# ROLES OF ENGLISH IN CASE TEACHING METHOD FOR ECONOMIC STUDENTS VIA A CASE OF CONSTRUCTING INFRASTRUCTURES FOR industrial clusters (CCN) in Hanoi Vietnam

#### Nguyen Dinh Trung, PhD (1<sup>st</sup> author)

National Economics University, Hanoi Vietnam

trungnd@neu.u.vn

Dinh Tran Ngoc Huy, MBA (corresponding)

Banking University HCMC, Ho Chi Minh city, Vietnam - International University of Japan,

Japan

dtnhuy2010@gmail.com

ID ORCID: 0000-0002-2358-0699

#### Le Huong Hoa, PhD (corresponding)

Faculty of Foreign Languages and Informatics, The People's Police University, Vietnam

hoalehuong@yahoo.com

# Nguyen Trong Diep, LLD (corresponding)

School of Law, Vietnam National University, Hanoi

dieptrongnguyenvnu@gmail.com

#### Abstract

Japan's Ministry of Economy, Trade and Industry (METI) (2001) considers industrial cluster as "an industrial concentration with a developed network of industrial links between companies, universities, and research institutes to make improvements".

Different from the above two concepts, Sonobe and Otsuka (2006) consider "Industrial cluster as a geographical concentration of enterprises producing similar or related products in a small area". This concept considers industrial cluster not merely as a concentration of enterprises in a certain area but as a concentration of enterprises producing similar or closely related products. By using synthesis and inductive methods, observations and experiences

from Hanoi Vietnam, authors indicated that Industrial development is a right policy of the State and of the City in order to accelerate the process of industrialization and modernization of agriculture and rural areas and contribute to the transformation of the economic structure and labor structure of the region. To speed up the process of building and developing industrial clusters in the region, it is indispensable to build infrastructure for clusters.

Last but not least, this case study can be approached under a form of a case teaching for economic students with English roles.

Key words:case teaching method, Hanoi industrial clusters, infrastructures, constructing JEL: M21, M10

#### 1. Introduction

Educators, teachers can apply English for teaching case study to help them to fill the gap between good students and lazy students by improving their 4 skills in English.

In below sections, authors will present an example of a case study of Hanoi

industrial clusters o teach economic students with English.

On the basis of documents related to industrial clusters, the author has analyzed the advantages and limitations of different conceptions of industrial clusters such as: the concept of Michael Porter (1990), of the Ministry of Economy, Trade and Industry Industry Japan (2001), by Sonebe and Otsuka (2006), by Kuchiki (2005). In particular, the author has paid attention to the issue of choosing the right industrial clusters development model for Vietnam. According to the author: among the CCN development models, the endogenous development model of Sonebe and Otsuka has important implications for the development of industrial clusters in Vietnam. Meanwhile, Kuchiki's industrial clusters development model is important for the development of supporting industries.

In summary, there are many works of many authors related to industrial zones, however, there has been no systematic research on building infrastructure of industrial zones in Hanoi. This is a gap in the research for the author to decide to choose the topic "A CASE OF CONSTRUCTING

INFRASTRUCTURES FOR industrial clusters in Hanoi Vietnam".

# **Research question:**

Question 1: Present a case teaching method and case example to teach economic students

# 2. Literature review

The concept of "Geographical clusters" or "Industrial districts" appeared in the late 19th century by Alpred Marshall, from his study stemming of the concentration of industrial production in the North of England. According to Marshall, industrial clusters have three basic advantages from centralization: The pervasiveness of information: The specialization and division of labor between establishments and the development of a diversified skilled labor market. Later, the concept evolved into two different schools of industry approaches. French researchers such as Courlet et Pecqueur, Colletis ... call local production systems. The British and American researchers called the Industrial Cluster "Industrial Cluster" or "Industrial districts" with the approach of G.Becattini; Michael Porter...

According to G.Becattini, industrial cluster is a socio-territorial entity characterized by the presence of a community of people and business populations in a certain geographical and historical space.

OECD Then According to the (Organization for Economic Cooperation and Development): industrial clusters can be thought of as "a production system consisting of interdependent firms (professional suppliers) training institutions (schools) universities, research engineering companies...), institutes, intermediaries (brokers, consultants...) and customers, linked together in a valueadded production system."

Sonobe and Otsuka (2006) consider "Industrial cluster as a geographical concentration of enterprises producing similar or related products in a small area". In Vietnam, from the date of decision 132/2000/QD - TTg dated 24/11/2000 on a number of policies, encouraging the development of rural industries until before the decision 105/2009/QD - TTg dated 19/8/2009, industrial cluster is understood and named very differently between localities in the country, where it is called the craft village industrial cluster, where it is called the rural industrial cluster, where it is called the medium and large industrial cluster small medium... (source: author synthesis)

# 3. Methodology

Authors mainly use experiences, observations, practical situation with cases studies, analytical method, synthesis, statistical analysis methods, comparison based on theoretical documents, practical reports, legal documents related to the topic; Commune survey method, academic meetings and field surveys, in which 200 production and business establishments in different countries were investigated

# 4. Main findings

4.1	CASĔ	STUDY	OF	
INFR	ASTRUCTUR	Е		
CON	STRUCTION	OF	SOME	
INDU	STRIAL Clust	ters IN HA	NOI	
4.1.1	Nguyen Khe i	industrial	cluster –	
Dong	Anh district			
ЪT	TZ1 T 1	1		

Nguyen Khe Industrial Park is located in Nguyen Khe and Tien Duong communes and Dong Anh town, Dong Anh district, Hanoi. The total area of the entire Nguyen Khe Industrial Park area (two phases) and the urban roads around the cluster has an area of: 959,236m2.

Nguyen Khe Industrial Park (phase I) with an area of 18.5 hectares has been invested by the investor, Dong Anh District People's Committee with the state budget. Up to 2010, industrial cluster has attracted investment of 12 enterprises in production and business in the fields of mechanical engineering, assembly, auto parts production, building materials, wine, textiles... the occupancy rate is 100. %. Through the survey, the author has collected the following basic information about the infrastructure of Nguyen Khe Industrial Park (phase I).

- Road system: Phase I will only build 3.5 kg/m2 asphalt gravel road, including public roads in the area and roads in the industrial cluster; do not make asphalt concrete pavement structures and sidewalks.

- Water supply system: Enterprises rent land in the industrial cluster to drill, exploit and build clean water treatment stations and invest in water supply networks.

- Drainage system along public roads in the

area of D1500 sewer lines combined with D600 sewer lines and manholes; according to the drainage in the industrial cluster, using sewer lines D1250 combined with sewer lines D750 and manholes; Wastewater drainage system D600 leads to a wastewater treatment plant with a capacity of 4600m3/day.

- Power supply system: the electricity industry organizes to sell electricity directly to enterprises investing in the industrial cluster; Public lighting system along the roads in industrial cluster.

Total investment of Nguyen Khe Industrial Park Phase I is 46,565 billion VND, of which: State budget support: 14,597 million VND (Construction of technical infrastructure for public roads outside the fence, investment preparation costs), technical design, mine detection, support clearance of common infrastructure land in the industrial cluster). Contributing capital of enterprises: 31,968 million VND (Building technical infrastructure in the fence of the industrial park, compensation for site clearance on the land of the enterprise that leases land).

		Stage I		Satge II		Whole industrial cluster	
No.	Land usage function	Area (m <sup>2</sup> )	Ratio (%)	Area (m <sup>2</sup> )	Ratio (%)	Area (m²)	Ratio (%)
1	Đất Xí nghiệp CN	102.560	71,72	382.917	57,78	485.477	60,25
2	Đất công cộng	4.220	2,95	43.179	6,52	47.399	5,88
3	Đất Hạ tầng KT	11.760	8,22	18.672	2,82	30.432	3,78
4	Đất cây xanh	14.170	9,91	76.775	11,58	90.945	11,29
5	Đất giao thông	10.290	7,20	141.178	21,30	151.468	18,80
	Tổng	143.000	100	662.721	100	805.721	100

Table 1- Land use structure of Nguyen Khe Industrial Cluster

Source: Dong Anh District People's Committee

- The City People's Committee has also approved the detailed planning of 1/500 scale of Nguyen Khe Industrial Park (phase II) with an area of about 77.5 hectares, close to Nguyen Khe Industrial Park phase I. This detailed plan have specified: functions, land use criteria (building height, construction density, land use coefficient...) for land areas reserved for construction of industrial works; public service center; green areas; technical services for industrial parks; and technical infrastructure works (traffic, energy supply, lighting, water supply, drainage, waste treatment, communication); stipulating the preservation and embellishment of the natural landscape, ensuring safety against fire and explosion, protecting the environment...

-The detailed planning also concretizes the planning on the transport system; water supply system; sewage drainage and waste collection systems; electricity distribution system; postal information system. Implementing the policy of investment socialization according to Decision No. 15/2007/QD-UBND dated January 23, 2007 of the People's Committee of Hanoi City on promulgating Regulations on bidding to select investors for projects with land use in Hanoi; The People's Committee of Dong Anh district has implemented the procedures to organize the bidding and select the winning investor to implement the investment and construction project of technical infrastructure of Nguyen Khe industrial cluster (phase II) which is the Joint Venture of Joint Stock Company. Dong Thanh Hanoi - Viet Ha Construction and Investment Company - Vietnam Construction Investment Development Joint Stock Company -Housing Development and Trading Joint Stock Company. Currently, the investor is actively implementing investment preparation steps such as land acquisition, clearance and investment in construction of technical infrastructure.

#### 4.1.2. Hoang Mai Industrial Complex – Hoang Mai District

-Hoang Mai Industrial Park (formerly the Handicraft Industry Cluster of Hai Ba Trung District). On May 25, 2007 the Hanoi People's Committee issued Decision 2197/QD-UB on handing over the handicraft cluster with a total area of 9.25 ha and the Hai Ba Trung District Management Board to Hoang Mai District for management. On May 25, 2007 the City issued Decision No. 2198/QD-UB on the transfer of Vinh Tuy Industrial Park with an area of 12.1 ha to Hoang Mai District for management. The current status of Hoang Mai industrial cluster is as follows:

- There is no wastewater collection system, manhole;

-Degraded technical infrastructure, damaged public lighting system;

-Number of enterprises licensed to invest in the cluster: 51 enterprises;

-This industrial park does not have a fence around, so the phenomenon of people participating in traffic back and forth on internal roads, encroaching on sidewalks, indiscriminate dumping of garbage...;

- The management board of Hoang Mai industrial cluster is inefficient and not proactive. The reason is that businesses in the cluster have paid the initial investment when entering the cluster, and other monthly payments such as electricity, water, public sanitation, telecommunications, etc., sign directly with other units without need to go through the Cluster Management Board. In case it is necessary to maintain and maintain technical infrastructure, it will take a long time to wait for the District's budget and affect the production situation of enterprises in the cluster;

-Currently, the city is planning to convert the function of Hoang Mai industrial cluster from industrial land to commercial service to operate more efficiently, but it still faces many obstacles and difficulties. Businesses on the road or with a good location want to quickly convert to building high-rise buildings and offices for rent. Others inside do not want to move because they have not fully depreciated their machinery and factories and have not found a place to move.

#### 4.1.3. Ninh Hiep Industrial Complex – Gia Lam District

February 26, 2010. On the Department of Planning - Architecture and Gia Lam District People's Committee announced the detailed planning of Ninh Hiep Industrial Park, scale 1/500. The planning land of Ninh Hiep Industrial Park is located in Phu Ninh Hamlet, Ninh Hiep Commune, Gia Lam District, Hanoi, adjacent to the new National Highway 1A, about 4 km from National Highway 5 Hanoi - Hai Phong. In terms of scope and boundaries: The East borders on National Highway 1 (new); - The South borders the drainage ditch of area 7 Bac Duong Commune; The West - South borders the inter-commune road axis; The West -North borders on arable land: The East -North borders with pepper ditch in area 7 Bac Duong commune.

In this industrial park, the lake area combined with the green land along the lakeside is built with a number of smallscale works, resting, exercising, creating climate for the area and the landscape of the area combined with Green trees along the road form a continuous open space system in the area. Total investment of nearly projects: 311.12 billion VND.

According to the master plan, the

industrial complex has an area of 63,138 ha, of which 60,631 ha is land belonging to the industrial complex and is allocated according to the following functional areas:

a. Land for construction of factories and enterprises:

Land for factory construction has a total area of 361,171 m2, accounting for 60.15% of the total area of the site and is divided into 9 lots, the smallest is 1,434 ha and the widest is 6,175 ha. All plots of land are surrounded by roads to meet the requirements of transportation. fire prevention and technical infrastructure. This industrial cluster also ensures to arrange enough parking space, gather goods for each project and ensure the backspace; build a local wastewater treatment area, do not discharge directly into the common system. Design and build works in compliance with architectural and technical requirements such as: Red line, construction line, arrange enough parking spaces to serve the work itself according to Construction Regulations.

b. Land for internal traffic:

The land for internal traffic of the industrial cluster has an area of 11,166 ha (accounting for 18.6% of the total area), in which the concentrated parking lot for transactions and a part of the needs of the industrial cluster has an area of 0.708 ha. In the land area, each factory and enterprise shall arrange enough private parking space according to usage requirements.

c. Green area, flower garden

Land for green trees and sports has an area of 8,277ha (accounting for 13.8% of the total area), distributed in 4 plots of land and green strips along the border roads of the industrial cluster. In the concentrated green area, there is an area suitable for arranging sports facilities such as badminton, volleyball and tennis courts, and organized as miniatures, flower resting, gardens for and regional microclimate. . In addition, trees are also distributed along the roads and planted in factories to create landscapes and create an environment for the whole industrial park.

d. Land for construction of administrative, service and research works

The operating area and public works have an area of 2,267ha (accounting for

© 2021 JPPW. All rights reserved

3.8% of the total area) and are built with operating houses, service works, product introduction, healthcare... To meet the demand in the industrial zone, including lots TT-01 (0.43 ha), TT-02 (0.369 ha), TT-03 (1.468 ha).

e. Land for focal works of technical infrastructure

Land for key technical works has an area of 2,257 ha; accounting for 3.8% of the total area of the whole area, including 2 lots:

- Lot KT-01 (0.749 ha) is arranged power station and clean water supply station

- Lot KT-02 (1,508 ha) is equipped with a wastewater treatment station, a common yard for transferring solid waste.

• About the infrastructure of Ninh Hiep industrial cluster

• Power supply: Power is supplied continuously and stably through 9 substations with a capacity of 2,000 KV/station, including 2 1,000 KV transformers. High voltage electricity network is provided along the internal roads in the industrial cluster. Enterprises invest and build low voltage stations depending on the consumption capacity. The power supply for the industrial cluster is the 110 KV Thanh Am station through the 22 KV substation cable line along Yen Vien - Dinh Xuyen street. In the long term, it will be supplemented with power from 110 KV Gia Lam 2 station. Lighting is taken from low voltage stations of clusters of factories.

• Water supply: industrial cluster's water plant was built with a capacity of 12,000 m3/day, of which phase I provides about 3,500 m3/day. When Yen Vien Water Plant expands the domestic water supply network for Ninh Hiep Commune, additional water will be supplied from the source of Yen Vien Water Plant. The water source is taken directly from the underground water source. The water supply system is connected to the fence of each enterprise.

• Industrial cluster also arranges fire hydrants along the main streets, the minimum water pressure required for fire fighting needs to be 10m head. The construction water supply pipeline creates a ring circuit with the main water supply pipelines 100 200mm and the branch pipes 50 75mm supplying water to the works.

Surface water is • Drainage: collected into existing irrigation canals and drained naturally through Duong River. Wastewater through the collection network is brought to the common treatment station of the industrial cluster. For rainwater drainage, industrial cluster has built a separate sewer system between rainwater and wastewater. Construct sewer lines of size D600mm - D1500mm along the planned road in the north-south direction and drain water into agricultural ditches in the north and south. Total length of storm drain: 4,970 m.

• oWastewater and waste treatment: industrial cluster has built its own supply system, industrial wastewater after being treated locally in each factory is discharged into the sewer system of size D300 mm - D400 mm 5055 m long to lead to a wastewater treatment station with a capacity of 2400 m3/day (area of 1.5 ha). After the treatment meets the standards (according to the provisions of TCVN 5945 - 1995), it is discharged into the regional drainage system. For waste, after being classified at the industrial cluster, it will be transported to a centralized treatment area according to the City's regulations.

o Post and Telecommunication: The telecommunications system meets international standards (5km long fiber optic cable line is built) and is connected from Gia Lam Post Office to industrial cluster meet the needs of to communication and postal services. of enterprises. Industrial cluster has built a separate post office for industrial cluster with a total of 200 machines and built 12 cable cabinets to connect subscribers of factories and factories.

• Internal traffic: The internal road system is built with a reasonable crosssection, ensuring easy and convenient means of transportation to each factory. Specifically: The central main axis has a road cross section of 55m (Road bed: 15m  $x \ 2 = 30m$ , median strip: 15m, sidewalk  $5m \ x \ 2 = 10m$ ); The main road has a cross section of 25m (Road bed: 15m; sidewalk:  $5m \ x \ 2 = 10m$ ); Regional road has a cross section of 17.25m (Road bed: 11.25m; sidewalk:  $3m \ge 2 = 6m$ ); The contour of the CCN has a cross section of 15.25m (Road bed: 11.25m; sidewalk: 3 + 1 = 4m). In addition, lighting systems are also installed along the roads.

#### 4.1.4. Industrial clusters are located in Hapro food industrial park, Gia Lam district

Hapro Food Industrial Park is located in Le Chi Commune, Gia Lam District, 20 km from the center of Hanoi, with an area of 64 hectares. Hapro Food Industrial Park has the following boundaries: To the North, it borders Le Chi Commune Field; The Northwest borders the Bac Hai ditch; The South borders on road 181; The West borders on the fields of Kim Son commune.

Hapro Food Industrial Park consists of 3 main clusters:

i) Food industry with an area of 31.2 ha. This cluster has completed construction of technical infrastructure in 2004. In which, 15 ha is for the Food Processing Industry directly invested by the Investor, the rest 16.2 ha is for calling for investment to lease.

ii) Residential area for about 2500-3000 officials and employees working at the industrial cluster with an area of 15.4 ha.

iii) Ancillary area for food industry with an area of 17.4 ha. This is an auxiliary area for the food industry with the function and task of preparing conditions for techniques, managing varieties. and deploying the raw material area for the food building workshops industry, for experimental research and production at the industrial cluster. food (wineries, cold cuts, bamboo blinds for export...). Training workers in food processing techniques, management skills, food packaging consulting, commercial services, sports and entertainment...

The total planned land area of the cluster includes: Regional road land; City road land; Area of green land; Ancillary areas; Housing area.

Ancillary area with an area of 139,716 m2, including the following functions:

1) Mixed construction land with an area of 21,037 m2, accounting for 15.06%

2) Vocational school land with an area of 1,748 m2, accounting for 12.51%

3) Land for green trees and entertainment with an area of 3,656 m2, accounting for 26.17%

4) Traffic land with an area of 17668 m2, accounting for 12.65%

5) Land for key technical infrastructure works with an area of 2,519 m2, accounting for 1.8%

6) Land for experimental workshops with an area of 29,041 m2, accounting for 20.79%

7) The land of the preparation area is similar to the area of 5,769 m2, accounting for 4.12%

8) Land for processing and packaging nursery in Hanoi with an area of 9,639 m2, accounting for 6.9%

# \* About infrastructure

a) Traffic system in the cluster:

+ Routes in the residential area and ancillary areas:

- The branch road 17.5 m wide is the main traffic axis connecting the auxiliary area and the residential area.

- Branch roads with cross-sections from 15.5m; 13.5m; with a roadbed of 5.5m-7.5m wide, sidewalks at least 2.5m wide, the internal traffic network is designed completely and synchronously, meeting the requirements of use and in accordance with Vietnam's Construction Standards and Regulations.

- There is also a road to the house: 7.5m - 10m wide.

- Parking lots of living quarters and ancillary areas are located near public service areas, living areas and auxiliary areas, with enough parking space according to regulatory standards.

b) Water supply system:

The water supply for the housing area and ancillary area of the HAPRO food industry is upgraded to at least 2000m3/day and night to meet the area's water demand. The network of transmission pipelines is arranged in a ring network with a diameter of =250 - 100. Distribution pipes are arranged underground along the internal road, supplying water to each plot of land.

High-rise buildings are supplied with water through a system of tanks and local booster pumping stations. The fire fighting water supply is taken from the domestic water supply network, the fire hydrants are arranged along the subdivision roads, branch roads with the prescribed distance.

c. Drainage system and environmental sanitation:

Rainwater drainage system of HAPRO living quarters and ancillary areas, after treatment, is discharged into Bac Hai ditch. Sewage drainage is designed with a separate system, is preliminarily treated through a semi-septic tank, drains to the common sewage drainage system of the living area and HAPRO auxiliary area, and from there through the local treatment station, discharged into the ditch. North Sea. The main sewer line has a diameter of D=1,000mm to 1,500mm, arranged along the road in the residential area and ancillary areas towards the Bac Hai ditch. Branch sewer line D=600 mm to 800 mm.

Garbage in the housing area is collected into the specified place (the garbage tanks, garbage containers are arranged at a reasonable distance), and then transported to the city's waste treatment area.

d. Electricity distribution system:

Building a 22 KV underground cable line along the branch road in the residential area and ancillary areas to supply 7 stations with capacity from 630 KVA to 1600 KVA. Building a lighting underground cable line along the planned roads 0.5 m from the edge of the curb with a total length of 6,524 m.

# 4.1.5. Binh Phu - Phung Xa industrial cluster, Thach That district

Binh Phu - Phung Xa Industrial Park is planned in detail according to Decision No. 2620/QD- People's Committee with a total industrial area of 107.13 ha (of which 83.68 ha is for industrial construction) and a total investment capital of about 395,3 billion dong. This cluster belongs to the administrative boundaries of 2 communes Binh Phu and Phung Xa, Thach That District.

According to the planning, the structure of land use in the industrial cluster is as follows:

a. Land for factory construction has a total area of 48.85 hectares, accounting for

58.38% of the planned industrial area. The expected arrangement of industry groups in this area is:

-The group of garment factories has an area of about 5.19 hectares, accounting for 10.62% of industrial production land

-The group of mechanical processing enterprises covers an area of about 2.3 hectares, accounting for 4.71%.

-Group of handicraft factories with an area of about 5.69 hectares, accounting for 11.65% of industrial production land

-The group of factories that assemble and manufacture electronic components, refrigeration... has an area of about 10 hectares, accounting for 20.47% of industrial production land.

- The group of automobile and motorcycle assembly factories has an area of about 16.24 hectares, accounting for 33.24%.

b. Service center land has an area of 2.01 ha, accounting for 2.4% of the planned area of the industrial cluster, in the area including the office of the Industrial Park Management Board, the headquarters of the security team, fire prevention and fighting, the post office, banks, customs, market management, cultural houses, restaurants, medical stations, short-term vocational training centers, job placement centers, product exhibition areas, sports fields sports...

c. Land for construction of workers' houses is about 3.61 ha, accounting for 4.31% of the planned area of the industrial cluster.

d. Land for key technical infrastructure works with a total area of 1.91 ha, accounting for 2.28% of the industrial zone planning area. Including water treatment area with an area of 0.37 ha; wastewater treatment zone 1 has an area of 0.74 ha; Wastewater treatment area II has an area of 0.8 ha

e. Green land – water surface has a total area of about 8.16 hectares, accounting for 9.74% of land for construction of industrial parks

f. Land for internal traffic is about 19.14 hectares, accounting for 22.87% of the total planned industrial area

Binh Phu - Phung Xa Industrial Park has planned technical infrastructure for:

+ Planning internal roads

+ Floor leveling planning

+ Drainage planning (rainwater drainage, wastewater drainage)

+ Waste collection planning (domestic waste, industrial waste)

+ Water supply planning (Water for production, serving fire fighting, watering plants)

+ Power supply planning (Electricity for production areas, daily-life lights, street lights)

+ Communication planning

+ Solutions to protect the environment

# 4.1.6. Some remarks drawn from the case study of infrastructure construction of industrial clusters in Hanoi

The industrial clusters selected and presented in this thesis are randomly taken from the districts, each industrial cluster has its own characteristics, size and function are not the same but can be representative of the industrial clusters in Hanoi at present. now on.

1.CCN Nguyen Khe - Dong Anh District. This is a industrial cluster that has been built since 2000 and has been put into operation with the occupancy rate of 100% of industrial land. The city has continued to build and expand the industrial cluster with an area 4 times larger than the area of phase I. In phase II, the city implements the policy of investment socialization, organizes bidding to select investors. Investors will spend money to invest in infrastructure construction and lease it back to secondary investors after the infrastructure is completed.

2.Industrial cluster Hoang Mai- Hoang Mai District. This is a industrial cluster located in the inner city, built in 2000 and put into operation. The city is planning to convert this industrial complex from industrial production to service trade.

3.Industrial clusters are located in Hapro food industry zone. This is an industrial park with 03 industrial clusters with different functions such as a factory area, a residential area and an auxiliary area for the industrial cluster. This industrial park is designed quite synchronously, there is a link between production and business establishments in the cluster, and there is a design of housing areas to serve officials and employees in the cluster. 4.Industrial cluster Binh Phu- Phung Xa, Thach That District. This is an industrial complex that is planned quite synchronously in terms of both technical and social infrastructure, even with area planning for specific groups of industries for businesses to invest in in the cluster.

Through the study of the above cases, the author has commented as follows:

- Industrial zones are multi-sectoral and are located in locations with many SMEs and near craft villages and road traffic hubs.

- The construction of the infrastructure of the industrial zones is carried out according to the planning. But the planning of some industrial zones has not yet met the requirements of industrial zones development, so it is necessary to convert the functions of the industrial zones or supplement the planning, for example: Vinh Tuy industrial cluster has changed from a production cluster to a production complex with services. Commerce; Nguyen Khe Industrial Park Phase I planned 18.5 hectares and phase II supplemented the planning with an area of about 77.5 hectares

- The industrial clusters have built infrastructure inside and outside the cluster to serve the production and business of the cluster. In general, the infrastructure is basically synchronous, there are land lots reserved for the construction of factories, internal traffic, trees, land for construction of the operator, housing for officials and employees... However, Most of these industrial clusters do not have a dedicated land for wastewater treatment...

-The quality of some industrial cluster infrastructure construction works is not up to the design quality

- The management model of infrastructure construction is not reasonable. Before the decision No. 105/2009/QD - TTg dated August 19, 2009, the promulgation of regulations on management of industrial zones, the construction of industrial was infrastructure assigned to the District/District Project Management the decision Board. After No. 105/2009/QD - TTg, there was a change in the management model of infrastructure construction, that is, the investor and the

construction and business of industrial infrastructure were assigned to enterprises with financial capacity and expertise. on infrastructure construction. For example: Industrial Park and Urban Infrastructure Investment Joint Stock Company No. 18 is the investor of Ninh Hiep industrial cluster; Hanoi South import-export and production service company is the investor of industrial cluster in Hapro food industrial park.

#### 4.2. GENERAL ASSESSMENT OF THE STATUS OF INFRASTRUCTURE

CONSTRUCTION OF INDUSTRIAL Clusters IN HANOI

# 4.2.1. Outcomes and advantages of building infrastructure

Industrial development is a right policy of the State and of the City in order to accelerate the process of industrialization and modernization of agriculture and rural areas and contribute to the transformation of the economic structure and labor structure of the region. To speed up the process of building and developing industrial clusters in the region, it is indispensable to build infrastructure for clusters. Over the years, the construction of the infrastructure of industrial zones in Hanoi has had the following main results and advantages:

(1) Through many years of construction and development, up to now, the city has built a relatively synchronous technical infrastructure system, meeting the requirements for the development of industrial zones in particular and the development of industry and handicrafts of the province. City in general. Compared with other localities, Hanoi has good infrastructure in terms of traffic, electricity, water, post office... Besides, Hanoi has been invested heavily in infrastructure development, this is a good condition. to develop industrial clusters.

Through the survey at the production facilities in the Clusters, the majority of enterprises highly appreciated the improvement of the floor infrastructure in the current Clusters compared to before they produced in craft villages and production places. scattered, small. Table 2.16 General assessment of the level of infrastructure improvement of production and business establishments compared to before moving into industrial zones will help us see this clearly

No								
	Criteria	Worse	No change	Fairly	Better			
			_	good				
1	Power supply	0	8%	31%	62%			
2	Water supply	0	23%	46%	23%			
3	Transportation of materials and goods	0	15%	54%	31%			
4	Communications	0	15%	23%	62%			
5	Technology applicability	0	31%	54%	15%			
6	Waste treatment	0	15%	62%	23%			
7	Drainage	0	8%	62%	23%			
8	Protection, Security	0	8%	62%	31%			
9	General hygiene	0	15%	31%	54%			
11	Additional services	0	15%	77%	8%			

 Table 2- Assessment of the level of infrastructure improvement

# Source: Author's survey

(2) The city attaches great importance to investment and planning. The city soon has a plan, orientation, plan and determination to rapidly develop the the industry in order to transform economic structure in the direction of industrialization and modernization. The city has identified industrial development and industrial infrastructure development as an important task in the socio-economic development strategy and plan, industrial development as well as rural development. The planning and construction of industrial zones has created excitement and confidence of production households and businesses in Hanoi's economic development policy. The biggest difficulty is that the production space is gradually solved with the active support of local authorities. Production households have actively invested in developing industries and expanding production scale.

(3) The occupancy rate of industrial land area of industrial clusters in Hanoi is higher than this rate of industrial clusters in the whole country. In 2010, the average occupancy rate of industrial land in the country was 26.4%, while that of Hanoi was 34.69%.

(4) The development of industrial zones and the construction of industrial infrastructure in Hanoi have been considered and gradually resolved in coordination and association with the development of high-tech parks, industrial parks, and craft villages. of Hanoi. As we all know industrial cluster and IP are both territorial forms of production organization, they have a very close relationship with each other in terms of: purpose, content and management. The city not only has a sense of combination, but in fact has put the development of industrial zones and industrial zones in the same planning, for example: Master plan for development of zones and industrial zones in Hanoi until 2020, vision to year 2030

(5) Combine the development of industrial clusters and industrial infrastructures with the new rural construction program. The overall goal of the new rural construction program is to "build a new countryside with a step-by-step modern modern socioeconomic infrastructure; rational production economic structure and organization forms; attach agriculture with rapid development of industry and services; linking rural development with urban planning according to planning; stable and democratic rural society rich in cultural and ethnic identities, protected ecological environment, safe Security and order are maintained; the people's material and spiritual life is increasingly improved". In fact, the construction and development of industrial infrastructure in Hanoi has effectively implemented a number of objectives of the new rural development program in the suburbs of Hanoi.

(6) There has been a certain improvement in the decentralization of investment management; in the selection of a management model for the construction of industrial infrastructure and in construction administrative procedures. This has created favorable conditions for the implementation of the master plan on industrial development and infrastructure above construction.The management model has clearly defined the functions and tasks of State management and management of establishments: management of the investor in the construction and business of industrial cluster infrastructure; The management of the construction organization, the management of the industrial enterprise, the specific functions and tasks of the State and the above organizations are:

The Department of Industry and Trade assumes the prime responsibility for proposing and organizing the implementation of mechanisms, policies and regulations related to the construction and development of industrial zones; Approving the management charter; Organizing the selection of investors to build and trade industrial cluster technical infrastructure; Carry out inspection, supervision, assessment and report on the operation of industrial clusters in the city.

The Department of Planning and Investment shall assume the prime responsibility for, and coordinate with the Department of Industry and Trade in, organizing the reception and registration of investment in industrial parks; Carrying out the appraisal of the results of selection of investment in construction and business of industrial cluster infrastructure.

The Department of Finance shall assume the prime responsibility for organizing the appraisal and approval of the cost of using public services and utilities of the industrial cluster; To assume the prime responsibility for determining investment rates for infrastructure of industrial zones using state budget capital; Determination of land rent and land use levy in industrial clusters.

The Department of Planning and Architecture shall assume the prime responsibility for, and guide the order and procedures for formulating, appraising and approving detailed planning of industrial clusters. The Department of Construction performs the state management of construction for shared technical infrastructure works and production and business construction works in industrial zones.

The Department of Natural Resources and Environment shall guide the order and procedures for land recovery, land allocation, land lease, and grant of land use right certificates; State management of the environment in industrial zones.

District-level People's Committees direct and perform the function of State management in administrative and territorial matters for industrial parks: Coordinating with the City's State management agencies in performing the specialized State management function for industrial parks in the locality; Organize the development of dossiers on establishment and expansion of industrial clusters and submit them to competent authorities for approval; Directing the implementation of construction and development of industrial zones in the locality; Organizing the selection of the investor of the forestrv industry: Approving the Charter on management, costs of using public services and utilities of the public sector; Directing activities of industrial cluster Management Board, industrial cluster development center; Directing specialized agencies directly People's under the Committee of coordinating communes in the implementation of land acquisition, site clearance, resettlement, construction and development of industrial zones: Coordinate with the Department of Industry and Trade to participate in the development of industrial zones development planning in the area.

Investors in construction and business of technical infrastructure of industrial responsibilities cluster have and obligations: To implement investment projects on construction of technical infrastructure of industrial cluster according to the contents of the granted investment license: Organize the maintenance and repair of technical infrastructure works in the industrial cluster to ensure normal, continuous and correct operation throughout the operation period; To perform obligations according to the provisions of the law on finance, accounting, auditing, statistics, insurance, labor, regulations on labor safety, fire prevention and fighting, industrial hygiene and protection. environment; Coordinating and creating favorable conditions for State agencies to perform specialized State management functions for industrial parks; Creating favorable conditions for enterprises to implement production and business investment projects in industrial zones; Implement periodical reporting regime to the Department of Industry and Trade, District People's Committee and other State management agencies in accordance with the law.

(7) To promote the role of the State in the construction and development of general industrial infrastructure.

#### 5. Discussion and Conclusion

Industrial development and industrial infrastructure construction is a new policy in industrial development. In practice, many complex problems arise, but in general, the City has made great efforts in promoting the role of state management. mainly in the following aspects: i) Having a policy to preserve land fund for industrial development and industrial infrastructure construction; ii) Take the initiative in formulating and approving the industrial cluster development planning and the detailed planning on construction of the industrial park; iii) Completing the industrial infrastructure management industrial infrastructure system and construction model; iv) Spending the City budget the construction for of infrastructure outside the fence, supporting part of the funding for the construction of infrastructure within the fence; v) Having a policy to select investors and organize the construction of infrastructure works.

Thanks to the above achievements and advantages, the development of industrial infrastructure has made a positive and practical contribution to the development of industrial zones in particular and the city's industry - handicrafts in general.

Based on above approaches, teachers can use English as foreign language to teach students in social sciences and economic major. Case Study is a method of studying reallife situations and events in which we can apply what we have learned to learn, analyze, and dissect problems, in order to help us learn and work. adding efficiency. Last but not least, teachers encourage students to use English in discussing economic case as above. As Students' English level and background are not the same evenly, so, with weak classes, teachers have to spend a lot time to teach grammar and vocabulary.

Practice economic thinking skills: Economic thinking is often trained through analyzing charts, identifying problems, linking practices and providing solutions from practice or grounded calculations. То practice this skill. students should invest time doing exercises, this will help not create a feeling of surprise when taking the test. English as a medium of instruction (EMI) is a strategy adopted in many universities where English is a foreign language. This view originated in European countries such as Sweden, Finland, and New Zealand in the early 2000s, then spread to Asian countries such as Singapore, Hong Kong, China, and Japan. Currently, more than 20 universities in Vietnam apply EMI in many different fields and disciplines. During this process, Vietnamese lecturers and students faced many challenges related to language ability, teaching methods, learning materials and

# **Research limitation**

Authors need to make analysis for other legal case studies as well as for other markets.

#### Acknowledgement

Thank you editors, friends and brothers to assist this publishing.

# References

equipment.

Bezmelnitsin [1] et al. (2018). Optimization of Strategic Management by Development of High-Tech Business Based on the Platform of the Industrial Cluster. World of Economic and Management, 3.

- [2] Chen et al. (2020). Industrial Clusters as Drivers of Sustainable Regional Economic Development? An Analysis of an Automotive Cluster from the Perspective of Firms' Role, *Sustainability* 2020, *12*(7), 2848; https://doi.org/10.3390/su12 072848
- [3] Cocca, P., Marciano, F., & Alberti, M. (2016). Video surveillance systems to enhance occupational safety: A case study, <u>Safety Science</u> 84:140-148. DOI:<u>10.1016/j.ssci.2015.12.005</u>
- [4] Caves, R., & Porter, M. E. (1977). From Entry Barriers to Mobility Barriers: Conjectured Decisions and Contrived Deterrence to New Competition. Quarterly Journal of Economics, 91, 241-267.
- D Thi Ngu, DT Huong, DTN Huy, [5] PT Thanh, ES Dongul. (2021). Language teaching application to English students at master's grade levels on history and macroeconomic-banking management courses in universities and colleges, Journal of Language and Linguistic Studies 17 (3), 1457-1468
- Do Thu Huong, Dinh Tran Ngoc [6] Huy, Nguyen Thi Hang ,Pham Thi Huyen Trang ,DuongThi Ngu. (2021). Discussion on Case Teaching Method in a Risk Management CaseStudy with Econometric Model at Vietnam Listed Issues Banks \_ Of EconomicEducation for Students, International REview of Geographical Education, 11(5).
- Dat, P.M., Mau, N.D., Loan, [7] B.T.T., & Huy, D.T.N. (2020). Comparative China Corproate Standards Goevrnance After Financial Crisis, Corporate Scandals and Manipulation, Journal of Security and Issues, 9(3). Sustainability DOI:10.9770/jssi.2020.9.3(18)
- [8] DTN Huy. (2015). THE CRITICAL ANALYSIS OF LIMITED SOUTH ASIAN CORPORATE GOVERNANCE

STANDARDS AFTER FINANCIAL CRISIS,International Journal for Quality Research 9 (4)

- [9] DT Tinh, NT Thuy, DT Ngoc Huy. (2021). Doing Business Research and Teaching Methodology for Undergraduate, Postgraduate and Doctoral Students-Case in Various Markets Including Vietnam, Elementary education Online 20 (1)
- [10] Hallencreutz, D., & Lundequist, P. (2003). Spatial Clustering and the Potential for Policy Practice: Experiences from Cluster-building Processes in Sweden. European Planning Studies, 11(5), 533-547.
- [11] Huy, D.T.N., & Hien, D.T.N. (2010).The backbone of European corporate governance standards after financial crisis, corporate scandals and manipulation, Economic and Business Review, 12(4).
- [12] HOANG, N.T. et al. (2021). Determining factors for educating students for choosing to work for foreign units: Absence of selfefficacy, Journal for teachers, educators and trainers, 2021, 12
  (2), p. 11-19. Available at:https://jett.labosfor.com/index.p hp/jett/article/view/531. Access: July 28, 2021.
- [13] Hang, T.T.B., Nhung, D.T.H., Nhung, D.H., Huy, D.T.N., Hung, N.M., & Dat, P.M. (2020). Where Beta is Going - Case of Vietnam Hotel, Airlines and Tourism Company Groups After The Low Inflation Period, Entrepreneurship and Sustainability Issues, 7(3).http://doi.org/10.9770/jesi.20 20.7.3(55)
- Hang, N.T., Tinh, D.T., Huy, [14] D.T.N., & amp; Nhung, P.T.H. Educating (2021). and traininglabor force Under Covid 19; Impacts to Meet Market Demand in Vietnam duringGlobalization and Integration Era. Journal for Educators, and Teachers Trainers, 12(1): 179-184.

DOI: 10.47750/jett.2021.12.01.02

- [15] Hai, N.T al. (2021). et EDUCATIONAL PERSPECTIVES ON DIFFERENCES BETWEEN MANAGEMENT CASE STUDY AND ECONOMIC & FINANCE CASE STUDY TEACHING IN UNIVERSITIES, Design engineering, Issue 7
- [16] Huong, L.T.T., Huong, D.T., Huy, D.T.N., &Thuy, N.T. (2021). Education for studentsto enhance research skills and meet demand from workplace-case in vietnam ,Elementary education online, 20(4).
- [17] Hanh, H.T., Huy, D.T.N., & Dat, P.M. (2020). Utilization of Energy Sources, Financial Stability and Prosperity in the Economy of Indonesia, International Journal of Energy Economics and Policy, 10(5).
- [18] Huy, D.T.N. (2015). The Critical Analysis of Limited South Asian Corporate Governance Standards AfterFinancial Crisis, *International Journal for Quality Research*, 9(4): 741-764.
- [19] Dinh Tran Ngoc Huy, Nguyen Thi Phuong Thanh, Trung-Hieu Le, Nguyen Thuy Dung, Hoang Van Thuc. Sylwia Gwoździewicz. (2021). Digital Transformation, IoTs and AI Applications in **Electric and Electrical Engineering** Sector in Vietnam in Industry 4.0-Zecurity And Cyber Risk Solutions, Design engineering, 6, 589-601.
- [20] Huy, D.T.N., & Thuy, N.T. (2021). Education for students to enhance research skills and meet demand from workplace-case in vietnam, Elementary education online, 20(4).
- [21] Huy, D.T.N., & Hien, D.T.N. (2010). The backbone of European corporate governance standards after financial crisis, corporate scandals and manipulation, *Economic and business review*, 12(4).

- [22] Hong Van Pham, Huynh Xuan Nguyen, Dinh Tran Ngoc Huy. (2020). Impact of Corporate Entrepreneurship and Organizational Culture on Business Performance: The Role of Supply Chain Management, International Journal of supply Chain Management, (93).
- [23] Hoang, N.T., & Huy, D.T.N.
   (2021). Cost-benefit Analysis of FDI: FDI Barriers and Firm Internal Capabilities, Revista Geintec-Gestao Inovacao E Tecnologias, 11(3), 1371-1381.
- [24] Hoang Thanh Hanh, Bui Minh Chuyen, Dinh Tran Ngoc Huy, Nguyen Thi Thanh Phuong, Hoang Thi Lan Phuong, Le Ngoc Nuong. (2020). Challenges and Opportunities from Impacts of FDI and Income on Environment Pollution : Roles of Financial Accounitng Transparency in FDI Firms, Journal of Security & Sustainability Issues, 10(2).
- [25] Hoang Van Thuc, Doan Thi Thanh Thao, Nguyen Ngoc Thach, Dinh Tran Ngoc Huy, Nguyen Thi Phuong Thanh. (2020). Desining Data Transmission System With Infrared Rays, Psychology and education, 57(8), 658-663.
- Kaliba, A.R. (2014). Industry [26] Cluster Analyses for Capital **Region Planning and Development** District and the North Delta Regional Planning & Development District, Louisiana, Retrieved USA. from: https://www.researchgate.net/publi cation/297759080 Industry Clust er Analyses for Capital Region Planning and Development Distr ict and the North Delta Regiona 1 Planning Development District Louisiana USA
- [27] Kulpina et al. (2020). Economy Clustering as Efficiency Increase for Resource Usage in Key Areas of Sustainable Social and Economic Development in Kuzbass, E3S Web of Conferences 174, 04060 (2020).

https://doi.org/10.1051/e3sconf/20 2017404060

- [28] Lines, T., & Monypenny, R. (2006). Industrial Clustering. Retrieved from: https://www.researchgate.net/publi cation/238712690\_Industrial\_Clus tering
- [29] Nam, O.V., & Huy, D.T.N. (2021). Theories and ideologies of Karl marx, V.I.Lenin and Ho chi minh on building government organization, *Elementary education online*, 20(4), 2434-2438. doi: 10.17051/ilkonline.2021.04.2 79
- [30] Pham Tuan Anh, Dinh Tran Ngoc Huy, Bui Thi Thu Loan. (2020). Analysis of a Financial Model for Converting Industrial Waste Tires into Clean Energy for Environment Protection-A Model in Developing Countries, Wseas Transactions on Environment and Development, 15, 447-454.
- [31] Smolentsev et al. (2018). Industrial clusters development in the regional economic system, Revista Espacious, 39(31).
- [32] Tinh, D.T., Thuy, N.T., & Huy, D.T.N. (2021). Doing Business and Research Teaching Methodology for Undergraduate, Postgraduate and Doctoral Students-Case in Various Markets Including Vietnam, Elementary education online, 20(1), 1414-1418. doi: 10.17051/ilkonline.2021.01.1 48
- [33] Thi Hang Nguyen, Van Huan Nguyen, Dinh Tran Ngoc Huy. (2021). Transforming the University Management Model in the Concept of Digital Transformation, Revista Geintec-Gestao Inovacao E Tecnologias, 11(3), 380-387.
- [34] Thuy Dung Thi Vu, Dinh Tran Ngoc Huy, Ngo Thi Huyen Trang, Nguyen Ngoc Thach.(2021). Human Education And Educational Issues For Society And Economy-Case InEmerging

© 2021 JPPW. All rights reserved

Markets Including Vietnam, Elementary education online, 20(2).

- [35] Tram, P.N., & Huy, D.T.N. (2021). Educational, Political and Socio-Economic Development of Vietnam Based on Ho Chi Minh's Ideology, *Elementary education online*, 20(1), 1238-1246. doi: 10.17051/ilkonline.202 1.01.125
- [36] Williams, P/T. (2013). Pyrolysis of waste tyres: A review, Waste Management, 33(8): 1714-1728. https://doi.org/10.1016/j.wasman.2 013.05.003