

ASSESSING THE DEVELOPMENT OF THANH HOA CITY GROWTH POLES

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Abstract: *The authors selected 11 criteria to evaluate the growth of Thanh Hoa city in the period 2016-2023. The results were that in 2016, Thanh Hoa city had 6/11 criteria met. In 2020, they were 7/11 criteria and in 2023, they were 6/11 criteria. The criteria achieved include: economic scale, polarization index, economic density, rate of trained labor, budget and export value. Criteria that have not been met include: driving industry/enterprise, attracting FDI capital, competitiveness, income per capita. As for the growth rate criteria, the years 2016 to 2020 were met, but the years 2021-2023 were not met. On that basis, the authors have proposed the following solutions to promote the development of this growth pole in the next period: actively attracting FDI capital, improving competitiveness, and developing businesses. innovation, development of supporting industries and diversification of the urban economy.*

Keywords: *Assessing, development, growth pole, Thanh Hoa city.*

1. Introduction

Since the 1960s, growth poles have truly become engines promoting economic growth in territories of different sizes around the world [1], [3], [8], [19]. In Vietnam, the growth pole appeared later and therefore there are not many studies on growth poles [4], [12]. In 2015, Thanh Hoa province advocated “developing Thanh Hoa - Sam Son city to become the growth pole of Thanh Hoa province” [10; p.74]. It has been 8 years now, but we still do not know whether Thanh Hoa city has truly become a growth pole or not, and how far it has developed? What are the weak aspects and what solutions are needed to promote its development? Our research purpose is to evaluate the development and propose solutions for the extreme growth of Thanh Hoa city in the coming period.

2. Research methods and data

2.1. Research Methods

Choosing evaluation criteria. To select criteria for evaluating urban growth poles at the provincial level in Vietnam's current conditions, we rely on the nature of growth poles [3], [7], Resolution of the Standing Committee National Assembly on urban classification [11], foreign experience in assessing growth poles [6], [18], [19]; World Bank digital assistance report 66916 published in 2011 [20]. The results of selecting provincial growth assessment criteria applied to Thanh Hoa city are shown in Table 1.

Table 1. Criteria for evaluating the development of the provincial growth pole applied to Thanh Hoa city

No	Criteria	Criteria details
<i>The group of indicators determines the nature of the growth pole</i>		
1	Economic scale	Measured by the proportion (%) of GRDP of the provincial growth pole in the province's GRDP. A provincial growth pole must have GRDP $\geq 20\%$ of the province's GRDP
2	Economic growth	GRDP growth rate is measured in %/year and the provincial growth pole must have a growth rate > 1.5 times the provincial GRDP growth rate.
3	Polarization index	Polarization index of the provincial growth pole $\geq 20\%$ of the total values of the polarization index of the territories (units) of the province
4	Economic density	Economic density (GRDP density) is measured in billion VND/km ² . The economic density of the provincial growth pole is > 5.0 times the GRDP density of the province.
5	Industry/business dynamics	Each provincial growth pole must have 2-3 driving industries or businesses
<i>The group of indicators reflects the resources of the growth pole</i>		
6	Labor	The rate of trained workers at the provincial growth pole is $> 80\%$.
7	Foreign investment	The proportion of FDI investment capital of the provincial growth pole is $\geq 15\%$ of the total FDI capital of the province
8	Competing capability	The competitiveness index of the provincial growth pole must be in the group of 5 leading districts, towns and cities in the whole province [9]
<i>The group of indicators reflects the effectiveness of the growth pole</i>		
9	Budget	The provincial growth pole must have budget revenue > 1.5 times budget expenditure.
10	Export	The proportion of export turnover of the provincial growth pole is $\geq 20\%$ of the total export value of the province.
11	Income	The average income per capita of the provincial growth pole is > 1.75 times the average income per capita of the country [9]

Source: Truong L.V [12], [13], Khue L.H [5] and National Assembly of SRV [9]

Evaluation method: In turn evaluating the development of Thanh Hoa city's growth pole based on the above 11 criteria at 2 levels: achieved and not achieved.

Data

Statistical data provided by Thanh Hoa Provincial Statistics Department, People's Committee and Thanh Hoa city Statistics Department.

Some comments and assessments on socio-economic development are quoted from annual reports on socio-economic development, national defense and security in the period 2016 - 2023 of Thanh Hoa province; some districts, towns and cities in Thanh Hoa province and some other urban areas in Vietnam

3. Research results and discussion

3.1. Concept of growth pole

The author of the "growth pole" theory was the French economist Francois Perroux in 1950, the theory was then continued to be developed by Myrdan, Friedman, Hisrhman, Richardson, Bejnamin, J. Parr, Higgins, Philip Mc.Cann, John Friedmann, Stuart Holland, etc. [12]. According to this theory, a region cannot have uniform development at all points in the territory at the same time but tends to grow/develop rapidly in certain points, while other points tends to grow slowly or stagnate. Rapid growth/development at those poles will create direct effects on the development of surrounding territories called growth poles.

Points with rapid and strong growth/development are points with advantages compared to the entire region, often gathering a number of industries/businesses capable of creating growth for the economy, with close interactions. closely linked together through relationships in production, technology, business, finance, trade, etc, around one or several leading or spearhead industries/enterprises. Such points have different names and scales: growth/development points, growth/development poles, growth centers, development nuclei, core areas, leading territories, key regions, etc. [8], [12].

Leading Propulsive Industry is an industry that thanks to the advantages of modern technology, high innovation speed, products with income elasticity of demand and has a large market scope in many regions. or the whole country will develop very quickly and cause related industries to grow, creating a spillover effect on other parts of the economy. For example, manufacturing cars, aircraft, electronic components, steel, petrochemicals... [8], [11].

A Dynamic Propulsive Firm has the following characteristics: i) Relatively large scale, ii) High innovation ability, iii) Belonging to a relatively fast growing field, iv) Quality and the intensity of its relationships with other sectors of the economy is quite close enough to cause important effects to be transmitted from the driving force enterprise to them [11], [12].

In terms of territory, the development of a key industry/enterprise will make the territory where it is distributed develop and prosper thanks to increased employment, income, and increased purchasing power; New industries/enterprises, socio-economic service activities and new development activities are increasingly attracted to the territory. Territorial concentration reaching a certain level will cause a spillover effect, creating new development opportunities in many other points. As a result, the development of one pole as a key territory will act as a “locomotive” to attract the development of the entire region, creating conditions for the regional economy to develop faster and stronger [10].

We believe that a growth pole is a combination of leading dynamic industries/businesses with close relationships, concentrating in a certain territory and capable of creating new and strong growth engines for the economy of the poles and other territories [12].

Researchers distinguish between potential growth poles, natural poles, and planned poles. Potential poles are usually: economic zones, industrial parks, industrial clusters, urban areas, agro-industrial enterprises, innovation research centers, and developing territories. Advanced socio-economic development, outstanding tourist centers/zones, spots, urban areas... later on, they will become growth poles [3], [7], [8]. The natural pole is the pole that forms naturally with very little state intervention. Planning poles are poles that the state sets up with the purpose of creating motivation for the development of backward areas [7]. The growth pole has impacts at different scales and forms pole levels: global pole, national pole, national regional pole, provincial pole, etc.

In the first decades, growth pole strategies were mainly concentrated in the industrial sector and on a national scale. Today, the growth pole strategy is applied in many different fields (industry, urban, tourism, trade, agriculture, rural areas) and at different scales (from global to national, regional, provincial, district scale...) [5], [12].

3.3. Assessing the development situation of Thanh Hoa city's growth pole

Short introduction about Thanh Hoa city: Thanh Hoa city is the economic, political and cultural center of Thanh Hoa province with an area of 145.35 km², population in 2023 is 507,230 people (of which permanent population is 418,262 people and converted temporary resident population) is 88,968 people) [15]. The North borders Hoang Hoa and Thieu Hoa districts; The East borders Hoang Hoa district, Sam Son city; The South borders Quang Xuong and Dong Son districts; The West borders Dong Son district. Located in a very favorable geographical and transportation location - central location on vital transportation routes including roads, railways and rivers. 155 km south of Hanoi Capital, is the gateway city to the North Central - South of the North; There is National Highway 1A, a North-South unified railway running through with a stop at Thanh Hoa station and many other Provincial roads, creating favorable conditions for socio-economic development exchanges.

Economic scale: Before 2018, Thanh Hoa city's economic scale always ranked No. 1 in Thanh Hoa province and GRDP regularly accounted for over 40% of Thanh Hoa province's GRDP. However, since 2019, thanks to putting the petrochemical refinery and a number of other industrial facilities in Nghi Son economic zone into commercial operation, Nghi Son town has the largest economic scale in the province. By 2020, thanks to the appearance of a second growth pole, Nghi Son town, the contribution rate of these two growth poles to Thanh Hoa's GRDP reached 53.64%. In which the growth pole of Thanh Hoa city contributed 25.02% and the growth pole of Nghi Son Town contributed 28.62% of GRDP [5]. In 2023, Thanh Hoa city had a total production value of more than 73.407 billion VND, accounting for 26.3% of the GRDP of Thanh Hoa province. Nghi Son town had a scale of 137,221 billion VND, accounting for 49,000 billion VND. 1% of the GRDP scale of Thanh Hoa province. However, the total production value of Thanh Hoa city is still higher than the total production value of Vinh City (total production value of Vinh City in 2023 was 68.270 billion VND). The requirement of the provincial growth pole must have a GRDP proportion of $\geq 20\%$ of the province's GRDP), Thanh Hoa city has met this target.

Economic growth: Thanh Hoa city's GRDP growth rate is quite high, averaging 16.4%/year in the period 2016-2020 and 11.86%/year in the period 2021-2023. With such a growth rate, Thanh Hoa city has exceeded the National Assembly's regulations for class I urban areas that the economic growth rate in the last 3 years must be $\geq 10\%$ /year [9].

During the same period, the average annual economic growth rate of Thanh Hoa province was 12.1% and 9.4% and that of the whole country was 5.99% and 5.20% respectively. Thus, the average annual GRDP growth rate of Thanh Hoa city is higher than the average annual GRDP growth rate of Thanh Hoa province in the same period by 4.3% and 2.46%, respectively, and the GDP of both water were 10.41% and 6.66% respectively [14]. These are very impressive numbers reflecting the acceleration period in Thanh Hoa city's economic development. Although the growth rate of Thanh Hoa city is 1.35 times and 1.26 times higher than the average growth rate of Thanh Hoa province over the same period, a provincial growth pole must have a high growth rate. GRDP growth > 1.5 times the province's GRDP growth rate. Thus, Thanh Hoa city has only reached 84%-90% of the above target.

Polarization index: Polarity Index (P-Polarity Index). The growth pole must spread (transmit) its influence to surrounding territories in different intensities. The strength of transmission channels is simply defined as the rate of economic growth adjusted for scale. This index was used by the World Bank in 2009 and 2011 [18], [19]. The spreading intensity is measured by polarization indices: $P_{i,t} = G_{i,t} \cdot S_{i,t-1}$ Where, $P_{i,t}$, is the polarization index in time t for pole i , $G_{i,t}$ economic growth rate measured by growth rate based on GDP. $S_{i,t-1}$ is the proportion of economy i in total time t . In this study, the $P_{i,t}$ index is calculated as the product of the ratio of GRDP of each administrative unit in the province to the GRDP of the whole province times the growth rate of GRDP of each administrative unit in the same period. To easily observe and eliminate decimal places, people multiply the result of calculating the P index by 10,000.

In 2020, Thanh Hoa city had a polarization index (P) of 643, accounting for 29.1% of the total values of the polarization index of 27 provincial-level administrative units of Thanh Hoa and ranked second in the province after Nghi Son town at 864 and 39.2% [5]. According to the requirements of the provincial growth pole, the polarization index of the growth pole must be $\geq 20\%$ of the total values of the polarization index of provincial units, Thanh Hoa city has met this target.

Economic density: Economic density is an index measuring the degree of economic concentration by territory. High economic density is a very important characteristic of the urban economy. In 2023, the economic density of Thanh Hoa city was 505 billion VND/km². Meanwhile, the economic density of Thanh Hoa province was 24.99 billion VND/km², Nghi Son town was 301 billion VND/km², Bim Son town was 264 billion VND/km² and Sam Son city: 469 billion VND/km² [16], Hanoi City was 379 billion VND/km², Ho Chi Minh City was 774 billion VND/km², Da Nang City was 104 billion VND/km² and Hai Phong City was 258 billion VND/km² [14]. Thus, Thanh Hoa city had the highest level of economic concentration in the province and is 20.2 times higher than the average economic density of Thanh Hoa province. This is an opportunity to promote the advantages of the agglomeration economy with new economic models such as sharing economy, night economy, digital economy, etc. Normally, the economic density of a growth pole must be higher than the economic density of surrounding territories many times (over 5 times). Thanh Hoa city has also achieved the economic density target set for the provincial growth pole.

Dynamic industries/businesses: Currently, Thanh Hoa city has a number of main industries: construction materials production, mechanical engineering, food processing, forestry product processing and paper production, sewing, shoemaking, electronics, etc. However, according to The criteria of the leading motive force industry is that there is almost no motive force industry.

Some large enterprises include Sunjade Company (Taiwan), Sakurai Company (Japan), Yotsuba Dress Company (Japan), Vinamilk Company, Binh Minh Electronics Company, Hungfu Vietnam Company, etc. However, these enterprises still do not meet the criteria of dynamic enterprises

Trained labor: Technical workers and trained workers not only play a direct role in producing goods and services, but are also factors that help businesses and industries at the cutting edge innovation. Therefore, technical labor is a factor that has a very strong impact on the economic growth of the pole and attracts resources from surrounding areas to the pole.

The rate of trained workers in Thanh Hoa city during the period 2016-2023 was always higher than the rate of trained workers in Thanh Hoa province. The rate of trained workers in Thanh Hoa city in 2016 was 79.4%, increased to 85% in 2020 and reached 87% in 2023. At the same time, the rate of trained workers in Thanh Hoa province was 68%, 69% and 70%. Thus, Thanh Hoa city has met the labor criteria of the growth pole.

Proportion of foreign direct investment (FDI): Thanh Hoa city is also an attraction for investment capital flows, especially FDI capital flows. In 2020, this city accounted for 8.3% of the total FDI investment capital of the entire Thanh Hoa province. Behind Nghi Son town (accounting for 80.3% of total FDI capital) [5]. According to the criteria for determining the growth pole, the proportion of FDI investment capital of urban areas in the province is > 15% of the total FDI capital of the province, while Thanh Hoa city only reaches 55.5%.

Provincial competitiveness index: According to parliamentary regulations for class I urban areas, the Provincial Competitiveness Index of a provincial urban area must be in the top 5 districts, towns and cities of the whole province [9]. In recent years, Thanh Hoa city's provincial competitiveness index has continuously been raised to 21st in 2021 (57.35 VND), 12th in 2022 (68.01 VND) and 2023: ranked 12th (68.01 VND). Friday (70.81 VND). However, it is still not the group of 5 leading districts, towns and cities of Thanh Hoa. Thus, Thanh Hoa city has not met the criteria of the provincial growth pole.

Balance budget revenue and expenditure: Thanh Hoa city's budget revenue continuously increased from 10% in 2015 to 17% in 2016, 10% in 2017, 41% in 2018, 15% in 2019, 15% in 2020, -10.5% in 2021 (decreasing due to the impact of the Covid-19 pandemic), 7.3% in 2022 and 6.3% in 2023. The average growth rate of budget revenue in the period 2011-2015 is 8%/year, in the period 2016-2020 increase to 20%/year and in the period 2021-2023 the increase was only 3.1%/year, due to the severe impact of the Covid-19 pandemic [14].

In 2021, Thanh Hoa city's total state budget revenue reached 3,050.97 billion VND. Total budget expenditure reached 2,263.29 billion VND. The budget revenue-expenditure balance reached 787.68 billion VND. In 2022, Thanh Hoa city's total state budget revenue reached 3,271 billion VND, total budget expenditure reached 2,127.2 billion VND. The budget revenue-expenditure balance reached 1,143.8 billion VND. In 2023, Thanh Hoa city's total state budget revenue reached 3,476.8 billion VND. Total budget expenditure reached 2,291 billion. The budget revenue-expenditure balance reached 1185.8 billion VND [14]. A growth pole must definitely have a surplus in budget revenue. Thus, Thanh Hoa city has achieved the budget balance target of the provincial growth pole.

Total value of exported goods: A growth pole is also an export production center of the territory. From 2020 onwards, Thanh Hoa city will be the export production center of Thanh Hoa province with the proportion of export turnover in the total export turnover of Thanh Hoa province being over 60% in the years 2016-2017. 45% in 2018-2020. From 2021, the proportion of Thanh Hoa city's export turnover dropped to second place, after Nghi Son Town, the proportion still reached over 20% of Thanh Hoa's total export turnover. Specifically, in 2021 it was 33.6%, in 2022 it will be 40.1% and in 2023 it will be 28.6% [14]. According to regulations, the proportion of export turnover of provincial urban areas was >20% of the total value of export goods of the province. Thus, Thanh Hoa city has achieved this target.

Per capita income: According to the results of the survey on labor, employment and average income per capita at district level in 2022 in Thanh Hoa province, the average income per capita in Thanh Hoa city in 2022 is 6.73 million VND/month (80,806 VND). million VND/year), 1.56 times higher than the average income of Thanh Hoa province; 2.06 million VND higher than the average income of the country (4.67 million VND/month) and 0.78 million VND higher than the average income per capita of urban areas nationwide (5.95 million VND/month) [14]. However, according to the National Assembly's regulations, class I urban areas must have per capita income ≥ 2.1 times the average income of the country [9], then Thanh Hoa city only reaches 68.8%. Thus, Thanh Hoa city has not met the average income per capita criteria of the provincial growth pole.

Summary of results assessing the development of Thanh Hoa city's growth pole is shown in the following table.

Table 2. Summary of results of assessing the development of Thanh Hoa city's growth pole in 2016, 2020 and 2023

No	Criteria	Evaluation results		
		2016	2020	2023
<i>indicators determines the nature of the growth pole</i>				
1	Economic scale	achieve	achieve	achieve
2	Economic growth rate	achieve	achieve	not reached
3	Polarization index	achieve	achieve	achieve
4	Economic density	achieve	achieve	achieve
5	Industry/business dynamics	not reached	not reached	not reached
<i>indicators reflects the resources of the growth pole</i>				
6	Trained labor	achieve	achieve	achieve
7	FDI investment	not reached	not reached	not reached
8	Competing capability	not reached	not reached	not reached
<i>indicators reflects the effectiveness of the growth pole</i>				
9	Budget balance	achieve	achieve	achieve
13	Export turnover	achieve	achieve	achieve
11	Per capita income	not reached	not reached	not reached

Source: Author team

In 2016 and 2020, Thanh Hoa city achieved 7 criteria, including: economic scale, economic growth rate, polarization index, economic density, rate of trained workers, budget and export value. There are 4 criteria that have not been met: driving industry/enterprise, attracting FDI capital, competitiveness, and income per capita. By

2023, Thanh Hoa city has achieved 6 criteria, including: economic scale, polarization index, economic density, rate of trained labor, budget and export value. There are 5 criteria that have not been met: economic growth rate, driving industry/business, FDI attraction, competitiveness, and income per capita. Thus, Thanh Hoa city has reached 54.5-63.6% of the growth pole criteria. In particular, the group of criteria determining the nature of the growth pole reached 60-80%, the group of criteria for resources of the growth pole only achieved 33.3% and the group of efficiency criteria of the growth pole achieved 66.6%.

The cause of this state is explained as follows:

In the years from 2020 to 2023, due to the adverse impact of the Covid-19 pandemic, the growth rate of Thanh Hoa city has decreased. Considerably, completely and has not yet fully recovered.

Low foreign investment and slow innovation, so there are very few driving industries/businesses. In addition, most businesses today are small in scale and have low competitiveness.

The business investment environment is not really open and attractive; The method of calling for investment is not proactive; delayed administrative reform; underdeveloped supporting industries and infrastructure

Competitiveness is not high because the city is still confused in focusing highly on urban economic development.

Proposing some development solutions by the mayor of Thanh Hoa city until 2030

The city needs to focus on strongly developing dynamic industries/enterprises. This is a criterion that the city has not met and is also the most important solution to create a high and sustainable growth rate. To do so, Thanh Hoa city must proactively invite advanced businesses from around the world and in the country to invest in the fields of semiconductor industry, microelectronics, and the production of sophisticated and precise machinery components, etc.

The city needs to continue to fill planned industrial parks and industrial clusters; Develop a number of industrial parks in the northern and western suburbs of the city. Because these are areas with large land funds and close to the North-South highway.

Promote urban economy such as night economy, digital economy and sharing economy, etc. which are areas in which cities around the world are developing very quickly and in accordance with the characteristics of urban areas.

Strongly develop supporting industries, clean, high-tech, environmentally friendly industries, especially software industry, digital content, electronic component production, information, medical and pharmaceutical equipment products;

Develop advantageous urban services such as shopping, finance, banking, medical examination and treatment and health care, education, tourism, transportation, entertainment, telecommunications;

Continue to train highly qualified and skilled technical human resources, especially in the fields of new technology, digital economy, urban economy, etc.

There needs to be stronger and more drastic administrative reforms, and find ways to improve the competitiveness index at the provincial level.

4. Conclusion

The growth pole is developing very rapidly at all territorial levels. To evaluate the provincial growth pole, it is necessary to use 11 indicators belonging to 3 groups: assessing the nature, resources and performance of the pole. In the period 2016-2023, Thanh Hoa city has reached 54.5-63.6% of the growth pole criteria. In particular, the group of criteria determining the nature of the growth pole reached 60-80%, the group of criteria for resources of the growth pole only achieved 33.3% and the group of efficiency criteria of the growth pole achieved 66.6%. To continue developing this growth pole, Thanh Hoa city needs to focus on solutions: attracting investment (especially FDI investment); filling existing industrial zones and clusters, opening a number of new industrial zones and clusters; urban economic development; training technical human resources; supporting industry development; improving infrastructure and improve competitiveness.

References

- [1] Andray Kobayashi, Editor in Chief (2020), *International Encyclopedia of Human Geography*, 2nd edition, vol.6, 281-286.
- [2] Chi cục Thống kê thành phố Thanh Hoá (2016), *Số liệu thống kê các năm từ 2016 đến 2023*.
- [3] D.F.Darwent (1969), *Growth poles and growth centers in regional planning - a reviewt*, Environment and Planning, vol. 1, 5-32.
- [4] Japan International Cooperation Agency - JICA (2013), *Socialist Republic of Vietnam Study to Support Formulating Growth Pole in Northern, Central and Southern Region in Viet Nam*. Final Report. Mitsubishi Research Institute Co. Ltd. Landtech Japan Co. Ltd.
- [5] Lê Hữu Khuê, Nguyễn Thị Lan (2022), *Xác định các cực tăng trưởng trên địa bàn tỉnh Thanh Hóa*, Tạp chí Khoa học Trường Đại học Hồng Đức, số 58.
- [6] Natalya Novikova, Alexander Leontiev (2021), *Methodological approaches to assessing the efficiency of growth poles in the economic space of the region*. E3S Web of Conferences 296, 06038.
- [7] John B. Parr (1999), *Growth-pole Strategies in Regional Economic Planning: A Retrospective View*. Part 1. Origins and Advocacy. Urban Stud. N 36: 1195.
- [8] Perroux, F. (1964), *L'Economie du XXème Siècle*, Presses Universitaires de France.
- [9] Quốc hội (2022), *Nghị quyết số 26/2022/UBTVQH15 về Sửa đổi, bổ sung một số điều của Nghị quyết số 1210/2016/UBTVQH13 ngày 25/5/2016 của UBTV Quốc hội về phân loại đô thị*.
- [10] Tỉnh uỷ Thanh Hoá (2015), *Văn kiện Đại hội đại biểu Đảng bộ tỉnh Thanh Hóa lần thứ XVIII, nhiệm kỳ 2015-2020*.

- [11] Lê Văn Trường, Lê Hữu Khuê (2022), *Quan điểm của Đảng ta về cực tăng trưởng*, Kỷ yếu Hội thảo khoa học Quốc tế Phát triển kinh tế-xã hội địa phương thời kỳ hậu covid-19, Nxb. Đại học Kinh tế quốc dân. Hà Nội, trang 372-383.
- [12] Lê Văn Trường (2022), *Xác định các cực tăng trưởng ở Việt Nam*, Kỷ yếu Hội nghị khoa học Địa lí toàn quốc lần thứ XIII, Nxb. Khoa học Tự nhiên và Công nghệ, quyển 1, trang 338-345.
- [13] Lê Văn Trường, Nguyễn Quang Vinh (2024), *Đặc điểm phát triển cực tăng trưởng ở Việt Nam*, Kỷ yếu Hội nghị khoa học Địa lí toàn quốc lần thứ XIV, Nxb. Thanh niên, quyển 1, trang 483-492.
- [14] Lê Văn Trường, Nguyễn Thị Thuý (2024), *Phát triển kinh tế đô thị ở thành phố Thanh Hoá thời kỳ 2016-2023. Kỷ yếu Hội nghị khoa học địa lí toàn quốc lần thứ XIV*, Nxb. Thanh niên, quyển 1, trang 527-534.
- [15] UBND thành phố Thanh Hóa (2023), *Báo cáo tình hình kinh tế-xã hội, quốc phòng - an ninh các năm từ 2016 đến 2023*.
- [16] UBND tỉnh Thanh Hóa (2024), *Báo cáo phương án sắp xếp các đơn vị hành chính của tỉnh Thanh Hoá*.
- [17] Tổng cục Thống kê (2023), *Thông cáo báo chí kết quả điều tra mức sống dân cư năm 2022*.
- [18] WB (2010), *World Development Report 2009. Reshaping Economic Geography*. Washington, D.C.
- [19] WB (2011), *Global Development Horizons 2011: Multipolarity - The New Global Economy*, Washington, D.C.
- [20] WB (2011), *Đánh giá đô thị hoá ở Việt Nam*, Báo cáo hỗ trợ kỹ thuật, số 66916.