Opportunities and Challenges for Lebanese Horticultural Producers Linked to Corporate Buyers

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Abstract: This paper aims to analyze procurement decisions and contractual arrangements in the horticultural supply chain and evaluate opportunities for and challenges of horticultural producers linked to supermarkets and corporate restaurants in Lebanon. Accordingly, in-depth, semi-structured interviews were conducted with key horticultural supply chain actors in Lebanon. The study finds that corporate restaurants offer more opportunities for large horticultural producers and suppliers than supermarkets. Yet, corporate restaurants have more stringent quality requirements, as demonstrated by food safety certifications, and their contractual relationships are binding, symbiotic, and formal. Supermarkets source most of their products from wholesale markets and have opportunistic, non-binding relationships with their suppliers. In sum, the nature of the business relationships between horticultural producers and suppliers and corporate buyers depends on the ability of the producers to meet the quality requirements of the latter. Although corporate buyers have shown some interest in the local produce, they are yet to invest in local supplier development initiatives to enhance the capabilities of producers. Instead, corporate buyers resort to imports when the local producers fail to meet the quality standards or required volumes. The study suggests several alternative routes to enhance the market position of horticultural producers and suppliers in Lebanon.

Keywords: horticultural supply chain; food safety certification; alternative food systems; potatoes; Lebanon

1. Introduction

In recent decades, agribusinesses originating from the Global North have restructured global agricultural and food supply chains [1]. Transnational corporations and global agribusinesses have imposed a system of change on producers and suppliers in developing countries by dictating contract terms, including compliance with strict product specifications that either marginalize producers for non-compliance or set the negotiation power in the hands of the global corporations [2,3]. Due to poor public governance and conformity to liberalization in many developing countries, global agribusinesses have integrated private food safety standards into the local food system [4,5]. Such standards aim to address public health concerns and reduce food safety hazards as the distance between food production and consumption increases and global food systems become more complex [6]. Adopting food safety standards can also reinforce the production of environmentally clean food and thus respond to consumers’ rising concern about the social and environmental impacts of food production [7].

Such global trends have motivated the adoption of various contractual arrangements between producers and retailers and created the opportunity for producers in developing countries to access national and international markets [8,9]. Food safety standards tend to increase the tradability of local produce for a premium price [10]. Internationally
recognized standards, such as the International Organization for Standardization (ISO) 22000, Hazard Analysis Critical Control Point (HACCP), Safe Quality Food (SQF) 2000, and Social Accountability (SA) 8000, play an essential role in governing business relationships in the global food supply [11]. Although the desire to participate in the export market has been the main driver for the plethora of food safety standards [12], adopting such standards may not necessarily enhance the export capacity of producers and suppliers in the developing world [13]. Therefore, it is necessary to critically evaluate the role of food safety standards in developing countries [8]. In fact, whether such a proliferation of standards is a barrier or an opportunity for smallholder producers and suppliers remains unsettled. Some researchers argue that private food safety regulations and standards have been used as a scientific tool to advance global trade liberalization, which may have contributed to the marginalization of farmers and the degradation of rural livelihoods [14,15]. The other strand of the literature emphasizes the positive contribution of modern food supply chains in improving smallholder farmers’ access to high-value markets [16–20].

The present study focuses on Lebanon, a Middle Eastern country lying along the Mediterranean Sea. Lebanese farmers produce a range of agricultural products for export and local consumption. The country is a net exporter of fresh fruits and vegetables. Major products include tree nuts and fruits (pome, stone, citrus fruits, and banana); wine and table grapes; and vegetables (potatoes, alliums, corn, wheat, squash, beans, and peas). Lebanon’s agriculture is considered the least productive economic sector; it only accounts for approximately 5% of GDP. Recent agricultural exports have been constrained by the financial crisis that erupted in 2019, the Syrian Civil War, and increased food safety requirements in the international market [21]. Amidst these many challenges, there has been a renewed focus on revitalizing Lebanon’s agriculture. For example, recently, the Lebanese Ministry of Agriculture and sub-national Chambers of Commerce, Industry and Agriculture have led efforts to support local producers to achieve food safety standards for export, notably to European markets [21]. These efforts have spurred the potential to grow efficient, demand-driven agribusinesses and revitalize agriculture to enhance rural livelihoods in Lebanon.

The study aims to explore the opportunities and challenges of horticultural producers and suppliers linked to supermarkets and corporate restaurants by examining procurement decisions and contractual arrangements (standard requirements, certifications, and contract terms) along the horticultural supply chain. The findings are relevant for practice and can expand our understanding of how the conditions imposed by corporate buyers (i.e., supermarkets and restaurants) and producer characteristics influence contractual relationships and economic incentives in the local food system.

The remainder of the paper is organized as follows. The following section presents the literature review, followed by the methods section. Next, the findings section identifies and categorizes the relevant actors involved and describes the relationship and structure between these actors by identifying the reason behind their procurement decisions, type of relationships, terms and conditions of payment and contracts, standards required, and power dynamics during negotiations. The analysis then presents opportunities and challenges for horticultural producers within the corporate supply chain in Lebanon. Finally, the study provides some conclusions.

2. Literature Review: The Impact of Global Food Supply Chains on the Local Food System

The rise of modern retail formats, termed supermarketization, is reshaping both retail landscapes and food supply chains in developing countries. Several studies claim that the diffusion of modern retailing in developing countries may not displace the traditional retail formats and may benefit small farmers [22–24]. In the context of Lebanon, traditional formats like grocery stores and minimarkets are observed to co-exist with modern retail formats [25]. Lebanese consumers continued to rely on the traditional food retail shops as a source of affordable and acceptable quality food [26]. In Madagascar, global supermarket
chains used a contract farming scheme, with consistent technical assistance and supervision, that helped thousands of small farmers meet the complex quality requirements of supermarkets in Europe [20]. However, the prevalence of supermarket-led global supply chains has led to the intensification of production-based contracts and the over-exploitation of the factors of production [27]. Their market power is attributed to their role as “rentiers”, where shelf space is used as leverage against suppliers to negotiate more favorable deals [27].

Concurrently, the shift from labor- to capital-intensive agriculture has raised pressure on farmers to gain and maintain access to high-value markets. Farmers selling to supermarket chains have the opportunity to primarily engage in horticultural production and the assurance to invest in production technology and attain higher returns. The reduced transactional costs (related to market search) of participating in the supermarket chain would give farmers a comparative advantage to sustain their agricultural productivity. However, market access through the supermarket chain (and thus reduced market risk) could come at significantly lower prices, depending on the power dynamics within supply chains dominated by global retailers [28].

In the developing world, where traditional markets are most prevalent, power is often in the hands of the producers without the market dictating safety or quality requirements. Although this may seem favorable to producers, as they should help retain market power, such an undifferentiated market structure cannot guarantee the requirements of the end market and address food safety concerns related to food production, processing, and distribution. Indeed, producers can benefit from value-additions (e.g., by adopting food quality/safety standards) aimed at satisfying the needs of the end market. However, smallholder farmers from developing countries usually have little support for accessing the export markets, which could compromise their opportunities to grow. In fact, global companies may employ contract terms or require the adoption of standards and certifications that could marginalize or even exclude small-scale farmers from high-value end markets [3].

Quality is an elusive concept, and in the context of a supply chain, different actors may assess quality depending on the attributes of the product they find more important. The theoretical literature identifies three quality attributes—search, experience, and credence [29]. As consumers are unable to verify the authenticity of food products that contain credence attributes (e.g., product origin, production or processing practices, chemical residues, etc.), they tend to rely on labeling and certifications [30]. The combination of rising pressure to adopt food quality and safety standards [2] and weak institutional mechanisms to impose and enforce public standards has resulted in the adoption of private food safety standards in developing countries [8]. Private standards may be costly for small producers; if they do not comply, they risk being marginalized from the global food supply chain, which negatively impacts their livelihoods [31]. Nevertheless, the claim that small-scale farmers are excluded from the global supply chain remains inconclusive, as some are able to enhance the export of their products by adopting private standards, especially in traditional export products [3,8]. Small-scale farmers’ opportunities and challenges are also related to the power dynamics between producers and retailers, depending on whether the dominant supply chain actors require private and internationally recognized food safety and quality certifications and contracts as a tool of control [15].

3. Materials and Methods

The present study used a qualitative approach to develop an in-depth understanding of a phenomenon in a real-life context [32,33]. A qualitative study was appropriate in the study context, where little evidence is available on contractual relationships involving smallholder producers and global agribusinesses in the Middle Eastern context. This qualitative study provides a detailed contextual analysis of the challenges and opportunities for horticultural producers and suppliers in Lebanon. Accordingly, a semi-structured interview protocol was applied to carry out this study with key actors found at the different stages of the horticulture supply chain. The data were later examined for clear themes that can be
analyzed and discussed. The study was approved by the Institutional Review Board (IRB) at the American University of Beirut (AUB).

The qualitative research approach included in-depth interviews with officers/managers related to the procurement, supply chain management, or food safety functions of the supermarkets and corporate restaurants. A few supermarkets in Lebanon have recognized brands; therefore, the selection criteria were the number of stores and perceived brand recognition. These supermarkets were further categorized to understand better the structure of corporate supermarkets in Lebanon. Supermarkets were contacted by email or phone to request an interview. For the corporate restaurants, the predominant international and local chains were similarly contacted and selected for this research.

In addition, horticultural providers—including producers engaged in the cultivation of horticultural products and wholesale suppliers acting as middlemen between producers and consumers—were included in the study to understand the supply chain from production to retail. We applied purposive sampling for recruiting horticultural producers, which differed in terms of land size, ownership structure, agricultural production methods, and productive region (Table 1). The study focused on commercial farmers who specialized in horticultural products (vegetables and fruits). A snowball approach was utilized for the producers and suppliers to locate participants who could answer the semi-structured interview questions. In some cases, a producer’s consent led us to interview her/his supplier to match and compare findings. Multiple recruitment strategies were used: Producers and suppliers at the fresh vegetable (FV) wholesale market were selected through unscheduled visits, while other suppliers were invited to the study formally via email or phone for an interview. The recruitment strategy was adapted to the preference of the study participants; corporate agents generally prefer a scheduled meeting after primary approval.

Table 1. Description of supermarkets in the study.

| Participants                                      | Origin   | Ownership Structure | Type  | Distribution | Brands | Branches |
|----------------------------------------------------|----------|---------------------|-------|--------------|--------|----------|
| 1. (Supply Chain Manager)                         | International | Corporate          | Type-A | Dispersed    | 3      | 26       |
| 2. (Outsourced FV Section Investor)               | Local    | Corporate           | Type-A | Dispersed    | 1      | 15       |
| 3. (Supermarket Supervisor)                       | Local    | Family              | Type-B | Localized    | 1      | 6        |
| 4. (Owner/Store Manager)                          | Local    | Family              | Type-B | Localized    | 1      | 1        |
| 5. (Purchasing Supply Manager for fresh section)  | Local    | Corporate           | Type-C | Dispersed    | 3      | 42       |
| 6. (FV Purchasing Manager)                        | Local    | Family              | Type-D | Localized    | 3      | 7        |

After the interviews, horticultural providers were subsequently categorized as horticultural producers, FV wholesalers/distributors, or suppliers. Horticultural producers were then further classified on the basis of agricultural land size (small: <20 dunam (One dunam is equivalent to 1000 m$^2$), medium: 20–60 dunam, large: >60 dunam); ownership structure (rented or owned land); production region; production methods (traditional or balade, conventional, or certified (for integrated pest management (IPM), privately certified, or organic)); and distribution channel. Horticultural suppliers were further classified on the basis of type (FV wholesale, FV wholesale distributor, or specialty producer); region; certification requirements (low, medium, high); quality requirements (low, medium, high);
and type of business relationships (formal/informal, non-binding/contractual, symbiotic/opportunistic).

Ultimately, the case study concluded by interviewing 12 local-based horticultural providers (8 producers and 4 suppliers), 6 supermarkets (operating 97 retail outlets), and 5 corporate restaurants (operating 146 retail outlets). Tables 1–4 summarize the study participants.

**Table 2.** Description of corporate restaurants in the study.

| Participants                                | Origin   | Ownership    | Type       | Distribution | Number of Branches |
|---------------------------------------------|----------|--------------|------------|--------------|--------------------|
| 1. (Food Safety Team Leader)                | Local    | Corporate    | Fast-food  | Dispersed    | 37                 |
| 2. (Procurement Officer)                    | Local    | Corporate    | Diner      | Dispersed    | 24                 |
| 3. (Supply Chain Manager)                   | International | Corporate | Fast-food  | Dispersed    | 20                 |
| 4. (Demand Planning and Procurement Supervisor) | Local    | Corporate    | Diner      | Dispersed    | 39                 |
| 5. (Supply Chain Manager)                   | International | Corporate | Fast-food  | Dispersed    | 26                 |

**Table 3.** Description of horticultural producers in the study.

| Participants | Land Size              | Land Type             | Location/Region            | Agricultural Methods                  | Distribution Channel                      |
|--------------|------------------------|-----------------------|---------------------------|---------------------------------------|-------------------------------------------|
| 1            | 2 Dunams (Very small to small) | Family-owned (100%)   | Aley District (Mt. Lebanon) | Conventional                          | Subsistence                               |
| 2            | 12 Dunams (Small to medium) | Family-owned (100%)   | Chouf District (Mt. Lebanon) | Balade/Greenhouse                     | Direct Sale                               |
| 3            | 300 Dunams (Large to very large) | Family-owned (100%) | West Bekaa                | Conventional/IPM non-certified        | FV Wholesale Distributors                 |
| 4            | 500 Dunams (Large to very large) | Family-owned (20%) and rented (80%) | Chouf and Jezzine (South Lebanon) | Conventional/IPM non-certified        | FV Wholesale                              |
| 5            | 10,000 Dunams (Very large)   | Family-owned (50%) and rented (50%) | Hermel District, Ras Baalbak (Multi-regional) | Global GAP Certified/IPM non-certified/Greenhouse | Specialty Producer and Processor            |
| 6            | 200 Dunams (Large to very large) | Family-owned (100%)   |                           | Mixed between conventional and IMP non-certified | FV wholesale                              |
| 7            | 500 Dunams (Large to very large) | Family-owned (25%) and rented (75%) | Hauch Nabi (Bekaa Valley)   | Conventional                          | FV wholesale                              |
| 8            | 135–140 Dunams (Large to very large) | Family-owned (70%) and contract (30%) | Batroun (North Lebanon)    | Organic Certified                     | Direct sale                               |
Table 4. Description of horticultural suppliers in the study.

| Participants | Type                  | Location                        | Distribution Channel                                                                 | Certification | Quality Standard | Cliental Relationship          |
|--------------|-----------------------|---------------------------------|--------------------------------------------------------------------------------------|---------------|-----------------|--------------------------------|
| 1            | Specialty Producer    | Zahle, Bekaa                     | 95% Corporate Restaurants 5% Close-proximity supermarkets                           | High          | High            | Professional, contractual, and symbiotic |
| 2            | Specialty Producer    | Jrebta, Batroun District—North   | Supermarkets                                                                     | High          | High            | Professional, contractual, and symbiotic |
| 3            | FV Wholesale Distributor | Malaab El Baladi, Beirut       | Imported goods to supermarkets and other retailers                                 | Medium, not required | High            | Professional, semi-contractual, and opportunistic |
| 4            | FV wholesaler         | Ferzol, Bekaa                    | Diverse                                                                         | Low           | Low             | Informal, non-contractual, and opportunistic |

4. Findings and Discussion

4.1. The Food Retail Environment in Lebanon: Supermarkets and Corporate Restaurants

The corporate buyers in Lebanon can be divided into supermarkets and corporate restaurants, based on country of origin, ownership structure, retail outlet type, and the number of operating chains. Indeed, definitions of modern grocery stores vary across time and context [25]. Supermarkets are defined for this research as enterprises that procure a range of products to meet consumers’ needs related to food and other household items. Some define supermarkets as those retailers having 15,000 m$^2$ to 25,000 m$^2$ of space with more than 12,000 items. However, size is not the defining indicator for a supermarket in Lebanon due to unplanned urban centers and major roads near the coast, where most of Lebanon’s major cities and its population are located, which limit the presence of very large format stores. Corporate restaurants, on the other hand, are establishments involved with the provision of meals.

Supermarkets are either corporate or family-owned in Lebanon but have a similar organizational structure. The term family-owned is used to distinguish retail establishments that originated locally from those that were established through foreign direct investment. Both the corporate and family-owned supermarkets are a crucial part of the corporate food system in Lebanon and compete against the traditional format (called dekkene) that lacks product assortment and operational capacities.

Based on the interviews and authors’ review of prior studies, we identified four types of supermarket chains in the Lebanese market context—A, B, C, and D. Such a classification was necessary due to the wider interpretation of supermarkets depending on the context.

- Type-A supermarkets: This category includes supermarkets with several stores distributed within a city’s outskirts to minimize operational expense. They are large, with several aisles containing food and non-food items, provide options for a self-service shopping experience, and employ RFID technology. Type-A supermarkets are often located in shopping malls.

- Type-B supermarkets: Similar to the Type-A supermarkets, they have fewer distribution channels and are relatively smaller in size. They usually have fewer outlets. Type-B supermarkets are often located in areas with a high population density or along the main road away from city centers.

- Type-C supermarkets: They have a similar function as Type-A supermarkets and size as Type-B supermarkets but differ in terms of organizational structure. They have a diverse corporate strategy and business relationships with suppliers. This type of supermarket can be considered a retailer’s cooperative. According to Kotler et al. [25], a retailer’s cooperative is defined as “associations of independent retailers, unlike corporate chains. Wholesaler sponsored voluntary chains of retailers who engage in...
bulk buying and collective merchandising”. However, a Type-C supermarket is not necessarily a cooperative.

- Type-D supermarkets: This category is notable for being in limited locations and in one area, and relatively smaller in size, restricting the use of a wheeled trolley in favor of hand-held baskets. Type-D supermarkets offer a wide range of food and household items and use RFID technology at checkout. Locally, Type-D supermarkets are referred to as *dokkene*.

The classification for corporate restaurants is less complicated and is often related to the origin of the establishments. Thus, corporate restaurants in Lebanon can be classified as locally owned or internationally franchised. To be considered corporate restaurants, they should possess a corporate brand, run several outlets in different regions, and have their own logistics systems. In addition, corporate restaurants typically offer a dine-in option.

4.2. Contractual Relationships in the Lebanese Horticulture Supply Chain

4.2.1. Business Relationships Associated with the Wholesale Market

Local horticultural producers generally supply their produce to FV wholesalers (*damman*); FV wholesale markets are the primary supply source for supermarkets, other retailers, and some restaurants. Most of the local horticultural produce is consigned to the FV wholesale market. The FV wholesale distributors also import horticultural products from regional and international markets and resale them to supermarkets and other retail outlets.

Prices at the wholesale market depend on product quality, season, and availability. There are no established standards for product grading, which rely on perception and negotiation power. Generally, the method of production and value-adding processes, such as packaging and labeling, tend to increase consumers’ perceptions of product quality [34,35]. Indeed, this appeared to be the case in the study context. For example, producer Participant 1 (Table 3) stated the following: “People come from far away to get my produce; it has a good quality (appearance and taste) … I market my name before anything else; however, I have not yet reached a private label, because it needs a more continuous/larger production. I am in the beginning of my project; there is still land I haven’t invested in.”. Likewise, producer Participant 4 (Table 3) highlighted the importance of packaging and labeling for selling at a premium: “I already have my own brand. When my production was smaller (60 tons) I used to package them with paper (1.5 kg) and each bag in a carton box. I used to get premium price for that for two years, but then my production jumped from 60 tons to 100 tons. So, I couldn’t keep up, so I switched to generic packaging (sticker) used for pomegranates. It’s not always we do this, marketing is an additional cost and time”.

Sensory evaluation is typically used to grade conventional products in the wholesale market. First-grade produce is usually sold to higher-end customers such as corporate restaurants and a range of processors (juice makers, packers, or industries) and is less available in the FV wholesale market. Second-grade and third-grade produce dominate this market. The quality grade of the product is correlated with the production method utilized by the farmer. This was the case with producer Participant 2 (Table 3), whose transition from conventional to semi-conventional agricultural practices (less use of chemical fertilizers and pesticides) allowed him to profit. The producer differentiated his production to minimize food safety risks while also keeping some of the previous conventional methods, mainly by using less chemicals and improving management practices. In Lebanon, pesticides residue has been a focus of public debate and a major concern for consumers [36,37]. As reported by a producer (Participant 3) and implied from the responses of most of the producers interviewed, they would probably not sell their limited first-grade produce to the FV wholesale market due to the lack of incentives (low prices). However, second-grade and third-grade produce are of lesser quality but can be found in larger quantities. The producer fearing potential losses of a perishable product would use the FV wholesale market to salvage revenue, even if conditions are unfavorable.
The producers and retailers that relied on the FV wholesale market speculate that the market is inefficient, lacks accountability, and involves high commission fees. The wholesale market is relatively highly competitive and gives wholesalers more power. Therefore, those small and medium-scale land-renting producers with no recognizable certification schemes may have to continue supplying the wholesale market and compete with imported horticultural produce from Egypt and Syria. Furthermore, due to the undifferentiated nature of the wholesale market, producers supplying horticultural produce to this market will have less incentive to invest in quality. This, in turn, will negatively affect the competitiveness of the local supply chain linked to wholesalers (and supermarkets, as discussed below).

4.2.2. Business Relationships Associated with Supermarkets and Corporate Restaurants

Analysis of the interviews conducted with various stakeholders in the horticultural supply chain revealed significant differences between supermarkets and corporate restaurants in terms of contractual arrangements, supplier relationships, certifications, and quality requirements. Quality is the main differentiating factor in business relationships associated with corporate buyers. Generally, there are three established quality levels in the Lebanese market: traditional (balade), "conventional", and certified (i.e., IPM, privately certified, or organic). In the context of Lebanon, traditional (balade) is often associated with "natural" and "healthy" produce coming from the farming community [38]. This term is often used in recent times to add the commercial value of the local produce and differentiate them from the conventionally grown local and imported products. However, there are no established systems to control the quality and authenticity of traditional food products. In fact, an earlier study by Pugliese et al. [38] noted the complexity and dynamic nature of establishing relationships between organic and traditional products in Lebanon. In the present study, "traditional" refers to produce grown "naturally", with minimal (or no) synthetic chemicals utilized during production. Yet, confusion continues, and many Lebanese consumers assume the "traditional" produce as "organic". Moreover, it is essential to note the difference between non-certified and conventional in the context of the study. Conventional relates to the production method utilizing synthetic chemicals to bolster production capacity. Non-certified is used to refer to a quality standard (i.e., an expression of the production method) that the corporate buyers often utilize to highlight products with desirable quality characteristics but lack certification.

The leading suppliers for supermarkets are wholesalers which rely on conventional farmers that are small-to-medium scale or operate on rented land. The supermarkets provide wholesalers with favorable prices for satisfactory supply (quantity and quality). Most importantly, certification is not a requirement in this relationship. Relationships are often informal and non-binding (Table 5). This has allowed supermarkets to source horticultural produce from several FV wholesale markets across the major cities in Lebanon, such as Beirut, Tripoli, Saida, and Bekaa, and import additional products from neighboring countries such as Syria and Egypt.

On the other hand, corporate restaurants source horticultural products from specialty producers and importers. Unlike the supermarkets, producers supplying corporate restaurants have recognized private certifications, are large-scale, and have their own land. Apparently, corporate restaurants value a consistent supply of quality products. Therefore, their contractual relationship with horticultural producers or suppliers involves the implementation of quality certifications and is binding. For example, Participant 3 (Table 2), a supply chain manager of an international fast-food chain, stated: “Concerning supply; the international mother company is responsible of grading different suppliers, where strict qualification/certifications are required to approve the suppliers; so that the franchise can utilize them; the franchise have no influence on approving the suppliers or have knowledge of the specificities categorized by the mother company, unlike local fast-food chains.” Table 6 shows that the standards set by local and international corporate restaurants are more or less the same and thus explains why they would resort to the same category of
suppliers, i.e., specialty producers that have private food safety and quality certifications. The terms of the agreement are binding and predetermined. The relationship is symbiotic and values consistency, quality, and safety. Unlike the supermarkets, which indicated three supply sources (primary, secondary, and tertiary sources) (Table 5), corporate restaurants reported only one supply source (specialty producers) (Table 6).

Table 5. Supply sources and conditions related to supermarkets.

| Source of Supply   | Supermarket |
|--------------------|-------------|
|                    | Type-A      | Type-B     | Type-C     | Type-D     |
| Primary Source     | Wholesale markets | Wholesale markets | Cooperative production | Wholesale markets |
| Reason             | Convenience, volume, cost | Convenience, volume, cost | Vertical integration, cost, volume | Convenience, volume, cost |
| Payment Terms      | Cash, local currency | Cash, local currency | Cash, local currency | Cash, local currency |
| Contracts          | Non-binding | Non-binding | Non-binding | Non-binding |
| Negotiation        | Opportunistic | Opportunistic | Symbiotic   | Opportunistic |
| Standards          | Quality 1, safety, and price | Quality, safety, and price | Price, value | Quality, safety, and price |

Table 6. Supply sources and conditions related to local and franchised restaurants.

| Source of Supply   | Locally Owned | Internationally Franchised |
|--------------------|---------------|----------------------------|
| Primary Source     | Specialty producers | Specialty producers |
| Reason             | Quality, safety, consistency | Quality, safety, consistency |
| Relationship       | Formal, strict | Formal, strict |
| Terms              | Credit | Credit |
| Contract           | Binding | Binding |
| Standards          | Premium | Premium |
| Certifications     | Always | Always |
| Negotiation        | Predetermined, symbiotic | Predetermined, symbiotic |

As stated above, supermarkets and corporate restaurant chains source from different groups of producers since their standards are recognizably different (Table 7). Accord-
ingly, their agreement terms differ, reflecting differences in the structure of relationships, especially by the type of source. Apparently, large-scale and land-owning producers tend to benefit from corporate restaurant chains. These producers were able to increase their production capacity of different horticultural crops by leasing additional farmlands or employing more farms that were previously used for other purposes. For corporate restaurants, sourcing high-quality horticultural products is critical for further processing. This appeared the case why such restaurants opted for large-scale producers who have their own land. Those producers working with corporate restaurants tend to have more favorable terms than the land-renting, small and medium producers that often deal with wholesalers. This may be because large-scale, land-owning producers may be better positioned to meet the strict quality requirements of corporate restaurants and have the potential to build long-term relationships and invest in quality certifications.

Table 7. Supply sources and conditions of FV wholesalers, distributors, and restaurants.

| Source of Supply | FV Wholesalers | FV Wholesale Distributors | Corporate Restaurants |
|------------------|----------------|---------------------------|-----------------------|
| Primary Source   |                |                           |                       |
| Reason           | Local farmers  | Regional imports         | Specialty producers    |
| Relationship     | Availability   | Availability              | Value-added            |
| Credit terms     | Consignment, cash | Credit                   | Internal              |
| Standards        | Low to above-average | Low to average | Internal              |
| Certification    | Rarely         | Sometimes                 | Premium               |
| Negotiation      | Quality-based  | Availability, quality-based | Quality-based        |

| Secondary Source | FV wholesale, distributors | International, imports | FV wholesale, distributors |
|------------------|----------------------------|------------------------|---------------------------|
| Reason           | Availability, variety      | Variety                | Availability, variety, quality |
| Relationship     | Formal                     | Formal                 | Formal                   |
| Credit Terms     | Credit/consignment         | Credit                 | Credit/consignment        |
| Standards        | Average to premium         | Premium                | Premium                  |
| Certification    | Sometimes                  | Mostly                 | Always                   |
| Negotiation      | Quality-based              | Quality-based          | Quality-based            |

4.3. Opportunities and Challenges for Horticultural Providers in Lebanon

4.3.1. Opportunities

There are some opportunities for horticultural providers linked with corporate buyers. Apparently, corporate restaurants are in need of sourcing some horticultural produce locally from larger farmers, as confirmed from the interviews. In this study, about 57% of the retail outlets within the corporate restaurants belonged to the fast-food business (Table 2). Based on interviews with corporate restaurants, potatoes are one of the principal horticultural crops being imported. Therefore, the findings point to potatoes as a potential crop worth exploring in Lebanon. We found that imported French fries have become expensive to serve as part of a fast-food meal due to the devaluation and instability of the local currency following the economic crisis. Yet, the current economic crisis may provide the opportunity for expanding and utilizing locally produced potatoes and other horticultural products. Although potatoes grown in Lebanon have not yet reached the desired quality, there is a growing demand for locally grown varieties. In fact, corporate buyers have shown interest in sourcing local potatoes that can meet minimum quality requirements. In our study, corporate restaurants reported having imported potatoes in the form of processed, frozen French fries because of the lack of consistent quality in the local production. For example, Participant 2 (Table 2), a procurement officer for a corporate restaurant where meals or sandwiches are commonly served with French fries, stated: “Local produce is more favorable so that we encourage local production; but even so, sometimes you cannot find items locally, so you must import (example get Egyptian potatoes as it is found in the market). For French fries, there is no local variety that matches our set quality; it was not up to standard. It was attempted locally, but it wasn’t up to the standards set
by the company. If there was a substitute, we would favor it”. The procurement officers working for corporate restaurants would favor procuring potato fries locally if supply was available under their minimum quality standards. For example, Participant 5 (Table 2), the supply chain manager of a leading corporate restaurant, offered the following observation regarding the quality level the restaurant would be compromising to buy locally produced potatoes: “Considering the current import crisis, the compromise of 10–15% in quality is a favorable procurement choice”.

Unfortunately, the local potatoes lacked the crispy exterior and soft interior quality that corporate restaurants demand. Therefore, there is a need to support Lebanese producers (financially and technically) to promote potato varieties that can meet the needs of corporate restaurants. If the local potato production matches the quality requirements of corporate restaurant chains, it could be an opportunity for horticultural producers. In fact, after Lebanon’s financial crisis began in late 2019, some restaurants started to let customers choose between local and imported French fries for a significant price gap. For example, in a popular restaurant in Lebanon, French fries from imported varieties cost about 33% more than that of the locally produced potatoes [39]

There are also some opportunities for small-to-medium farmers to work with supermarkets. Actors in the horticultural supply chain can exploit the recent trend toward localization and the positive perception and confidence that Lebanese consumers have about the quality and affordability of the traditional (balade) products [38]. For example, a Type-A local supermarket (Participant 2, Table 1) perceived the quality of local produce as follows: “Most of our produce is local; now everything is available (in theory)—it depends on the seasonal availability of the produce; if it is not available—then we import it; for example mango now is not available in the country so we get it from outside; but grapes (balade) is available from the local production, plus strawberry (balade). Most of my produce is balade, which is tastier and appears nicer by a lot – it is also less expensive”.

Therefore, small and medium producers that relied on the wholesale market could establish better relationships with supermarkets, which are largely local and family-owned (Table 1).

4.3.2. Challenges in the Horticultural Supply Chain

As shown in Table 3, all the horticultural producers in the study are family-owned. Several studies also reported that Lebanon has a predominantly family-based agrarian structure [40–42]. The first challenge for Lebanese horticultural producers relates to meeting the quality requirements of corporate buyers. Quality requirements can vary depending on the needs of the downstream actors (wholesale, supermarkets, and restaurants), as shown in Tables 5–7. In this study, we observed a pattern where larger farmers invest in quality certifications to meet the needs of the corporate restaurants, which in turn have shown interest in working with producers of larger farms. However, most farmers in Lebanon are small family farms [40]. Other farmers engaged in agriculture on a rental basis, which is short-term. The rent-based production may discourage farmers from investing in quality certifications and corporate buyers to establish long-term relationships. Corporations are looking for consistent quality throughout the year, which renting small-size farms cannot meet. Therefore, there are high entry barriers to accessing the corporate supply chain, which requires skills and farmland to ensure a stable supply. Small or medium-sized land-renting producers cannot implement such certifications and thus resort to conventional or traditional practices (see Participants 1 and 2, Table 3). On the other hand, most large farmers (except Participant 7, Table 3) had some level of IPM/Certifications that allowed them to participate in the horticultural supply chain linked to corporate buyers.

The other important challenge relates to the regulatory environment. Producers complained about the government’s failure to prevent the smuggling of fruits and vegetables across the Syrian border. According to a producer (Participant 4, Table 3), “Government and sectarian-based clientelism occur when public funds are used to procure agricultural inputs and are then distributed to politically affiliated officials or their allies, who then creates unfair advantage between producers”. Participant 4 also mentioned that neigh-
boring countries, such as Syria, have relatively lower production costs; therefore, their uncontrolled penetration into the wholesale market creates unfair competition: “It is unfair because smuggled produce has lower production costs and evade value-added taxes”. The unfair or unregulated market allows these products to be sold for a significantly lower market price, creating a ripple effect that can eventually lead local farmers to lower their initial selling price to compete in the wholesale market and reduce their overall profit margin and market power.

As consumers’ demand for quality and safe products increases, the challenge for horticultural producers is likely to persist. There was a consensus among the procurement officers or supply chain managers of the leading corporate chains in Lebanon that quality certifications would be the primary requirement to establish business relationships with horticultural suppliers and producers. Currently, the corporate channel presents opportunities for larger farmers, meaning it excludes the small-to-medium farmers that dominate Lebanon’s agricultural landscape [40]. This calls for alternative routes to enhance the position of those horticultural producers and suppliers in Lebanon.

4.4. The Need for Alternative Food Systems and Market Channels

Like most developing countries, Lebanon is experiencing food system transformations, including supermarketization and restaurant corporatization. However, this system remains not fully embedded due to the resilience of traditional formats and the restrictiveness of the corporate chain [26]. Lebanon’s traditional Mediterranean diet, rich in fresh fruits and vegetables, has helped local producers be resilient, yet they remain heavily dependent on the FFV wholesale market. Several studies have suggested various institutional innovations providing alternative routes that either shorten the supply chain or strengthen the participation of smallholder farmers in high-value markets. Some of the recent institutional innovations in developing countries include multi-stakeholder cooperatives (MSCs) [43,44], community-supported agriculture (CSA) [45,46], and public food procurement (PFP) [47]. Indeed, the MSCs and CSA models can provide alternative avenues for horticultural producers in Lebanon. In addition, MSCs can strengthen vertical (from production to consumption) and horizontal (collaboration among producers in the same segment of the chain) integrations. However, in Lebanon, agricultural cooperatives not only have a low membership rate (approximately 4.5%), they are weak and unable to provide the necessary scale, final resources, and skills for members [48]. Therefore, there is a need for strong policy support for MSCs if they are to enhance economies of scale, homogeneity in product quality and safety, bargaining power, social capital, and co-learning of small farmers in Lebanon [43].

The CSA model is one of the recent sustainable initiatives aimed at providing alternative market access for small farmers in many countries [49]. This approach is a relatively new concept in Lebanon and is often referred to as a “basket” model. Under the basket model, some farmers grow and/or purchase products from other farmers and then assemble them into “baskets”. However, the current CSA (“basket”) model in Lebanon does not involve consumers to co-invest in the harvest and puts all the production and market risks on producers [50].

Recently, PFP programs have become important drivers to promote sustainable food systems [47]. Several empirical studies, such as in Brazil [51], Kenya [52], and South Africa [53], have shown promising results in linking local producers with various PFP initiatives. Hosting about 1.5 million Syrian refugees [54], Lebanon has several school feeding and other PFP initiatives. Therefore, horticultural supply chains can benefit from and offer healthy and sustainable diets to meet the needs of multiple beneficiaries if local producers are systematically linked to targeted PFP programs.

Other promising alternative systems for small producers in Lebanon include the agrotourism model and participatory guarantee systems (PGSs). Recently, Abebe et al. [41] suggested the agro-tourism model to enhance the position of organic farmers in Lebanon. PGSs have become popular in many countries, including Mexico and Brazil, as reliable
alternatives to conventional third-party certifications [55–57]. In Lebanon (and even in the wider Middle East region), the traditional quality level \( (\text{balade}) \) could be an excellent fit for the PGS scheme and the agro-tourism approach by providing “socially acceptable” quality levels. Lebanon has only a few foreign-owned certification agencies [41]. Due to the ongoing financial crisis (and currency fluctuations) and lack of credit facilities, the cost of certification has become increasingly expensive for small and medium farmers [48].

5. Conclusions

Supply chains linked to global agribusinesses have brought a system of change to producers and suppliers in developing countries. While such trends may have created better opportunities to increase the participation of producers in global chains, the contract terms and conditions set by corporate buyers may marginalize producers, especially those who lack the necessary resources and capabilities to comply with food safety and quality requirements. Against this backdrop, this study has investigated the procurement decisions and contractual arrangements of horticultural producers, suppliers, and corporate supermarkets and restaurants in Lebanon and explored opportunities for and challenges of horticultural producers and suppliers when participating in supply chains linked to corporate chains. The analysis was based on evidence from in-depth, semi-structured interviews with key actors in the Lebanese horticultural supply chain: producers, suppliers, wholesalers, supermarkets, and restaurants.

The study findings showed that supermarkets source most of the horticultural produce from the FV wholesale market, where the relationship is opportunistic, informal, and non-binding. The main supply sources for the FV wholesale markets are small- and medium-scale producers who primarily grow on rented land. The wholesale market is largely inefficient, lacks transparency, and involves high commission fees. For corporate restaurants, the relationship with specialty producers is symbiotic, formal, and binding with strict quality standards, certifications, and contracts. Corporate restaurant, on the other hand, source from specialty producers and suppliers who are able to meet their quality standards, demonstrated by food safety certifications. Compared to those supplying to the wholesale market (and thereby supermarkets), horticultural producers linked with corporate restaurants are large-scale and land-owning. However, the nature of business relationships with horticultural producers and suppliers is transactional and largely depends on the ability of those producers and suppliers to meet the quality requirements of the restaurant chains. We found no evidence of supplier development initiatives toward producers (such as in the form of technical and financial support) from the corporate buyers. Rather, such corporate buyers rely on imports when the local producers fail to meet quality standards or the needed volumes.

Quality remains a challenge to enhance the participation of small to medium producers in the corporate chain. Generally, there are three established (but broadly defined) quality levels in the Lebanese market: traditional (“balade”), “conventional”, and certified (i.e., IPM, privately certified, or organic). Such classification relates to credence attributes, as defined in the literature [29]. However, it is difficult to verify the authenticity of such attributes in practice. Therefore, product quality in the horticultural supply chain is defined based on search attributes (appearance, shape, color, cut size, smell, and freshness) and experience attributes (taste and texture).

Corporate restaurants seemed to offer better opportunities for larger horticultural producers while excluding smaller farmers. In addition, corporate buyers have some interest in local produce (mainly potatoes) due to the current economic crisis and the unprecedented devaluation of the Lebanese currency. Corporate buyers have shown a willingness to compromise their stricter quality requirements to a certain degree. Although this may be an encouraging development, supermarkets and corporate restaurants need to play a more proactive role and work with local producers and suppliers to improve the skills and alleviate the financial burden and market access problem of horticultural
producers in Lebanon. Such supplier development initiatives can enhance the capabilities and performance of producers in fulfilling orders (market requirements).

Although the corporate chain presents some opportunities, it largely excludes small family farms that are at the core of Lebanese agriculture [40]. This calls for alternative routes to enhance the position of those small-scale horticultural producers and suppliers. For example, producers may adopt local traceability mechanisms such as the PGSs, especially those traditional (balade) products. In addition, Lebanon’s family-based agrarian structure, rich cultural heritage, and natural landscapes are better suited to utilize alternative approaches that create direct relationships with consumers. Examples of alternative routes include the agro-tourism model, producer organizations, and short supply chains. The CSA model, for instance, encourages consumers to co-invest in the production of horticultural products, thereby creating direct marketing linkages. Finally, PFP programs have proved to be effective in many developing countries in creating sustainable opportunities for local producers. Therefore, the PFP initiatives in Lebanon could offer excellent opportunities for horticultural producers.

As a final note, our qualitative study mainly focused on the key actors along the horticulture supply chain rather than a single stage in the chain. Further research is needed to understand how other factors such as gender, political views, geographical location, access to water, and soil type influence contractual relationships in the horticultural supply chain. Furthermore, during the time the data were collected, the expected shift was at its very early stages; therefore, future studies may assess the implication of the current economic crisis and pandemic toward local food systems and alternative channels. Furthermore, we acknowledge that this is a qualitative, cross-sectional study that explains the horticultural supply chain in Lebanon amidst political unrest, Lebanese financial crisis, and COVID-19 disruptions, including market lockdowns. Future research can build on these findings to expand this study across time and geography to understand the implication of the corporate food supply chains that involve producers from the developing world.

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