

# Study on the Mechanism and Effect of Synergistic Development of Philippine E-Commerce Industry Agglomeration and Regional Economy

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**Abstract:** *Under the background of global economic digitalization, retail trade, as a new industry, has shown a trend of gradual scale, standardization and sustainable development, and has become an important supporting force for regional economic development. As a developing country, the Philippines' retail trade has gradually shown a rapid development trend, with an annual growth rate of over 20%. Taking the largest e-commerce company in the Philippines as the research object, this study quantitatively analyzes the development of retail trade in the Philippines from the aspects of total transaction volume, B2B market and B2C market, and finds that the practice of the coordinated development mechanism of E-commerce industry cluster and regional economy has been successful, which further has a significant positive impact on the overall economic and social development of the Philippines.*

**Keywords:** *Philippines, retail trade, aggregation effect, coordinated development mechanism of regional economy*

## 1. Introduction

With the continuous development of information technology, e-commerce has become one of the important driving forces of global economic development [1-2]. Under this trend, the scale of E-commerce market in Asia has expanded rapidly and become one of the leaders in the global e-commerce market. However, the economic development of countries in Asia is unbalanced, and effective policy measures are urgently needed to promote the coordinated development of regional economy. As one of the Southeast Asian economies, the Philippine e-commerce market has great potential, but its retail trade is still in its infancy, facing many problems and challenges. How to build an effective mechanism for the coordinated development of E-commerce industry cluster and regional economy has become an important problem to be solved urgently in the development of retail trade in the Philippines [3-4]. Therefore, this paper aims to explore the related issues of the coordinated development mechanism of E-commerce industry cluster and regional economy in the Philippines, and deeply analyze its possible effects. By studying the development trends of retail trade, this paper puts forward useful policy suggestions for the development of e-commerce in the Philippines, promotes the development process of its retail trade, and provides reference for similar problems in other regions [5].

E-commerce industry agglomeration means that in a certain area, due to various factors, the related enterprises of retail trade are relatively concentrated in a certain area, forming an industrial chain or industrial cluster. Zou and Feng [6] shows that e-commerce industrial agglomeration can improve the level of regional economic development, promote innovation and competition of enterprises, and have a positive impact on employment and tax revenue. Retail trade is a rapidly developing emerging industry in recent years. Based on Internet and information technology, Yang et al. [7] uses e-commerce platform to realize the transaction of goods and services. With the rapid development of retail trade, the phenomenon of E-commerce industry cluster is becoming more and more common. E-commerce industry cluster means that in a certain area, due to various factors, the related enterprises of retail trade are relatively concentrated in a certain area, forming an industrial chain or industrial cluster. E-commerce agglomeration means that a large number of e-commerce enterprises are gathered together in a region to form a retail trade cluster. E-commerce agglomeration has a positive impact on the development of regional economy. On the one hand, e-commerce agglomeration can bring employment opportunities and increase tax revenue, and promote local economic development; On the

other hand, e-commerce agglomeration can also promote cooperation and innovation among related enterprises, thus improving the overall efficiency. At the same time, Wang and Yang [8] can also drive enterprises through innovation, improve the scientific and technological content and competitiveness of the economy, and lay a solid foundation for the sustainable development of the regional economy. However, e-commerce agglomeration may also lead to problems such as excessive concentration of resources and homogenization of industries, which need the attention and guidance of the government and all sectors of society.

With the rapid development of Internet technology and mobile payment technology, e-commerce has become an economic development field that cannot be ignored worldwide. The purpose of this paper is to explore the development status and existing problems of Philippine retail trade, analyze the promoting effect of regional economic synergy on Philippine E-commerce industry cluster based on the theory of regional economic synergy and industrial agglomeration, further study the mechanism and effect of coordinated development of Philippine E-commerce industry cluster and regional economy, and put forward some feasible suggestions for the healthy development of Philippine retail trade.

## 2. Discussion on the coordinated development mechanism of e-commerce industry cluster and regional economy in the Philippines.

### 2.1 The concept and importance of e-commerce industrial agglomeration

E-commerce industry agglomeration refers to the convergence of e-commerce enterprises in a certain region and the formation of an industrial chain, forming an industrial group with a certain scale and market competitiveness. This kind of industrial agglomeration will help to promote the development of specialization, scale, intensification and standardization of the industry, and then form an advantage effect and realize the benefit of "1+1 > 2". In the retail trade, agglomeration not only helps to improve the resource utilization efficiency of enterprises, reduce production costs, but also enhances the brand value and market influence of enterprises [9-10].

The concentration of retail trade in the Philippines is low, so it is still necessary to further promote the development of retail trade and build a cluster area of retail trade. The government should actively guide e-commerce enterprises to gather in the same region when formulating e-commerce development policies, and create an industrial agglomeration atmosphere with competitive advantages.

### 2.2 The concept and characteristics of coordinated development of regional economy

The coordinated development of regional economy refers to the interdependence and complementarity among regions in economic, social and cultural aspects, and a new situation of coordinated development is formed by strengthening local cooperation and coordination [11-12]. Different regions have different economic characteristics and resource endowments. Through mutual cooperation and joint development, we can form a synergistic effect, give full play to their respective advantages and potentials, and promote the all-round development of regional economy. As shown in Figure 1:

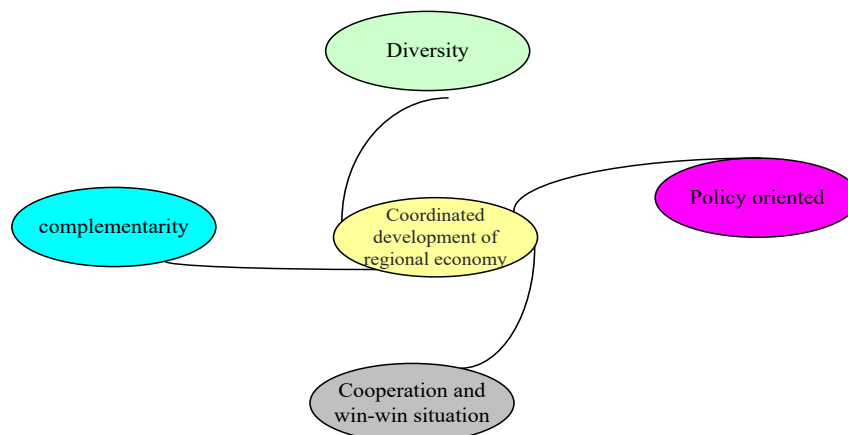


Figure 1: Concept and characteristics of coordinated development of regional economy

As shown in Figure 1, the coordinated development of regional economy also has the following four characteristics:

1) Diversity: The coordinated development of regional economy can be international regional economic cooperation, internal regional cooperation, and horizontal and vertical comprehensive cooperation.

2) Complementarity: There are some complementarities in resources, industries and economic models among regions. Through mutual cooperation, we can realize complementary advantages and improve economic and social benefits [13-14].

3) Win-win cooperation: The coordinated development of regional economy emphasizes cooperation and mutual benefit, and all parties should give full play to the advantages of cooperation, strengthen exchanges and promote mutually beneficial development among regions.

4) Policy orientation: Policy is the driving force for the coordinated development of regional economy, and all localities should strengthen policy coordination and formulation in economy, trade and industry to provide institutional guarantee for regional economic development.

In reality, the coordinated development of regional economy plays a strong role in promoting local cooperation, deepening industrial interconnection and tapping the potential of cooperation, and accelerating economic and social development. In the development of Philippine retail trade, it is expected to accelerate the development of retail trade, promote the coordinated development of regional economy and achieve the goal of complementary advantages and common development by rationally utilizing the advantages of regional economic coordinated development and building cross-regional retail trade clusters.

### ***2.3 Philippine e-commerce industrial agglomeration and the coordinated development of regional economy***

The Philippines is a country with a large population, vast territory and unbalanced economy, and the retail trade is one of the important emerging industries in its economic transformation and upgrading [15]. In this case, the relationship between e-commerce industrial agglomeration and coordinated development of regional economy in the Philippines is very important.

First of all, the agglomeration of retail trade in the Philippines and the coordinated development of regional economy have mutual promotion. E-commerce industry cluster helps to promote the adjustment of local economic structure. Through reasonable planning and layout, e-commerce enterprises can rely on each other and form a value linkage effect, thus forming a competitive large-scale industrial group that can be compared with other regional retail trade clusters. The coordinated development of regional economy can provide a beautiful ecosystem for the agglomeration of retail trade, such as reducing market access barriers and providing various service dependencies in the upstream and downstream of the industrial chain, which can better promote the performance and development of e-commerce enterprises. Therefore, the mutual promotion of E-commerce industry cluster and regional economic coordinated development is very necessary and important.

Secondly, the coordinated development of E-commerce industry cluster and regional economy in the Philippines can realize the optimal allocation of resources. Although the e-commerce market in the Philippines contains great potential, its e-commerce enterprises are relatively scattered, with insufficient scale and weak strength. If we optimize the allocation of resources and aggregate according to the classification of industrial clusters or specific regions, mutual benefits can quickly expand the scale of enterprises, improve business operations, improve market competitiveness, and greatly increase the risks brought by the impact on other representative and already competitive e-commerce enterprises in the market.

Finally, the coordinated development of E-commerce industry cluster and regional economy in the Philippines can achieve better trade expansion and improve industrial transformation and upgrading. Through mutual cooperation and common development, we can constantly update and improve the ability of development and innovation, realize the transformation and upgrading in the direction of high added value and high technology, promote the construction and development of e-commerce enterprises, promote their better display and promotion in domestic and international markets, and then promote the trade expansion of manufacturing industry, reduce the adverse effects of economic cycle and other factors on retail trade, and accelerate the upgrading of the whole economy.

### 3. Practical discussion on the coordinated development mechanism of e-commerce industry cluster and regional economy in the Philippines

#### 3.1 Practical purpose

The purpose of this practice is to explore how to realize the coordinated development of regional economy in various regions of the Philippines through the agglomeration of retail trade. E-commerce industrial agglomeration can promote cooperation and business expansion among e-commerce enterprises, and also provide better industrial environment and policy support for related enterprises, so as to realize economic scale benefits, reduce costs and enhance overall competitiveness. By establishing the coordinated development mechanism of regional economy, we can strengthen the mutually beneficial cooperation among regions and promote the coordinated development of the entire retail trade in the Philippines.

#### 3.2 Practice analysis

In order to realize the coordinated development of retail trade and regional economy in the Philippines, we need to start from the following aspects:

1) Policy support: The government can formulate policies and investment plans suitable for the retail trade, provide e-commerce enterprises with the infrastructure for entrepreneurship and development, and encourage exchanges and cooperation among local enterprises. In addition, the government can also increase R&D and innovation support for e-commerce technology and increase the competitive advantage of regional e-commerce.

2) Talent cultivation: In order to cultivate high-quality e-commerce talents, schools and enterprises can carry out cooperation projects, provide practical experience and training opportunities, and let students master the latest e-commerce technology and marketing strategies more quickly.

3) Information sharing: local e-commerce enterprises can establish online or offline communities, share each other's resources and experiences, and create a more active atmosphere for the local e-commerce environment. Through learning and communication, enterprises can also explore and explore new cooperation opportunities.

The practice of the above three aspects can be considered from the ecology of the entire retail trade. In this practice, the output value, import and export of retail trade and other economic indicators are measured and analyzed to measure the practical results.

#### 3.3 Practice results

In order to measure the practical effect, this practice considers that Nanyang e-commerce has 20 active members. After the implementation of the above three measures, the relevant economic indicators of the retail trade have been significantly improved. Table 1 shows the turnover and contribution value of Nanyang e-commerce in the past three years, and the outstanding performance of the country in the number of stores, express delivery volume, cross-border operations and other indicators:

Table 1: Economic indicators of the retail trade in Nanyang over the past three years

time	E-commerce Industry Turnover (Million Philippine Peso)	Contribution value of retail trade (million Philippine pesos)	Number of stores	Express delivery volume (thousand pieces)	Cross border operations (million Philippine pesos)
2021 year	3,782.1	6,957.1	10,588	250.4	935.9
2022 year	4,225.8	7,863.1	12,109	287.8	1,216.8
2023 year	4,682.5	8,836.9	13,889	329.1	1,584.5

Table 1 shows that the turnover, contribution value, number of stores, express delivery volume and cross-border operation in Nanyang retail trade have shown a continuous growth trend in the past three years. Among them, the turnover of retail trade increased to 3,782.1 million Philippine pesos in 2021 and 4,682.5 million Philippine pesos in 2023, an increase of 24.68% compared with 2021. The contribution value of the retail trade has also been increasing in these three years, from 6,957.1 million Philippine pesos in 2021 to 8,836.9 million Philippine pesos in 2023, an increase of 27.01%. Nanyang e-commerce has also shown a very strong growth trend in terms of the number of stores, express

delivery and cross-border operations. In the past three years, the number of stores of Nanyang e-commerce has increased from 10,588 to 13,889, an increase of 31.12%, and the express delivery volume has increased from 250.4 thousand to 329.1 thousand, an increase of 31.37%. In terms of cross-border operations, the trade volume of e-commerce in Nanyang also showed a rapid growth momentum, from 935.9 million Philippine pesos in 2021 to 1,584.5 million Philippine pesos in 2023, an increase of 69.32%. The above data show that the agglomeration and regional coordinated development mechanism implemented by the Philippine retail trade has played a positive role in promoting the healthy development of the industry. The growth of these indicators also shows that the competitive strength of the industry is constantly increasing, and more and more enterprises have joined the development of e-commerce in Nanyang. Therefore, the retail trade has broad development space and potential in the Philippines through this centralized regional economic coordinated development mechanism.

**4. The mechanism and effect of the coordinated development of e-commerce industry cluster and regional economy in the Philippines are discussed**

**4.1 Philippine e-commerce industry cluster and regional economy coordinated development mechanism and effect status quo**

The mechanism and effect of coordinated development of E-commerce industry cluster and regional economy in the Philippines refers to optimizing the development mode of retail trade, building relevant e-commerce platform and ecological environment, making retail trade gradually realize large-scale, standardized and sustainable development, and promoting the overall coordinated development of regional economy. At present, the development of e-commerce in the Philippines is still in its infancy. However, with the increase of Internet penetration and the government's attention and support to the retail trade, the e-commerce market in the country has gradually formed a scale and contributed more and more to economic development.

**4.2 Verification of the synergistic development mechanism and effect of e-commerce industry cluster and regional economy in the Philippines**

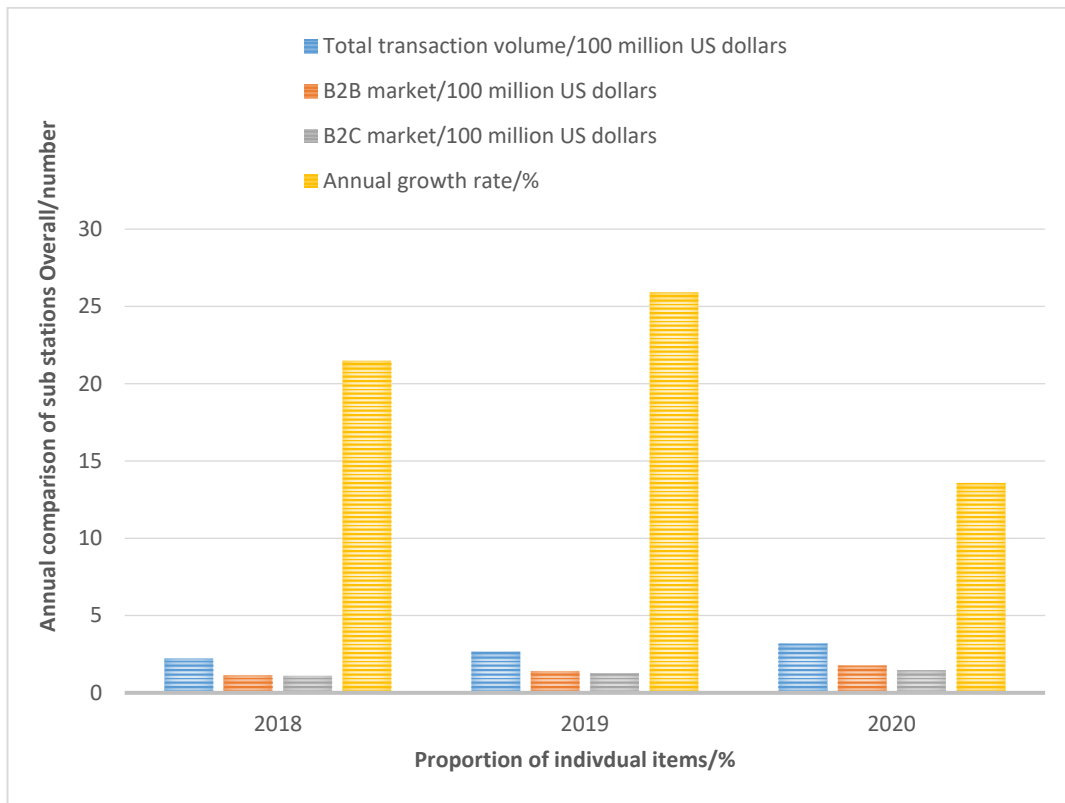


Figure 2: Philippine retail trade development data

This study takes the largest e-commerce company in the Philippines as the research object, and analyzes the development of retail trade in the Philippines from its enterprise data, retail trade data and economic data. It is found that the Philippine retail trade has achieved rapid development in recent years, with an annual growth rate of more than 20%, and the growth of B2B and B2C market segments is also very significant. At the same time, the government has gradually strengthened its support for the retail trade, and fully supported the construction of e-commerce ecological environment through policy support, site selection, site management, digital technology creativity, and business technical support, further helping the industry to flourish. As shown in Figure 2:

As shown in Figure 2, the development data of retail trade in the Philippines from 2018 to 2020. The total transaction volume increased from \$222 million in 2018 to \$321 million in 2020, with an annual growth rate of 21.48%. The B2B market has grown from \$112 million to \$175 million in these three years, with an annual growth rate of 25.90%. The B2C market has grown from \$110 million to \$146 million in these three years, with an annual growth rate of 13.58%. These data show that the Philippine retail trade has developed rapidly in these three years with a high growth rate. At the same time, the annual growth rate of B2B market is higher, indicating that the market is developing more rapidly.

### 4.3 Strategy

In the future development, Philippine retail trade should take innovation as the driving force, strengthen technological and policy innovation, expand interconnection with other industries, optimize the business environment, and continue to promote internationalization. Specifically, the Philippine government should strengthen the formulation and implementation of policies for the retail trade, expand foreign cooperation of e-commerce, actively cultivate outstanding e-commerce talents, strengthen the research and development of e-commerce technology, standardize the operation order of e-commerce market, and improve the social responsibility of e-commerce.

## 5. Conclusion

The coordinated development mechanism of E-commerce industry cluster and regional economy in the Philippines has achieved remarkable results. Through the government's support for the retail trade and the efforts of enterprises, the scale of the retail trade has been continuously expanded, and the cooperation and collaboration among enterprises within the industry have been continuously strengthened, which has also promoted the coordinated development of the regional economy. The data shows that the retail trade in the Philippines has a fast development speed and a high growth rate, and its contribution to economic development is also increasing. In view of the future, the Philippines should further deepen the coordinated development mechanism of E-commerce industry cluster and regional economy, strengthen technological and policy innovation, and promote internationalization to further enhance the sustainable development of retail trade. This will contribute to the continuous growth of the retail trade and further promote the economic and social development and progress of the Philippines.

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