

Characteristics of fruit and vegetable MSMEs in Ethiopia: case of Addis Ababa and Ziway/Batu

Daniel A. Mekonnen, Sophie Galema, Trang Nguyen, and Ezra D. Berkhout



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Cover photo: Fruit and vegetable shop in Addis Ababa, Ethiopia. Photo by Geraldine Klarenberg/University of Florida from [Flickr](#).

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Abstract

This study documents the characteristics and functioning of fruit and vegetable (FV) value chains in select places in Ethiopia. The case study employed a mixed methods approach, including a survey of 340 FV traders, six focus group discussions (FGDs), and analysis of the policy environment with respect to food and nutrition, the business climate, and the role of micro, small, and medium enterprises (MSMEs) in delivering safe, affordable, and nutritious foods to consumers. Among the nine types of actors that participate in the FV market and were interviewed, the majority (more than 73 percent) were retailers operating either within or outside of wet markets.

The data suggest that the quantity and diversity of FV supply has increased in the past 5 years. However, FV MSMEs face both internal and external barriers to grow their businesses and/or increase the FV supply to the market. The most important barriers cited by respondents were lack of capital or access to credit, lack of sufficient working space, volatility of FV prices, higher taxes, and poor infrastructure, which was associated with food loss. The adverse role of brokers in setting product prices and transport costs, competition from unregistered traders, lack of improvement in product handling during harvest, and transportation were also mentioned among the key constraints associated with declining product quality and quantity.

Interestingly, loan availability was mentioned by some as one of the enabling opportunities for business expansion, suggesting that capital may be available, but FV MSMEs do not always know how to access it, or they lack collateral for a loan. Rising demand for FV was identified as the most important opportunity to expand FV businesses. Availability of cheap labor and the expansion of mobile and digital banking services were also cited as enabling factors for growth potential in the FV business.

Even though only 15 percent of FV businesses were members of a group or an association, useful lessons can be drawn from their experiences. For example, some of the respondents indicated that they reduce operational costs by jointly hiring transport services to transport FV to their work location. Others participate in *iqqub* (informal savings groups) and *iddir* (funeral associations), which are common in many places in Ethiopia and act as self-help groups that provide financial or in-kind support to members in need and serve as information sharing platforms.

Creating a favorable business environment, improving market linkages, and increasing access to market information were mentioned in relevant government policy documents that we reviewed. However, those policies are not sufficiently tailored to the needs of MSMEs and especially to that of FV businesses. Concrete initiatives that support FV MSMEs are needed to stimulate the supply of safe and affordable FV to consumers. This may include improving capital availability along with informational interventions and training on entrepreneurship and other areas of capacity development for FV MSMEs. In addition, supporting the formation of new self-help groups and/or supporting existing ones in the FV sector can have multiple benefits, including raising capital and dealing with other infrastructure and business-related challenges, which could be too big to overcome by individual FV businesses.

Keywords: Fruits, vegetables, barriers, vendors, MSMEs, Ethiopia

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Abbreviations and acronyms

FeMSEDA	Federal Micro and Small Enterprise Development Agency
FGD	Focus group discussion
FV	Fruits and vegetables
GDP	Gross domestic product
GTP	Growth and Transformation Plan
ICT	Information and Communication Technology
MSME	Micro, small, and medium enterprise
NFNP	National Food and Nutrition Policy
NNP	National Nutrition Plan
SDG	Sustainable Development Goal
SUN	Scaling up Nutrition Movement
UNFSS	United Nations Food Systems Summit
WASH	Water, sanitation, and hygiene
WHO	World Health Organization

1. Introduction

In Ethiopia, consumption of fruits and vegetables (FV) is extremely low relative to World Health Organization (WHO) recommendations and other countries in East Africa even though FV are healthy and sustainable sources of essential nutrients (Gelibo et al., 2017; Hengsdijk et al., 2021; Neufeld et al., 2023; Willett et al., 2019). This is partly due to the cost or high relative prices especially for lower income people (Hirvonen et al., 2018). Reducing the cost and/or increasing the supply of FV can improve FV consumption, as studies indicate the retail food environment is one of the important drivers of FV consumption (Stadlmayr et al., 2023).

Because of high perishability, fresh FV are traded and consumed locally or nationally with limited opportunity for international trade (FAO, 2020). Thus, supply of FV can be increased chiefly through local production. Further, in low-income countries like Ethiopia with limited infrastructure, FV are more prone to food loss and price volatility due to perishability and spatial and seasonal variability of production. A recent study in Ethiopia finds price volatility as the most pressing concern for farmers, wholesalers, and retailers (Hirvonen et al., 2021).

Since there is a high rate of undernutrition and micronutrient deficiency in the population and a growing youth population in need of jobs, supporting the FV sector in Ethiopia is believed to have multiple benefits including: high value to producers (more farmer income per area than cereals), jobs creation for women and youth along the value chain, more affordable supply of FV, and healthier diets for the population (FAO, 2021; Hirvonen et al., 2021; MOH and UNICEF, 2023). To that end, intervening along the food supply chains has been suggested as one of the pathways to lower the cost of nutritious foods (FAO et al., 2021).

One area of intervention may include supporting micro, small, and medium enterprises (MSMEs) and informal sector actors, such as traders and retailers, to deliver more nutritious, safe, and affordable food. This is because the midstream MSMEs can play key roles in food systems transformation by linking small-scale farmers to markets; delivering affordable food to urban and rural consumers; generating employment, female entrepreneurship, and livelihood opportunities; and supporting circular and sustainable food systems, if barriers are addressed (IFAD, 2021). In fact, globally, MSMEs represent about 90 percent of all businesses and account for 60 to 70 percent of employment and 50 percent of GDP.¹

The potential of MSMEs and informal actors in driving inclusive economic opportunities and growth is reflected in the 2030 Agenda for Sustainable Development, specifically Sustainable Development Goal (SDG) 8. The aims of Target 8.3 of SDG 8 are to “promote development-oriented policies that support productive activities and decent job creation...and to encourage the formalization and growth of micro-, small and medium-sized enterprises, including through access to financial services” (UN, 2017). However, designing policies and interventions aimed at supporting MSMEs and FV supply requires a better understanding of the business orientation, growth opportunities, and key barriers FV businesses face.

The main objective of this study was to understand the characteristics and functioning of FV MSMEs in select places in Ethiopia. The case study was designed to:

¹ <https://www.un.org/en/observances/micro-small-medium-businesses-day>

1. Identify the most relevant set of actors and their roles in selected FV markets in Ethiopia,
2. Understand key changes in the FV market in recent years and major barriers that actors face,
3. Prioritize barriers (for specific actor typologies) that are most limiting in the supply of FV, and
4. Assess enabling opportunities for growth/expansion of FV businesses.

The paper is organized as follows. The next section describes the data, the survey design, and sampling strategy that were implemented. Section 3 presents results of both qualitative and quantitative data on product flows, business characteristics, and major opportunities and challenges in the supply of FV and business growth across actor typologies. Section 4 analyzes the policy environment regarding food and nutrition and MSMEs and their contribution to delivering nutritious, safe, and affordable food to consumers. Section 5 summarizes the main results and concludes.

2. Methods

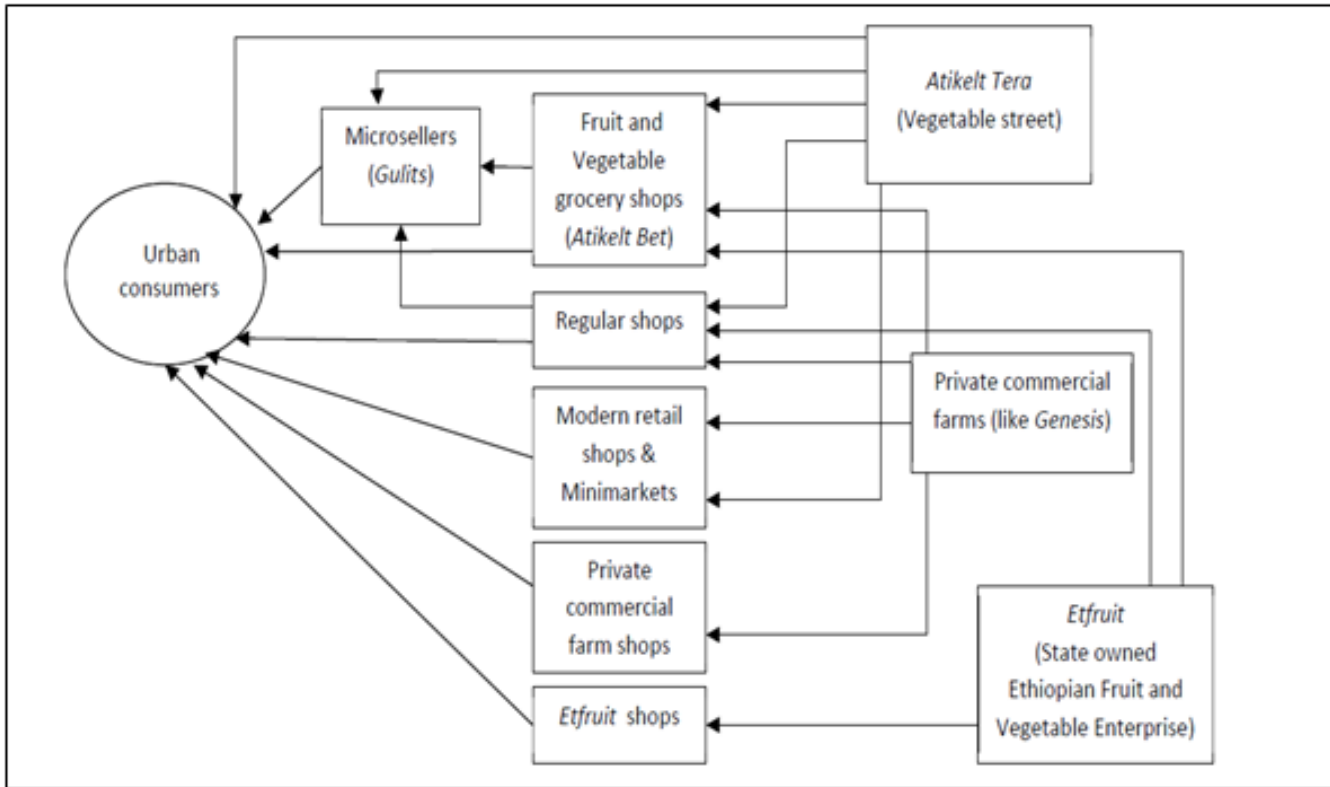
2.1. Data

Addis Ababa was chosen for the study because it is the largest urban center in Ethiopia into which FV enter from different directions and production areas. The Ziway/Batu area was chosen for its location in the Central Rift Valley which is generally known for vegetable production and is along the main road to major FV producing areas in southern Ethiopia (Hirvonen et al., 2021). Lessons drawn from actors involved in the FV businesses in these study sites may have broader relevance, including to those FV value chains in other parts of the country.

Both quantitative and qualitative data were collected from FV businesses operating in Addis Ababa and Ziway/Batu. The most relevant set of actors in the FV value chain were identified through literature review. Specifically, the FV flow diagram by Woldu et al. (2013) was instrumental in identifying a list of FV actors involved in FV businesses in Addis Ababa (Figure 1). Their diagram depicts different types of actors including private commercial farms and their outlets, wholesalers, modern retail shops, regular shops, and micro-sellers (street vendors) who operate either inside or outside of wet markets. Local experts consulted for this study suggested that the figure was comprehensive and still very much relevant for Addis Ababa. Hence, it was used as an input in our listing of various FV actors. It was also used to inform the design of the semi-structured survey instrument, which was used to collect quantitative information about business characteristics including the type of business, type of products they sell, labor use and growth potential, registration status, constraints and opportunities that businesses face in the delivery of FV, and inter-firm organization and linkages.

Qualitative information was collected through focus group discussions (FGDs). The aim was to gather relevant data that may support or help validate/contextualize information collected through the quantitative survey. A checklist of main topics addressed in the quantitative survey was used. The topics included trends and changes observed in the FV sector in the last five years, the value chain map, labor use, networks, food loss, and opportunities and threats for business growth. In total, six FGDs were held. In each FGD, between six and eight people drawn from different types of FV businesses, including street vendors, retailers in and outside wet markets, mini-market owners, juice shops, and wholesale traders participated. A random approach was used to identify business owners willing to participate in the FGDs. Participants were between the ages of 23 and 67 and had been in the business between 1 and 37 years (Appendix Table 1A).

Figure 1: Urban distribution of FV in Addis Ababa



Source: Woldu et al 2013.

2.2. Sampling procedures of quantitative survey

This study is part of a larger study in the CGIAR Research Initiative on Sustainable Healthy Diets through Food Systems Transformation (SHiFT) that will generate more comprehensive data about food-related MSMEs and informal actors in Ethiopia. This study can be considered a “pilot” for the larger study, even though the focus of this study is only on FV businesses.

The sample size for this study was determined based on budget availability and purpose of the study, and hence may not be representative of FV businesses. A total of 340 purposively and randomly selected businesses drawn from six study sites (four in Addis Ababa and two in Ziway/Batu areas) were interviewed for the survey (Table 1). Out of these, 90 businesses (27 percent) were traditional micro-sellers (street vendors), businesses with a single employee/owner that are not formally registered, who operate either inside or outside of wet markets. From Addis Ababa, four study sites including Akaki, Kaliti, Kolfe-Keraniyo, and Lafto (Atikilt tera) were selected. Akaki and Kaliti were selected as relevant peri-urban and urban sites and are located on the main road towards the Rift Valley. Kolfe-Keraniyo was selected because it has one of the Seqota Declaration target areas. Lafto was included because of the importance of Atikilt tera (a wholesale market) for FV supply in Addis Ababa. Bote is a small rural town located close to Ziway/Batu, a medium-size urban town, and was included to capture potential heterogeneity in FV businesses across smaller, rural towns and medium- and larger, urban towns. The FGD and the survey were conducted between December 2022 and April 2023.

Table 1: Sample distribution for the survey across study sites

Location	Sample size (Total)	Micro-sellers	Other types of vendors
Akaki	65	15	50
Kality	55	15	40
Kolfe-Keranio	80	30	50
Lafto (Atikilt tera)	30	0	30
Ziway/Batu	65	15	50
Bote	45	15	30
Total	340	90	250

Based on expert knowledge, the sample size for each type of FV business was determined according to their importance in the supply of FV to consumers. The majority of the sample was determined to be FV retailers since they are expected to serve a majority of consumers, especially those in lower- and middle- income groups. Based on the sample size determined for each study location, FV businesses in wet markets were randomly selected using the 5th right hand side jumping rule. For FV businesses located outside of wet markets, a selection was made by ensuring that randomly selected businesses were at least 200 meters apart from each other. Businesses that were in operation for less than 1 year were excluded.

3. Results

3.1. Description of FV business owners/managers

The average age of FV business owners/managers in the sample was 33 years, with the range between 18 and 74 years (Table 2). Nearly half (48 percent) of respondents were women. Only about 12 percent of respondents reported that they had not attended any school, while 44 percent had attended up to 8th grade and 45 percent had attended 9th grade and above. The average level of education reported by respondents in this study was similar to results from a separate study of women entrepreneurs involved in other types of agri-food MSMEs in four regions in Ethiopia. In that study, the share of women entrepreneurs who had not attended any school was 18 percent and those who had attended 9th grade and above was 49 percent (Mekonnen and Berkhout, 2022). About 19 percent of FV business owners/managers in the sample reported that they had attended at least one training related to finance, business management, and/or entrepreneurship. Their reported experience in the FV business had a range between 1 and 35 years with an average of 6 years of work experience. Only about 30 percent of respondents reported ownership experience and 16 percent reported management experience in non-FV businesses. In what follows, we discuss the characteristics and functioning of FV businesses beginning with a description of products, information, and credit flows according to actor typologies.

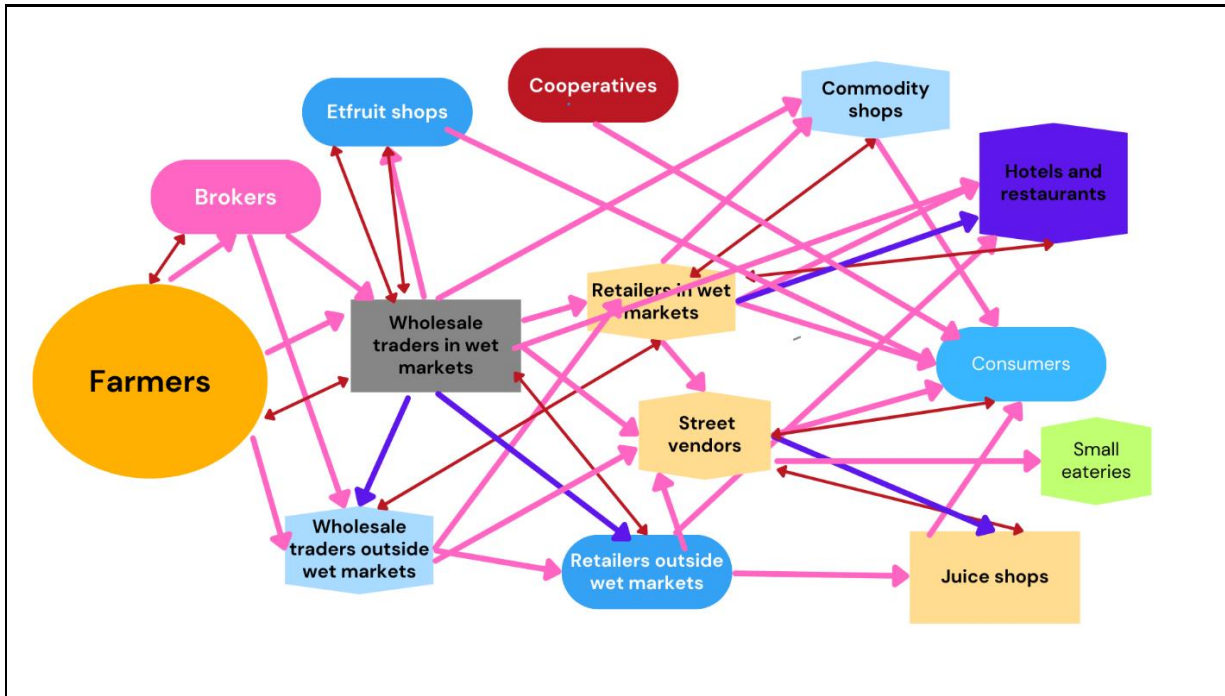
Table 2: Individual characteristics of FV business owners/managers (N=340)

	Mean	Std. Dev	Min	Max
Age, in years	32.43	8.80	18	74
Female, 0/1	0.48	0.50	0	1
Never attended any school, 0/1	0.12	0.33	0	1
Attended school up to 8 th grade, 0/1	0.44	0.50	0	1
Attended grade 9 to 12, 0/1	0.33	0.47	0	1
Attended post-secondary school (Grades 12+), 0/1	0.12	0.32	0	1
Had training in business management/entrepreneurship, 0/1	0.19	0.39	0	1
Years of experience as owner/manager in FV business	5.58	4.66	1	35
Had experience as a business owner in any other business	0.30	0.46	0	20
Had experience as a business manager in any other business	0.16	0.37	0	18

3.2. Product flow

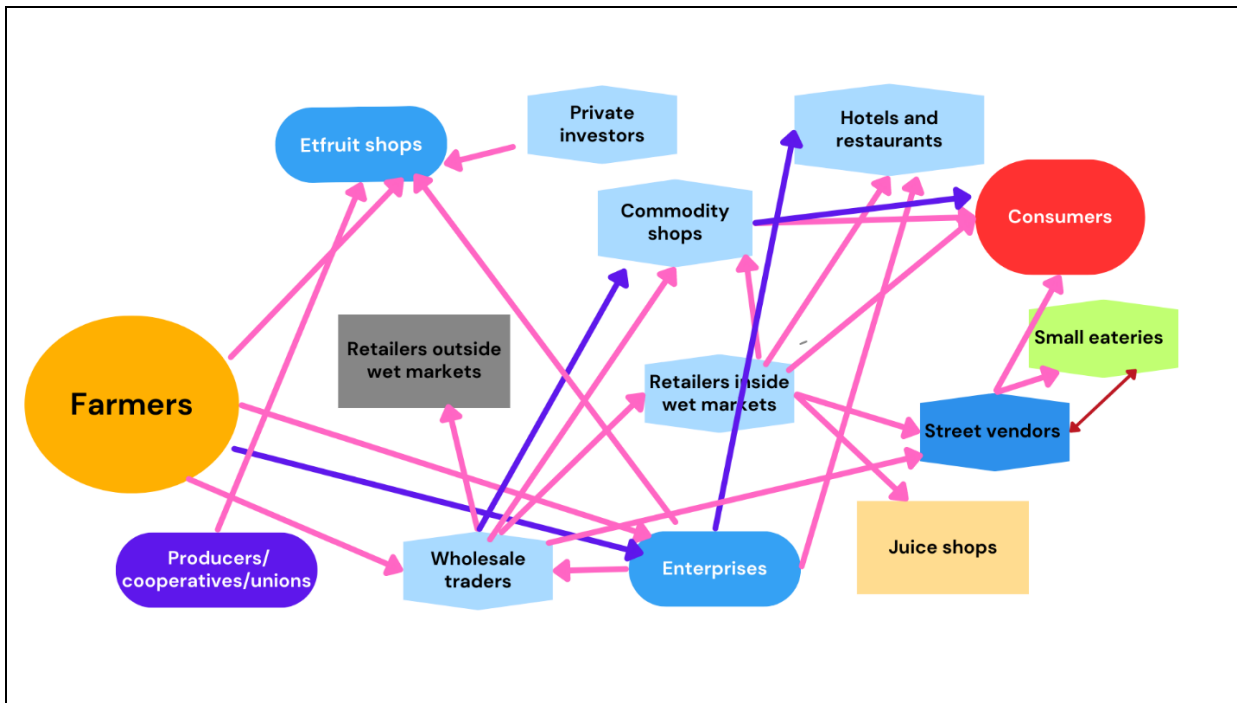
As noted above, our initial FV flow diagram was from Woldu et al. (2013). Since this was specific to Addis Ababa, we attempted to generate a more complete FV value chain diagram capturing a wider geographic focus. This was achieved through a participatory mapping exercise with FGD participants and consultation with local experts. The initial FV diagram was presented as an example to each of the six focus groups corresponding to each survey location. Participants were asked to indicate the type of their FV business on a flipchart using a Post-it® Note (Figure A-1 in the Appendix.). They were also asked to indicate their source of FV and to whom they sell on the flipchart. Similarly, FGD participants were asked to indicate the direction - if they provided or received credit and/or information to/from their customer. A summary of inputs from all focus groups and local experts resulted in a value chain diagram inclusive of farmers (including public and private commercial farms), brokers, FV traders of various types, juice shops, hotels/restaurants/small eateries, and consumers (Figure 2). The flow diagram also included the direction of product, credit, and information flows. Since there are relatively fewer value chain actors in the study sites outside of Addis Ababa, the corresponding flow diagrams are separately presented in Figures 3 and 4.

Figure 2: FV distribution in peri-urban and urban Ethiopia



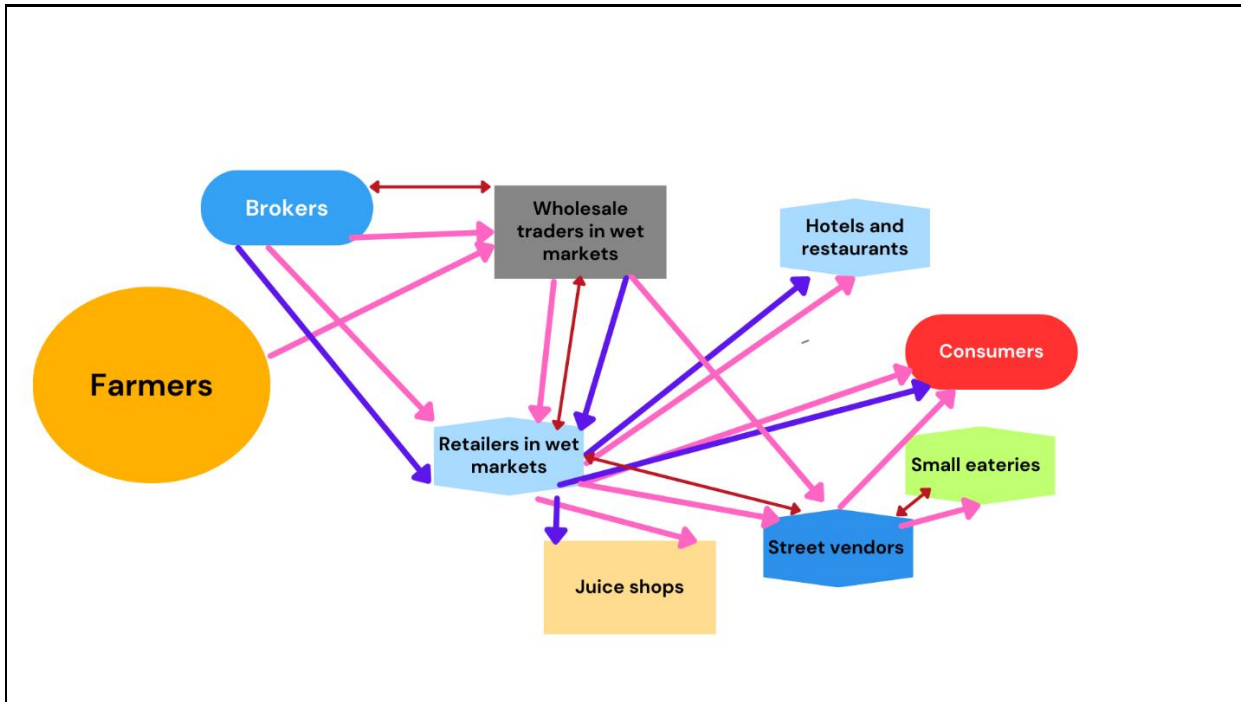
Note: Direction of product, information, and credit flows is denoted by arrows in pink, red, and purple, respectively. Efruit shops are public sector retail shops.

Figure 3: FV distribution in Ziway/Batu



Note: Direction of product, information, and credit flows is denoted by arrows in pink, red, and purple, respectively. Efruit shops are public sector retail shops.

Figure 4: FV distribution in Bote town

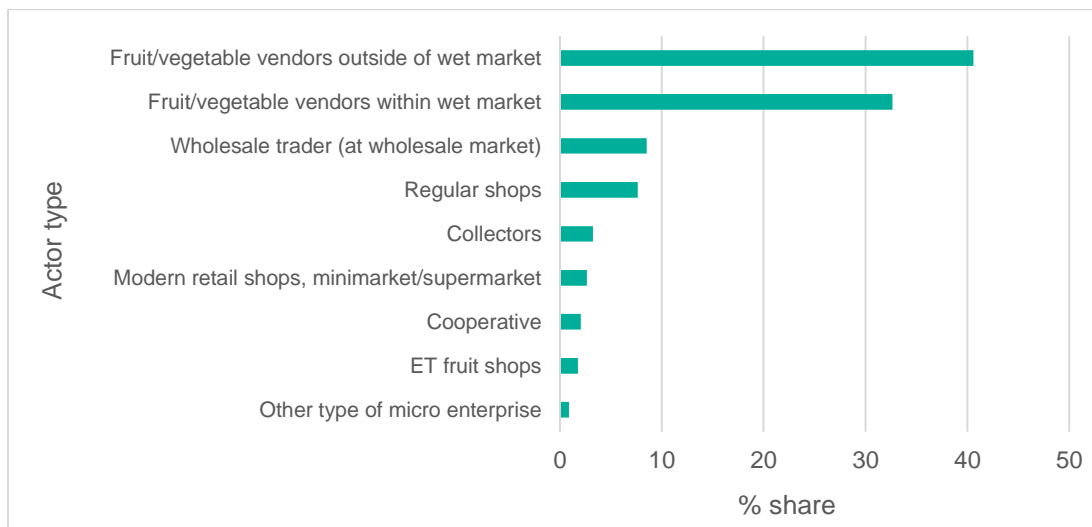


Note: Direction of product, information, and credit flows is denoted by arrows in pink, red, and purple, respectively

3.3. Actor typologies

There were nine types of businesses supplying FV to consumers in the sample (Figure 5). More than 73 percent of FV businesses in the sample were retailers operating either within or outside of wet markets. Wholesalers and regular shops together accounted for about 15 percent of the sample. The remaining 10 percent of the sample were other types of businesses involved in the supply of FV, including modern retail shops (mini-market or supermarkets), (2.65 percent), collectors (3.24 percent), ET fruit shops (public sector retail shops), (1.76 percent), cooperative shops (2.06 percent), and other types of micro-enterprises (0.88 percent).

Figure 5: Types of FV businesses in the sample (%)



3.3.1. Actor typologies by number of workers

Actors in the sample involved in some form of FV business were asked about the number of workers they have, including seasonal and unpaid labor but excluding the owner/manager. The average reported size was 3.5 workers, ranging from 0 in the case of FV vendors within and outside of wet markets, particularly micro-sellers, to 38 in the case of modern retail shops that sell FV and other commodities (Table 3). Among respondents who were involved exclusively in FV supply to consumers, the average number of employees was six for wholesalers, three for retailers within wet markets, and two for retailers outside of wet markets. The results were consistent with what was reported in the FGDs (Table A-1 in the Appendix). Participants indicated that businesses involved exclusively in FV have up to 10 employees, while retailers and juice shops have between 2 and 5 employees.

Table 3: Number of workers by actor type

Type of FV business	N	Mean	Std. Dev.	Min	Max
FV vendors within wet markets	111	3.0	3.1	0	23
FV vendors outside of wet markets	138	2.0	2.3	0	10
Regular shops	26	1.7	0.9	0	4
Modern retail shops, mini-market/supermarket	9	10.9	11.8	3	38
Wholesale traders (at wholesale markets)	29	6.0	2.8	2	12
Collectors	11	16.4	9.2	6	34
ET fruit shops	6	5.7	3.3	1	11
Cooperative shops	7	6.0	5.0	2	15
Other types of micro-enterprises	3	7.0	2.6	5	10
All	340	3.5	4.6	0	38

3.4. Products and services and business turnover

3.4.1. Type of business activity and share in turnover

FV businesses could be involved in more than one value chain activity while supplying products to consumers. For example, a retail shop could cater fresh juice and salad to their customers alongside FV; a wholesale trader may be involved in retail as well as FV collection from farmers; a modern retail shop may be involved in cleaning/packaging that increase revenue per unit of sale or in FV production from their own farm. In the sample, the most common type of business activity reported by respondents was retailing (96 percent), followed by sorting/cleaning/packing (38 percent), wholesale (18 percent), and basic processing (e.g., fresh juice and salad preparation), (14 percent), (Table 4).

When asked which business activities contributed the most to turnover, retailing was cited by 76 percent of respondents. Only 15 percent of respondents cited wholesale and 5 percent cited basic processing as business activities that contributed the most to turnover.

Table 4: Business activities and contribution to turnover

Type of business activity	Activity type businesses are involved in (n=340), (%)	Activity that contributes the most to turnover (%)
Producing (fruits and/or vegetables)	2.1	0.5
(Basic) Processing (e.g. fresh juice/salad)	14.4	5.4
Collecting	6.2	2.7
Wholesale	17.6	14.7
Retailing	95.9	76.1
Sorting/cleaning/packing	38.2	0.5

3.4.2. FV businesses and share in turnover

FV businesses may be involved in the sale of both fruits and vegetables, or in either one of the two. Respondents reported selling an average number of three types of fruits and five types of vegetables with corresponding range varying from 0 to 14 and 0 to 24 products, respectively (Table 5). When traditional micro-sellers were analyzed separately from the other types of FV businesses in the sample, the average number of products sold by micro-sellers was much lower. Micro-sellers reported selling an average of only one type of fruit and three types of vegetables, whereas other types of FV businesses reported selling three types of fruits and six types of vegetables, on average.

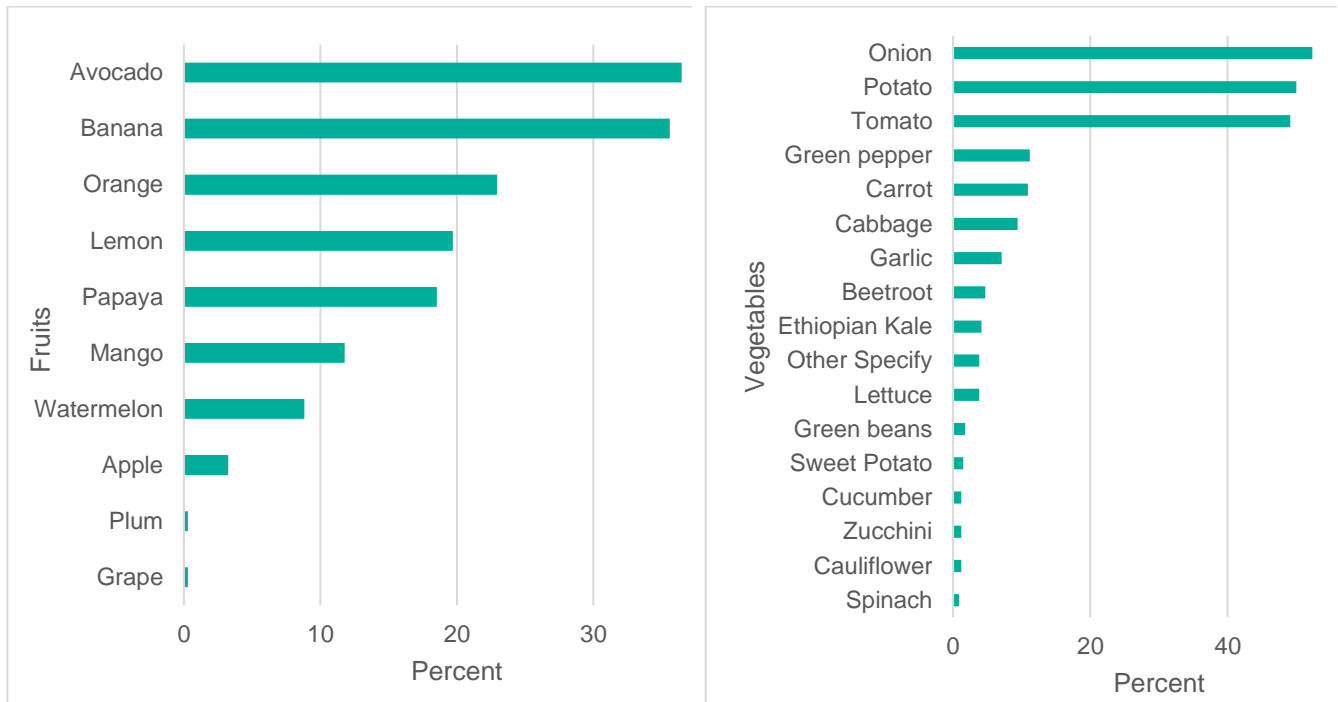
Table 5: Product offering by firm size

	All				Micro-sellers (n=90)		Other types of FV businesses (n=250)		Diff. in mean (P<0.05)
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Mean	Std. Dev.	
Types of fruits on offer	2.8	3.2	0	14	1.3	1.3	3.4	3.4	2.1***
Types of vegetables on offer	5.2	4.2	0	24	2.9	2.7	6.1	4.3	3.2***

***The difference in means between micro-sellers and other types of FV businesses was statistically significant at p<0.05.

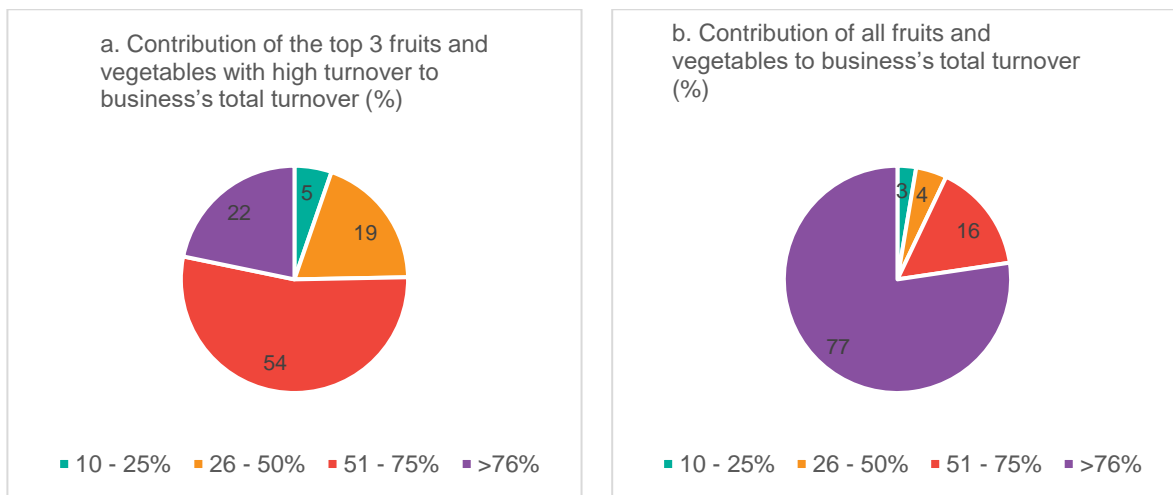
FV businesses in the sample were asked to list the top three types of fruits with the highest turnover in their business. Avocado and banana were each cited by more than 35 percent of respondents (left-hand side of Figure 6). Other fruits that were listed included oranges, lemons, papaya, and mango, cited by about 18 percent to 23 percent of respondents. The top three types of vegetables with the highest turnover reported by respondents were onions, potatoes, and tomatoes, each cited by more than 49 percent of the sample (right-hand side of Figure 6). Other frequently mentioned vegetables included green pepper, carrot, garlic, and cabbage, cited by about 5 percent to 12 percent of respondents.

Figure 6: The top three FV with high turnover



The FV businesses in the sample were asked to estimate the contribution the high turnover FV they mentioned made to the business’s overall turnover. More than 53 percent of respondents indicated that the three FV products with the highest turnover contributed between 51 to 75 percent to their total turnover, and 22 percent of respondents reported that this share was more than 76 percent (Figure 7a). Similarly, more than 77 percent of respondents indicated that the turnover from all types of FV was above 76 percent of their total turnover, and for 16 percent of respondents the share was between 51 percent to 75 percent (Figure 7b).

Figure 7: Contribution of FV to total turnover



3.5. Business orientation, growth opportunities and key barriers

3.5.1. Business orientation and observed changes in the market in the last five years

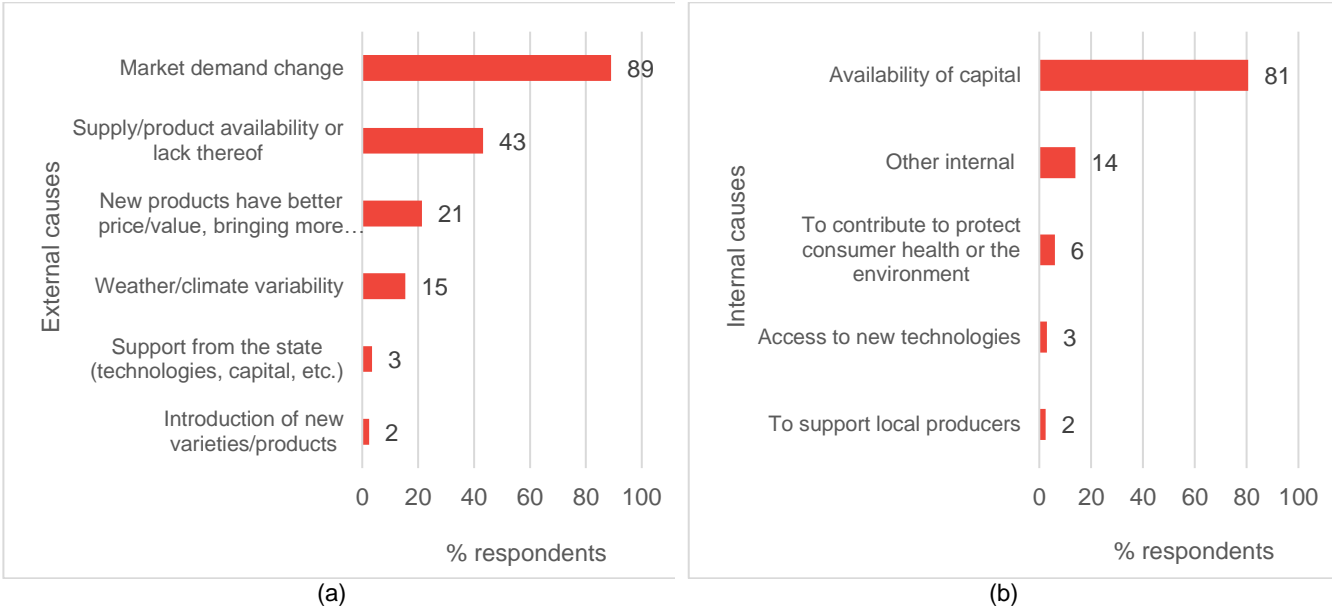
We start by examining whether respondents had observed any changes in the type of FV supplied to the market in the past five years. According to Table 6, more than 50 percent of respondents suggested that there had been changes, and more than 60 percent of them thought those changes were positive or an improvement in product variety or diversity.

Table 6: Changes over time in FV supply

Location	Freq.	Percent
Fruits, change observed	120	54.8
Of which change was positive	75	62.5
Vegetables, change observed	150	51.9
Of which change was positive	97	64.7

Among respondents who indicated the changes were positive, the most commonly cited external reasons for these changes were changes in market demand, increased supply or product variety and availability, and higher prices for new product varieties (Figure 8a). The most commonly cited internal reason for the change was increased business capital (Figure 8b).

Figure 8: Reported factors causing change in FV supply



Similarly, FGD participants listed various factors associated with changes in the supply and price of products observed in the past five years. Their observations varied across study sites. FGD participants from Ziway areas reported that the supply of FV has declined and price has increased. This, according to FGD participants, was attributed to the increase in the prices of fuel, fertilizers, and pesticides, and a

reduction in water supply due to the expansion of water hyacinth in Lake Ziway and other surrounding lakes that lowered FV production in the area. They also noted that the government's emphasis on growing wheat has contributed to the reduction of FV production in recent years and this could further lead to a contraction in FV supply in the near future. This perception was also shared by FGD participants elsewhere such as those in Akaki-Kaliti in Addis Ababa. Similar reports have appeared in popular local media.²

Wholesalers in Addis Ababa (Lafto atikilt tera) who participated in the FGD noted that in recent years some farmers in Akaki, Sebeta and Holeta who used to supply FV to Addis Ababa have started growing other crops (e.g., teff) instead of FV. In their experience, this has led to a decline in the supply of FV. In addition, they explained that FV are now being shipped from production areas directly to other towns, such as Dire Dawa and Bahir Dar. In their view, this has contributed to the reduction of FV supply to the Addis Ababa market. The FGD participants also mentioned that food loss associated with rising temperatures, lack of improvement in transportation facilities, and poor product handling in the value chain were factors contributing to the reduction of FV supply.

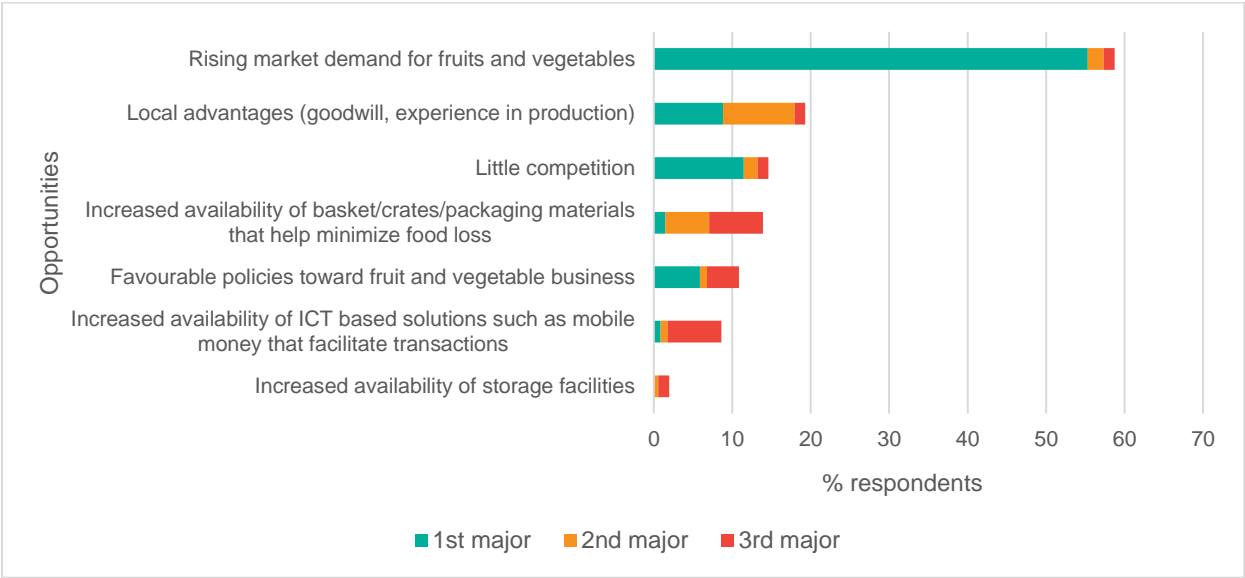
On the other hand, FGD participants from the other study areas in Addis Ababa reported that there is more product variety in the market compared to five years ago. Participants explained that one of the major reasons for the change was increased competition in the business leading to increased supply from various production areas such as Jima, Arba Minch, Ziway and Meki. However, they reported that the demand for FV has also increased during the same period. They attributed the increased demand for FV to increased consumer awareness about the health benefits of FV, in particular, apple, broccoli, cauliflower, sweet potato, and taro. Nonetheless, participants also indicated a decline in the quality of FV. They attributed the quality reduction to a lack of quality seeds available to farmers, lack of proper product handling during transportation, and involvement of "unlawful" or unregistered traders who are in the business for a "quick cash grab." In their experience, unregistered traders tend to buy low quality products from suppliers and sell them at lower prices.

3.5.2. Is growth in the FV sector a prime focus?

In this section, we assess growth potential in the FV sector by examining the future plans reported by the FV businesses in this sample, beginning with a description of the enabling opportunities for business expansion. Respondents identified rising market demand for FV as the most important enabling factor, followed by location advantage (i.e., established goodwill and experience in the business), increased availability of crates/packaging materials that minimize food loss, the absence of strong competition, information and communication technology (ICT) based solutions such as mobile/digital banking services, and favorable policies (Figure 9). In addition to these opportunities, FGD participants mentioned availability of cheap labor, availability/supply of different types of FV, availability of loans, and social networks.

² The Reporter, May 31st edition, <https://www.ethiopianreporter.com/119093/>.

Figure 9: Major opportunities to expand the business



3.5.2.a. Intention to increase the sales volume/supply of FV in the next 3 years

FV businesses in the sample were asked whether they have any intention to increase the sales volume/supply of FV in the next 1-3 years. In this case, they were asked about their intentions for fruit and for vegetables, separately. Nearly 62 percent of respondents indicated they intend to increase their sales volume/supply of fruits in the next three years and 69 percent of respondents indicated the same, but for vegetables (Table 7).

Fruits

Of the respondents that intended to increase their sales volume/supply of fruits in the next three years, all ET fruit shops (public sector run retail shops) and other types of micro-enterprises indicated that they intended to increase their sales volume/supply of fruits, followed by 71 percent of FV vendors outside of wet markets and 60 percent of FV vendors within wet markets. Only 35 percent of regular shops indicated that they intended to increase their sales volume/supply of fruits.

Vegetables

Of the respondents that indicated an intention to increase their sales volume/supply of vegetables in the next three years, all of the other types of microenterprises indicated that they intended to increase their sales volume/supply of vegetables, followed by 91 percent of collectors, 83 percent of ET fruit shops, and 81 percent of fruit/vegetable vendors within wet markets. Only 22 percent of modern retail shops indicated that they intended to increase their sales volume/supply of vegetables.

Table 7: Intention to increase the sales volume/supply of FV in the next 3 years, by actor type

	Fruits		Vegetables	
	Freq.	Percent	Freq.	Percent
Intent to increase, 1= yes	210	61.7	233	68.5
Intent to increase by actor type (0/1):				
FV vendors within wet markets	66	59.5	90	81.1
FV vendors outside of wet markets	98	71.0	89	64.5
Regular shops	9	34.6	12	46.2
Modern retail shops, mini-market/supermarket	5	55.6	2	22.2
Wholesale traders (at wholesale markets)	14	48.3	18	62.1
Collectors	5	45.5	10	90.9
ET fruit shops	6	100	5	83.3
Cooperatives	4	57.1	4	57.1
Other types of micro-enterprises	3	100	3	100

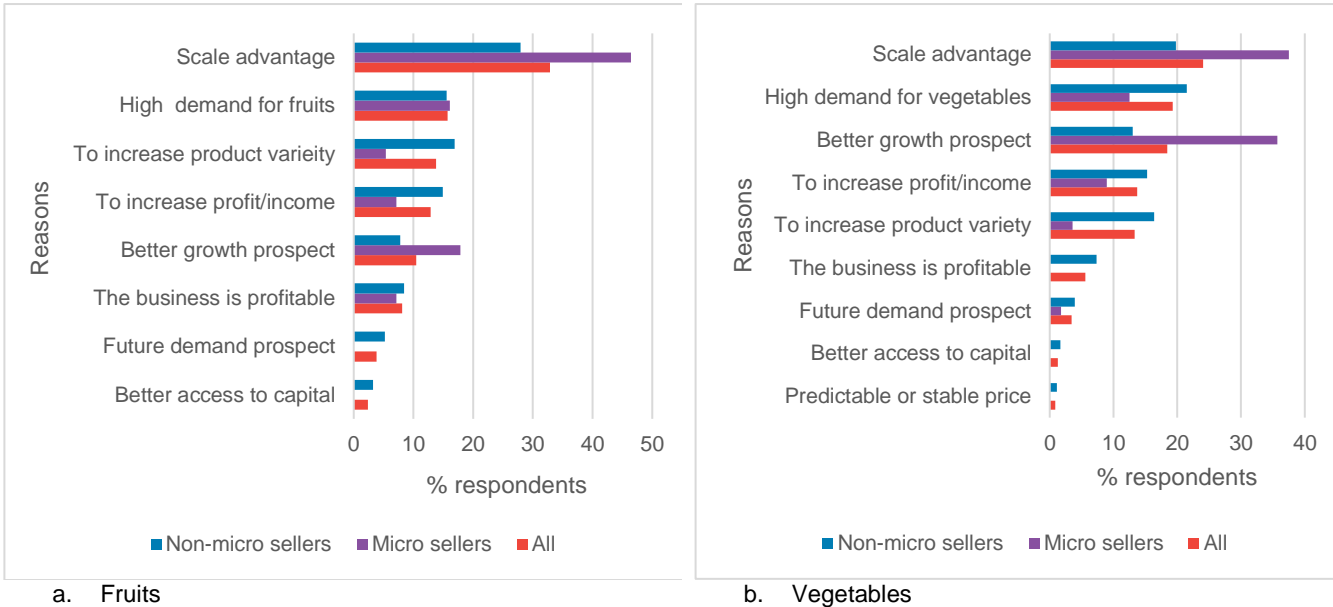
The most common reasons stated by respondents for intending to increase the supply of fruits and of vegetables in the next 1-3 years are described in Table 8. For fruits, the most frequently cited reason was scale advantage. High product demand, to meet customer demand for a variety of products, and to increase profit/income were the next most frequently cited reasons. For vegetables, the most frequently cited reason was also scale advantage. High product demand, better growth prospects, to increase profit/income, and to meet customer demand for a variety of products were the next most frequently cited reasons.

Table 8: Reasons for intending to increase the supply of FV in the next 3 years

Reason for intention to increase (0/1)	Fruits		Vegetables	
	Freq.	Percent	Freq.	Percent
High product demand	33	15.7	45	19.3
Predictable or stable price			2	0.9
The business is profitable	17	8.1	13	5.6
Scale advantage	69	32.9	56	24.0
Better access to capital (including credit)	5	2.4	3	1.3
Better growth prospect	22	10.5	43	18.5
To increase variety of products to meet customer demand	29	13.8	31	13.3
To increase profit/income	27	12.9	32	13.7
Future demand prospect	8	3.8	8	3.4
Total	210	100	233	100

The pattern of the reasons cited by all respondents remained fairly similar when data were disaggregated into micro-sellers and all other types of FV businesses (non-micro-sellers), (Figure 10).

Figure 10: Reason for intending to increase FV supply in the next 3 years



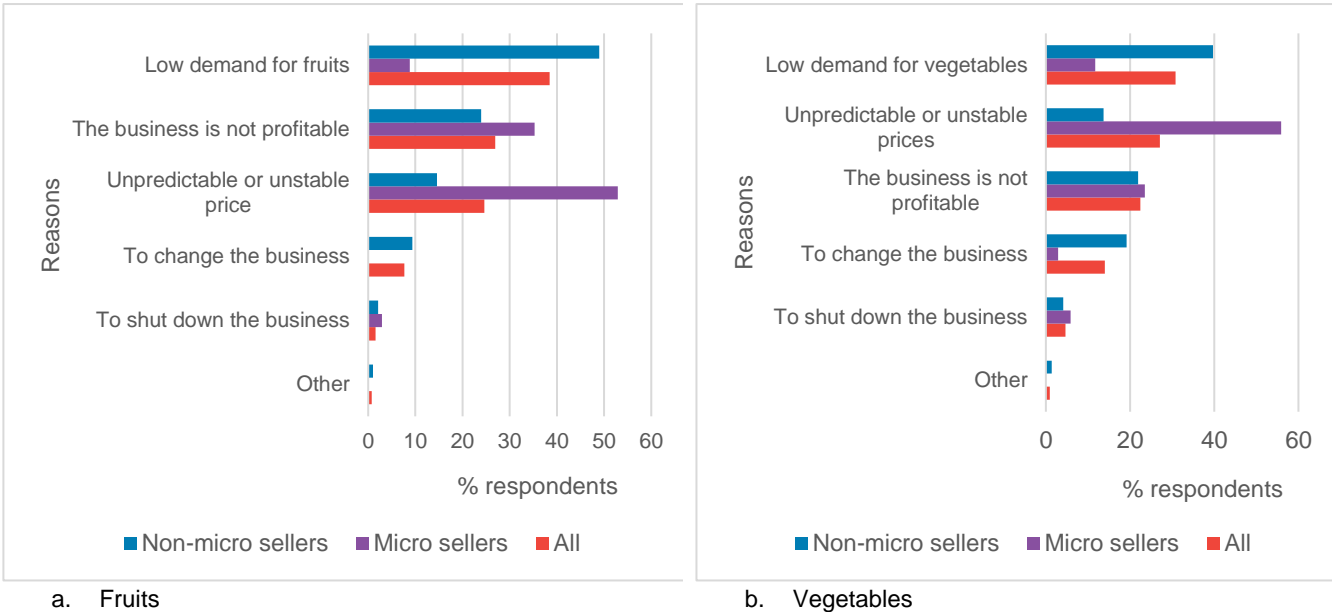
Of the respondents who indicated they have no intention to increase their FV supply in the next three years, more than 38 percent indicated this was true for fruits and 32 percent indicated this was true for vegetables (Table 9). The most frequently cited reasons for not intending to increase supply followed a similar pattern for fruits and for vegetables. The most frequently cited reason for both was low product demand. Then for fruits, the next most frequently cited reason was the business is not profitable, followed by unpredictable or unstable price. For vegetables, it was the same two reasons but in reverse order of frequency.

Table 9: Reasons for not intending to increase FV supply in the next 3 years

	Fruits		Vegetables	
	Freq.	Percent	Freq.	Percent
No intent to increase FV supply, 1=yes	130	38.3	107	31.5
Reasons (0/1):				
Low product demand	50	38.5	33	30.8
Unpredictable or unstable price	32	24.6	29	27.1
The business is not profitable	35	26.9	24	22.4
To shut down the business	2	1.5	5	4.7
To change the business	10	7.7	15	14.0
Other	1	0.8	1	0.9
Total	130	100	107	100

Again, the distribution of reasons cited by respondents who did not intend to increase sales volume remained similar when disaggregated into micro-sellers and all other FV businesses (Figure 11).

Figure 11: Reasons for not intending to increase FV supply in the next 3 years



3.5.2.b. Intention to employ more workers in the next 3 years

Besides sales volume/supply, increased employment is another indicator that can be used to assess whether growth in the FV sector is a prime focus, and for whom. Accordingly, only 40 percent of businesses interviewed for this study stated that they intend to employ more workers in the next 1-3 years (Table 10). Among those with intention to employ more workers, more than 88 percent of them stated their intention was to employ more young workers including females and nearly 80 percent stated their intention was to employ more female workers.

Further disaggregating the data by micro-sellers and all other FV businesses indicated that about 27 percent of micro-sellers and 45 percent of non-micro-sellers stated they intend to employ more workers (Table 10). Among those with intention to employ more workers, more than 70 percent of micro-sellers stated their intention was to employ more female and more young workers.

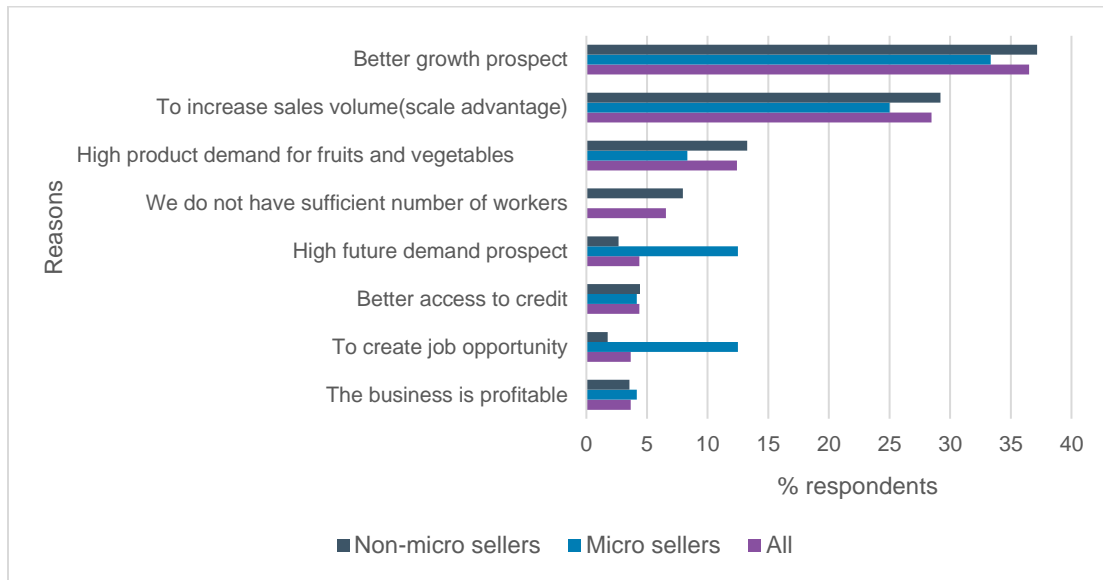
Table 10: Intention to employ more workers in the next 3 years

	All (340)		Micro-sellers (90)		Non-micro-sellers (250)	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Intention to employ more workers, 0/1*	137	40	24	26.7	113	45.2
of which (who intended to employ more) intention to employ more female workers, 0/1	109	79.6	20	83.3	89	78.7
of which (who intended to employ more) intention to employ more young workers, 0/1*	121	88.3	17	70.8	104	92
Share among those who intend to employ more workers, by actor type (n=137)	Freq.	Percent				
FV vendors within wet markets	41	29.9				
FV vendors outside of wet markets	56	40.9				
Regular shops	5	3.7				
Modern retail shops, mini-market/supermarket	4	2.9				
Wholesale traders (at wholesale markets)	15	10.9				
Collectors	7	5.1				
ET fruit shops	3	2.2				
Cooperatives	3	2.2				
Other type of micro-enterprises	3	2.2				

*The difference in means between micro- and non-micro sellers was statistically significant at $p < 0.05$.

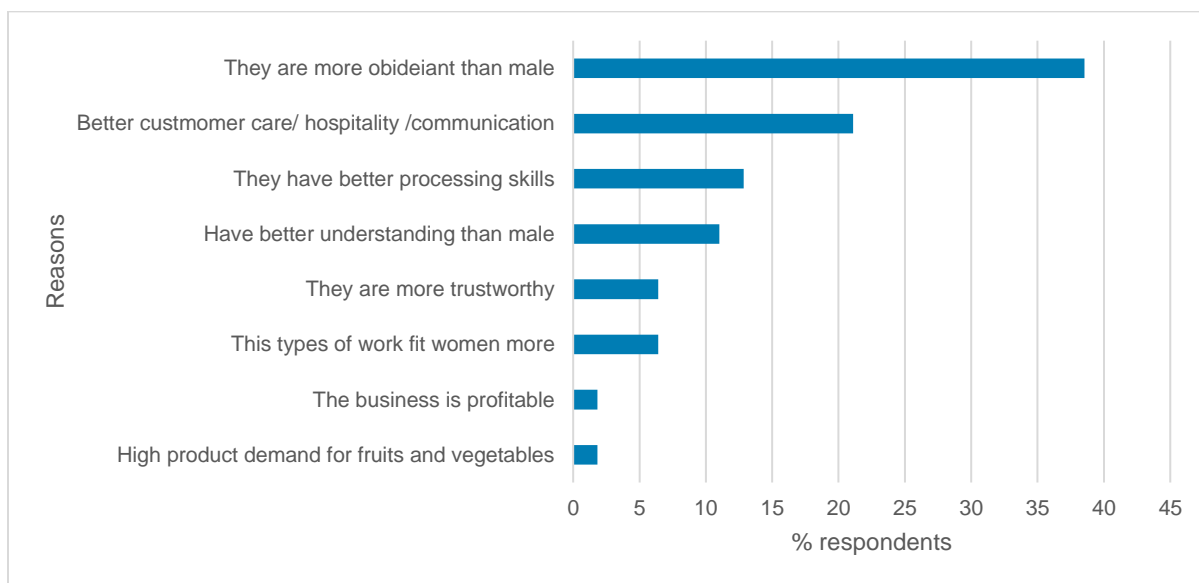
Among the major reasons behind the intention to employ more workers, at least 35 percent cited better growth prospect and at least 25 percent cited scale advantage (Figure 12). What is striking is that creating job opportunities and high future demand prospects were each cited by more than 12 percent of micro-sellers, while less than 3 percent of respondents in the non-micro-seller category reported this as a reason to employ more workers in the next three years. Given the high rate of youth unemployment in the country, this gives rise to a hypothesis that FV micro-sellers tend to make employment decisions based more on equity over profit/efficiency grounds compared to non-micro vendors.

Figure 12: Reasons to employ more workers in the next 3 years (%)



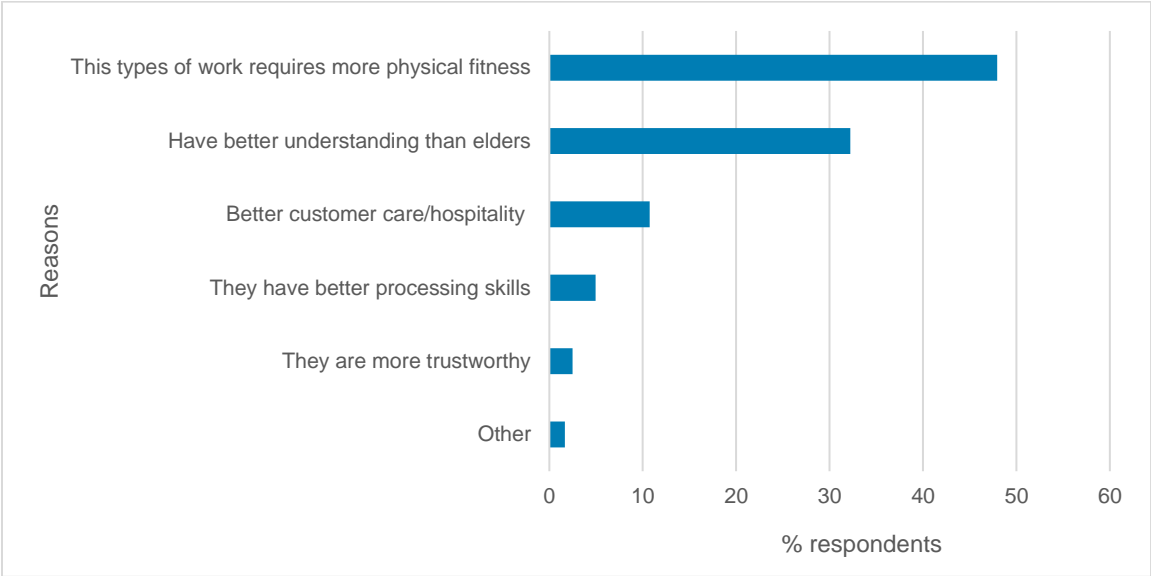
Various factors shape FV businesses’ preference for employing female and young workers. Of the businesses that expressed an intention to employ more female workers in the next 3 years, 38 percent indicated that their main reason was because they believed that women are more obedient, and 23 percent indicated it was because they believe that female workers provide better customer service (21 percent) than men. Around 13 percent of respondents said that their reason to employ more female workers was because women have better processing skills; 11 percent indicated it was because they have a better understanding of the business; 6 percent indicated it was because women are more trustworthy than men; and 6 percent indicated it was because FV business activities fit women more.

Figure 13: Reasons to employ more female workers in the next 3 years (%)



Similarly, businesses that expressed an intention to employ more young workers indicated that they prefer young workers because the business requires physical fitness (48 percent), young workers understand the business better (32 percent), and young workers provide better customer care (11 percent), (Figure 14).

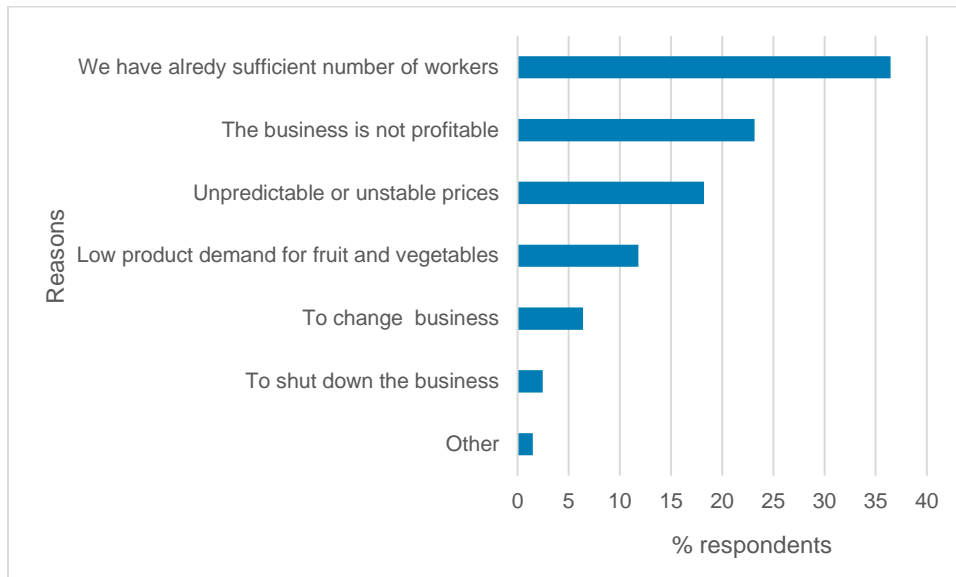
Figure 14: Reasons to employ more young workers in the next 3 years (%)



Participants in the FGD indicated that they preferred female employees because they had positive attributes like trust, honesty and processing skills (e.g., juice preparation); whereas for young employees, especially men, the main reason they wanted to employ more of them was because some activities such as loading and unloading are physically demanding and in their opinion, young employees are more able and willing to take on such jobs compared to older ones.

Since the majority of FV businesses in this sample (about 60 percent) did not have an intention to employ more workers in the next 3 years, examining the listed reasons is important for understanding the limiting factor for employment growth in the FV sector. Nearly 36 percent of respondents indicated that they have a sufficient number of workers already and 23 percent said that lack of profitability of the business was the reason they did not intend to employ more workers in the next 3 years. Around 18 percent cited unpredictable or unstable FV prices and 12 percent cited low demand for FV as reasons for not wanting to employ more people in the next 3 years. Only 6 percent of respondents said the reasons they did not intend to employ more people were because they intended to move out of the FV business or change their business type.

Figure 15: Reason for not having a plan to employ more workers (n=203), %



3.6. Institutional inter-firm networks

Groups and networks may serve as avenues for communication and information sharing and to organize support systems, among others. To assess inter-firm organization and networks, FV businesses were asked whether they have joint activities with other businesses, and whether they give or receive some input or service to/from their suppliers. Only 15 percent of respondents stated that they engage in meetings or have joint activities with similar businesses that operate at their same location. The percentage of FV businesses that reported engaging in joint activities remained the same when data was disaggregated into micro-sellers and other non-micro FV sellers, or by registration status (Table 11). Across the FV actor types, more retailers, who operate within or outside of wet markets, and wholesalers at wholesale markets reported joint activities with similar businesses than other FV actor types.

Results from the FGDs yield a similar picture. Some FGD participants indicated that they were a member of either an informal group of some sort (e.g., informal savings group, transport group) or of a formal association (in the case of wholesalers at 'Lafto atikilt tera' in Addis Ababa) while others stated that they were not a member of any group, network or association. For example, some FGD participants stated that they belong to an 'iqqub,' which is an informal group established for the purpose of organizing savings or fundraising, but also serves for information sharing during the meetings:

"We are members of the same 'iqqub' or 'iddir' and we support one another, and we lend each other money when any of us is in difficult circumstances. We have also established an association of vegetables and fruits traders in Lafto Market Center in Addis Ababa. It has its own rules and a leader." (FGD participant at wholesale market (Lafto atikilt tera))

In the 'iqqub' system, each member contributes a certain amount of money in a specified timeframe, and members take turns to take the collected amount. Turns are usually determined by a lottery.

Absence of organized groups was the major reason (stated by 86 percent) for vendors that did not participate in any joint activities with other similar businesses (Table 11). The next major reason (stated by some 13 percent of vendors) was that they did not see any benefit in doing so. However, when

asked how important it would be for them to be part of a group with other non FV businesses, only 21 percent of them thought it was not important while the rest of vendors thought it was important with the degree of importance varying from slightly important to very important (Figure 16).

Table 11: Joint activities with other FV businesses in the same location

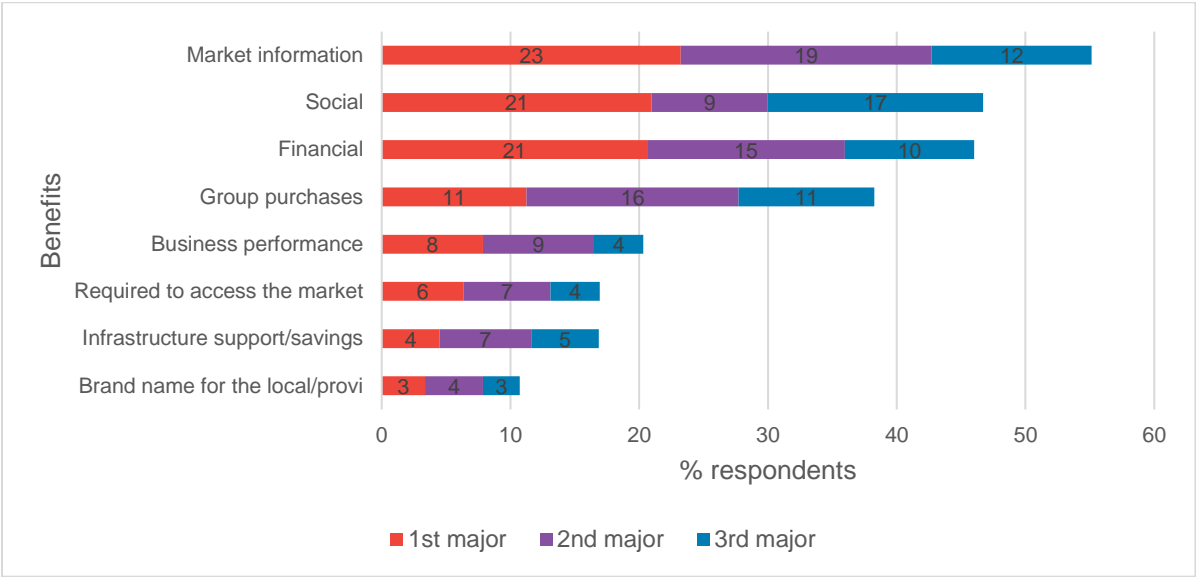
	Freq.	Percent
Have joint activities with other similar businesses? (1, yes) (n=340)	51	15
<i>Micro-sellers vs other FV vendors:</i>		
Micro-seller, (1, yes)	13	14.4
Other type of FV vendor, (1, yes)	38	15.2
<i>By registration status:</i>		
Registered (n=231) (1, yes)	36	15.6
Not registered (n=109) (1, yes)	15	13.8
<i>Actor type who has joint activities with other similar businesses:</i>		
FV vendors within wet markets (n=111)	31	27.9
FV vendors outside of wet markets (n=138)	4	2.9
Wholesale trader (at wholesale markets) (n=29)	16	55.2
<i>Reasons for not having joint activities with other similar businesses (n=289)</i>		
I don't see any benefit		12.5
Such groups do not exist		85.8
I don't trust others		3.1
I don't have friends		5.5
Other (specify)		1.4

Figure 16: Importance of being in a group including with those outside of the FV business, %



Market information, social, financial, and group purchases were among the top three potential benefits of being in a group cited by FV businesses. Accessing market information, social, and financial services were each stated as the first major benefit by more than 20 percent of respondents (Figure 17). Between 15 percent and 20 percent of respondents also stated group purchase, market information, and financial services among the second major benefits of being in a group. Relatedly, some FV businesses who participated in FGD indicated that they collaborate with similar traders when transporting FV products to their work location. These activities are organized to cut transportation costs.

Figure 17: The top three benefits for being part of a group including with those outside of the FV business



Regarding support or services that they receive from their suppliers, purchase on credit and information about products on offer were mentioned by 54 percent and 17 percent of FV businesses, respectively. Storage and transport services were mentioned by less than 7 percent of businesses (Figure 18). In contrast, more than 93 percent of respondents stated that they do not provide any support to their suppliers (Figure 19).

Figure 18: Support/service received from supplier (%)

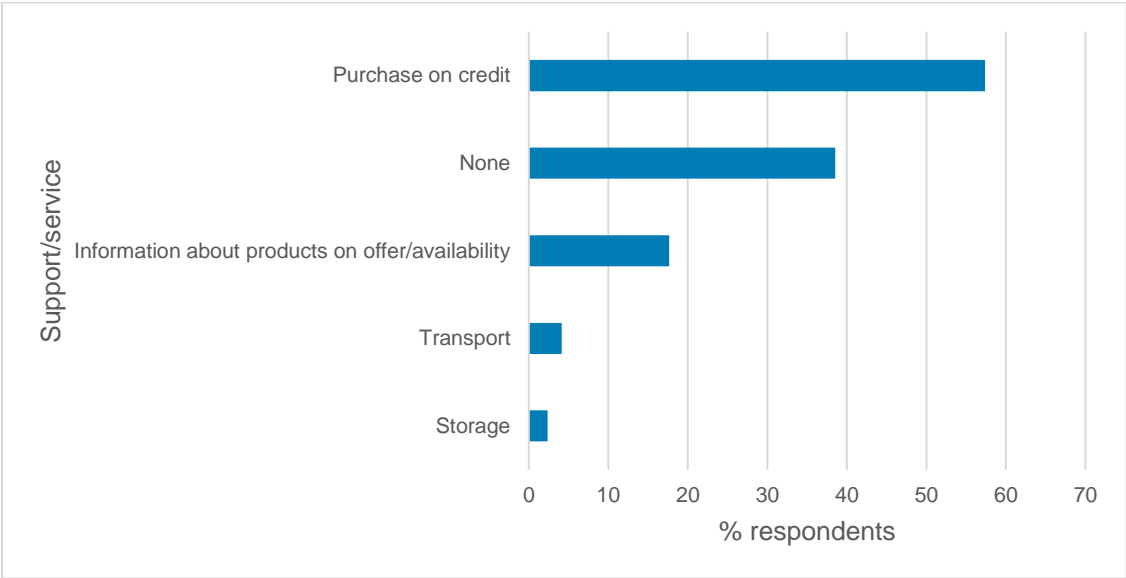
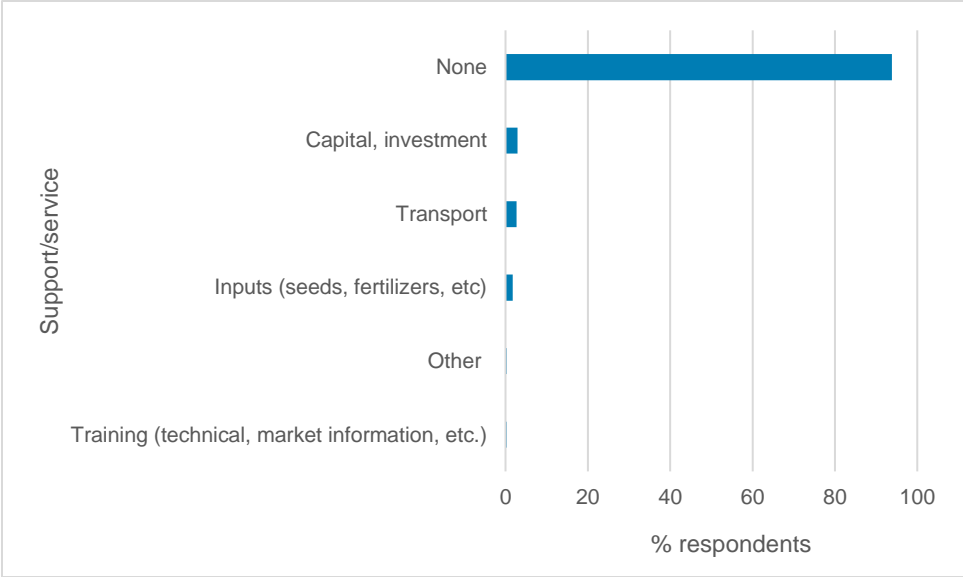


Figure 19: Support/service provided to the supplier (%)



3.7. Prioritizing barriers for increasing FV supply

FV businesses may face both internal and external barriers to expand their business and/or increase FV supply to the market. Among the top three external barriers that FV businesses were asked to list, unstable FV prices and finding a sufficient workplace were each mentioned by more than 24 percent of respondents (Figure 20). Between 5 percent and 8 percent of FV businesses cited taxes, competition from unregistered traders and lack of supportive policy as major external barriers. Unregistered traders have lower costs because they don't pay taxes or rent, since they usually operate in non-market places such as roadsides, and also because they sell low quality products at discounted prices.

Finding sufficient working space, unstable prices, and taxes were each mentioned by 21 percent of wholesalers as the first major external barrier to expanding their business (Figure 21). Thirty-seven

percent of FV vendors outside of wet markets listed finding sufficient working space as the major external barrier, while unstable prices was the major external barrier for 33 percent of FV vendors within wet markets.

Figure 20: Main three external barriers to expand the business

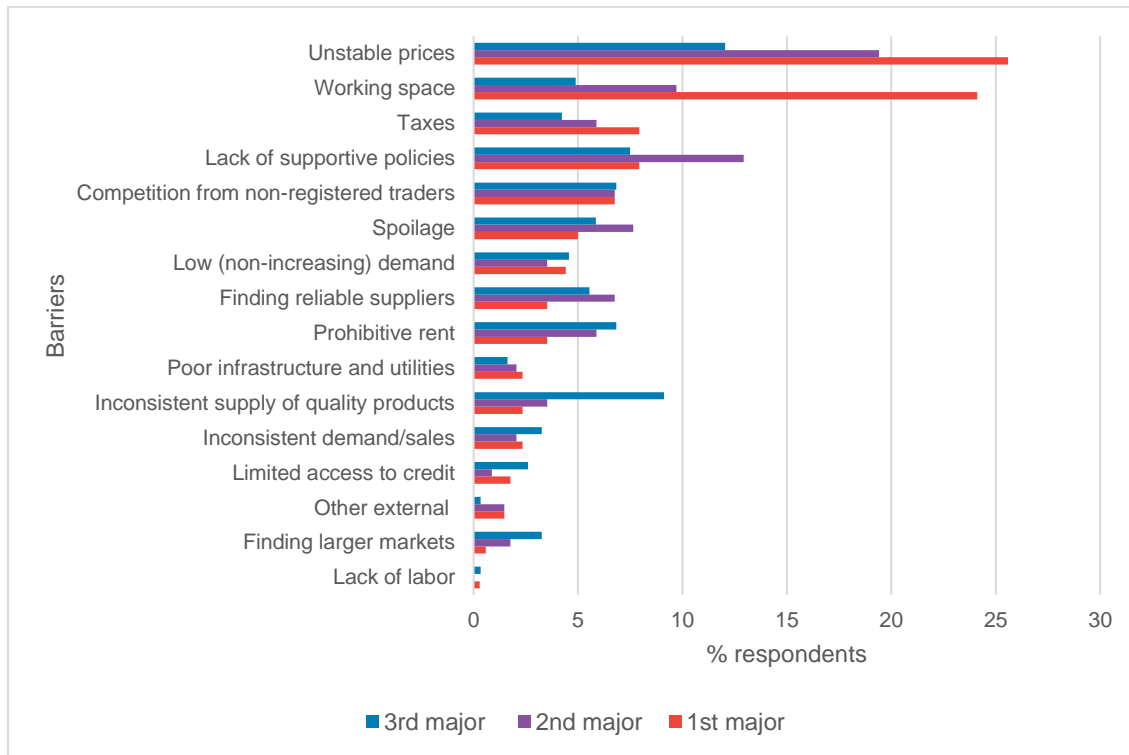
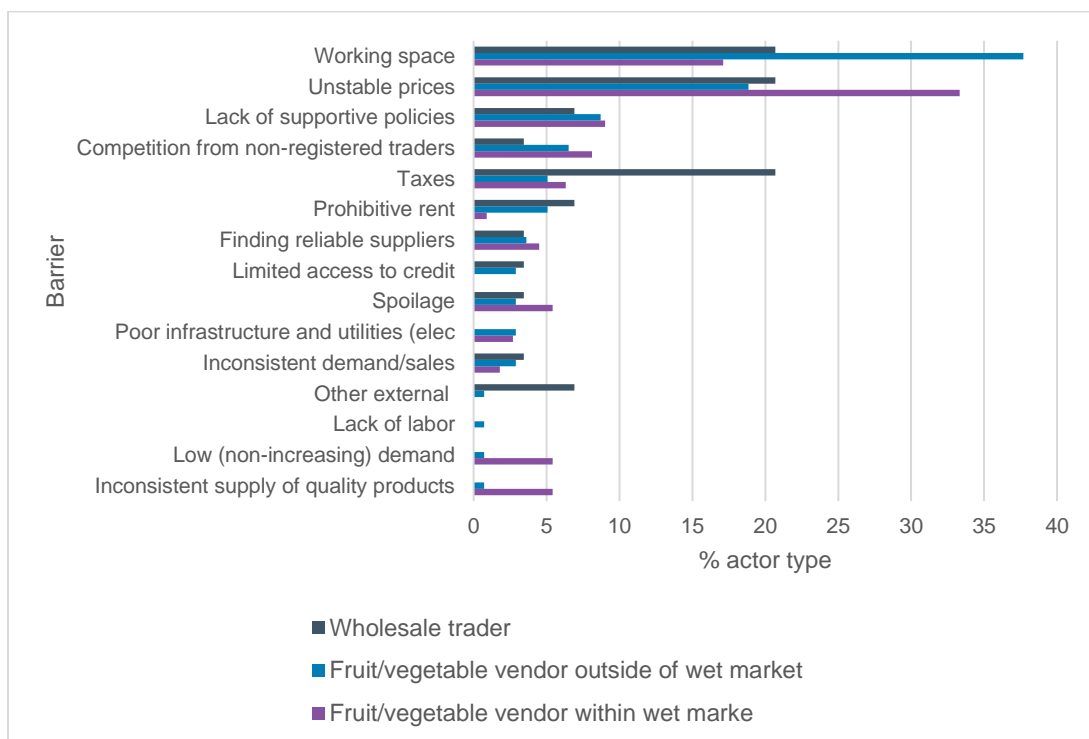


Figure 21: Major external barrier to expand the business for selected actors (%)



Similarly, among the top three internal barriers to expanding the business, lack of capital was mentioned by more than 79 percent of FV vendors as the major one (Figure 22). Other internal barriers mentioned by less than 5 percent of vendors included lack of capacity to maintain larger inventory, lack of equipment and management skills, lack of product promotion skills, and lack of knowledge about technologies. Lack of capital remained the most important internal barrier for wholesalers and for FV vendors within and outside wet markets (Figure 23).

Figure 22: Main three internal barriers to expand the business

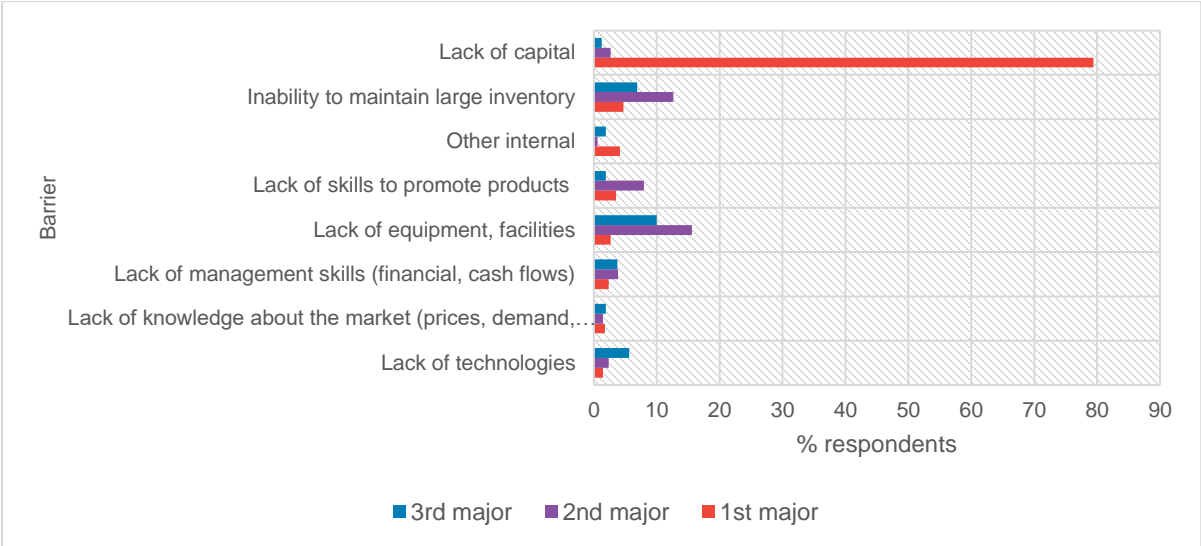
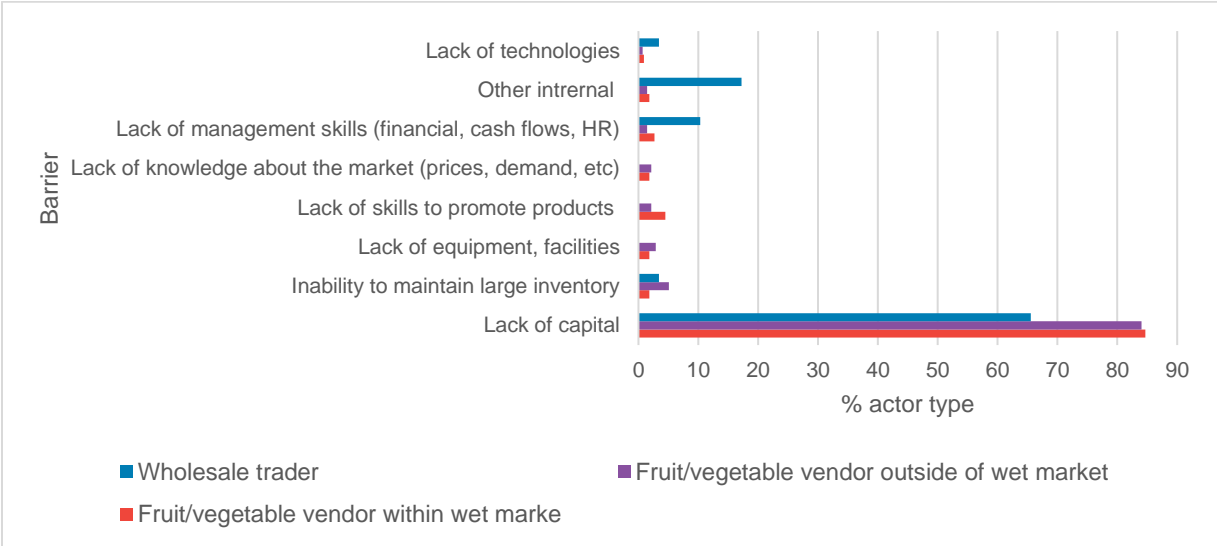


Figure 23: Major internal barrier to expand the business for selected actors (%)



Additional barriers identified by FGD participants included interference of brokers in setting product prices and transport costs, lack of improvement in product handling facility and technology, competition from unregistered traders, access to loans, and declining quality and quantity of FV products (Box 1).

Box 1. Top three barriers to expanding their FV business ranked by FGD participants

- 1st. Unregistered traders sell products for prices too low (for example, a kg of banana is sold for 60 birr by registered businesses, while unregistered traders may sell it for a price of about 40 birr). They sell in areas/streets where there are many people, and they prevent customers from coming to us.
- 2nd. Insufficient working space (shops, land and working space). We cannot put other products such as tomatoes and green pepper on the space on the side of the street.
- 3rd. Shortage of products.

(FGD participants at Akaki-Kality woreda 03)

- 1st. Brokers/high cost of loading and uploading.
- 2nd. Unregistered traders (vendors and small traders using hand cart).
- 3rd. Working Space and problems of renting shops.

(FGD participants at Akaki-Kality woreda 06)

- 1st. Brokers.
- 2nd. No improvement in product storage and handling technology leading to food loss: this is a risk that exists in the business.
- 3rd. Unregistered business owners: the monitoring and control of businesses in this line of work is very limited by government offices.

(FGD participants at Atikilit tera (Lafto wholesale market))

- 1st. Food loss and that the job is physically demanding.
- 2nd. Seasonal nature of many FV and shortage of products such as mangoes and avocados in some seasons.
- 3rd. Lack of transportation and lack of associations among businesses.

(FGD participants at Kolfe-keranyo)

- 1st. Brokers: they are the ones who influence the fluctuation of prices and bargain prices with farmers and that affects the business, and they also withhold relevant information from us.
- 2nd. The marketplace is far from the town: as a result, we incur costs related to transportation and labor and we do not often bring products at an earlier time.
- 3rd. Difficulty of getting loans.

(FGD participants at Ziway/Batu)

- 1st. Unregistered traders since they sell products for lower prices. They sell on roadsides and do not pay taxes, while we are confined to specific market places.
- 2nd. Unstable price of products. Prices change overnight. A kilo of a vegetable that I bought today for 30 birr could be sold for 35 birr or even 20 birr a day later.
- 3rd. Lack of sufficient space in the marketplace.

(FGD participants at Bote town)

3.7.1. Food loss

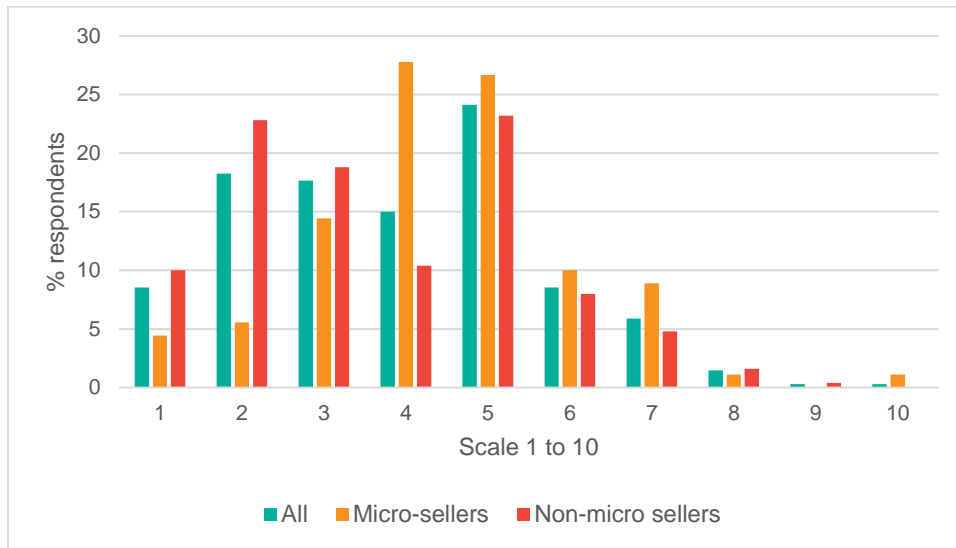
As noted above, food loss can be a major issue in FV businesses especially where value chain technologies and infrastructure are underdeveloped. In the survey, FV businesses were asked to rate the importance of food loss for their business on a scale of 1 – 10, with 10 being ‘food loss is a very serious issue’ and 1 being ‘food loss is not an issue at all.’ According to Figure 24, about 59 percent of respondents rated the importance of food loss to their business at or below ‘4’ (on a 10-point scale). The share of respondents who rated food loss at or above a ‘6’ was less than 10 percent.

According to the survey data, food loss appears to not be rated as a serious concern by the majority of FV businesses interviewed. This may reflect the, perhaps inefficiently, small scale at which vendors operate. This is because, due to capacity constraints (as noted above) and perishability of FV, retailers are likely to maintain a small inventory and replenish their stock daily or over short time intervals in smaller quantities. Hence, they are likely to miss out on scale advantages as indicated in the previous sections of this report.

Conversely, the FGD participants reported food loss as being a significant issue. Some participants estimated losing up to 40 percent of certain fruits such as avocado and banana, and up to 50 percent of the tomatoes in their stock. The causes of food loss that they identified included poor/mismanaged harvesting, lack of proper containers and poor handling during transportation besides high temperatures that exacerbates FV spoilage. Some of the key actions that retailers undertake when FV

products lose freshness and appeal is to put them on sale for lower prices or give them to poorer people. If a product is fully spoiled, they either use it as animal feed or discard it.

Figure 24: To what extent is food loss (also food waste for processors) an issue at your enterprise?



Note: On a scale of 1 – 10, with ‘10’ being ‘food loss is a very serious issue’ and ‘1’ being ‘food loss is not an issue at all.’

4. The policy environment

To gain a better understanding of the current challenges of FV businesses and identify potential entry points, it is essential to analyze the current policy environment that MSMEs in the FV sector face. This section considers the policy environment for FV businesses by examining two policy domains in Ethiopia. First, we consider food and nutrition policies to assess the degree to which MSMEs are recognized as significant contributors to the availability of safe, affordable, and nutritious food. Second, we examine the economic and MSME development policies to determine the extent to which the challenges for FV businesses are reflected in national policy objectives. In doing so, we analyze the alignment between the two domains – nutrition and economic – and whether current policy objectives of different government ministries are complementary for achieving improved nutrition outcomes and the contribution of FV MSMEs.

4.1. Food and nutrition policies

Combating malnutrition is a major policy priority area in Ethiopia, due to its impact on public health, human capital, and economic development. Over the past decade, several initiatives and strategies have been implemented in Ethiopia to combat malnutrition, emphasizing the importance of a multi-sectoral approach. Additionally, Ethiopia was one of the first countries to participate in the Scaling up Nutrition Movement (SUN), which seeks to foster collaboration among various stakeholders in the field of nutrition.

In 2015, the government of Ethiopia made a high-level commitment to end child undernutrition by 2030. The Seqota Declaration focuses on eradicating hunger, ensuring food security, improving nutrition, and promoting sustainable agriculture to foster overall development (FDRE, 2016a). The initiative aims to

break the cycle of undernutrition by bringing together relevant nutrition-specific and nutrition-sensitive sectors and interventions. The Seqota Declaration led to the establishment of two multi-stakeholder bodies, the National Nutrition Coordination Body and the National Nutrition Technical Committee, to guide policy processes on nutrition overseeing all sectors and development partners involved in nutrition activities. The initiative accelerated the implementation of the National Nutrition Plan II (NNP II). This plan proposes a clear structure to translate policy objectives on nutrition into targets and initiatives (FDRE, 2016b). The plan adopts a multi-sectoral approach and addresses multiple causes of malnutrition, including food availability issues, poverty, water, sanitation, and hygiene (WASH) practices, health issues, and gender inequality. However, most initiatives focus on either production or consumption, with only a few initiatives related to the food environment, e.g., advertisement of healthy foods and school feeding programs. Most relevant to this study includes one policy initiative on improving market linkages for fruit and vegetable producers. However, no further elaboration of this initiative is provided and, in general, the role of traders or vendors in providing safe and healthy foods is given little attention.

In addition, the National Food and Nutrition Policy (NFNP) was published to provide a legal framework and an accountability system for the food and nutrition implementing sector (FDRE, 2018). Compared with the NNP, the scope of the NFNP is wider, including the acknowledgement of socio-economic developments that could challenge food and nutrition security, such as globalization, regional market integration, income inequalities, and urbanization. The NFNP includes seven policy directions and related strategy objectives. Within the scope of this study, one of the NFNP objectives - strengthening the system for improving income, job creation, purchasing power of individuals and households and market linkage of food commodities - is relevant. While the document highlights the ambition of the government to improve market linkages, it does not provide concrete initiatives, for example, to support the functioning of FV MSMEs.

Finally, the Ethiopian Food System Vision (2021) aligns with the central goals of the UN Food Systems Summit (UNFSS) action track and contains thematic areas covering all elements, activities, and outcomes of the food system. These central goals are translated into 22, so-called, game-changing solutions. Most of the proposed solutions revolve around stimulating production, e.g., improved access to finance and inputs for producers and increased production of nutrient-dense crops. While the importance of strengthening value chains for providing safe and nutritious foods is recognized, initiatives to improve this still mostly target producers, e.g., providing market information for farmers. Since the role of food businesses is not especially addressed, measures to improve their functioning are absent, e.g., access to finance for food businesses other than farmers. However, FV businesses might benefit from the interventions that will be developed to improve market linkages, such as better market information systems to increase transparency and reduce the manipulation of prices (Hengsdijk et al., 2021).

The relevant policy documents that we reviewed reveal a limited focus on the role of MSMEs in food and nutrition security and a bias towards designing measures aimed at increasing agricultural productivity. Trubwasser et al. (2020) drew similar conclusions when reviewing the nutrition policy landscape in Ethiopia. Similarly, Owili et al. (2021) concluded that the government of Ethiopia does not make use of a full food system framing. That is, in the context of this study, the role of value chain actors - particularly that of vendors or retailers as an important link for providing affordable, healthy, and nutritious food to consumers - is not widely acknowledged.

4.2. *Economic development policies*

In 2020, a 10-year development plan, aligned with a “Homegrown Economic Reform Agenda”, was published, having included the policy goals of different ministries and institutes, as a pathway to prosperity (FDRE, Planning and Development Commission, 2021). The Homegrown Economic Reform Agenda aims to ensure financial stability and financial inclusion and promotes productivity and competitiveness of the private sector (FDRE, 2020). The 10-year development plan focuses on several development sectors, including agriculture. The agenda specifically aims to reduce poverty, to increase the inclusion of women and youth in economic development, and to improve the health status of the population. While the aim is to adopt a multi-sectoral approach, limited inter- or cross-sectoral linkages are formulated. The agenda provides an overview of the strategies within each domain rather than providing an integrated approach on development. Again, the proposed targets for the reform of the agricultural sector are highly focused on increasing production, and some targets relate to environmental impacts of the agricultural system.

The 10-year plan does not include any objectives regarding nutrition, which could link the agricultural sector to the health sector. In contrast, the Ethiopia Growth and Transformation Plan 2015-2020 (GTP II), the predecessor of the 10-year development plan, did include those objectives: promoting the production of nutritious foods and aligning the health objectives with the national nutrition strategy (FDRE, National Planning Commission, 2016). The horticultural sector is mentioned as a priority investment sector. However, the investments primarily focus on commercial farms producing for export, not on smallholders who play a vital role in provisioning FV for the domestic market (Hengsdijk et al., 2021).

The opportunities that MSMEs could bring for reducing poverty are not addressed in the 10-year development plan. In GTP II, the role of MSMEs for ensuring sustainable, equitable and inclusive economic growth was acknowledged and included the ambition to increase the number of established MSMEs and physical spaces for emerging MSMEs to operate in urban areas. In this regard, efforts proposed in the 10-year development plan are not sufficient to achieve a prosperous future for the people, and there is a major, directed effort needed from the Government of Ethiopia to support MSMEs (UNDP, 2022). Initiatives which could improve the enabling environment for MSMEs include reducing and/or eliminating legal and regulatory bottlenecks like tax administration, liberalization of the financial sector, and innovations in the area of financial instruments tailored specifically to MSMEs (UNDP, 2022).

In general, economic development policies appear to be biased towards large multinationals. In the few cases where MSMEs are specifically mentioned, they refer to policy goals to empower innovative MSMEs that could boost the national economy, e.g., small tech companies. The importance of MSMEs for local communities, e.g., for food provisioning, receives little attention in these documents. The Federal Micro and Small Enterprise Development Agency (FeMSEDA), operating under the Ministry of Trade and Industry, is responsible for formulating policies, strategies, and regulations that promote the development of MSMEs. It aims to create an environment where MSMEs can thrive by addressing regulatory barriers, promoting MSME-friendly business practices, and facilitating access to resources and support services. Despite the ambition of the government to increase MSME development as described in the GTP II and the FeMSEDA policy, the future of MSMEs appears to continue as status quo (Esubalew & Raghurama, 2017). Government efforts appear to focus more on the establishment of new MSMEs, rather than improving the enabling environment.

To conclude, the role MSMEs could play in achieving inclusive economic growth has not been widely acknowledged in the most recent policy documents on economic development. Since there is limited information with respect to the needs of MSMEs, it remains unclear to what extent FV MSMEs could benefit from the general policy objectives aimed at improving the business environment for the private sector. While addressing the opportunities and barriers for businesses in supplying affordable, safe, and healthy foods requires commitment from and collaboration across different sectors (e.g., agriculture, health, trade, finance), often these sectors operate independently with their own strategies and agendas. Moving towards a food systems approach requires increased coordination and collaboration between the different sectors to ensure policy coherence.

5. Conclusions

In Ethiopia, FV have become increasingly unaffordable, especially for those in lower income categories, even though, in general, the quantity and diversity of FV supply has increased in the past five years. This study assessed the characteristics and functioning of MSMEs active in FV value chains to get better insights into the supply chains and reflect on possible entry points for interventions that stimulate greater supply and improve affordability of FV. The data suggest that nine types of businesses participate in the supply of FV to consumers in the study sites. With the exception of micro-sellers, businesses that are involved exclusively in FV products have between 2 to 6 workers in addition to the business owner or manager. Availability of cheap labor and the expansion of mobile and digital banking services were cited as enabling factors for growth potential in FV businesses.

In the past ten years, the policy focus in Ethiopia's national nutrition programs has shifted slowly from food security, with sufficient availability of cereals as a top priority, towards adequate nutrient intakes by raising nutritional awareness and stimulating the adoption of healthy diets. According to the survey data, the rising market demand for FV is the most important opportunity that FV businesses can exploit across the study sites. However, businesses face both internal and external barriers to expand their operation and/or increase FV supply to the market. Among the major barriers for increasing FV supply are the volatility of FV prices, lack of sufficient workplaces, higher taxes, and access to loans. Interestingly, loan availability was also mentioned by some as an enabling opportunity for business expansion, suggesting that capital may be available, but FV MSMEs do not always know how to access it, or they lack collateral for a loan. Other frequently cited barriers included competition from unregistered traders, food loss, and lack of supportive policy. For example, FGD participants estimated that food loss can impact up to 40 percent of their inventory of some products. Some of these findings are consistent with a related study by Mekonnen and Berkhout (2022), which reported lack of capital or access to credit, lack of workspace, and poor infrastructure to be major bottlenecks limiting the growth of agri-food MSMEs in Ethiopia.

Besides the barriers mentioned above, FGD participants identified the adverse role of brokers in setting product prices and transport costs, the lack of improvement in product handling during harvest and transportation (which was associated with food loss), and declining product quality and quantity, among the key constraints in the supply of FV. Further, FGD participants noted some supply side (production side) barriers that have affected FV supply in recent years, including rising input prices of fuel for irrigation, fertilizers, and pesticides, and a recent emphasis on growing grains such as wheat, which limited FV production and supply. The experienced governmental push in growing grains conflicts with the policy objective of promoting the production of nutritious products, such as FV. This indicates a discrepancy between paper and practice in policy implementation. Effective implementation of policies

stimulating production diversity and increased production of nutrient-dense foods can support the growth of FV MSMEs and FV consumption by minimizing the effect of seasonality on FV supply and prices.

Groups and networks with similar businesses can serve as a useful platform to exchange information and to organize capital and other support systems that may help improve business efficiency and growth. However, the data suggested that only 15 percent of businesses were involved in joint activities with other similar businesses that operate at the same location, even though the majority (79 percent) of all businesses interviewed for this study thought that being part of a certain group would be important for their businesses. In fact, the experiences of FV businesses who belong to some form of group or association imply that some of the business barriers could be addressed through such groups. For example, some FGD participants indicated that they reduce operational costs by hiring transport services jointly. Others mentioned that they participate in *iqqub* (informal savings groups) and *iddir* (funeral associations), which are common in many places in Ethiopia and act as self-help groups that provide financial or in-kind support to members in need and serve as information sharing platforms. The major limitation for being involved in joint activities was the absence of inter-firm networks, especially for FV vendors outside of wet markets. The national government could promote the establishment of these networks to improve business efficiency of FV MSMEs.

Our review of relevant policy documents found that the role of FV businesses in the provision of safe, affordable, and nutritious foods has not been widely acknowledged, even though, in general, some of the stated policy goals of improved market linkages and increased access to market information might benefit the functioning of FV MSMEs. However, since this ambition has not yet been translated into concrete initiatives, it is hard to predict which of the identified barriers of FV MSMEs could be addressed by these policy objectives. Existing economic policies aimed at providing a favorable business climate are not sufficiently tailored to the needs of MSMEs. Policy objectives on horticulture mainly focus on the export market or commercialization of the value chain. On paper, sixteen governmental bodies are involved in the implementation of the NNP II, including the ministries of Trade and Regional Integration, Industry, and Finance. However, only the ministries of Health, Agriculture, and Education have formulated nutrition objectives in their sector-specific policies. Increased commitment from the Ministry of Trade and Regional Integration, responsible for supporting MSMEs, might stimulate the formulation of concrete initiatives to enable a favorable business environment for FV MSMEs.

Last, improving capital availability along with informational interventions could help MSMEs become more aware of opportunities and use them. In addition, supporting self-help groups and their formation can have multiple benefits for MSMEs, including raising capital and dealing with other infrastructure and business-related constraints which could be too big to overcome by individual businesses. In this regard, the entrepreneurship and capacity development trainings, financial and technical support services being implemented by the government and development partners including private and non-governmental organizations (for example, services by the Entrepreneurship Development Institute - Ethiopia), need to be strengthened to harness the full potential of MSMEs, in general, and FV businesses, in particular, for inclusive growth and the achievement of the SDGs.

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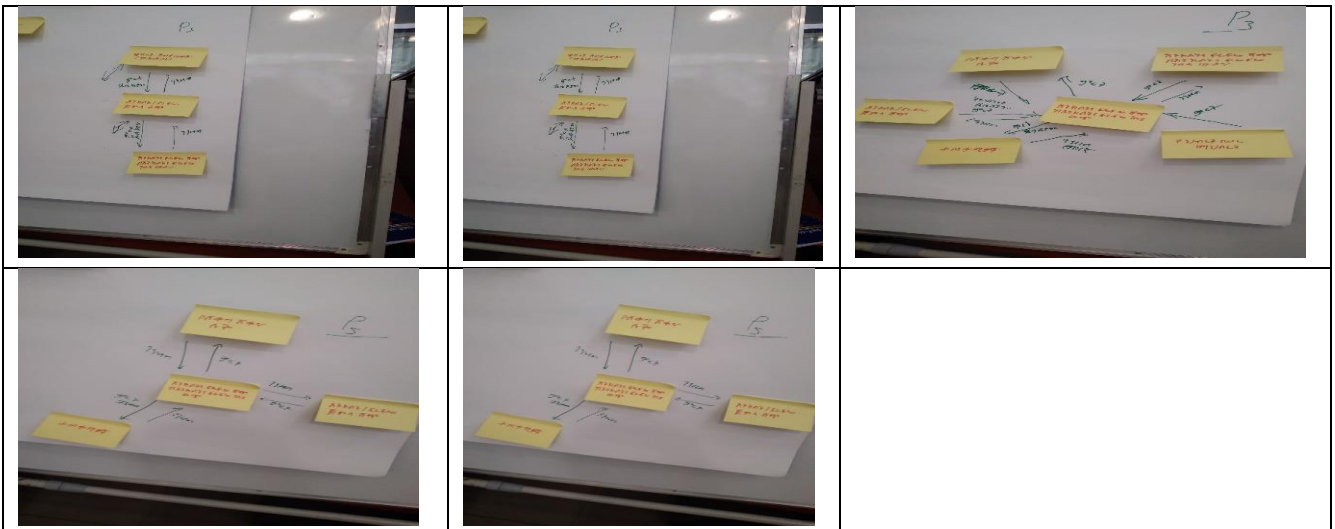
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Appendix

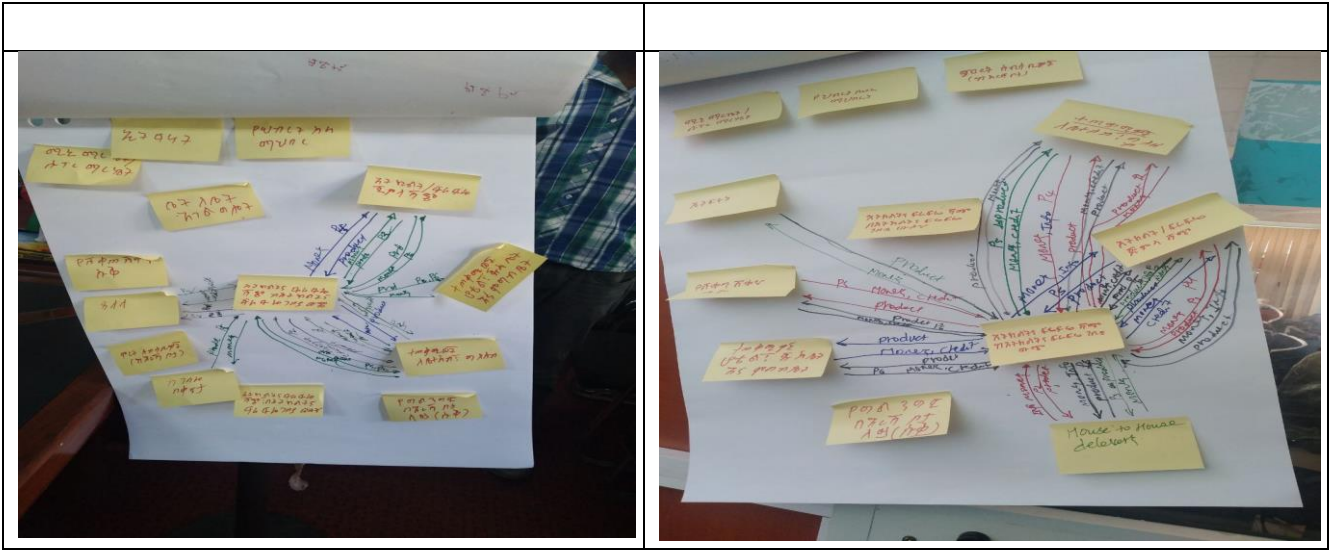
Table A-1: Characteristics of participants in the FGDs

Place of FGD	Resp. id	Sex	Age	Type of business	Products and services	Years in business	No. of employees
Kolfe Keraniyo Sub-city, Woreda 6	P1	F	29	Straight vendor	V	1	0
	P2	F	29	Retailing outside of wet markets	FV	4	2
	P3	M	35	Retailing outside of wet markets	FV	6	1
	P4	M	53	Retailing outside of wet markets	FV	12	1
	P5	M	35	Wholesale and retailing outside of wet markets	FV	12	2
	P6	F	24	Retailing outside of wet markets	V	2	1
Akaki Kality Sub-city, Woreda 3(Akakai)	P1	F	60	Retailing for end consumers	V	7	0
	P2	F	37	Retailing for end consumers	V	8	0
	P3	M	38	Retailer and juice shop outside market	FV	1	2
	P4	M	32	Retailer and juice shop outside market	FV	8	5
	P5	F	23	Retailing outside of wet markets	FV	4	2
	P6	F	35	Wholesaler outside of wet markets	V	5	6
Lafto Atikilt tera (Haile Garment)	P1	M	38	Wholesaler at wholesale market	FV	7	6
	P2	M	42	Wholesaler at wholesale market	FV	20	6
	P3	M	28	Wholesaler at wholesale market	FV	8	3
	P4	M	27	Wholesaler at wholesale market	FV	5	4
	P5	M	44	Wholesaler at wholesale market	FV	25	3
	P6	F	29	Wholesaler at wholesale market	FV	7	3
	P7	M	32	Wholesaler at wholesale market	FV	12	6
Batu/Ziway	P1	M	50	Farmers (from own enterprise)	FV	12	3
	P2	F	25	Retailing outside of wet markets	V	1	1
	P3	F	45	Retailer at her home	FV	10	7
	P4	F	40	Wholesale outside of wet markets	FV	1	6
	P5	M	53	Wholesale outside of wet markets	V	15	10
	P6	M	33	ET fruit shop	F	10	6
Bote City	P1	F	28	Retailing outside of wet markets	V	7	0
	P2	F	41	Wholesale inside of wet markets	V	13	6
	P3	M	43	Wholesale inside of wet markets	V	15	5
	P4	M	67	Retailing inside of wet markets	V	37	6-7
	P5	F	50	Wholesale inside of wet markets	V	Family business	6
	P6	M	36	Retailing inside of wet markets	V	12	2

Figure A-1: Images of fruits and vegetables product flows across different sites



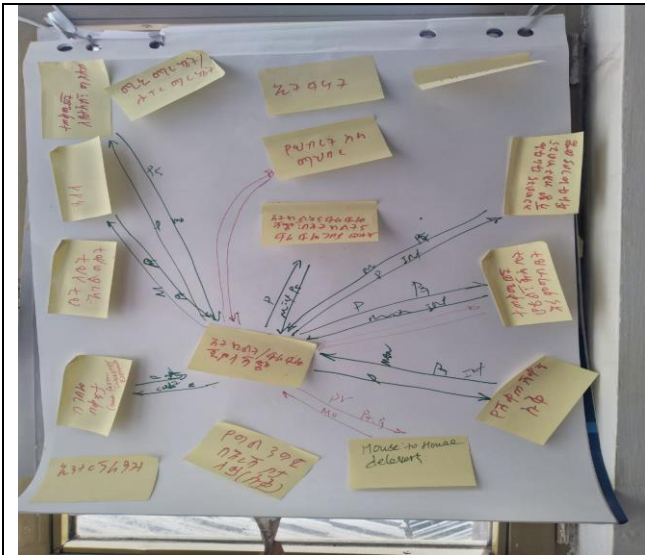
1. Akaki Kality worda 06 VC diagram



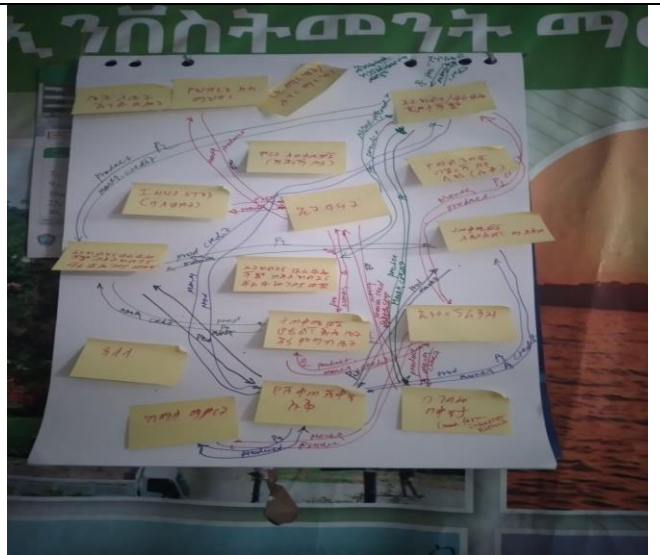
2. Akaki Kality Woreda 03 VC diagram

3. Kolfe Keranyo Woreda 06 VC diagram

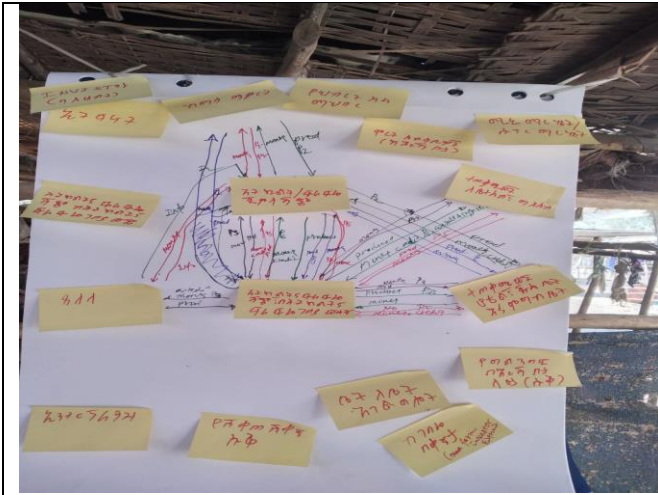
Figure A-1 (cont'd)



4. Lafto Atikilit tera (Haile Garment) VC diagram



5. Ziway/Batu VC diagram



Bote town VC diagram

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