

## Chapter 3

### Supermarket Revolution in Vietnam and Inclusiveness of Fresh Vegetable Value Chains

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#### **Abstract:**

In Vietnam, since the early 2010s, the number of outlets and amount of sales of agri-food products in modern retailers, such as supermarkets and convenience stores, have been growing rapidly. This chapter illustrates how the growing presence of the modern retail outlets, particularly supermarkets, has transformed the production and trade practices of the producers of fresh vegetables who supply the products. To participate in supermarket-led supply chains, suppliers need to, at the very least, acquire Vietnam Good Agricultural Practice (VietGAP) certification, representing Vietnam's public safety standards. Moreover, as consolidated bodies of retail outlets, supermarket chains impose various additional requirements on fresh vegetable suppliers. This chapter introduces some cases as to how cooperatives, as consolidated bodies of farmers, manage these requirements. To establish a more inclusive domestic fresh vegetable value chain, the government has a significant role in supporting cooperatives' capacity building.

**Keywords:** cooperative, supermarket-led supply chain, VietGAP, Vietnam

#### **1. Introduction**

As economic integration and free trade have progressed, the “supermarket revolution” (Reardon et al. 2003; Reardon and Hopkins 2006) has taken place on a global scale. In

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many developing countries, since the 1990s, four multinational companies (MNCs)—Royal Ahold (The Netherlands), Metro (Germany), Carrefour (France), and Wal-Mart (USA)—expanded overseas operations, primarily through mergers and acquisitions. This trend was followed by the burgeoning of some regional multinational retailers in Asia, such as Aeon (Japan), CP (Thailand), and Wilmer (Singapore), allowing them to assume dominant market positions in many developing countries in Asia (Coe 2004). Behind this phenomenon is a set of conditions in developing countries, including increasing consumer demand and liberalization policies on foreign direct investment inflow (Reardon et al. 2007).

The diffusion of “modern” retailers, such as supermarkets, has introduced new value chain governance structures. These retailers have created national, regional, and global networks of modern wholesale, logistics, and processing companies (Coe and Hess 2005). In their value chains, the retailers (multinational companies, in particular) usually assert dominance over suppliers in controlling price, quality, safety, and quantity. The resulting emergence of such “buyer-driven” agri-food value chain governance structures influence producers’ production modes and trading practices.

Studies on agricultural commodity producers in Africa and South Asia who export products to the European supermarkets determine that smallholder farmers who cannot invest in meeting supermarket chains’ requirements are in marginalized positions or excluded from the supermarket-led value chains (Dolan and Humphrey 2004; Neilson and Pritchard 2009). In contrast, the relations between the producers and retailers in newly developed domestic agri-food value chains in emerging economies seem to differ. For example, Endo (2014) argues that in the case of the fresh vegetable supply chains in Thailand, as both multinational and local retailers often need to rely on local conventional distribution channels, they opt to maintain the existing channels through which smallholder farmers can also participate. Supermarket chains tend to procure different grades of vegetables, through plural value chains, and sell them in different formats, such as “producer-brand,” “house-brand” (supermarkets’ private brand), and “non-brand” vegetables.

The primary objective of this chapter is to examine how new types of retailers have emerged in Vietnam and how the intrusion of these new retailers has impacted the production and sales of fresh vegetable value chains. Some studies on the early stage of supermarket chains’ emergence in the late 2000s suggest that despite government efforts to promote modernization of the retail sector (Wertheim-Heck et. al. 2015), the urban population in Vietnam prefers shopping in wet markets, where agricultural products

produced in the region are sold by local acquaintances (Wertheim-Heck and Spaargaren 2016). Underlying this phenomenon is anxiety and distrust among consumers regarding the safety, production methods, origin, and even the authenticity of the agricultural products' safety certificates (Mergenthaler et al. 2009; Wertheim-Heck et al. 2014; World Bank 2016; Thanh Mai Ha et al. 2019; Figue et al. 2019). Circumstances have changed, as the number of domestic and foreign-invested supermarket chains has rapidly increased since the early 2010s, followed by the burgeoning of other new forms of retailers, such as convenience stores, hyper-marts, and e-commerce platforms.

This chapter is structured as follows. After this introductory section, Section 2 proposes the analytical framework of this study. The section primarily refers to the arguments on the analyses of global value chain governance based on levels of concentration of producers and retailers, and stresses the significant roles of agricultural cooperatives as a collective form of farmers. Section 3 depicts the current circumstances of expanding modern retailers in Vietnam, reviewing the government policies and macro statistics. Section 4 provides a qualitative analysis of the features of supermarket-led value chain governance in Vietnam, and Section 5 reviews the institutional arrangements of two cooperatives to meet requirements from supermarket chains.

## **2. Analytical Framework: Value Chains and the Level of Concentration of Supply and Demand**

Gereffi and Lee (2009) and Lee et al. (2012) propose the explanatory model of four different types of global agri-food value chains and their governance structures, determined by the level of concentration (geographic or organizational) in production (farmers and agricultural enterprises) and retail (supermarkets and food processors) (Figure 3-1). In their argument (hereafter, we refer to it as the “concentration hypothesis”), value chains become buyer-driven (1) when the concentrated retailers, typically supermarket chains, procure agricultural produce from fragmented (individual, smallholder) farmers, both in the case of domestic procurement and import. Traditional markets (2) can quite often be observed in developing countries in that small holder farmers cater their produce to small-scale, individual retailers or food stalls. The international trade of specialty, organic, or Fair Trade coffee and cocoa are among the popular producer-driven chains (3). In this type of chain, it is not the individual farmers, but large-scale processors, as the consolidated producers, who can lead quality standards

setting and branding. Moreover, bilateral oligopolies (4) are typically formulated in the international trade of certain agricultural produce, such as bananas, when concentrated (oligopolistic) transnational producers export produce to international supermarket chains.

Figure 3-1 Level of concentration and value chain governance structures

		Producers' level of concentration	
		High	Low
Food retailers' level of concentration	High	(1) Buyer-driven chains - Supermarket-led chains - Safety-focused standards	(4) Bilateral oligopolies - International banana trade - Most comprehensive standards
	Low	(2) Traditional markets - Spot trades at traditional markets - Least comprehensive standards	(3) Producer-driven chains - Quality coffee and cocoa trade - Quality-focused standards

Source: Compiled by authors referencing Gereffi and Lee (2009) and Lee et al. (2012).

The concentration hypothesis suggests that traditional markets impose few or no safety and quality requirements on smallholder farmers. Traditional markets have a minimum level of entry barriers for smallholder farmers, and do not provide incentives for farmers to improve quality and safety levels, which may discourage entry into more profitable markets as a result. In buyer-driven value chains, both public and private safety-focused standards function to control all nodes in the chain, which successfully provides significant opportunities for smallholder farmers to participate, since the protocol for satisfying the retailers' demands are clearly indicated. Unlike buyer-driven chains, producers in producer-driven chains are consolidated to establish quality-focused standards with which high-quality niche products can compete in the markets. In bilateral oligopolies, both (concentrated) producers and retailers agree to establish strict and comprehensive private standards, which usually require vertical integrated production and tight coordination between producers and retailers.

Although plausible, the concentration hypothesis may need to incorporate more nuanced, circumstantial views for verification in agri-food value chains in emerging economies like Vietnam. First, this argument simplifies the degree of concentration as high for large-scale private enterprise and low for individuals (smallholder farmers), regardless of the collective forms of production or distribution, such as cooperatives.

Second, the concentration hypothesis does not address the necessary conditions for producers to shift their supply from one type of value chain to another. For the concentration hypothesis, the key tools for producers to shift from traditional market chains to supermarket-led buyer-driven chains is the acquisition of safety standard certificates. However, producers also need to have the ability to perform research and development to produce marketable products, invest in packaging, and access just-in-time delivery arrangements (Cramer and Sender 2019); therefore, it is imperative to identify the provider or facilitator of such capacities (for example, supermarkets themselves, traders, or others in the value chain) because underlying power relations between such entities and smallholder farmers are also significant for determining the features of value chains.

Related to the above two points, in the concentration hypothesis, the producer is vaguely defined, simply as the counterparts of retailers in the value chain (one may be puzzled to realize that the processors of Fair Trade coffee are defined as producers, although they are generally not coffee growers). In the context of value chain governance, producers can be defined as entities with a significant influence in determining the value-added of agricultural harvests in the transaction with retailers. In other words, “harvests” are converted into “products” by producers in value chains. In the traditional markets in developing countries, the producers are usually the growers, and the harvests are converted to products when farmers sell them to intermediaries or at wholesale markets. In contrast, in supermarket-led, buyer-driven value chains, harvested fresh vegetables, for example, are, in many cases only deemed as products when they (likely similar in size) are packed in cartons or special containers that are labeled with harvest information (e.g., variety, place of harvest, date of harvest, and other relevant details), and the determined amount of them are delivered to the supermarkets on the determined schedule. Smallholder farmers need the entities who arrange or help farmers with production, packing, and delivery in accordance with supermarkets’ requirements. The producers in such cases are consolidated bodies of farmers, such as cooperatives, that conclude contracts with supermarket chains.

This chapter examines how producers (i.e., consolidated or quasi-consolidated farmers) respond to the safety-focused demands of retailers in demand-driven agri-food value chains, endeavoring to revisit the role of agricultural cooperatives. While modern retailers, such as supermarkets, usually pursue economies of scale when assembling the products they sell, they also establish subtle arrangements to collect quality products, particularly perishable products like fresh vegetables. They usually face uncertainty and

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risks of moral hazard and opportunistic behavior by suppliers; therefore, agricultural cooperatives are expected to function to prompt farmers' collective actions in complying with quality requirements (Moustier et al. 2010). This distinguishes such cooperatives from other suppliers and determines the value added of their products as a result. This chapter reviews the strategic arrangements of agricultural cooperatives to meet supermarket chains' requirements.

### **3. Transformation of Retail Sector (or “Supermarketization”) in Vietnam**

#### **3.1. Policies to develop modern marketplaces and agri-food value chains**

In Vietnam, the policy formulation for the modernization of agri-food value chains began in the early 2000s in three dimensions, which include the development of modern outlets, the promotion of procurement contracts for agricultural products between producers and retailers (or food processors), and the establishment of agri-food safety standards and certification systems. First, issuing the Prime Minister's Decision No. 559 (559/QĐ-TTg) in 2004 (“Program on the development of marketplaces until 2010”), the government targeted the development of marketplaces, to upgrade and renovate existing traditional markets and develop modern retail outlets such as supermarkets. This Decision was followed by the Decision of the Minister of Commerce No. 1371 (1371/2004/QĐ-BTM) on the regulations of supermarkets and trade centers. Second, in parallel, the government issued Prime Minister's Decision No. 80 (80/2002/QĐ-TTg) aiming to promote a contract farming system. This Decision was upgraded in 2013 as the Prime Minister's Decision No. 62 (62/2013/QĐ-TTg), encouraging the “development of cooperation and linkage between production and consumption of agricultural products.” Third, the ordinance to create a safety standards system for tradable agricultural products was first promulgated in 2008 as the Decision of the Minister of Agriculture and Rural Development No. 99 (99/2008/QĐ-BNN). In this Decision, Vietnam Good Agricultural Practice (VietGAP), Vietnam's original food safety standards, were determined for vegetables, fruit, and tea products.

To further establish and develop modern agri-food value chains with efficient contractual relationships between producers and retailers, the government introduced a new slogan “four-party (4 *nhà*) linkage” among the state (*nhà nước*), farmers (*nhà nông*), scientists (*nhà khoa học*), and enterprises (*nhà doanh nghiệp*) in retail and food

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processing sectors, which was further referred to as the “six-party linkage,” adding banks and distributors to the initial four parties.<sup>3</sup> This slogan advocates that to promote contract-based trade of agricultural products between farmers and enterprises, the government bears the role of establishing the legal bases, and science-technology institutions are expected to develop the technologies (including new varieties and cultivation methodologies) to grow agricultural commodities with commercial value.

### **3.2. Increasing number and diversification of retailers**

According to Euromonitor International (2021), although the sales share of the traditional sector has fallen from 92.7% to 90.4%, it still accounts for the majority, selling nearly 10 times as much as modern retailers. Sales in modern retailers still account for only 9.6% of the total nationwide grocery sales; however, have increased from 66.9 trillion VND in 2015 to 114.5 trillion VND in 2020.

#### **3.2.1. Traditional grocery retailers**

Traditionally, agri-food retail markets in Vietnam were dominated by small vendors who purchase products from farmers in suburban/rural areas to re-sell to consumers in the city. Their businesses are based in traditional wet markets (official or unofficial), their own small stalls,<sup>4</sup> or peddle on the roadside.

The number of wet markets is not noticeably reduced (Table3-1); however, it is being politically reorganized for the purpose of modernizing food distribution. The Vietnamese government, and especially the Hanoi People’s Committee, strives to reduce the provision of fresh foods via wet markets and informal street vending while stimulating the development of supermarkets (Wertheim-Heck et al. 2019). The nature of traditional distribution channels are: 1) often difficult to identify its origin; 2) loose standards for products at the production stage (inconsistencies in quality, shape, and production practice); 3) loose standardization at the wholesale stage, transported in bulk in a very

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<sup>3</sup> This slogan “six-party linkage” was introduced by the Deputy Minister of the Ministry of Agriculture and Rural Development at a seminar held in December 2018 (<https://www.mard.gov.vn/Pages/lien-ket-6-nha-la-ban-dap-day-manh-san-xuat-nong-nghiep.aspx>; accessed January 2022).

<sup>4</sup> At the market, vendors sell products collectively, while at the stalls this is done individually.

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simple package. Since producers are not organized or consolidated in many production areas and trade produce individually with traders, although quantitatively gathered production areas are formed, there are many cases in which uniformity is not achieved, and organization in the production area stage is not conducted.



Table 3-1 Number of markets, supermarkets, and commercial centers as of annual December 31st

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Market*	7,871	8,495	8,538	8,550	8,547	8,546	8,597	8,660	8,591	8,580	8,475	8,500	8,581
(Class 1)	215	219	224	232	247	236	236	284	236	234	229	234	236
(Class 2)	921	954	907	936	926	935	932	924	902	888	903	907	902
(Class 3)	6,735	7,322	7,407	7,382	7,374	7,375	7,429	7,452	7,453	7,458	7,343	7,359	7,443
Supermarket	—	—	—	—	—	714	772	832	865	958	1,007	1,085	1,163
Commercial Center	72	85	101	116	115	130	139	160	168	189	212	240	250

Note:\*

Class 1 = over 400 business places that are located in the important commercial centers of the province or city with space area in conformity with market activities.

Class 2 = a range from 200 to 400 business places located in the economic center of the region and with space area in conformity with market activities.

Class 3 = under 200 business places or temporary business places primarily serving the retail needs of people in communes, wards, and surrounding areas

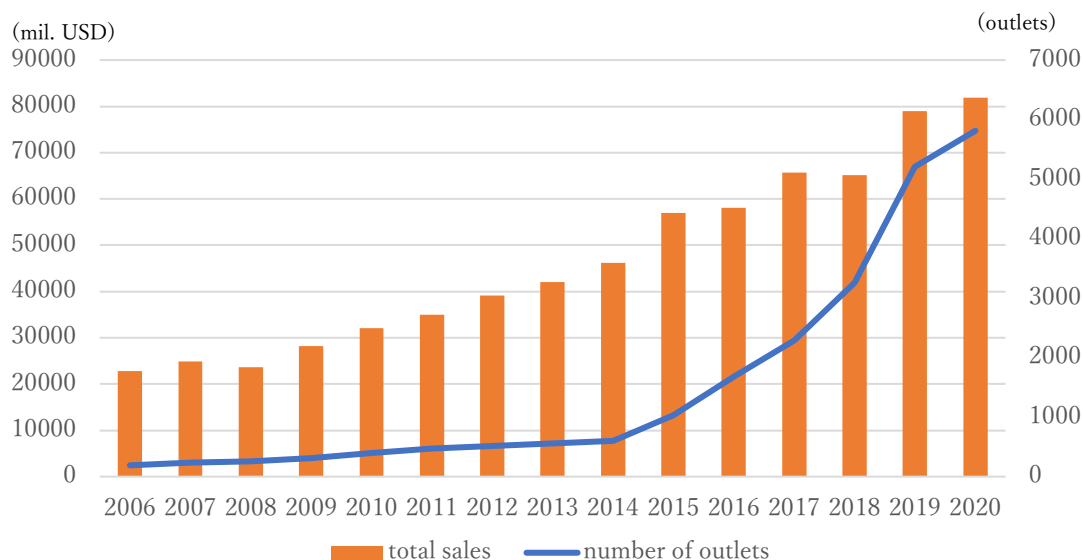
Source: General Statistics Office of Vietnam website.

### 3.2.2. Modern grocery retailers

As local and global retailers joined the market it has gradually diversified; however, supermarket chains in Vietnam do not have a long history of operation. Citimart opened as the first supermarket in the country in Ho Chi Minh City in 1994, followed by the opening of Co.op Mart in 1996, and the first foreign-invested supermarket, Big C, in 1998. Despite government efforts to increase the number of modern retail outlets, these outlets were unable to gain consumers’ popularity as marketplaces to purchase agricultural products until the early 2010s, when foreign-invested retailers began to invest in this sector. Vietnam opened up the retail market—as part of its pledges in its accession to the World Trade Organization—to 100% foreign-capital retailers in 2012.

The current major players in the modern retail sector are private and foreign-invested enterprises, such as Co.op Mart (local), WinMart (former Vinmart: local), Tops (former Big C: Thailand), Lotte (Korea), and Aeon (Japan) in the supermarket segment, and Bach Hoa Xanh (local), WinMart+ (former Vinmart+: local), Circle K (USA), and Family Mart (Japan) in convenience stores (and mini-supermarkets).

Figure 3-2 Number of modern retail outlets and sales (including tax)



Source: Euromonitor International (2021).

In the six years from 2014 to 2020, the market grew by approximately 1.8 times, while the number of stores grew by 9.6 times (Figure 3-2). In particular, the number of stores has increased dramatically since around 2015. The rapid increase in the number of

stores is partly due to the entry of large-scale companies from sectors other than grocery retailing (Vin Group of Vinmart and Vinmart+<sup>5</sup> and Mobile World of Bach Hoa Xanh). It is conceivable that many retailers are developing supermarkets of 1,000 to 3,000 square meters, and convenience stores (or mini-supermarkets) of around 100 to 150 square meters in parallel. In 2020, total supermarket sales were 75 trillion VND and convenience stores were 8.2 trillion VND, accounting for only 6.3% and 0.7% of total food retail sales in Vietnam, respectively. However, supermarket and convenience store sales are rapidly expanding, with supermarkets sales increasing 1.7 times from 44.3 trillion VND and convenience stores sales growing by approximately 4 times from 2.1 trillion VND in 2015 (Table 3-2). In densely populated areas, like Hanoi and Ho Chi Minh City, since it is difficult to secure land for stores and parking lots, retailers can save investment on land rent and equipment by developing multiple small stores. According to a survey conducted by Wertheim-Heck et al. (2019), most of the chain convenience stores (mini-supermarkets) that offer vegetables belong to chain retail groups that also include hyper- and supermarkets.

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<sup>5</sup> Vin Group has entered a diverse range of industries, including real estate, tourism, healthcare, educational, retailing, and manufacturing (automotive, mobile phones, etc.), but real estate and tourism were positioned as their core businesses. In the retail business, the company began full-scale entry around 2014, rapidly increasing the number of supermarkets, convenience stores, and department stores. However, the company sold all outlets of VinMart (supermarket) and VinMart+ (mini supermarket) to Masan Group in 2018, and subsequently sold all of its subsidiaries related to food retailing in 2021. VinMart and VinMart+ were renamed to WinMart and WinMart+ in January 2022.

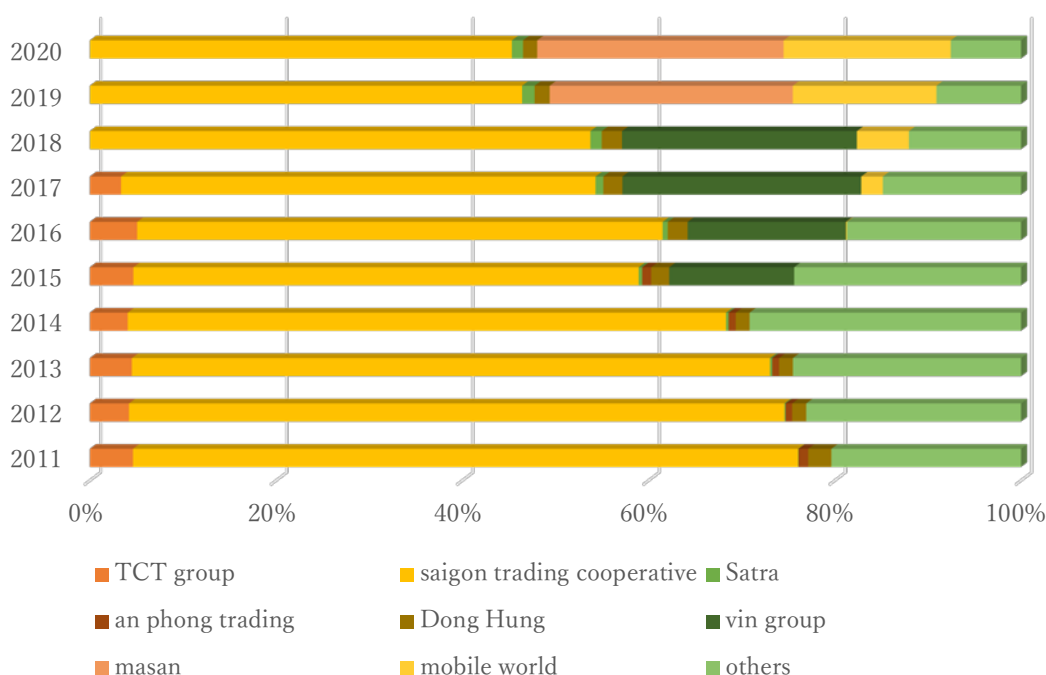
Table 3-2 Sales in grocery retailers by channel and value 2015–2020 (trillion VND)

	2015	(%)	2016	(%)	2017	(%)	2018	(%)	2019	(%)	2020	(%)
1. Convenience store	529	0.1	743	0.1	903	0.1	951	0.1	981	0.1	1,030	0.2
3. Hypermarkets	49	0.0	54	0.0	56	0.0	59	0.0	58	0.0	63	0.0
4. Supermarkets	1,032	0.2	1,672	0.3	2,285	0.3	3,260	0.5	5,202	0.8	5,812	0.8
5. Modern grocery retailers	1,610	0.2	2,469	0.4	3,244	0.5	4,270	0.6	6,241	0.9	6,905	1.0
6. Traditional grocery retailers	647,556	99.5	652,988	99.2	658,005	99.0	662,592	98.7	666,736	98.2	670,424	98.0
7. Grocery retailers (5+6)	649,166	99.8	655,457	99.6	661,249	99.5	666,862	99.4	672,977	99.1	677,329	99.0

Source: Euromonitor International (2021).

There has been a tendency to concentrate on top supermarkets until around 2015, with the concentration on the top three companies rising from 78.1% (2011) to 89.7% (2020) (Figure 3-3). Meanwhile, from around 2015, there has been a wave of entries from sources other than food retailers, such as Vin Group and Mobile World, and these companies have substantially increased both store numbers and sales shares.

Figure 3-3 Market share of modern retailers



Source: Euromonitor International (2021).

### 3.2.3. Online retailing

Since the late 2010s, the diffusion of mobile phones in Vietnam has led to the growth of digital technology-based modes of retail business, or e-commerce. Regional mega e-commerce platform companies, such as Shopee (Singapore), Lazada (Singapore, acquired by China's Alibaba in 2018), and local brands like Sendo (a subsidiary of FPT, Vietnam's biggest ICT company) and Tiki (a startup, now accepting capital from JD.com, a Chinese e-commerce giant), have expanded the market of e-commerce transactions. In 2018, roughly 6 billion USD was spent on online purchases—more than 1 billion USD higher

compared to the previous year. Of that amount, 348 million USD was spent on “food and personal care,” which saw a 38% increase between 2017 and 2018.<sup>6</sup>

While it is not easy to accurately capture trends in online sales of groceries, the authors conducted an online and telephone survey of enterprises and individuals that engage in the online retail of fruit and vegetables in November 2021. Fifty-one vendors engaged in online fruit and vegetable sales selected by searching the internet. Overview of the enterprises (such as locations of outlets, delivery area, the years started the business, and assortment of products), percentage of customers who buy online and offline, business conditions both online and offline, and effects of COVID-19 on their business were interviewed to get an overview of the status of online fruit and vegetable sales and the impact of COVID-19.

According to the survey, 21 of 51 respondents (41.1%) also had real outlets for offline sales.<sup>7</sup> All of them indicated that they engage in both wholesale and retail. With stagnation of demand in the food service industry, some companies that were originally only engaged in wholesale might modify business to retail. In addition to vegetables and fruit, 33.3% (17 respondents) sell meat and 35.2% (18 respondents) sell fresh fish; all respondents sell processed foods.

Regarding the effect of the COVID-19 pandemic in 2020 and 2021, we asked how the percentage of consumers buying online and offline changed prior to (2019) and amid the COVID-19 pandemic (2021). The proportion of online shoppers was reported by 13 respondents, while three declined (35 did not respond). On average, online sales increased by 14.7%. The respondents included large exporters and vendors regularly engaged in business with supermarkets (as vegetable and fruit suppliers) and individual small retailers; hence, regardless of their capital size, various companies and individuals participate in online vegetable and fruit sales.

The results suggest that the nature of enterprises and individuals involved in online fresh food sales are extremely diverse. Due to the expansion of digital-related businesses and the COVID-19 pandemic, food distributors, including wholesalers and retailers, are reinforcing online sales.

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<sup>6</sup> <https://datareportal.com/reports/digital-2019-ecommerce-in-vietnam> (accessed January 2022)

<sup>7</sup> As for the procurement of fruit and vegetables, 70.5% (36 respondents) answered that they are contracting with producers, while some respondents are investing to develop their own farms.

## **4. Supermarket-led Fresh Vegetable Value Chain Governance**

### **4.1. Supermarkets' strategies for agri-food safety**

The authors conducted questionnaire surveys of the five major supermarket chains in December 2020,<sup>8</sup> aiming to acquire information on their strategies to ensure the safety of the fresh vegetables they purchase. The survey revealed that while the surveyed supermarket chains rely on VietGAP certification, they also apply various other strategic measures to ensure the safety and quality of the fresh vegetables (this chapter does not specifically disclose which measures supermarket chains employ as this was a condition for the surveys). These measures can be categorized into three types, including arrangements to maintain freshness, pre and post safety and quality investigation, and application of standards other than VietGAP.

First, supermarket chains usually develop effective logistics systems and facilities, such as distribution centers and cold storage, to maintain the freshness of the vegetables. The suppliers of fresh vegetables are requested to deliver products according to schedules determined by the supermarkets by, in most of the cases, transport (trucks) arranged by the suppliers. These arrangements suggest that the risks incurred in the process of transportation are usually borne by the suppliers. One surveyed supermarket chain has established a large-scale integrated production-supply system. This supermarket chain procures most of the fresh vegetables produced by an affiliated agricultural production company under the same parent company, which are stored and delivered through an independent logistics system.

Second, while supermarket chains enter into long-term (one year, in many cases) supply contracts, including the terms of compliance and commitment for safety and quality management, they spare no effort for pre- and post-supply investigations. The supermarket chains cautiously choose suppliers. The majority of the suppliers, in terms of supply volume, are agricultural cooperatives, followed by food trading companies, and supermarket chains rarely purchase from individual farmers (one respondent answered that purchasing from wholesale markets risks damaging their brand). Even after concluding contracts with suppliers, supermarket chains often conduct onsite monitoring

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<sup>8</sup> The authors sent the questionnaires to the procurement sections of five major supermarket chains, including foreign-invested enterprises, asking them to answer the questionnaires via email.

of the production processes at the field, reviewing production records and providing production guidance to the producers. Moreover, supermarket chains regularly inspect the safety levels of fresh vegetables in their own testing laboratories, through samples or complete check, especially for pesticide residue.

Third, while the supermarket chains tend to avoid purchasing non-certificated fresh vegetables, they adopt different safety and quality certificates in addition to VietGAP, by vegetable type or grades. Vegetables with a “safe vegetable” (“rau an toàn”) certificate, a more relaxed public safety standard,<sup>9</sup> are sold at lower prices or for volume sales. Stricter and internationally recognized standards, both public and private, such as HACCP, GlobalGAP, and USDA Organic, are applied to some higher grade or imported products. One surveyed supermarket chain developed its own set of standards for some groups of fresh food products with the support of a UK-based consulting company.

#### **4.2. Challenges for smallholder farmers to participate in supermarket-led supply chains**

Despite the growing number of the modern retailers and sales volume of fresh vegetables, still a very limited amount of vegetables is sold to supermarkets. For example, according to a study conducted in five communes in Thanh Hoa Province in 2021, vegetables traded on a contract basis only account for 30% of total production, and only 10% of this total are sold to supermarkets.<sup>10</sup> Today, producers’ awareness of agri-food safety has increased and many of them have acquired VietGAP safety certificates, owing to government

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<sup>9</sup> “Safe vegetable” certification was introduced by the Plant Protection Department (PPD) of the Ministry of Agriculture and Rural Development (MARD) in 1995. PPD set the regulations on authorized and prohibited pesticides, maximum residue limits of chemicals, heavy metals contamination, and other harmful substances., which are updated annually by the PPD. Certification is provided to agricultural cooperatives or enterprises, and the control is conducted by these entities’ submission of documents and sampling checks. VietGAP, which was introduced in 2008, entails more rigorous procedures and is more costly (around 10 times costlier than a safe vegetable certificate), requiring checks of 65 criteria, submission of records of production and post-harvest processes, and third-party auditor checks (Moustier and Nguyen Thi Tan Loc 2015).

<sup>10</sup> *Báo Thanh Hoá* (Thanh Hoa News) on August 25, 2021. (<https://baothanhhoa.vn/kinh-te-thi-truong/vi-sao-san-pham-rau-cu-qua-cua-tinh-kho-vao-sieu-thi/142694.htm>: accessed February 2022)



promotion through cooperatives. However, as has been noted, acquisition of VietGAP is merely a basic requirement for producers, and many producers who acquire VietGAP face challenges in accessing the supermarket-led supply chains.

First, in addition to the safety requirements, producers must ensure supplies of a stable quantity, with on-time delivery, which incurs extra costs and labor arrangements. The risks of damage during transportation are usually borne by producers. Second, supplying vegetables to supermarkets requires many cumbersome and time-consuming procedures and legal documents that farmers must prepare. Third, the producers incur extra investments, other than production costs, in designing and printing packages, stamps, and labels. The producers must also bear various fees and taxes, such as display fees, value-added tax, advertising support, shelving fees, code opening fees, and sales bonuses. Moreover, some large supermarkets with strong negotiation power over the suppliers sometimes request discounts (of up to 20–30%). Even when the purchasing amount of the supermarket is limited and vegetable prices are unstable, these fees and taxes are deducted from producers' sales.<sup>11</sup>

It is difficult for smallholder farmers to comply with necessary procedures and bear costs to maintain good market access. Nonetheless, some cooperatives, as shown in the following sections, employ institutional and technological arrangements to manage the difficulties faced.

## **5. Producers' Strategies to Meet the Demands of Modern Retailers**

### **5.1 Contractual arrangements: The case of Phuoc An Agricultural Cooperative<sup>12</sup>**

Phuoc An Cooperative was established with 14 small-scale producers in 2006 in Binh

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<sup>11</sup> There are some online news articles on this issue, such as *Báo Thanh Hoá* on August 25, 2021 (above-mentioned), *Tạp Chí Tài Chính* (Finance Journal) on April 12, 2019. (<https://tapchitaichinh.vn/tai-chinh-kinh-doanh/vi-sao-nong-san-sach-van-kho-vao-sieu-thi-305365.html>: accessed February 2022), *Báo Thái Nguyên* (Thai Nguyen News) on July 3, 2021 (<https://baothainguyen.vn/tin-tuc/kinh-te/nong-san-dia-phuong-kho-vao-sieu-thi-288160-108.html>: accessed February 2022), and *Đài Phát Thanh & Truyền Hình Thái Bình* (Thai Binh Radio & Television Station) on August 19, 2019 (<http://www.thaibinh.tv.vn/news/21/47704/vi-sao-nong-san-dia-phuong-kho-vao-sieu-thi>: accessed February 2022).

<sup>12</sup> The information is based on the authors' field survey in August 2018.

Chanh, a suburb of Ho Chi Minh City. In 2013, the cooperative switched to safe vegetable production from conventional practice, and entered into contractual production with supermarkets in the city. As of 2018, it has increased to 62 union members, producing 12 kinds of leafy vegetables on approximately 30ha of farmland. Total sales also increased from 111 million VND in 2006 to 1,250 million VND in 2018.

Phuoc An Cooperative provides vegetable collected from its members to 27 major retail outlets, including AEON, Big C, Sigon Coop, and Lotte Mart, and as ingredients for food service, restaurants, catering companies, and school meals. The first grade products are directly shipped to supermarkets under contract between supermarkets and the cooperative, the second grade are sold to local traders that collect vegetables for supermarkets, and the lowest grade are provided as ingredients for restaurants and catering companies. Nearly 70% of vegetables are sold to supermarkets, and the rest for food services. All products supplied to supermarkets by Phuoc An Cooperative have a sticker with QR-cord to verify its place of origin, the name of the producer, name of the product, data regarding the harvest, and shipment. The cooperative invests 5 million VND annually to use this system.

Contracts with retailers are annual. The contract specifies the annual approximate supply quantity, and the actual volume of supply and price is adjusted on a weekly basis depending on the market condition. Cooperatives directly receive an order then transport vegetables to each retail outlet.

Sixty-two members (smallholder farmers) are divided into seven production groups by location. The cooperative leaders collectively manage the production time and items, and the production time is staggered for each group so that harvest does not overlap according to the order. Ninety percent of members implement safe vegetable and VietGAP practices, others are in training.<sup>13</sup> Provided all input materials (seeds, seedlings, fertilizer, and pesticides), cooperative members are required to follow cooperative instructions, selling all produce to the cooperative. In case production is less than the contracted amount, additional produce may be purchased from 60 associate members.<sup>14</sup>

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<sup>13</sup> At the time of survey (2018).

<sup>14</sup> Associate members sell their products to the cooperative at a non-member price. They can choose when and to whom to sell their product. To join Phouc An cooperative, farmers are required to start as associate members, and are approved as members after continuing transactions with the cooperative of 5 years or more, and with the agreement of more than half of the members.

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A switch in marketing partners has changed both the production and marketing methods of Phuoc An Cooperative. Contracting with supermarkets strengthened cooperative management of farm practice and marketing for local small farmers. Consequently, a centralized production and shipping system has been established and has helped improve production quality and farmers' production skills.

## **5.2. Technological solutions: The case of Chuc Son Clean Vegetable Cooperative<sup>15</sup>**

Chuc Son Clean Vegetable Cooperative was established in 2016 in Chuong My district, Hanoi. The cooperative of 40 farm households produces "safe" vegetables that meet VietGAP standards, and supplies products to supermarket chains, including Big C (recently renamed Tops), convenience store chains, and hospitals on a contractual basis. As of mid-2019, the cooperative supplied five tons of various vegetables per day. In the supermarkets, the cooperative sells vegetables as the "Chuc Son Safe Vegetable" brand.

In addition to newly introduced production techniques, such as greenhouse and net house production of foreign vegetable varieties, the cooperative has proactively adopted electronic and digital technologies for production. Remote sensing systems, called "smart weather station," are installed to monitor weather, air, and soil conditions, covering a radius of 15km of fields. Moreover, the cooperative ensures transparency of whole production processes through the "e-GAP" system developed and run by a startup called AgriMedia and the Vietnam Digital Economy Cooperatives of Alliance.<sup>16</sup> Using an electronic diary and field camera, all production and post-harvest works are monitored and real-time information about the production is provided online, upon request from the retailers. Consumers can also verify production information through the QR-code stamps on the products.

The cooperative's operation was able to launch with international assistance. At the initial stage, the cooperative received technical assistance for cultivation methods from a Japanese governmental agency, and the initial costs of installing the digital systems (worth thousands USD) were borne by the project funded by the Institute of Technology Development and Education in collaboration with the World Bank. Moreover, the cooperative's safe vegetable production and sales is built on a costly production system.

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<sup>15</sup> The information is based on the authors' field survey in June 2019 and the cooperative's website (<https://rauquasachchucson.com/tin-tuc-su-kien/rau-sach-ba-sao-o-chuc-son-.html>: accessed January 2022)

<sup>16</sup> <https://egap.vn/>: accessed January 2022.

The cooperative pays 250–300 million VND per month to operate the system, and additional expenditure per year for consultancy services and subscriptions of weather forecast information. QR-code information provision also costs 200 VND per QR-code stamp.

## 6. Conclusion

As has been seen, the domestic agri-food system in Vietnam has been drastically changing as supermarket-led supply chains have emerged and expanded since the early 2010s. Behind this lie various factors, such as urbanization (and attending changes of consumption patterns related to urbanization), liberalization of foreign investment in the retail sector, and government policies to promote contract farming and develop modern value chains. Although the share remains limited, sales of fresh vegetables in supermarkets are rapidly growing, in absolute volume and value terms.

This study reinforces the conclusions of existing literature that supermarket-led supply chains in Vietnam are developing through the exclusion of small-scale producers, like other developing countries (Boselie, et al. 2003; McMichael 2006). As the concentration hypothesis claims, demand-driven supermarket-led value chains have provided opportunities and motivation for producers to invest in safety improvements to participate in these chains. However, contrary to the concentration hypothesis' claims, producers need to not only follow the protocol clearly indicated in the safety standards, but also adopt new trade practices that require extra costs, both formal and informal, in order to participate in the chains. Changes in trade practices due to direct transactions with supermarkets have been the subject of numerous studies in developed countries (Sato et al. 2016) and developing countries (Vetter et al. 2019), highlighting similar supermarket-related expenditure requirements.

This could be at least partly attributable to the VietGAP certificate system. The standards in VietGAP are more relaxed than internationally recognized certifications, and the government promotes the acquisition of VietGAP by supporting agricultural cooperatives as the units of acquisition. As a result, as the VietGAP certificate is becoming prevalent, while the basis of safety and quality levels in Vietnam as a whole have improved, the competition among VietGAP certificate-holder producers has become harsher and producers are unable to obtain VietGAP premiums. Retailers regard VietGAP as minimum requirements for suppliers, and impose additional burdens on producers.

The above two case studies of cooperatives show that producers converted

traditional production and trading practices or adopted new technologies to comply with requirements from supermarkets. These cases represent the institutional and technological arrangements that reduce the risks of production, demand changes, and price fluctuations. These arrangements also contribute to improving the level of consolidation among member farmers by demonstrating that avoiding members' opportunistic behavior leads to the stable profits and increases cooperatives' overall competitiveness.

This chapter can conclude with some policy implications to establish a more inclusive domestic agri-food value chain associated with the growing presence of modern retailers. First, capacity building for cooperatives is among the pressing issues. Many existing cooperatives, which often serve as the units of governmental support programs, lack financial, organizational, and technological capacities to create high value-added products from the harvests of member farmers. They may require initial investments in machines, equipment, and computer-based systems, as well as training in markets and marketing. The government can provide conditions and incentives for cooperatives to access such resources.

Second, the government can encourage the development of appropriate technologies for production, post-harvest management, and sales of agricultural products by cooperatives. In particular, technologies to ensure transparency and traceability will help cooperatives to participate in modern supply chains (World Economic Forum 2019). Since 2010, the government has been promoting the "high-tech agricultural model," which assumes the introduction of large-scale, capital-intensive production in designated "high-tech farms" (e.g., production in greenhouses equipped with internet-connected ICT devices) or in "high-tech agricultural zones" (Sakata 2019; Hoang Xuan Diem and Do Thi Thu Thuy 2020). However, the technologies that many resource-poor farmers and cooperatives in Vietnam require should differ from those of the government-expected (imported and high-cost, in many cases) "high-technologies." Development of the technologies by local enterprises, including so-called "startups," which are appropriate for local conditions and affordable for a majority of farmers, should be promoted.

Third, the development of distribution infrastructure by the government will reduce the costs and risks incurred by producers. In particular, in Vietnam, the wholesale markets are not well developed in terms of the number and facilities available. While "modern" supply chains are rapidly expanding, "traditional" wholesale markets still provide many small-scale producers with access to the markets, and respond to the demands of a large segment of consumers (Cadilhon et al. 2006). Room remains to "modernize traditional" wholesale markets, in particular information dissemination

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systems, hygiene control, and waste management. Development of wholesale markets (with functional facilities) will effectively provide information on market demands and reduce extra costs that producers must bear in engaging in direct supply to supermarkets, such as packing, transportation, and various fees (although they may have to pay for middlemen in supplying to wholesale markets). The establishment of functional wholesale market systems will ultimately help establish practices of transparent trade, agri-food safety, and quality management.

## References

- Boselie D., S. Henson and D. Weatherspoon. 2003. "Supermarket Procurement Practices in Developing Countries: Redefining the Role of the Public and Private Sectors" *American Journal of Agricultural Economics*. Vol. 85. Issue 5. 1155-1161.
- Cadilhon, J.J., P. Moustier, N. D. Poole, Phan Thi Giac Tam and A. P. Fearne. 2006. "Traditional vs. Modern Food Systems? Insights from Vegetable Supply Chains to Ho Chi Minh City (Vietnam)." *Development Policy Review*. Vol. 24. Issue 1. 31-49.
- Coe, N. 2004. "The Internationalisation/Globalisation of Retailing: Towards an Economic-geographical Research Agenda." *Environment and Planning A*. Vol. 36. Issue 9. 1571-1594.
- Coe, N. and M. Hess. 2005. "The Internationalization of Retailing: Implications for Supply Network Restructuring in East Asia and Eastern Europe." *Journal of Economic Geography*. Vol. 5. Issue 4. 449-473.
- Cramer, C. and J. Sender. 2019. "Oranges Are Not Only Fruit: The Industrialization of Freshness and the Quality of Growth." in *The Quality of Growth in Africa*. edited by Kanbur, R., A. Noman, and J. Stiglitz. New York: Colombia University Press.
- Dolan, C. and J. Humphrey. 2004 "Changing Governance Patterns in the Trade in Fresh Vegetables between Africa and the United Kingdom." *Environment and Planning A*. Vol. 36. Issue 3. 491-509.
- Endo, G. 2014. "The Key Role of Intermediaries in Thailand's Fresh Food Distribution System." *The International Review of Retail, Distribution and Consumer Research*. Vol. 24. Issue 5. 544-563.
- Euromonitor International. 2021. *Supermarkets in Vietnam*. Ho Chi Minh City: Euromonitor International.
- Figuié, M., P. Moustier, N. Bricas and Nguyen Thi Tan Loc. 2019. "Trust and Food Modernity in Vietnam." in *Food anxiety in Globalizing Vietnam*, edited by J.

Sakata, Shozo ed. 2022. *Development of Inclusive Food Value Chain in the Mekong Region*. BRC Research Report. Bangkok Research Center. JETRO Bangkok / IDE-JETRO.

- Ehlert and N. K. Faltmann. Palgrave Macmillan. 139-166.
- Gereffi, G. and J. K. Lee. 2009. "A Global Value Chain Approach to Food Safety and Quality Standards." Paper prepared for the *Global Health Diplomacy for Chronic Disease Prevention Working Paper Series*.
- Hoang Xuan Diem and Do Thi Thu Thuy. 2020. "Prospects for Agriculture 4.0 in Developing Countries: Case Studies from Vietnam." In Sakata, S. (ed.). *Structural Changes of Agriculture in the CLMTV Countries and their Socio-Economic Impacts*. BRC Research Report. Bangkok Research Center. JETRO Bangkok/IDE-JETRO. 102-116.
- Lee, J. K., G. Gereffi and J. Beauvais. 2012. "Global Value Chains and Agrifood Standards: Challenges and Possibilities for Smallholders in Developing Countries." *PNAS (Proceedings of the National Academy of Sciences of the United States of America)*. Vol. 109. No. 31. 12326–12331.
- McMichael, P. 2006. "Peasant Prospects in the Neoliberal Age." *New Political Economy*. Vol. 11. Issue 3. 407-418.
- Mergenthaler, M., K. Weinberger and M. Qaim. 2009. "The Food System Transformation in Developing Countries: A Disaggregate Demand analysis for Fruit and Vegetables in Vietnam." *Food Policy*. 34. 426-436.
- Moustier, P. and Nguyen Thi Tan Loc. 2015. "The Role of Proximity and Standards in Guaranteeing Vegetable Safety in Vietnam." *World Food Policy*. Volume 2. No. 1. 52-77.
- Moustier, P., Phan Thi Giac Tam, Dao The Anh, Vu Trong Binh and Nguyen Thi Tan Loc. 2010. "The Role of Farmer Organizations in Supplying Supermarkets with Quality Food in Vietnam." *Food Policy*. Vol. 35. Issue 1. 69-78.
- Neilson, J. and B. Pritchard. 2009. *Value Chain Struggles: Institutions and Governance in the Plantation Districts of South India*. Chichester, U.K: Wiley-Blackwell.
- Reardon, T., P. Timmer, C. Barrett and J. Berdegue 2003. "The Rise of Supermarkets in Africa, Asia, and Latin America." *American Journal of Agricultural Economics*. Vol. 85. Issue 5. 1140-1146.
- Reardon, T. and R. Hopkins. 2006. "The Supermarket Revolution in Developing Countries: Policies to Address Emerging Tensions Among Supermarkets, Suppliers and Traditional Retailers." *The European Journal of Development Research*. Vol. 18. No. 4. 522-545.
- Reardon, T., S. Henson and J. Berdegue. 2007. "'Proactive Fast-tracking' Diffusion of Supermarkets in Developing Countries: Implications for Market Institutions and Trade." *Journal of Economic Geography*. Vol. 7. Issue 4. 399-431.

Sakata, Shozo ed. 2022. *Development of Inclusive Food Value Chain in the Mekong Region*. BRC Research Report. Bangkok Research Center. JETRO Bangkok / IDE-JETRO.

- Sakata, S. 2019. "The Application of Information and Communication Technologies (ICT) in Agriculture: Present Status, Opportunities, and Challenges in Vietnam." In Sakata, S. (ed.). *New Trends and Challenges for Agriculture in the Mekong Region: From Food Security to Development of Agri-Businesses*. BRC Research Report. Bangkok Research Center. JETRO Bangkok/IDE-JETRO.
- Sato K., M. Kidachi and N. Pitchayapisut. 2016. "Trade Practices in Direct Trading of Fresh Produce: Compliance Based on Requests by Retail Companies" *Japanese Journal of Agricultural Marketing*. Vol.24. No.4., 52-58 (in Japanese).
- Thanh Mai Ha, S. Shakur and Kim Hang Pham Do. 2019. "Consumer Concern about Food Safety in Hanoi, Vietnam." *Food Control*. (98). 238-244.
- Vetter T., M.N. Larsen, and T. B.Bruun. 2019. "Supermarket-led Development and the Neglect of Traditional Food Value Chains: Reflections on Indonesia's Agri-food System Transformation" *Sustainability*. Vol. 11. No. 2., 498-516.
- Wertheim-Heck, S.C.O. and G. Spaargaren. 2016. "Shifting Configurations of Shopping Practices and Food Safety Dynamics in Hanoi, Vietnam: A Historical Analysis." *Agriculture and Human Values*. (33). 655-671.
- Wertheim-Heck, S.C.O., J.E. Raneri and P. Oosterveer. 2019. "Food Safety and Nutrition for Low-income Urbanities: Exploring a Social Justice Dilemma in Consumption Policy." *Environment & Urbanization*. Vol. 31. No. 2. 397-420.
- Wertheim-Heck, S.C.O., S. Vellema and G. Spaargaren. 2014. "Constrained Consumer Practices and Food Safety Concerns in Hanoi." *International Journal of Consumer Studies*. Volume 38. Issue 4. 326-336.
- Wertheim-Heck, S.C.O., S. Vellema and G. Spaargaren. 2015. "Food Safety and Urban Food Markets in Vietnam: The Need for Flexible and Customized Retail Modernization Policies." *Food Policy*. 54. 95-106.
- World Bank. 2016. *Vietnam Food Safety Risks Management: Challenges and Opportunities*. Washington DC: World Bank.
- World Economic Forum. 2019. *Innovation with a Purpose: Improving Traceability in Food Value Chains through Technology Innovations*. Geneva: World Economic Forum.