

**Ho Chi Minh City People's
Committee and Management
Authority for Urban Railways
Socialist Republic of Viet Nam**

**Special Assistance for Project Implementation (SAPI)
For
HO CHI MINH CITY
URBAN MASS RAPID TRANSIT (UMRT) LINE 1,
EASTERN SECTION**

Final Report

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JAPAN INTERNATIONAL COOPERATION AGENCY

ABeam Consulting Ltd.

Table of Contents

1.	Project Background and Objectives.....	1
1.1.	Project Background.....	1
1.1.1.	Construction of Urban Mass Rapid Transit.....	1
1.1.2.	Establishment of O&M Organization	2
1.2.	TOR of SAPI Team.....	4
1.2.1.	TOR of SAPI Team.....	4
2.	SAPI Procedure	6
2.1.	Work Flow.....	6
2.2.	Approach.....	6
2.2.1.	Key Information of TOR 1.....	7
2.2.2.	Roadmap and TOR.....	8
2.2.3.	Facilitating Decision Making by the Vietnamese Side	8
3.	Result of SAPI Work	10
3.1.	TOR 1.....	10
3.1.1.	Role of the O&M Organization.....	10
3.1.2.	Scheme of the O&M Organization.....	11
3.1.3.	Asset Ownership	13
3.1.4.	Scope of the Organization – Railway Lines.....	15
3.1.5.	Scope of the Organization - Non-fare Business	16
3.1.6.	Reporting and Coordinating Works in HCMC.....	20
3.1.7.	Organization Structure	20
3.1.8.	Office IT System.....	21
3.1.9.	Financial Plan.....	22
3.1.10.	Business Risks.....	27
3.2.	TOR 2.....	31
3.2.1.	Timing of Establishment of O&M Company.....	31
3.2.2.	Establishment of Preparation Unit (1000).....	32
3.2.3.	Clarification on Railway Law (1010)	32
3.2.4.	Registration (2010)	36
3.2.5.	Mission, Vision and Business Strategy (3000) – Business Plan (4000).....	37
3.2.6.	Company Regulation (5000) – Business Processes (6000).....	37
3.2.7.	Office IT System (7000)	38
3.2.8.	Non-fare Businesses (4000 - 8000).....	39
3.2.9.	TOR2-2	39

3.2.10.	TOR2-3	40
3.3.	TOR 3.....	40
3.3.1.	TOR3-1 Terms of reference for establishing O&M company.....	40
3.3.2.	TOR3-2 Topics agreed with Vietnamese side	42
3.4.	TOR 4.....	43

Appendices

- Appendix 1. Vietnamese Law
- Appendix 2. Organizational Structure
- Appendix 3. Comparison of Structure Function with Osaka and Taipei
- Appendix 4. Roadmap for Starting Commercial Operation
- Appendix 5. Documents for Evaluation and Registration
- Appendix 6. Financial Plan
- Appendix 7. Example of Company Regulations
- Appendix 8. Company Name
- Appendix 9. Discussed and Confirmed Points in Seminars

Acronyms and Abbreviations

AFC	Auto Fare Collection
DF/R	Draft Final Report
DoF	Department of Finance (HCMCPC)
DoI	Department of Interior (HCMCPC)
DPI	Department of Planning and Investment (HCMCPC)
DoT	Department of Transport (HCMCPC)
DTUPW	Department of Transport and Urban Public Works (HCMCPC)
F/R	Final Report
GC	General Consultant
GoV	Government of Viet Nam
HCMC	Ho Chi Minh City
HCMCPC	Ho Chi Minh City People's Committee
HOUTRANS	The Study on the Urban Transport Master Plan and Feasibility Study in HCM Metropolitan Area
IC/R	Inception Report
IT/R	Interim Report
JBIC	Japan Bank for International Cooperation
JICA	Japan International Cooperation Agency
LLC	Limited Liability Company
MAUR	Management Authority for Urban Railways
MoOCPT	Management of Operation Center for Public Transport
MTR	MTR Corporation (Hong Kong UMRT company)
O&M	Operation and Maintenance
PMU	Project Management Unit
PU	Preparation Unit
SAPI	Special Assistance for Project Implementation
SAPROF	Special Assistance for Project Formation
SMRT	Singapore MRT
TC	Technical Cooperation
TDM	Traffic Demand Management
TOR	Terms of Reference
TRTC	Taipei Rapid Transit Corporation
UMRT	Urban Mass Rapid Transit
VNR	Vietnam Railways Corporation
VNRA	Vietnam Railway Administration

1. Project Background and Objectives

1.1. Project Background

1.1.1. Construction of Urban Mass Rapid Transit

Social Economic Development 5-Year Plan (2006-2010) issues that the actions to improve heavy traffic have been continuously identified as an urgent need in major cities in Viet Nam. In the plan, it is recommended that future urban development must be implemented with appropriate environmental assessment, which is out of reconsidering lack of awareness to environmental issues of infrastructure development project in the industrial complexes in South East Region.

In Ho Chi Minh City (HCMC) urban area, which is the economic center of South East Region, the population was 6.88 million in 1997 and 7.65 million in 2002, and is expected to be 13.5 million in 2020. Consequently, the urban traffic volume has been increased significantly, and the problem of heavy traffic has been escalated. For example, average traffic speed of cars was 23.8Km/h in 2002, and is expected to be deteriorated to 13.3 km/h in 2020. It is no doubt that it is leading to serious air pollution and a major disincentive for sound economical and social activities. One of the big issues here is that the share of vehicles, particularly of motor cycles, is currently 94% in the total urban traffic demand. HCMC holds a public policy objective to decrease it to 50% by 2020.

Accordingly, the government of Viet Nam took the action to construct an Urban Mass Rapid Transit (UMRT) in HCMC which is a metropolis of the country. It is aimed to improve ever worsening traffic congestion and air pollution in HCMC urban area, and consequently to contribute to improving the regional economic growth and the urban environment. HCMC People's Committee (HCMCPC) was financed by the yen loan "Ho Chi Minh Eastern Section in March 2007", as a measure. It was recognized that the UMRT lines were unlikely to recover the full construction costs out of fares, and thus would ultimately require some forms of government subsidy.

UMRT is planned to start the operation in July 2015, which is coming in 6 years. In order to prepare for this in advance, Management Authority for Urban Railways (MAUR) is planning to present a master plan of establishment of the Operation & Maintenance (O&M) organization, and have an approval by HCMCPC by 2012. However, MAUR does not have enough experiences and knowledge regarding incorporation of an enterprise. It is regrettable if it ends up having a delay in the project practice. In order to move the project

forward, the quick decision making by the government of Vietnam is indispensable. Thus, HCMCPC is required to take an immediate action to have understanding and coordination among the relevant institutions to make some progress in preparation works. An urgent startup supported by experienced consultants was imperative.

1.1.2. Establishment of O&M Organization

In 2008, Task Team comprised of eleven members from the major related departments of HCMCPC, i.e. MAUR, Department of Interior (DoI), Department of Finance (DoF) and Department of Transport (DoT), has been formed to study the O&M organization and report to HCMCPC under the Decision No. “4211/QD-UBND” and “5047/QD-UBND” dated October 3, 2008 and Decision No. “5047/QD-UBND” dated November 20, 2008 (see Diagram 1.1 and 1.2). Their main responsibilities are as follows.

[Responsibility of Task Team]

- Coordinating with foreign consultants in studying and building up an organization and operation model for Ben Than-Suoi Tien Metro Line Operation and Maintenance Company to submit to HCMC People’s Committee for review and approval.
- Preparing plans for recruitment, training and personnel arrangement to ensure that the takeover, operation and development of the City Metro Line are efficient.

Through various studies conducted by Task Team together with General Consultants (GC) before this SAPI work, Task Team made the decision that they would study further the practices of Singapore MRT Corporation Ltd. (SMRT) and Taipei Rapid Transit Corporation (TRTC) for their O&M organization.

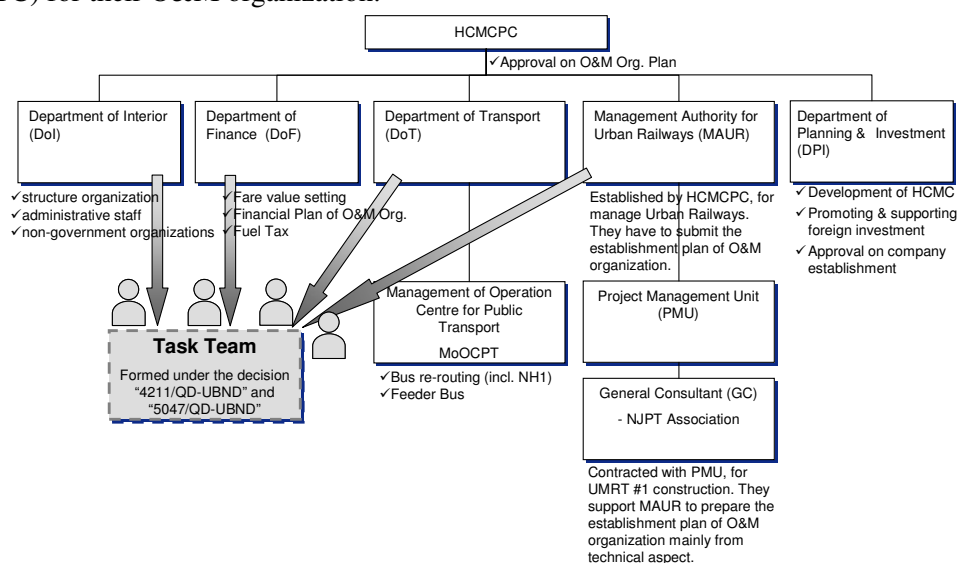


Diagram 1.1 Task Team for O&M organization

HCMCPC, MAUR and JBIC agreed on SAPI for establishment of O&M organization (Jul. 2008)

Task Team has been formed under the decision “4211/QD-UBND” (Oct. 2008) and “5047/QD-UBND” (Nov. 2008)

-Task Team, consisting of several departments of HCMCPC, has been formed for study of O&M organization and as a counter part of SAPI team.

General Consultants (GC) submitted “Working Paper 36” to facilitate preparation work (Nov. 2008)

-“Joint stock company owned by Ho Chi Minh City People Committee (HCMCPC) and its affiliated public organizations” was recommended as best option for O&M scheme through comparison of three cases.

Task Team visited other Asian railway companies (Nov. - Dec. 2008)

-In their visit report submitted to HCMCPC;

- Three options, “Direct Operation by MAUR, Equitized company owned by government, and Privatized company“, were selected as applicable for O&M schemes.
- Task Team declared they would study further Singapore (SMRT) and Taipei (TRTC) as best practice.

Diagram 1.2 Major Activities for Establishment of O&M Organization after SAPROF (Oct. 2006)

1.2. TOR of SAPI Team

1.2.1. TOR of SAPI Team

This SAPI is conducted to propose an action plan for establishment of an operation and maintenance organization and to bring relating supports, as was agreed between HCMCPC and Japan Bank of International Cooperation (JBIC) on 16th July 2008.¹

In the inception report meeting between Task Team and SAPI team held on 12th May 2009, SAPI team was requested by Task Team not to directly contact HCMCPC, other departments in HCMC, and central government, since Task Team had been formed by HCMCPC for coordination of the O&M organization issues. In this connection, TOR 4 for facilitation work was conducted with Task Team only.

[TOR agreed between HCMCPC and JBIC in 2008]

TOR1. To assist establishing the operation and maintenance organization

- 1-1 To define the role and scheme of the O&M organization
- 1-2 To confirm the relevant government agencies and authorities, legal framework, and administrative process in relation to establishment of an O&M organization
- 1-3 To support formulating the outline of essential elements to be considered with regard to establishment of the O&M organization, such as organizational structure, business plan, financial plan. In particular, the elements should include:
 - a) Scope of the organization
Possibility of the equitization and scope of lines (i.e. providing service on just one line or on all of 6 rail lines²) should be considered.
 - b) Asset ownership
The amount of asset shall approximately be estimated. Balancing with the Government owned assets should be taken into consideration.
 - c) Capital (physical capital, nature of capital, shareholder composition, etc), borrowing (lender, condition) and capital ratio will be considered.
 - d) Fare policy
 - e) Budget restraint

¹ MINUTES OF DISCUSSION ON JBIC ASSISTANCE FOR PROJECT IMPLEMENTATION (SAPI) FOR HO CHI MINH CITY URBAN RAILWAY CONSTRUCTION PROJECT (BEN THANH-SUOI TIEN SECTION (LINE1)) (I) BETWEEN JAPAN BANK FOR INTERNATIONAL COOPERATION AND HO CHI MINH CITY PEOPLE'S COMMITTEE, AND MANAGEMENT AUTHORITY FOR URBAN RAILWAYS, JULY 16, 2008

² As of 11th June 2009, there are seven railway lines in MAUR's plan.

TOR2. To finalize detailed Roadmap toward commercial operation

To ensure concrete execution of necessary tasks by the Vietnamese side after completion of this SAPI, a detailed roadmap toward the start of commercial operation should be prepared. The following actions are to be carried out:

- 2-1 To review and update the existing roadmap prepared by MAUR in accordance with the role of the O&M organization which is to be defined in the TOR1
- 2-2 To discuss with the Vietnamese side and finalize the roadmap
- 2-3 To support HCMCPC and MAUR to obtain an approval by Government of Viet Nam (GoV) on the roadmap as an official document

TOR3. To propose a detailed work plan for preparation of the O&M organization establishment

To ensure concrete conduct of the tasks in the roadmap (which is to be prepared in TOR2) after the completion of this SAPI, detailed terms of reference for the necessary tasks and required human resources for the establishment of the O&M organization should be defined. The following will be conducted:

- 3-1 To define TOR and organize each task by stakeholder who is in charge (such as MAUR, GoV, HCMCPC, and local public bus company)
- 3-2 To discuss and agree on the TOR with the Vietnamese side

TOR4. To facilitate decision making by the Vietnamese side

It is essential to conduct preparation tasks for O&M organization establishment in a timely manner for the smooth implementation of the project. Therefore, it is necessary for GoV to make a decision regarding the establishment of the O&M organization without delay. In addition, it is imperative to explain HCMCPC about the work plan for O&M organization establishment, and to promote prompt decision making. In order to do so, the following will be conducted:

- 4-1 To carry out three seminars regarding TOR1, 2, 3 in order to facilitate decision making by GoV.
- 4-2 To facilitate the discussion during the seminars proactively

2. SAPI Procedure

2.1. Work Flow

To extract issues and opportunities and to establish an accurate basic plan in approximate time, the SAPI Team conducted its TOR through hypothesis-driven approach in accordance with the following steps.

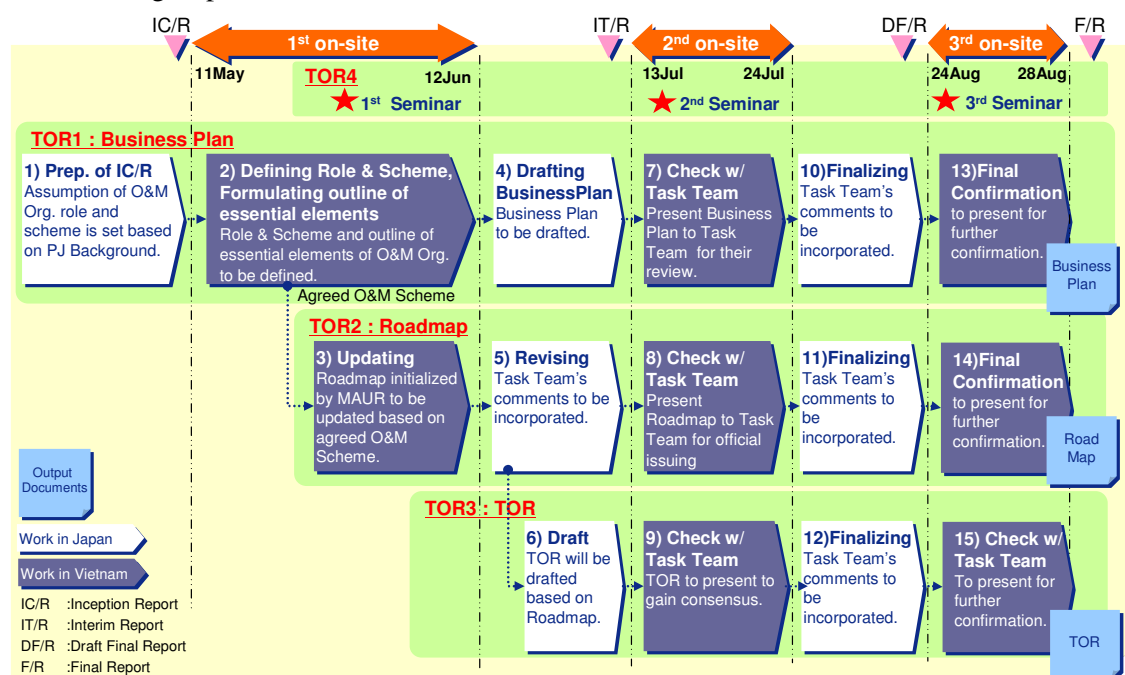


Diagram 2.1 SAPI Overall Task Flow

2.2. Approach

To conduct TOR in short term, the SAPI Team conducted its work along with the concept of “business organization pyramid” shown in Diagram 2.2. The contents in the layer of organization’s role, vision and business strategy, and business plan were roughly described as output of TOR 1. The work description for building business management, business process, human resources and IT systems was extracted as output of TOR 2 and 3.

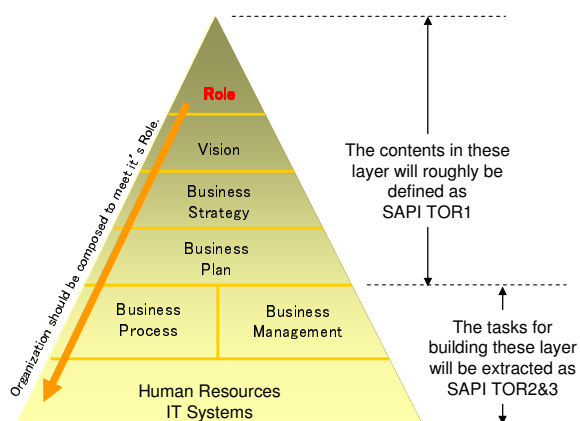


Diagram 2.2 Concept of Business Organization Pyramid

2.2.1. Key Information of TOR 1

At first, Role of the O&M organization has been confirmed through reviewing the project background with Task Team, since the scheme of organization should be defined to meet their role.

After gaining consensus on the role with Task Team, the O&M organization scheme, asset ownership, scope of organization such as business portfolio and railway line, organization structure and financial plan were discussed and confirmed with Task Team through reviewing related information, such as Vietnamese Laws, practices of other Asian railway companies and preliminary study report “Working Paper 36” prepared by GC.

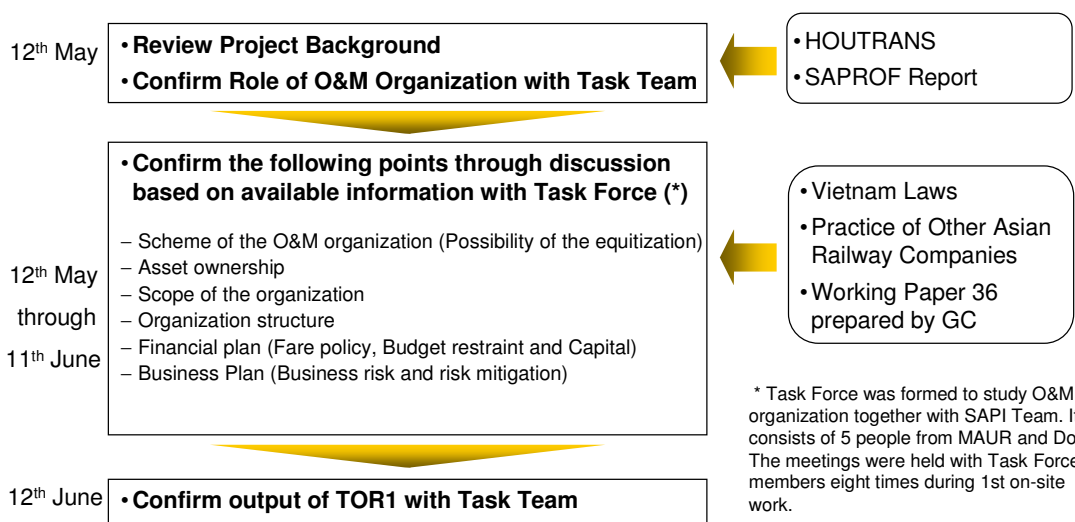


Diagram 2.3 Steps of SAPI Work (TOR 1)

Task Force, consisting of five people from MAUR and DoI, was formed in the inception meeting with Task Team, to study O&M organization together with SAPI Team. During the

1st on-site work, eight meetings in total were held with Task Force members.

To have a consensus on the output of TOR 1 within Task Team, the seminar with Task Team was held at the end of 1st on-site work, on 12th June.

2.2.2. Roadmap and TOR

The roadmap for starting commercial operation initiated by MAUR has been updated together with the detailed work description through the following steps.

[Updating Steps]

- 1) Check the requirements from Vietnamese laws that would be conditions of business organization.
- 2) Extract the activities required to form the company structure along with the business organization pyramid.
- 3) Plot the activities onto the time schedule of UMRT construction project.
- 4) Adjust time line referring to the requirements from Vietnamese laws, training contents prepared by GC and the requirements from MAUR.

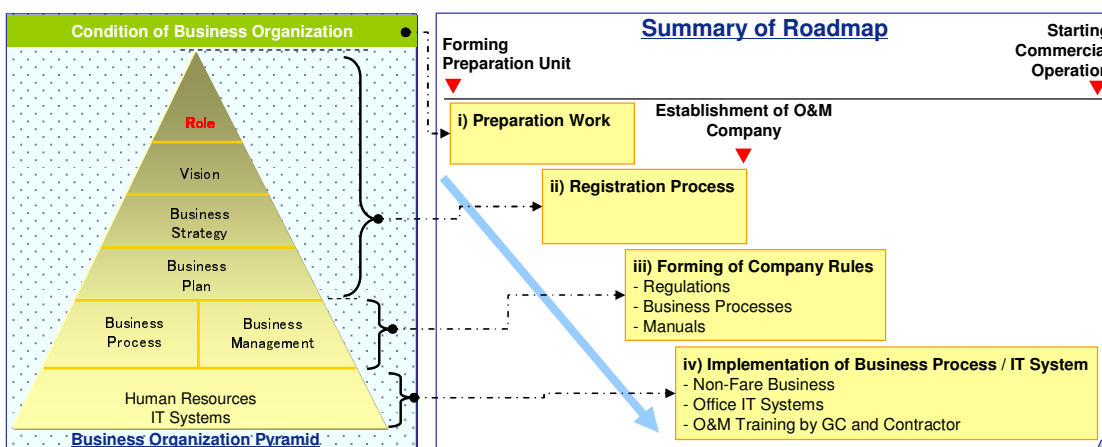


Diagram 2.4 The Process of Updating Roadmap

2.2.3. Facilitating Decision Making by the Vietnamese Side

This SAPI work was divided into three phases. In each phase, the seminar was set as a milestone to gradually form the consensus in Task Team.

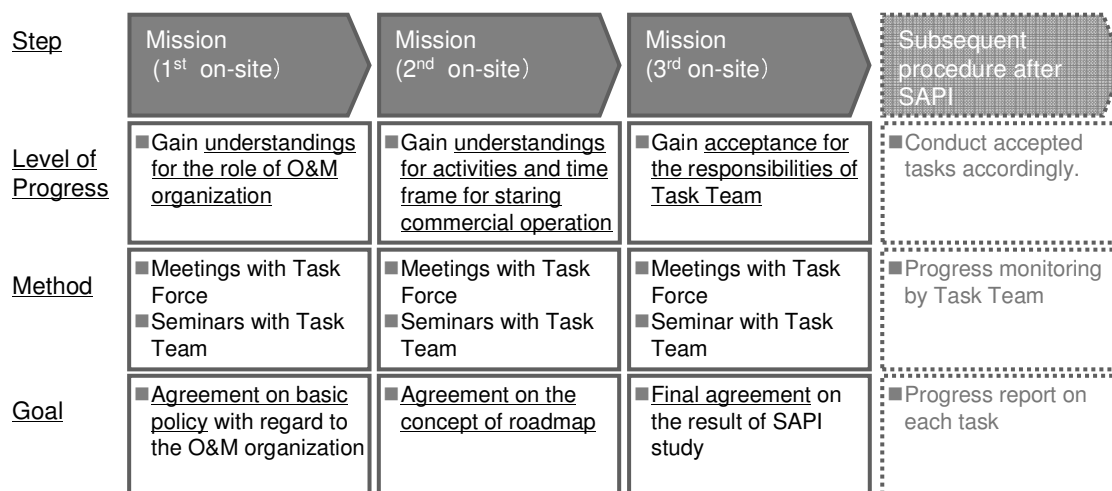


Diagram 2.5 Consensus Building Based on Change Management Step

3. Result of SAPI Work

3.1. TOR 1

The following topics have been defined as output of TOR1.

- Role of the O&M organization
- Scheme of the O&M organization (Possibility of equitization)
- Asset ownership
- Scope of the organization
(Portfolio of no-fare revenue businesses and scope of railway lines)
- Organization structure
- Financial plan (Capital, fare policy, and budget restraint)
- Business Plan (Business risk and risk mitigation)

* Administrative process in relation to establishment of an O&M organization stated in TOR 1 is not described in this section, since it is reported as one of the activities in the roadmap in the following section.

3.1.1. Role of the O&M Organization

As described in Section 1.1, UMRT project is expected to reduce the modal share of private transports and increase that of public transports to improve the quality of urban living and environment. It is not to make money.

To meet the objective mentioned above, the O&M organization must contribute to promoting UMRT by providing safe and reliable railway services. This was confirmed with Task Team in the meeting held on 12th May 2009. Since a mission statement of company is generally developed to announce their role to public, the result of this subsection could be a part of the O&M company's mission statement.

Role of O&M Organization:

Providing Safe and Reliable UMRT Operation

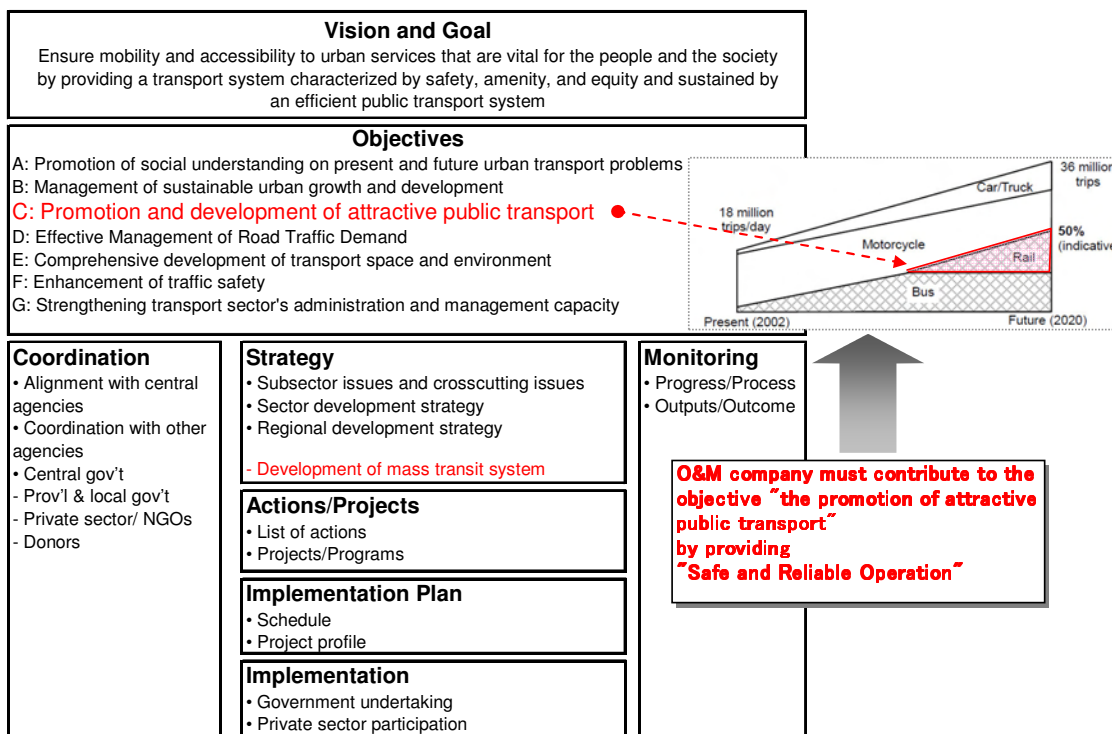


Diagram 3.1 Structure and Components of the Transport Master Plan in HCMC

Source: HOUTRANS

3.1.2. Scheme of the O&M Organization

According to the decision 38/2007/QD-TTg “Criteria for Classification of and List of Enterprise with One Hundred (100) Per Cent State Owned Capital”, the state shall hold 100% charter capital of enterprises operating in the industries “management and operation of urban railways” and “operation of urban rail transportation”. Therefore, there are only two options for O&M organization, direct operation by MAUR or establishing 100% state capitalized company. Although it is not feasible from the legal viewpoint, the outsourcing option was added to the said comparison to highlight the relative position of the other two options. To select the best option, pros & cons comparison shown in Diagram 3.2 was applied.

In order to separate the O&M organization from the burden of amortization and interest payments incurred from the cost of the railway construction conducted by MAUR, establishing a new company and outsourcing to an existing company, separately from MAUR, are advantageous, compared to direct operation by MARU. Operational cost for HCMC is usually supposed to be highest when outsourcing to a private company, compared to other options, because an outsourcer will charge based on a certain profit plus incurred costs, no matter how small revenues the business makes. The set up work of the O&M organization is a little easier

in the outsourcing option since the existing outsourcer has enough experience. Retaining staff in the O&M organization is not as easy in the case of MAUR's direct operation as in other options since the MAUR staff may be transferred to other departments in HCMC. Flexibility in management is supposed to be higher in an independent, dedicated organization such as an independent O&M company or an outsourcer. In terms of Vietnamese' acquisition of knowledge necessary to manage UMRT by themselves in the future, outsourcing option is worst, since such a company is supposed to be foreign and little knowledge of management is expected to be left to Vietnamese. There are some operational risks of railway management, such as causing inefficiency on business operation could be a factor to reduce ridership, because of no experience in the options of MAUR's direct operation and establishing a new O&M company. Establishing an O&M company with no experience might be supposed to be somehow risky. However if the O&M company in HCMC can expect the help of Technical Cooperation (TC) from Japan for business planning (developing mission, vision, business strategy and business plan), furnishing company regulation and developing business processes & manuals, likelihood of the said operational risks could be reduced. Finally, there will be a chance of realizing founder's profit through IPO (initial public offering) in the future only in the option of establishing an O&M company.

Three evaluation criteria, "Operational cost", "Easiness of the setup work of the O&M organization" and "Vietnamese acquisition of knowledge of managing UMRT" contain higher importance than others, since they directly affect securing sustainable operation of UMRT. Since "Founder's profit" is not mandatory requirement of operation of UMRT, it's importance is relatively lower than others. To consider that importance in pros & cons comparison, each evaluation criteria is weighted with "high", "middle" and "low".

Through this comparison, "Establishing 100% State Capitalized Company" gets greater advantage than direct operation by MAUR.

Even if management and operation of UMRT are handled by 100% state capitalized company, partial outsourcing may work in the functions where expertise is available outside the company, such as maintenance of rolling stocks, cleaning of facilities, security force, advertizing planning, development and maintenance of office IT systems, etc.

Evaluation Criteria		Import-ance	Direct Operation by MAUR, HCMC	100% State Capitalized Company	MAUR Outsourcing to an Existing Private Company(*5)
Financial	Separation of the O&M organization from amortization & interest payment of construction cost	Middle	No	Yes	Yes
	Operational cost	High	Moderate	Moderate	High
Organizational	Easiness of the setup work of the O&M organization	Middle (*1)	A little difficult	A little difficult	Yes
	Easiness of retaining staff in the O&M organization	High	No (*2)	Yes	Yes
	Flexibility in the management	Middle	No (*3)	Yes	Yes
Know-How	Vietnamese acquisition of knowledge of managing UMRT	High	Yes	Yes	No
	Operational risks on the railway management	Middle (*1)	Some	Some	Fewer (*4)
Other	Founders' profit (by IPO)	Low	None	Yes	None

*1: Importance gets smaller when there is some means to compensate the bad impacts from the issue.
 *2: There is a risk that staff may be transferred to other departments in HCMC.
 *3: In general, incentive to pursuit to efficiency is weak in public organizations, commonly in the world. It is also true in railway operations.
 *4: This may work if MAUR has had experiences of railway operations to set proper criteria to control the outsourcer.
 *5: Due to the Decision 38/2007/QD-TTg, a private company is not allowed to manage and operate an urban railway.

 Advantage
 Disadvantage

Diagram 3.2 Comparison of O&M Organization Scheme

In the law 60/2005/QH11 “Law on Enterprises”, there are three company schemes, “one member Limited Liability Company (one-LLC)”, “two or more members LLC” and “Joint Stock”. Currently, however, the ownership of UMRT O&M company cannot be shared by any private companies (neither local nor foreign), because the Government Decision prohibits it. Therefore there is little need to set it up as either “two or more member LLC” or “joint stock” now. Furthermore, setting a joint stock company makes sense only if HCMCPC has a strong intention of distributing shares to the private sector in order to bring in private companies’ capital and efficiency, or to get a return from the IPO (initial public offering) with the condition that the decision “38/2007/QD-TTg” has been revised.

Scheme of O&M Organization:

 One member Limited Liability Company (One-LLC), 100% Owned by HCMC.

3.1.3. Asset Ownership

Since railway facilities are generally categorized into two types, “infrastructures” such as tunnels, bridges, etc. and “E&M” such as rolling stocks, signals, IT system, etc., there are three options for asset ownership as shown in Diagram 3.3.

- Option 1; no assets are transferred from HCMC to the O&M company

- Option 2; only E&M assets purchased by MAUR of HCMC are transferred to the O&M company as equity in kind and infrastructure assets are left to MAUR
- Option 3; both E&M and infrastructure assets purchased and constructed by MAUR are transferred to the O&M company as equity in kind

Pros and cons of the three options have been compared in terms of both qualitative and quantitative aspects.

The O&M company’s incentive to efficiency is supposed to be largest in Option 3 with all means of assets to improve its efficiency. Risks associated with holding assets, such as spoiling assets with bad management, will be separated from MAUR of HCMC and transferred to the O&M company most effectively in Option 3. Potential IPO value of the O&M company will be largest in Option 3 because of asset values.

A large cash shortage is anticipated in 2025 due to a large amount of spending on E&M assets and rolling stocks (See Diagram 3.15 and 3.16 in Sec. 3.1.9). The anticipated amount of cash shortage is least in Option 2 and 3, compared to option 1, since option 1 can not expect the effect of tax shield derived from asset depreciation. Option 3 also has an advantage in “net present value” (NPV) and “internal rate of return” (IRR) while so does Option 1 in the expected timing of realizing a profit. The performance in cash flow, shown in such as the amount of cash shortage, NPV and IRR, is generally more important than that in profit and loss, since a cash shortage may cause suspension of the company operation. Although Option 1 suggests a more efficient company with least assets, a more stable company with enough cash and assets, suggested by Option 3, is supposed to be more suitable for public transportation service.

		Option 1	Option 2	Option 3
Assets Transferred from MAUR to O&M CO after Completion of Construction		None	Only E&M assets, as equity in kind	Both E&M and infra assets, as equity in kind
Ownership of Original Assets	Infrastructure	HCMC	HCMC	O&M CO
	E&M (Operating)	HCMC	O&M CO	O&M CO
Ownership and Purchasing Responsibility of Renewal Assets		O&M CO	O&M CO	O&M CO
Pros & Cons Advantage Disadvantage				
Qualitative	Incentive to Efficiency	Least	Large	Largest
	Risk Separation from HCPC	Least effective	Modestly effective	Most effective
	Potential IPO Values	Least	Modest	Largest
Quantitative	Anticipated Cash Shortage in 2025 (million USD)	Largest (Beyond 215)	least (72.7)	Least (72.7)
	Net Present Value	Least	Modest	Largest
	Internal Rate of Return	Least	Modest	Largest
	Expected Timing of Realizing a Profit	Earliest	Middle	Last

- Asset owner should prepare the maintenance budget for their own assets every year.
- No charges on usage of any assets are requested by HCMC/MAUR and none on maintenance of any assets by the O&M CO, in any of three options.
- Write-offs and write-downs below the actual value discussed in Working Paper 36 are not considered, since both are not supported by any laws or accounting practices in Vietnam.

Diagram 3.3 Comparison of Asset Ownership

Although the Working Paper 36 submitted by GC suggested the writing off or writing down the value of the asset to lessen the depreciation burden, there is no accounting rules to support these practices in Vietnam. All in-kind contributions to the Charter Capital of the O&M company must be effected in accordance with Article 29 and 30 of the Law on Enterprises. In relation to newly purchased operation assets, to SAPI team’s understanding, it would be necessary for such assets upon contribution to be valued at their invoice value.

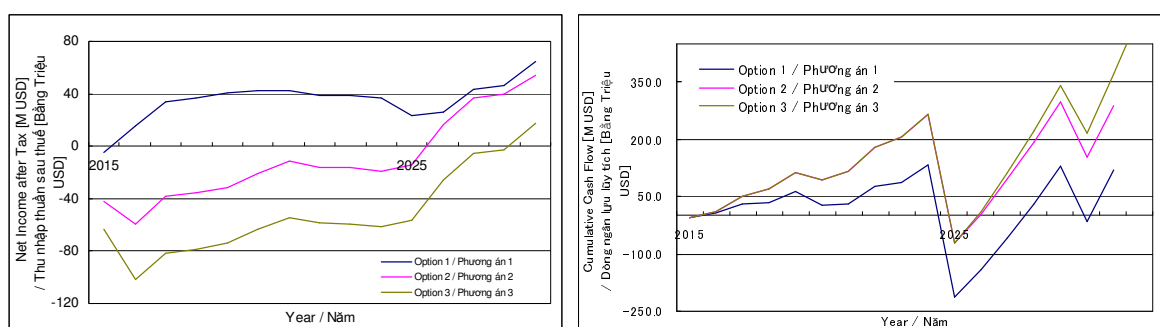


Diagram 3.4 Comparison of Net Income After Tax and Cumulative Cash Flow

Asset ownership:

Both E&M and infrastructure assets should be transferred from HCMC to the O&M company as equity in kind contribution.

3.1.4. Scope of the Organization – Railway Lines

If there are two or more UMRT O&M companies in the city in the future, there will be inefficiency in many aspects described in Table 3.1. Therefore, the first O&M company should operate all lines in HCMC, starting Line 1 through Line 7.

Table 3.1 Inefficiency in Multi-Operators

Viewpoint	Disadvantages
Passengers	<ul style="list-style-type: none"> · Even with a discount in connecting ride, two fare systems are still costly and troublesome for passengers, pushing down ridership accordingly. · Different looks of directional signs and boards as well as connecting walk between two stations are inconvenient for passengers.

Company Management	<ul style="list-style-type: none"> • Duplications are inevitable: 1) Head Office and all facilities including office IT systems, 2) Management team and administration staff at Head Office and 3) Operation Control Center, Maintenance Center, etc. • Developing/updating <u>fare system</u> and <u>time table</u> to make connecting ride better in addition to building an integrated <u>information system</u> for AFC. • It is difficult for the two operators to flexibly accommodate each other with staff such as drivers when one party needs it.
Employees	<ul style="list-style-type: none"> • It may be difficult to train drivers of a new operator in the preceding operator's actual working environment (24-month work experience is required for the license by law).
HCMC	<ul style="list-style-type: none"> • A larger amount of subsidy is likely to be demanded by the two or more operators because of the inefficiency and lost economy of scale.

3.1.5. Scope of the Organization - Non-fare Business

Non-fare businesses, generally, can be categorized into two types, “railway facility related” and “non-related”. The businesses using railway facilities, such as advertisement at stations and on/in rolling stocks, station space rental, parking lots and kiosks, are categorized as “railway facility related”. The business, which requires huge investments in addition to railway, such as bus, taxi, and property development, is categorized as “non-related”.

[Railway Facilitated Business]

All companies shown in Diagram 3.5 are involved in “railway facility related” businesses, since a railway company can make UMRT attractive for passengers and earn additional revenue without huge additional investments. The O&M company in HCMC could also be involved in these services without difficulty.

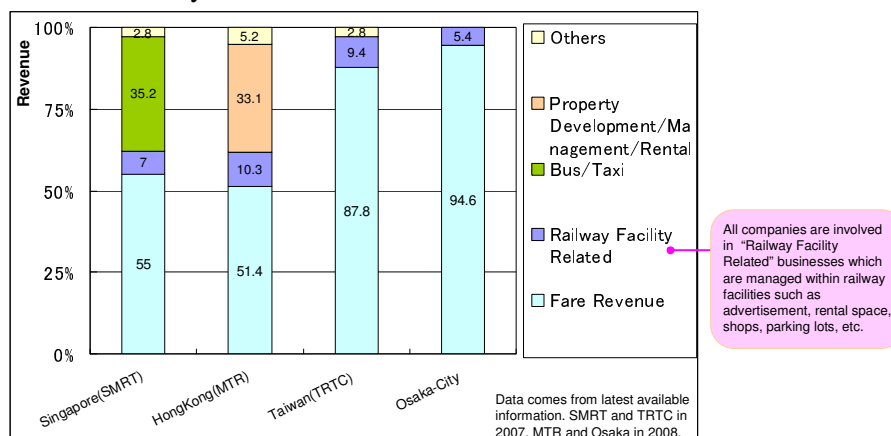


Diagram 3.5 Non-Fare Revenue in Other Asian Cities

Source: Latest available information at the end of May 2009 on the websites of SMRT, TRTC, MTR and Osaka city. SMRT and TRTC are fiscal year 2007. MTR and Osaka are fiscal year 2008.

[Non-Related]

- Property Development -

In south-east Asia, property development and non-railway transportation services are popular for “non-related” business for urban railway service companies.

MTR, the Hong Kong UMRT company, is famous for railway and property development. It was founded prior to the UMRT construction to manage railway construction and property development both at the same time. The HK Government provided MTR with the exclusive land development rights at low price, instead of cash subsidy. To generate income, MTR purchases the property around its stations at lower price and sells it to a developer at higher price.

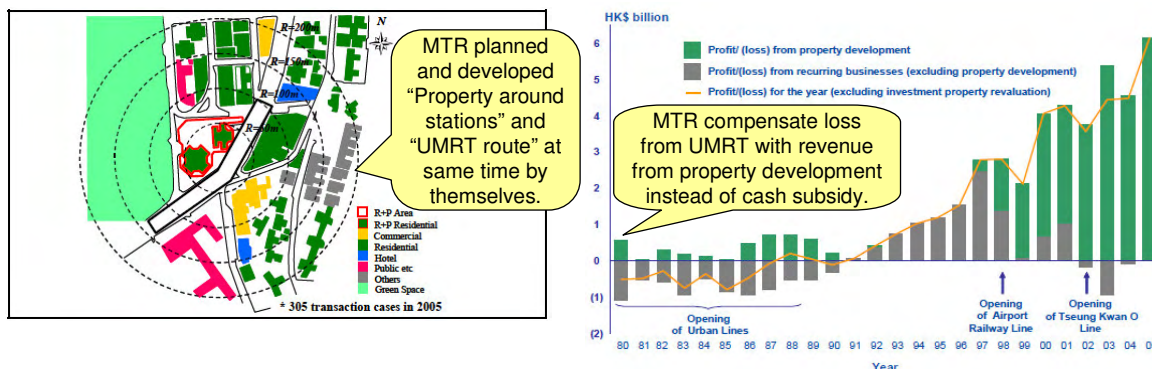


Diagram 3.6 Property Development of MTR (Hong Kong)

Source: Lincoln Institute of Land Policy “Rail and Property Development in Hong Kong: Experiences, Impacts, and Extensions”, Robert Cervero and Jin Murakami

Through reviewing the Hong Kong case, the following success factors have been extracted.

- ✓ **Strong support from government for property acquisition, such as exclusive right at low price.**
- ✓ **Synchronization between property development plan and UMRT construction plan.**
- ✓ **Property acquisition before UMRT construction.**

In HCMC, since the project for UMRT Line #1 is already on going, it is difficult for the O&M company to proceed the property development as MTR did. However, the lines from No. 2 to 7 have some possibility of property development in advance, because they are still in planning or study phase.

- Feeder Bus Services -

SMRT, Singapore UMRT company, is famous for various transport services. It was derived

from Singapore government’s strategic policy. Singapore unified its traffic authorities and put various transport means into SMRT. HCMC intentionally divided its transportation authority into two departments, MAUR for UMRT and Department of Transport (DoT) for other transports. The two companies, SMRT in Singapore and the O&M company in HCMC, have different back-grounds.

Since feeder bus services are out of the original scope of MAUR and the O&M company, additional huge investment will be required to realise the services. On the other hand, DoT has possibility to realize the feeder bus services without huge investment, since existing bus companies supervised by DoT could transfer their current buses to feeder bus services and utilize their existing facilities. Therefore, in HCMC, DoT is best to realize feeder bus services with smaller investment, by directing existing bus companies.

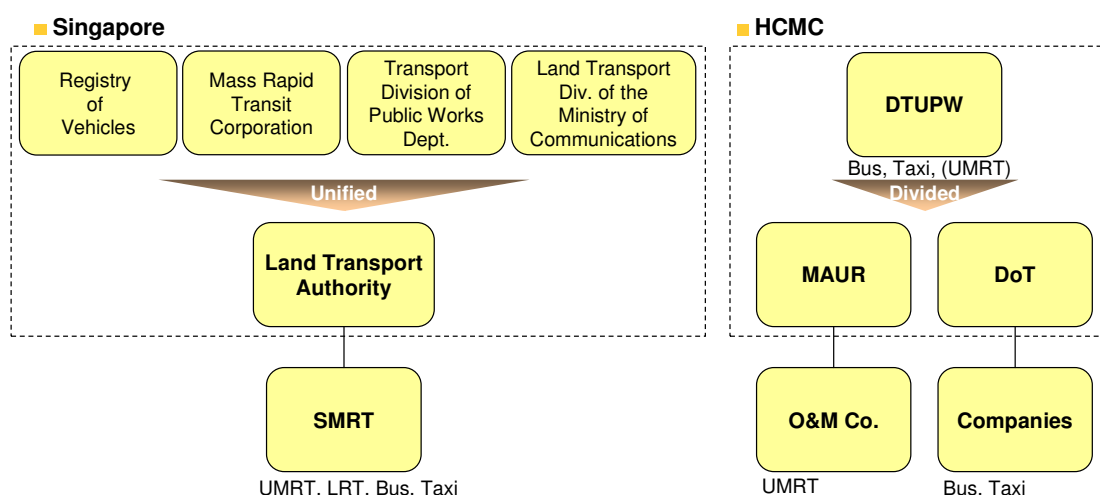


Diagram 3.7 Scheme of Transportation Authority and Operating Company in Singapore and HCMC

Engaged Authority (Operator)	MAUR (O&M Company)	DoT (Existing Bus Co.)
Requirement for starting the feeder bus services		
Planning of Traffic Network Coordination with other transports is required.	Coordination with DoT is required (e.g. feeder bus routes to avoid duplication).	Coordination with MAUR is required (e.g. time table of feeder bus).
Investment for Infrastructures Buses and related facilities have to be prepared.	O&M company should prepare buses and related facilities.	Existing bus companies could transfer their buses to feeder bus services and share their existing facilities. ^(*)
Operation and Maintenance Knowledge and Skill Knowledge and skill are required before commercial operation.	O&M company should prepare experienced people and/or train un-skilled people.	Existing bus companies could transfer their resources to feeder bus services. ^(*)

NOTE: (*) DoT needs to restructure the existing bus routes to realize the feeder buses. NH1 route which covers the route of UMRT#1 may be one of routes to consider.
 (*) When O&M company obtains financial and managerial capability to operate the feeder bus services, the O&M company may consider taking over the feeder bus services from existing bus companies.

Diagram 3.8 Comparison of Authority (& Operator) for Feeder Bus Service

As a plan of MAUR, the feeder bus services will be taken over by the O&M company after the company's getting financially stabilized. It is supposed to be feasible because Taipei UMRT company, TRTC, also has experience of introducing bus services for their UMRT passengers after the establishment of company, one year before their railway network completion.

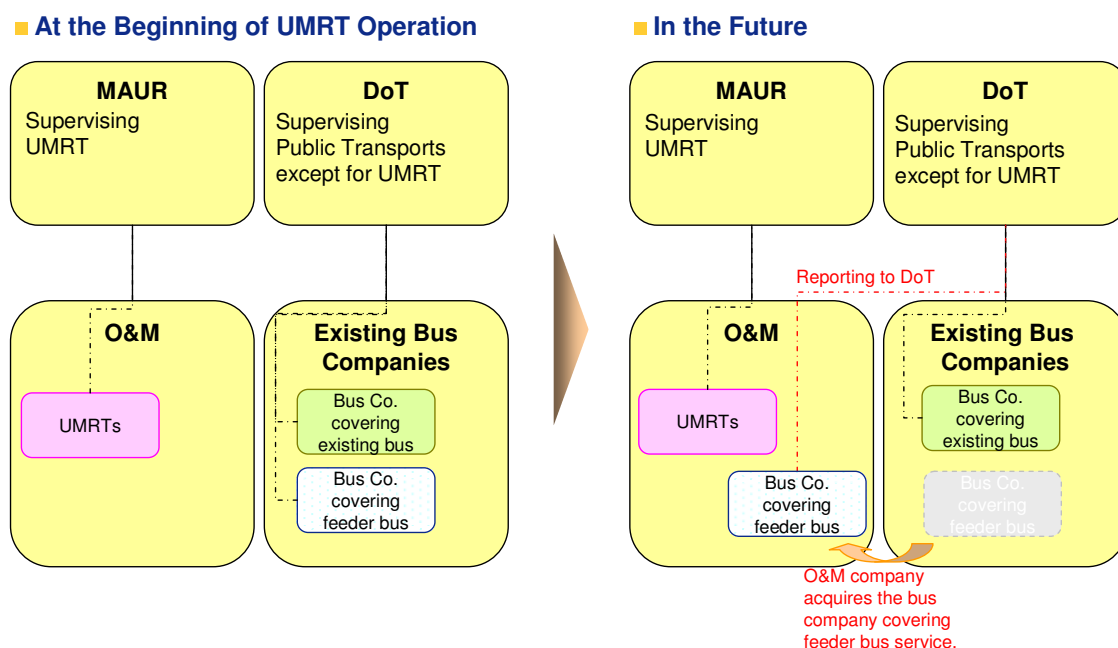


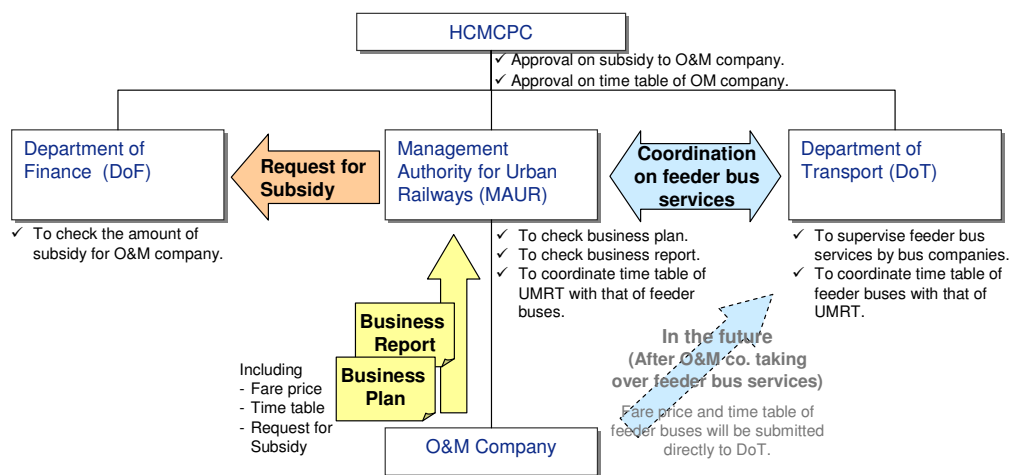
Diagram 3.9 Taking Over Plan of Feeder Bus Services

<p>Scope of Organization</p> <p>[Railway Line]</p> <ul style="list-style-type: none"> - The O&M company should cover all UMRT lines from the viewpoint of HCMC's whole efficiency. <p>[Non-fare business]</p> <ul style="list-style-type: none"> - The O&M company can be involved in "railway facility related business", such as advertisement at stations and on/in rolling stocks, station space rental, parking lots and kiosks, to earn additional revenue and make UMRT attractive for passengers as other Asian railway companies do. - Although URMT Line #1 can not successfully implement property development due to time constraint, Line #2 to #7 have possibility of successful property development with two conditions; (1) authorization and support from HCMC and (2) availability of cash for investment.
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- Feeder bus services will be taken initiative by DoT initially by supervising existing bus companies. When the O&M company obtains financially stabilized operation, MAUR and DoT will see if the O&M company can take over them.

3.1.6. Reporting and Coordinating Works in HCMC

As described in section 3.1.2, O&M company will be established under MAUR. After starting commercial operation, O&M company should periodically submit the business plan and report to MAUR for their review and approval. In case that O&M company have plan to request the subsidy from HCMC and/or change their time tables, they have to describe detailed explanation in the business plan. Upon receiving the business plan from O&M company, MAUR should review it and coordinate with related departments.



	O&M Co.	MAUR	DoF	DoT	HCMCPC
Subsidy	Request	Check / Request	Check	-	Approve
Time table	Draft	Check / Coordinate	-	Coordinate	Approve

Diagram 3.10 Reporting and Coordination Works in HCMC

3.1.7. Organization Structure

TRTC in Taipei and Osaka City Transportation Bureau operate UMRT lines within one city and are involved in railway facility related businesses as their non-fare business, while SMRT and MTR have various business portfolio. Since the scope of the O&M company in HCMC is similar to TRTC and Osaka, the organization of TRTC and Osaka could be of good reference in considering the organization of the O&M company.

Based on the functions held in TRTC and Osaka, and Vietnamese one member LLC style, the

organization structure of company has been discussed and designed as follows. (See appendix for the plotting of the functions of TRTC and Osaka onto the O&M company's organization.)

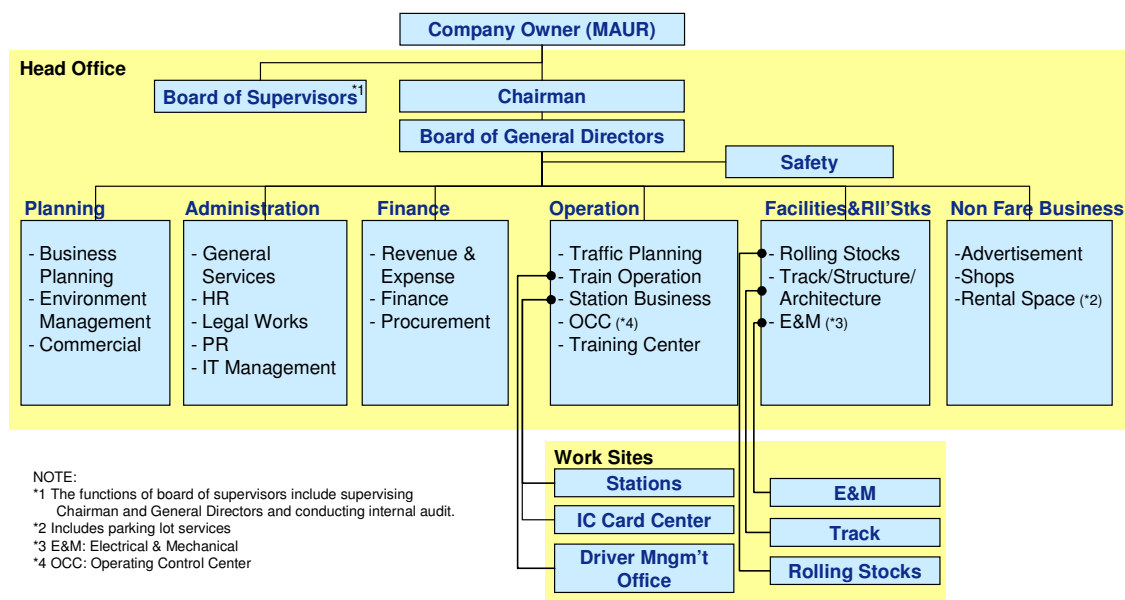


Diagram 3.11 Head Office Organization Structure of O&M Company

3.1.8. Office IT System

Office IT system is an effective tool for a railway company. It is a quite common understanding in the world. The system generally provides six functions mainly in back-office and maintenance. For example, the G/L function assists the O&M company to recognize the revenue and deposit separately and secure appropriate book keeping. In addition to G/L function, budget management can provide an effective reporting function, showing the comparison of budget and actual revenue per day, month and year.

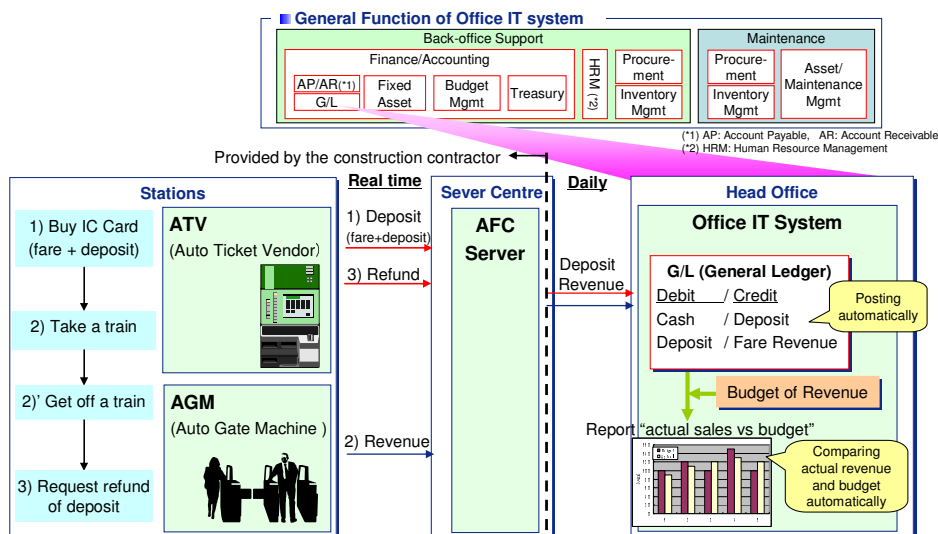


Diagram 3.12 General Function of Office IT System (back office support)

3.1.9. Financial Plan

To estimate the financial condition of the O&M company in the future, “Profit and Loss Statement” and “Cash Flow Statement” are calculated on the following conditions.

[Fare Revenue]

Since the fare price each year should be adjusted based on the number of actual passengers and economic status at the time, it is no use discussing the price in detail at this stage. Therefore the fare price, affordable to the passengers, studied in SAPROF and updated in the Working Paper 36 prepared by GC, is applied to the initial fare price setting with the rates of economic growth listed in Table 3.4 in this report. To compensate the cash-out caused by renewal of E&M, price increase based on the rates of economic growth is considered every 5 years until 2025.

- Fare Price -

2015	VND	5,000 +	500	x (Travel length in km)
2016-2019	VND	7,000 +	700	x (Travel length in km)
2020-2024	VND	9,000 +	900	x (Travel length in km)
2025-	VND	11,000 +	1,000	x (Travel length in km)

For ridership, the number of passengers estimated in the Working Paper 36 is used.

[Non-fare Revenue]

The average ratio of non-fare revenue (railway facility related) against total revenue of UMRT companies in other Asian cities, approximately 10%, is used to estimate non-fare revenue of the O&M company.

Revenue Source	Singapore (MRT)		HongKong (MTRC)		Taiwan-Taipei (TRTC)		Japan-Osaka (OSAKA)	
	%	mS\$	%	mKH\$	%	mNT\$	%	mYen
Non- Fare (Railway Facility Related) [a]	11.3%	52	16.6%	2,287	9.7%	981	5.4%	8,107
Advertisements	3.7%	17	5.4%	741	3.8%	387		
Space rental (ex. retail stores/office spaces/Telecom/optical fiber etc)	7.6%	34.5	11.2%	1,546	1.3%	134	5.4	8,107
Parking Lots	NA	-	NA	-	1.6%	158		
Shops (Kiosk, Shopping Malls)	NA	-	NA	-	3.0%	302		
Fare (MRT)	88.7%	404	83.4%	11,467	90.3%	9,125	94.6%	141,686
	Average of non-fare ratio							10.8%

Diagram 3.13 Ratio of Non-Fare Revenue (Railway Facility Related) in Other Asian Cities

Source: Latest available information at the end of May 2009 on the websites of SMRT, TRTC, MTR and Osaka City. SMRT and TRTC are fiscal year 2007. MTR and Osaka are fiscal year 2008.

[Staff Costs]

To estimate the staff costs, the following salary table is used. In addition to salary, 20% of salary is considered as social benefit cost.

Table 3.2 Monthly Staff Cost

Position	Monthly Staff Cost [USD] * incl. social benefits cost
Management	2,000 → (2,400)*
Managing director	1,000 → (1,200)*
Manager, engineer and skilled worker	650 → (780)*
Deputy manager	500 → (600)*
Semi-skilled worker	350 → (420)*
Unskilled worker	200 → (240)*
Office worker	400 → (480)*

Reference : JETRO homepage

[Power Costs]

Electric power costs for operating trains, stations and depots are considered based on the estimated power consumption [kW] in GC documents.

[Cleaning Costs]

Cleaning costs for trains and stations are considered based on available area [m²] in GC documents.

[Spare Parts Costs]

Costs of spare parts for the following categories are estimated based on total construction cost.

Table 3.3 Maintenance Term

Category	Maintenance Term
Minor	Daily, weekly, monthly and yearly
Medium	Every 4 years
Major	Every 8 years

Source : The ministerial ordinance to specify a standard in case of technology about the railroad (Japanese Ministry of Land, Infrastructure and Transport)

[Cost of Non-Fare Business]

Although it depends on type of business, the cost of non-fare businesses is estimated as 60% of non-fare revenue, in average.

[Price Escalation]

For long term estimation, the economic growth is considered as a major factor affecting costs. The rate of the economic growth in Japan is applied to renewal and additional purchasing of E&M and rolling stocks, because they will be imported from Japan. The rate in Vietnam is applied for other items. To consider the fluctuation of exchange rate between Vietnam and Japan, the average annual change in exchange rate, in last 5 years, 1%, is added to Japanese economic growth rates, as shown in Table 3.4.

Table 3.4 Average Annual Economic Growth Rates

Year	Average annual economic growth rates [%]	
	Vietnam	Japan * after applying fluctuation of exchange rates
2006 – 2020	5.0	1.4 → (2.4)*
2021 – 2030	3.7	1.1 → (2.1)*
2031 – 2040	3.2	0.6 → (1.6)*
2041 -	2.5	0.0 → (1.0)*

Source:

- Economic growth rates: Japan Center for Economic Research, Changing Demographics in Asia (January 2007)
- Fluctuation of exchange rates: JETRO homepage

Note:

- For staff cost, 2% is applied as escalation rate, since it is generally lower than economic growth.

[Dividend]

When the O&M company makes a profit, 30% of net income after tax is considered to be paid out to HCMC as a dividend.

Based on the above conditions, “net income before tax” and “net cash flow before tax” of the O&M company are plotted in Diagram 3.14 and 3.15, respectively. While the O&M company keeps losses until 2028, its cash flow turns to positive in the second year of operations.

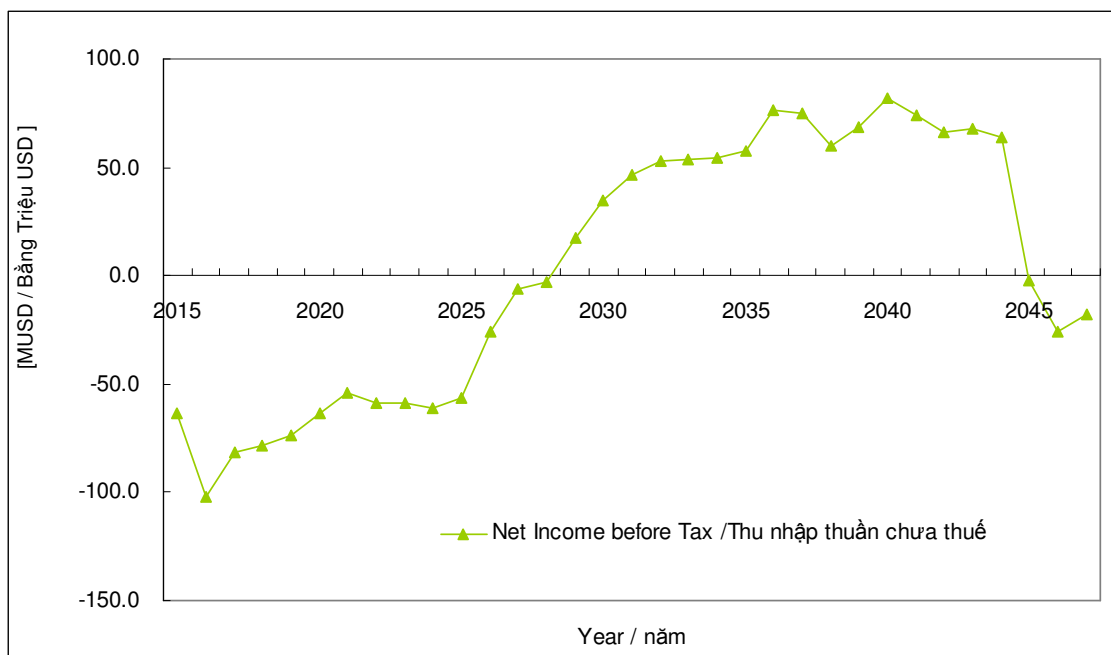


Diagram 3.14 Net Income before Tax of O&M Company

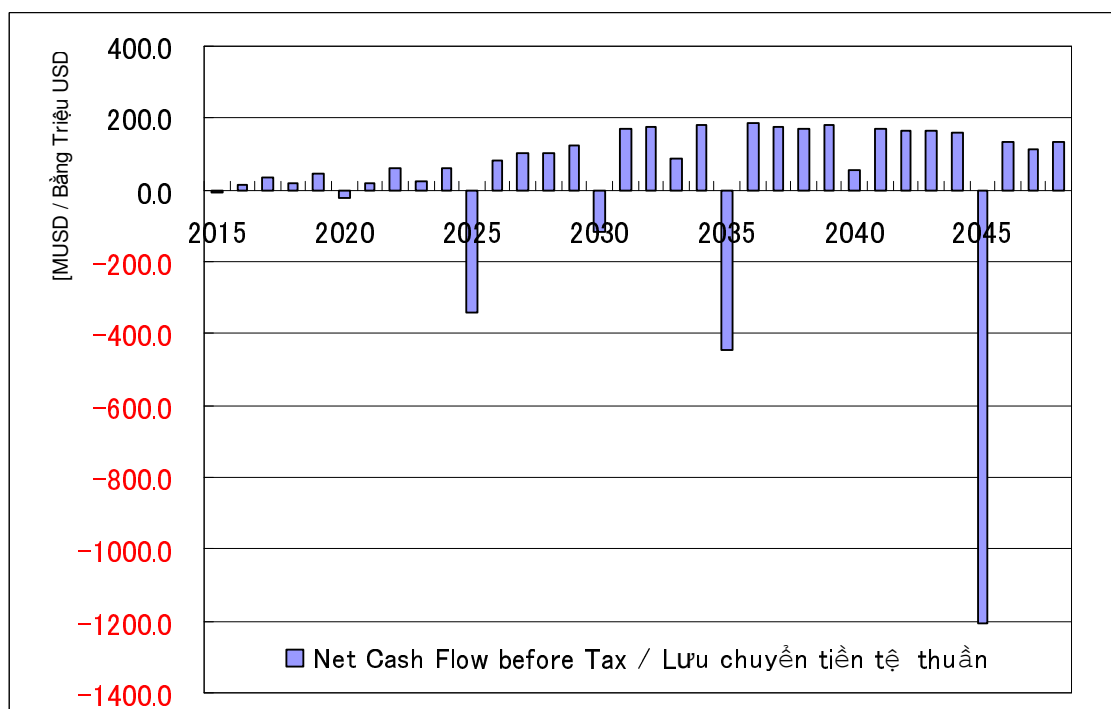


Diagram 3.15 Net Cash Flow before Tax of O&M Company

NOTE: Positive cash flow shows that O&M company is in good financial condition. It needs to be deposited into Bank account. Negative cash flow shows that O&M company is in unstable financial condition. It requires to be compensated with cumulative cash flow of O&M company and the subsidy from HCMC.

Although negative cash flow occurs in every 5 years due to renewal purchase and additional investment of E&M and rolling stocks in the financial plan, some of them may be spread over several years and could be covered by cumulative cash flow in reality. Because actual renewal and investment of rolling stocks will be implemented based on their operational condition, cash out will not concentrate in just one of five years. To avoid confusion, it is important to check out cumulative cash flow, which is projected in Diagram 3.16.

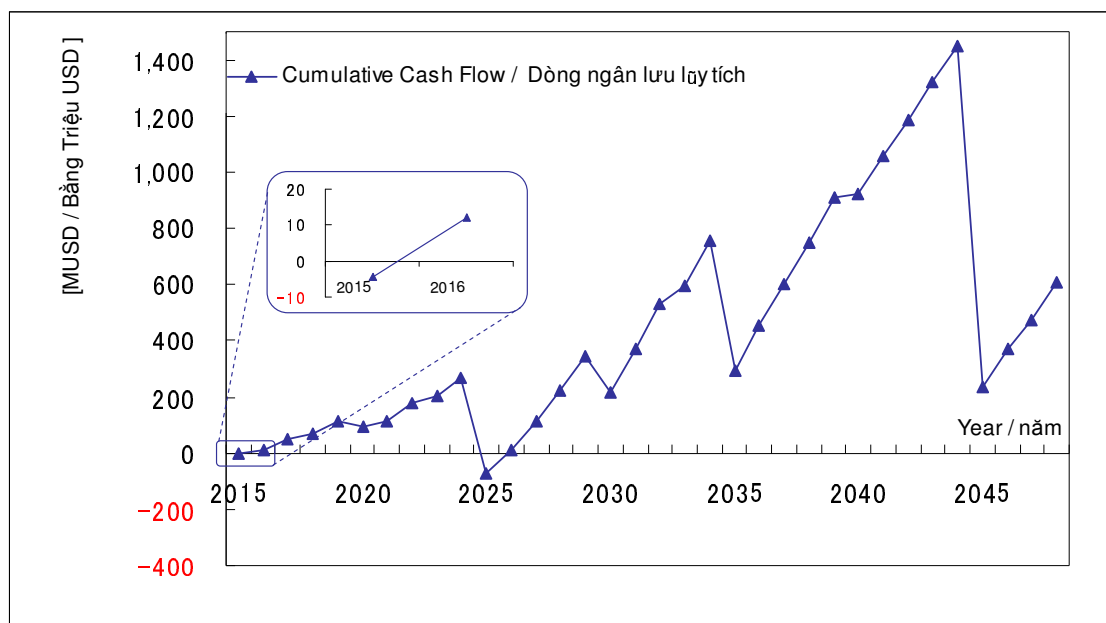


Diagram 3.16 Cumulative Cash Flow of O&M Company

NOTE: For corporate income tax (CIT) calculation, tax exemption and loss transfer stated in the Circular 130/2008/TT-BTC are applied.

As shown in Diagram 3.16, there will be some cash shortages until 2025, due to low ridership and renewal purchase and additional investment of E&M and rolling stocks, but not after that. Therefore financial supports from HCMC are required only for the first decade if things go well as planned.

In addition to the financial supports mentioned above, HCMC and MAUR should consider the following expenses and investments for opening. Since the O&M company will have no revenue before starting operations and only small amount of revenue for a while after starting operations, HCMCPC and MAUR need to contribute cash to the capital of the O&M company.

- Opening Expenses -

- Expenses for office furniture and equipments.
- Staff costs from the establishment of the O&M company to the start of

- commercial operations.
- Advertisement to promote ridership
- Investment -
 - Investment for non-fare business
 - Investment for the office IT systems.
- Making-up for cash shortage -
 - Cash shortage in 2015 (Opening year)

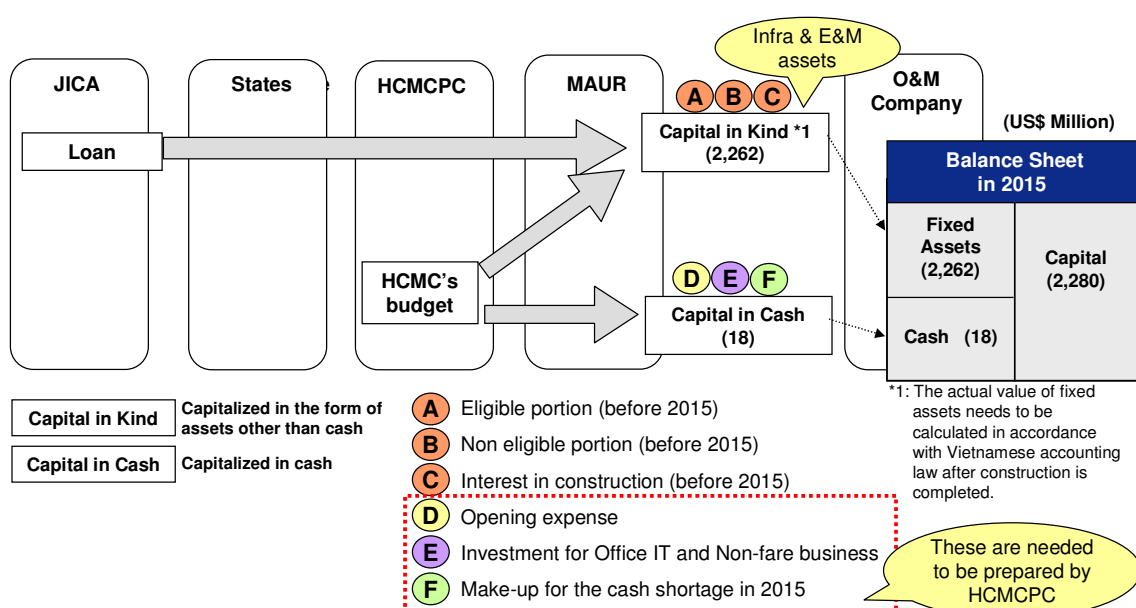


Diagram 3.17 Investment Flow for the Establishment of O&M Company

Financing of these necessary cash should be considered and prepared by HCMCPC and MAUR well before the opening. For example, financing means for investment on office IT systems should be discussed including applying to JICA Loan.

3.1.10. Business Risks

Generally, prior to starting business, a company identifies and assesses the business risks which could cause a significant impact on the company's performance and prepares the mitigation plans. Since some of mitigation methods are subject to financial budget and/or the decision of party bearing or sharing some part of the risks, the mitigation plan should be described in a business plan and recognized by related parties at the detailed planning phase.

In other Asian cities, there were many cases that financial risk initially happened due to low ridership. That risk could also happen in HCMC.

Taipei Rapid Transit Corporation (TRTC) and Singapore MRT Ltd (SMRT) are known as successful cases. They were financially supported by their governments for first years, from start operations to completion of railway network. In Taiwan, all railway assets belong to the government and are leased to TRTC. In the first 5 years of operations, before the completion of railway network, the assets were leased for free. After that, TRTC is required to pay 4% of their operating revenue. The payment is transferred to “Taipei Metropolitan Area Rapid Transit Fixed Asset Replacement Fund”, which is used for replacing the old facilities and can be of good reference for HCMC.

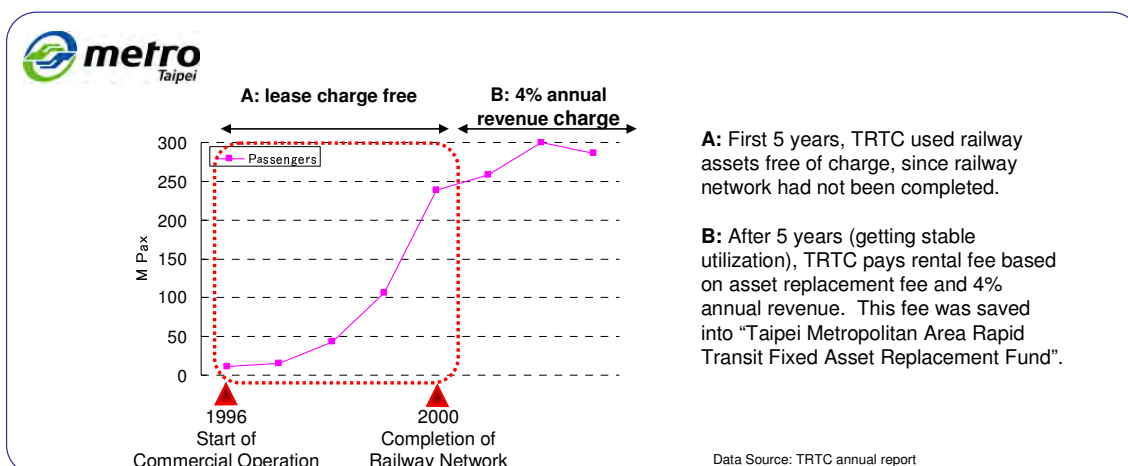


Diagram 3.18 Risk Mitigation for Initial Years in Taipei Rapid Transit Corporation (TRTC)

In 1987, SMRT started the UMRT operation under License and Operating Agreement (LOA) with the Land Transport Authority (LTA). After 11 years, in 1998, SMRT bought all operating assets (including rolling stocks) from LTA at net book value, while infrastructures (the tracks and stations) are still leased from LTA for a nominal fee. At the same time, SMRT had another contract, “second LOA”, with LTA. In that contract, an annual license fee is calculated at 0.5% of the annual passenger revenue for the first 5 years, 1998 - 2003, and at 1% from 2003 to 2010. Thereafter, the percentage will be determined by LTA and renewed every ten years.

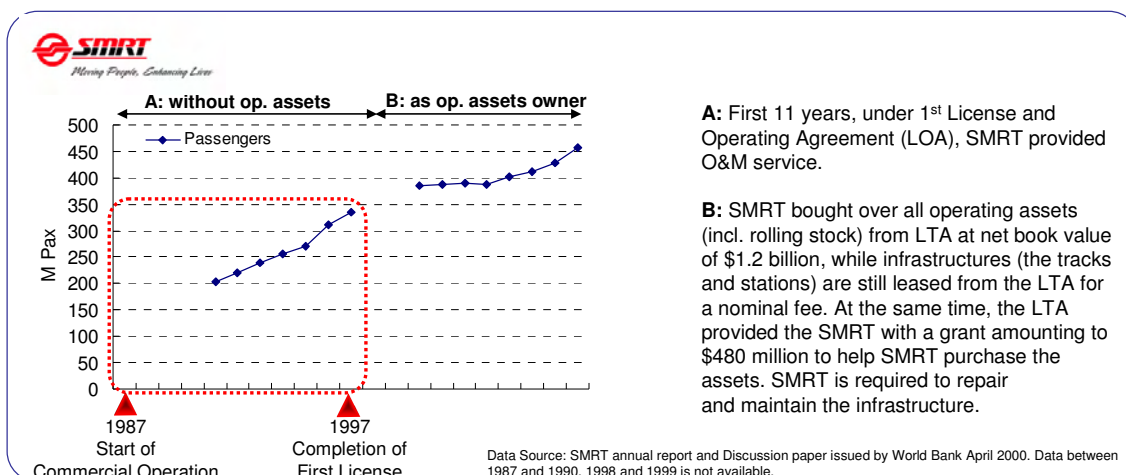


Diagram 3.19 Risk Mitigation for Initial Years in Singapore MRT Ltd (SMRT) Case

At this stage, several major business risks on the O&M company have been identified and risk mitigation are proposed as follows.

Business Risks			Proposed Risk Mitigation
Revenue	Fare rate	Delay in Fare Increase The O&M company expects an increase in the fare in referring to the inflation rate, in the future. If the pace of the increase in fare gets hugely behind that of inflation because HCMCPC refuses to approve, only costs increase relatively, significantly squeezing the profit of the company or putting it into a loss.	When the revenue before tax becomes negative in the first 10 years and smaller than 10 % of the expected revenue after 10 years, and there occurs a significant delay in fare increase, the O&M Company is entitled to ask for fare increase for the following year, and if the increase does not occur in the following year, it is also entitled to receive the funding support from HCMCPC until the fare is actually increased.
	Ridership	Delay in Network Formation The O&M company depends significantly on the effect of network formation for its ridership estimate to realize. If the delay in the network formation of UMRT occurs because of a stop in HCMC's process, for instance, it would result in smaller ridership, a smaller revenue size than estimated and therefore an operating deficit.	(i) Establish a Base Case for ridership growth based on initial network development plan with timing of opening for each additional UMRT Line. This Base Case should be reviewed annually on the basis of new network development plan at the time. (ii) Based on the Base Case, the achieved ridership is assessed each year and if there is a significant Delay in Network Formation and actual ridership deviates below the lower 20% level from the Base Case, The O&M Company is entitled to receive the funding support from HCMCPC.
		Threats to Passengers' Safety People tend to avoid using railway in a situation where they find threats to passengers' safety, such as epidemic and terrorism. It will push down ridership significantly, during a relatively short period.	The same mechanism of mitigation as above should be applied, but a part of such short term risk can be covered by an insurance policy, too.
Unexpected expenses	Critical Accident Critical accidents, once happened, would require a significant amount of money to compensate damages for passengers, staff and others.	It should be covered by civil liability insurance*. * According to Article 62 of Railway law, the urban railway transport enterprise must buy civil liability insurance.	

Diagram 3.20 Business Risks and Proposed Risk Mitigation

[Sensitivity Analysis]

As mentioned above, in other Asian cities, there were many cases that financial risk initially happened due to low ridership. It could also happen in HCMC. To see how changes in ridership will impact the financial condition of O&M company, sensitivity analysis with two

different scenarios was applied.

- Scenarios-

> Optimist Case (Ridership : Base x 120%)

> Pessimist Case (Ridership : Base x 80%)

In case that ridership is 20% lower than expected, OM company will constantly face financial problem as shown in Diagram 3.21.

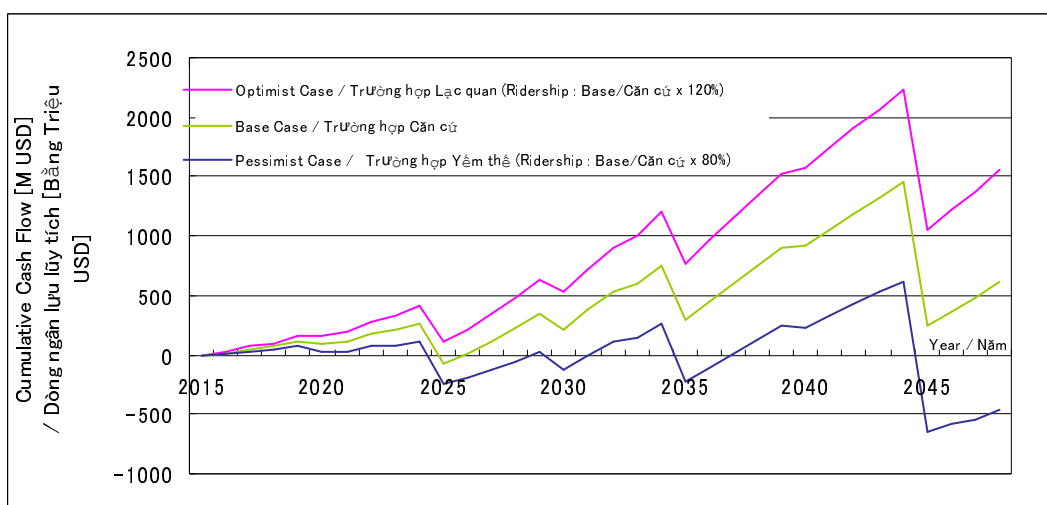


Diagram 3.21 Effect of Changes in Ridership

3.2. TOR 2

To ensure concrete conduct of the activities in the roadmap, the detailed work description of activities is described in the following subsections in the order of task number listed in the appendix 4 “Roadmap for Starting Commercial Operation”.

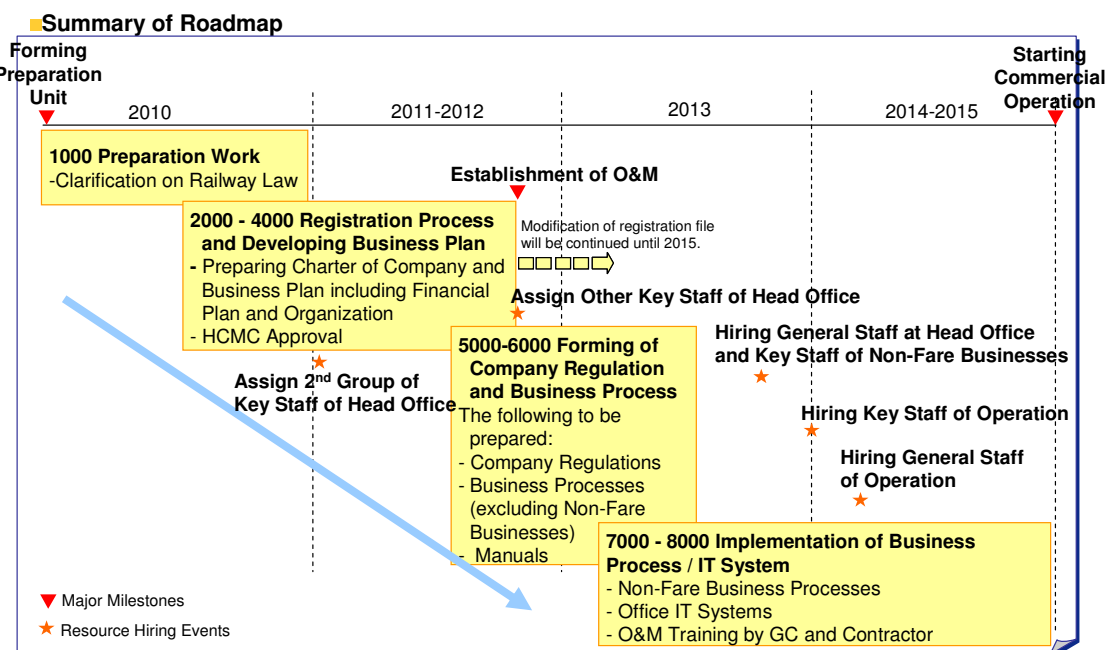


Diagram 3.22 Overview of Roadmap

3.2.1. Timing of Establishment of O&M Company

Considering the preparation work for starting commercial operation, nearly 3 years are required at least. Therefore the deadline of establishment of the O&M company is September 2012. Although the staff of the preparation unit (PU) will be key staff of the O&M company as MAUR plans, there is still some risks of losing the staff of PU due to HCMC’s relocation order. To avoid that risk, the earlier establishment of the O&M company is suggested.

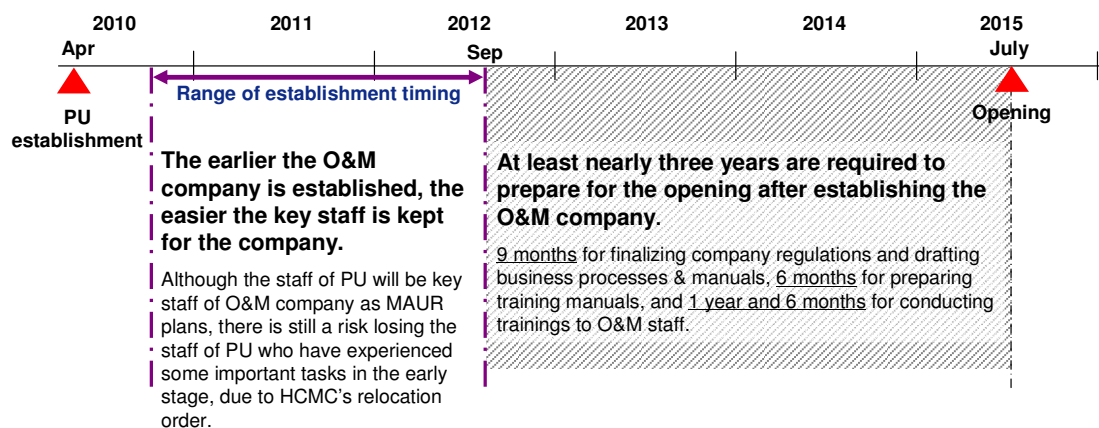


Diagram 3.23 Timing of establishment of O&M company

3.2.2. Establishment of Preparation Unit (1000)

By April 2010, MAUR should establish the preparation unit (PU) and assign its staff to PU to manage the clarification work with MoT and registration work with DPI.

The first main work of PU will be clarification work with MoT. Therefore, business planning and legal staff should be assigned. When the clarification work is roughly settled, PU should start the registration work to establish the O&M company. At this stage, staff for human resources, finance and environment should be assigned to prepare the charter of company and the staff-hiring plan. During these clarification and registration work, PU staff will obtain the knowledge of railway. To transfer that knowledge, the staff of PU should be transferred to the key positions of the O&M company.

In case that staff of PU becomes key staff of the O&M company prior to the establishment of the O&M company, PU can start drafting company rules. To handle that work, staff for general services, safety, operation and maintenance should be assigned to PU.

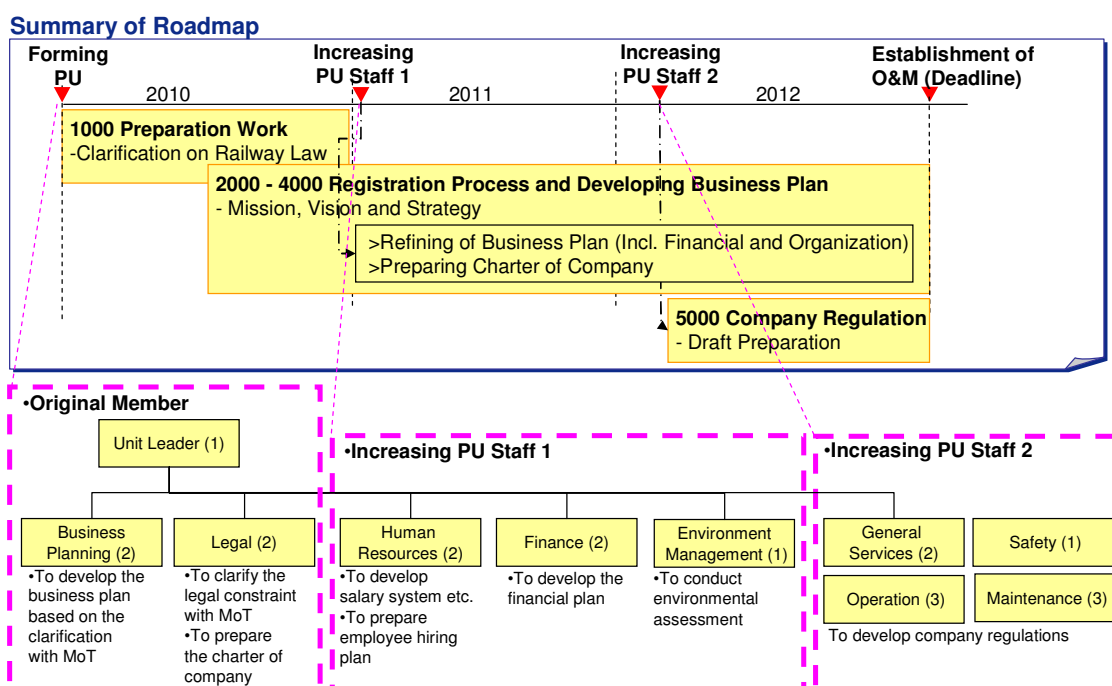


Diagram 3.24 Staff Assignment Plan of Preparation Unit

3.2.3. Clarification on Railway Law (1010)

As Diagram 3.25 shows, in Railway Law and related decrees/decisions, there are several legal constraints that directly affect the hiring plan, salary level and training plan of the O&M

company. Therefore this issue must be settled before conducting the registration process.

It is quite difficult to find out the resources in Vietnam who are legally/practically satisfied with work experience and certificates stated in Diagram 3.25. Although people working/worked in Vietnam National Railway (VNR) are legally satisfied with those requirements, their experience and certificates could not work well in UMRT from practical viewpoints. Since UMRT #1 in HCMC is electrical urban railway, the technical requirement and philosophy of operation, maintenance and safety are totally different from those of VNR (diesel intercity railway). To manage UMRT properly, people in Vietnam have to built their work experience and knowledge from zero point.

	Qualification	Work Experience
Personnel in the prime responsibility for technical management of transport operation (*1) (*2)	A university degree	At least three years' experience in railway transport operation
Personnel in the prime responsibility for technical management of railway infrastructure (*1) (*2)	A university degree	At least three years' experience in operation of railway infrastructures
The leader in charge of safety affairs (*2) (*3)	A university degree in railway facilities	At least three years' experience in managing railway infrastructure
Personnel in direct service of train operation (*4)	Professional diplomas or certificates suitable to their titles granted by training establishments recognized by the MoT.	- <i>Not in particular</i> -
Train drivers (*4)	Professional diplomas or certificates in driving railway traffic means, granted by training establishments.	Train assistant-drivers for 24 consecutive months or more

*1: Decree 109/2006/ND-CP

*2: This may not apply to all managers but only to the leader of operation/maintenance/safety department of the O&M company.

*3: Decision 61/2007/QD-BGTVT

*4: Railway Law

Diagram 3.25 Legal Constraints in Railway Law and Decrees

To manage and operate UMRT properly, MAUR should clarify with MoT how UMRT #1 project can proceed. Those legal requirements on personnel qualification, to SAPI team's understanding, are stated to secure qualification of operation and safety. Therefore the following exemption and amendment could be one of alternative solutions.

For work experience in railway stated in Decree 109/2006/ND-CP and Decision 61/2007/QD-BGTVT:

In the UMRT #1 project, GC and construction contractor who have great experience in railway sector will provide training before opening and technical support until 5 years later after the starting commercial operation. They could be worth 3 years experience required in the decree/decision. Thus UMRT #1 should be exempted from these requirements until the

completion of technical support by GC and construction contractors.

For training establishment recognized by MoT stated in Railway Law.

Since UMRT #1 is the first electric trains in Vietnam, there is no appropriate training establishments and trainers. Therefore the training center established by GC and construction contractor will practically be the best to manage the training for UMRT. If MoT recognize that training center as official training establishment, it can be relieved from legal constraint

For work experience of train drivers stated in Railway Law.

As mentioned above, in the UMRT #1 project, GC who have great experience in railway sector will provide training before opening and technical support until 5 years later after the starting commercial operation. They could be worth 24 consecutive experience required in Railway Law. Thus UMRT #1 should be exempted from these requirements until the completion of technical support by GC and construction contractors. In addition to that exemption, amendment on Railway Law is required. Since there is no position assisting drivers in UMRT, it would be no more feasible after opening UMRT.

In addition to the legal constraints on personnel qualification described above, there is another legal constraint issue on the examination of driving licenses.

The Decision 44/2005/QĐ-BGTVT states 4 types of driving licenses and allows persons granted train-driving license to drive only the type of railway traffic means as specified in their respective driving license. The types of driving license include for diesel trains, electric trains, steamed trains and specialized vehicles moving on rail tracks.

The decision also requires educational qualification and work experience for the examination team.³ Since there is no electrical trains in Vietnam, examination method and team for electrical trains have not been established yet. As an exclusive examination agency, Vietnam Railway Administration (VNRA) has responsibility to establish the method and the team prior to the starting commercial operation of UMRT #1. However, they have no experience of

• ³ There are three Qualifications of Examination Team. 1. Possessing professional diplomas or certificates in driving railway traffic means in correlation with the means that the examinee to be tested and granted by training establishments. 2. Having practical work experience of at least 5 years, directly driving the type of train for at least 3 years, and mastering the railway traffic means, procedure and norm exploiting the railway engineering, and safety rules for train operation. 3. Having passed the training course prescribed for professional skill on examination and been provided an examinant card by Vietnam Railway Administration.

electric trains. The educational qualification and work experience listed above would be legal constraints for them.

In the plan of UMRT #1 project, the training center for train drivers will be established to obtain knowledge of driving electric trains from Japan. This center would be in the best position to handle the training and to grant the license for driving electric trains. Although it is subject to MoT's approval, this could be an alternative to solve the legal issue on driving licenses. When the training center of O&M company is responsible for granting the license of electric trains, the center should be established under board of general directors to keep independent from operation department as shown in Diagram 3.27.

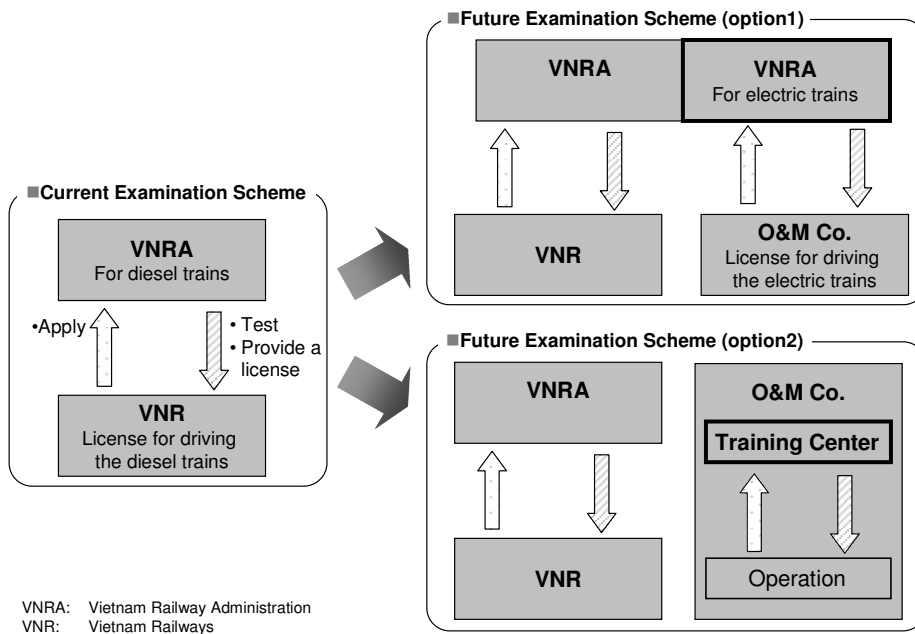


Diagram 3.26 Examination Scheme of Driving Licenses

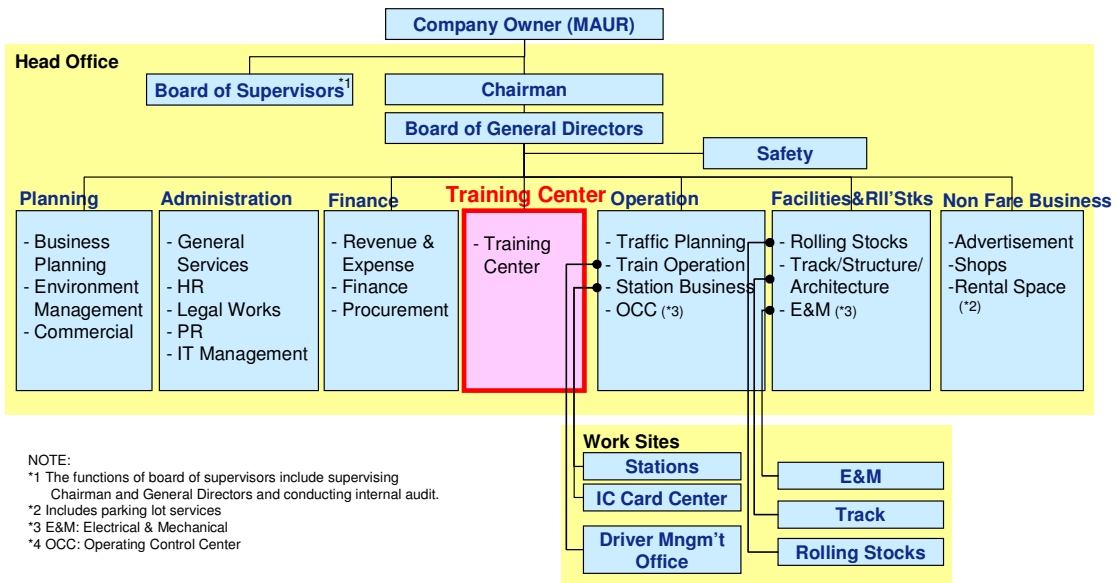


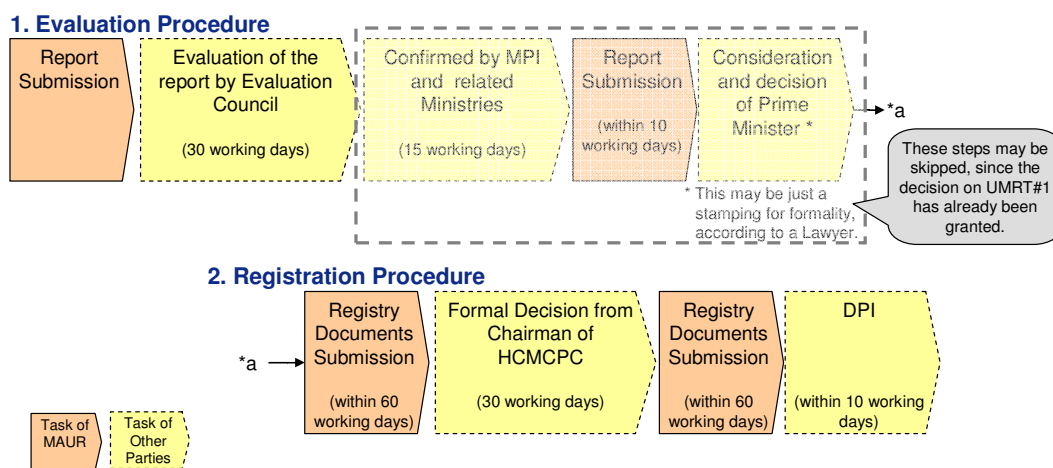
Diagram 3.27 Head Office Organization Structure of O&M Company

3.2.4. Registration (2010)

In case that the O&M company will be established as a 100% state capitalized one member LLC, the administration process in relation to establishment comprises two parts; (1) scheme evaluation specified by the decree 180/2004/ND-CP “On Establishment, Reorganization and Dissolution of State Companies”; and (2) registration specified by 139/2007/ND-CP “Providing detailed guidelines for implementation decree providing detailed guidelines for implementation”.

According to Article 61 through 62 of Railway Law, the management of urban railway is stated as under the responsibility of provincial-level People’s Committees. Therefore this establishment falls under the deciding competence of Chairman of HCMCPC.

At the first step “evaluation”, the establishment of a state company must be confirmed by related parties prior to the registration. These steps may be skipped in this case, since the decision on UMRT#1 has already been granted (Diagram 3.28) After obtaining formal stamp from Prime Minister, MAUR should obtain the formal decision from Chairman of HCMCPC. The decision must go along with the decision on appointment of, or signing of contracts with, the General Director of the company.



*1: Overall procedure is based on Decree 180/2004/ND-CP. Decree 180 specifies procedures for the establishment of a new State-owned enterprise, although it must be noted that Decree 180 is for implementing the Law on State Owned Enterprises which, in theory, has been superseded in so far as establishment procedures are concerned, by the Law on Enterprises. There are, however, no laws or regulations specifically replacing or abolishing Decree 180.

*2: The registration procedure is based on Law on Enterprise 60/2005/Q11 and Decree 88/2006/ND-CP.

Diagram 3.28 Administration Procedures Related to Establishment of O&M Company

3.2.5. Mission, Vision and Business Strategy (3000) – Business Plan (4000)

Organization should be composed of several important factors to meet its role/mission (Diagram 3.29). Business Plan needs to be developed to effectively execute business strategy, which is developed to realize the organization’s vision that is based on the role/mission. Each factor varies in its time span to be effective and to maintain.

“Mission” refers to the high-level role that the organization strives to announce internally and/or externally as a reason to exist socially. “Vision” refers to a future status that stimulates and makes its employees and other stakeholders feel enjoyable and constructive to be associated with the organization. Business strategy is where (whom) to serve and how to better serve than competitors, with a decision of what to focus on and what to discard. It depends on its mission, vision, and competitive environment. The management of the O&M company should develop its own mission, vision and business strategy to align its management team and employees to seek for the same business goal. Although the mission, vision and business strategy should not be copied from other companies, here presented below is the structure of mission, vision, and business strategy of Taiwan RTC, just for a reference.

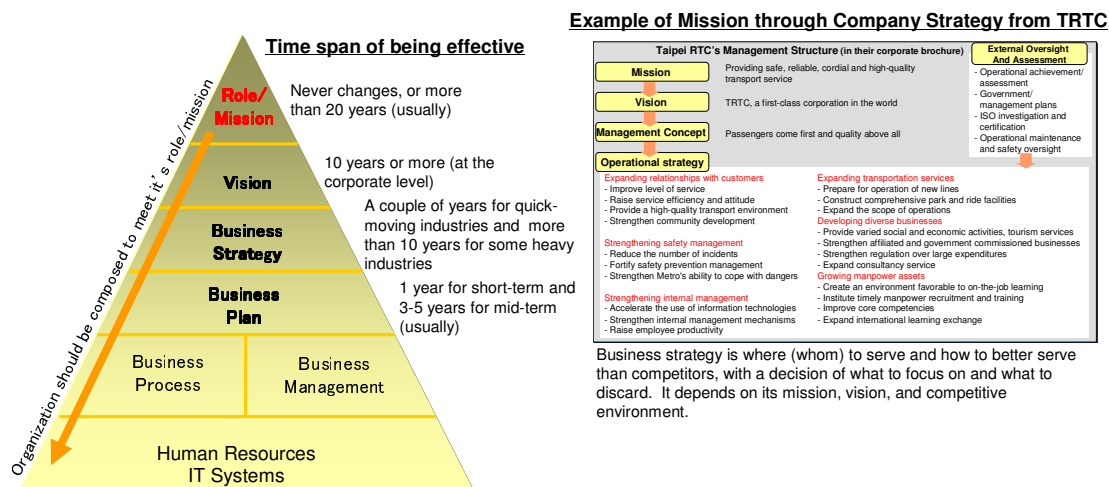


Diagram 3.29 Composition of Business Organization and Examples of Mission and Vision

Source: TRTC report

The name of the company needs to be decided to register. The SAPI team has suggested a pattern of naming structure (city name + mission) and several possible examples of the O&M company’s name. See the appendix.

3.2.6. Company Regulation (5000) – Business Processes (6000)

Each division should have its business rules and procedures described in detail. As a whole,

the set of those becomes the company’s regulations. Business processes and manuals should be designed and prepared for reference, based on the company regulations. The business processes need to be drawn in an accurate, systematic and consistent manner (see Diagram 3.30), since they will be a part of business requirements for office IT systems.

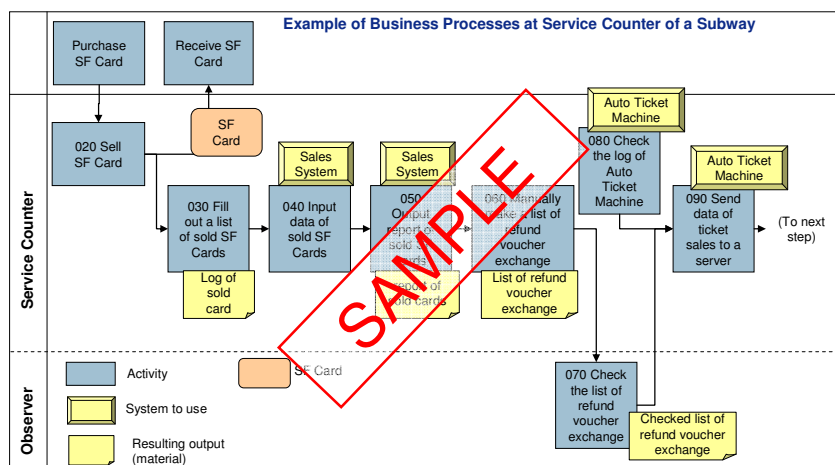


Diagram 3.30 Example of Business Processes

3.2.7. Office IT System (7000)

Generally, office IT systems are configured and developed by IT vendor(s) based on the user requirement, even if the main applications are developed on a package software product. It is not like purchasing and using an on-the-shelf software package for individuals, such as Microsoft Word/Excel/Outlook. The O&M company should prepare the bid package for the vendor selection. The bidders will propose the most suitable office IT systems based on the bid package. Since each process takes fairly long (see Diagram 3.31 below), the company management should prepare well in advance, assign right people and smoothly move the process forward.

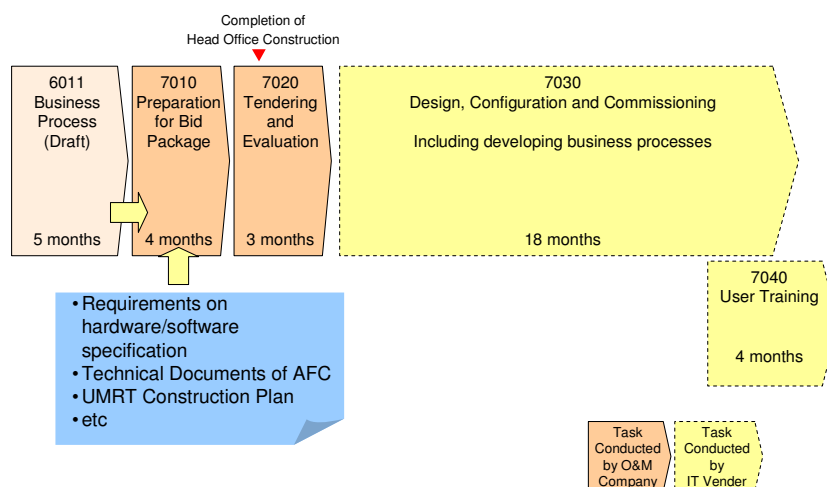


Diagram 3.31 Process for the Implementation of Office IT Systems

3.2.8. Non-fare Businesses (4000 - 8000)

Non-fare business highly depends on the location of stations, passengers' needs, competitive position of customers (e.g. lessees of rental space) and strategy of competitors (e.g. other transports). It requires different knowledge and skill from the railway business. To attain the 10% revenue target in the financial plan, the O&M company should research the market (including competitors) to develop their marketing ideas as much as possible to reflect on the business strategy of each non-fare business. Then management members should make a rough plan based on each business strategy before joining key staff members go into details to finalize their business plans.

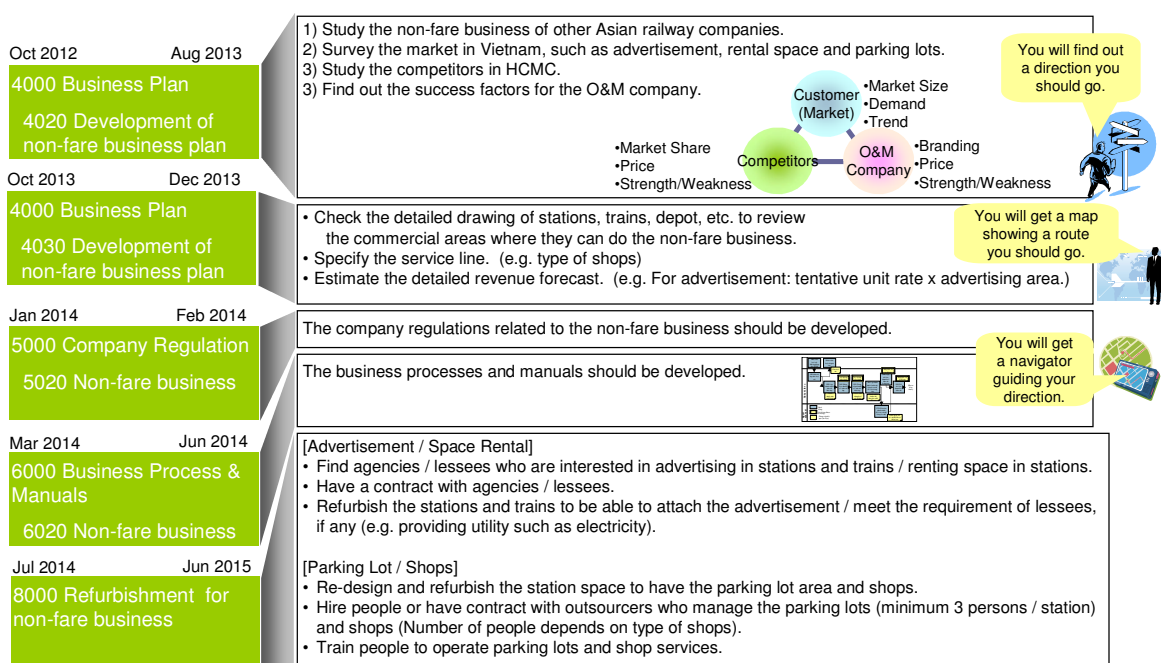


Diagram 3.32 Activities of Non-Fare Business

Operating shops, including restaurants, is not an easy business but worth challenging. A reasonable and suggested way is; 1) starting with operating kiosks, 2) secondly trying franchising businesses (such as retail/restaurant/cafe), and lastly 3) challenging with your own brand of businesses after some years' experiences.

3.2.9. TOR2-2

The updated roadmap, attached to this report as appendix-4, the detailed work description of activities shown in subsection 3.2.1 through 3.2.8 were reviewed and agreed by Vietnamese side, Task team. Especially, the following points were confirmed by all attendees, Task team, GC and SAPI team, as important milestones.

- Forming preparation unit (PU) by April 2010.
- Establishment of O&M company by September 2012.
- Starting commercial operation by July 2015.

As described in subsection 3.2.1, MAUR is planning to transfer the staff of PU to O&M company to retain the knowledge of railway management. However there is a risk to loose the staff of PU by staff reshuffling in HCMC. To avoid that risk, MAUR disclosed, they would like to establish the O&M company earlier than September 2012. In their plan, the earliest is the end of 2010.

3.2.10. TOR2-3

In the article 55 of Railway Law, there is a clause related to UMRT: “urban railway investment, construction, management and business shall be organized by provincial-level People’s Committees.” Therefore the activities listed in the roadmap, except for the issues related to establishment of state enterprise, JICA loan and technical terms, are subject to HCMCPC approval only. According to Task team, UMRT #1 project has been already approved by Prime minister. Thus the approval on establishment of O&M company is also under the decision of HCMCPC. Those were confirmed with Task team in 1st seminar and 5th seminar respectively.

3.3. TOR 3

3.3.1. TOR3-1 Terms of reference for establishing O&M company

To ensure concrete conduct of the tasks in the roadmap (which was prepared in TOR2) after the completion of this SAPI, detailed terms of reference for the necessary tasks and required human resources for the establishment of the O&M company were defined with each stakeholder who is in charge of establishment work.

- MAUR -

MAUR’s major tasks for establishing the O&M company are 1) forming preparation unit (PU) by April 2010 which will be in charge of the preparation work for establishing the O&M company and 2) increasing the man power of PU in a timely manner..

Major tasks of PU will be clarification work about Railway Law with MoT, company

registration and drafting company regulation as described subsection 3.2.2. The member of PU will obtain knowledge of railway management during those works. To transfer that knowledge to O&M company, the member of PU should be transferred to key position of O&M company. In this connection, MAUR should assign people from MAUR and/or other department of HCMC who are able to conduct the preparation works and agree to job transfer.

- Preparation Unit (PU) -

Preparation unit's major tasks for establishing the O&M company are 1) clarification work about railway law and related decree/decision with MoT (for details see subsection 3.2.3), 2) company registration work (for details see subsection 3.2.4) and 3) drafting company regulations.

During company registration work, PU should refine the financial plan drafted SAPI study to calculate the amount of cash contribution from HCMCPC to O&M company.

- Task Team -

Task team's major tasks for establishing the O&M company are 1) reporting the progress of preparation work to HCMCPC regularly to obtain their understanding and 2) review the documents submitted by PU in a timely manner.

During company registration work, Task team should evaluate the amount of cash contribution proposed by PU in a timely manner to meet the deadline of establishment.

- HCMCPC -

To secure the time line stated in the roadmap, HCMCPC should review and approve the documents submitted by Task team and/or MAUR in a timely manner. There are two scheduled submissions. One is for forming PU, the other is for establishment of O&M company.

Prior to establishment of O&M company, HCMCPC should approve the cash contribution to O&M company to cover initial investment and operation expenses for initial years.

HCMCPC should also review the report regularly submitted by Task team to monitor the

progress of implementation work.

- Department of Planning and Investment (DPI) -

DPI should issue a business registration certificate to O&M company within a time-limit of ten working days from the date of receipt of a valid application file as stated in Law on Enterprise.

Name	Task Description	Due Date	Parties in Charge					
			HCMCPC	DPI	Task Team	MAUR	PU	MoT
Establishment of Preparation Unit (PU) for O&M	Preparation Unit (PU) should be established to conduct the work for the establishment of the O&M company. (For the details, refer to 3.2.2)	Apr. 2010	Approve	-	-	Prepare for approval	-	-
Clarification on Railway Law	Since some articles in Railway Law and related decrees/decision are technically unfeasible for UMRT, they should be clarified with MoT. Those articles directly affect the plan of staff hiring and training of the O&M company. Thus this should be conducted before company registration. (For the details, refer to 3.2.3)	Dec. 2010	-	-	-	-	Clarify legal constraints with MoT	Reply to clarification requested by PU
Registration	Business registration should be conducted to establish the O&M company in accordance with the Law on Enterprise and related decrees. (For the details, refer to 3.2.4)	Sep. 2012	Approve	Issue business registration certificate	Evaluate	-	Prepare plan for establishment of O&M company	-

Diagram 3.33 Tasks for Establishing O&M Company

3.3.2. TOR3-2 Topics agreed with Vietnamese side

Through the seminars held with Task team, the following topics were agreed.

- MAUR -

As described in the roadmap, MAUR will form the preparation unit (PU) in their department by April 2010. For the member of PU, MAUR will choose the people who can manage the preparation works and have no objection to job transfer from MAUR and/or other departments. After the establishment of O&M company, MAUR will close PU and order the member of PU to transfer to the key position of O&M company to retain the knowledge of railway management which they will obtain during the preparation works.

- Task Team -

Task team will supervise the progress of preparation work by PU and report it to HCMCPC regularly to obtain their understanding. They will also review the documents related to

registration submitted by PU in a timely manner.

- HCMCPC -

HCMCPC will review and approve the registration documents including cash contribution as their obligation.

3.4. TOR 4

It is essential to conduct preparation tasks for O&M organization establishment in a timely manner for the smooth implementation of the project. Therefore, it is necessary for Vietnamese side to make a decision regarding the establishment of the O&M organization without delay. In addition, it is imperative to explain Vietnamese side the work plan for O&M organization establishment, and to promote prompt decision-making. In order to promote decision-making by Vietnamese side about TOR1, 2 and 3, five seminars with Task team, formed as steering committee in Vietnamese side, were carried out.

- 1st seminar on 12th May -

This seminar was held as kick-off to understand each other. At the first, the role of O&M organization was confirmed as “Providing Safe and Reliable UMRT Operation” with Task team. Then SAPI team explained the procedure and time schedule of SAPI study. At the end, Task team disclosed that they are interested in property development and feeder bus services by O&M organization. They also expressed that, in SAPI study, fare rate must be along with GC’s latest study, working paper 36.

- 2nd seminar on 12th June -

This seminar was held for progress confirmation on 1st on-site work. Scheme, scope, organization structure, financial plan and business risks of O&M organization and asset ownership were confirmed with Task team. As output of TOR 2 and 3, SAPI team presented overview of roadmap, legal constraints on personnel qualification and rough registration procedure. In replying to Task team’s request stated in 1st seminar, SAPI explained that successful cases of property development and bus services in other Asian cities and did not recommend them to UMRT #1 due to following reason. 1) Property development : time constraint. 2) Bus services : DoT is best position to manage this.

In respond to SAPI team’s explanation, Task team requested SAPI team to conduct further study

on following points.

- Amount of revenue from non-fare business. (railway facility related)
- Details on legal constraints
- Organization charts. (to be adjusted with one-LLC type under MAUR and further developed with detailed information such as number of personnel per each department, title and required qualification, cost for salary and training cost/contents.)
- Detailed estimation of financial plan including cash contribution from HCMC
- Conditions to be defined to appeal for investments of other lines
- Conditions for the coordination of management and operation between MAUR's O&M company and other BOT based O&M company

Task team also declared about the preparation work of establishment of O&M company as follows;

- MAUR will form preparation unit (PU) by April 2010 under MAUR
- The staff of PU will transfer to O&M company after establishment of O&M company
- HCMCPC already approved and prepared the budget for staff training
- Task team would like to request long term technical support from JICA to increase capability of O&M company

- 3rd seminar on 13th July -

This seminar was held for replying to Task team's request expressed in 1st on-site work and confirming the topics to be studied in 2nd on-site work. SAPI team clarified Task team's request as follows. Task team agreed to following and mentioned that timing of taking over feeder bus services by O&M company should be after their getting financial stability.

- Non-fare revenue: The target could be 10% same as other Asian cities
- Property development : It is not scope of SAPI's work
- Training cost : At this stage, it is difficult to specify all activities, thus it should be included in gross expenses
- Training contents : Those are scope of GC and contractors, not scope of SAPI team

Although it is not scope of work, SAPI team presented some concession cases from other countries for Task team's reference in replying to additional request from Task team.

At the end of this seminar, Task team disclosed the date of starting commercial operation was changed to July 2015 from January 2014. Task team requested SAPI team to revise the detailed roadmap accordingly and conduct further study on BOT scheme.

- 4th seminar on 24th July -

This seminar was held for progress confirmation on 2nd on-site work. In replying to Task team's requests and comments stated in 2nd and 3rd seminar, the following topics were confirmed.

- Organization structure based on one-LLC, with detailed number of personnel per department, title and qualification
- Detailed financial plan including amount of cash contribution from HCMC
- Detailed legal constraints
- Some pictures of non-fare business to have image of business

In addition to above, again, although it is not scope of work, SAPI team presented some typical issues in Bangkok UMRT for Task team's reference.

Task team pointed out that 180/2004/ND-CP is already out of date. They mentioned it would be checked by themselves later. Task team also requested SAPI team to conduct further study on the following topics.

- Necessity of deputy directors and training center
- Detailed explanation on financial plan
- Re-consider timing of increase of fare
- Name of O&M company
- Private investment types suitable to future UMRT in HCMC other than BOT

At the end of this seminar, Task team disclosed they would like to transfer the knowledge of PU to O&M company as much as possible. There is personnel reshuffling risk by order of HCMC. Thus they would like to establish O&M company earlier, if possible, to avoid that risk.

- 5th seminar on 27th August -

This seminar was held for final confirmation on output of whole SAPI study. In replying to Task team's requests and comments, the following topics were confirmed.

- Organization chart with “board of general directors” and “training center”.
- Detailed explanation on financial plan.
- Increase timing of fare price. (It was confirmed as every 5 years until 2015.)
- Registration steps for establishment of O&M company. (Steps of checking MPI and PM may be skipped, because UMRT #1 project was already approved by PM.)
- Name of O&M company. (Style of “Saigon” + “mission /vision”.)

In addition to above, again in replying to additional request from Task team, SAPI team presented some cases of PPP (Public Private Partnerships) in Vietnam for their reference.

Task team commented: Even if 180/2004/ND-CP is still alive, the steps of checking MPI and Prime minister are not required. Because UMRT project was already approved by GoV. According to them, all registration issues except for technical matter can be decided within provincial-level People's Committees (HCMCPC). To SAPI study, Task team commented as follows.

- To study further whether "training center" should be established in "operation unit" or under "Board of General Directors" as independent unit.]
- There must be the alternative names of O&M company. (Style of “Ho Chi Minh City” + “mission /vision”)
- A proposal to JICA for investment source to office IT system by using redundant fund should be included in final report.
- To conduct further research of the coordination in such issues as sharing of fare rate cost and the combined management between the O&M Company under MAUR and another O&M Company of BOT-based, if possible.

Appendix 1. Vietnamese Law

SAPI team recognized, as of 12th June 2009, the following laws, decisions, decrees and circulars are related to the establishment of O&M company.

Table A1.1 Vietnamese Laws, Decisions, Decrees and Circulars related to
 the establishment of O&M company

Reference Number	Title	Remarks
General		
60/2005/QH11	Law on Enterprises	Provisions on the establishment, organization of management, and operations of limited liability companies.
38/2007/QD-TTg	Criteria for Classification of and list of Enterprise with 100 per cent State Owned Capital	Decision the criteria for classification of enterprises with 100% State owned capital, and the list of such enterprises.
88/2006/ND-CP	Business Registration	Regulations on business registration offices; and on application files, order and procedures for business registration.
139/2007/ND-CP	Detailed guidelines for implementation decree providing detailed guidelines for implementation	Guidelines on implementation of a number of articles of the Law on Enterprises relating to the establishment, managerial organization and operation.
180/2004/ND-CP	Establishment, Reorganization and Dissolution of State Companies	Conditions, order and procedures for establishment, reorganization and dissolution of State companies
Railway		
35/2005/QH 11	Railway Law	Law for railway business
61/2007/QD-BGTVT	The Regulation on types of railway business enterprises required to have safety certificates and conditions, order and procedures for the grant of safety certificates	Regulation to the types of enterprises doing business in railway sector about certificates of safety.

Reference Number	Title	Remarks
44/2005/QD-BGTVT	The Regulation on examination for, grant, and renewal and withdrawal of train-driving licenses	Decision implementing article 47 of Railway Law, “train drivers”
109/2006/ND-CP	The implementation of a number of articles of the Railway Law	Guide of the implementation of a number of articles of the Railway Law.
Tax		
130/2008/TT-BTC	Guidelines for Implementation of the Law on Corporate Income Tax and Decree 124/2008/ND-CP “Law on Corporate Income Tax”	Guide of the implementation of law on corporate income tax (CIT) including preferential tax rates.
85/2007/TT-BTC	The Implementation of the Law on Tax Administration regarding Tax Registration	Guide of the implementation of law on tax administration.
05/2008/TTLT-BKH-BTC-BCA	The guidance on the co-ordination among business registries, tax offices and seal registries for enterprises establishing and operating under the Enterprises Law	Joint Circular by MPI, MoF and MPS
08/2001/TT-BTC	Additionally Guiding The Regulations on Enterprise Income Tax Applicable to Foreign Organizations’ Branches Operating in Vietnam Stipulated in the Finance Ministry’s	Guide of income tax including loss transfer.
Accounting / Finance		
03/2003/QH11	Law on Accounting	Law for accounting including article of chief accountant.
09/2009/ND-CP	The regulation on Financial Management of State Companies and Management of State Capital Invested in other Enterprises	Regulation for the financial management of state companies etc established under the law on enterprises.

NOTE:

- Laws in Technical and Environmental are not listed above, since they will be covered by GC or Contractors.

Organizational Structure / Cơ cấu tổ chức (Công ty O & M)

Department / Bộ phận	Unit / Đơn vị	Responsibility / Trách nhiệm	Title/ Chức danh	Legal/ Pháp lý	Qualification / Năng lực chuyên môn Education and/or Work Experience / Học vấn và/hoặc kinh nghiệm làm việc (*11)	Staff Allocation Plan / Kế hoạch phân bổ nhân viên																		
						Head Office / Tại trụ sở					Site / Tại nơi làm việc					Total / Tổng								
						10/ 2012	9/ 2013	12/ 2013	7/ 2014	total/ Tổng	12/ 2013	5/ 2014	total/ Tổng											
Chairman / Chủ tịch	*NA	Acting on behalf of the company owner in exercising his/her rights and obligations. / Thay mặt Chủ Công ty thực thi quyền và nghĩa vụ của họ.	*NA/	*1	MAUR has to appoint./BQLĐSDT phải bổ nhiệm (Must be appointed before registration process, by Oct 2012.)/ (Phải được bổ nhiệm trước khi thực hiện quy trình đăng ký, vào tháng 10, 2012)	1															1			
Board of General Directors / Ban Tổng Giám Đốc	*NA	Running the day-to-day business operation. / Điều hành công việc kinh doanh hàng ngày	General Director / Tổng Giám đốc	*2	MAUR has to appoint./BQLĐSDT phải bổ nhiệm (Must be appointed before registration process, by Oct 2012.)/ (Phải được bổ nhiệm trước khi thực hiện quy trình đăng ký, vào tháng 10, 2012)	1															1			
			Dputy General Director - Operation / P.Tổng Giám Đốc - Vận hành	*NA	Must possess a university degree. / Phải có bằng đại học	1																	1	
			Dputy General Director - Facilities & Rolling stocks / P.Tổng Giám Đốc - Trang thiết bị & Đầu máy toa xe	*NA	Must possess a university degree in mechanical engineering. / Phải có bằng đại học chuyên ngành kỹ thuật cơ khí	1																		1
			Dputy General Director - Administration / P.Tổng Giám Đốc - Hành chính	*NA	Must possess a university degree. / Phải có bằng đại học	1																		1
Board of Supervisors / Ban kiểm soát	*NA	Inspecting lawfulness, fiduciary and diligence of chairman of the company and director or general director. / Kiểm tra tính hợp pháp, sự uy thác và mẫn cán của Chủ tịch công ty và Giám đốc hoặc Tổng giám đốc	Supervisor / Giám sát	*3	MAUR has to appoint./BQLĐSDT phải chỉ định	1															1			
Subtotal / Cộng						6				1	7											7		
Administration / Hành chính	Managing Director / Giám đốc Điều hành			*NA	Must possess a university degree. / Phải có bằng đại học	1																1		
	Human resources Nhân sự	Personnel/labor-management, planning of human resource development incl. training. / Quản lý lao động/ nhân sự, lên kế hoạch phát triển nguồn nhân lực bao gồm đào tạo huấn luyện - Recruitment, Wages, Training / Tuyển dụng, Tiền lương, Đào tạo - Health welfare program / Chương trình phúc lợi y tế - Praise and Blame / Khen thưởng và Khiển trách	Manager / Trưởng phòng	*NA	Must possess a university degree and be familiar with Vietnamese social welfare system. / Phải có bằng đại học và hiểu biết về hệ thống phúc lợi xã hội của Việt Nam	1																1		
			Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																	1	
	General services Tổng vụ	General affairs (such as managing official documents and seals). / Tổng vụ (như quản lý các công văn và con dấu) - Arrangement of official meeting such as Board meeting, stakeholder's meeting. / Tổ chức các cuộc họp như họp Ban Giám đốc, họp cổ đông - Reorganization of company / Tái tổ chức công ty - Safeguarding security and protecting official secrets / Bảo vệ an ninh và bảo vệ các bí quyết chính thức - Discovering, investigating and dealing with corruption and other illegal actions by staff. / Phát hiện, điều tra và xử lý tham nhũng và các hoạt động bất hợp pháp của nhân viên	Manager / Trưởng phòng	*NA	Must possess a university degree. / Phải có bằng đại học	1																	1	
			Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	3																		3
	IT management Quản lý CNTT	Planning and maintaining of Office IT system. / Lên kế hoạch bảo dưỡng hệ thống CNTT văn phòng - Supporting the company staff on IT issues / Hỗ trợ nhân viên Công ty về các vấn đề liên quan đến CNTT	Manager / Trưởng phòng	*NA	Must possess a university degree. (IT related experience is preferable). / Phải có bằng đại học (Có kinh nghiệm về CNTT sẽ được ưu tiên)	1																	1	
			Staff / Nhân viên	*NA	Must possess a diploma in engineering (IT related experience is preferable). / Phải có bằng thuộc lĩnh vực kỹ thuật (Có kinh nghiệm về CNTT sẽ được ưu tiên)	1																		1
	Legal works Pháp chế	Legal advice to other units. / Tư vấn pháp lý cho các đơn vị khác - Preventing illegal actions by company staff / Ngăn ngừa các hoạt động phạm pháp của nhân viên công ty	Manager / Trưởng phòng	*NA	Must possess a university degree and be familiar with the registration of company. / Phải có bằng đại học và quen thuộc với việc đăng ký kinh doanh của công ty	1																	1	
			Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																		1
	Public relations Quan hệ công chúng	Planning, coordinating and implementing of corporate public relations / Lên kế hoạch, điều phối và thực hiện Quan hệ công chúng của công ty	Manager / Trưởng phòng	*NA	Must possess a university degree or professional diploma. / Phải có bằng đại học hoặc bằng cấp chuyên môn	1																	1	
Staff / Nhân viên			*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																		1	
Subtotal / Cộng						6	6				12											12		
Finance / Tài chính	Managing Director / Giám đốc Điều hành			*NA	Must possess a university degree and be familiar with Vietnamese accounting law. / Phải có bằng đại học và hiểu biết về luật kế toán của Việt Nam	1																1		
	Revenue & expense Doanh thu & Chi phí	Accounting management. / Quản lý kế toán - Tax management / Quản lý thuế - Asset management / Quản lý tài sản	Manager / Trưởng phòng	*4	(Chief accountant must be appointed or hired.) / Kế toán trưởng phải được bổ nhiệm hoặc tuyển dụng.	1																1		
			Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																1		
	Finance / Tài chính	Financial plan and insurance management / Quản lý bảo hiểm và kế hoạch tài chính - Cash Management / Quản lý tiền mặt - Budget control / Kiểm soát ngân sách	Manager / Trưởng phòng	*NA	Must possess a university degree and be familiar with financial planning and HCMC budgeting system. / Phải có bằng đại học và hiểu biết về kế hoạch tài chính và hệ thống ngân sách của TPHCM	1																	1	
			Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																	1	
Procurement Mua sắm	Procuring materials and out-source services / Mua vật tư và dịch vụ bên ngoài - Supplies management / Quản lý cung ứng	Manager / Trưởng phòng	*NA	Must possess a university degree and be familiar with HCMC contracting system. / Phải có bằng đại học và hiểu biết về hệ thống hợp đồng của TPHCM	1																	1		
		Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	2																		2	
Subtotal / Cộng						4	3				7											7		
Planning / Kế hoạch	Managing Director / Giám đốc Điều hành			*NA	Must possess a university degree./ Phải có bằng đại học	1																1		
	Business planning Kế hoạch kinh doanh	Managing business strategies and plan. / Quản lý kế hoạch và chiến lược kinh doanh	Manager / Trưởng phòng	*NA	Must possess a university degree./ Phải có bằng đại học	1																	1	
			Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																	1	
	Environment management Quản lý môi trường	Planning, monitoring and investigating of environment issues/ Lên kế hoạch, giám sát và điều tra các vấn đề về môi trường	Manager / Trưởng phòng	*NA	Must possess a university degree and be familiar with Vietnamese Environment Law. / Phải có bằng đại học và hiểu rõ Luật môi trường của Việt Nam	1																	1	
			Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																	1	
Commercial Thương mại	Planning of fare rate /Hoạch định giá vé - Establishment and revision of tariff structure / Thiết lập và điều chỉnh bảng giá - Promotion Release / Thực hiện các chương trình khuyến mãi	Manager / Trưởng phòng	*NA	Must possess a university degree or professional diploma. / Phải có bằng đại học hoặc bằng cấp chuyên môn	1																	1		
		Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																		1	
Subtotal / Cộng						4	1				5											5		
Safety / An Toàn	Managing Director / Giám đốc Điều hành			*5	Must possess a university degree in railway facilities and have at least 03 years experience in managing railway infrastructure. / Phải có bằng đại học chuyên ngành công trình đường sắt và có ít nhất 03 năm kinh nghiệm trong việc quản lý cơ sở hạ tầng đ đường sắt	1																1		
	Safety plan Kế hoạch an toàn	Developing quality assurance policies (including train operation rules) / Phát triển các chính sách bảo đảm chất lượng (bao gồm các nội quy vận hành nhà tàu) - Training and supervising safety programs / Huấn luyện và giám sát các chương trình an toàn - Statistics and analysis of accidents&incidents/ Thống kê và phân tích tai nạn & các việc rắc rối - Management of operational risks / Quản lý các rủi ro trong vận hành	Manager / Trưởng phòng	*NA	Must possess a university degree or professional diploma. / Phải có bằng đại học hoặc bằng cấp chuyên môn	1																1		
			Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																	1	
Subtotal / Cộng						1				1											2			
Training center / Trung tâm đào tạo	Managing Director / Giám đốc Điều hành			*10	Must possess a professional diploma, certificate in driving railway traffic means, granted by training establishments and having worked as a train driver for at least 3 years.	1																1		
	Training center Trung tâm đào tạo	Training drivers./ Huấn luyện lái tàu	Manager / Trưởng phòng	*10	ditto / như trên	1																1		
			Staff / Nhân viên	*10	ditto / như trên	1																	2	
Subtotal / Cộng						2				2											4			
Operation / Vận hành	Managing Director / Giám đốc Điều hành			*6	Must possess a university degree and have at least three years experience in railway transport operation. / Phải có bằng đại học và có ít nhất ba năm kinh nghiệm trong việc vận hành giao thông đường sắt	1																1		
	Traffic planning Kế hoạch vận chuyển	Developing train time table (Soạn thảo thời gian biểu cho tàu) - Ridership statistics/ Thống kê lượng hành khách đi tàu	Manager / Trưởng phòng	*NA	Must possess a university degree. / Phải có bằng đại học	1																1		
			Deputy Manager / Phó TP	*NA	Must possess a university degree or professional diploma. / Phải có bằng đại học hoặc bằng cấp chuyên môn	1																1		
	Train operation Điều vận tàu	Developing drivers operation plan / Soạn thảo kế hoạch điều hành lái tàu -Managing drivers./ Quản lý lái tàu -Operating trains./ Vận hành tàu - Stabling and shunting trains at the depot / Đậu và dồn tàu tại Depot	Staff / Nhân viên	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																	1	
			Driver / Lái tàu	*8	Must possess a professional diploma, certificate in driving railway traffic means, granted by training establishments and having worked as train assistant-drivers for 24 consecutive months or more. / Phải có bằng cấp hoặc chứng chỉ chuyên môn trong việc lái các phương tiện đường sắt, do các đơn vị huấn luyện cấp và đã làm lái phụ trong 24 tháng liên tục hoặc hơn.	1																	50	
			Manager / Trưởng phòng	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	1																	1	
	Station business Kinh doanh tại ga	Handling day-to-day station business. / Quản lý kinh doanh tại ga mỗi ngày > Passenger services (Lost & founds, guidance) / Các dịch vụ hành khách (Mất/ tìm, hướng dẫn) > Ticketing / Phát vé > etc / v.v...	Station master / Quản lý ga	*7	Must possess a professional diploma or certificates suitable to titles, which are granted by training establishments recognized by the MoT. / Phải có bằng cấp hoặc chứng chỉ chuyên môn phù hợp với chức vụ, do các cơ sở đào tạo được Bộ GTVT công nhận cấp	1																	5	
			Staff / Nhân viên	*7	Must possess a professional diploma or certificates suitable to titles, which are granted by training establishments recognized by the MoT. / Phải có bằng cấp hoặc chứng chỉ chuyên môn phù hợp với chức vụ, do các cơ sở đào tạo được Bộ GTVT công nhận cấp	1																	151	
	OCC Trung tâm điều độ	Controlling railway traffic and power / Kiểm soát giao thông đường sắt và điện - Monitoring and supporting station operation / Theo dõi và hỗ trợ các hoạt động tại nhà ga	Manager / Trưởng phòng	*NA	Must possess a university degree or professional diploma. / Phải có bằng đại học hoặc bằng cấp chuyên môn	1																	1	
			Dispatcher / Điều vận	*NA	Team leader must possess at least a college degree. / Trưởng nhóm tối thiểu phải có bằng cao đẳng	12																		12
IC Card Center Trung tâm thẻ IC	Operating IC card system /Vận hành hệ thống thẻ IC - Handling deposit / Giải quyết tiền cọc - Issuing and collecting IC cards / Phát hành và thu thẻ IC	Manager / Trưởng phòng	*NA	Must possess a university degree. / Phải có bằng đại học	1																	1		
		Staff / Nhân viên	*NA	No specific requirement. / Không có yêu cầu cụ thể	1																		3	
Subtotal / Cộng						5				14											14	203	217	236

Department / Bộ phận	Unit / Đơn vị	Responsibility / Trách nhiệm	Title/ Chức danh	Legal/ Pháp lý	Qualification / Năng lực chuyên môn Education and/or Work Experience / Học vấn và/hoặc kinh nghiệm làm việc (*11)	Staff Allocation Plan / Kế hoạch phân bổ nhân viên																			
						Head Office / Tai trụ sở					Site / Tại nơi làm việc				Total / Tổng										
						10/2012	9/2013	12/2013	7/2014	total/ Tổng	12/2013	5/2014	total/ Tổng												
Facilities / Rolling stocks Trang thiết bị / Đầu máy toa xe	Managing Director / Giám đốc Điều hành			*9	Must possess a university degree in railway facilities and have at least three years experience in managing railway infrastructure. / Phải có bằng đại học chuyên ngành công trình đường sắt và có ít nhất 03 năm kinh nghiệm trong việc quản lý cơ sở hạ tầng đường sắt	1					1								1						
	Rolling stocks Đầu máy toa xe	Handling Rolling Stock / Quản lý đầu máy toa xe > Maintenance / Bảo dưỡng > Inspection / Kiểm tra > Repair / Sửa chữa > Cleaning / Làm sạch > Spare parts and consumables management / Quản lý phụ tùng và các vật tư tiêu hao	Manager / Trưởng phòng	*NA	Must possess a university degree in mechanical engineering. / Phải có bằng đại học về kỹ thuật cơ khí	1					1									1					
			Deputy Manager / Phó TP	*NA	Must possess a professional diploma in mechanical engineering. / Phải có bằng cấp chuyên môn về kỹ thuật cơ khí								2								2				
			Staff / Nhân viên	*NA	No specific requirement. / Không có yêu cầu cụ thể			2		2		4		4								8			
			Worker / Công nhân	*NA	No specific requirement. / Không có yêu cầu cụ thể									6									6		
	Subtotal / Cộng						3	-	2	-	5	2	10	12	17						17				
	Track / Structure / Architecture Đường ray / Công trình / Kiến trúc	Handling Track / Xử lý Đường ray > Maintenance / Bảo dưỡng > Inspection / Kiểm tra > Repair / Sửa chữa > Spare parts and consumables management / Quản lý phụ tùng và các vật tư tiêu hao > management of construction and renewal works / Quản lý các công trình xây dựng và các công tác thay mới	Manager / Trưởng phòng	*NA	Must possess a university degree in civil engineering. / Phải có bằng đại học chuyên ngành kỹ thuật xây dựng dân dụng	1					1										1				
			Deputy Manager / Phó TP	*NA	Must possess a professional diploma in civil engineering. / Phải có bằng cấp chuyên ngành kỹ thuật xây dựng dân dụng								1									1			
			Staff / Nhân viên	*NA	No specific requirement. / Không có yêu cầu cụ thể			1		3		4		4									8		
			Worker / Công nhân	*NA	No specific requirement. / Không có yêu cầu cụ thể										12								12		
			Subtotal / Cộng						2	-	3	-	5	1	16	17	22						22		
		Đường ray / Công trình / Kiến trúc	Handling Structure / Xử lý Kết cấu > Maintenance / Bảo dưỡng > Inspection / Kiểm tra > Repair / Sửa chữa > Spare parts and consumables management / Quản lý phụ tùng và các vật tư tiêu hao > management of construction and renewal works / Quản lý các công trình xây dựng và các công tác thay mới	Deputy Manager / Phó TP	*NA	Must possess a university degree in structure engineering. / Phải có bằng đại học chuyên ngành kỹ thuật kết cấu	1					1											1		
				Staff / Nhân viên	*NA	No specific requirement. / Không có yêu cầu cụ thể					3		3											3	
				Subtotal / Cộng						1	-	3	-	4	-	-	-	-	-	-	-	-	-	4	
				Handling Architecture / Quản lý Kiến trúc > Maintenance / Bảo dưỡng > Inspection / Kiểm tra > Repair / Sửa chữa > Spare parts and consumables management / Quản lý phụ tùng và các vật tư tiêu hao > management of construction and renewal works / Quản lý các công trình xây dựng và các công tác thay mới	Deputy Manager / Phó TP	*NA	Must possess a university degree in architect engineering. / Phải có bằng đại học chuyên ngành kiến trúc	1						1											1
					Staff / Nhân viên	*NA	No specific requirement. / Không có yêu cầu cụ thể					3		3											
	Subtotal / Cộng						1	-	3	-	4	-	-	-	-	-	-	-	-	-	4				
	Subtotal / Cộng						4	-	9	-	13	1	16	17	30						30				
	Electrical&Mechanical Cơ & Điện	Handling Signal/ Telecomm/ Power/ AFC Xử lý hệ thống tín hiệu / Điện / Thông tin liên lạc / Hệ thống thu phí tự động > Maintenance / Bảo dưỡng > Inspection / Kiểm tra > Repair / Sửa chữa > Spare parts and consumables management / Quản lý phụ tùng và các vật tư tiêu hao > management of construction and renewal works / Quản lý các công trình xây dựng và các công tác thay mới	Manager / Trưởng phòng	*NA	Must possess a university degrees in electrical engineering. / Phải có bằng đại học chuyên ngành kỹ thuật điện	1					1											1			
			Deputy Manager / Phó TP	*NA	Must possess a professional diploma in electrical engineering. / Phải có bằng đại học kỹ sư điện									3									3		
			Staff / Nhân viên	*NA	No specific requirement. / Không có yêu cầu cụ thể					6		6		9									15		
			Worker / Công nhân	*NA	No specific requirement. / Không có yêu cầu cụ thể									25									25		
		Subtotal / Cộng						1	-	6	-	7	3	34	37	44							44		
		Maintaining Mechanical / Station E&M Bảo dưỡng cơ khí / trang thiết bị cơ điện cho ga	Deputy Manager / Phó TP	*NA	Must possess a university degrees in mechanical engineering. / Phải có bằng đại học chuyên ngành kỹ thuật cơ khí	1						1											1		
Staff / Nhân viên	*NA		No specific requirement. / Không có yêu cầu cụ thể					5		5											5				
Subtotal / Cộng						1	-	5	-	6	-	-	-	-	-	-	-	-	-	6					
Subtotal / Cộng						2	-	11	-	13	3	34	37	50							50				
Subtotal / Cộng						10	-	22	-	32	6	60	66	98								98			
Non-Fare Business Kinh doanh ngoài bán vé	Managing Director / Giám đốc Điều hành			*NA	Must possess a university degree and have experience of developing the business plan in commercial sector. / Phải có bằng đại học và có kinh nghiệm trong việc phát triển kế hoạch kinh doanh trong lĩnh vực thương mại	1					1										1				
	Advertisement Quảng cáo	Managing advertisement services. / Quản lý các dịch vụ quảng cáo	Manager / Trưởng phòng	NA	Must have experience of working in commercial sector as a manager. / Phải có kinh nghiệm quản lý trong lĩnh vực thương mại với vai trò quản lý						1											1			
			Staff / Nhân viên	*NA	No specific requirement. / Không có yêu cầu cụ thể							2											2		
	Shops Các cửa hiệu tại ga	Managing retailing services (incl. restaurants as future options). / Quản lý các dịch vụ bán lẻ (Bao gồm cả nhà hàng cho kế hoạch trong tương lai)	Manager / Trưởng phòng	*NA	Must have experience of working in retail as a manager. / Phải có kinh nghiệm trong việc quản lý các cửa hàng bán lẻ với vai trò quản lý							1											1		
			Staff / Nhân viên	*NA	No specific requirement. / Không có yêu cầu cụ thể							2												2	
	Rental Space Khu vực cho thuê	Managing rental space and parking lots. / Quản lý khu bãi đậu xe và khu vực cho thuê.	Manager / Trưởng phòng	*NA	No specific requirement. (Manager of advertisement supervises this services in initial years.) / Không có yêu cầu cụ thể (Người quản lý việc quảng cáo giám sát dịch vụ này trong những năm đầu)																		-		
Staff / Nhân viên			*NA	No specific requirement. / Không có yêu cầu cụ thể								2											2		
Subtotal / Cộng						1	2	-	6	9	-	-	-	-	-	-	-	-	-	-	-	9			
Total / Tổng						39	12	39	7	97	20	263	283	380											

NOTE: / GHI CHÚ *NA: Không áp dụng

*1: Article 69 of No. 60/2005/QH11 "Law on Enterprise": For details, see the article of Law.
/ Điều 69 Luật doanh nghiệp Số 60/2005/QH11: Xem chi tiết tại điều khoản của Luật

*2: Article 70 of No. 60/2005/QH11 "Law on Enterprise": For details, see the article of Law.
/ Điều 70 Luật doanh nghiệp số 60/2005/QH11: Xem chi tiết tại điều khoản của Luật

*3: Article 71 of No. 60/2005/QH11 "Law on Enterprise": For details, see the article of Law.
/ Điều 71 Luật doanh nghiệp số 60/2005/QH11: Xem chi tiết tại điều khoản của Luật

*4: Article 48 of No. 03/2003/QH11 "Law on Accounting": Company shall appoint a person to act as chief accountant and, if it does not do so, it must appoint a person responsible for accounting or hire a chief accountant.
/ Điều 48 Luật Kế toán số 03/2003/QH11: Công ty sẽ bổ nhiệm một cá nhân làm kế toán trưởng, nếu chưa bổ nhiệm được kế toán trưởng thì phải cử người phụ trách kế toán hoặc thuê kế toán trưởng

*5: Article 12 of Decision 61/2007/QĐ-BGTVT: The leader in charge of safety affairs must possess a university degree in railway facilities and have at least three years experience in managing railway infrastructure.
/ Điều 12 của Quyết định 61/2007/QĐ-BGTVT: Trưởng bộ phận chịu trách nhiệm về vấn đề an toàn, phải có bằng đại học chuyên ngành kỹ thuật kết cấu hạ tầng đường sắt và có ít nhất 03 năm kinh nghiệm trong việc quản lý kết cấu hạ tầng ngành đường sắt.

*6: Article 12 of Decree 109/2006/ND-CP: Persons assigned with the prime responsibility for technical management of railway transport operation must have a university degree and at least three years experience in railway transport operation.
/ Điều 12 của Nghị định số 109/2006/ND-CP: Người được giao trách nhiệm chính về quản lý kỹ thuật khai thác vận tải phải có bằng đại học và có ít nhất ba (03) năm kinh nghiệm về khai thác vận tải đường sắt

*7: Article 46 of Railway Law: railway personnel in direct service of train operation must possess professional diplomas or certificates suitable to their titles, which are granted by training establishments recognized by the MoT
/ Điều 46 Luật đường sắt quy định: Nhân viên đường sắt trực tiếp phục vụ chạy tàu phải có bằng, chứng chỉ chuyên môn phù hợp với chức danh do cơ sở đào tạo được Bộ Giao thông vận tải công nhận cấp

*8: Article 47 of Railway Law: Persons granted train-driving license must fully satisfy the following conditions: b) Possessing professional diplomas, certificates in driving railway traffic means, granted by training establishments; c) Having worked as train assistant-drivers for 24 consecutive months or more.
/ Điều 47 của Luật đường sắt quy định: Người được cấp giấy phép lái tàu phải có đủ các điều kiện sau đây: b) Có bằng, chứng chỉ chuyên ngành lái phương tiện giao thông đường sắt do cơ sở đào tạo cấp; c) Đã có thời gian làm lái phụ tàu liên tục 24 tháng trở lên

*9: Article 13 of Decree 109/2006/ND-CP: Persons assigned with the prime responsibility for technical management of railway infrastructures must have a university degree and at least three (3) years experience in operation of railway infrastructures.
/ Điều 13 của Nghị định số 109/2006/ND-CP: Người được giao trách nhiệm chính về quản lý kỹ thuật hạ tầng đường sắt phải có bằng đại học và có ít nhất ba (03) năm kinh nghiệm về khai thác hạ tầng đường sắt

*10: Article 14 of Decision 44/2005/QĐ-BGTVT: Must possess a professional diploma, certificate in driving railway traffic means, granted by training establishments and having worked as a train driver for at least 3 years.
/ Điều 14 của Quyết định 44/2005/QĐ-BGTVT: Có bằng hoặc chứng chỉ tốt nghiệp chuyên ngành lái phương tiện giao thông đường sắt tương ứng với loại phương tiện người tham gia sát hạch đề nghị sát hạch, do cơ sở đào tạo cấp; c. Đã qua thực tế công tác ít nhất 5 năm, trực tiếp lái lái tàu ít nhất 3 năm, am hiểu về phương tiện giao thông đường sắt và Quy trình, Quy phạm khai thác kỹ thuật đường sắt, Quy tắc an toàn chạy tàu

> Note *5 through *10 will be clarified with MoT, if UMRT can propose alternatives
/ Lưu ý: từ *5 đến *10 cần phải được làm rõ với Bộ Giao thông Vận tải, nếu UMRT đề xuất các phương án thay thế

*11: Manager and Team leader class must possess a grade C and B certificate of English test, respectively.
/ Đối với vị trí Trưởng phòng và Trưởng nhóm phải có Chứng chỉ C & B Tiếng Anh một cách tương ứng

*12: The number of staff listed above does not include indirect staff, such as secretaries, securities, and office boys.
/ Số lượng nhân viên trên không bao gồm nhân viên gián tiếp như thư ký, bảo vệ và nhân viên văn phòng

<Sources> / <Nguồn>
Number of staffs: "O&M Company plan - Mobilization plan" by NJPT / Số lượng nhân viên: "Kế hoạch công ty O&M - Kế hoạch huy động nhân viên" của NJPT

Appendix 3. Comparison of Structure Function with Osaka and Taipei

To confirm the Suitability and reasonableness of the proposed structure of the O&M company, the comparison of structure function with other Asian cities “Osaka and Taipei” has been conducted. Although the coverage of individual division in other Asian cities is different from O&M company, it was found that O&M contains same functions.

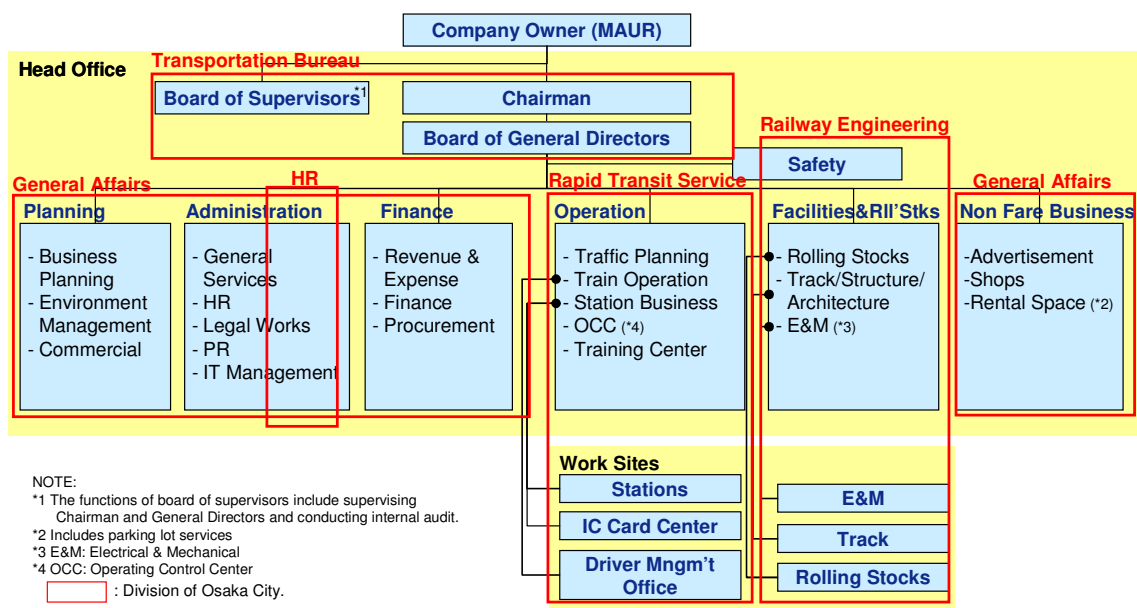


Diagram A3.1 Comparison of Structure Function with Osaka

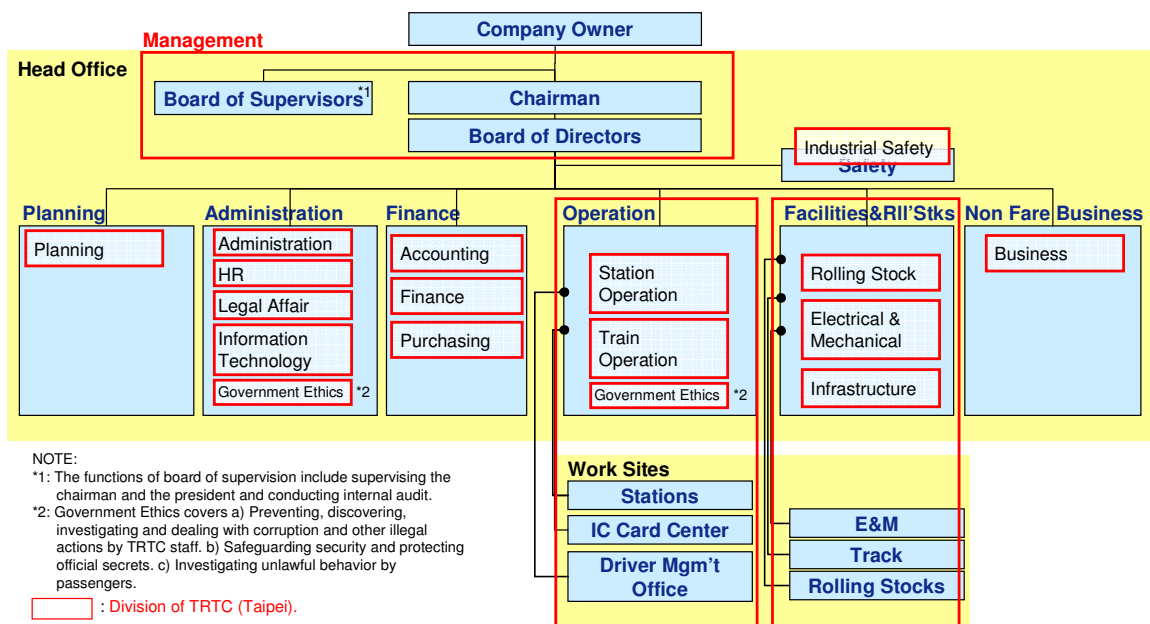
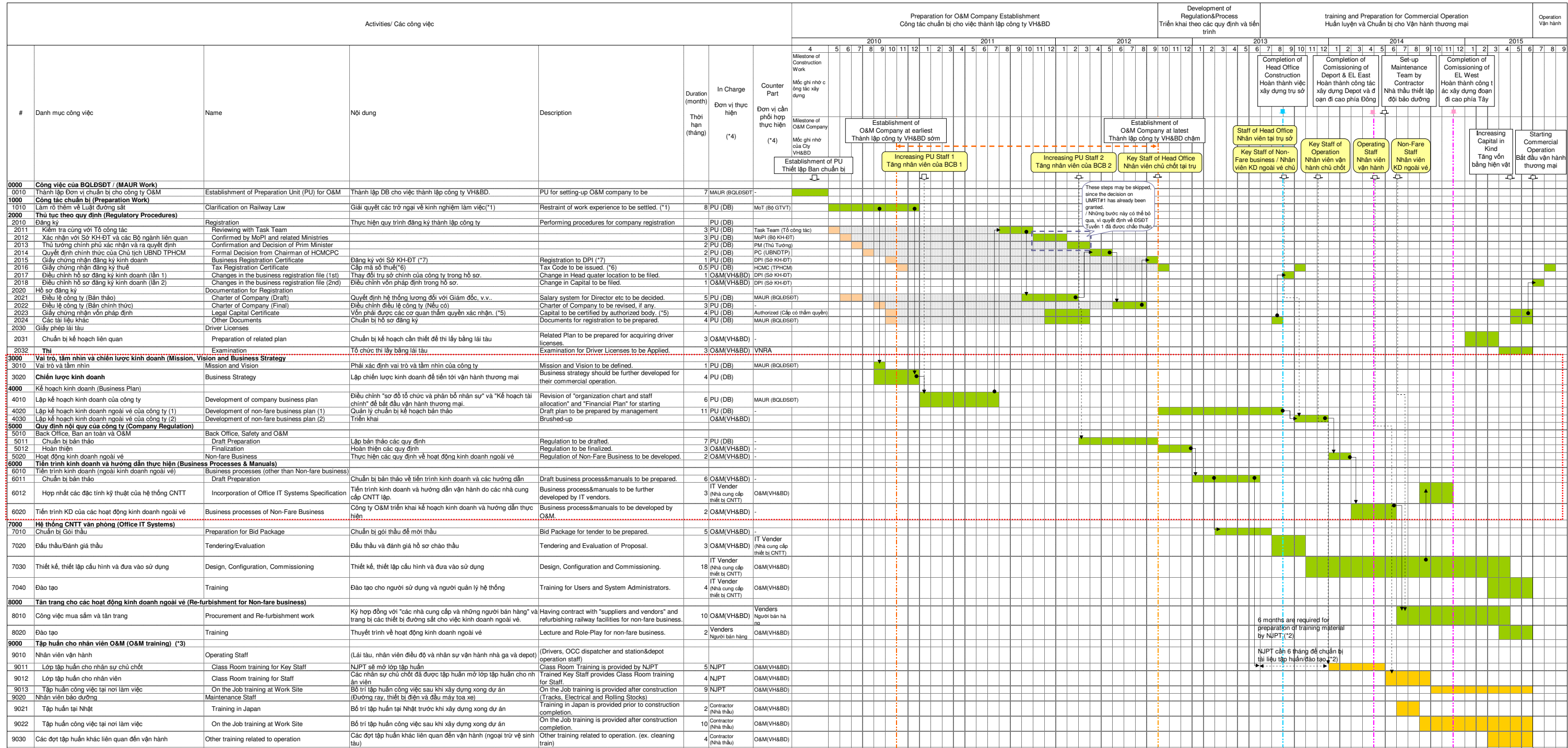


Diagram A3.2 Comparison of Structure Function with Taipei (TRTC)



NOTE/ GHI CHÚ

(*1) : The following restraints of work experience are stated in Railway Law. / Dưới đây là những trở ngại về kinh nghiệm được nêu trong Luật đường sắt.
 - Article 46 of Railway Law: railway personnel in direct service of train operation must possess professional diplomas or certificates suitable to their titles, which are granted by training establishments recognized by the MoT.
 - Điều 46 của Luật đường sắt: Nhân viên đường sắt trực tiếp phục vụ chạy tàu phải có bằng hoặc chứng chỉ chuyên môn phù hợp với chức danh do cơ sở đào tạo được Bộ giao thông vận tải công nhận cấp.
 - Article 47 of Railway Law: Persons granted train-driving license must fully satisfy the following conditions: b) Possessing professional diplomas, certificates in driving railway traffic means, granted by training establishments; c) Having worked as train assistant-drivers for 24 consecutive months or more.
 - Điều 47 của Luật đường sắt: Người được cấp giấy phép lái tàu phải có đủ các điều kiện sau đây: b) có bằng cấp, chứng chỉ chuyên ngành lái phương tiện giao thông đường sắt do cơ sở đào tạo cấp; c) Đã có thời gian làm phụ lái tàu liên tục 24 tháng trở lên.
 - Article 12 of Decree 109/2006/ND-CP: Persons assigned with the prime responsibility for technical management of transport operation must have a university degree and at least three (3) years experience in railway transport operation.
 - Điều 12 của Nghị định 109/2006/ND-CP: Người được giao chịu trách nhiệm chính về quản lý kỹ thuật khai thác vận tải phải có trình độ đại học và có ít nhất ba (3) năm kinh nghiệm về khai thác vận tải đường sắt.
 - Article 13 of Decree 109/2006/ND-CP: Persons assigned with the prime responsibility for technical management of railway infrastructures must have a university degree and at least three (3) years experience in operation of railway infrastructures.
 - Điều 13 của Nghị định 109/2006/ND-CP: Người được giao chịu trách nhiệm chính về quản lý kỹ thuật kết cấu hạ tầng đường sắt phải có trình độ đại học và có ít nhất ba (3) năm kinh nghiệm về khai thác kết cấu hạ tầng đường sắt.
 - Article 12 of Decision 61/2007/QĐ-BGTVT: The leader in charge of safety affairs must possess a university degree in railway facilities and have at least three (3) years experience in managing railway infrastructure.
 - Điều 12 của Quyết định 61/2007/QĐ-BGTVT: Lãnh đạo doanh nghiệp phụ trách an toàn phải có trình độ đại học về chuyên ngành công trình đường sắt và có ít nhất ba (3) năm kinh nghiệm quản lý kết cấu hạ tầng đường sắt.

(*2) : Business Process and Manuals for O&M will be prepared by NJPT to meet the training time line.
 : Tiến trình kinh doanh và cẩm nang hướng dẫn thực hiện cho công ty O&M sẽ do NJPT thực hiện để phù hợp với thời gian đào tạo/tập huấn

(*3) : O&M training Time Schedule is based on NJPT plan as of 5 June 2009. For the details, please refer to NJPT plan.
 : Kế hoạch đào tạo cho nhân viên O&M dựa trên bản kế hoạch của NJPT lập ngày 05/06/2009. Để biết thêm chi tiết, vui lòng xem bản kế hoạch của NJPT.

(*4) : PU: Preparation Unit under MAUR, O&M: O&M company will be established as one-LLC by MAUR, PM: Prime Minister, PC: Hồ Chí Minh City People Committee, VNRA: Vietnam Railway Administration
 : BCB: Ban chuẩn bị trực thuộc Ban QLSDT, O&M: Công ty vận hành và bảo dưỡng sẽ được Ban QLSDT thành lập theo loại hình công ty TNHH một thành viên, TT: Thủ tướng, UBNDTP: Ủy ban nhân dân thành phố, VNRA: Cục đường sắt Việt Nam

(*5) : Pursuant to Article 7 of Decree 139/2007/ND-CP
 : Theo Điều 7 của Nghị định 139/2007/ND-CP

(*6) : Pursuant to Circular 85/2007/TT-BTC
 : Theo thông tư số 85/2007/TT-BTC

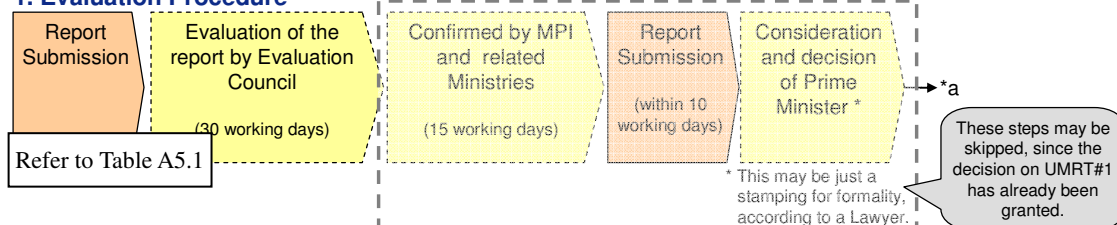
(*7) : Pursuant to Decree 139/2007/ND-CP
 : Theo Nghị định số 139/2007/ND-CP

Legend:
 - Activities specified by SAPI as earliest: Công việc do SAPI đưa ra là sớm nhất
 - Activities specified by SAPI: Công việc do SAPI đưa ra
 - Activities specified and provided by NJPT or Contractor: Công việc do NJPT hoặc nhà thầu đưa ra và thực hiện
 - Employee Assignment/Hiring Activities: Các hoạt động cần tuyển/chỉ định nhân viên
 - Activities requiring Technical Cooperation: Các hoạt động yêu cầu hợp tác kỹ thuật

Appendix 5. Documents for Evaluation and Registration

For the establishment of state company, SAPI understands, MAUR should prepare the documents for evaluation and registration as per table A5.1 through A5.3.

1. Evaluation Procedure



2. Registration Procedure

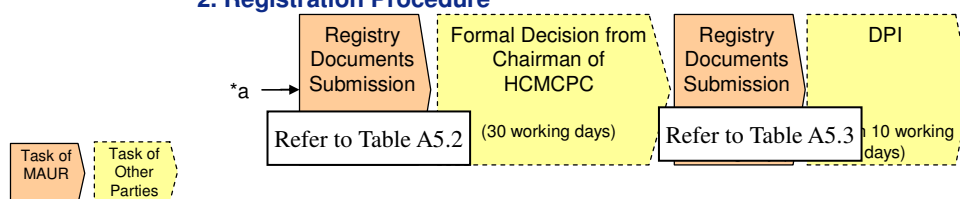


Table A5.1 Contents of Evaluation of Schemes for Establishment of State Company

No.	Title	Remarks
1	The necessity of the establishment of State companies	It is stated by Decision 38/2007/QĐ-TTg.
2	The socio-economic efficiency and conformity of such establishment with the branch, domain and regional economic development planning and strategies	Master plan of UMRT itself was already approved by Prime Minister.
3	The lists of products and/or services to be provided by the companies; the market situation, market demand and prospect for each type of product and/or service to be provided by the companies; the consumption possibility and competitiveness of their products and/or services	Main service is public transportation means. Non-fare business (*1) is served for increasing passenger's satisfaction. (*1) advertisement, space rental, kiosk and parking lots
4	The technological level; capability of supplying labor, raw materials, materials and energy, and other necessary conditions for the companies to operate after their establishment	UMRT plan itself was already approved by HCMCPC.
5	Charter capital and solutions to create capital and capital refunding plan	The draft version of charter capital and solutions to create capital are in this report. The preparation unit must develop it based on; 1) the actual salary level,

		<p>2) the economic condition at that stage and</p> <p>3) the result of clarification on legal constraints with MoT.</p> <p>Capital refunding plan: Rough dividend plan is in the financial plan prepared by SAPI. PU or MAUR should develop it based on the dividend ratio agreed with HCMCPC.</p>
6	Suitability and reasonableness of the proposed structure of the O&M company	<p>The structure of the O&M company will be in SAPI report.</p> <p>PU or MAUR should develop it based on the result of clarification on legal constraints with MoT.</p>
7	Impacts on the environment and solutions to protect the environment	Information will be provided by General Contractor (NJPT) and/or Contractor, and incorporated into the report.

NOTE: Specified in Article 8 of 180/2004/ND-CP

Table A5.2 Contents for a Decision on the Establishment of a Sate Company

No.	Content	Remarks
1	The name of the company, including the Vietnamese full name, the foreign-language name and abbreviated name (if any)	The idea for the Vietnamese full name, the foreign-language name and abbreviated name is in SAPI report.
2	The form of organization of the company	Refer to the content (#6) in the table A5.1
3	The address of the company's head-office	At the 1 st registration, the head office may not be available. MAUR should prepare tentative head-office for a mean while.
4	The production and/or business lines	Refer to the content (#3) in the table A5.1.
5	The charter capital	Refer to the content (#5) in the table A5.1
6	The managerial organization of the company	<p>Refer to the content (#3) in the table A5.1</p> <p>The appointment of the chairman; or the decision on appointment of, or signing of contracts with, the director of the company, for companies without the Management Board.</p>
7	The name(s) and address(es) of the company's branch(es) and/or representative office(s) (if any)	<i>There is no plan to have branches and representative offices.</i>

8	The names and addresses of head-offices of the member companies (for State corporations)	<i>There is no plan to have member companies.</i>
---	--	---

NOTE: Specified in Article 11 of 180/2004/ND-CP

Table A5.3 Application Dossier Submission to DPI

No.	Content	Remarks
1	Application for business registration	the standard form issued by the Ministry of Planning and Investment
2	Draft company charter signed by the owner and by the legal representative of the company	Refer to the table A5.4
3	Decision on establishment	It will be obtained at the previous step.
4	List of authorized representatives <i>(in the case of an one member limited liability company with a management structure organized in accordance with article 67.3 on the Law on Enterprises)</i>	the standard form issued by the Ministry of Planning and Investment
5	Valid copy of the identification card or passport of the authorized representative.	-
6	Power of attorney from the owner to the authorized representative of the owner <i>(in the case where the owner of the company is an organization.)</i>	-
7	Confirmation from the authorized body of the legal capital <i>(in the case of companies conducting lines of business with legal capital requirements.)</i>	As stated in article 4 of 180/2004/ND-CP, state companies are required to have minimum level.
8	Valid copy of the practicing certificate of the director (general director) and any other individual stipulated in article 4.13 of the Law on Enterprises. <i>(in the case of a company conducting lines of business requiring a practicing certificate.)</i>	-

NOTE: Specified in Article 16 of 88/2006/ND-CP

Authorized representatives : individuals who is authorized in writing by the institutional members of the limited liability company to exercise rights and obligations in pursuant to Law on Enterprise.

Table A5.4 Contents of Charter of Company

No.	Content	Remarks
1	The company's name, address of head office, branches and/or representative offices (if any)	Refer to the content (#7) in the table A5.2.
2	List of business activities	Refer to the content (#3) in the table A5.1.
3	Charter capital; method of increasing and decreasing charter capital	Refer to the content (#5) in the table A5.1.
4	Full name, permanent address, nationality and other basic identifications of a member	The member should be decided by HCMCPC.
5	Proportion of capital contribution and value of such proportion made by a member	It should be developed by PU or MAUR based on the financial plan drafted by SAPI Team.
6	Rights and obligations of a member of limited liability companies	It should be developed by PU or MAUR.
7	Organizational and management structure	Refer to Appendix 2 and 3 in this report.
8	Legal representative	It should be decided by MAUR.
9	Formality for adoption of decisions of the company; principles applied to the settlement of internal disputes	It should be decided by MAUR.
10	Ground and methods for calculating salary, allowance and bonus of directors or general directors	It should be decided by MAUR.
11	Circumstances when a member may request the company to buy back his/her proportion of capital contribution	It should be decided by MAUR.
12	Principles for distribution of after-tax profit and resolution of loss occurred in the course of business	It should be decided by HCMCPC and/or MAUR in accordance with 09/2009/ND-CP.
13	Cases of dissolution, procedures of dissolution and liquidation formalities for the company's assets	It should be decided by MAUR.
14	Procedures for amendment and supplementation of the company charter	It should be decided by MAUR.
15	Full name and signatures of the legal representative, the company owner, the member or authorized representatives	They should be appointed by MAUR.
16	Other agreements made by members in compliance with laws	It should be decided by MAUR.

NOTE: Specified in Article 22 of 60/2005/QH11 "Law on Enterprises"

Financial Plan for HCMC UMRT Line No.1

Kế hoạch tài chính cho dự án Xây dựng Tuyến đường sắt đô thị TPHCM Tuyến 1

<Draft> / <Bản thảo>

September 15th, 2009

Chỉnh sửa ngày 15 tháng 9 năm 2009

SAPI team

Mô tả BẢNG KẾ LÒ VÀ LÃI & BẢNG KẾ DÒNG NGÂN LƯU

BÁO CÁO LỜI VÀ LỖ	Mô tả
1). Doanh thu	Công thức a+b
a. Doanh thu từ hoạt động kinh doanh	Xem "Yêu cầu SAPROF"
b. Doanh thu khác	Doanh thu từ việc vận hành X 1/9
2). Chi phí bảo dưỡng và vận hành	Công thức a+b+d+e+f+g
a. Các chi phí nhân viên	Xem "Tổng các chi phí của Công ty O&M"
b. Chi phí điện năng	như trên
c. Chi phí vệ sinh (nhân công và tiêu dùng)	như trên
d. Các chi phí phụ tùng	như trên
e. Các chi phí phục hồi	như trên
f. Chi phí KD ngoài bán vé	như trên
g. Các chi phí khác	như trên
3). Khấu hao	Công thức a+b+d+e+f
a. Xây dựng đoạn đi ngầm	Xem "Đầu tư và Khấu hao"
b. Xây dựng đoạn đi cao	như trên
c. Mua sắm và lắp đặt các thiết bị cơ điện	như trên
d. Depot (bao gồm trong phần mua sắm và lắp đặt các thiết bị cơ điện)	như trên
e. Đầu máy toa xe	như trên
f. Phần bổ sung/Phục hồi (Đầu máy toa xe/mua sắm và lắp đặt các thiết bị cơ điện)	như trên
4). Thu nhập thuần chưa thuế	Công thức 1-2-3
5). Thuế thu nhập	Công thức 4 x tỉ lệ thuế
6). Thu nhập thuần sau khi tính thuế	Công thức 4-5

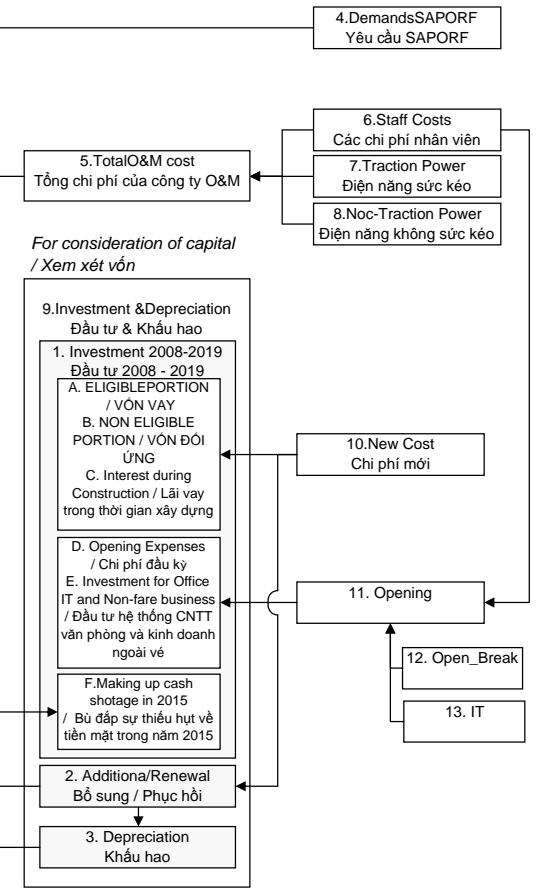
BÁO CÁO BẢNG KẾ DÒNG NGÂN LƯU	Mô tả
1. Dòng ngân lưu trong hoạt động kinh doanh	Công thức a+b
a. Thu nhập thuần sau thuế	P/L 6) Thu nhập thuần sau thuế
b. Khấu hao	P/L 3) Khấu hao
2. Dòng ngân lưu trong đầu tư	Công thức a+b+c
a. Đầu tư ban đầu	Không áp dụng
b. Đầu tư vào việc phục hồi/bổ sung (đầu máy toa xe)	Xem "Đầu tư và Khấu hao"
c. Phục hồi (Mua sắm& lắp đặt các thiết bị cơ điện bao gồm Depot)	Xem "Đầu tư và Khấu hao"
3. Dòng ngân lưu trong Tài chính	Trợ cấp từ TPHCM
4. Dòng ngân lưu thuần	Công thức 1-2+3

Description of PROFIT AND LOSS STATEMENT & CASH FLOW STATEMENT
2. PL&CFS

PROFIT AND LOSS STATEMENT	Description
1). Revenue	Formula a+b
a. Operating Revenue	See "DemandsSAPROF"
b. Other Revenue	Operation Revenue X 1/9
2). Operation & Maintenance Costs	Formula a+b+c+d+e+f+g
a. Staff costs	See "Total O&M Costs"
b. Power costs	ditto
c. Cleaning (Labor & Consumables) cost	ditto
d. Spares cost	ditto
e. Renewals	ditto
f. Cost of non-fare business	ditto
g. Other Costs	ditto
3). Depreciation	Formula a+b+c+d+e+f
a. Civil Work UG	See "Invest ment & Depreciation"
b. Civil Work EL	ditto
c. E&M	ditto
d. Depot(included in M&E)	ditto
e. Rolling Stock	ditto
f. Addition/Renewal (Rolling Stock/E&M)	ditto
4). Net Income before Tax	Formula 1-2-3
5). Income Tax	Formula 4 x tax rate
6). Net Income after Tax	Formula 4-5

CASH FLOW STATEMENT	Description
1. Operating Cash Flow	Formula a+b
a. Net Income after Tax	P/L 6) Net Income after tax
b. Depreciation	P/L 3) Depreciaton
2. Investment Cash Flow	Formula a+b+c
a. Initial Investment	Not applicable
b. Addition/Renewal (Rolling Stock)	See "Invest ment & Depreciation"
c. Renewal (E&M including Depot)	See "Invest ment & Depreciation"
3. Financial Cash Flow	Subsidy from HCMC
4. Net Cash Flow	Formula 1 - 2 + 3

For consideration of subsidy /Xem xét trợ cấp
3. CFS for Subsidy



<Assumption> <Dự tính> <If you change this yellow cell, you can simulate / Nếu thay đổi ô màu vàng này thì có thể mô phỏng được

[0] Revenue (0) Tỷ lệ lạm phát
 - percentage of ticket price exemption and reduction for social-policy beneficiaries
 - Discount rate for SF card
 - Average trip
 - Phần trăm giá vé miễn giảm dành cho những người được hưởng chính sách phúc lợi xã hội
 - Tỷ lệ chiết khấu dành cho thẻ SF
 - Trung bình chuyến đi

4.5%
10%
9km

[1] Staff costs (1) Các chi phí nhân viên
 (a) Monthly Directory Salary in 2008 [US \$]
 (b) Social & Benefits cost markup rate
 (c) Monthly Staff cost (Direct Salary + Social benefits cost) in 2008 price [US\$] = (a) * (1+(b))
 (a) Lương trực tiếp hàng tháng năm 2008 bằng USD
 (b) Tỷ lệ chi phí phúc lợi & xã hội
 (c) Chi phí nhân viên hàng tháng (Lương trực tiếp + Chi phí phúc lợi & xã hội) theo giá năm 2008 = (a)* (1+(b))

Chairman, General Manager, Dupty General Manager and Supervisors / Chủ tịch, Lương Tổng GD, Phó Tổng GD và các Giám sát	Manager / Quản lý	Engineer / Skilled Worker / Công nhân lành nghề/ Kỹ sư	Deputy Manager / Phó TP	Semi-skilled worker / Công nhân bậc 4/7	Unskilled worker/ clerical / Nhân viên văn phòng/ Công nhân phổ thông	Office Worker / Nhân viên văn phòng
2,000	1,000	650	500	350	200	400
20%						
2,400	1,200	780	600	420	240	480

[2] Power costs (2) Chi phí điện năng
 Tariff in 2008 Bảng giá năm 2008

Tariff / Bảng giá	VND/kw	Assumed period / Thời gian dự tính
Peak rate / Cao điểm	1,775	06:00-19:00
Off-peak rate / Giờ bình thường	895	19:00-24:00
Midnight rate / Thấp điểm	505	00:01-06:00

[3] Spares cost (3) Chi phí phụ tùng
 - Spares cost ratio against to Construction cost
 - Construction cost total (Base cost for JBIC financing)
 - Total Trains incl Spare & Maintenance
 - Tỷ lệ chi phí phụ tùng dựa vào chi phí Xây dựng
 - Tổng chi phí xây dựng (Chi phí cơ sở cho JBIC giải ngân)
 - Tổng số tàu bao gồm chi phí Bảo dưỡng và Phụ tùng

2015	2020	2030
0.225%	0.450%	0.675%
1,426,962,898	-	-
12	12	24

* For the details: See "9.Investment&Depreciation"
 ^ Xem chi tiết tại: "9.Đầu tư và chiết khấu"

[4] Cost of non-fare business (4) Chi phí KD ngoài bán vé
 * Costs of non-fare business include staff cost and cost of goods purchased. / Chi phí kinh doanh ngoài vé bao gồm chi phí nhân viên và chi phí mua hàng hóa

60% of revenue / của Doanh thu

[5] Other Costs Ratio (5) Tỷ lệ các chi phí khác
 * "Other costs" includes insurance cost, utility cost (such as electric power and water for office), outsourcing fee (such as security, cleaning and secretary services). / "Các chi phí khác" bao gồm chi phí bảo hiểm, chi phí công tr inh tiện ích (ví dụ như cung cấp điện và nước) và các chi phí thuê mướn ngoài (như bảo vệ, các dịch vụ vệ sinh và thư ký).

30%

[6] Additional/Renewal Investments (6)
 - Intermediate overhaul of rolling stock
 - Intermediate overhaul of E&M
 - Trung tu đầu máy toa xe
 - Trung tu các thiết bị điện cơ

30% of original cost inflated in overhaul year / Chi phí gốc bị lạm phát trong năm duy tu
 50% of original cost inflated in overhaul year / Chi phí gốc bị lạm phát trong năm duy tu

[7] Dividend (7) Cổ tức

30%

[8] Foreign Currency Rate (8) Tỷ lệ ngoại hối

105.00	Yen/USD
0.0065	Yen/VND
16.154	VND/USD

[9] Economic Growth Rates (9) Tỷ lệ tăng trưởng kinh tế
 - Economic growth rate per year - Vietnam
 - Economic growth rate from 2008 to 2015 = (1+ (a))^(2015-2008)
 - Escalation rate - staff cost
 - Economic growth rate per year - Japan
 - Tỷ lệ tăng trưởng kinh tế mỗi năm
 - Tỷ lệ tăng trưởng kinh tế từ 2008 đến 2015 = (1+ (a))^(2015-2008)
 - Tỷ lệ trượt - Các chi phí nhân viên
 - Tỷ lệ tăng trưởng kinh tế mỗi năm

2015 - 2020	2021 - 2030	2031 - 2040	2041 - 2050
5.0%	3.7%	3.2%	2.5%
40.71%	45.92%	50.59%	54.35%
2.0%	2.0%	2.0%	2.0%
2.4%	2.1%	1.6%	1.0%

- Economic growth rates: Japan Center for Economic Research, Changing Demographics in Asia (January 2007) / Tỷ lệ tăng trưởng kinh tế: Trung tâm nghiên cứu kinh tế Nhật Bản, Thay đổi nhân khẩu học tại châu Á (tháng 1 năm 2007)
 ^ Fluctuation of exchange rates: JETRO homepage / Mức dao động tỷ giá hối đoái: trang chủ JETRO

* For long term estimation, the economic growth is considered as a major factor affecting costs. The rate of the economic growth in Japan is applied to renewal and additional purchasing of E&M and rolling stocks, because they will be imported from Japan. The rate in Vietnam is applied for other items. To consider the fluctuation of exchange rate between Vietnam and Japan, the average annual change in exchange rate, in last 5 years, 1%, is added to Japanese economic growth rates. / Theo đánh giá dài hạn, sự tăng trưởng kinh tế được xem là yếu tố chính ảnh hưởng chi phí. Tỷ lệ tăng trưởng kinh tế ở Nhật Bản được tính cho các chi phí thay thế và mua thêm các thiết bị cơ điện và các đầu máy toa xe, vì những thiết bị này được nhập khẩu từ Nhật. Tỷ lệ tăng trưởng kinh tế ở Việt Nam sẽ được áp dụng cho những khoản chi phí khác. Do sự dao động giữa đồng Việt Nam và đồng yên Nhật, sự thay đổi trong tỷ giá hối đoái trung bình (1%) trong 5 năm vừa qua được thêm vào tỷ lệ tăng trưởng kinh tế Nhật Bản

CASH FLOW STATEMENT

BẢNG KẾ DÒNG NGÂN LƯU

(in US\$ Million)		(Bảng Triệu USD)																																	
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
1. Revenue	1. Doanh thu	11.7	35.7	59.4	65.1	71.7	101.3	112.9	114.3	116.2	117.6	143.0	152.6	175.8	184.3	210.9	259.0	269.2	279.5	289.2	298.5	305.9	312.0	316.8	318.4	320.0	321.6	321.8	325.0	327.5	330.1	330.1	330.1	330.1	
a. Operating Revenue	a. Doanh thu từ hoạt động kinh doanh	10.5	32.1	53.5	58.6	64.5	91.1	101.6	102.9	104.5	105.8	128.7	137.3	158.2	165.9	189.9	233.1	242.2	251.5	260.3	268.7	275.3	280.8	285.1	286.6	288.0	289.4	289.6	292.5	294.8	297.1	297.1	297.1	297.1	
b. Other Revenue (= a. / 9)	b. Doanh thu khác (= a./9)	1.2	3.6	5.9	6.5	7.2	10.1	11.3	11.4	11.6	11.8	14.3	15.3	17.6	18.4	21.1	25.9	26.9	27.9	28.9	29.9	30.6	31.2	31.7	31.8	32.0	32.2	32.2	32.5	32.8	33.0	33.0	33.0	33.0	
2. Operation & Maintenance Costs	2. Chi phí bảo dưỡng và vận hành	16.1	19.0	22.1	45.6	26.3	121.3	92.1	51.8	88.8	56.8	481.7	69.0	72.6	77.7	84.1	375.7	98.5	102.9	202.5	116.0	747.6	122.0	141.1	145.2	137.9	265.9	152.4	163.4	164.1	170.3	1540.8	200.8	221.4	197.7
a. Staff costs	a. Các chi phí nhân viên	2.8	2.9	3.0	3.0	3.1	3.1	3.3	3.4	3.5	3.5	3.6	3.7	3.8	3.8	3.9	4.0	4.1	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.0	5.2	5.3	5.4	5.5	5.6	5.7
b. Power costs	b. Chi phí điện năng	9.0	10.0	11.1	12.4	13.7	15.1	16.4	17.2	18.0	18.8	19.6	20.5	21.5	22.5	23.5	24.6	25.5	26.4	27.3	28.3	29.2	30.2	31.3	32.4	33.5	34.6	38.3	39.3	40.4	41.5	42.7	43.8	45.0	46.3
c. Cleaning (Labor&Consumables) costs	c. Chi phí vệ sinh (Nhân công và hao mòn)	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
d. Minor maintenance costs (yearly)	d. Chi phí bảo dưỡng - nhỏ (hàng năm)	0.0	0.0	0.0	0.0	0.0	5.2	11.2	13.2	15.4	17.6	20.1	22.6	25.4	28.3	31.4	34.7	38.8	41.1	43.5	46.2	48.9	51.9	55.0	58.4	61.9	65.7	69.2	73.0	77.0	81.2	85.6	90.3	95.3	100.5
e. Medium maintenance costs (Every 4 years)	e. Chi phí bảo dưỡng - trung bình (04 năm/lần)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	2.1	0.0	0.0	0.0	2.9	0.0	0.0	0.0	3.8	0.0	0.0	0.0	4.5	0.0	0.0	0.0	5.3	0.0	0.0	6.1	0.0	0.0	0.0
f. Major maintenance costs (Every 8 years)	f. Chi phí bảo dưỡng - lớn (08 năm/lần)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	11.3	0.0	0.0	0.0
g. Additional/Renewal (Rolling Stock, E&M Depot)	g. Phần bổ sung/Phục hồi (Đầu máy toa xe/ thiết bị cơ điện cho Depot)	0.0	0.0	0.0	21.5	0.0	84.6	46.0	0.0	35.7	0.0	419.5	0.0	0.0	0.0	0.0	275.7	0.0	0.0	95.1	0.0	630.5	0.0	13.8	0.0	0.0	122.1	0.0	0.0	0.0	0.0	1364.1	0.0	31.0	0.0
h. Costs of non-fare business (60% of other revenue)	h. Chi phí KD ngoài bán vé (60% của doanh thu khác)	0.7	2.1	3.6	3.9	4.3	6.1	6.8	6.9	7.0	7.1	8.6	9.2	10.5	11.1	12.7	15.5	16.1	16.8	17.4	17.9	18.4	18.7	19.0	19.1	19.2	19.3	19.3	19.5	19.7	19.8	19.8	19.8	19.8	
i. Other Costs	i. Các chi phí khác	3.6	3.9	4.3	4.7	5.1	7.1	8.2	8.7	9.1	9.6	10.1	10.7	11.2	11.8	12.5	13.1	13.8	14.2	14.8	15.3	15.8	16.4	17.0	17.6	18.3	18.9	20.3	20.9	21.5	22.2	22.9	23.5	24.2	25.0
3. Net Cash Flow before tax (1-2)	3. Dòng ngân lưu thuần chưa thuế (1-2)	-4.4	16.7	37.3	19.5	45.4	-20.1	20.9	62.5	27.4	60.8	-338.7	83.5	103.2	106.6	126.8	-116.7	170.6	176.5	86.7	182.5	-441.7	190.0	175.7	173.2	182.1	55.7	169.4	161.6	163.5	159.8	-1210.7	129.4	108.7	132.4

*1: Revenue increase mainly comes from ridership increase. Fare increase with economic growth is planned every 5 years for 2015-2025 only. / Việc gia tăng doanh thu chủ yếu được dự tính là từ việc gia tăng lượng khách đi tàu. Doanh thu tăng được dự đoán chủ yếu do việc tăng lượng hành khách. Vé tăng theo tăng trưởng kinh tế chỉ được lên kế hoạch 5 năm/lần từ năm 2015 - 2025.
*2: Revenue in 2015 is counted half, since UMRT is expected to start July 2015. / Doanh thu trong năm 2015 chỉ được tính trong vòng ½ năm, do tuyến đường sắt đô thị dự kiến bắt đầu hoạt động vào tháng 07/2015.
*3: Operation & Maintenance cost other than Staff costs are calculated with economic growth rate. / Chi phí vận hành & Bảo dưỡng ngoài chi phí Nhân viên được tính theo tỷ lệ tăng trưởng kinh tế.
*4: Staff costs are calculated with increasing rate 2.0% per year / Chi phí nhân viên được tính theo tỉ lệ tăng 2,0%/ năm
*5: Maintenance costs (yearly) will increase year by year, because the maintenance activities will grow as operating assets get aged and increases in numbers./ Chi phí bảo dưỡng (hàng năm) sẽ tăng hàng năm, do các công tác bảo dưỡng sẽ tăng do các tài sản đã được sử dụng trong nhiều năm và cần tăng thêm số lượng.
*6: The figures and timing of "Additional/Renewal" are based on GC's plan. If actual ridership is lower than the estimate in the plan, the timing of purchasing additional rolling stocks should be revised accordingly. / Số liệu và thời hạn "Bổ sung/thay mới" dựa trên kế hoạch của TVC. Nếu số lượng hành khách đi tàu thấp hơn dự toán trong bản kế hoạch, thời hạn mua sắm đầu máy toa xe bổ sung sẽ được điều chỉnh tương ứng.
*7: Costs of non-fare business include staff cost and cost of goods purchased./ Chi phí kinh doanh ngoài vé bao gồm chi phí nhân viên và chi phí mua hàng hóa
*8: "Other costs" includes insurance cost, utility cost (such as electric power and water for office), outsourcing fee (such as security, cleaning and secretary services). / "Các chi phí khác" bao gồm chi phí bảo hiểm, chi phí công tính tiền ích (ví dụ như cung cấp điện và nước) và các chi phí thuê mướn ngoài (như bảo vệ, các dịch vụ vệ sinh và thư ký).
*9: In each year when net cash flow is negative, HCMC should look into if the subsidy is required for UMRT operation. / Trong mỗi năm dòng ngân lưu thuần bị âm, TPHCM cần xem xét nếu có yêu cầu về khoản trợ cấp trong việc vận hành
*10: Interest of JICA loan to be refunded by HCMC. / Lãi suất vốn vay JICA được UBND TP. HCM thanh toán, không phải công ty VH&BD.
*11: Contractor will take care of maintenance for first 5 years. / Nhà thầu sẽ phụ trách công tác bảo dưỡng

Operation Revenue Calculation with demands in SAPROF / Tính doanh thu từ hoạt động kinh doanh theo yêu cầu trong SAPROF

<Assumption> / <Dự tính>

◻ =< If you change this yellow cell, you can simulate / Nếu thay đổi ô màu vàng này thì có thể mô phỏng được

(a)	5.0%	Economic Growth Rate (2006-2020) / Tỷ lệ tăng trưởng kinh tế (2006-2020)
	3.7%	Economic Growth Rate (2021-2030) / Tỷ lệ tăng trưởng kinh tế (2021-2030)
	3.2%	Economic Growth Rate (2031-2040) / Tỷ lệ tăng trưởng kinh tế (2031-2040)
	2.5%	Economic Growth Rate (2041-) / Tỷ lệ tăng trưởng kinh tế (2041-)
(b)	16,154	VND=1US\$ Foreign Currency rate / Tỷ lệ ngoại hối
(c)	4.5%	percentage of ticket price exemption and reduction for social-policy beneficiaries (here it is assumed as Free charge.) *Article 21.- 109/2006/ND-CP / Phần trăm giá vé miễn giảm dành cho những người được hưởng chính sách phúc lợi xã hội (giả định Miễn phí.) *Điều 21 - 109/2006/ND-CP
(d)	10%	Discount rate for SF card / Tỷ lệ chiết khấu dành cho thẻ SF
(e)	9	km Avarage trip / Trung bình chuyến đi
(f)	1	Ridership factor for sensitivity Analysis / Yếu tố Lượng hành khách trong Phân tích độ nhạy

Rate of ridership increase per year / Tỷ lệ hành khách tăng một năm

Year / Năm	Rate / Tỷ lệ
2020-2030	5.7%
2031-2043	1.5%

[1] #	[2] year / Năm	[3] Rate in 2015 Base / Tỷ lệ năm 2015		[4] Economic Growth / Tỷ lệ tăng trưởng kinh tế	[5] BaseRate after Escalation (*1) / Tỷ lệ cơ bản sau khi tính toán trượt giá (*1)	[6] Number of passengers / Số hành khách			[7] Average Trip / Trung bình chuyến đi	[8] average fare / Phí trung bình	[9] Operation Revenue / Doanh thu vận hành	[10] Ratio for SF Card User / Tỷ lệ dành cho người sử dụng thẻ SF	[11] Discount Rate for SF Card User / Tỷ lệ chiết khấu dành cho người sử dụng thẻ SF	
		VND	VND	(%)	VND	000persons / day / 000người / ngày			km	US\$	Mil.US\$	(%)	(%)	
		Base Rate / Tỷ lệ cơ bản	Km Rate / Tỷ lệ km	{1+(a)}^{[1]-1}	[3]*{1+[4]}	Base / cơ bản	After applying factor / Sau khi áp dụng chỉ tiêu	After applying ticket price exemption / Sau khi áp dụng miễn vé			{[9]*[3]}*(1+[4])+[5] / (b)	[9]*{([11]*(1-[12]))+{1-[11]/100}}*[9]*300days / 1000person/10^6		
1	0	2015	5,000	500	0.0%	5,000	66	66	63	9.0	0.6	10.5	50.00	10%
	1	2016	7,000	700	0.0%	7,000	143	143	137	9.0	0.8	32.1	47.11	10%
	2	2017	7,000	700	10.3%	7,000	237	237	227	9.0	0.8	53.5	44.40	10%
	3	2018	7,000	700	15.8%	7,000	259	259	248	9.0	0.8	58.6	41.83	10%
	4	2019	7,000	700	21.6%	7,000	285	285	272	9.0	0.8	64.5	39.42	10%
1	5	2020	7,000	700	27.6%	8,934	314	314	300	9.0	1.1	91.1	37.14	10%
	6	2021	7,000	700	32.4%	8,934	350	350	334	9.0	1.1	101.6	35.00	10%
	7	2022	7,000	700	37.2%	8,934	353	353	338	9.0	1.1	102.9	32.87	10%
	8	2023	7,000	700	42.3%	8,934	358	358	342	9.0	1.1	104.5	30.88	10%
	9	2024	7,000	700	47.6%	8,934	362	362	346	9.0	1.1	105.8	29.00	10%
1	10	2025	7,000	700	53.1%	10,714	366	366	350	9.0	1.3	128.7	27.24	10%
	11	2026	7,000	700	58.7%	10,714	390	390	373	9.0	1.3	137.3	25.59	10%
	12	2027	7,000	700	64.6%	10,714	449	449	429	9.0	1.3	158.2	24.04	10%
	13	2028	7,000	700	70.7%	10,714	470	470	449	9.0	1.3	165.9	22.58	10%
	14	2029	7,000	700	77.0%	10,714	537	537	513	9.0	1.3	189.9	21.21	10%
1	15	2030	7,000	700	83.5%	10,714	549	549	525	9.0	1.5	233.1	19.92	10%
	16	2031	7,000	700	90.3%	10,714	570	570	545	9.0	1.5	242.2	18.71	10%
	17	2032	7,000	700	97.4%	10,714	591	591	565	9.0	1.5	251.5	17.57	10%
	18	2033	7,000	700	104.7%	10,714	611	611	584	9.0	1.5	260.3	16.51	10%
	19	2034	7,000	700	112.3%	10,714	630	630	602	9.0	1.5	268.7	15.50	10%
	20	2035	7,000	700	120.1%	10,714	645	645	616	9.0	1.5	275.3	14.56	10%
	21	2036	7,000	700	128.2%	10,714	658	658	628	9.0	1.5	280.8	13.68	10%
	22	2037	7,000	700	136.7%	10,714	667	667	637	9.0	1.5	285.1	12.85	10%
	23	2038	7,000	700	145.5%	10,714	670	670	640	9.0	1.5	286.6	12.07	10%
	24	2039	7,000	700	154.5%	10,714	673	673	643	9.0	1.5	288.0	11.33	10%
	25	2040	7,000	700	163.9%	10,714	676	676	645	9.0	1.5	289.4	10.65	10%
	26	2041	7,000	700	170.5%	10,714	676	676	645	9.0	1.5	289.6	10.00	10%
	27	2042	7,000	700	177.3%	10,714	682	682	652	9.0	1.5	292.5	10.00	10%
	28	2043	7,000	700	184.2%	10,714	688	688	657	9.0	1.5	294.8	10.00	10%
	29	2044	7,000	700	191.4%	10,714	693	693	662	9.0	1.5	297.1	10.00	10%
	30	2045	7,000	700	198.6%	10,714	693	693	662	9.0	1.5	297.1	10.00	10%
	31	2046	7,000	700	206.1%	10,714	693	693	662	9.0	1.5	297.1	10.00	10%
	32	2047	7,000	700	213.8%	10,714	693	693	662	9.0	1.5	297.1	10.00	10%
	33	2048	7,000	700	221.6%	10,714	693	693	662	9.0	1.5	297.1	10.00	10%

NOTE /

*1 : Fare increase by economic growth is considered every 5 years until 2025 to compensate the replacement of E&M. / Cân nhắc tăng giá vé theo sự tăng trưởng kinh tế cứ 5 năm 1 lần cho tới năm 2025 để bù lại sự thay thế của E&M

<Source> / <Nguồn>

- " Preliminary Financial analysis for HCMC UMRT Line No.1" prepared by NJPT / "Phân tích tài chính ban đầu cho Dự án Xây dựng tuyến đường sắt đô thị TPHCM Tuyến 1" của NJPT

- [3] [3] [6] : from Working Paper 36 prepared by NJPT / từ tờ trình làm việc số 36 do ban CVC thực hiện

- (a) from "Japan Center for Economic Research (JCER), Changing Demographics in Asia (January 2007)". / từ Trung tâm nghiên cứu kinh tế Nhật Bản, Thay đổi nhân khẩu học tại châu Á (tháng 1 năm 2007)

< Total O&M costs >		< Tổng các chi phí của Công ty O&M >																				
		2015	2021	2031	Description / Mô tả																	
Cleaning (Labor & Consumables) cost	Chi phí vệ sinh (Nhân công và Tiêu dùng)	117,636	122,912	133,464	(Stations(6 x 2000 + 5 x 3000 + 5000 + 10000 x4000) + Total trains x No. of car/train x 60) x 6 (Ga(6 x 2000 + 5 x 3000 + 5000 + 10000 x4000) + Tổng số tàu x Số toa x 60) x 6																	
Spares cost	Chi phí phụ tùng	3,210,667	6,421,333	9,632,000	Spares cost ratio X Construction cost / Tỷ lệ chi phí phụ tùng x Chi phí xây dựng																	
Renewals	Chi phí phục hồi	0	3,771,298	15,357,619	2,000,000 with escalation in 2020 / 5,000,000 with escalation in 2030 2,000,000 kém trượt giá năm 2020 / 5,000,000 kém trượt giá năm 2030																	

<Source> / <Nguồn>
 All information comes from "Preliminary Financial analysis for HCMC UMRT Line No.1" and "O&M company organization" prepared by NJPT
 Tất cả các thông tin được lấy từ "Phân tích tài chính ban đầu cho Dự án Xây dựng đường sắt đô thị TPHCM Tuyến 1 & Tổ chức Công ty O&M" của NJPT

Annual Allocation without Escalation		Phân bổ hàng năm không tính trượt giá																																								
(Unit:US\$)		Đơn vị: USD		Open/O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M								
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34					
				2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048					
				Average increasing ratio (2020-2030) / Tỷ lệ tăng bình quân (2020-2030)		Ratio in 2015 / Tỷ lệ năm 2015																																				
Staff costs	Các chi phí nhân viên																																									
Management	Quản lý	2.9%	570,667	570,667	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	581,419	
Operations	Vận hành	8.7%	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136	1,716,136
Maintenance	Bảo dưỡng	2.6%	508,638	508,638	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	554,953	
	Sub-Total		2,795,441	2,795,441	2,852,508	2,852,508	2,852,508	2,852,508	2,852,508	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371	2,958,371		
Refer to * 6. Staff costs	Xem phần "6. Các chi phí nhân viên																																									
Power costs	Các chi phí điện năng																																									
Traction	Có sức kéo	1.8%	2,002,531	2,574,779	3,147,026	3,719,274	4,291,522	4,863,770	5,436,017	5,544,738	5,653,458	5,762,178	5,870,899	5,979,619	6,088,339	6,197,060	6,305,780	6,414,500	6,523,220	6,553,597	6,584,115	6,614,774	6,645,577	6,676,523	6,707,613	6,738,848	6,770,229	6,801,755	7,882,225	7,918,929	7,955,805	7,992,852	8,030,072	8,067,465	8,105,033	8,142,775	8,180,588	8,218,464	8,256,399	8,294,393	8,332,446	8,370,558
Non-traction	Không sức kéo	0.0%	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	6,962,782	
	Sub-Total		8,965,313	9,537,561	10,109,809	10,682,056	11,254,304	11,826,552	12,398,800	12,507,520	12,616,240	12,724,961	12,833,681	12,942,401	13,051,122	13,159,842	13,268,562	13,377,283	13,486,003	13,594,723	13,546,897	13,577,557	13,608,359	13,639,306	13,670,396	13,701,531	13,732,716	13,763,951	13,795,236	14,845,007	14,881,712	14,918,588	14,955,535	14,992,555	15,030,248	15,067,815	15,105,557	15,143,299	15,181,041	15,218,783		
Refer to * 7. Traction Power *	Xem phần "7. Điện năng sức kéo																																									
Refer to * 8. Non-Traction Power *	Xem phần "8. Điện năng không sức kéo"																																									
Cleaning (Labor & Consumables) cost	Chi phí vệ sinh (Nhân công & tiêu dùng)	0.8%	117,636	118,515	119,394	120,274	121,153	122,032	122,912	123,791	124,671	125,551	126,431	127,311	128,191	129,071	129,951	130,831	131,711	132,591	133,471	134,351	135,231	136,111	136,991	137,871	138,751	139,631	140,511	141,391	142,271	143,151	144,031	144,911	145,791	146,671	147,551	148,431	149,311	150,191		
Spares cost	Chi phí phụ tùng																																									
Minor	nhỏ	4.1%	2,812,366	3,281,093	3,749,821	4,218,549	4,687,276	5,156,004	5,624,732	5,905,968	6,187,205	6,468,441	6,749,678	7,030,914	7,312,151	7,593,388	7,874,624	8,155,861	8,437,097	8,525,456	8,614,741	8,704,960	8,795,124	8,885,288	8,975,452	9,065,616	9,155,780	9,245,944	9,336,108	9,426,272	9,516,436	9,606,600	9,696,764	9,786,928	9,877,092	9,967,256	10,057,420	10,147,584	10,237,748	10,327,912		
Media, Major	trung bình, lớn	2.0%	398,301	464,684	531,068	597,451	663,835	730,218	796,602	836,432	876,262	916,092	955,922	995,752	1,035,582	1,075,412	1,115,242	1,155,072	1,194,902	1,207,416	1,220,081	1,232,838	1,245,749	1,258,796	1,271,979	1,285,300	1,298,760	1,312,362	1,326,106	1,339,994	1,354,027	1,368,207	1,382,536	1,397,015	1,411,645	1,426,425	1,441,354	1,456,433	1,471,662			
	Sub-Total		3,210,667	3,745,777	4,280,889	4,815,800	5,350,711	5,885,622	6,420,533	6,572,260	6,724,000	6,875,741	7,027,482	7,179,223	7,330,964	7,482,705	7,634,446	7,786,187	7,937,928	7,983,368	8,028,808	8,074,248	8,119,688	8,165,128	8,210,568	8,256,008	8,301,448	8,346,888	8,392,328	8,437,768	8,483,208	8,528,648	8,574,088	8,619,528	8,664,968	8,710,408	8,755,848	8,801,288	8,846,728	8,892,168		
Renewals	Các chi phí phục hồi	15.1%	-	-	-	-	-	-	3,771,298	4,929,930	6,088,562	7,247,194	8,405,826	9,564,459	10,723,091	11,881,723	13,040,355	14,198,987	15,357,619	15,943,580	16,551,898	17,183,426	17,839,050	18,519,688	19,226,296	19,959,865	20,721,422	21,512,036	22,332,815	23,184,911	24,069,517	24,987,876	25,941,274	26,931,048	27,956,587	29,025,331	30,138,075	31,295,520	32,498,465			
Other Costs (30%)	Các chi phí khác (30%)	23.1%	4,526,717	4,859,189	5,208,780	5,541,251	5,873,723	6,206,194	6,570,425	6,999,677	7,488,929	7,989,181	8,499,433	9,019,685	9,539,937	10,060,189	10,580,441	11,100,693	11,620,945	12,141,197	12,661,449	13,181,701	13,701,953	14,222,205	14,742,457	15,262,709	15,782,961	16,303,213	16,823,465	17,343,717	17,863,969	18,384,221	18,904,473	19,424,725	19,944,977	20,465,229	20,985,481	21,505,733	22,025,985	22,546,237		
TOTAL	TỔNG CỘNG	100.0%	19,615,774	21,056,484	22,571,380	24,012,090	25,452,799	26,893,509	32,243,139	33,961,865	35,680,592	37,399,319	39,118,046	40,836,773	42,555,500	44,274,227	45,992,954	47,711,680	49,430,407	50,187,355	50,968,218	51,773,865	52,605,195	53,463,145	54,348,684	55,262,819	56,206,594	57,181,094	59,550,879	60,596,596	61,676,570	62,792,060	63,944,371	65,134,857	66,364,924	67,636,029	68,948,785	70,303,746				

Annual Allocation with Escalation		Phân bổ hàng năm có tính trượt giá																																			
(Unit:Million US\$)		Đơn vị: M USD		Escalation / Trượt giá	Open/O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	O&M	
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
				2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Staff costs	Các chi phí nhân viên																																				
Management	Quản lý	2.0%	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3
Operations	Vận hành	2.0%	1.7	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.9	2.9	3.0	3.0	3.1			

Traction Power cost / Chi phí Điện năng sức kéo	2015	2021	2031	2041	Description / Formula Mô tả/ Công thức
in VND	22,989,527,629	62,406,763,673	74,888,116,407	90,489,807,326	Electricity Required(kw) x Electricity Price ([1] x [7] + [2] x [8] + [3] x [9])
in USD	1,423,161	3,863,276	4,635,931	5,601,750	

Lượng điện được yêu cầu (kw) x Giá điện ([1] x [7] + [2] x [8] + [3] x [9])

Hour commencing / Giờ bắt đầu	2015		2021		2031		2041	
	(*1) Trains Operating / Vận hành tàu	(*2) Electricity Required (kw) / Lượng điện yêu cầu	(*1) Trains Operating / Vận hành tàu	(*2) Electricity Required (kw) / Lượng điện yêu cầu	(*1) Trains Operating / Vận hành tàu	(*2) Electricity Required (kw) / Lượng điện yêu cầu	(*1) Trains Operating / Vận hành tàu	(*2) Electricity Required (kw) / Lượng điện yêu cầu
No. of cars / train	3		6		6		6	
05:00	7.5	1,771	10	4,722	12.0	5,667	14.5	6,847
06:00	12.0	2,833	16	7,555	19.2	9,066	23.2	10,955
07:00	15.0	3,542	20	9,444	24.0	11,333	29	13,694
08:00	15.0	3,542	20	9,444	24.0	11,333	29	13,694
09:00	12.0	2,833	16	7,555	19.2	9,066	23.2	10,955
10:00	10.5	2,479	14	6,611	16.8	7,933	20.3	9,586
11:00	9.0	2,125	12	5,667	14.4	6,800	17.4	8,216
12:00	7.5	1,771	10	4,722	12.0	5,667	14.5	6,847
13:00	6.0	1,417	8	3,778	9.6	4,533	11.6	5,478
14:00	4.5	1,062	6	2,833	7.2	3,400	8.7	4,108
15:00	4.5	1,062	6	2,833	7.2	3,400	8.7	4,108
16:00	6.0	1,417	8	3,778	9.6	4,533	11.6	5,478
17:00	9.0	2,125	12	5,667	14.4	6,800	17.4	8,216
18:00	12.2	2,869	18	8,500	21.6	10,200	26.1	12,325
19:00	12.2	2,869	18	8,500	21.6	10,200	26.1	12,325
20:00	9.0	2,125	12	5,667	14.4	6,800	17.4	8,216
21:00	7.5	1,771	10	4,722	12.0	5,667	14.5	6,847
22:00	6.0	1,417	8	3,778	9.6	4,533	11.6	5,478
23:00	3.0	708	4	1,889	4.8	2,267	5.8	2,739

[1] Sub total / Cộng 06:00-19:00	123.2	29,076.3	166.0	78,386.7	199.2	94,064.0	240.7	113,661
[2] Sub total / Cộng 19:00-24:00	37.7	8,889.3	52.0	24,554.9	62.4	29,465.8	75.4	35,605
[3] Sub total / Cộng 00:01-06:00	7.5	1,770.8	10.0	4,722.1	12.0	5,666.5	14.5	6,847
[4] Daily Total / Tổng hàng ngày = [1] + [2] + [3]	168.3		228.0		273.6		330.6	
[5] Route Length / Chiều dài tuyến đường (km)	19.7							
[6] Track Length / Chiều dài đường sắt(km) = [5] x 2	39.4		39.4		39.4		39.4	

Tariff in 2008 / Bảng giá năm 2008	VND/kw	Assumed period / Thời gian dự tính
[7] Peak rate / Cao điểm	1,775	06:00-19:00
[8] Off-peak rate / Giờ bình thường	865	19:00-24:00
[9] Midnight rate / Thấp điểm	505	00:01-06:00

<Source> / <Nguồn>

All information is from " Preliminary Financial analysis for HCMC UMRT Line No.1"by NJPT / Tất cả thông tin trên được lấy từ "Kế hoạch tài chính ban đầu cho dự án xây dựng tuyến đường sắt đô thị TPHCM, Tuyến 1" của NJPT

< Traction power consumption > / <Lượng tiêu thụ điện năng sức kéo>

Old MTR	Base kw/car km (kw cơ bản/ km toa xe)	Car type (load factor) / Loại toa (Tổng số tải trọng)	Motor Factor / Yếu tố động cơ	Speed factor / Yếu tố tốc độ	Station Start-Stop factor / Thông số khối lượng - kết thúc tại ga	3rd Rail Factor / Thông số đường ray thứ 3	Train Configuration Factor / Thông số cấu hình của tàu	Tunnel Factor / Thông số đường hầm	Total Correction Factor / Thông số sửa chữa tổng	Traction Power Consumption for Project System (kw/car.km) / Lượng tiêu thụ điện năng sức kéo cho hệ thống dự án (kw/toa.km)
	2.46									2.46
PB System Estimate	2.35	+Ve	+Ve	+Ve	+Ve	0	+Ve	+Ve	0.85	2.00

+Ve = beneficial (reduces power consumption) / = Lợi nhuận (Trừ lượng tiêu thụ điện năng)

< Verification of above Traction power consumption (*3) >

/ <Xác minh lượng tiêu thụ điện năng nói trên (*3)>

Estimation by train operation simulator "Notchman"

/ Ước tính lượng điện năng tiêu thụ bằng thiết bị "Notchman" ghi lại hoạt động của tàu

The result of total power consumption of 3 car train-set between Benh Than and Suoi Tien Terminal is as follows .

/ Kết quả tiêu thụ điện năng tổng thể của 3 hệ thống tàu giữa Bến Thành và Suối Tiên như sau

Ratio of traction / Tỷ lệ sức kéo	5%	15%	40%	Average
UP / Lên	68.4	105	176.1	116.5
Down / Xuống	103.9	153.4	194.2	150.5
Total / Tổng	172.3	258.4	370.3	267
Kw/car/km / kw/toa/km	1.5	2.2	3.1	2.3

Non-Traction power cost / Chi phí điện năng không sức kéo	2015	2021	2031-	Description
in 2008VND / Bảng VND	79,934,391,815	79,934,391,815	79,934,391,815	Purchased Electricity x Weighted average electricity price ([3] x [4])
in USD / Bảng USD	4,948,319	4,948,319	4,948,319	

Lượng điện được yêu cầu (kw) x Giá điện ([1] x [7] + [2] x [8] + [3] x [9])

Station No. / Số ga	Tên ga	Station Name	Type / Loại	[1] Electricity / Lượng điện (MWh/year)	[2] = [1] X 25% From Regenerative Braking / Từ sự phanh hãm nhiệt	[3] = [1] - [2] Purchased Electricity / Lượng điện mua (MWh/year)
1	Bến Thành	Ben Thanh	U/G I/C (L2)	7,687	1,922	5,765
2	Nhà hát thành phố	Opera House	U/G I/C (L4)	7,585	1,896	5,689
3	Ba Son	Ba Son	U/G	7,609	1,902	5,707
4	Công viên Văn Thánh	Van Thanh Park	EL	3,220	805	2,415
5	Tân Cảng	Tan Cang	EL	4,061	1,015	3,046
6	Thảo Điền	Thao Dien	EL	3,220	805	2,415
7	Metro An Phú	An Phu Meetro	EL	2,636	659	1,977
8	Rạch Chiếc	Rach Chiec	EL	3,220	805	2,415
9	Phước Long	Phuoc Long	EL	3,220	805	2,415
10	Bình Thái	Binh Thai	EL	3,220	805	2,415
11	Thủ Đức	Thu Duc	EL	3,220	805	2,415
12	High Tech	High Tech	EL	3,220	805	2,415
13	Suối Tiên	Suoi Tien Park	EL	3,220	805	2,415
14		Suoi Tien Car Park	EL	3,027	757	2,270
Depot			-	8,505	0	8,505
	Cộng (Ga)	Sub Total (Stations)		58,365	14,591	43,774
	Cộng (Depot)	Sub Total (Depot)		8,505	0	8,505
	Tổng cộng	Total		66,870		52,279

[VND/kWh]

[4] Weighted average electricity price (2008 prices) / Giá điện bình quân (giá năm 2008)	2015	2021	2031-
Stations / Ga	1,477	1,477	1,477
Depot	1,799	1,799	1,799

<Source> / <Nguồn>

All information is from " Preliminary Financial analysis for HCMC UMRT Line No.1"by NJPT.

/ Tất cả thông tin được lấy từ "Phân tích tài chính cơ bản cho dự án xây dựng đường sắt đô thị TPHCM Tuyến 1" của NJPT

Opening Expenses of O&M Compnay / Chi phí k ỳ đầu của Công ty O&M

[M USD / Bằng Triệu USD]

Item / Hạng mục tính phí	Total / Tổng	2012 *1	2013	2014	2015 *2	Description / Mô tả
D Opening Expenses / Các chi phí đầu kỳ	4.488	0.848	0.632	2.463	0.544	
D.1 Office Furniture and equipment for staff / Thiết bị và đồ dùng văn phòng cho nhân viên	0.706	0.706	-	-	-	See "12 Open_Break" / Xem "12 Open_Break"
D.2 Advertisement cost / Chi phí quảng cáo	0.964	-	-	0.420	0.544	See "12 Open_Break" / Xem "12 Open_Break"
D.3 Staff cost / Chi phí nhân viên	2.776	0.136	0.614	2.025	-	See "6.Staff Costs" / Xem "6. Staff Costs"
D.4 Utility cost for head office / Chi phí tiện ích cho trụ sở	0.042	0.006	0.018	0.018	-	Such as Electricity, Water, Security, Cleaning and High-Speed Internet. / Ví dụ như điện, nước, bảo vệ, vệ sinh và Internet tốc độ cao. See "12.Opening_Break" / Xem "12.Opening_Break"
E Investment for Office IT and Non-fare business / Đầu tư hệ thống CNTT văn phòng và kinh doanh ngoài vé	8.462	0.000	0.033	8.429	0.000	
E.1 Investment for Non-fare business / Đầu tư CNTT	4.702	-	0.033	4.669	-	See "13 IT" / Xem "13 IT"
E.2 Investment for Non-fare business / Đầu tư Doanh thu ngoài vé	3.760	-	-	3.760	-	> Installing "advertisement holder and utility for rental space" / Trang bị "giá treo bảng quảng cáo và công trình tiện ích cho khu vực cho thuê" > Furnishing parking lots and shops at medimum stations / Trang bị cho các bãi đỗ xe và cửa hàng tại các nhà ga trung bình (11) x 0.2MUSD + large stations / Các nhà ga lớn (3) x 0.4MUSD + No of railway cars / Số lượng toa xe (36) x 0.01MUSD

NOTE / GHI CHÚ

*1 : Only 3months after establishment of company (from Oct. to Dec.) / Chỉ 3 tháng sau khi thành lập công ty (từ tháng 10 đến tháng 12)

*2 : Only 6months before starting commercial operation (from January to June) / Chỉ 6 tháng trước khi bắt đầu vận hành thương mại (từ tháng 01 đến tháng 06)

*3 : It is rough cost estimation based on SAPI Team's experience and developing (Business process Design, System Design, Configuration and Commissioning), and training costs are excluded. The detailed cost estimation shall be conducted by the preparation unit (PU).

/ Dự toán chi phí cơ bản dựa trên kinh nghiệm của Nhóm SAPI; không bao gồm chi phí phát triển (Thiết kế quy trình kinh doanh, Thiết kế hệ thống, Cấu hình và đưa vào sử dụng) và huấn luyện. Dự toán chi phí chi tiết sẽ do Đơn vị Chuẩn bị thực hiện.

Item 1.1	Mục 1.1	@PMU1 Office / Tại văn phòng PMU1 *1		Unit Rate / đơn giá USD/m2	USD
		[VND]	[USD]		
		[a]	[b] = [a]*[C]/[D]	[c] = [b]/[A]	[d] = [c]*[B]
Office Furniture and equipment	Trang thiết bị và đồ đạc trong văn phòng	4,330,000,000	268,048	231.08	706,180
				Total/ Tổng	706,180

NOTE

GHI CHÚ:

*1: Actual initial set-up cost in PMU Office / Chi phí thực ban đầu để thiết lập văn phòng BQLDA

Item 1.2 Advertisement cost	Mục 1.2 Chi phí quảng cáo	Unit Rate / Đơn giá *1	Times *2	Yearly Rate / Tỷ lệ hàng năm	
		[M VND]		[M VND]	[M USD]
		[a]	[b]	[c] = [a] x [b]	[d] = [c]*[C]/[D]
July to December in 2014	Tháng 7 đến tháng 12 năm 2014	-	-	-	0.42
Channel HTV7 (15") : 12:00-12:05 weekday	Kênh HTV7 (15") : 12:00-12:05 mỗi ngày	18	132	2,376	0.15
Channel HTV7 (15") : after 19:45-20:00 weekday	Kênh HTV7 (15") : sau 19:45-20:00 mỗi ngày	24	132	3,168	0.20
Pamphlets for Distribution (20% of above TV advertisement fee)	Phát tờ rơi (20% chi phí quảng cáo trên TV ở trên)	-	-	-	0.07
January to March in 2015	Tháng 01 đến tháng 03 năm 2015	-	-	-	0.20
Channel HTV7 (15") : 12:00-12:05 weekday	Kênh HTV7 (15") : 12:00-12:05 mỗi ngày	18	66	1,188	0.07
Channel HTV7 (15") : after 19:45-20:00 weekday	Kênh HTV7 (15") : sau 19:45-20:00 mỗi ngày	24	66	1,584	0.10
Pamphlets for Distribution (20% of above TV advertisement fee)	Phát tờ rơi (20% chi phí quảng cáo trên TV ở trên)	-	-	-	0.03
April to June in 2015	Tháng 4 đến tháng 6 năm 2015	-	-	-	0.34
Channel HTV7 (30") : 12:00-12:05 weekday	Kênh HTV7 (15") : 12:00-12:05 mỗi ngày	30	66	1,980	0.12
Channel HTV7 (30") : after 19:45-20:00 weekday	Kênh HTV7 (15") : sau 19:45-20:00 mỗi ngày	40	66	2,640	0.16
Pamphlets for Distribution (20% of above TV advertisement fee)	Phát tờ rơi (20% chi phí quảng cáo trên TV ở trên)	-	-	-	0.06
				Total / Tổng	0.76

NOTE:

GHI CHÚ:

*1: From HTV7 homepage

*1: trang chủ HTV7

*2: Monday to Friday per week

*2: Thứ 2 đến thứ 6 mỗi tuần

Item 1.5 Utility cost for head office	Mục 1.5 Chi phí tiện ích cho trụ sở	@PMU1 Office *1 / Tại văn phòng PMU1		Unit Rate / đơn giá USD/m2	USD
		[VND]	[USD]		
		[a]	[b] = [a]*[C]/[D]	[c] = [b]/[A]	[d] = [c]*[B]
Monthly Expenses (Electricity, Water)	Các chi phí hàng tháng (Điện, nước)	37,000,000	2,290	2.00	6112.00
Monthly Expenses (Security and Ceaning)	Các chi phí hàng tháng (Bảo vệ và vệ sinh)	46,000,000	2,848	2.46	7518.00
Monthly Expenses (High-Speed Internet)	Các chi phí hàng tháng (Internet tốc độ cao)	29,000,000	1,795	1.55	4737.00
				Total / Tổng	18,367

NOTE

GHI CHÚ:

*1: Monthly average in Year 2008.

*1: Trung bình mỗi tháng trong năm 2008

Conditions**Các điều kiện**

Floor Space of PMU1 Office Building	Không gian làm việc của Tòa nhà văn phòng PMU1	[A]	1,160m2
Floor Space of O&M Company's Office (Head office)	Không gian làm việc của Văn phòng của Công ty O&M (trụ sở)	[B]	3,056m2
Exchange Rate	Tỷ giá	[C]	105.00Yen/USD [D] 0.0065Yen/VND

Cost Estimation for Office IT system/ Dự toán chi phí Hệ thống CNTT văn phòng

[USD]

Description/ Mô tả	Unit/ Đơn vị	Quantity/ Số lượng	Unit Price / đơn giá	Amount / Tổng	2013	2014	Note/ Ghi chú
1 Hardware / Phần cứng				1,945,000	33,000	1,912,000	
1.1 ERP servers/ Máy chủ ERP	Set/ Bộ	1	600,000	600,000		600,000	(Quad core 2.66GHz 2CPU, 24GBMemory) X 3 (Quad core 2.66GHz 2CPU, 18GBMemory) X 3 (Quad core 2.66GHz 2CPU, 8GBMemory) X 2 (Quad core 2.66GHz 2CPU, 4GBMemory) X 2 Including first year's maintenance fee / Bao gồm chi phí sửa chữa của năm đầu tiên
1.2 Other servers + Disc Storage / Máy chủ khác và lưu trữ bằng đĩa	Set/ Bộ	1	400,000	400,000		400,000	Other Servers (Quad core 2.66GHz 2CPU, 4GBMemory) X 3 Storage Rack X 1, 8TB Disc , SAN Switch X 2 Including first year's maintenance fee / Bao gồm chi phí sửa chữa của năm đầu tiên
1.3 ERP server related network devices / Máy chủ ERP liên quan đến các thiết bị mạng	Set/ Bộ	1	20,000	20,000		20,000	
1.4 Configuration fee (Servers , OS and ERP set up) / Giá cấu hình (Các máy chủ và thiết lập OS, ERP)	man-month	35	20,000	700,000		700,000	
1.5 PC + MS office/ Máy tính và MS Office	Unit/ Đơn vị	120	1,500	180,000	30,000	150,000	Celeron 1.66GHz CPU, 2GB Memory, 250GB HDD
1.6 Printer&Copy machine/ Máy in & máy photo	Unit/ Đơn vị	30	1,500	45,000	3,000	42,000	
2 Software / Phần mềm				1,973,000	0	1,973,000	
2.1 ERP Software/ Phần mềm ERP							
2.1.1 For Development user/ Cho người sử dụng cấp độ triển khai phần mềm	Unit/ Đơn vị	10	7,500	75,000		75,000	
2.1.2 For Professional End user/ Cho người sử dụng chuyên nghiệp	Unit/ Đơn vị	376	4,250	1,598,000		1,598,000	
2.2 System management tools/ Công cụ quản lý hệ thống	Set/ Bộ	1	300,000	300,000		300,000	
3 Annual maintenance fee for S/W and H/W / Phí bảo dưỡng hằng năm cho phần cứng và phần mềm				783,600	0	783,600	(1. Hardware + 2. Software) * 20% (1. Phần cứng + 2. Phần mềm) * 20%
Total / Tổng				4,701,600	33,000	4,668,600	= (1+2+3)

Above estimation is based on SAPI's experiences of similar office IT system implementation projects

/ Dự toán ở trên được dựa trên kinh nghiệm của SAPI về các dự án thực hiện hệ thống CNTT văn phòng tương tự

Hardware configuration, contents of software and each cost will be different, since it depends on company's situation and negotiation with vendors.

/ Cấu hình phần cứng, danh mục phần mềm v à chi phí từng phần sẽ khác nhau, dựa trên tình hình công ty và việc thương lượng với nhà cung cấp

Preparation unit should define its detail business requirement and request vendors to provide detailed cost estimation of Office IT systems.

/ Vì thế đơn vị chuẩn bị cần xác định yêu cầu kinh doanh chi tiết để yêu cầu các nhà cung cấp đạt được mức dự toán chính xác các khoản chi phí thực hiện hệ thống CNTT văn phòng

Besides above costs, O&M company should consider developing (Business process Design, System Design, Configuration and Commissioning) and training cost for Office IT system.

/ Ngoài các chi phí nêu trên, Công ty VH&BD cần xem xét chi phí phát triển (Thiết kế quy trình kinh doanh, Thiết kế hệ thống, Cấu hình và đưa vào sử dụng) và huấn luyện cho Hệ thống CNTT văn phòng

Appendix 7. Example of Company Regulations

Each division of O&M company should have its business rules and procedures described in detail. As a whole, those set becomes the company's regulations. Table A7.1 shows "Regulation of Osaka Municipal Transportation Bureau" for reference purpose.

Table A7.1 Outline of Regulation of Osaka Municipal Transportation Bureau

	Title	No of Pages
Part 1 General Provisions		
	Act regarding the establishment of the Traffic Business in the city (Act 60, 28th 12, 1966)	2
	Act regarding the abolishment of public facilities and exclusive utilization (Act 9, 19th 3, 1964)	2
Part 2 Business Handling		
Section 1 <Office and Rules>		
	Rule on the roles of Deputy Mayor	2
	Regulation on business duties of Transportation Bureau	28
	Regulation on establishment of Director of Mass Traffic, etc	4
	Regulation on the offices/centers of Transportation Bureau	2
	Regulation on business duties of Training Center of Transportation Bureau	2
	Regulation on business duties of Vehicle Management Office of Transportation Bureau	4
	Regulation on business duties of Construction Management Office of Transportation Bureau	0.4
	Regulation on business duties of Power Management Office of Transportation Bureau	0.4
	Regulation on business duties of XXXX Construction Office of Transportation Bureau	1.2
	Regulation on business duties of XXXX Construction Office of Transportation Bureau	2
	Regulation on changes and locations of Sales Offices of Transportation Bureau	3
Section 2 <City Congress> (Skipped)		
Section 3 <Decisions and Charges>		
	Act regarding exclusive decision items of Mayor	2
	Rule on charges of Chief of Transportation Bureau	0.3
	Regulation on exclusive decisions of secretary at Osaka City	7.7
	Regulation on appointments of a deputy for Chief of Transportation Bureau	1
	Regulation on authorities of Transportation Bureau	12
Section 4 <Official Seals and Certificates>		
	Regulation on official seals, etc. of Transportation Bureau	4
	Regulation on issues of a certificate for business duty riding for Transportation Bureau	1
Section 5 <Documents, Public Relations and Statistic>		
	Act on how to publicize	1
	Regulation on how to publicize for Transportation Bureau	1
	Regulation on publication of Transportation Bureau Information	1
	Regulation on publication of official announcement of Transportation Bureau	1.2
	Act on Free Access to Information	4.8
	Act on official document archives	1
	Regulation on official document management at Transportation Bureau	5.3
	Regulation on recording, etc. of requests regarding work execution by Transportation Bureau personnel	1
	Act on Protection of Personal Information	1
	Outline of Management of Protection of Personal Information at Transportation Bureau	74
	Regulation on use of information and communication technologies for administrative procedures at Transportation Bureau	29
	Regulation on management of information technologies at Transportation Bureau	4

	Title	No of Pages
	Regulation on protection and management of data processed at Transportation Bureau	40
	Regulation on forms at Transportation Bureau	11
	Regulation on treatment of forms in automation works at Transportation Bureau	2
	Regulation on management of hearings and public relations at Transportation Bureau	2
	Regulation on statistic of business performance of Transportation Bureau	2
Section 6 <Others> (Skipped)		
Part 3 Human Resources		
Section 1 <Appointment and Status>		
	Paragraph 1 Appointment	43
	Paragraph 2 Status	21
	Paragraph 3 Retirement	6
Section 2 <Office Regulations>		
	Paragraph 1 General Rules	103
	Paragraph 2 Duties	59
	Paragraph 3 Trainings	17
	Paragraph 4 Commendation and Reprimand	17
	Paragraph 5 Safety and Health	16
Part 4 Salary		
	Section 1 <Salary and Benefits>	107
	Section 2 <Travel Expenses>	27
	Section 3 <Compensation for Accidents>	23
	Section 4 <Retiring Allowance and Payment>	47
	Section 5 <Dress Code>	1
Part 5 Welfare		
	Section 1 <Official Housing>	19
	Section 2 <Union>	59
	Section 3 <Scholarship>	3
	Section 4 <Allowance for Family Children>	14
Part 6 Finance		
	Section 1 <Financial Management>	25
	Section 2 <Accounting>	72
Part 7 Transportation		
	Section 1 <General Rules>	63
	Section 2 <Transit on Roads>	65
	Section 3 <Mass Rapid Transit and Light Rail Transit>	89
	Section 4 <Driving>	69
Part 8 Construction		
		49
Appendix Labor Agreement		

Appendix 8. Company Name

While the most of MRT companies in Asia own the name composing of “city” and/or “railway”, Manila and Kuala Lumpur (KL) present their mission through company name. Manila and KL seem to hold their original position.

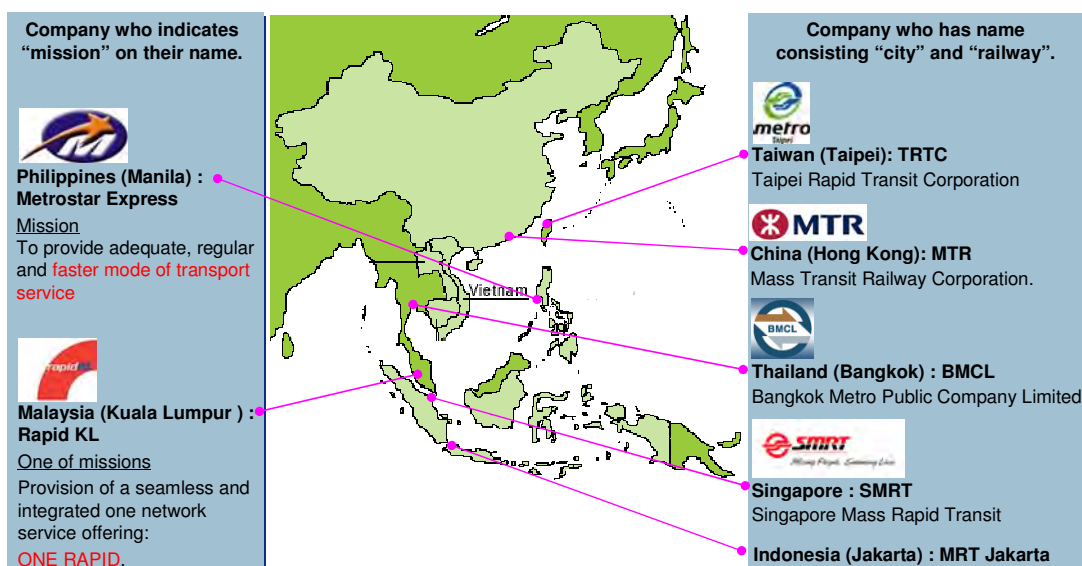


Diagram A8.1 Name of MRT Companies in Other Asian Cities

The name of company owned by HCMC generally has “Saigon” + “Business Line”.

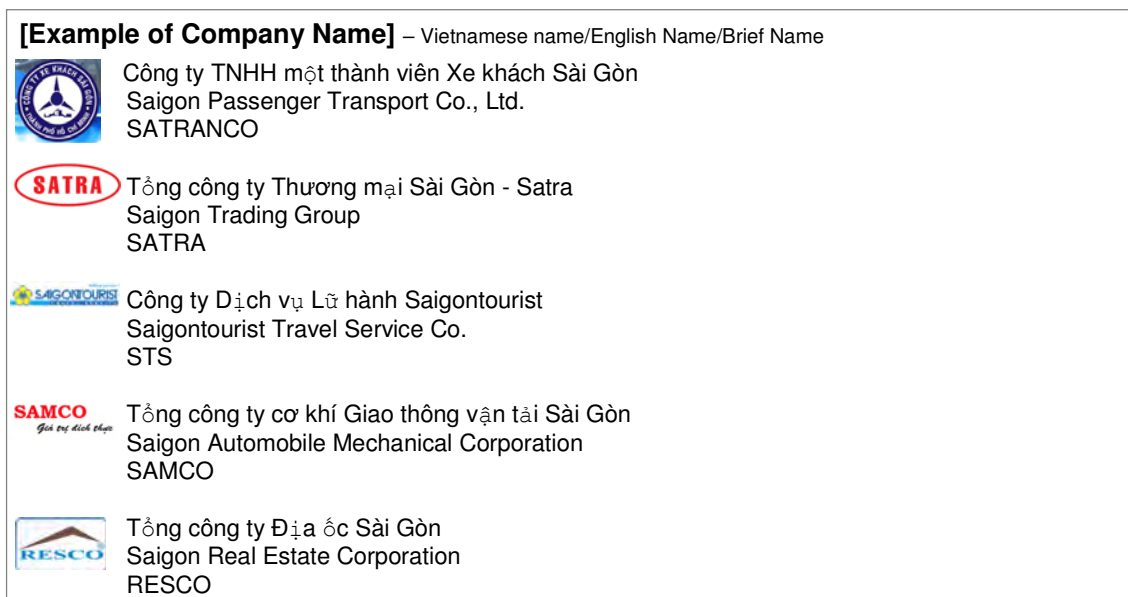


Diagram A8.2 Name of Companies owned by HCMC

SAPI Team would like to recommend the style of city name “Saigon” + “company mission/vision” or “Ho Chi Minh” + “company mission/vision” as shown in Diagram A8.3. In addition, some more ideas for company name are described in Diagram A8.4.

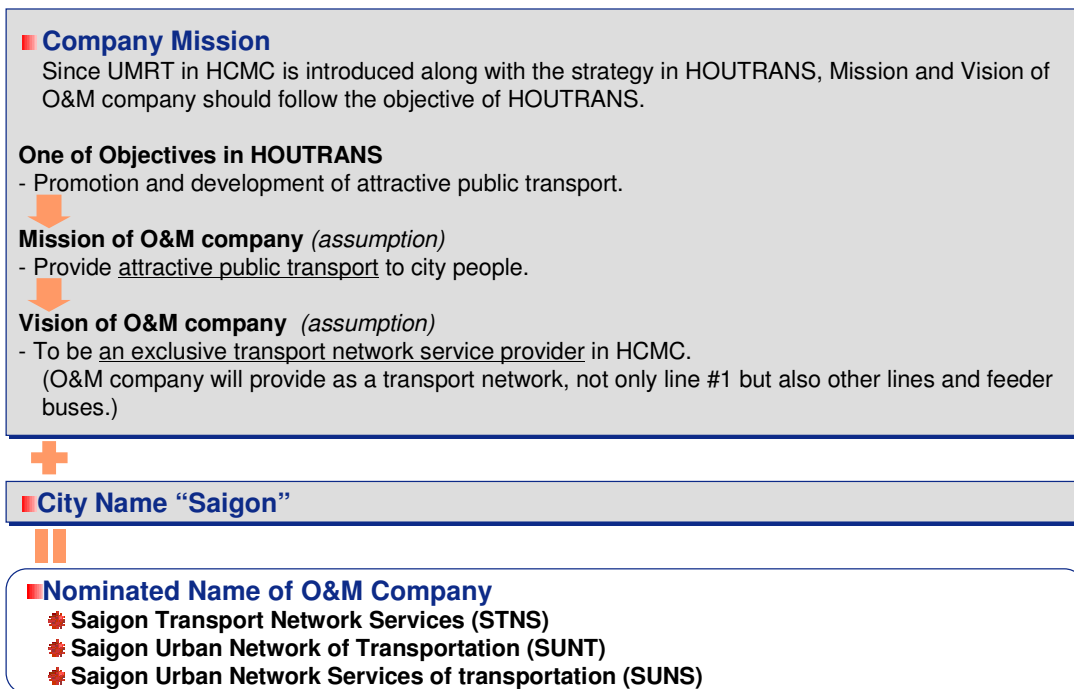


Diagram A8.3 O&M Company in HCMC

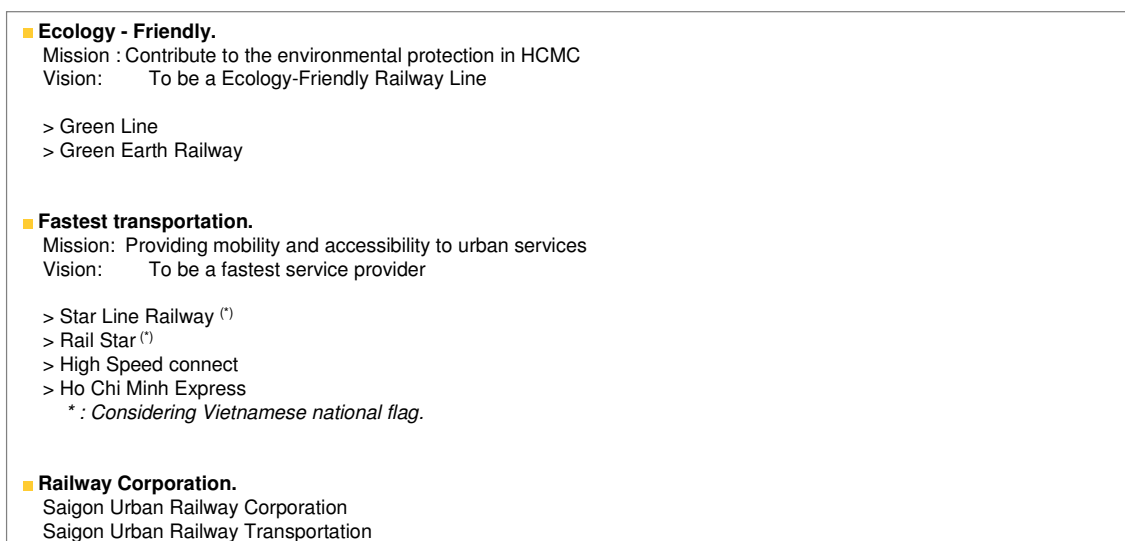


Diagram A8.4 Other Ideas for Company Name

Discussed and Confirmed Points in Seminars.

TOR		1st on-site work		2nd on-site work		3rd on-site work	After on-site work	
		1st Seminar	2nd Seminar	3rd Seminar	4th Seminar	5th Seminar		
		12-May	12-Jun	13-Jul	24-Jul	27-Aug		
Role of the O&M Organization		This was confirmed that it should be "Providing Safe and Reliable UMRT Operation" to full fill project objective.		-	-	-	-	
Scheme of the O&M Organization	Type	-		This was confirmed that it should be "One-member limited liability company" based on regulations of the Vietnamese Law of Enterprise.	-	-	-	
	Possibility of equitization	-		It was confirmed that there is little possibility to offer IPO in the future, because of legal constraint.	-	-	-	
Asset Ownership		-		Although some members of Task team had opinion "assets must be retained in HCMC", there is no other party in HCMC who can maintain assets. Thus it was concluded "transferring all assets and equipment of urban railway to O&M Company".	-	-	-	
Scope of the Organization - Railway Lines		-		This was confirmed that the type of one O&M company managing and operating all urban railway is most suitable. Apart from the above conclusion, Task team concerned BOT scheme for other UMRT lines and requested SAPI team to study "conditions to be defined to appeal for investments and the conditions for the coordination of management, operation with MAUR's O&M Company".	Although the issue of future lines is out of SAPI team's scope, some concession cases from other countries were presented for Task team's reference. -> Task team requested SAPI team to conduct further study of BOT scheme.	In replying to Task team's request about BOT, some typical issues in Bangkok UMRT were presented for Task team's reference. -> Task team recognized that BOT seems inefficient for HCMC. Then they requested SAPI team to conduct further study for other types.	In replying to Task team's request, some cases of PPP in Vietnam were reviewed for their reference. -> Task team requested SAPI team to conduct further research of the coordination in such issues as sharing of fare rate cost and the combined management between the O&M Company under MAUR and another O&M Company of BOT-based, if possible.	SAPI team submitted study report to JICA separately from final report.
Scope of the Organization - Non-fare Business	Railway facility related	-		It was confirmed that O&M company will manage "advertisement, rental space, shops and parking lots" as their non-fare business. Task team requested SAPI team to study how much revenue can be expected from those 4 types non-fare business.	In replying to Task team 's request, SAPI team explained 10% of total revenue could be target of O&M company's non-fare business. (10% is average of other Asian countries' non-fare revenue.) -> Task team understand that 10% is feasible target.	Some pictures of non-fare business (4 types) were reviewed to form business image in Task team.	-	-
	Property development Feeder bus services	Task team disclosed that they are interested in property development and feeder bus services by O&M organization.		In replying to Task team's request, SAPI explained that successful cases of property development and bus services in other Asian cities and did not recommend them due to following reason. - Property development : time constraint - Bus services : DoT is best position to manage this.	Property development: Task team agreed that it should be applied to the remaining metro lines only, not to the metro line No. 1. But they requested SAPI Team to research the specific implementation possibility of a typical metro line and estimate the percentage of such revenue compared to general revenue. -> SAPI team replied it is not their scope of work. Feeder bus: Task team commented DoT will manage feeder bus services with subsidy from HCMC. But they would like to transfer it to O&M company when UMRT#1 is financially stable.	-	-	-
Organization Structure		-		Overall structure drafted based on that of Osaka and TRTC was confirmed. -> Task team requested SAPI team to adjust it with one-LLC type under MAUR and further develop it, such as number of personnel per each division, title and required qualification, cost for salary and training cost/contents.	SAPI team clarified with Task team about their requests as follows; - Training cost: At this stage, it is difficult to specify all activities, thus it should be included in gross expenses. - Training contents: Those are scope of GC and contractors, not scope of SAPI team.	Organization structure based on one-LLC, with detailed number of personnel per divisions, title and qualification was confirmed. -> SAPI team was requested further study for necessity of deputy directors and training center.	SAPI team added "Board of General Directors" *1 and "training centre" into organization chart. Task team agreed with "Board of General Directors" and request SAPI team to study further whether "training center" should be established in "operation unit" or under "Board of General Directors" as independent unit. <i>*1: Although "Board of General Directors" is not stated in Law on Enterprise, it is quite common in Vietnam.</i>	SAPI team understand that the position of training center is subject to their function. When it acts as examination team of driver licenses, it should be independent from "operation". Otherwise, it can be a part of operation unit to save operational expenses.
Financial Plan	Cash contribution by HCMC	-		SAPI team pointed out O&M company needs cash contribution from HCMC to cover operational expenses for initial years, investment of non-fare business/Office IT systems and cash shortage in 2015 (first operation year). -> Task team recognized it and requested SAPI team to conduct detailed estimation.	-	In replying to Task team's request, the estimation of cash contribution was presented. -> Task team requested SAPI team to add detailed explanation.	In replying to Task team's request, the detailed explanation was confirmed with Task team. -> Task team requested SAPI team to incorporate the confirmed explanation into Final report.	SAPI team incorporated the confirmed explanation into final report.
	Fare rate etc	Task team commented that fare rate must be based on GC's latest report (working paper 36).		SAPI team followed GC's latest study and present rough financial figure to Task team.	-	In GC's latest study, increase of fare was assumed in every year. Financial department of HCMC pointed out that it is not feasible.	In replying to Financial department's comment, increase of fare was assumed in every 5 years until 2015. (three times only) -> This was confirmed with Task team including member of financial department.	-
Business Risks		-		Business risks and mitigation can be identified at this stage were reviewed. -> Task team commented stability fund is not feasible for HCMC. Task team requested SAPI team to develop financial plan with cash subsidy from HCMC annual budget only.	-	-	-	-

Discussed and Confirmed Points in Seminars.

TOR		1st on-site work		2nd on-site work		3rd on-site work		After on-site work
		1st Seminar	2nd Seminar	3rd Seminar	4th Seminar	5th Seminar		
		12-May	12-Jun	13-Jul	24-Jul	27-Aug		
2	Roadmap	-	SAPI presented overview of roadmap.	SAPI presented the detailed roadmap. Task team disclosed the revision on date of starting commercial operation. (Jan 2014 -> Jul 2015)	Revised roadmap was reviewed. Task team commented that they would like to transfer the knowledge of PU to O&M company as much as possible. There is personnel reshuffling risk by order of HCMC. Thus they would like to establish O&M company earlier, if possible, to avoid that risk. -> SAPI team incorporated it into roadmap.	-	-	-
3	To propose a detailed work plan for preparation of the O&M organization establishment	Forming preparation unit (PU)	-	Task team declared; - MAUR will form PU by April 2010 under MAUR. - The staff of PU will transfer to O&M company after establishment of O&M company. - HCMCPC already approved and prepared the budget for staff training.	-	-	-	-
		Clarification on Railway Law	-	SAPI team reported there are some legal constraints which directly affect to hiring plan, salary level and training plan of O&M company. -> Task team recognized it and requested SAPI team to conduct further study.	-	SAPI team reported the detailed legal constraints and recommended PU to conduct the clarification work with MoT. -> Task team commented that hopefully JICA will amend Railway Law, because now they are developing technical standard in Hanoi with MoT.	-	-
		Rregistration	-	Rough registration procedure was reviewed. Task team recognized that refining financial plan prior to registration work is required to fix capital of company.	-	Steps consists of evaluation process and registration process was reviewed. -> Task team commented that 180/2004/ND-CP is already out of date. -> SAPI team replied it was confirmed with local lawyer that it is still alive. -> Task team commented they will check it.	Task team commented: Even if 180/2004/ND-CP is still alive, the steps of checking MPI and Prime minister are not required. Because UMRT project was already approved by GoV. According to them, all registration issues other than technical can be decided within provincial-level People's Committees (HCMCPC).	SAPI team incorporated Task team's comments into final report.
-	Others	Office IT System	-	Task team recognized Office IT system is important for O&M company. They commented technical and financial support from JICA is required to implement the system.	-	-	Task team requested SAPI team to include a proposal to JICA for investment source to Office IT systems by using redundant fund.	SAPI team noted it as " investment on office IT systems should be discussed including applying to JICA Loan." in Final report.
		Name of O&M company	-	-	-	Task team requested SAPI team to propose the name of O&M company in line of company vision and business strategy.	In replying to Task team's request, style of "Saigon + mission/vision" was proposed as the name of company. -> Task team requested there must be alternative " <u>Ho chi minh city</u> + mission/vision" style.	SAPI team incorporated it into appendix 8 of final report.
		Technical support from JICA	-	Task team requested long term technical support from JICA to increase capability of O&M company.	-	-	-	-