Quality management in inclusive business: an Egyptian milk sourcing case study

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Abstract:

Worldwide, dairy products demand increases in term of quantity as well as it evolves in term of quality. Agribusiness companies consider emerging markets as new Eldorado. Some of them attempt to pump into the production of local small-scale farms through inclusive businesses (IB), often promoted in association with Non-Governmental Organization (NGO). Reaching agro-industrial quality standards is often one of the main obstacles to develop sustainable business models. Their quality management (QM) strategies often include the introduction of agricultural services (feed program, veterinary, training) and quality tests for their milk suppliers. QM is then designed based on linear product flows with little consideration for the supply chain environment: other local dairy operators or local agricultural services providers. In inclusive business, do QM strategies benefit to be limited to the supply chain connecting small farms with agro-industry? Based on an Egyptian case study, this paper aims: (i) to describe a dairy IB and the socio-professional environment where it's inserted using a netchain approach; (ii) to analyse the governance and social embeddedness of this netchain in a quality management perspective. Results showed a dense local socio-professional network characterized by reciprocal links. Milk Collection Centres (MCC), promoted by the project, didn't succeed to develop this links. QM adopted by project promoters focused on vertical approach of the chain, omitting to develop reciprocal connections with the local socio-professional network. It limited the impact of the activities implemented to improve the local quality. The potential to deal with milk heterogeneity that led in this network was also neglected. To develop IB in a shared value logic, involving local socio-professional network, often also in the bottom of the pyramid, seems crucial.

Key words: Milk collection, Quality management, Family farms, Dairy industry, Egypt

1. Introduction

Conceiving sustainable agrichains is becoming an essential concern (Biénabe et al., 201-). It would help to progress towards sustainable development of our societies conceived as a "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987). It implies economic viability, social progress and environmental sustainability while maintaining cultural diversity (Jacquemot, 2015 : 133). Most of the small-scale farmers in the world belong to the bottom of the economic pyramid (Prahalad, 2004). It encompasses the population with low incomes (4 Billion people below 2$/day). Connecting small-scale producers with global markets to reduce poverty is increasingly promoted by international development institutions, non-governmental organization (NGO) and government.

Worldwide, food demand increases in terms of quantity as well as it evolves in terms of quality. Demographic evolution, urbanization and changing lifestyle drove these changes. Following these trends, dairy products markets are rapidly growing in Africa, Egypt having one of the most promising perspectives (FAO, 2016). Thus several agribusiness companies invest in the continent. Both milk powder and company owned industrial farms, implanted locally, supply those markets, allowing a high control on quality. Besides those supplies, some companies attempt to pump into the production of local small-scale farms through inclusive businesses (IB), often promoted in association with (NGO). According to United Nations Development Program, an inclusive business is a : *"Commercially viable model that benefits low-income communities by including them in a company's value chain on the demand side as clients and consumers, and/or on the supply side as producers, entrepreneurs or employees"* (UNDP, 2008). They aim to create

economical as well as social values. In IB, where farmers are included in the supply side, aligning milk quality of small producers with the quality requirements of the investing enterprises is a key to ensure the success of the business model. IB are promoted within pre-existing dairy context where small entrepreneurs (farmers, collectors, processors…) co-exist with more industrial sector (Padilla et al., 2004). Despite limited quality state control, these so-called, informal sectors, are highly dynamic and secure many markets (Fuentes Navarro, 2015; Padilla et al., 2004). Reaching agro-industrial quality standards is often one of the main obstacles to these projects (Page and Slater, 2003; Fuentes, 2015; Akli et Belaïd, 2014). Companies promoting IB try to align the quality of the milk supplied by small-scale producers with their quality requirements through quality management (QM) strategies. Quality, from project management perspective, is "the degree to which a set of inherent characteristics fulfils requirements" (Project Management Institute, 2004). QM is often designed based on linear product flows with little consideration for the supply chain environment (Faysse et Simon, 2015): other local dairy operators or local agricultural services offer. Main activities focuses towards the introduction of agricultural services (feed program, veterinary, training) and quality tests for their milk suppliers (Sopov et al., 2014). Finally, much attention is paid to improve quality but little is done to deal with the non-satisfying products, in a context where product quality heterogeneity is a reality.

In inclusive business, do QM strategies toward a quality upgrade benefit to be limited to the supply chain connecting small farms with agro-industry? Based on an Egyptian case study, the first goal of this paper is to describe a dairy IB and the social-professional environment where it's inserted using a netchain approach. The second goal is to analyse the governance and social embeddedness of this netchain in a quality management perspective. Our hypotheses are that IB, by overlooking the local socio-professional network, limit their impacts and their ability to deal with milk quality heterogeneity. Our analysis will be based on an Egyptian case study. It aimed to collect milk from small-scale producers for an investing company while contributing to local development. This analysis is innovative because it contributes to enrich literature relative to IB. This innovative emerging sector, combining multipartite stakeholders (Eaton and Sheperd, 2001) (private, public, NPO, farmer's organizations…) with shared value ambition is in need of feedback from anterior initiatives to build more sustainable business model. Furthermore, it aims to extend the knowledge on innovative agrichains aiming to create share value (Porter et Kramer, 2011; Biénabe et al., 2016). Ultimately, Egyptian dairy sector is rapidly evolving in a post-revolution context. Documenting the current situation of rural areas can help to adjust more relevant policies.

2. Material and Methods

2.1. Egyptian case study and data collection

This analysis will be performed on an Egyptian case study. A milk sourcing project has been implemented by a European company in partnership with an NGO. It aimed to secure milk supply of the local company's plant by promoting milk collection centres (MCC), within producer's cooperatives, distributed in all Egypt. It also aimed to improve farmer's livelihood. Focusing its activity in Middle Egypt and North West Delta, this project attempted to increase local milk production (quality and quantity) by the mean of renewed agricultural services offers for the farmers supplying MCC. A three years project assessing the socio-economic impacts of this project (SIADEEP) has been conducted (2014-2016) and furnished the data for this analyses. The case study village of Halabeya, in Beni Suef governorate (Middle Egypt) will be the reference for this qualitative analysis (Figure 1). Indeed, it is the second MCC that have been open in 2011 among the 11 others villages with a running MCC in 2016. Project promoters consider it to be one of the best business models of their project and it's located in the main targeted governorate.

Semi-directed interviews, focusing on socio-economic impacts of the MCC, were conducted every year on an original sample of 28 farmers from Halabeya, 9 milk independent milk collectors from the area and with the MCC staff members. Three participatory workshops were organized between May and June 2016. From 9 to 15 key stakeholders related to dairy sector were gathered (farmers, veterinary, agricultural cooperative employees and managers, MCC staffs, milk trader and a feed trader) to identify project impacts on the local community. Finally a set of interviews on socio-professional network were conducted on 27 farmers of the villages from April to November 2015. On site discussions and observations completed our data collection. The netchain perimeter considered is limited by its producer's base, within Halabeya perimeter, modelled on the project intervention perimeter. Our analysis will focus on the period comprised between the opening of the MCC (2011) and the last data collection performed in 2016.

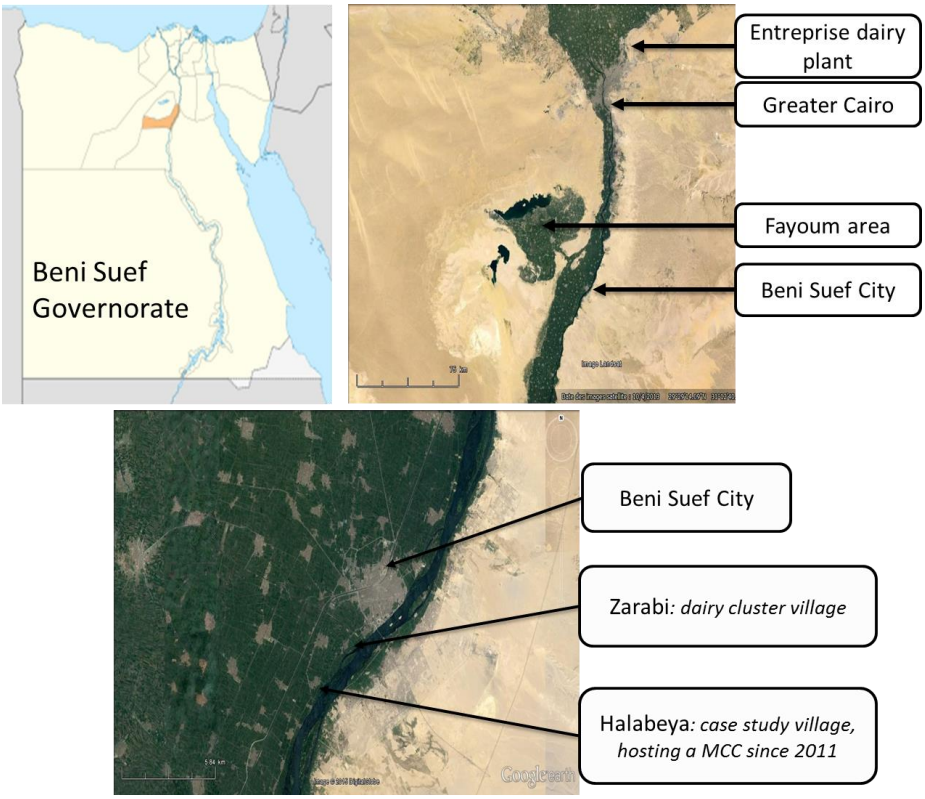

Figure 1: Studied area: top left: border of Beni Suef Governorate; top right: Middle Egypt; bottom : satelite picture of Beni Suef and Halabeya (*source: Google earth*©)

2.2. Netchain approach

The netchain approachwill be used to describe the IB project, the socio-professional environment where it has been inserted and their interconnections. Supply chain approach found its root in logistic science. Enriched by network sciences, Lazzarini proposed an approach of the supply chain baptized: netchain (contraction of network and supply chain). The netchain model integrates both vertical dimensions of a supply chain as well as horizontal networks at each level of the chain (Lazzarini *et al.*, 2001; Petersen *et al.*, 2014).

Thus besides describing the diversity of agents involved in the netchain, links connecting them (horizontal and vertical) will also be described. We will focus our analysis on three types of links in the netchain:

- Commercial bounds: dairy products (DP), agricultural services (AS) (inputs supply, crop marketing…), financial services (loan, credit) (FS);
- Knowledge related to dairy quality: synthetized in animal breeding contents (AB) and dairy hygiene contents (DH).
- Family or friendship (FF).

Ultimately, it will help us to characterize the interdependence of each operator. The model encompasses three types of interdependencies between agents (Lazzarini *et al.*, 2001):

- Pooled: where agents are autonomous and loosely coupled. The relationship is sparse and indirect, with weak social ties;
- Sequential: relations between agents are direct, ordered in a conventional vertical supply chain pattern.
- Reciprocal: one agent's input is another agent output and *vice et versa*. Agents are mutually dependent by the choices made by each other. The social ties are strong and the network is dense, cluster favouring this type of interdependencies.

Based on this description, the netchain governance and social embeddedness will be analysed (Nijhoff-Savvaki *et al.*, 2012) in a quality management perspective. Governance is viewed as a mean of creating the condition for effective collaboration in the netchain to maximise value creation (social and economic) and sharing it.

3. Results

3.1. Structural description of netchains

In this first part, a description of all the stakeholders of the netchain will be introduced (Figure 2). Their quality management will also be described.

- Dairy netchain stakeholders:

➢ Farmers:

Results showed that producers at the bottom of this netchain were small family farming systems integrating crop-livestock production. Areas cultivated in the village were below 1 hectare and family owned small dairy herds (2 dairy animals per family in average). Besides satisfying family and herd's needs, some productions (animal or vegetal) were sold contributing in various proportions to family's incomes. Those families produced cow and buffalo milk in limited quantity (average of 2200kg of milk per year). All families practiced hand milking. Milk quality was only tested by organoleptic assessment. Milk remained rarely unused for quality reasons except in case of acute mastitis with an important modification of the milk aspects.

➢ Dairy Products traders

An important diversity of milk traders connected small-producers of Halabeya to consumers. They were encompassed in a large network covering milk collection, processing and retail of Beni Suef Governorate and connected with Cairo market. A wide range of family businesses were

distinguishable[1] by their activity (milk collection and/or processing and/or wholesale and/or retail), the type of products they traded (cow milk and/or buffalo milk and/or skimmed milk and/or cheese), the source of their supply (farmers and/or other dairy products traders), the volume they collected (100kg to 40tons/day in winter), the scale of their marketing channels (local/regional/national). Besides collecting milk, they could provide financial services to their suppliers. Organoleptic assessment was the norm. Few entrepreneurs, engaged in direct businesses with industrial dairies, performed chemical assessment using electronic devices (milkscan).

- Agricultural services providers

Private family entrepreneurs ensured the majority of the agricultural services offers: animal feeds, fertilizers, pesticides, crop traders…Many agents were polyvalent and ensured a proximity service within the village, purchasing their supplies from wholesalers or factories in Beni Suef City. Similarly to milk traders, they commonly endorse the role of financial services providers from their customers. Animal health in Halabeya was ensured a public clinic and private pharmacies.

- Cooperative-MCC

Halabeya agricultural association hosted the MCC. This producer's organization can be found in all Egypt. They were an essential public representation during Nasser mandate, promoted to implement the national agricultural plan. If they assumed a key role in agricultural services offer in the past (fertilization, insurance, credit, trainings…), economic liberalization of the country during the last 30 years progressively erodes their position in the agricultural landscape. During the study, an elected board of 7 farmers was elected every 5 years and cooperative was under the responsibility of a public official. The main service provided to farmers was the distribution of subsided fertilizers to coop members (land owners, excluding numerous landless peasants). In exchange for MCC creation and a set of initial services, cooperative had to market its milk to the investing company ensuring the respect of its quality standards. A five year exclusivity contract bounded cooperative, the investing enterprise and the NGO.

A MCC was composed of a building containing cooling tanks (6 tons total capacity), a dedicated office, quality testing equipment's (alcool, milkscan). Three technical staffs worked daily to collect milk two times a day. Initial service promoted by the project consisted in trainings for the staff members (management, hygiene and milk testing) and agricultural services for the farmers suppliers (training on milking practices, free feed). After the initial phase, 20% of the profit created was supposed to cover for a continuous agricultural services offer, restricted to the suppliers. Activities promoted had a double purpose: improving local milk quality and increase farmer's loyalty. If all delivery were supposed to be tested, alcohol test and chemical composition were tested only on large milk quantity deliveries and punctually in case of doubt. Farmers mentioned medicine residues in their milk. Thus milk wasn't mixed in the tank and could be sold to consumers of the area. Each load, before its departure for the company plant was also analysed.

- Dairies

Numerous dairies, collecting daily cow milk or/and buffalo milk produced dairy products, more or less standardized (*Mozzarella*, *Roumy*) for the national market. The Beni Suef dairy products traders principally worked with the dairies in Fayoum governorate or in the border of Cairo megalopolis using semi-industrial processes. The dairy plant from the investing company was located in North East fringe of Greater Cairo (El Obour City).

[1] A publication describing this diversity in currently under review.

- NGO

The NGO was responsible of the project development and supervision and contributed to business model design. This international NGO relied on its local staff. Thanks to their anterior activity in the area, they had at their disposal a local network to rely on. Achieving MCC autonomy was one of the initial objectives. De facto, the NGO was involved in business relationship of the company and management decisions of the MCC. Agricultural services were also under their responsibility at the beginning of the project implementation. They mainly relied on academic staff to train farmers.

- Multinational agro-industrial company:

The main investor in this project was an international agri-business enterprise investing through its development fund. Company owned a plant in Egypt. At the project scale, they contributed to the business model design, funded the project and were in charge of the training of the MCC staff regarding milk quality. When MCC milk was supplied, they performed in-depth analysis (physical, chemical and sanitary). If MCC's milk was not conformed to their industrial requirements, it was rejected.

- Links in the Netchains

Connexions between netchain agents will be reviewed, both in vertical and horizontal dimension (Table 1). Ultimately, it will help us to evaluate the type of connection: pooled, sequential, interdependent.

Table 1: Matrix synthetizing interdependencies between agents in Halabeya dairy netchain. For each cell, the first raw synthetize commercial links (DP: dairy products, AS: agricultural services, FN: financial services); the second raw the quality knowledge (AB: Animal Breeding, DH: dairy hygiene); third raw the family or friendships links (FF); "-": no links has been observed. Grey cells symbolize the reciprocal interdependencies.

		Farmer	Dairy Products Traders	Agricultural Services Providers	MCC	Dairies	Dairy consumers	Company	CARE
Farmer	*Commercial*	DP AS FN	DP FN	AS FN	DP AS		DP	-	-
	Knowledge	AB DH	DH	AB	AB DH		DH	-	-
	Friendship	FF	FF	FF	FF		FF	-	-
Dairy Products traders	*Commercial*		DP FN	-	DP	DP FN	DP	DP	-
	Knowledge		DH	-	-	DH	DH	-	-
	Friendship		FF	-	-	-	FF	-	-
Agricultural Services Providers	*Commercial*			AS FN	-	-			
	Knowledge			AB	-	-			
	Friendship			FF	-	-			
MCC	*Commercial*				-	-	DP	DP	-
	Knowledge				-	-	DH	DH	DH
	Friendship				-	-	FF	-	-
7 Dairies	*Commercial*					DP	-	-	-
	Knowledge					-	-	-	-
	Friendship					-	-	-	-

Connections in the netchain between:

Farmers: Farmers had several alternatives to create value with their milk production. Thus, besides feeding calves or family members, milk or dairy products could be marketed to traders, MCC, in the market or given to poor members of the community or in need relatives or friends. Donations to community members were commons and increased during Ramadan, creating social value. Agricultural services, mainly labor exchange, were common among farmers. Credit and loans were also contracted in the extended family or between farmers when needed. Knowledge regarding quality of milk circulated essentially at this level of the netchain. Indeed farmers (both man and woman) inherited most of their skills from their parents. "Old woman" of the community reputed for their dairy knowledge, were designed to be essential in this networks.

Farmers and dairy products traders: Farmers maintain long term commercial relationships (several years to decades) with their milk collectors, often inherited through generation. Milk traders provided also agricultural services to their suppliers. Besides transportation (of milk or agricultural inputs); financial services (credit or loan) were very common. Essential for the agricultural activity of the small scale producers, this debt were partially paid-back in milk. It guaranteed the loyalty of indebted farmers towards its trader. Collecting one or two times per day in each farm, traders had a key role to raise awareness on dairy hygiene of their suppliers. This long-term relationships ensured a certain proximity between each family and its collector.

Farmers and Agricultural services providers: Inputs supplies for agricultural and animal production were mainly ensured by private family businesses. As for milk traders, farmers were tied to their suppliers by long-term business relationships, often associated with family or friendship links, and financial services (credit, loan). Payment was made after the families perceived their milk payment. Some information regarding feeding practices were transmitted by feed traders to their customers.

Dairy products traders: A dense network of dairy products traders ensured the markets supply. Each one could collect diverse dairy products from farmers and/or other dairy products collectors. Each one of them had a minimum of three marketing channels: larger collectors, consumers, industries, or MCC. Most of intermediaries sold to consumers a part of their collection through local short chains allowing them to reach advantageous prices. Some exchanged goods at regional scale (cheese processing units in Fayoum or Cairo Governorate) or agro-industries in Cairo megalopolis. If they were not originally included in the business model of the MCC, reality showed that more than 50% of the milk came from their supply. Anyhow, these suppliers did not received any services from the MCC. Traders manly learned their skills with a family members or friends invested in the dairy business which would become one of their marketing channels. Based on lasting commercial links, close bounds develop and guarantee flexible commercial relationship. Financial services can also be exchanged between milk traders, partially paid back in milk. After the training period, the main source of knowledge comes from regular exchanges between traders and some dairies with quality standards and applying tests. In the case study, a cluster of milk traders existed in the village of Zarabi, 3 km from Halabeya. Thus many family bounds joined these family businesses to each other. Thanks to the dense weft they formed, they ensured a key role of milk sorting according to quality.

Agricultural services providers: This entrepreneurs' organization present similar pattern as milk traders except that no cluster have been identified. Organized in a network with apprenticeship, financial services and long-term business relationships, certain flexibility in their commercial relations was allowed.

Cooperative and farmers: Milk collection, embodied in the MCC, was added to the limited agricultural services offer of the cooperative. If originally, the business model has been conceived to collect from farmers, reality showed that traders largely contributed to this supply (around 50% in Halabeya and more in other MCC. Most of the milk wad sold to the investing enterprise. In 2015, 50kg/day was sold directly to local consumers, increasing in Ramadan. Some of this milk was considered as unfit for the company standards (lower quality, antibiotic residue…). The enterprise rejected frequently MCC's milk for quality reasons (an average of 10% of the milk has been rejected between January 2012 and December 2014, rejection increasing in summer, reaching 36% in July and August 2012). No solution was proposed to the MCC to deal with this rejected milk. When milk was rejected by the company, MCC sold its milk to dairies or local milk traders without any bargaining power. Indeed buyers knew their "rejected" status and were aware of the exclusivity clause tiding MCC and the company. In these cases, milk was sold below the purchasing price. It contributed to the precarious economic situation of the MCC observed at the end of the data collection. During the first year, services to farmers supplying MCC (trainings, feed program and animal health supports) were implemented to improve milk quality. Except the local veterinary office, no other local entrepreneurs were involved. After the initial phase, cooperative was unable to maintain agricultural regular services offer due to its economic situation. Nevertheless MCC succeeded to become a source of knowledge regarding milking practices for some producers, mainly through its staffs, recruited within the community. The limited services delivery diminished the loyalty of farmers towards MCC. The local staffs combined with the milk marketing to consumers, helped the MCC to weave an anchorage in the local network but the extent remained limited.

Cooperative, the enterprise and the NGO: NGO intermediated in all relationships with the enterprise. The ambiguous position of the NGO regarding marketing dimension resulted on the impossibility for MCC to develop direct trust bounds with the investing enterprise and with the NGO. MCC managers had punctual contacts between each other (4 times a year) but no dynamic existed without NGO intervention.

3.2. Quality implications of the governance and social embeddedness of the netchain

At the village level, most agents presented reciprocal interconnections. Two exceptions could be noticed: sequential bounds tiding MCC suppliers and the MCC; and the limited links existing between dairy products traders and the rest of agricultural services providers.

At local scale, all the actors followed informal coordination mechanisms, exception to be made of the MCC-enterprise relationships. The only written contract observed in this netchain was between the investing company, the NGO and the enterprise. It was renewed every year. Thus cooperatives hosting MCC were strongly driven, by their downstream operators with highly asymmetrical power relationships. Other dairy sectors could relate on a more flexible coordination mechanism, with a network configuration, commercial decisions being made among several alternatives. Regarding the information system, it appeared to be made of frequent direct exchanges in the entire network. The only exception was between MCC and the enterprises. NGO interfered in almost all interactions. Agricultural services and knowledge channels relied on a dense, entangled network of family entrepreneurs. Some gap can be observed between milk traders and other agricultural services providers. No effective dense socio-professional networks have been weaved around cooperative besides milk collection activity. MCC if it succeeded to acquire a status regarding milk collection and dairy hygiene didn't succeed to become a key entity regarding other agricultural services.

In the local dairy network, control was based on organoleptic assessment and trust based system, with a high heterogeneity of products. The network pattern, rather than sequential, of the local

dairy sector allowed to create value, even with low quality milk. Indeed each agent could dispose of several alternatives with a range of quality requirements. The sorting role of milk intermediaries appeared crucial in a permanent dynamic process, allowed by their strong information system, knowledges and the diversity of their marketing channels. Reciprocal interdependencies in this network allowed variation in milk quality.

In this context, IB project managers focused their approach towards a vertical supply chain approach. Quality improvement was the main objectives of the project. The sequential approach didn't encompass leeways for the MCC to deal with milk quality heterogeneity. It pushed MCC managers to develop alternatives, from their own initiatives (direct consumers marketing), violating their contract. Ultimately it led to frequent rejections of their milk by the company without alternative solutions, resulting in financial losses.

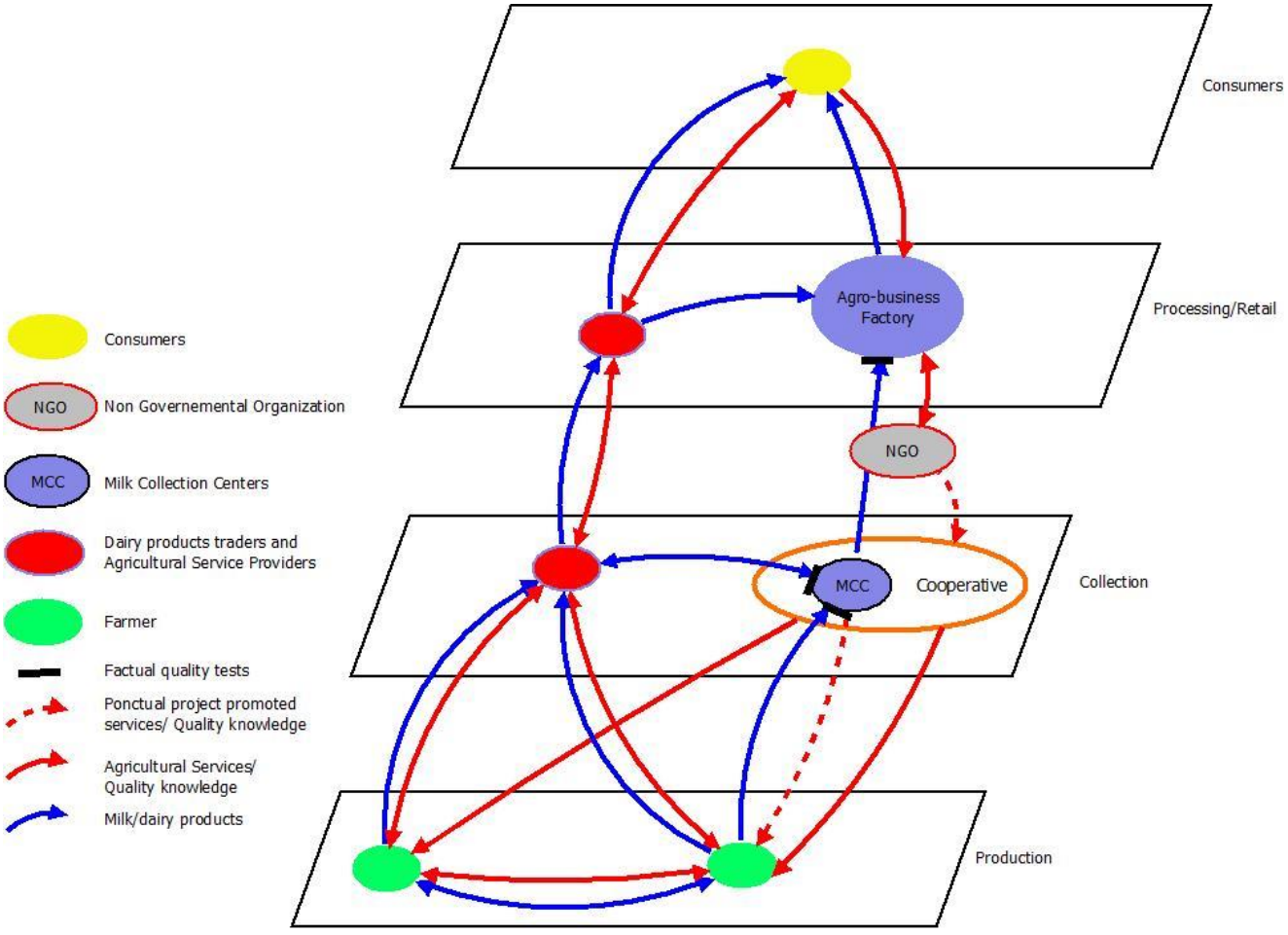

Figure 2: Netchain simplified representation of Halabeya

4. Discussion and Conclusion

Netchain approaches appeared relevant to describe deeply entangled milk chains enclosed in an un-differentiated socio-professional network. It helped us to emphasize the reciprocal interconnections of local agents related to dairy activity. Gaps existed between milk traders and other agricultural services (animal feed traders or agricultural inputs traders). MCC didn't succeed to develop reciprocal interconnections. Whether it was within the village, with its suppliers or with the investing enterprises, sequential interconnections were the main pattern observed. Moreover the NGO interfered in the connection of this commercial chain. Regarding QM, project promoters of the IB implemented a strategy focusing on these vertical links. The local reciprocal interconnected socio-professional network wasn't mobilized. This choice had consequences in the ability of the project to improve the local quality as well as in its ability to deal with milk quality heterogeneity.

Regarding local milk quality improvement, the strategy focused on improving local milk quality by relying on external interventions on farmers supplying the MCC and training staffs. It led to a certain success, MCC becoming a reference in term of dairy hygiene in the community. Milk traders were not involved, disregarding their crucial importance in the MCC supply and in the farmers' practices. As pointed in Moroccan context, it could be relevant to consider the design of more inclusive, dynamic QM strategies (Faysse et Simon, 2015). As it have been proved in many projects relying on local human resources seems essential to implement sustainable business model (Rösler et al., 2013). The local social network, embodied in our cases by the network of the dairy products traders, could be highly efficient to channel information (Banerjee et al., 2014). By raising awareness regarding hygiene among dairy traders, the diffusion of new practices among their suppliers, with a high multiplication effect, could be facilitated. Moreover, involving milk traders in IB joins the requirement of creating innovative business models involving intermediaries and allowing global enterprises to limit the high distribution cost of servicing a fragmented supply base (Vorley and Proctor, 2008).

The limited involvement of the local network had also implication in terms of management of the milk heterogeneity within the MCC. Indeed QM is not only about upgrading quality but about managing heterogeneity in the network that can serve differentiated market (Van Tilburg, 2007). Agile and dynamic management networks are needed to develop efficient agri-chain (Petersen et al. 2014). The limit of exclusivity and rigid management of milk quality has also been evoked in a similar milk collection project in Algeria (Akli et Belaid,, 2014). In both projects, promoters focused on quality improvement disregarding milk quality heterogeneity management. By promoting sequential interconnection, manager deprived their project from the possibility to deal with these irregularities. On the contrary, the local dairy network appeared to be highly flexible and adaptive, congruent with milk quality heterogeneity management, facilitated by reciprocal interdependencies and numerous alternatives. Allowing for the MCC to partly rely on the local dairy network by marketing a share of its collection, on a regular basis, could ensure MCC a certain bargaining power in case of milk rejection by the company. Moreover, milk prices offered by those alternative marketing channel could help MCC to reach economical balance. Indeed they are periodically higher than the company prices. Developing processing unit within MCC could also contribute to diversify MCC marketing channels and ensure the creation of value as proven in Senegalese context (Corniaux, 2015).

Informal market remains dominant in southern countries (Fuentes Navarro et al., 2015). They contribute to ensure food security of millions of people, often with low incomes, while creating employment. Will of states to annihilate them by promoting rigid quality appears counterproductive regarding sustainability goals. As pointed in a Vietnamese case, traders are essential in the agri-chain development (Duteurtre, 2015). QM strategies involving local intermediaries could benefit of a better local anchorage and create shared value more efficiently.

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