**INTERNATIONAL JOURNAL OF SOCIAL SCIENCE HUMANITY & MANAGEMENT RESEARCH**

ISSN (print) 2833-2172, ISSN (online) 2833-2180

Volume 04 Issue 06 June 2025

DOI: 10.58806/ijsshmr.2025v4i6n26, Impact Factor: 6.79

Page No. 1292-1298

# Strengthening Value Chain Linkages in the Ocop Products: A Case Study of Thanh Hoa Province, Vietnam

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**ABSTRACT:** This paper examines the current state of value chain collaboration among entities participating in the "One Commune, One Product" (OCOP) program in Thanh Hoa province. Utilizing secondary data from 2019 to 2025 and a survey of 252 OCOP entities, the study reveals significant improvements in both the quantity and quality of OCOP products, contributing to employment generation and income enhancement in rural communities. Although economic linkages have been institutionalized through contractual arrangements, several structural limitations remain. These include limited awareness of value chain dynamics among stakeholders, weak and unstable input–output coordination, the marginal involvement of enterprises and intermediary organizations, the absence of effective coordination mechanisms, and uneven development across product categories. The paper proposes strategic solutions to enhance the effectiveness of value chain partnerships, thereby promoting the sustainable development of the OCOP program in Thanh Hoa and, more broadly, across Vietnam.

**KEYWORDS:** Value Chain, OCOP Products, Linkages, Collaboration

## INTRODUCTION

The "One Commune, One Product" (OCOP) program has been implemented in Vietnam to leverage the unique advantages of locally distinctive products, thereby enhancing household incomes and promoting sustainable rural economic development. In the context of intensifying competition, improving the effectiveness of value chains for OCOP products has become an urgent requirement, particularly for small-scale business entities. The success of value chains depends not only on product quality but also on the degree of cooperation and linkage among actors within the chain, including farming households, cooperatives, enterprises, government agencies, and development support organizations.

Thanh Hoa, located in the North Central region, ranks third in population size and fifth in land area among Vietnam's provinces. By the end of 2024, the province had recognized 627 OCOP products, reflecting the strong development of the program in recent years. Various forms of collaboration among OCOP stakeholders have emerged locally, ranging from traditional production-consumption linkages to new-style cooperatives. However, the actual effectiveness of these collaborative models remains insufficiently assessed, particularly in terms of economic scale, the strength of value chain linkages, and community impact.

In response to these realities, this study aims to evaluate the effectiveness of collaborative models within the OCOP product value chains in Thanh Hoa province. Based on a survey of 252 representative OCOP entities, the paper assesses the current state of collaboration and proposes recommendations for enhancing the quality of value chain linkages. The findings contribute practical insights into increasing value-added and promoting the sustainability of OCOP products at the local level.

## 1. LITERATURE REVIEW

The value chain is a concept introduced by Michael Porter (1985) to describe the full range of activities—from inputs to outputs—that generate added value for products or services within an organization or industry. In the context of rural development and local economies, the value chain encompasses not only production and business activities but also the interlinkages among actors such as farmers, cooperatives, enterprises, distributors, and consumers (Kaplinsky & Morris, 2001). Optimizing the value chain is considered a key factor in enhancing competitiveness, increasing added value, and promoting sustainable development.

Collaboration within the value chain is an organizational mechanism that fosters coordination and role division among chain actors, thereby reducing transaction costs, improving production and business efficiency, and increasing adaptability to market changes (Gereffi, Humphrey & Sturgeon, 2005). Such collaboration can range from loose contractual linkages to more structured models

such as cooperatives, value chain alliances, or industrial clusters. Particularly in agriculture, effective collaboration enhances productivity and product quality, improves market access, facilitates information sharing, and fosters innovation (FAO, 2014).

Collaboration in value chains has become a central topic in supply chain management and agricultural economic development. International scholars have classified value chain collaboration into various forms, such as horizontal cooperation (among same-tier enterprises), vertical cooperation (among actors at different stages of the chain), and legally binding contractual partnerships (Simatupang & Sridharan, 2005; Gereffi, Humphrey, & Sturgeon, 2005). These forms aim to optimize operational efficiency, reduce costs, and increase value chain responsiveness to market fluctuations. In particular, vertical integration among suppliers, producers, distributors, and consumers is seen as foundational for developing sustainable value chains (Fawcett, Magnan, & McCarter, 2008). Moreover, studies have examined the depth of cooperation among value chain actors, ranging from short-term market-based transactions to long-term strategic alliances. These relationships involve not only the exchange of goods but also the sharing of information, technology, finance, and risk management (Lambert, Emmelhainz, & Gardner, 1996). In the context of globalization and deepening economic integration, the formation of strategic alliances, and even full vertical integration, is increasingly common to enhance competitiveness and drive innovation (Christopher, 2016).

For locally distinctive products such as those under Vietnam's OCOP program, building and strengthening value chain cooperation plays a critical role in enhancing link quality, ensuring sustainability, and boosting product competitiveness. However, practical implementation in many localities reveals limited cooperation and weak integration across chain stages (Ministry of Agriculture & Rural Development, 2022). Therefore, targeted research is needed to evaluate the effectiveness of current collaboration models and to propose context-appropriate solutions tailored to specific regions and product sectors.

## 2. RESEARCH METHODS

This study employs a mixed-methods approach to ensure a comprehensive and in-depth analysis of the forms and levels of collaboration among actors within the value chain of OCOP (One Commune One Product) products in Thanh Hoa Province. On the qualitative side, in-depth interviews were conducted with key representatives from various stakeholder groups involved in the value chain, including household producers, cooperatives, and small and medium-sized enterprises (SMEs). These interviews aimed to explore participants' perceptions, cooperative behaviors, and existing barriers to effective value chain participation. On the quantitative side, structured questionnaires were distributed using a convenience random sampling technique to 252 representative OCOP entities out of a total of 474 across the province. The sample size was determined to exceed the minimum threshold based on Slovin's formula, with a confidence level of 95% and a margin of error of 5%. In addition, the study utilized secondary data sourced from OCOP program reports, provincial value chain development plans, and relevant sectoral documents. Quantitative data were analyzed using descriptive statistics and comparative methods to identify key characteristics and assess the degree of variation in inter-actor collaboration. These findings provide an empirical basis for evaluating the current status of value chain cooperation and for proposing strategic solutions to enhance linkage efficiency and improve the competitive capacity of OCOP products in the locality.

Sample Characteristics: Among the 252 OCOP entities surveyed, household business representatives accounted for the largest proportion (60.7%), followed by enterprise directors/deputy directors (33.7%), and other respondents such as business officers and management staff (5.6%). The gender distribution was relatively balanced, with 51.2% male and 48.8% female. In terms of age, the majority of respondents were aged 40–60 (56.3%), followed by those aged 25–40 (42.1%), while respondents under 25 made up only 1.6%. This reflects a workforce with considerable practical experience but limited exposure to new technological trends. Regarding educational attainment, most respondents had a high school education or lower (65.1%), while 24.6% had completed vocational or college-level education, and only 10.3% held a university degree or higher. These findings highlight the urgent need to improve the capacity and professional qualifications of OCOP entities in the region.

## 3. RESEARCH FINDINGS

### 3.1 Overview of OCOP Entities in Thanh Hoa Province

Thanh Hoa is one of the leading provinces in the implementation of the OCOP program in Vietnam. During the period from 2019 to 2024, the province achieved a total of 627 certified OCOP products, reflecting the strong growth of the program over the years. In 2019, the initial year of implementation, only 14 products were certified, accounting for 2.23% of the total for the entire period. In 2020, the number surged to 57 products, representing an increase of 43 products, equivalent to a 307.14% rise compared to the previous year. By 2021, the number of OCOP products reached 90, an increase of 33 products (57.89% higher than in 2020). In 2022, the total rose to 139 products, with an increase of 49 products (54.44% compared to 2021). The year 2023 marked the peak of the program with 190 products, an increase of 51 products (36.69% higher than 2022), accounting for 30.30% of the total during the entire 2019–2024 period. However, in 2024, the number of newly certified OCOP products dropped to 162, a decrease of 28 products compared to 2023 (-14.74%), indicating a slight decline in the growth trend of OCOP products in the province.

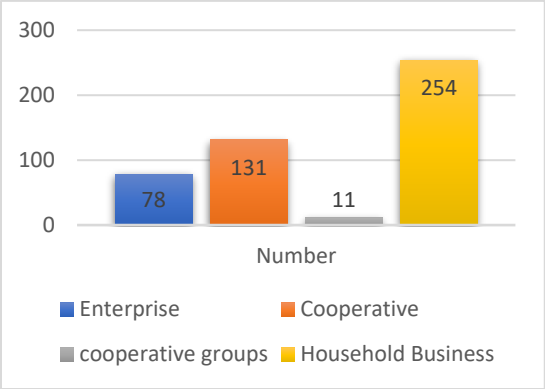



**Figure 1: Classification of OCOP Entities by Type of Business**

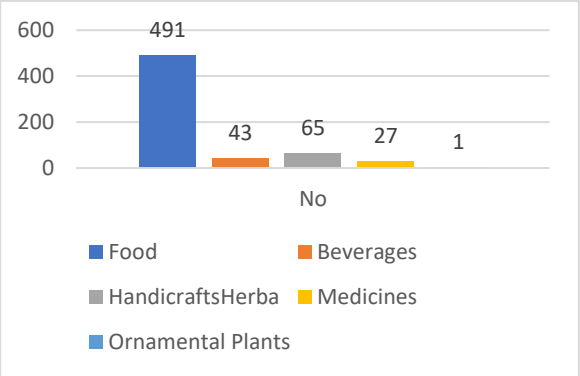



**Figure 2: Classification of OCOP Products by Industry Sector**

Regarding entity composition, the program involved a total of 474 entities during this period. Of these, 78 were enterprises (16.5%), 131 were cooperatives (27.6%), 11 were cooperative groups (2.3%), and 254 were household businesses (53.6%). This structure underscores the dominance of small-scale, family-run operations in the province's OCOP ecosystem and highlights challenges in scaling up and professionalizing production.

### 3.2 Assessment of OCOP Value Chain Linkages

#### 3.2.1 The Current Status of OCOP Product Value Chains

The key inputs for OCOP product value chains consist primarily of raw materials, labor, and working capital. In accordance with national OCOP standards, all OCOP products must be cultivated, harvested, or produced within the boundaries of the respective province. The proportion of locally sourced inputs directly influences a product's star rating. Specifically, a minimum threshold of 50% local input is required to qualify for a 3-star rating, as stipulated in Decision No. 148/QĐ-TTg dated February 24, 2023, issued by the Prime Minister.

Survey findings (see Table 1) reveal that approximately 98% of input materials for OCOP products in Thanh Hoa province are locally sourced. This high level of local sourcing contributes to reduced transportation costs and enhances the price competitiveness of the products. Nevertheless, the majority of inputs (74%) are obtained from smallholder households, while only 14% are supplied by formal enterprises. This indicates a relatively low level of vertical integration and underscores the limited presence of capable lead firms within the value chain.

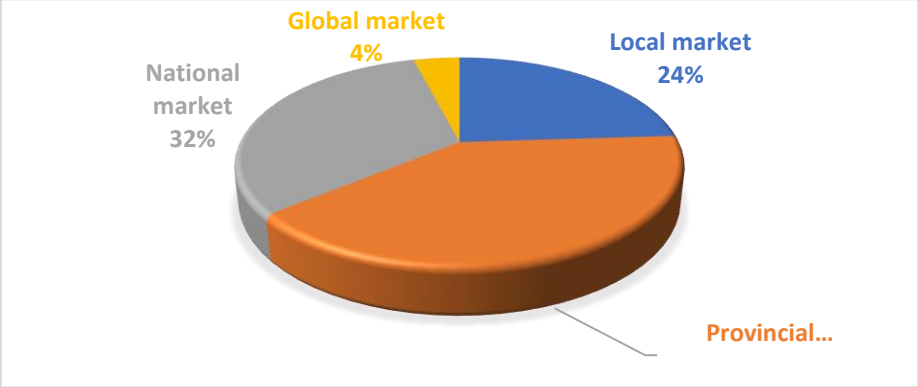
**Table 1. Main Source of Input Materials**

| **Indicators** | |
|---|---|
| Main Source of Input Materials | Within the same commune: 33% |
| | Within the district but outside the commune: 41% |
| | Within the province but outside the district: 24% |
| | Outside the province: 2 |
| **Main Suppliers** | **Households: 74%** |
| | **Cooperative groups: 3%** |
| | **Cooperatives: 9%** |
| | **Enterprises: 14%** |

**(Source: Authors' survey)**

As shown in Figure 3, 24% of OCOP entities primarily distribute their products within their local districts, reflecting a limited market reach. The largest proportion—40%—operate within the provincial market, while 32% report distribution at the national level. Only 4% of entities engage in international distribution, and these are predominantly cooperatives specializing in handicrafts. However, access to international markets is largely facilitated by intermediaries, and none of the exported products have achieved 5-star certification, highlighting significant barriers to global market recognition and competitiveness.

**Figure 3: Distribution Areas of OCOP Products**




Promotion and Branding Activities: Survey data (Table 2) show that 14% of OCOP entities reported having no promotional activities. Despite all being required to maintain a registered website under OCOP guidelines, many have not actively leveraged this platform. Around 51% reported limited, locally focused promotion efforts. Notably, 27% engage in promotion outside the province, and only 8% reported international-level promotional outreach—primarily through websites and participation in trade fairs.

**Table 2: Product Promotion Activities of OCOP Entities**

| Level of Promotion | Proportion % |
|---|---|
| No promotional activity: 14% | 14,0 |
| Some local promotion: 51% | 51,0 |
| Active provincial/national promotion: 27% | 27,0 |
| International-level promotion: 8% | 8,0 |
| **Total** | **100,0** |

**(Source: Authors' survey)**

Product Distribution and Market Reach: As illustrated in Figure 3, 24% of OCOP entities primarily distribute within their home districts, indicating a limited market scope. The largest share—40%—sell within the province, while 32% distribute products nationwide. Only 4% of entities report international distribution, most of which are cooperatives engaged in handicrafts. However, international market access is typically mediated through intermediaries, and none of these products have attained 5-star certification, underscoring persistent challenges in achieving global market recognition.

### 3.2.2 Current Status of Value Chain Linkages

Contractual arrangements—particularly input supply contracts—are among the eligibility criteria for OCOP product certification. However, the extent of contractual commitment varies across entities.

**Table 3. Contractual Linkages with Input Suppliers**

| Indicator | Quantity | Proportion % |
|---|---|---|
| **No or unclear contractual linkage** | 16 | 6,35 |
| **Contracts covering 50–75% of inputs** | 147 | 58,33 |
| **Contracts covering more than 75% of inputs** | 89 | 35,32 |
| **Contracts covering >75% of inputs with ≥12 months of implementation** | 52 | 20,63 |

**(Source: Authors' survey)**

From Table 3, it can be observed that 6.35% of OCOP entities, equivalent to 16 units, either lack linkages or have unclear partnerships. Although this is a relatively small proportion, it highlights the continued existence of a segment of OCOP entities with unstable input supply arrangements. These data show that while only 6.35% of entities lack clear input contracts, the majority (58.33%) have moderate contract coverage (50–75%). This suggests an initial stage of value chain engagement, with continued reliance on informal or open-market transactions for the remaining inputs. About 35.32% of OCOP entities maintain high-level contracts (above 75%), reflecting more structured input sourcing and improved quality control. The most sustainable group -

comprising 20.63% of respondents - have maintained stable contracts for over 12 months, indicating deeper integration into the supply chain and a long-term partnership orientation.

**Table 4. Proportion of Contract-Based Sales by OCOP Entities**

| Indicator | Quantity | Proportion % |
|---|---|---|
| **Contracts with wholesalers covering <50% of output** | 8 | 3,17 |
| **Contracts covering 50–75%** | 133 | 52,78 |
| **Contracts covering >75%** | 111 | 44,05 |
| **Contracts >75% and implemented for over 12 months** | 107 | 42,46 |
| **Total** | **252** | **100** |

**(Source: Authors' survey)**

As shown in Table 4, the data reveal that most OCOP entities have demonstrated a tendency to formalize distribution partnerships through contractual arrangements at moderate to high levels. A small group (3.17%) has weak contractual arrangements, which exposes them to higher market risk. The largest segment (52.78%) has moderate-level output contracts (50–75%), suggesting progress toward organized distribution but still some reliance on ad hoc channels. Notably, 44.05% of entities have strong contractual sales (over 75% of output), demonstrating higher professionalism and market access capabilities. Among them, 42.46% have maintained these contracts for at least one year, indicating both high commitment and a long-term market orientation.

### 3.2.3 Social Impacts of OCOP Value Chain Participation

OCOP entities have made significant contributions to rural employment and income enhancement. The number of workers employed in OCOP-related production increased markedly following program participation.

**Table 5. Labor and Income Before and After OCOP Participation**

| Indicator | Before OCOP Participation | One year after OCOP Participation |
|---|---|---|
| **Total employees** | 4262 | 5790 |
| **Average employees per entity** | 17 | 23 |
| **Employees with stable jobs in value chain** | 2876 | 4892 |
| **Average annual income (mil. VND/person)** | 57,56 | 66,69 |

**(Source: Authors' survey)**

As shown in Table 5, prior to participating in the OCOP program, the total number of workers employed by the participating entities was 4,262. After one year of participation, this figure increased to 5,790, representing an increase of 1,528 workers, or 35.86%.

The average number of employees per entity showed a consistent upward trend throughout the observed period. Before joining OCOP, each entity employed an average of 17 workers; after one year, this number rose to 23 workers—an increase of 6 employees, equivalent to a 35.29% growth rate.

To assess the effectiveness of the value chain, Table 5 also indicates a significant increase in the number of workers with stable employment. Specifically, this number rose from 2,876 prior to OCOP participation to 4,892 after one year—an increase of 2,016 workers, or 70.07%. These survey results affirm the growing effectiveness of OCOP participation and value chain linkages in generating employment opportunities for the local workforce.

Furthermore, income level is considered the most direct indicator of the impact of the OCOP program and the value chain on laborers. Before joining OCOP, the average annual income per worker was VND 57.56 million. After one year, this figure increased to VND 66.69 million—an increase of VND 9.13 million, equivalent to a 15.86% growth. This is a positive indicator demonstrating that the OCOP program has contributed to improving the livelihoods of workers involved in the value chain.

### 3.3 Existing Limitations in OCOP Value Chain Linkages in Thanh Hoa

Despite the notable achievements of the OCOP program in Thanh Hoa—reflected in the increasing number of certified products, the broad participation of entities, and its positive socio-economic impacts—value chain linkages remain constrained by several structural and operational limitations:

First, a significant number of OCOP entities still lack a comprehensive understanding of value chains and the strategic roles played by various actors. Many continue to operate independently, with limited awareness of the benefits of structured cooperation. This

weakens their ability to enhance product competitiveness and impedes the formation of sustainable production–distribution networks.

Second, the degree of collaboration among value chain actors remains uneven and, in some cases, merely symbolic. Although formal contracts may exist, they are often poorly enforced or lack detailed provisions such as clear terms of cooperation or discount policies, resulting in limited functional integration.

Third, output linkages remain unstable and lack long-term orientation and professionalization. Many OCOP entities face challenges in securing reliable distribution channels and remain vulnerable to market fluctuations, which undermines their investment efficiency and competitiveness.

Fourth, the participation of large enterprises and intermediary organizations remains limited. Enterprises account for only 16.5% of all OCOP entities, while household businesses dominate (53.6%). This fragmented structure, characterized by small-scale operations, lacks the capacity for vertical coordination, technical upgrading, and market expansion. The absence of lead firms or technical and commercial intermediaries significantly limits innovation diffusion and information flow within the chain.

Fifth, there is a lack of coordination mechanisms and transparent governance frameworks to regulate multi-actor collaboration. Many existing partnerships are informal, short-term, and lack legal enforceability. Without institutional support from local authorities or coordinating bodies, these linkages are prone to breakdowns and fail to deliver long-term value.

Sixth, the program has not fully capitalized on the potential of non-food sectors such as herbal products, ornamental plants, or beverages. These product categories remain underdeveloped and lack dedicated value chains. This imbalance reflects a gap in strategic sectoral planning and hinders diversification in the OCOP product ecosystem.

### 3.4. Strategic Solutions to Strengthen OCOP Value Chain Linkages

First, raise awareness among OCOP entities regarding value chain dynamics.

One of the key barriers to effective collaboration within value chains is the limited understanding among OCOP stakeholders of the structure, functions, and interdependencies among actors. This lack of knowledge often leads to fragmented production and business practices with weak strategic orientation. To address this, it is necessary to implement targeted training programs focused on value chain governance, branding, and product development strategies. The creation of user-friendly toolkits and practical manuals will support knowledge dissemination, especially among household producers and cooperatives. Furthermore, the active involvement of universities, research institutes, and consultancy organizations is essential to facilitate knowledge transfer and strengthen institutional capacity.

Second, strengthen input linkages and ensure stable supply sources.

Current relationships between OCOP entities and input suppliers are generally weak and prone to disruptions, undermining supply chain reliability. To enhance resilience, it is necessary to establish dedicated raw material production zones that align with provincial development planning. The formation of cooperative groups or input supply networks—supported by agricultural authorities and technical experts—can improve input quality assurance and ensure supply consistency.

Third, promote stable and professional output linkages.

Limited stability in product distribution reflects vulnerabilities in downstream supply chains. To address this, OCOP entities should seek to establish long-term sales contracts with distributors, supermarkets, and OCOP-branded retail outlets. Greater emphasis should also be placed on developing modern trade channels and strengthening brand identity to enhance market positioning and build consumer trust.

Fourth, expand the role of enterprises and intermediary institutions within the value chain.

The limited participation of formal enterprises has led to a fragmented and inefficient production system. It is essential to encourage the engagement of processing companies, logistics providers, and trade promotion agencies as core actors within the chain. Public–private partnership (PPP) models, alongside the establishment of OCOP support centers at the provincial or district level, can significantly improve access to technical services, trade promotion, and legal support for small-scale producers.

Fifth, develop robust coordination mechanisms and legal frameworks.

Many current linkages within OCOP value chains are informal and lack clear mechanisms for benefit-sharing and risk management. To address this, provincial-level coordination platforms should be established, engaging local authorities, enterprises, cooperatives, and domain experts. Commodity-specific value chain management boards can also be formed to facilitate performance monitoring and enhance transparency. In parallel, the promotion of legally binding contract farming and integrated production–distribution agreements will help institutionalize more stable and equitable partnerships.

Sixth, diversify product sectors and develop specialized value chains.

Thanh Hoa's OCOP sector remains heavily concentrated in food products, with limited development in other high-potential sectors such as herbal remedies, ornamental plants, and beverages. A comprehensive sectoral development strategy is needed to harness local comparative advantages—particularly in medicinal herbs and rural tourism. Investment in research and development, coupled with pilot initiatives for non-food value chains, will foster greater diversification and unlock new market opportunities.

## CONCLUSION

The preceding analysis indicates that value chain development within the OCOP program in Thanh Hoa province continues to encounter notable challenges. These include limited awareness among participating entities, unstable input–output linkages, and the insufficient engagement of enterprises and intermediary organizations. Such constraints hinder the operational efficiency of OCOP stakeholders and weaken the competitiveness and long-term sustainability of OCOP products in both domestic and international markets.

To overcome these obstacles, a comprehensive set of strategic interventions is essential. These should include strengthening the managerial and strategic capacities of OCOP entities, promoting deeper and more stable forms of collaboration, diversifying product categories, and establishing transparent and resilient coordination mechanisms. Implementing these measures will be critical to reinforcing the program's foundation, enhancing its effectiveness, and contributing to broader objectives of sustainable rural economic development and new-style rural modernization in Thanh Hoa province in the years ahead.

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