

## **CHAPTER III**

### **ACTION PLAN**

#### **Goal**

- To create more passenger demand in travelling by using sky train.

#### **Objective**

Three objectives were outlined below, which described in more detail the purpose of developing commercial area and the basic activities related to the primary objectives.

- Identify priority tasks and requirements
- To increase 5% of passenger number in year 2010
- Develop and promote the establishment of commercial area in Krung Thon Buri and Wongwian Yai stations.

#### **Project scope**

##### **1. Developing commercial area management team**

The project is divided to four major teams as financing and accounting, purchasing, marketing, and engineering. All four major teams will be controlled and monitored by the project manager and the project manager will present all result to the responsibility manager or general manager. There are six members who have been selected to operate this project.

##### **2. Study passengers' demand**

This scope was to study for the passengers' service demand that they normally need to have on the stations.

##### **Scope of study passengers' demand**

- Determine sample need to evaluate
- Develop questionnaire
- Evaluate the study from the questionnaire
- Apply the result to the work

## **Result of the study of passengers' demand**

### **Topic**

- Demand forecast of service needed from the passengers

### **Objectives**

This research is to examine the attitude of passengers toward the available services they need to have on the stations. Moreover this research was to study about demographics of sampling people such as age, gender, income and education

### **Benefits of study**

- Be able to apply concepts learned to develop commercial areas of the two new stations.
- Exploring and preparing for future service demand.
- To understand needs of the passengers.

### **Research instruments or questionnaire**

The study used questionnaire to gather the information from the 400 respondents. The questionnaire was designed to measure the service demand of the passengers, which were conducted by Soung Dusit Pol.

### **Pre-test**

After designing the questionnaire, the pre-testing was needed in order to test the reliability of questionnaire with group of 30 respondents. The pre-testing was to ensure that all respondents clearly understand the wordings in the questions.

### **Methods of research used**

This research is a descriptive research to collect the data in order to find out the service demand of the passengers. This research study used survey as a research technique. This survey technique gathers information from people by use of questionnaire for the primary purpose of describing or predicting some phenomena.

### **Respondents and sampling procedures**

#### **Target population**

The target populations in this research were respondents who were users of sky train stations Krung Thon Buri and Wongwian Yai stations in. The respondents were

asked to fill out the questionnaire right after asking for their time to make sure that the answers were accurate.

#### Sampling unit

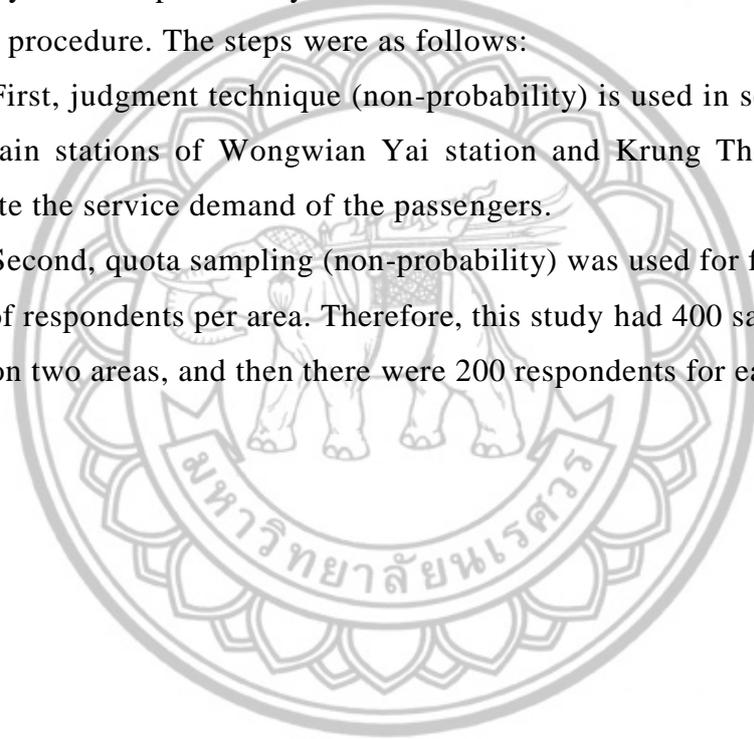
Sampling unit were both male and female who were living in Bangkok for at least six months and Thai nationality. In addition, one sample was an individual population.

#### Sampling Procedure

There were two main techniques in sampling procedure which were probability and non-probability and this research uses combination of both in the sampling procedure. The steps were as follows:

First, judgment technique (non-probability) is used in selecting the users of sky train stations of Wongwian Yai station and Krung Thon Buri station to investigate the service demand of the passengers.

Second, quota sampling (non-probability) was used for find out the number of respondents per area. Therefore, this study had 400 samples size and focused on two areas, and then there were 200 respondents for each area.



## Result of the study

**Table 6 Result of the study**

No.	List	Views (%)	Gender		Ages			Stations		
			Male	Female	Age below 25	26-35	36-45	Age above 45	Krung thunbure	Wongven yai
1	Soft drink or coffee shop	<b>27.15</b>	24.33	29.03	28.28	28.33	22.96	25.67	27.79	26.48
2	Bank	<b>22.96</b>	22.99	22.94	20.2	24.91	29.63	20.32	21.47	24.51
3	Restaurant	<b>14.38</b>	14.97	13.98	17.85	11.95	9.63	16.04	12.84	15.97
4	Post shop	<b>11.48</b>	11.23	11.65	8.75	11.26	14.81	13.37	12	10.94
5	One Stop Services	<b>11.27</b>	12.3	10.57	10.1	12.29	12.59	11.23	12.42	10.07
6	Gift shop	<b>6.65</b>	7.49	6.09	10.1	5.12	2.96	5.88	6.74	6.56
7	Toilet	<b>1.82</b>	1.6	1.97	1.35	2.05	1.48	2.67	1.89	1.75
8	Book store	<b>1.07</b>	1.34	0.9	0.67	2.05	-	1.07	1.26	0.88
9	A.T.M.	<b>0.75</b>	0.8	0.72	0.67	0.34	1.48	1.07	1.05	0.44
10	Convenient store / 7- Eleven	<b>0.54</b>	0.53	0.54	1.35	-	0.74	-	0.63	0.44
11	Rest area	<b>0.54</b>	1.07	0.18	-	0.68	0.74	1.07	0.21	0.88
*	Others	<b>0.32</b>	0.27	0.36	0.34	0.34	-	0.53	0.42	0.22
*	Not inform	<b>1.07</b>	1.07	1.08	0.34	0.68	2.96	1.07	1.26	0.88

### 3. Study areas of the stations

This scope is to study the area structures of the two stations that can be constructed to be the business areas.

#### Scope of studying areas of the two stations

- Define the used area and unused area.
- Define the area the can be developed to be commercial area

#### Result of the studying the areas of the two stations

List of areas	Krungthunbure Station	Wongvenyai Station
1. Areas of train running	40.9%	40.9%
2. Areas of supporting train running	53.0%	55.9%
3. Areas of developing commercial area		
- Areas of public services	0.1%	0.1%
- Areas of commercial services	6.0%	3.1%
<b>Total areas</b>	<b>100.0%</b>	<b>100.0%</b>

**Figure 7 Result of the studying the areas of the two stations**

According to the studying of the areas of the two stations, there were 6.1% of Krung Thon Buri station can be developed for commercial areas and there are 3.2% of Wongwian Yai station can be developed for commercial areas. Moreover there were areas that will be appropriate for advertising measuring about 800 to 1,000 square meters at each station which was not included in the study as shown in the following figure.



**Figure 8** Areas of two stations

According to the study of the areas of the two stations, there were two ways to process the commercial areas.

**Table 7 Pros and Cons of Area Function**

No.	Pros	Cons
1. Provide only the necessary facilities to serve the passengers.	1. To appeal more passengers to use the sky train. <hr/> 2. To create good view from the passengers. <hr/> 3. More income. <hr/> 4. Easy to control.	1. Lower rate of investment from the private.
2. Provide commercial areas as the previous stations.	1. To appeal more passengers to use the sky train. <hr/> 2. To create good view from the passengers. <hr/> 3. More income than the first option as there will be more competition from the private.	1. Lack of good view as the additional services will be for earning money from the passenger.

According to analysis of the above table, option two seems to be the better choice; the company should provide the function of the areas as:

- ATM and banking services
- Public telephone
- Shops such as convenient stores, drug stores, book stores or 7- Eleven shop
- Advertising areas
- Government service centres such as postal office, and one stop-shop-service centre.

#### **4. Developing commercial area structure**

This scope will focus on developing each area to match the appropriate businesses.

##### **Scope of development area lay-out**

- Develop la-out of Wongwian Yai station's commercial areas.
- Develop layout of Krung Thon Buri station's commercial area
- Layout of the two stations' commercial areas
- Commercial area layout of Krung Thon Buri station





# Platform S7

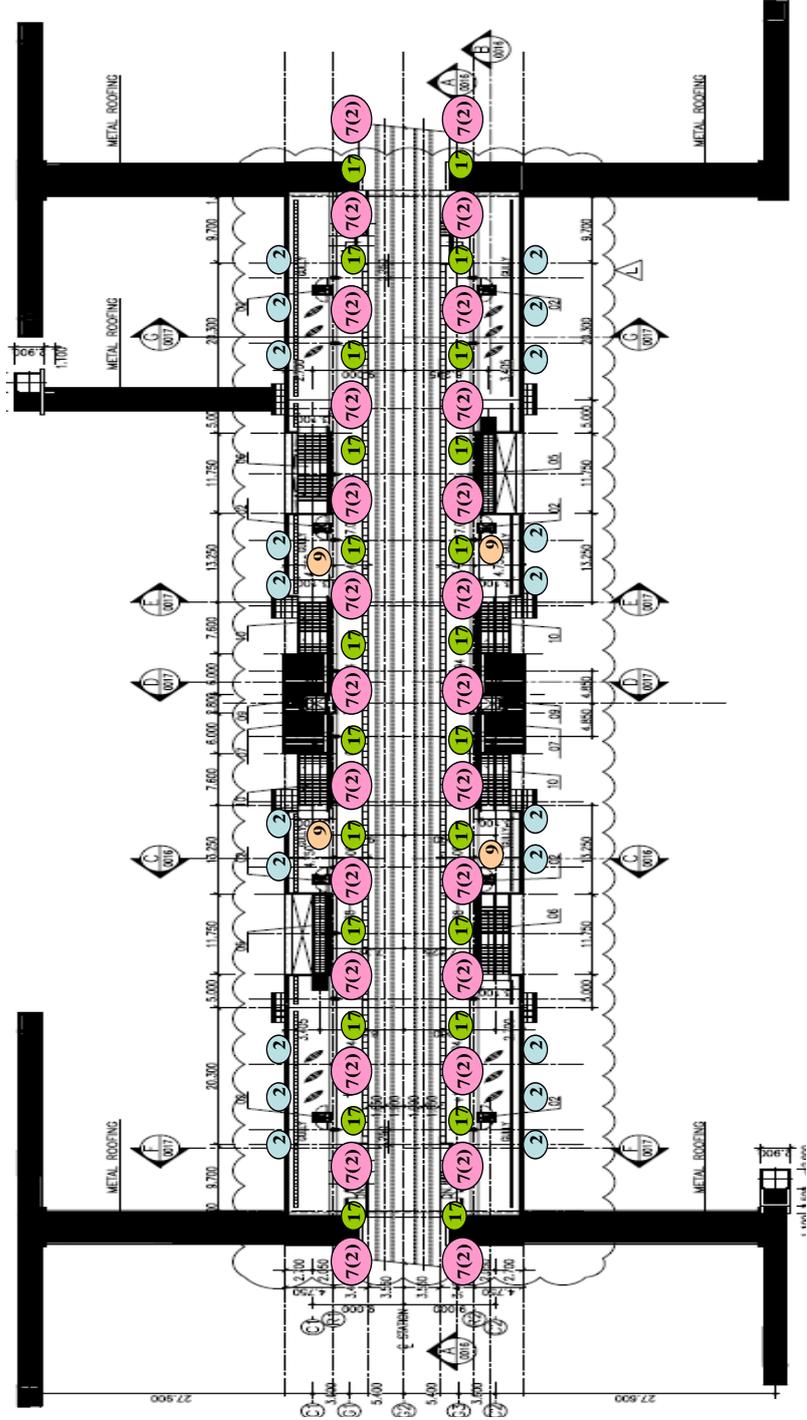


Figure 10 Platform S7

# Road Level S7

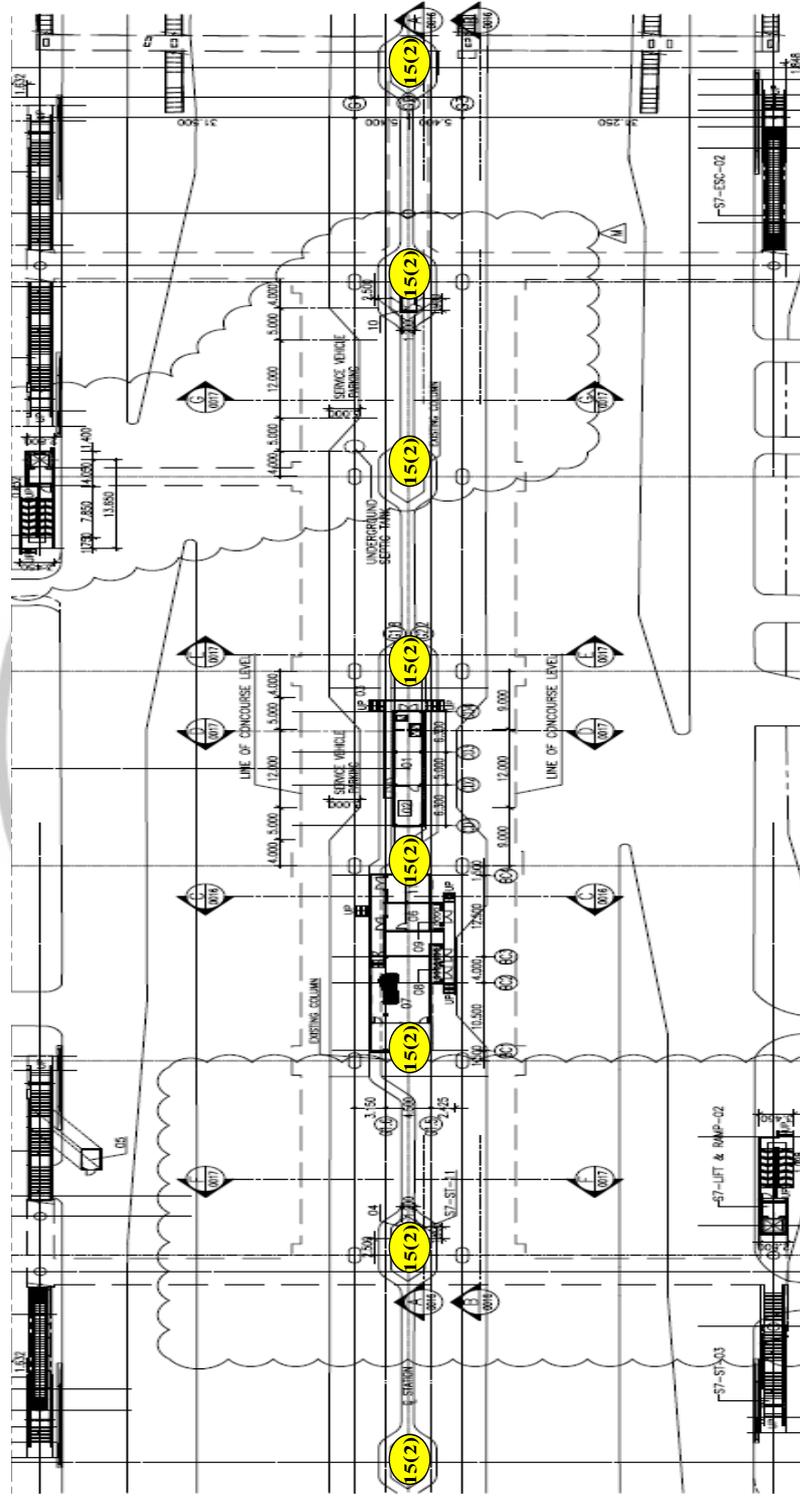


Figure 11 Road Level S7

# Concourse S8

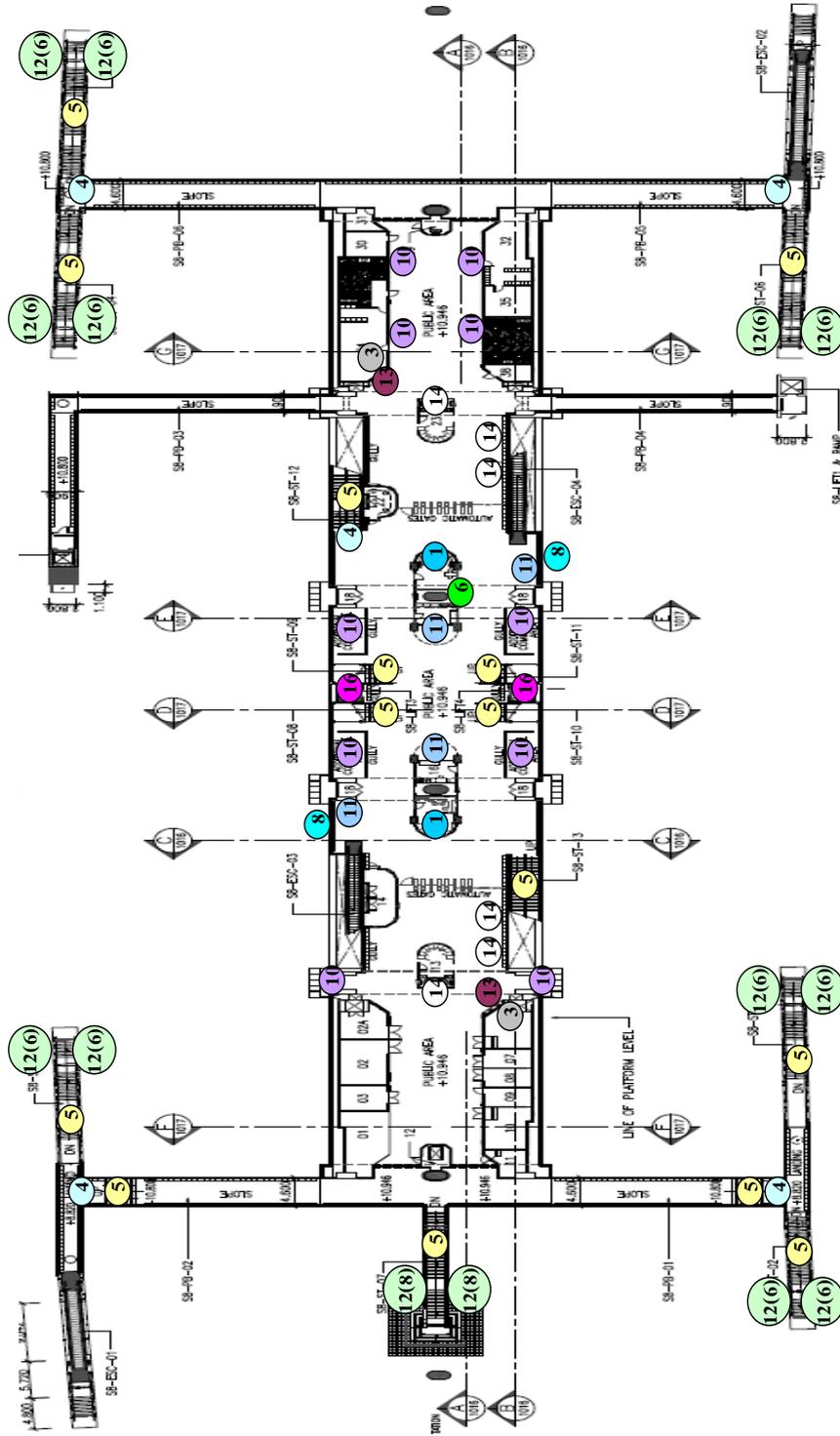


Figure 12 ConcourseS8

# Platform S8

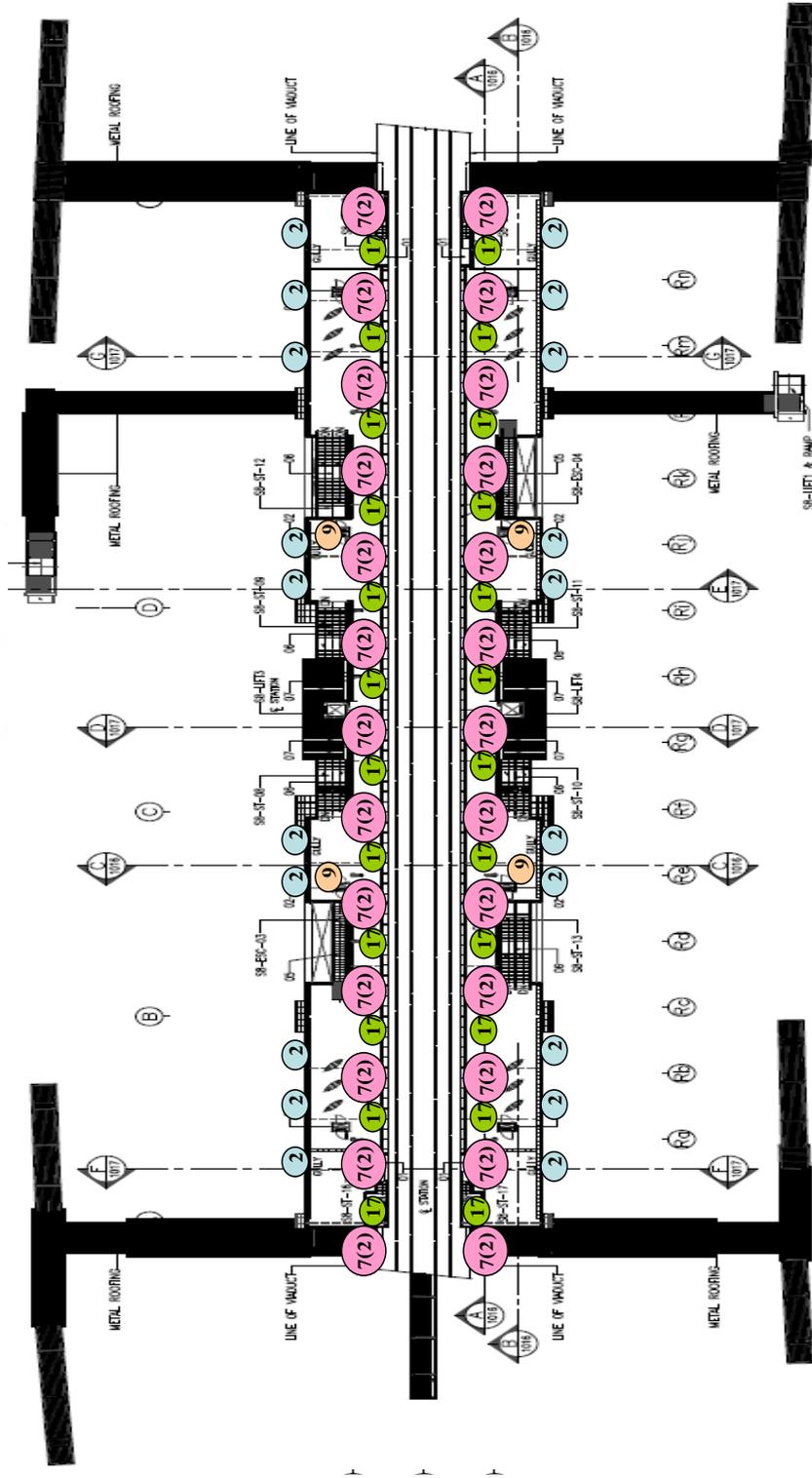


Figure 13 PlatformS8

# Road Level S8

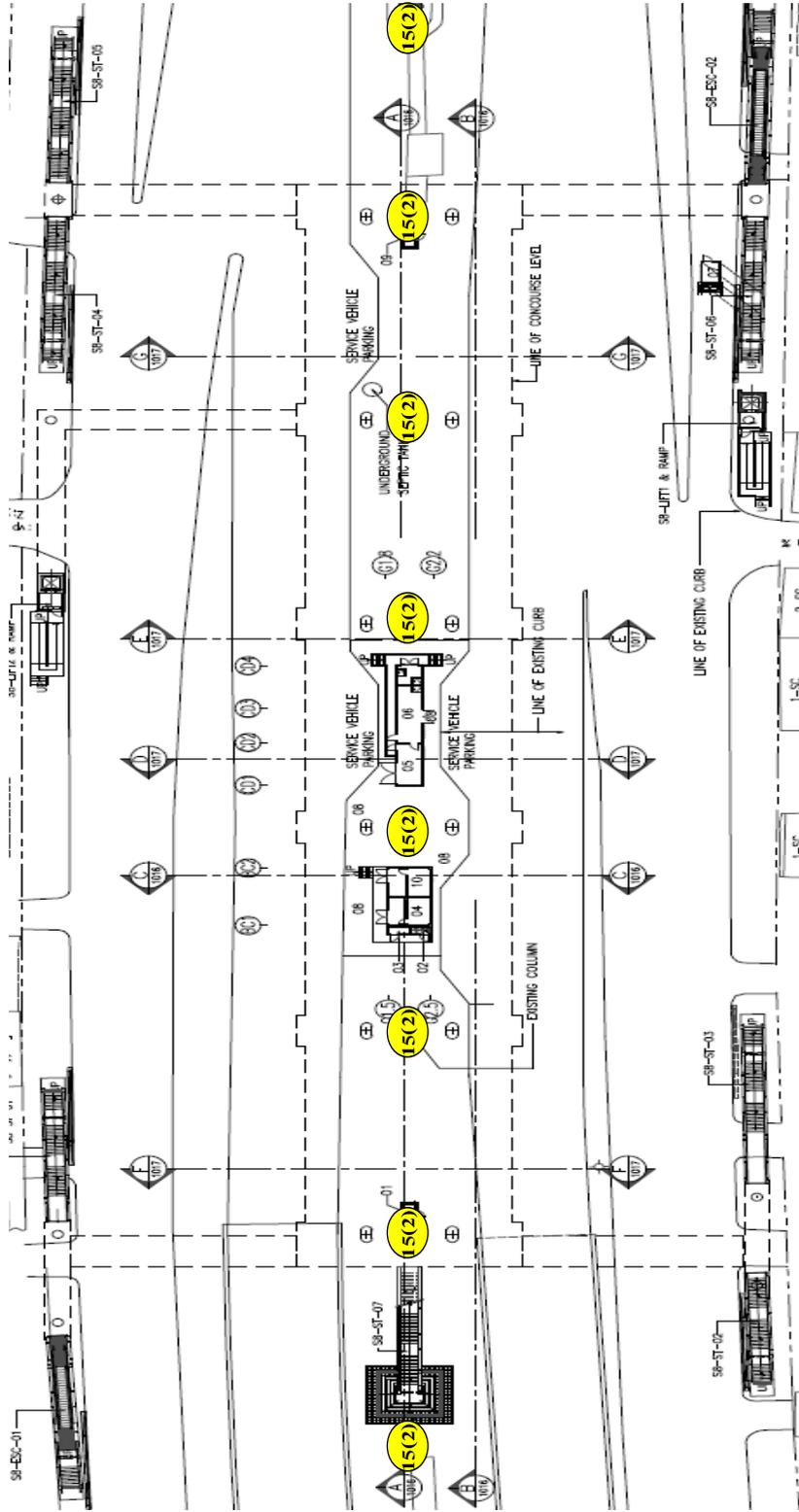


Figure 14 RoadLevelS8

According to the commercial area layout of the two stations, the numbers are showed as the following figures

1.

## VP BOARD (Includes Escalator Light Track)



Figure 15 VP BOARD

2.

## PLATFORM BALUSTRADE



Figure 16 PLATFORM BALUSTRADE

3.

# PHONE POLE



Figure 17 PHONE POLE

4.

# SIDE BEAM



Figure 18 SIDE BEAM

5.

# STAIR STEP

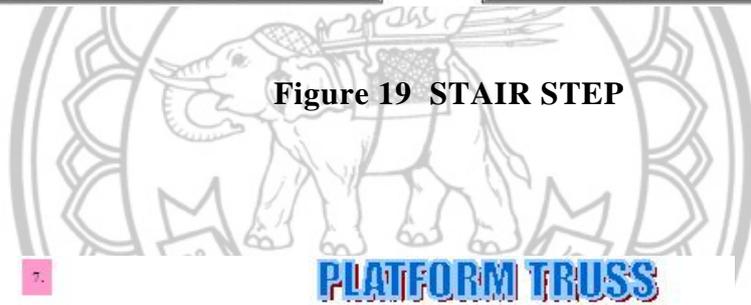


Figure 19 STAIR STEP

7.

# PLATFORM TRUSS



Figure 20 PLATFORM TRUSS

8.

## ESCALATOR STAND



Figure 21 ESCALATOR STAND

9.

## Plasma Screen



Figure 22 PLASMA SCREEN



**Figure 23 Kios**



**Figure 24 Advertising Post ladder**



**Figure 25 Public Telephone**



**Figure 26 ATM**



Figure 27 Electronic Ads



Figure 28 Elevator Wrap



**Figure 29 Pillar Ads**

#### **5. Sourcing potential suppliers**

This scope will focus on sourcing suppliers to construct the commercial area to be ready to do businesses.

##### **Scope of sourcing potential suppliers**

- Sourcing construction supplier
- Sourcing advertising supplier
- Develop specification of construction supplier
- Develop specification of advertising supplier

#### **6. Developing commercial area**

This scope is to construct each area to be ready to use such as setting electricity and providing water to use. This scope do not include the decoration of customers' business areas.

##### **Scope of developing commercial area**

- Construction of Wongwian Yai station's commercial areas
- Construct 3 x 3 square meters 12 rooms
- Construction of Krung Thon Buri station's commercial areas
- Construct 3 x 3 square meters 12 rooms
- Set up water system of Wongwian Yai station's commercial

areas

- Set 12 water systems. One water system for each commercial area.
- Set up water system of Krung Thon Buri station's commercial areas
- Set 12 water systems. One water system for each commercial area.
- Set up electric system of Wongwian Yai station's commercial areas
- Set 24 electric systems. Two electric systems for each commercial area.
- Set up electric system of Krung Thon Buri station's commercial areas
- Set 24 electric systems. Two electric systems for each commercial area.
- The construction of the two sky train stations' commercial areas will be constructed by Unit Construction Co. Ltd.

#### **7. Sourcing potential customers**

This scope is to select business customers who will have the right to rent the area by using e-auction method.

Scope of sourcing appropriate suppliers to match with the provided commercial area

- Sourcing appropriate advertising agencies
- Sourcing appropriate convenient stores
- Sourcing appropriate private shops
- Sourcing appropriate government business
- Provide selection of leasing areas using E-Auction system

#### **8. Developing advertising plan for customers**

This scope is to support the customers who rent the commercial areas by planning advertising plan to promote the products or services of customers that will have their shops in the stations.

## Marketing Plan

### Marketing objective:

- To create the brand awareness.
- To create long-term relationship in distribution channel.
- To create the brand image in the additional position way.

### Market potential and segmentation

To create awareness and decrease cost of marketing, the company should concentrate on the market potential first to specify the group of target market, which can create the high return on investment. The main target markets of leased commercial area service are the service business owners of beverage business and banking service business.

### Target Groups

#### Demographic

- Age: 30 to 45 years old
- Income: more than 70,000 Baht/month
- Social class: middle income and higher income level
- Occupation: Business owner

#### Geographic

- Density: Krung Thon Buri and Wongwian Yai BTS Stations

#### Behavioural

- Service business entrepreneur

#### Psychographic

- Lifestyle: healthy and time conscious
- Individual decision-making.

**Gender:** Male and Female

**Age Range:** 30 to 45 years old

**Monthly income:** 70,000 Baht /month or higher

**Characteristic:** Most of the target market in this group was working people. This segment is for group of people who have their own thinking and ready to be listening as well. They are ready to acknowledge and find something good and fit with their lifestyle. They seek for benefit-product

which is suitable with their expenditure. They are the decision-maker and buyer of their own.

**Table 8 Pros and Cons of Target group**

Pros	Cons
1. Ability to gather the information by themselves	1. Low money support
2. Making decision independently	2. Careful of spending decision
3. Easily influenced by media	
4. Innovative purchasing	

### **Marketing Strategies**

**1. Communication Strategy:** An effective communication campaign should comprise of a well thought out message strategy. The message should reinforce the benefit of the product and should also help the company in developing the positioning strategy of the service. The commercial areas should begin to communicate with the public transportation user segment. The company must carry out further research to firmly establish which potential target to concentrate on understanding their lifestyle. These research methods would know the intentions of customers.

**2. Alliance Strategy:** The Company should make the existing BTS commercial area to become as its partner. This could be helpful to the service operation that it will be able to sell the available commercial areas effectively. Moreover this will encourage people to use BTS system.

**3. Building image strategy:** The Company should understand and have actively voiced this in the national press. The Company needs to do something which will actively communicate the changes being made within the community where they have targeted for their customers.

### **Marketing mix strategy**

To achieve the organization's goal, the marketing task is very necessary to build the marketing program or plan for the company's operation. So it focuses on the **marketing plan (4Ps)** as follows:

**1. Product decision** for the project requirement, the product is arranged in the categories of commercial rental area in the transportation service system mean the service shop in each brand will serve the passengers of the stations. The types of service shops must be related to the existing BTS commercial areas.

**Branding** most of target market of rental commercial shopping area industry is the brand loyalty to their service. They will not change the place until they absolutely sure about the advantages over the competitors. Branding is also another factor that supports the customers to survive in their businesses. For this plan, it will present the brand as BMA in the concept of **“The best providing service to passengers”**

#### **Additional value service to the commercial area**

The company will provide government service as call-one-stop service in the station to motivate passengers to visit the stations. This will support our customers as having more passengers in the stations they will have more opportunities to sell their products or services.

**2. Price decision** the Company set up the price by considering in covering variable cost and some fixed cost but at the same time company will still have the profit for using to develop the product and finding new technology to update the service and keep the company running. So the company should set the price in relation to the rental prices of existing BTS commercial areas. But at the same time, that price needs to cover all the costs. So the rental areas will be presented on the **Good-value strategy**.

**3. Channel decision** for providing available service to passengers and facilitate the channel members, the company will allow two agencies to operate the commercial area. There are two agencies already operating the existing BTS commercial areas they are Master & More Co. Ltd. and VGI Co. Ltd.

**4. Promotion decision** according to the project, the communication plan is very important to introduce the product in the short term period (1 year operation plan). Because of many competitors in this industry, the company would like to offer the various promotions plans to satisfy the overall target market with the communication strategy as **IMC (Integrated Marketing Communication) promotion Strategy** to promote the product. As the service is innovative service which has never been used in Bangkok, the company would like to use **pulling tactic strategy** to arrange the various types of advertisings in different period and different pattern in every month. It can help the company to stimulate the target respondents intensively on suitable budget.

Furthermore, to achieve the communication plan, the communication budget is very important. The company will set the budget with **affordable method**, the company will put the limited budget three million Baht for the various effective media and method.

#### **Advertising**

##### **Objective:**

- To create brand awareness toward target market in terms of service quality.
- To create value and positive perception of the service.
- To create share of voice.
- To create share of mind.

Advertising can generate awareness to the customers about the products and services. Moreover it can be used for promoting the products and services to the passengers. Using advertising strategy to attract the targets by showing new trends or general trends.

According to the company's goal, it will concentrate on the advertising. For the advertising media, the company will concentrate on both above the line and below the line communication such as television advertising and print advertising to target group in Bangkok area.

### Above the line communication

#### Media advertising

According to media advertising, the company concerns focus on the website and radio because there are high frequencies of the audience per unit and save more cost of communication. Moreover we can provide more information and details of the service. (See time schedule in figure)

- Radio Advertising- the Company will hire PCI Consultant Co. Ltd. to make the radio production and will release to the media by using FM 95.5 and FM Jorsor 100.

#### Cost of Radio Advertising

Radio Advertising			
Channel	Time Release	Cost Per Minute (Baht)	Total Cost (Baht)
FM 95.5 X 120 Mins	07.00-08.00	1,500	180,000
X 120 Mins	18.00-19.00	1,500	180,000
FM Jorsor 100 X 120 Mins	06.00-09.00	0	0
X 120 Mins	17.00-20.00	0	0
Production Cost = 15,000 X 2			30,000
Total Cost (Baht)			390,000
***There is no time release cost because FM Jorsor 100 is belonged to Bangkok Government			

Figure 30 Cost of Radio Advertising

- Web-site- The Company will hire Dotcom Parnit Co. Ltd. to make the web-site production and will release to the internet using Yahoo as the homepage.

### Cost of Web-site

Activities	Budgets  (Baht)
Web-site	350,000

**Figure 31 Cost of Web-Site**

### Press release

According to print advertising, the company will focus mostly on newspapers and posters, because of high frequency of the audience per unit and save more cost in communication. Moreover we can provide more information and details of the service. (See time schedule in figure)

### Cost of Press Release

**Table 9 Press Release**

Press Release			
Media	Type	Cost (Baht)	Total Cost (Baht)
Daily Newspaper x 2 Time	12 Col "20"	310,600	621,200
Manager Newspaper x 2 time	12 Col "20"	432,000	864,000
<b>Total Cost (Baht)</b>			<b>1,485,200</b>

### Below the line communication

#### Survey

The company should be concern on the intention and satisfaction of the passengers because the study of these will help the company to predict the number of service users and be able to adapt the service to match he passengers' needs. The company will hire **Rajchapat SuanDusit University** as the marketing

researcher to do the marketing research. The cost of marketing survey will be about 90,000 Baht. (See time schedule in table)

**Table 10 Cost of Marketing Survey**

Survey	Total Cost (Baht)
Study passenger demand of commercial areas of the two new stations	90,000

### Events:

The company will provide the tools based on the **events** during the year 2010. The location will be rotated in Thon Buri area to increase the opportunities of informing the group of target respondents. In the events, the company will invite the target people to play game and give souvenir such as shirts. The cost of event activities will be about 774,800 Baht. (See time schedule in figure)

### Implementation Plan

Marketing Action Plan												
Activities	Period											
	2010											
	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec
<b>1. Marketing Survey</b>												
1.1 Passengers/demand survey	■											
<b>2. Brand Communication</b>												
2.1 Radio Advertising	■			■				■				■
2.2 Newspaper	■		■	■			■					
2.3 Web-site	■	■	■	■	■	■	■	■	■	■	■	■
<b>3. Event Activities</b>												
				■	■							

**Figure 32 Implementation Plan**

### Contingency Plan

- If product cannot achieve the level of awareness expected

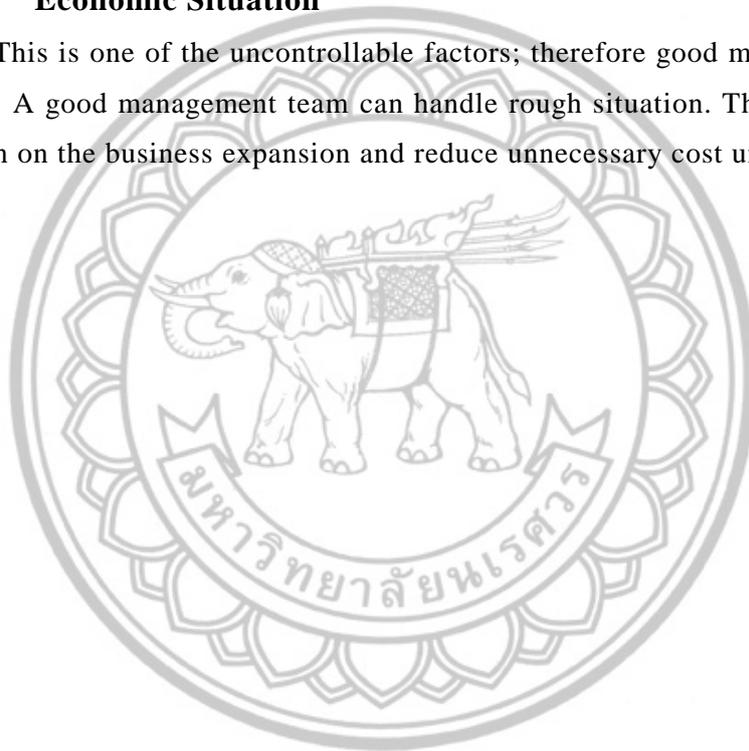
First of all, the company may have to conduct a research to find out the reason why it is not achieving the level of awareness expected. It could be because the advertisement is not reaching the right people (target market).

- **If sales volume will not be able to achieve the target**

There could be many reasons that cause low sales volume, so the company has to find out why. It could be because of the quality of the product, so the company must make sure that the service maintains it up to the standard. The company could also use sales promotion like discounts.

- **Economic Situation**

This is one of the uncontrollable factors; therefore good management team is necessary. A good management team can handle rough situation. The company should slow down on the business expansion and reduce unnecessary cost until the situation is better.



	<b>Time</b>	<b>Performance</b>	<b>Cost</b>
<b>Constrain</b>	●		
<b>Enhance</b>		●	
<b>Accept</b>			●

**Figure 33 Project Priority**

From the matrix above, it can be described that the project is about developing commercial area by using three factors as time, cost, and performance.

- **Time** is the main project priority to focus as the period of project is only four months. Having short period of time to develop the commercial area, all members need to concentrate on the due date of finishing tasks because this project cannot be flexible.
- **Performance** is the second project priority to focus. If the commercial area development will not match to the demand of passengers, the project will be useless.
- **Cost** is the third project priority because the budgets is set by covering the whole cost already.

### **Work Breakdown Structure**

According to the table below, it shows that works need to be separate to two sections that are works of stations and works of office. Works for stations are about construction and maintenance and the engineering team will responsible to all tasks. There will be four majors of parts of works in the office which are financial and accounting, purchasing, engineering, and marketing. Most of these works will be done in the initial process except marketing plan and producing advertising media.

# Works Breakdown Structure

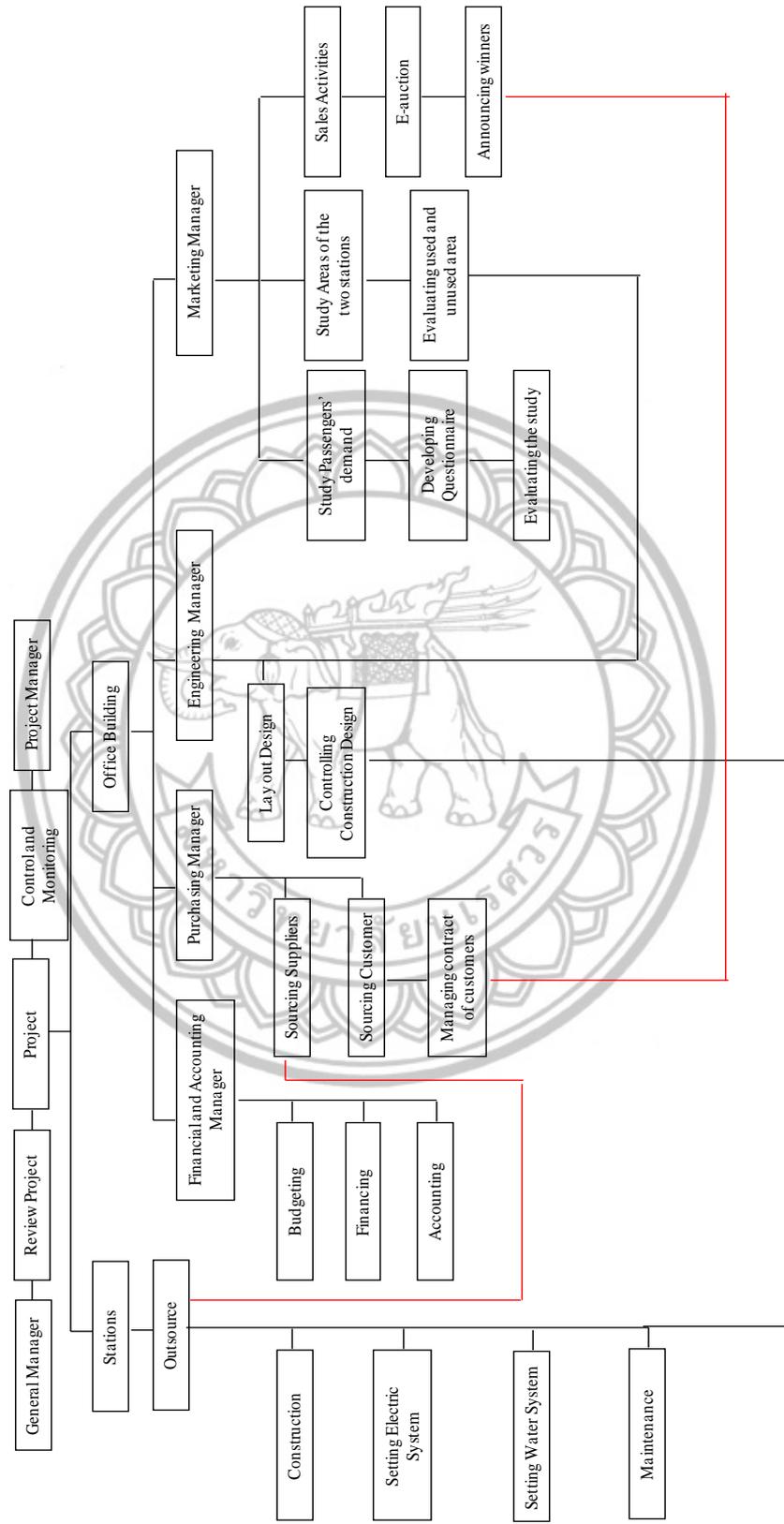


Figure 34 Works Breakdown Structure

## **Time Management**

### **1. Project Timeline**

The commercial areas were prepared for the operation on May 31, 2010 which takes 123 days or 16 weeks during January 1, 2010 to April 30, 2010 as showing in the following chart below..



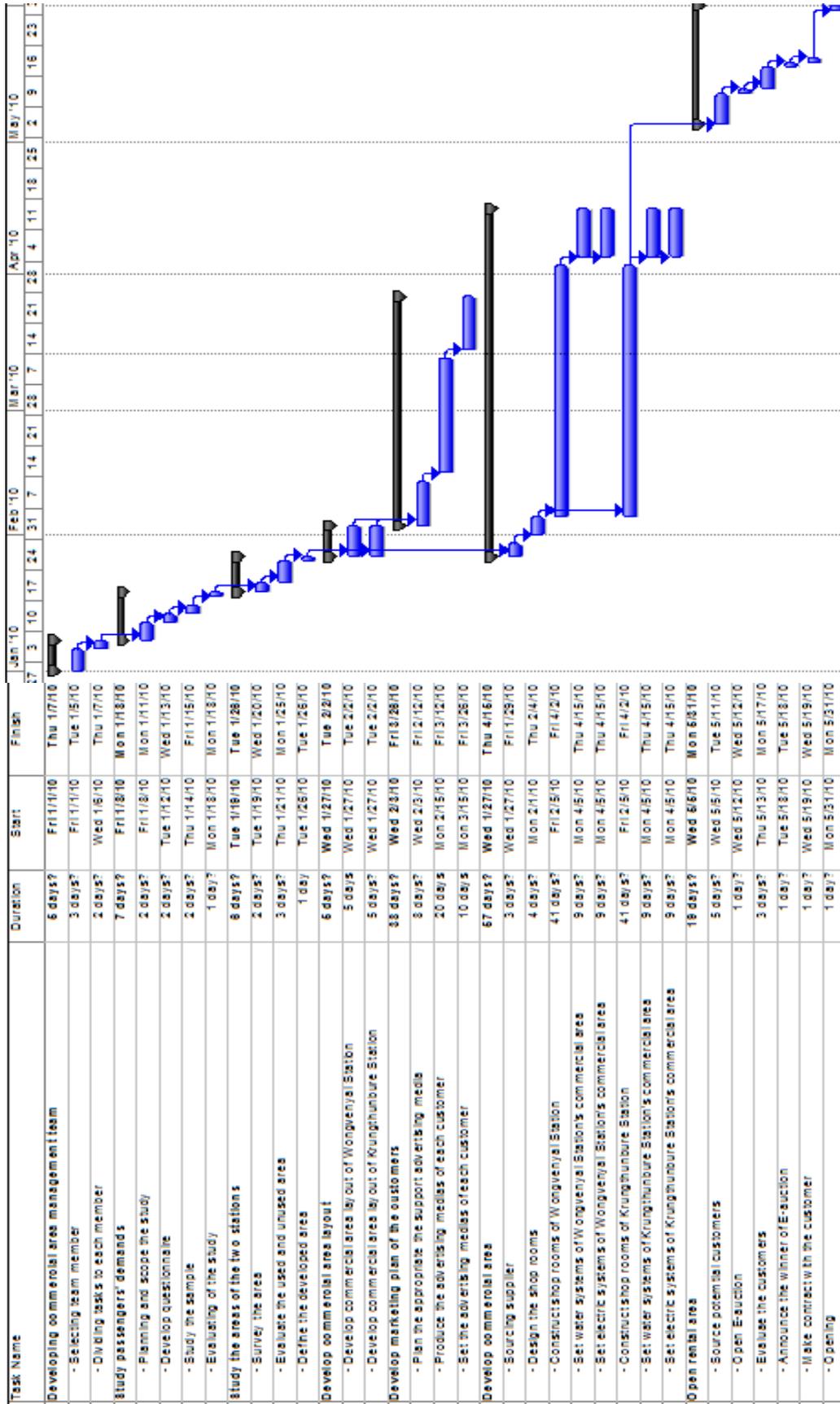


Figure 35 Project Timeline

### Criteria for Success or Acceptance Criteria

- The project will be able to create more demand of using sky train service. The company will be able to generate revenue to create a better budget.
- The company can improve customer's satisfactions of the passengers.

### Deliverables and Milestones

#### 1. Deliverables

Deliverables of developing commercial areas project could be subdivided in the following main operating phases as follow.

##### 1.1 Technical deliverables

- Survey the passengers' demands of services in the two stations
- Studying areas of Krung Thon Buri and Wongwian Yai station
- Constructing the commercial areas of two stations
- Setting utility system in each commercial area
- Producing advertising medias

##### 1.2 Project management document

- After works were done, the documents delivery to the customer will be as follows:
  - Summary report of survey
  - List of suppliers
  - Lay out design of Krung Thon Buri and Wongwian Yai station
  - Contracting customers to book the areas
  - Marketing plan
  - Weekly summary report

#### 2. Project Milestones

Developing commercial area project illustrating e project will improve on the demand of using sky train. There are important things about construction project. These tasks are listed in the Mile Stone form in **Table 6** according to the project phase as follows:

**Phase 1: Initiation (Duration 18 days)**

Preparation of;

- Developing commercial area management team.
- Dividing tasks to each member for project management.
- Providing necessary information for each member
- Study passengers' demand.
- Analysis of passengers' demand.
- Study areas of the two stations.
- Summary of used areas and unused areas

**Phase 2: Planning (Duration 33 days)**

Preparation of;

- Developing commercial area layout
- Selecting potential suppliers.
- Schedule and charts of labour and equipment utilization, subcontractors work and material consumption.
- Developing advertising plan
- Planning information process management and methods.

**Phase 3: Execution (Duration 80 days)**

Preparation of;

- Work progress monitoring.
- Schedule and plans updating.
- Constructing commercial areas.
- Setting electric system of the two stations
- Setting water system of the two stations.
- Adjusting orders to current demand.
- Planning and coordinating horizontal and vertical types of commercial area on the site.
  - Sourcing potential customers.
  - Open E-auction.
  - Selecting customers.
  - Marketing support for the customers.
  - Recording feedback information on the effects of implementing.

**Phase 4: Closing (Duration 2 days)**

Preparation of;

- Managing documentation
- Management review.

MILESTONE PLAN					Organisation:
Planned date:	Initiation I	Planning P	Execution E	Closing C	Project: Milestone:
1-Jan-10	(P1)				I1 Developing Commercial area management team
					I2 Dividing tasks to each member for project management
					I3 Providing necessary information for each member
8-Jan-10	(P1)				I4 Study passengers' demand
					I5 Analysis of passengers' demand
19-Jan-10					I6 Study area of the two stations
					I7 Summary of used areas and unused areas
27-Jan-10		(P2)			P1 Developing commercial area layout
					P2 Selecting potential suppliers
					P3 Schedule and chart of labor equipment utilization, subcontractors work and material consumption
3-Feb-10		(P2)			P4 Developing marketing plan
					P5 Planning information process management and methods
6-Jul-09			(P3)		E1 Work progress monitoring
					E2 Schedule and updating
4-May-10					E3 Constructing commercial areas
2-May-10			(P3)		E4 Setting electric system of the two stations
2-May-10			(P3)		E5 Setting water system of the two stations
					E6 Adjusting orders to current demand
					E7 Planning and coordinating horizontal and vertical types of commercial area on the site
5-May-10			(P3)		E8 Sourcing potential customers
					E9 Open E-auction
					E10 Selecting customers
					E11 Marketing support for the customers
					E12 Recording feedback information on the effect of implementation
23-May-10				(P4)	C1 Managing documentation
29-May-10				(P4)	C2 Management review

**Figure 36 Management Review**

## **Limits and Exclusions**

### **1. Limits**

The company will do only parts of monitoring supplier and financial management.

### **2. Exclusions**

The part of selling rental commercial areas will be handed over to supplier.

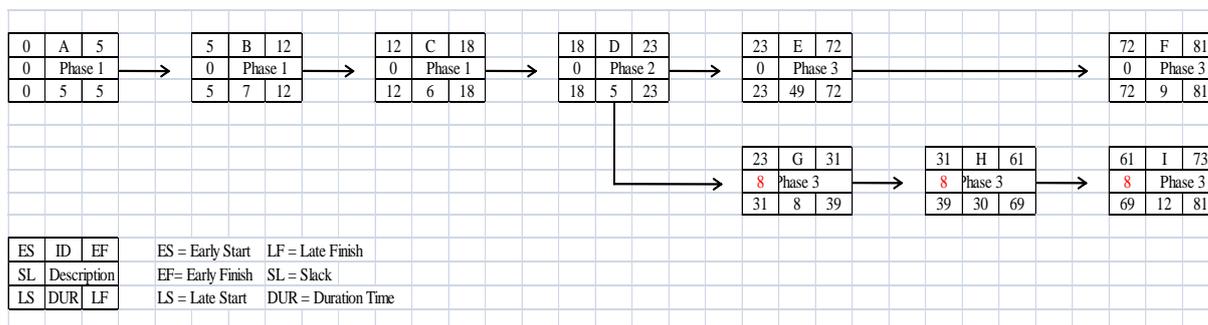
## **Review / accepted by whom**

The scope, program management and schedule performance will be reviewed and approved by four committees of the company, Bangkok Governor.

## **Time management**

Time management refers to a range of skills, tools, and techniques used to manage time when accomplishing specific tasks, projects and goals. This set encompass a wide scope of activities, and these include planning, allocating, setting goals, delegation, analysis of time spent, monitoring, organizing, scheduling, and prioritizing. Initially time management referred to just business or work activities, but eventually the term broadened to include personal activities also. A time management system is a designed combination of processes, tools and techniques. (Mind tools.com n.d.)

Because of the development of commercial area project the activities to create more demand of using sky train and also increase the revenue of the company. In order to manage the project effectively, the members of the team should consist of experts in each department to make the activity achieved. As managing the time of the project, company use the Activity-On-Arrow (AOA) which is a form of scheduling that is used on large task with many part, it gives an idea how long a task will take. From this schedule all teams, can communicate, evaluate, prioritize and study their work load and lead time to control their work. (Encyclopedia.com n.d.)



**Figure 37 Time Management**

### Slack and critical path

Total slack for this activity is simply the difference between the LS and ES ( $LS - ES = SL$ ). Total Slack can tell the amount of time an activity can be delayed. According to the above table, it shows that the activities that can be delayed while developing the marketing plan (activity G), producing advertising media (activity H), and sourcing potential customer (activity I). Activities A, B, C, D, E, and F are on the critical path. They will need to be finished on time.

### Cost Management

Cost Management is the process whereby companies use cost accounting to report or control the various costs of doing business.

The term cost management is widely used in business today. Unfortunately cost management has no uniform definition. Cost management generally describes the approaches and activities of managers in short run and long run planning and control decisions that increase value for customers and lower costs of products and services. For example, managers make decisions regarding the amount and kind of material being used, changes of plant processes, and changes in product designs. Information from accounting systems helps managers make such decisions, but the information and the accounting systems themselves are not cost managed. (Thomson Reuters n.d.)

### **1. Cost estimation model**

A mathematical model used to predict the overall cost of project to achieve effort, duration, and costs for development and manufacture, and support for the estimator in matching characteristics of the historic data with those of the proposed new systems.

The purpose of this estimate is to prepare an operating budget for the operation of developing commercial areas of the two stations.

### **2. Cost control**

We use the cost term budget to control over all process of the project because of the budget come from after project manager assign the job and assesses the responsibility for each department and project team. So, the budgeted cost is used for controlling the cost.

### **3. Cost report**

Information from the general account report from each section is assembled for the organization's financial reports, including balance sheets and income statements for each period. These reports are the basic products of the financial accounting process and are often used to assess the performance of the project which the financial and accounting manager has to show and report to project manager in every month for assessment the team project and the work.

## **Resource management**

Resource management is the efficient and effective deployment for an organization's resources when they are needed. Such resources may include financial resources, inventory, human skills, production resources, or information technology. In the realm of project management, processes, techniques and philosophies as to the best approach for allocating resources have been developed. (Resource Management n.d.)

### **Resource constraint**

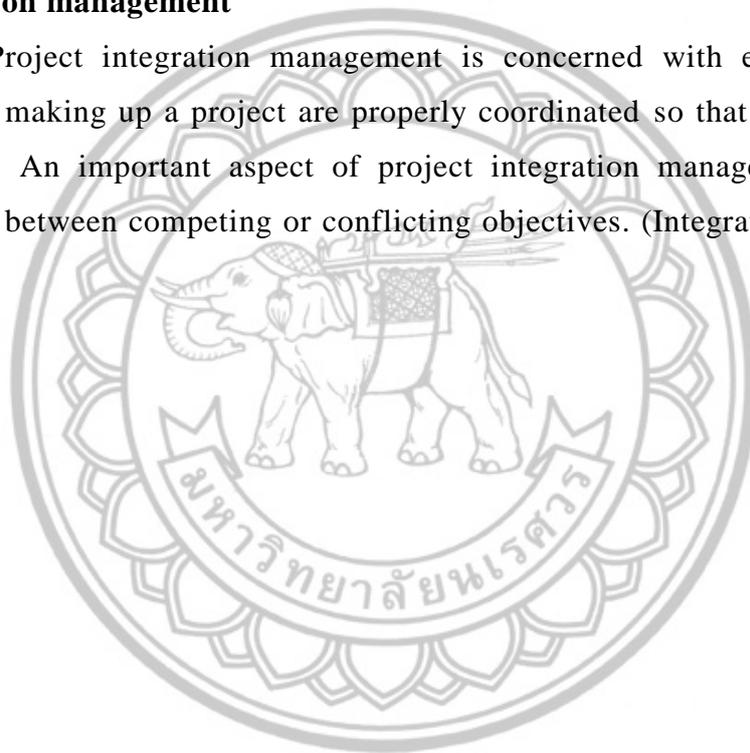
One resource management technique is resource leveling. The required data are the demands for various resources, forecast by time period into the future as far as are reasonable. Main resource of this project is labours.

According to developing commercial area project, it needs the goal to achieve 100% utilization but that is very unlikely, when weighted by important metrics and subject of constraints. Mostly the company hires outsourced manpower for the main duties such as constructing rooms, setting electric system and water system of the commercial areas of the two stations.

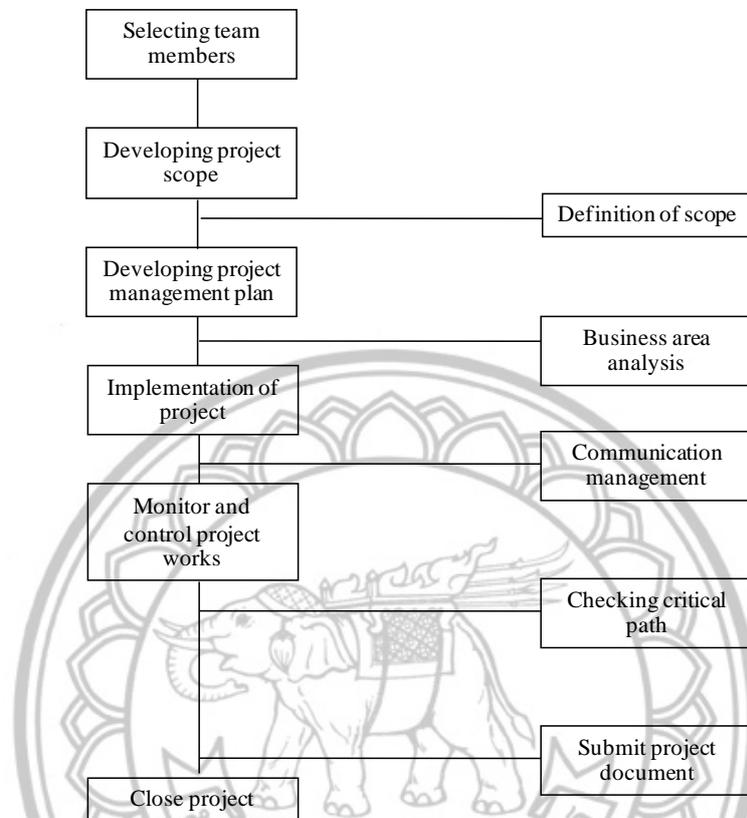
The principle is to reduce cost by outsourcing. The method to use is scoping the works of outsourced to the minimum requirement.

### **Integration management**

Project integration management is concerned with ensuring that the elements making up a project are properly coordinated so that project goals are achieved. An important aspect of project integration management is making tradeoffs between competing or conflicting objectives. (Integration Management n.d.)



## Project Integration Structure



**Figure 38 Project Integration Structure**

According to the above figure, it shows the processes of the project from the beginning to the end. The keys of successful project are the coordination between members and time management. If these two points failed to manage, the project may fail to finish on time.

### Quality management

Quality management can be considered to have three main components; quality control, quality assurance and quality improvement. Quality management focused not only on product quality, but also the means to achieve it. Quality management therefore uses quality assurance and control of processes as well as products to achieve more consistent quality. (Vcharkarn.com n.d.)

According to the project detail, it is needed to confirm the qualities of each work of the project before submitting the project to the Bangkok Government. So the general manager needs to have a weekly meeting and allow the project manager to evaluate the qualities of each work closely as showing in below figure.

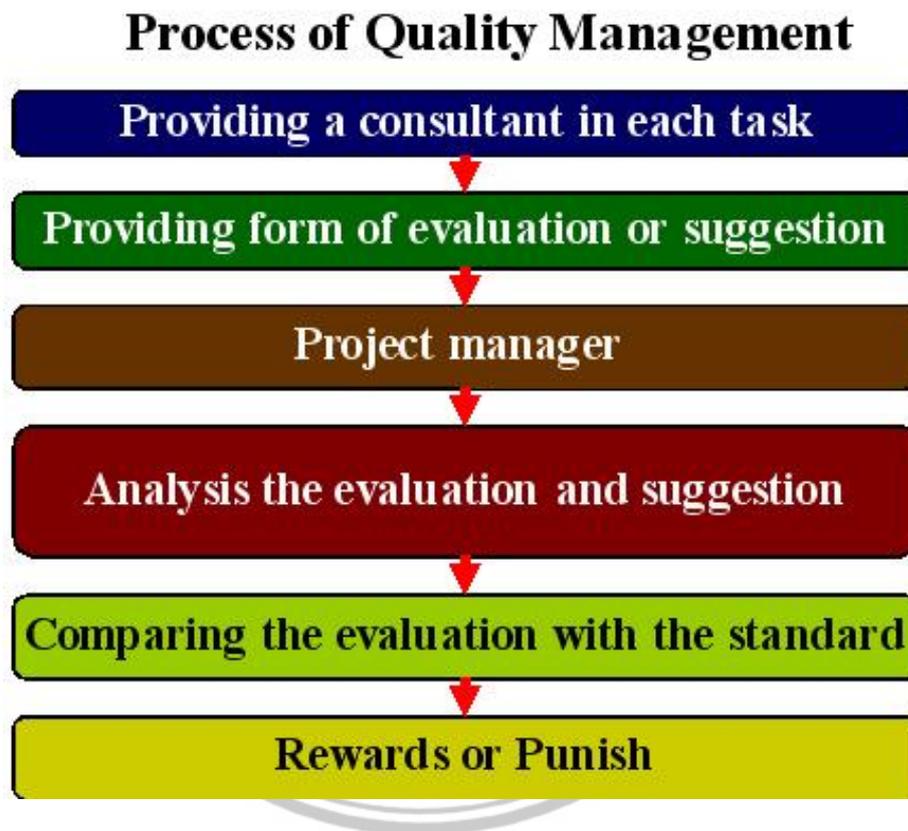
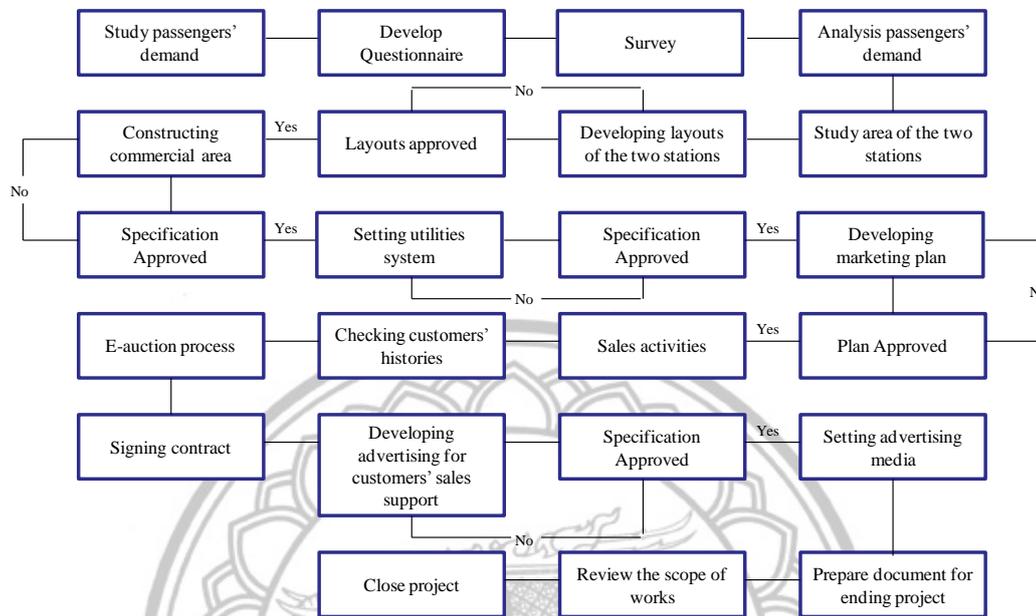


Figure 39 Process of Quality Management

## Project Quality Management



**Figure 40 Project Quality Management**

According to the histogram above, it shows how the qualities of the project approved. Most of the activities are approved by general manager and the project manager reports the work progress to the general manager.

### Risk Management

Risk Management is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events. (Free Management library n.d.)

It is important that Thai Government needs to participate in the assessment process so that an acceptable balance between cost, schedule, performance, and risk can be reached. Risk management shall be performed on all projects throughout the project life cycle which the first step in the process of risk management is to identify factors that are critical to an organization meeting its objectives.

**Risk identifications**

- This project will be cancelled by Thai Government if the policy of Bangkok Governor changed.
- Cannot find a good construction supplier. It is difficult to control the quality of the procedures when the company hires outsource.
- Works are delayed because of the commercial area layouts of the two stations.
- None or only few customers will rent the commercial areas.
- Construction works will not be finished in time.
- Fail in managing budget.
- Lack of human resources to cover all tasks.
- Economic melt-down that affect the project as the costs increase.

**Risk assessment**

- Assess impact of work and financial processes for each risk assessing what the financial and work impact will be and what the main cause of failure in managing project.
- Assign probability; assign a probability to each risk area as shown in table below.
- Prioritize; multiply the work impact by the risk probability. Order the results by descending dollars. Prioritize the top risks for more management attention.

Measure of Likelihood Scale			
Likelihood	%	Definition	Description
Very Low	Less than 6% chance of risk occurring	<ul style="list-style-type: none"> <li>This project will be cancelled by the Bangkok Government.</li> <li>Unable to find the right suppliers</li> </ul>	Has happened rarely/ never before.
Low	6 to 20% chance of risk happening	<ul style="list-style-type: none"> <li>Works are delayed because lay out design will be changed many time.</li> <li>No or a few customer rents the commercial area.</li> </ul>	Has not happened, or happened in a very limited way
Medium	21 to 50% chance of risk occurring	<ul style="list-style-type: none"> <li>Construction will not be able to finish in time.</li> <li>Fail in managing budget</li> </ul>	Has occurred before, but not often and may have been in a limited way.
High	51 to 80% likelihood of risk materialising	<ul style="list-style-type: none"> <li>All team members will not be able to cover all tasks</li> </ul>	Occurs from time to time and may do again in the near future
Very High	More than 80% chance of occurring	<ul style="list-style-type: none"> <li>Economic will go down, so it will effect the business.</li> </ul>	Regular occurrence, circumstances frequently encountered.

**Figure 41 Risk Management**

### **Risk management planning**

- Risk transfer; purchase of an insurance contract to transfer the risk if something happens to the project that causes the project to fail.
- Keep works in plan; managing all tasks to be finished as per scheduled plan.
- Deducting of all unnecessary cost; try to reduce the cost of operating project as much as possible such as hiring the supplier who offers lower cost. However the manager needs to ensure the qualities of the supplier.

### **Risk monitoring and review**

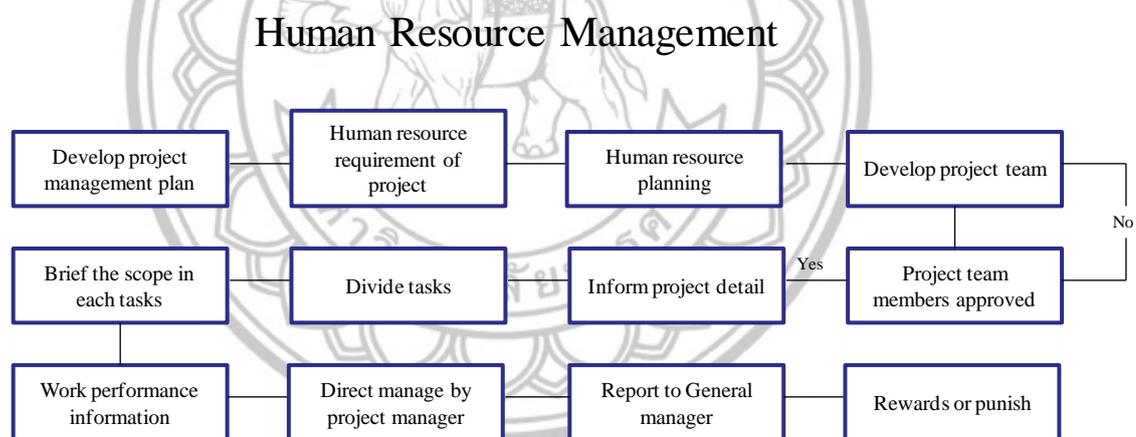
In order to manage the risks of the project, the project manager needs to have weekly meeting to update all the progresses of the project. If there are some problems they can find alternative solutions and solve the problems immediately, then report the problem to the general manager.

### **Human resource management**

Human resource management is the strategic and coherent approach to the management of an organization's most valued assets - the people working

there who individually and collectively contribute to the achievement of the objectives of the business. (Mahidol University n.d.)

Due to the human resource requirement of this project, there are six executive managers who work on this project they are as follows: general manager, project manager, purchasing manager, financial and accounting manager, engineering manager, and marketing manager. These managers manage the documentation such as planning, desiring, and controlling. For the works that require technical skills such as construction will use outsourced workforce. As only six men running the project, there is no confusion in work processes and tasks of each member. Each member will be identified according to the tasks, explained the scopes of works, and methods of communication with clear direction about objectives.



**Figure 42 Human Resource Management**

According to the above figure, it shows how the human resource of the project is managed. If the members are doing good performances, they will be rewarded by bonuses. In other hand, if they are doing very poor performance, they will be removed or fired.

List of works		Names					
		Alex	Gorapop	Nancy	Ratapon	Anny	Nutty
<b>1</b>	<b>Developing commercial area management team</b>						
	1.1 Selecting team members	X	X				
	1.2 Dividing tasks to each members	X	X				
<b>2</b>	<b>Study passengers' demand</b>						
	2.1 Developing questionnaire					X	
	2.2 Doing survey					X	
	2.3 Analyzing			X		X	
<b>3</b>	<b>Study areas of the stations</b>						
	3.1 Study the area of Wongvenyai Station				X	X	
	3.2 Study the area of Krungthunbure Station				X	X	
<b>4</b>	<b>Developing commercial area structure</b>						
	4.1 Lay out design of Wongvenyai Station				X		
	4.2 Lay out design of Krungthunbure Station				X		
<b>5</b>	<b>Sourcing potential suppliers</b>						
	5.1 Sourcing utility supplier			X	X		X
	5.2 Sourcing engineering supplier			X	X		X
	5.3 Sourcing media producer			X		X	X
<b>6</b>	<b>Developing commercial areas</b>						
	6.1 Constructing commercial areas of Wongvenyai Station			X	X		
	6.2 Constructing commercial areas of Krungthunbure Station			X	X		
	6.3 Setting utility system of commercial areas of Wongvenyai Station			X	X		
	6.4 Setting utility system of commercial areas of Wongvenyai Station			X	X		
<b>7</b>	<b>Sourcing potential customers</b>						
	7.1 Opening the commercial area booking						X
	7.2 Making contract					X	X
<b>8</b>	<b>Developing advertising plan of commercial area</b>						
	8.1 Developing advertising plan					X	
	8.2 Producing advertising media					X	
	8.3 Setting advertising media					X	
<b>9</b>	<b>Monitoring</b>						
	9.1 Controlling budget	X	X	X			
	9.2 Controlling work to be on schdual	X	X				
	9.3 Controlling qualities of works	X	X				
	9.4 Weekly summary report		X	X	X	X	X

**Figure 43 Project Responsibilities Chart**

## Communication Management

Communications management is the systematic planning, implementing, monitoring, and revision of all the channels of communication within an organization, and between organizations; it also includes the organization and dissemination of new communication directives connected with an organization, network, or communications technology. (Melcrum Connection Communication n.d.)

Working as a team, communication strategy is very important because if each member uses wrong communication channel to communicate to each others,

it may cause the project to fail. In order to make the communication management effectively, we use two way communication methods as communication strategy.

1. Formal Meeting; the working group sets weekly meeting to report the progress to the project manager, then the project manager will report to general manager at the end of the month. This meeting is appointed on every Friday of the week until the end of the project.

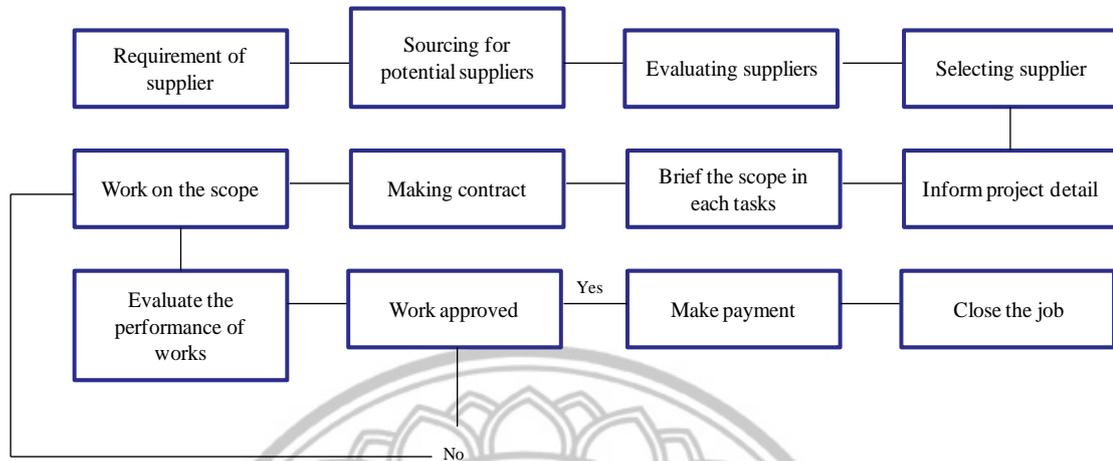
2. Informal meeting; each member needs to incorporate works to other members in each task. They need to have their own meeting. This meeting has no exact appointment date. The tools of this meeting are e-mail, telephone, and MSN.

### **Procurement and contract management**

The Procurement and contract management specialization is designed for individuals who are involved in contract administration or procurement activities in the private, public, and not-for-profit sectors. The courses in this program provide a foundation for understanding both the strategic and operational aspects of the procurement function. (Maryland University College n.d.)

The procurement plan used for this project had implementation requirement for construction. This includes evaluate supplier, negotiation, supplier selection, and work approval. In addition, it will be used to issue payments to suppliers.

## Process of Procurement and Contract Management



**Figure 44 Process of Procurement and Contract Management**

### Project sign-off

This project will sign off after December 31, 2014 which all activities are finished and all the summary reports are submitted and presented to the committee of Thailand Government.