# State management of the Supply Chain of Safe Vegetables for Consumption in Hanoi city, Vietnam

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**ABSTRACT:** Vegetables are not only dishes that make meals more delicious, but they also play a particularly important role in providing nutrients for the human body, in the process of producing and consuming agricultural products. With a population of 8.3 million people in 2021, Hanoi is one of the localities that consume the most vegetables in the country, with 2,000-3,000 tons/day. The demand for vegetables of Hanoi people has increased in both quantity and quality, but in reality, there are many shortcomings to access safe products. From the perspective of state management, the actors participating in the supply chain of safe vegetables to Hanoi market still have many shortcomings such as: the use of raw materials as well as the application of the production process is not guaranteed. strictly comply with regulations and standards for production, preliminary processing and packaging; for the safe vegetable business units, they have not properly complied with the requirements on food safety; documents and policies of the management authorities have not been implemented synchronously, have not attracted the enthusiastic participation of actors in the safe vegetable supply chain; The supervision, inspection and handling of violations in the production and trading of safe vegetables have not strongly promoted the linkage and responsibility in the production and trading of safe vegetables of the actors participating in the supply chain. Application of safe vegetables for consumption in Hanoi. The article explains the theoretical and practical basis of the safe vegetable supply chain for consumption in Hanoi from the perspective of state management, towards a fair, transparent and highly efficient safe vegetable

**KEYWORDS:** Supply chain; State management; Safe vegetables; Consume; Hanoi.

#### I. INTRODUCE

Production and consumption of safe vegetable products have been interested in developing by countries in recent decades. Safe vegetable products not only meet the demand of absolutely safe food for consumers but also protect the sustainable living environment for people. Therefore, in some countries, production and sales of safe vegetable products have been growing strongly. Recognizing the benefits of producing safe vegetable products, in recent years, Vietnam has also been interested in promoting the development of safe vegetable production. However, the scale of production and consumption of safe vegetable products in our country is still very small and develops at a very slow rate. This requires research to find out the causes and solutions to promote the production and consumption of safe vegetable products.

Currently, Hanoi capital with 8.3 million people (about 3 million people in the inner city) is in the process of strong urbanization, which is a large food consumption market with high growth rate. With a relatively high per capita income (about VND 136 million in 2021), the demand for safe vegetable products in the inner city is increasing. The majority of urban residents want to consume safe vegetable products even at higher prices.

However, in reality, the number of safe vegetable products consumed in the market is still very limited. The key problem is that consumers do not trust the origin and quality of agricultural products labeled as safe. With the agricultural product supply system in the style of free market relations, with countless small retail points, the current lack of control on food safety and hygiene will not create consumer confidence in the products. safe vegetables sold in the market. Therefore, the key factor determining the development of safe vegetable production is to build and develop a well-organized and well-



managed safe vegetable supply chain from a management perspective. Government, creating a fair and transparent legal corridor for actors participating in the supply chain of safe vegetables for consumption in the capital area and ensuring the commitment to the quality of final products to Hanoi consumers.

#### THEORETICAL BASIS II.

Safe vegetables: Circular 59/2012/TT-BNNPTNT in 2012 clearly states and gives an overview of the concept of safe vegetables. Safe vegetables are fresh vegetable products that are produced, preliminarily processed and processed in accordance with national technical regulations on conditions to ensure food safety or in accordance with the technical process of safe vegetable production and preliminary processing. approved by the competent authority or in accordance with the regulations related to ensuring food safety in the process of good agricultural production practices for safe fresh vegetables VietGAP, other GAP standards and typical samples meeting food safety standards as prescribed.

Safe vegetable supply chain: is the link between actors performing activities from the supplier of inputs to the producer and the distributor of the vegetable product to the final consumer in a development-oriented manner. development of the State towards RAT from time to time.

State management of the supply chain of safe vegetables in the province: is the overall system of policies, methods, and tools used by the State to orient, regulate, govern and control actors in the supply chain of safe vegetables to ensure vegetable products reach consumers to ensure food safety, environmental protection and sustainable development of the agricultural economy in the province.

Management goals:

To develop agriculture in the direction of modernity, sustainability, large commodity production, application of science, technology and innovation to increase productivity, quality, efficiency and competitiveness. Improve and increasingly enhance the lives of farmers. Building modern civilized countryside.

Managing the supply chain of safe vegetables for consumption in the province towards the maximum benefits of consumers: safety, convenience and efficiency; ensure the harmonization of benefits with the actors in the supply chain of safe vegetables and sustainable development of the local socio-economy and of the whole society.

- Management subject:

Depending on the political regime of each country, the national legislative body may be the National Assembly or the Parliament to promulgate Laws and legal documents on agricultural products (vegetables), supply chains (Supply Chain). - SC), chain supply management (Supply Chain Management - SCM).

The Government and the Prime Minister promulgate Decrees, Decisions, Directives and legal documents regulating the management of the supply chain of safe vegetables for consumption nationwide, or provinces/states.

Ministries and ministerial-level agencies directly manage actors participating in the safe vegetable supply chain in the province/state of that country.

This apparatus implements and issues documents to orient, create motivation and create a favorable environment for participants in the safe vegetable supply chain to successfully carry out production and consumption activities of safe vegetable products. make. Specifically, Government directs: the Ministry of Agriculture Management (MARD) to issue documents on the management of safe vegetable supply chains nationwide; Provincial People's Committees issue legal documents on the management of agricultural products, safe vegetables, and safe vegetable supply chains in the province/state.

- Management object:

Objects of management include actors participating in supply chains such as: farmer households, cooperative groups, cooperatives, enterprises. These actors participate in one or several stages of the safe vegetable supply chain, including: supplying input materials, producing safe vegetables, preliminarily processing and distributing safe vegetables to consumers.

- Managing method:

The subject of state management affects the objects of management through many methods such as economic, administrative, educational, and persuasion. State management agencies implement a flexible combination of these methods in the process of managing the supply chain of safe vegetables according to certain orientations and goals.

- Management tools

Legal tools: Constitution, Enterprise Law, Food Safety Law 2010, Ordinance on Plant Protection and Quarantine; Resolutions, Decisions, Decrees and Circulars of the Government on the development of organic agriculture and safe agricultural products.

Planning tools: Guidelines, guidelines, strategies, master plans, plans and programs for socio-economic development on orientations for

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the development of areas producing clean agricultural products, organic products, and organic products. Safe products, including safe vegetables. Policy tools: Socio-economic development policies, national food safety policies, policies to promote the development of high-tech agricultural products, agricultural production policies, industry development policies organic agriculture, policy on development of safe food supply chain, policy on development of RAT supply chain, policy on management of supply chain of safe vegetables.

National asset tool: Office; State budget; natural resources; finance; Jewelry; infrastructure; information system; State-owned enterprises ... are used by the State in the management of the supply chain of safe vegetables.

State management entities according to their competence (as prescribed by law) will choose to use the above tools to influence the relationships between actors participating in the safe vegetable supply chain from the point of Supplying inputs to the production, preliminary processing and distribution of safe vegetable products to the end consumers in order to bring about the sustainable development of the vegetable industry and provide the market with safe vegetable products. quality assurance. According to this logic, the state management of the safe vegetable supply chain is that the State sets the development orientation; promulgate a legal framework for the operation of the chain in the direction of raising and handling arising problems to ensure the normal operation of the supply chain in the market mechanism to create safe vegetable products. ensure quality requirements to end consumers in domestic and foreign markets.

#### III. RESEARCH METHODS

#### - Collecting secondary data

Theory and practice are summarized in domestic and foreign scientific works related to the theories and practices of safe vegetable supply chain management; state-oriented constructivist has been announced at agencies such as: Ministry of Science and Technology, Ministry of Planning and Investment, Ministry of Agriculture & Rural Development; Ministry of Industry and Trade; Ministry of Finance (General Statistics Office of Vietnam, General Department of Taxation). Vietnam National Library, School Libraries: Vietnam Academy of Agriculture, Thai Nguyen University of Agriculture and Forestry, Northern College of Agriculture and Rural Development ...and the media and communication. Published statistics, aggregated reports from organizations and management agencies related to the content of

supply chain management of safe vegetables for consumption in Hanoi.

#### - Collect primary data

Conducted through the construction of questionnaires, direct interviews with managers of relevant departments; chain actors and consumers.

#### - Method of selecting survey points

The demand for safe vegetables in Hanoi is very high, so there are many sources of vegetables in the capital. Within the scope of the thesis, based on the geographical location on the map, the natural and socio-economic characteristics of the localities and the policy of Hanoi city, the author chooses representatives of the supply chains. safe vegetables according to the number of actors involved: (1) The supply chain of safe vegetables is performed by one agent in all stages from production to the final consumer; (2) The supply chain of safe vegetables is carried out by two actors in all stages from production to the final consumer; (3) The supply chain of safe vegetables is carried out by three actors in all stages from production to the final consumer; (4) The RAT supply chain is carried out by four or more actors from production to the final consumer.

#### - Data processing methods

For documents and secondary data: Secondary documents are arranged for each requirement of research content and grouped according to each part of the thesis, including: Theoretical documents; literature overview of general practice; collected material of the studied point.

For primary data: The construction of a system of tables, graphs, indicator systems, and data calculation is performed on the Excel software program as the basis for conclusions to serve the research objectives of the topic.

#### - Methods of data analysis

Descriptive statistical method: Used to describe the current status and trends of changes in the supply chain management of safe vegetables for consumption in Hanoi, through collected data such as absolute numbers, relative numbers, average number over 5 years (2017 - 2021).

Comparative statistical method: Used to analyze, evaluate and compare the survey results between times and periods on the current status of the safe vegetable supply chain management.

Methods of analysis and synthesis: The numbers fluctuate over the years, thereby making judgments and conclusions related to the current situation of safe vegetable supply chain management in the locality.

SWOT analysis method: It is used to clarify strengths, weaknesses, opportunities and threats to

choose an orientation to improve the supply chain management of safe vegetables for consumption in Hanoi.

#### IV. RESEARCH RESULTS

#### 4.1. These achievements

- Mechanisms and policies to promote the development of safe vegetable supply chains

Hanoi is one of the leading cities in implementing the Resolution of the 10th Party Congress and the Action Program on agricultural development for the period 2018-2020 "Expanding the area of food crops, investing in build a number of safe vegetable areas, improve food quality and value, create stable jobs and earn high incomes for workers in the agricultural sector. Hanoi has carried out the construction of production planning areas in all districts with an average annual increase of 11.06%.

Thus, with the initial legal basis and supporting policies to create conditions for the development of safe vegetable production such as: planning safe vegetable production areas, stipulating quality standards, regulating standards, etc. Safe vegetable shops, with agricultural extension policies and capital support policies to create conditions for people to develop production, have encouraged farmers to join cooperatives and produce vegetables that meet safety standards. the whole VietGAP more and more.

- Information and propaganda about safe vegetable production and consumption

Propaganda and transfer of scientific and technical advances to farmers have been strongly implemented, contributing to raising farmers' awareness and production level in the process of producing safe vegetables. At the same time, consumers understand the benefits of using safe vegetables, which has contributed to increasing consumer confidence in safe vegetable production and business establishments in urban areas.

- Coordination of production and collection of safe vegetables between farmers and cooperatives

Farmers participating in the cooperative and committing to produce safe vegetables according to the technical process of VietGAP safe vegetables is the first factor that determines the quality of safe vegetables. At the same time, the commitment to provide a sufficient quantity of safe vegetables on time as agreed with the cooperative helps the supply chain to run smoothly.

- Cooperation between cooperatives and supermarkets and convenience stores

Understanding the importance of cooperation has helped actors be more responsible

for the parts they are in charge of in the safe vegetable supply chain. The longer the time factor in cooperation between actors, the higher the trust is appreciated.

#### 4.2. Limitations

- Inspection and control of the stages of production, preliminary processing and trading of safe vegetables, inspection of agricultural materials (varieties, fertilizers, pesticides) and food safety by the government district and commune levels are limited.
- Access to credit policies of safe vegetable production facilities for safe vegetable production households as well as safe vegetable production cooperatives is currently still difficult in the stage of building net houses, safe vegetable preliminaries should partly affect the supply of safe vegetables for companies and supermarkets.
- The safe vegetable market is still very small compared to the total vegetable market in Hanoi, the supply is not enough for the demand, but in reality, the distribution system has not met the output for production. The percentage of products that can be sold for safe vegetables is still low, which has not encouraged farmers to invest in the development of safe vegetable production.
- The benefits between the actors involved in the supply chain of safe vegetables have not been made public, all links between the new actors stop at the contract of purchase and sale of goods, agreed to buy and sell.
- Producers and cooperatives have not been deeply involved in the inspection and supervision of safe vegetable quality after handing over to supermarkets/stores.
- Among these actors, the operation regulation of the chain has not yet been established, but only at binding through the contract of each signing agent.

#### **4.3.** The cause of the limitations

a, The strategy and plan to develop the safe vegetable supply chain is not clear

Up to now, the priority areas for agricultural and rural development of the Hanoi Party Committee have not been identified (Plan No. 137/KH-UBND, dated July 3, 2020, on the implementation, maintenance and expansion of the Hanoi Party Committee). develop production and consumption of safe vegetables in Hanoi city in the period of 2021-2025), develop safe agricultural products; supporting and attracting businesses to invest in fruit and vegetable products is considered the top task and solution. However, in these policy documents, it has not been determined which areas are the priority areas to attract investment, so the

strategies to attract businesses to invest in safe vegetables are still general and lack strategies. strategies to attract businesses to invest in safe vegetable products in each specific field. Spontaneous and fragmented situation in production development is still common in some localities, there is still a lack of a clear development orientation to improve investment attraction.

b, The legal framework to encourage the development of the market for vegetable consumption in Hanoi (from land, credit...) lacks specific guidelines, or the guidelines are issued very slowly: For example, 104 /2009/QD-UBND, dated September 24, 2009 on "Regulations on the management of production and trading of safe vegetables in Hanoi city", with 2 main contents: regulations on conditions in the chain safe vegetable supply: safe vegetable production, preliminary processing, safe vegetable processing, safe vegetable trading . By 2016, there was Decision No. 5391/QD-BNN &TT, December 26, 2016 on "Approval of the planning of safe vegetable production areas to supply to the city. Hanoi and TP. Ho Chi Minh City to 2025, orientation to 2030" by the Ministry of Agriculture and Rural Development.

c, The coordination of actors in the supply chain of safe vegetables for consumption in Hanoi is still loose

The linkage and integration between members in the supply chain helps create synergies that bring efficiency and ensure profits for the chain. Currently, in the supply chain of the safe vegetable industry in Hanoi, there are a very large number of intermediaries, who dominate and dominate the profits in the chain. Due to the lack of connection between farmers and partners, farmers are separated from the market and heavily dependent on traders. Farmers' interests are not guaranteed.

d, The supply chain infrastructure of safe vegetables for consumption in Hanoi has not met the demand

Adequate and adequate supply chain infrastructure for vegetables and fruits is a prerequisite for farmers and businesses to succeed thanks to their ability to deliver goods on time and to market requirements. In Hanoi, limited infrastructure in the supply chain of agricultural products is a major obstacle to large food losses. Lack of cold supply chain, this is a big obstacle in the safe vegetable industry in Hanoi city. Shortage of cold logistics service providers, cold supply facilities and equipment, lack of technical infrastructure and cold chain network leading to an imbalance between supply capacity and cold chain service demand.

This shortfall causes great difficulty for farmers and participating businesses. Conditions for transporting safe vegetables are lacking and weak, so it is impossible to deliver goods to customers on time, at the right time and with quality assurance. Therefore, transportation is even more important for fruits and vegetables because this is a product with a short shelf life, perishable, requiring temperature control.

e, The application of science, technology and information technology in the operation of the supply chain of safe vegetables for consumption in Hanoi is still low.

There are quite a few technological and technical difficulties. Farmers and businesses do not apply appropriate technological and technical methods to reduce post-harvest losses and reduce processing time.

Farmers in Hanoi City are very limited in applying new technology to create productivity. They also have little knowledge about post-harvest handling of fruits and vegetables and seed quality management. This makes the fruit and vegetable supply chains inefficient.

Farmers in Hanoi lack information on market prices, demand, and food processing facilities.

The lack of information leads to incorrect price perception leading to a large amount of food loss, late delivery time. Without the right and proper information it is not possible to run successful supply chains.

# 4.4. Some solutions to improve state management of safe vegetable supply chains in Hanoi by 2030

a. Solutions to improve the quality of planning and enhance the efficiency of state management for the supply chain of safe vegetables for consumption in Hanoi

The development plannings and plans of the Capital over the past time such as the master plan for socio-economic development, the planning of agricultural development in Hanoi until 2025, with a vision to 2025 have contained the criteria. the basis of high-tech agricultural development, towards high and sustainable value. However, these contents are basically just pilot models in specific areas, but have not been built on a large scale. Hanoi has planned 9 hi-tech agricultural zones, but in practice, they have never been put into operation, thus limiting the attraction of investment in safe agricultural products. In order to promote agricultural development, the capital city should be oriented towards high-tech agriculture, it is necessary to do a good job of reviewing the old summarizing and evaluating plans,



implementation of pilot models such as: Highquality vegetable growing areas to export, grow safe vegetables, clean vegetables ... to continue to adjust and detail, specifically in the city's agricultural development planning, this needs to be completed soon in 2022, 2023 as a basis. basis to promote the development of the safe vegetable supply chain in the capital area.

b. Completing policies to facilitate the development of the supply chain of safe vegetables for consumption in Hanoi

In order to promote the development of green agriculture, clean agriculture, sustainable agricultural development in accordance with the goals determined by the Party and State, the role of creating corridors, legal environment, and policies of the State water, of the city is very important. The requirement of the policy is to be promulgated with appropriate, synchronous and feasible content. The requirement is that if the law is in effect, the law enforcement documents must also be in force at the same time. The State always tries to minimize the number of guiding documents but still ensure the full content of the detailed provisions of the law. According to the assessment, the Ministry of Agriculture and Rural Development is one of the leading units in reducing the number of legal guidance documents to ensure convenience and ease for organizations and individuals when searching and applying documents.

c. Solutions to organize and develop the supply chain of safe vegetables for consumption in Hanoi Focus on timely and effective implementation of mechanisms and policies to encourage the development of agricultural production that the central government has promulgated in decisions such as: Decision No. 5391/QD-BNN&PTNT dated December 26, 2016 of the Government. The Ministry of Agriculture and Rural Development on approving the planning of safe vegetable production areas; Decree No. 83/2018/ND-CP dated May 24, 2018 of the Government on agricultural extension; Circular No. 16/2019/TT-BNN&PTNT guiding Decree 109/2018/ND-CP on practices good agricultural (VietGap).... Resolutions of the Hanoi People's Council. Focus on replicating safe vegetable growing models with effective mechanisms and policies to form largescale and high-tech vegetable production areas.

d. Solutions for inspection, supervision, quality control and violation handling

Because the State management agencies do not have enough people and facilities to conduct inspection and supervision on a large scale, at all times of the day, it is necessary to implement a policy of socializing the inspection and supervision

of the process, produce, process, transport and trade safe vegetables with the following solutions:

- Build groups of safe vegetable farmers to selfmanage and self-monitor each other. This form mobilizes the whole community of growing safe vegetables to supervise, promptly detect and prevent cases of intentional violations, to ensure the reputation of safe vegetable quality of households and contracts . cooperative.
- Support (in terms of staff training), encourage the establishment of independent organizations to monitor and issue certificates of production and preliminary processing of safe vegetables according to GAP standards. This organization is exempt from corporate income tax for a period of 5 years from its establishment.
- Encourage cooperatives and enterprises producing safe vegetables to self-assess and monitor internally. This form both reduces the cost of hiring a monitoring and evaluation organization, and is effective for the cooperative's employees and businesses to understand, and together strive to preserve the cooperative's reputation and brand., my company.

#### V. **CONCLUSIONS AND** RECOMMENDATIONS

Safe vegetable products in recent years have supplied large quantities of goods to the people of the capital. With millions of tons of goods supplied each year, fruit and vegetable chains have well performed their mission in many different ways, models and scales. From traditional to modern chains, there have been positive changes in order to better satisfy the needs of the market. However, up to now, there are still nearly 90% of fruit and vegetable consumers on traditional channels with the model being wholesale markets, people's markets or street vendors with many concerns about quality, hygiene and safety. food safety, prices, beliefs,... This requires a change in orientation, implementation and reorganization of chains to suit living conditions and new requirements on quality standards, quantity. Special attention is paid to state management solutions on planning, building mechanisms and policies, attracting and investing in science and technology; training to improve the capacity of staff working in the field of agriculture; solutions on policy implementation, monitoring and overcoming market failures in order to develop agriculture in the capital in a safe and sustainable way, towards providing safe vegetable products of the best quality for the local population. the increasing demands of the people of the capital.

The author has tried to research fully and comprehensively in theory and practice on the contents related to supply chain management of safe vegetables for consumption in Hanoi, but there are still some limitations such as: new focus on the state element to create a legal corridor for actors in the chain to operate equally, compete fairly and effectively; There is still a lack of content related to supply chain management and the linkage between actors in the safe vegetable supply chain to achieve efficient production, preliminary processing, processing and consumption of safe vegetables in Hanoi.

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