller would show the advantages of the product and try to hide the disadvantages as far as he can. Such behavior would be unacceptable to the morality of Arab nomads, (3) the Bedouin mentality is based upon pride and straightness and definitely not on the principles of profit and loss basic to trade.

But the job of the middleman has changed within the last few decades for several reasons: some are evident and others are in need of profound studies to reveal them. One of these reasons is that the job of the middleman becomes very profitable. Certainly, the increasing profit and opportunities of getting wealthy through this job reveal themselves and consequently, many people have been seduced to adopt this job as a profession.

Some of these people who work as milk sellers are now of high social status. Their engagement in that job has improved their image among society members from different groups and levels. In addition, the modern technology which is used in milk production has a role in changing the image of those who work in this field in Jordan.

In addition, education and the awareness of the importance of milk in diet had a role in this case. Sedentary families could not manage without milk in their daily meals while the families in cities were not interested in milk which was not an essential element in their meals. Nowadays, these families concentrate on milk which has become an element of the new life style.

Accordingly, we see that much capital investment has concentrated on the production of milk in Jordan. It has become of importance and provides people with job opportunities and also the marketing of the production; all these factors have pressurised and affected positively people's view of milk production, its trade, and those who deal with it.

Conclusion

During the last three decades of this century, dairies have been continuously increasing. In the 1970's, the number of

dairy shops did not exceed seven; in the mid-nineties they have reached a total of 70 centers. The widening of the dairy industry witnessed over the last thirty years is indicative.

The first owners of dairies who sold milk products were marginal groups in the community and not members rooted in the same society. All owners of those milk centers were of Syrian origin; clans who came from Syria to Jordan without profound links with deep rooted descent groups in Jordan. Hence, they did not fear the low social status or position in the society. Thus, socially, their work in milk trading involved little risk and loss. Economically speaking, the invested capital in this commercial process is basically small and cannot lead to large deficits. The number of milk sellers multiplied during the 1980's and 90's due to the high profit gained by marginal dairy center owners. This induced local community members to shift to this profession especially after the introduction of modern facilities and machine milking. From then on, milk selling has been seen in a light and from a perspective different from the negative evaluation among members of the tribal and Bedouin community.

What encouraged such a change in the deriding attitudes was also the spreading of cows among families with limited income who did not own any large piece of land to cultivate. This led to a natural acceptance of such a trade. Their taking care of cows has come to be seen as an ordinary activity after the arrival of some practical improvements in raising milk animals.

The emergence of milk sellers or middlemen among the community concerned with the raising of milk cattle confirmed the transformation of attitudes. Sparing farmers much toil and hardship through buying their milk and offering profitable and tempting prices,

middlemen have established strong social ties with farmers. Further, numerous local community members from deep-rooted descent groups entered this profession recently. Accordingly, the socially negative stance against milk sellers was altered.

The whole transformation and change that this profession witnessed resulted from the new requirements of the present phase. Sparse resources of income and limited profit on the one hand; schooling and health education that emphasizes the nutritional importance of milk and its products, on the other hand, have played a major role in transforming the stereo-types associated with milkmen.

Notes

- (1) The province of Irbid has been administratively modified by the Ministry of Municipal and Village Affairs in 1994. This alteration resulted in the independence of both Jerash and Ajloun as two separate provinces.
- (2) Factories are also supplied with milk to be processed into cheese and other dairy products. The amount of milk sent to factories has not been of concern to my paper and therefore, not included in my statistics.
- (3) The average income in Jordan ranges from \$180-200 monthly.
- (4) One kg of milk-powder (price: 1700 fils, i.e. \$2.5) is dissolved in 13 litres of water which will render 13 kg of yoghurt.

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Résumé

L'urbanisation progressive jordanienne a mené à une demande plus élevée en produits laitiers pendant que, grâce à une technologie moderne, son approvisionnement s'est amélioré. L'augmentation du profit qui s'en est suivie a modifié la façon d'apercevoir le rôle de l'intermédiaire. Celui-ci, bien qu'étant toujours capable de tirer encore plus de profit en frelatant le lait, jouit aujourd'hui d'un statut plus élevé qu'auparavant.

Resumen

La continua urbanización ha incrementado la demanda por productos lácteos, a la par que la incorporación de tecnología moderna ha mejorado la oferta. El aumento de ganancias, resultante de estos procesos, ha modificado la percepción de la gente del rol del mediador. A pesar de que éste sigue teniendo la posibilidad de agrandar sus ganancias a través de adulteración, tiene ahora un status más alto que antes.

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Table 1 Transformation of cow milk of each middleman and the price of the product

	Quantity in litre		Quantity of cheese after boiling in Kg	Quantity of yoghurt in Kg	Quantity of Butter in Kg	Quantity of butter milk in Litre	Quantity of Yoghurt in Kg	Quantity of ghee in Kg	Quantity of condensed yoghurt in Kg	Quantity of "Labaneh" in Kg
	Buy	Sell								
Cost 1 Litre in Fils	210	300	18.3	13.2	13.2	154	22	6.5	38.5	30.8
Gross cost	23.100		2100	300	3000	200	3000	5000	1200	2500
	33.000		38.430	39.600	39.600	30.800	66.000	32.500	46.000	77.000

Table 2 Transformation of sheep milk of each middleman and the price of the product

	Quantity in litre		Quantity of cheese after boiling in Kg	Quantity of yoghurt in Kg	Quantity of Butter in Kg	Quantity of butter milk in Litre	Quantity of Yoghurt in Kg	Quantity of ghee in Kg	Quantity of condensed yoghurt in Kg	Quantity of "Labaneh" in Kg
	Buy	Sell								
Cost 1 Litre in Fils	410	500	6.25	30	4.5	45	9	2.6	15	15
Gross cost	10.250		3000	650	4000	300	6.500	7.500	1600	3.500
	12.500		18.750	19.500	18.000	13.500	58.500	19.500	24.000	52.500