

An aerial photograph of a cable car system on a steep, green mountain slope. The cable cars are suspended from a central cable and are moving up the mountain. The background shows more of the mountain and some buildings in the distance.

Issue 7, January 2007

IE Corner

OCEAN PARK

**HOW IE APPLIED IN OCEAN PARK'S
REDEVELOPMENT PLAN?**

<http://www.imse.hku.hk/hkuiea/iecorner>

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Ocean Park IS ONE OF THE FAMOUS Theme Parks in the world. It needs to deal with thousands of visitors and manage many systems in the park. It is extremely important to keep all systems and facilities working under their optimal conditions. Is there any secret behind for the success of Ocean Park? Yes, they are all related to Industrial Engineering. Industrial Engineering plays a critical role in connecting the hardware and software in the park and building up the best process for the park. The Chief Executive, Mr. Tom Mehrmann, emphasizes that safety and smooth system flow of the park are very important and that controlling the human flow would be the first step.



EVENLY DISTRIBUTION OF ATTRACTION POINTS

FIRST, THE DISTRIBUTION OF ATTRACTIONS in the park is one point to be considered. Identifying key attractions is the initial step. After that, the park can deduce the possible routes of visitors and the potential problems beneath. For example, if a park only has one big attraction, a large pack of people will stay at one side of the park and people will go for long queue and spend most time on it. To avoid this, it is required to mobilize the large amount of people around the park and utilize facilities evenly by setting up markets or outlets and increase the number of attractions. Ocean Park provides outlets around the park

and people would find their favorite products which are given the equivalent value. Another step is to improve park design. Ocean Park has been putting effort to divide the guests by changing the location of attractions and adding new facilities to both sides.

THEORETICAL CAPACITY VS REALISTIC CAPACITY

SECONDLY, EACH ATTRACTION HAS A specific theoretical capacity. Realistic capacity is typically about 75% of the theoretical capacity. Setting up the queue line usually accommodates half an hour of the theoretical capacity. Another design factors is the capacities of the park in different area? If the design blueprint is according to a “peak day capacity”,



the park will be overbuilt. So all facilities are built for the high average, which is the average top 30 days in a year and the part is designed according to this capacity in order to estimate the number of people can be kept in the attraction in half hour theoretical capacity.

SETTING UP “TIME WAITING SIGNS”

SHORTENING THE LONG QUEUES OF the attractions can be done by posting the waiting time in the queue. A year ago, Ocean Park discovered the increasing in demand to set up “Time wait signs”. This can let the guests decide whether to wait for the particular attraction or not. Besides, some crews will stay around different locations to answer questions,

give out maps and suggest routes.

QUEUE MANAGEMENT SYSTEM (QMS)

CURRENTLY, THERE IS NO FAST PASS or queue management system, but they will be implemented in the future redevelopment plan. Queue Management Systems (QMS) is mainly used in customer service centers. QMS allows a customer service centre to manage long queues without the customers physically standing in a line. If customers want a particular service, they can press a switch in the printer interface box and receive a receipt with a “queue number”. The customers can then comfortably sit in the sitting arrangement and wait for their turn without lining up in a

physical queue. After serving the previous customer, the customer service operator will press a switch and the QMS display will call the next number. Therefore, guests do not actually spend much time on waiting; they can spend such waiting time on other things like entering the museums, having their meals, etc.

ENTERTAINMENT BY THE CREWS

AFTER LAUNCHING THE ABOVE POLICIES, visitors may still accumulate in some attractions. An immediate solution to solve this

problem is to have some crews to entertain the guests by giving mobile entertainments, such as, live bands, characters, photo opportunities, and food along those lines. Therefore, visitors are entertained and have something to occupy their time. The next thing to do is to see if Ocean Park can take the line off the street without blocking the traffic. If the guests decide to stay, they have to ensure that there is enough stacking space. Moreover, walking operators are provided to keep guest within the line.



ESTIMATION OF HUMAN FLOW

THE PARK CAN CERTAINLY ESTIMATE the human flow by the 30 years historical information or records, trending, seasonality as well as the forecast based on the percentage of local market penetration. How much can they penetrate into the local market? What sort of penetration can they expect from different promotion, programs? The new aspect to their attendance is the FIT (Frequent Independent Traveler) and group travelers from international markets. These guests are basically new phenomenon because the relaxation of travel provides lots of opportunities



in Mainland. Every time a new city is given the relaxation of travel, it opens up more times of millions of people that would potentially come to Hong Kong. So it is a little bit harder to predict the Mainland traveler penetration. Fortunately, it is not too far away from their expectation. Ocean Park always plans for more that the number of predictions so that they do not need to cut products, cut people, etc. They think that it is easier to response than high number to low number. Therefore, what they are doing is adding products, adding labors, and adding expense when necessary. And that is how they get to know the total figure and how the human flow occurs.

UNIQUE CHARACTERISTICS - TWO ENTRANCES

OCEAN PARK IS UNIQUE FOR ITS TWO entrances- Tai Shue Wan entrance and Main entrance, while most parks have only one entrance. In order to have even distribution of the attractions in the park, a lot of attractions are moved to the Tai Shue Wan. Otherwise all the people are going to take the cable car in one direction while the cable cars only have a capacity of 3600 people per hour. However, we have 11,000 people per hour in the park normally in the year. It is too much a burden for the cable cars. So, they try to put more entertainment opportunities to the lowland so that they can actually bypass the guests flow in the cables cars and enjoy the facilities in the lowland first. Besides, they have shuttle buses running from gate to relieve the pressure of the cable cars.

FADE OF OLD FACILITIES

OLD ATTRACTIONS CAN IN FACT facilitate with the new one. A number of assets are going to be kept as the mature facilities had their great value, for example, the Ocean Tower, Turbo Drive would stay as they had

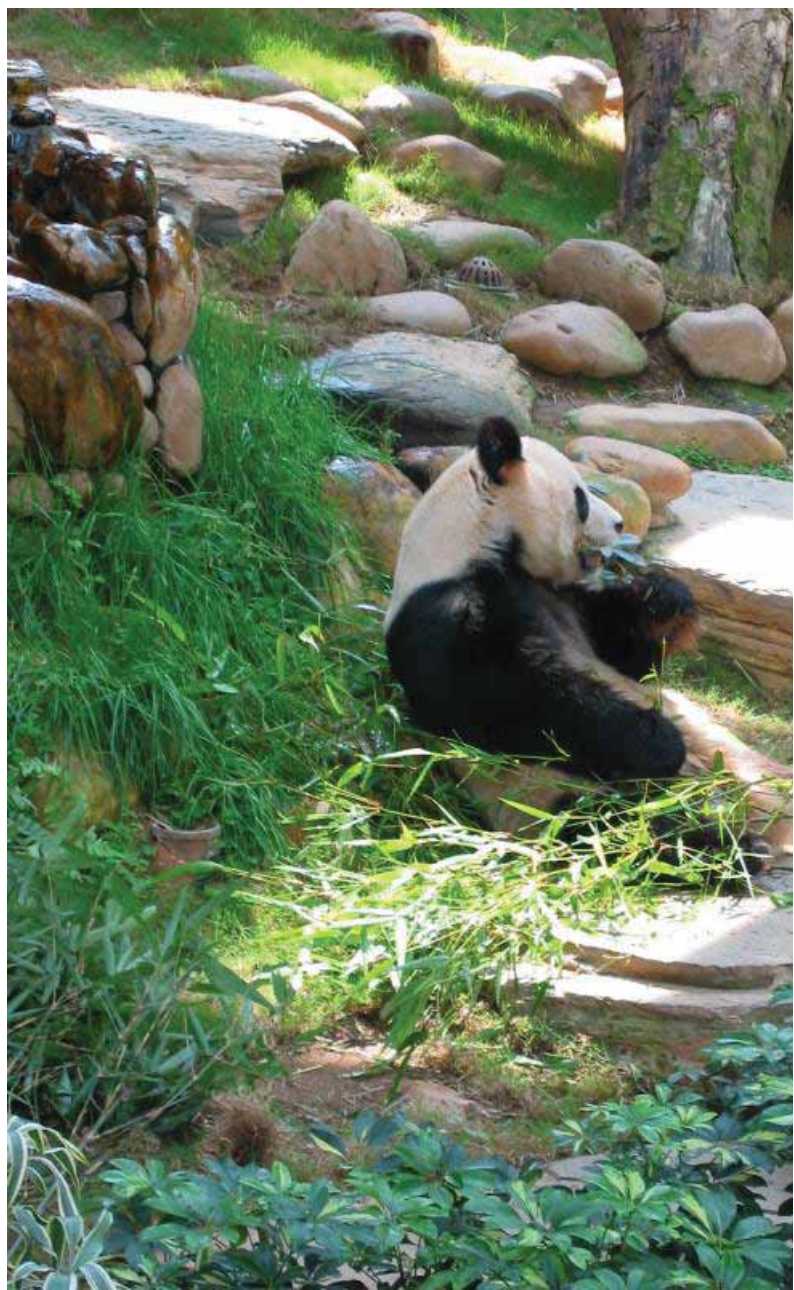
good shape and value. Some of the positions of facilities would not be changed. The mature facilities would be redeveloped to fit the future theme of the Park. Cable Car would stay as well and some renovation would be done, but certain things have to be changed, such as the color and the decorations. All the assets would coordinate with the new assets and incorporate into their planning. All matrixes were redeveloped for the engineering,

MAINTENANCE

HOWEVER, THERE ARE MORE THAN 100 facilities in the Ocean Park. Every day they work properly and bring fun to the visitors with safety. The maintenance of these facilities such as the Abyss Turbo Drop, the Dragon and the Mine Train, are essential to ensure the safety of the visitors. The Ocean Park starts its maintenance from 5am or 6 am. It includes weekly checkup, monthly check up and also annual checkup. All of these will be done according to the schedule. The normal checkups are done by both manufacturers and the park. All the facilities and attractions will be checked and tested daily before the park opened. The most challenging part among all the attractions is the Cable car because it travels about 1.5 km and takes a lone time (about 4 months) for checking and repairing. Moreover, it is very easily damaged by the strong winds. There are 2 lines of cable cars in total. In normal practice, one of them will be closed for checking while another serves the visitors. This ensures the tourists will not be disappointed while the cable cars are maintained in good quality. 'Not to let someone down' is also an aim of the park. The park will not close even more than one attraction are in maintenance.

REDEVELOPMENT PLAN

DR. ALLAN ZEMAN JOINED TO BE THE chairman of Ocean Park in July 2003, the year of the recovery from SARS in Hong Kong. In order to raise the popularity of the Ocean Park, a grand recognition of Ocean Park must be introduced for being the new sense of the park. There is really a magic in between the familiar character --- Sea lion to raise the popularity of the Ocean Park. Sea lion is so funny, lovable and a more energetic character that it is more recognizable than the previous one and it is very interesting for different age groups. The appearance of sea lion can create mass crowd that many family will take photos with it.



The upcoming years will be the redevelopment in Ocean Park. They hold this plan mainly have 3 reasons for redeveloping Ocean Park.

First of all, the park is 30-years-old. For the past years, there has been very little marketable capital being put into the park. The last key investment was already The Abyss Turbo Drop. The park realizes that without a sustainable redevelopment plan, the aging park would not give people a new face or a new feeling. Furthermore, those new characters and new attractions being introduced into the park a few years ago can only increase the attendance of the park for about 30 to 60 days, rather than a full year increase of attendance. Therefore, the park has made a decision: instead of spending \$80

millions into a single attraction, the park will now spend only half of the money and invest them over 5 different events in a year and to renew the park 5 times a year. So 6 years ago, Ocean Park starts introducing Halloween, Christmas and many different events as highlights within the park. Those events actually help Ocean Park to generate a large amount of cash in order to invest into its largest redevelopment plan, making Ocean Park one of the most famous and high-standard marine theme park in the world.

There is also another reason for Ocean Park to redevelop – Customer Satisfaction. Currently, the park is only capable to serve about 15,000 customers at the same time for the greatest entertainment level. Under this state, every thing is manageable and all the customers can be fully satisfied and should

not be waiting for more than 15 minutes for any attractions or shows. However, at peak hours, the park has over 47,000 customers, meaning that not all of them can experience all the attractions in the park. Therefore, the park has to be redeveloped in order to increase the capability of the park. The goal of Ocean Park is to increase its capability to 36,000 customers at highest level of entertainment at all time and that during peak hours, all the guests can enjoy 1.5 attractions per hour during their 8 hours length of stay inside the park and the waiting time of all attractions should not exceed 15 minutes.

Lastly, by implementing the theme park management for the operation of the Ocean Park, the main goal of it is to extend the length of stay of the guests. The longer the length of stay of the guests, the higher the chance they purchase in the parks like having their second meals or buying souvenirs. Normally, the length of stay of the guests is about 4 to 8 hours of a theme park. The refurbishment can help increase the number of attractions and relaxation areas in order to allow guests to have more comfortable places to recharge their energy. Under estimation, the length of stay can boost up to 6 hours on average and 9 hours for the peaks. The higher the chance they purchase in the park, the more revenue it can generate. That's what they expect to get after the refurbishment. 🛠️





IE Corner

Issue 7

January 29, 2007

<http://www.imse.hku.hk/hkuiea/iecorner>

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