Research article

Food Service Industry Development and its Effect to Distribution of Fresh Agri-products in Vietnamese Suburban Area

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Abstract This research aims to uncover how the emerging catering industry contingent to deindustrialisation changes the value chain of fresh agri-product in the Vietnamese suburban area. The results revealed that by entering both international and local businesses, the catering industry is competitive. Firstly, while the catering business in the North are small and operate on a local level those operating in the South are consolidated enterprises as they have different market conditions. Secondly, Fresh food ingredients provide direct contract with producers or wholesalers. In the south, catering companies tend to contract food wholesalers to purchase in bulk and distribute them to their branch preparation kitchens located in surrounding provinces. Third, the value chain created by catering comapny could make transactions and the volume of products handled concentrated, this could extend the transport distance of produce. However, the vertical coordination for the entire chain is inadequate. Furthermore, contract transactions are limited to only part of the chain, and the requirement for quality control is weak.

Keywords food service industry, fresh vegetable and fruits distribution, industrialization, suburban area, Vietnam

INTRODUCTION

The food system in developing countries has transformed rapidly in the past several decades (Reardon et al., 2019). The two main themes are in trends regarding food systems in developing countries. These themes include, exports and imports with trade liberalization and globalization, and transformation in the food systems (Reardon, 2015). Consolidation and globalization of supermarket chains and its affect on small holders are also examined in many countries (Berdegué et al, 2005; Minten et al., 2009; Ruben et al.,2007; Wang et al.,2009). The supermarket plays an important role in food production with their 'own brand' products and the setting of safety, quality and manufactured food. The value chain is aimed at quality control of food governed by global retail chains effect on all the actors in the chain, from the input suppliers to the farmer and the food retailer to the consumer (Burch et al., 2013). Furthermore, the transaction system is changed from spot markets to contract transaction, food products are standardised and the area of food supplied is geographically expanding. The modern value chain offered by supermarkets are gaining the attention of scholars, as well as detailed research and analysis have been conducted (Maruyama and Trung, 2007; Mergenthaler et al., 2009; Moustier et al,. 2010; Ruben et al., 2007).

In contrast, research regarding the middle stream (processing, wholesaling and storage) in developing countries are limited. Reardon (2015) reviled middle-stream growth and transformation, both in a "modern revolution" with large and often foreign companies, but also a "quiet revolution" with a small and medial enterprise and a substantial investment made by them. However, the food service industry, especially in rural and suburban areas, has recently begun rising due to urbanization and industrialization, which has not been considered in previous studies.

With the rapid growth in the industrial zone in rural and suburban Vietnam, the food service industry providing meals for labourers working in factories is emerging. With the development of the industrial and rural labour markets, non-farm labour is rising continuously. In 2005, the number of labourers in the country working in the primary sector was 23,563,000 (55.1%), with the number of labourers in manufacturing numbering 5,031,000 (11.9%). However, the number of people working in the primary sector dropped to 18,831,000 (34.4%), while the number of labourers in manufacturing increased to 11,287,600 (20.6%) in 2019. Employers in the industrial sector (factories) contracted by catering companies provide one to two meals per working day for employees as welfare support. While supermarkets are suspended in relatively small channel for Vietnamese lifestyle (Sigrid C.O. Wertheim-heck et al., 2015), as the emergence of the catering industry's contingency to industrialization and food demand growth in suburban area, the value chain of food is gradually changing. Nevertheless, the framework of catering companies providing meals to the factories, how they deal with food suppliers and how food value chains are restructured remains a matter of uncertainty.

OBJECTIVE

This research aims to uncover how the emerging catering industry is industrialized and changes in the value chain of fresh agri-product (fruits and vegetables) in the Vietnamese suburban area.

METHODOLOGY

A semi-structured interview was conducted with 15 catering companies (3 international and 12 local companies), which supply meals to factories in the industrial sector in northern and southern Vietnam, particularly in Hanoi City, Hai Duong Province, Ho Chi Minh (HCM) City and the Tien Giang Province. In addition to Hanoi and HCM, the centre of industrialization for North and South Vietnam, Hai Duong and Tien Giang Province, respectively, are used as a fresh food producer for the former cities, which are investigated to clarify changes in agri-food distribution.

This research answers the following questions:

1) What are the general characteristics of these catering companies and business conditions?
2) How do they procure and control the quality of fresh agri-products as ingredients?
3) How does the development or modernization of the food service industry affect agricultural distribution in the surrounding areas of the industrial sector?

Sample companies are selected due to introduction by department of health in each province and city, and the interviews were conducted in 2014 for North Vietnam and in 2019 for South Vietnam.

RESULTS AND DISCUSSION

General Characteristics of Catering Companies Supply Meals to Factories at Industrial Zone

Table 1 outlines each of the catering companies, with 15 companies divided into 3 groups by the scale of business. Companies that provided over 20,000 meals/day were categorised as large scale, those that provided 10,000 to 20,000 meals/day as middle, and 10,000 meals/day as small scale. The size of catering companies varied, the largest cater (L1) provides 60,000 meals/day and has 600 labourers, while the smallest (S5) distributes only 200 meals/day.

Most of informants were started their business in the 2000s, especially in 2011-2015, when foreign direct investment increased[1]. The largest company (L1) are jointly invested with a Japanese catering company and the Vietnamese local company. Their Headquarter is in HCM, then spreading their business into the north. Several former food wholesalers (L3, L4) started their catering business. Local restaurants have also entered the catering industry, but their business scale is relatively small (S1, S2 and S4). Middle scale companies are comprised mostly of those that left other catering companies to develop their own business. According to the informants, companies in the catering industry are continuously merging and splitting.

Two types of meal preparations were observed. These include those that set up the facilities[2] to prepare meals on spot, and those that prepare meals at a central kitchen location and then deliver them to each customer in the industrial sector. While the latter is recommended for hygienic reasons, most of companies could adapt to either style, depending on their customers' needs. Large catering companies with facilities (L1, L3, L4 and M3) and small catering companies which distribute a small number of meals/day (S2, S4, S5) tend to prepare these in their own kitchen and then deliver them to each factory.

Of the 15 catering companies, 4 of them invested in a central kitchen that met ISO and HACCP standards, yet quality certification is not popular for small scale companies. Furthermore, unstable annual contracts made middle and small scale catering companies hesitate to invest in new facilities.

Table 1 Outline of sample catering companies

	Large scale				Middle scale						Small scale				
	L1	L2	L3	L4	M1	M2	M3	M4	M5	M6	S1	S2	S3	S4	S5
Location	HN	TG	HCM	HCM	HD	HCM	HCM	HCM	TG	TG	TG	HD	TG	HD	TG
Year established	2013	2011	1998	2011	2008	2017	2003	2015	2004	N.A.	2007	2014	2009	2014	2011
Num. of branches	2	16	5	4	5	7	2	8	4	5	2	1	20	1	1
background	JP+VN	N.A.	WS	WS	N.A.	split out	FP	split out	N.A.	N.A.	FS	FS	N.A.	FS	Sub con.
Num. of employees	600	N.A.	350	55	400	130	2500	70	N.A.	N.A.	N.A.	21	N.A.	22	N.A.
Num. of meals(1,000M/day)	60	13	20	20	15	13	11	9	6-11	5	1.9	1.5	1	0.6	0.2
note	ISO2200		HACCP,ISO2000	ISO22000			ISO9001,BRC, HACCP								

* NH=Hanoi, TG=Tien Giang, HCM=Ho Chi Minh, HD=Hai Duong
**N.A.=no answer, WS=Whole sealer, FP=Food Processor, FS=Food Service (Restaurant)
***Shaded companies are in north.
Source: field survey in 2014-2019

As Table 2 shows, the contract between catering companies and customers (factories) are typically annually arranged[3]. Contract sometimes broken, and often not renewed. It made their business unstable and flexible so large companies often outsource meal preparation to local small catering companies. In addition to existence of countless competitors, unstable business condition caused caters to continually merge and split.

Contract unit prices vary widely from 12,000-40,000 Vietnamese Dong (VND) per meal (Table 2). As explained next, the food safety requirement for industrial workers meals are not high. This minimum safety standard makes catering companies provide reasonably priced meals. According to the interview with department of Health, the average price for primary school lunch in HCM was 35,000

[1] Value of foreign direct investment to Vietnam was $428.5 million (US) in 1991, which increased to $2.4 billion (US) in 2000 and $17.5 billion (US) in 2017.

[2] Depending on the contract, facilities are invested in by either the customers or catering companies. According to the informant, it costs 1.5-2.0 billion VND for the facility with capacity for 1,000 meals/day.

[3] It could also be every 3 months, 6 months, 12 months, 18 months or more. However, one year is the most common period for the contract.

(VND) per meal, while the average price the informant provided for the factory was 15,800 (VND) per meal. In most cases, the meals that catering companies provide for factories are segregated from those prepared for school meals because the quality required for both differ greatly.

Table 2 Contents of contracts

	Large				Middle							Small			
	L1	L2	L3	L4	M1	M2	M3	M4	M5	M6	S1	S2	S3	S4	S5
Num. customers	N.A.	N.A.	50	35	N.A.	7	N.A.	8	4	5	1	3	1	1	1
Main customer.	Fac.	Fac.	Fac., office, school	Fac., school	School, fac.	Fac.	office	Fac.	Fac.	Fac.	Fac.	Fac.	Fac.	Fac.	School, Fac.
Unit price (1,000VND)	18-20	N.A.	15-40	20-35	12-15	15-30	20-30	14-20	20	16.5	15	14-17	15	13-20	15

source: field research in 2014-2019

Supply Chain of Ingredients – Vertical Coordination-

Two main routes: contract with suppliers and spot purchasing, were observed for ingredient food (especially fresh food) procurement.

Table 3 Purchasing fresh produce

	Large				Middle							Small			
	L1	L2	L3	L4	M1	M2	M3	M4	M5	M6	S1	S2	S3	S4	S5
Supplier	Pro	WS	WS	WS/Pro	Pro	Coop	WS	WS	Coop	WS	WS	Coop	WS	WS	Pro
Contractor*	kitchen	HQ	HQ	HQ	kitchen	HQ	HQ	HQ	kitchen	HQ	N.C.	N.C.	HQ	N.C.	N.C.
required standard	own Stan.	—	—	V-GAP	own Stan.	own Stan.	—	—	V-GAP	—	—	—	—	—	—

**N.C.=no contract*
source: field research in 2014-2019

1) Direct contract with producers/producers' coop (L1, M1, M2, M5, S2 and S5):
Catering companies purchase food directly from producers or producers' cooperatives which obtained the Food Safety and Hygiene Certification (FSHC) located near the preparation spot. The transaction volume was relatively small and transportation capabilities were limited. Each kitchen had the initiative to find suppliers, purchase process and maintain quality control. This purchasing system tends to be employed primarily by catering companies in the north rather than the south. There are three important reasons that direct purchasing is more common in north than in the south. Firstly, the meals provided each day are limited since the industrial zone in the north is not as developed and concentrated as in the south. Secondly, the consolidation of transactions are difficult because the food wholesale business is also not well developed to provide standardised ingredients for preparation locations. Lastly, even though catering companies can find food wholesalers with well-developed networks, it is difficult to purchase from a distant area because the cold chain is not maintained.

2) Purchase from suppliers (L2, L3, M3, M4, M6, S1, S3 and S4):
Creating contracts with food suppliers are more prominent in the south. Several large catering comapnies (L2, L3, L4, M3, M4 and M6) deal with food suppliers that are based on the Binh Dinh, Hoc Mon and Tu Duc wholesale markets[4]. They aggregate orders for all their branch kitchens located in southeast and Mekong delta regions, then indicate suppliers to deliver to each kitchen. However, in some cases, each kitchen could be a contractor.

[4] The Binh Dinh market is the largest wholesale market and mainly provides fish and fruits from the Mekong Delta. The Hoc Mon market is in the west side of the city, mainly supplying meat. Finally, the Tu Duc market located in the east part of HCM accepts vegetables from the central highland to distribute to the entire city.

Using quality controlled or certified produce is not popular for caters. The minimum level of safety standard officially set by the government, only requires a FSHC provided by the department of Health for each province. Furthermore, it supports caters provide reasonably priced meals and are discouraged from forming tight relations with suppliers. In most of cases, the contract unit price is not affordable to prepare certified products. While the response to their customers mainly comes from overseas, several catering companies (L4 and M5) supplying meals with certified ingredients have special practices for production (Good Agricultural Practice (GAP)), and tracing their products origin. The companies, L4 and M5 needed to find producers who could produce V-GAP form a contract with them to ensure quality control. Furthermore, L1, M2 and M2 have their own standard for purchasing food. Caters' behaviour for purchasing is determined by customers (factories) attribute for workers welfare. However, most of the enterprises in the Vietnamese industrial sector do not pay close attention to it.

Impact of the Value Chain on Agricultural Produces

The development of such large scale catering in the south could be the changing value chain of agricultural products in the region. Food for urban areas has been supplied from surrounding production areas, and it has been clarified that the supply chain of fresh food in Vietnam was scattered and relied on small scale distribution actors even in the 2000s (Cho, 2001). Delays of infrastructural development, development of commercial capitals and procedure cooperatives, and the gradual growth of urban food demand due to the slow influx of migrants to cities have hindered the changes of distribution systems. For instance, the industrial park surveyed by the Tien Giang Province is an area where agricultural production is carried out and it used to be relatively large vegetables supplier not only in Tien Giang, but also for cities like HCM and Bien Hoa[5]. They were suppliers of food to urban area and to the local market. Food demand in Tien Giang was supplied by local produce. Thus, when a local restaurant provides meals for workers in the Tien Giang province, locally produced food from the local market could be prepared. However, developing large scale catering that has a headquarters in HCM employ different methods for efficient procurement of their ingredients. They purchase in bulk at the wholesale market in HCM then deliver the ingredients to each preparation kitchen. In the former, the food system is completed within the region, while in the latter, agricultural products produced in the region are transferred to the HCM market where they are purchased and distributed by a large collector, and then transferred again to the Tien Giang Province.

On the other hand, since the demand for quality food is not strong, development of the catering industry did not promote vertical integration of the whole value chain. For this reason, contracts between catering and wholesalers, which obtained FSHC, is popular.

CONCLUSION

This research empirically investigated how the emerging catering industry impacted value chain of fresh food in the Vietnamese suburban area. The results suggest that first, both international and local enterprises have entered the catering industry. In northern area, since industrial sectors are geographically sparse, catering companies are also scattered, and meals are mostly prepared by local small businesses so that the impact to conventional procurement value chain is limited. While in the south, since large industrial sectors invested more, catering companies developed and merged to provide large number of meals to more extensive places. Second, the fresh food ingredients are provided by producers, or wholesalers. In the south, more catering companies tend to contract food wholesalers to purchase bulk amounts then distribute them to their branch preparation kitchens located

[5] Central city of Binh Duong province, where a lot of industrial parks are concentrated.

in surrounding provinces. Finally, the value chain created by caters could make transaction and volume of fresh product handled more concentrated and extend the transport distance of produce. However, because of low requirement for quality, the value chain is not integrated and coordinated strongly.

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