
Experience of improving the exploitation efficiency of Metropolitan system of Hanoi

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1. Area development orientation and urban railway network planning in Hanoi

The widening of Hanoi is the chance for development of a civilized and modern capital.

- Before 2008, the urban area of Hanoi includes only the inner district; therefore the global transport system was developed in the old districts only. After widening of Hanoi on 2008, a system of satellite cities (Xuan Mai, Son Tay, Hoa Lac, Phu Xuyen, Dong Anh, Soc Son,...) was developed with multi-center orientation. Thus, the multi-area urban public transport system will play an important role in the near future.
- This is a chance for the urban transportation system to improve, to meet the requirements of the passenger at the rural, to help connecting the satellite cities with the downtown of Hanoi.

1. Area development orientation and urban railway network planning in Hanoi

The exploitation of metropolitan system in Hanoi

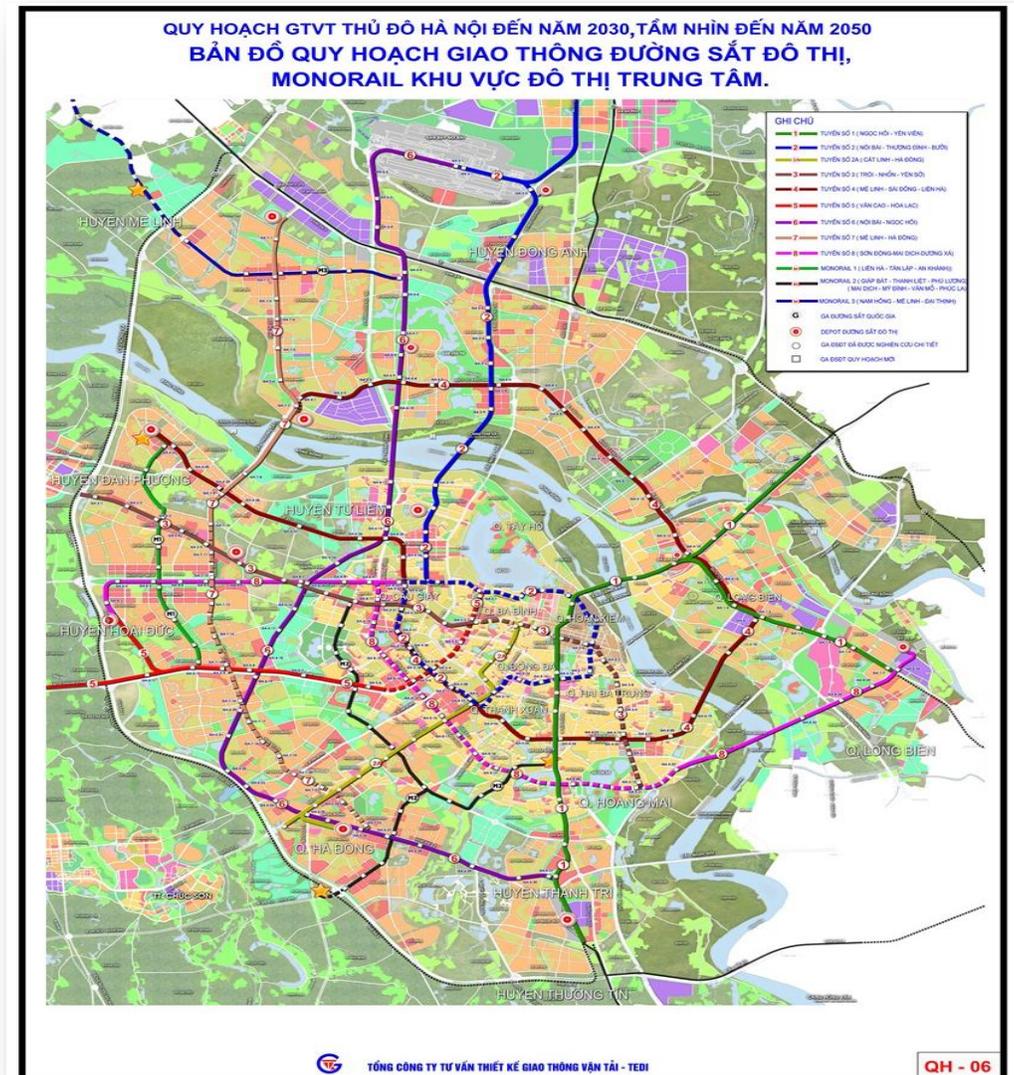
- On November of 2021 the metropolitan line 2A: Cat Linh – Ha Dong come into force
- Prevue in the end of 2022, the Nhon – Hanoi station line (line 3) will come into force
- Due to the planning, Hanoi consists of 10 metropolitan lines with the total length equals to 417, km (overpass 342,2km, underpass: 75,6 km).

1. Area development orientation and urban railway network planning in Hanoi

Metropolitan planning for Hanoi due to Decision 519/QĐ-TTg of the Prime Minister on 31/3/2016

Hanoi will have 10 metropolitan lines and 03 mono-rail, 08 BRT bus to support the metropolitan system and to become the metropolitan line in the future

No	Name	Direction	Length (km)		
			Overpass	Underpass	Total
1	Line 1	Ngọc Hồi - Yên Viên - Như Quỳnh			36,0
		- Part: Ngọc Hồi - Yên Viên - Part: Gia Lâm - Dương Xá	28,6 7,4		
2	Line 2	Nội Bài - Thượng Đình - Bưởi			52,0
		- Part: Nam Thăng Long - Trần Hưng Đạo	2,6	8,9	
		- Part: Trần Hưng Đạo - Thượng Đình		5,9	
		- Part: Thượng Đình - Vành đai 2,5 - Bưởi	14,0	7,0	
		- Part: Nội Bài - Nam Thăng Long	10,2	3,4	
		- To Extend line 2 to Sóc Sơn			
3	Line 2A	- Line 2A (Cát Linh - Hà Đông)	13,0		33,0
		- Extend 2A to Xuân Mai	20,0		
4	Line 3	Trôi - Nhôn - Yên Sở			55,7
		- Part: Nhôn - Ga Hà Nội	8,9	3,6	
		- Part Hà Nội station - Hoàng Mai (Yên Sở)		7,3	
		- Part Trôi - Nhôn	5,9		
		- Extend the line 3 to Sơn Tây	30,0		
5	Line 4	Mê Linh - Sài Đồng - Liên Hà	41,0	13,0	54,0
6	Line 5	Văn Cao - Hòa Lạc			38,4
		- Part: Văn Cao - Ring road no 4 - Line 5 (Ring road 4 - Hòa Lạc)	8,8 23,4	6,2	
7	Line 6	Nội Bài - Ngọc Hồi	49,6		49,6
8	Line 7	Mê Linh - Hà Đông	28,0		28,0
9	Line 8	Sơn Đồng - Mai Dịch - Dương Xá			39,1
		- Sơn Đồng - Mai Dịch Part	12,0		
		- Mai Dịch - Ring road 3- Dương Xá	6,8	20,3	
10	Satellite	Line Sơn Tây - Hòa Lạc - Xuân Mai (to connect the satellite cities)	32,0		32,0
Total			342,2	75,6	417,8



2. Result of exploitation of line 2A of Hanoi: Cat Linh – Ha Dong

Until 25/7/2022, Line 2A has safety exploited with some results:

- Opening hour: 05h30; Closing hour: 22h00;
- Running 06 trains, duration between two trip:10 mins/trip; punctuality rate 99,98%;
- Number of passengers: 4.561.874;
- At the beginning, many passengers would like to experience the metropolitan line, therefore the percentage of passenger from Cat Linh station to Yen Nghia station occupied 50%; 10 remaining stations occupied only 50%. Today, the passengers from Cat Linh station to Yen Nghia station occupied only 30%, where 10 remaining stations improve to 70% of passengers.

2. Result of exploitation of line 2A of Hanoi: Cat Linh – Ha Dong

Until 25/7/2022, Line 2A has been safety exploiting with some results:

- Since 04/2022, after the Covid-19 lockdown, the number of passengers improve 2,5 times in comparison to during the lockdown. Normally, there are 22.000 to 24.000 passengers on weekday, 25.000 to 30.000 passenger on weekend;
- Number of passenger with monthly ticket is more than 50% at the normal hour, 75% to 80% on the rush-hour.

3. Lesson learned to improve the efficiency of metropolitan system of Hanoi

1. Lesson 1: It is import to study the need, the routine of passenger.

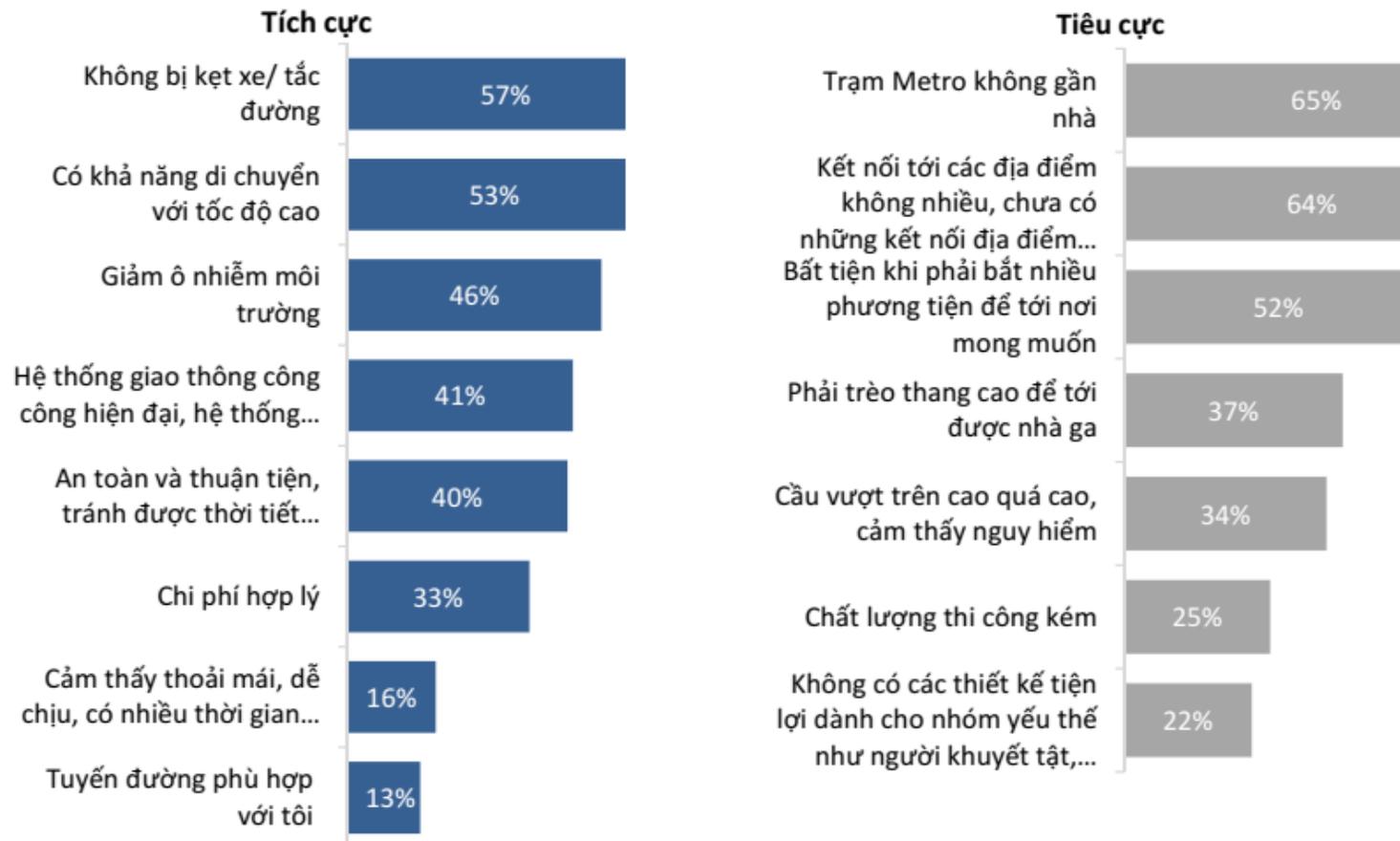
- i. During the design process;
- ii. During the exploitation process.

☞ **This process should be carried out frequently in order to improve the serving quality and the attraction of the metropolitan line.**

3. Lesson learned to improve the efficiency of metropolitan system of Hanoi

Investigation results on the need of passenger before the exploitation of Cat Linh – Ha dong line

Result of ADB on 2017.

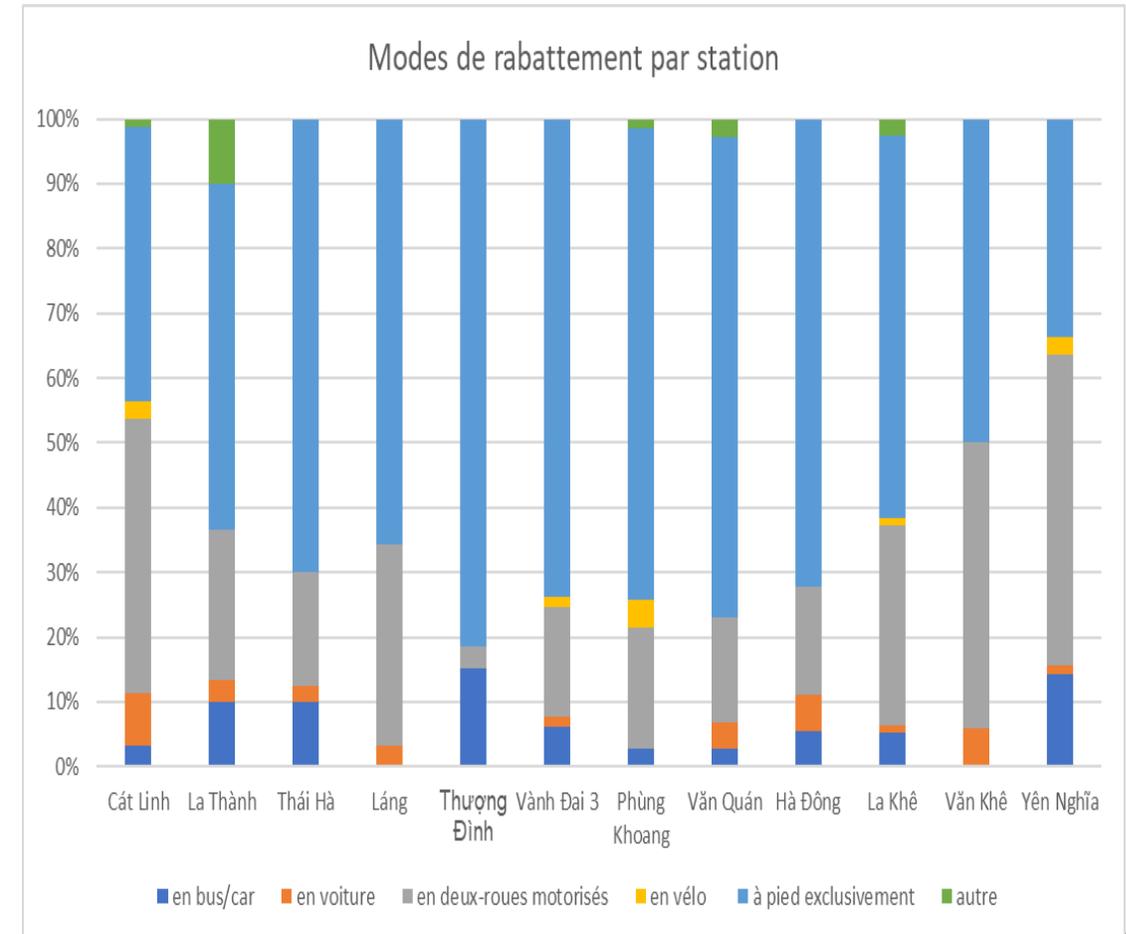


3. Lesson learned to improve the efficiency of metropolitan system of Hanoi

Investigation results on the need of passenger after the exploitation of Cat Linh – Ha dong line

Investigation of 1384 passenger on 04/2022 using line 2A:

- For Passengers walk to the station
 - Challenges of improving the pedestrian line for the passengers who live near the station.
- For Passenger using the motorcycle to get into the station:
 - Need to arrange the motorcycle parking for the passenger.
- There is not many connection to bus system, even in Yen Nghia station (near Yen Nghia bus station) or La Khe station (with BRT station number 1)
 - Challenge to improve the connection between bus and metro
- Hard to approach the station by bicycle
 - Need to arrange the bicycle parking



3. Lesson learned to improve the efficiency of metropolitan system of Hanoi

2. Lesson 2:

It is necessary to provide the accessibility for passengers to metropolitan, including:

- For pedestrian.
- For other public transportation system (bus, Grab,..)
- Access for the disabled people;
- Access for the passengers with personal transportation means (bicycle, motorbike,..) in the beginning of the exploitation duration (in 500m around the station, it is necessary of parking for motorcycle and bicycle).

3. Lesson learned to improve the efficiency of metropolitan system of Hanoi

3. Lesson 3:

To build the appropriate fee for ticket, to provide many payment methods for the passenger.

- One-way ticket: the price should be go with the distance of traveling. The entrance prize is 7000 VNĐ with the additional 600 VND for 01 km of travelling.
- Day ticket: 30.000 VND/day
- Month ticket: 200.000 VNĐ/month.

3. Lesson learned to improve the efficiency of metropolitan system of Hanoi

3. Lesson 3:

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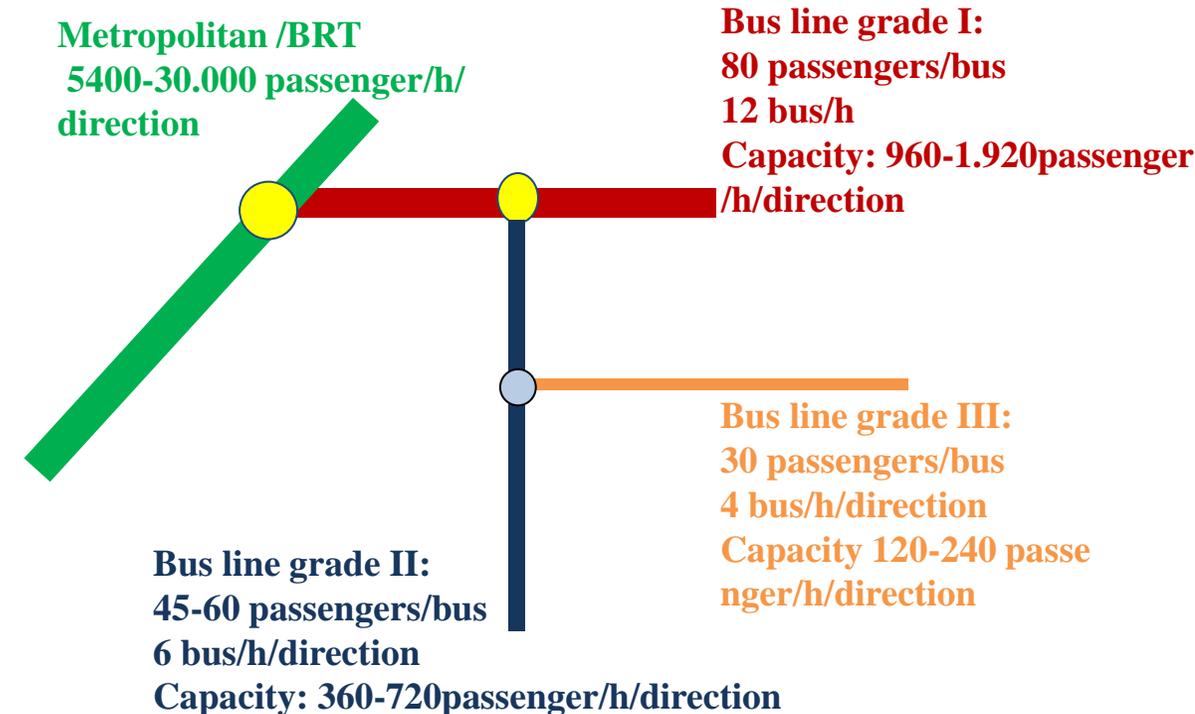
- Policy of lower price for some populations:
 - ✓ Monthly ticket for students, pupils: 100.000VNĐ/ month;
 - ✓ Monthly group ticket for companies, enterprise: 140.000VNĐ/month;
 - ✓ Free for the old, disabled person, children, meritorious people, etc.

3. Lesson learned to improve the efficiency of metropolitan system of Hanoi

4. Lesson 4:

To improve the connectivity of public transport system

- Toward the multi-mean of public transport system. In which, the metropolitan is the main transportation mean.
- Other public transportation means (bus, minibus, taxi, Grab,..) will help to gather, transit, deliver the passengers at the metropolitan station (for metro line Nhon – Hanoi station it is necessary to have 6 connecting bus lines).



3. Lesson learned to improve the efficiency of metropolitan system of Hanoi

5. Lesson 5:

Exploiting commercial potential, enhancing the attractiveness of metropolitan to tourists

- Attract the passengers to metropolitan by daily ticket: after 08 months of exploitation, the number of passengers who experience the line 2A is quite high, especially on the weekend and the holiday. On the weekend, on average from 2000 passengers to 2500 passengers; on the weekend the maximum passengers using per day is 10.000 passengers. Number of passengers who experience the metropolitan is 5000 passengers/day on average.
- To establish the service to improve the income of the metropolitan: advertisement, placing the ATM, the vending machine; fast-food service.

3. Lesson learned to improve the efficiency of metropolitan system of Hanoi

6. Lesson 6:

To establish the polite culture and routine of using the metropolitan system of the passenger as well as the culture of the service from the beginning

- In order to promptly receive information from passengers, Hanoi Metro has established a customer care department of line 2A, located at Cat Linh terminal station. In the first 6 months of 2022, Hanoi Metro has served for more than 600 customers at the Customer Care department;
- Through the Customer Care Call Center (tel: 1900.1086) and the email, Hanoi Metro has received nearly 800 requests from the passenger, including 70% request of finding the lost items, 16.7% request asking about ticket prices, 10.8% request about public transport connection, 2.1% feedback of highly consideration, etc.

3. Lesson learned to improve the efficiency of metropolitan system of Hanoi

7. Lesson 7: It is necessary to consider the media, broadcasting activities

- At stations and on trains: Informing the passengers of safety rules, travel routes, regulations on using services at stations and on trains, ..;
- Distributing a handbook to guide passengers on using the Line 2A service, which contains necessary information for passengers such as: Rules for passengers to travel by train, steps to travel by Line 2A, train time information, ticket prices, how to buy tickets, connection information between Line 2A and the bus system, etc.

Thank you

