## Amusement Park Case

Please read the following situation carefully and answer the three questions. You may use the calculator, paper and pen made available to you. After 20 minutes, you will walk through your solutions with the consultant.

## Situation

You are the business development director for a nationwide theme park called "Thrilly" specializing in thrill rides and targeting kids from age eight to 16 . Thrilly has over 18 theme parks all over the United States. One of your tasks is to determine where to site the latest theme park. After a year of assessment, your team has determined three suitable areas for future consideration. These are locations $\mathrm{A}, \mathrm{B}$ and C . These areas are free of competition from similar theme parks in a two-hour driving radius. In situating a theme park, there are major cost considerations, and determining the future revenue potential is critical to ensuring that the project site will bring in the greatest positive net outcome for Thrilly. Your experiences have taught you not to underestimate the effort and time spent on determining the right site. The last business development director was fired for making a less optimal decision, and you vowed not to repeat the same mistake.

Your experienced team has provided you with a lot of information, and some pieces will definitely be more relevant than others. You decide to shift through all the analyzed information in a single setting to develop an initial hypothesis as to which is the most profitable site, before moving forward to recheck the data gathering and analysis process. Therefore, at this stage of analysis, it is important to consider the most important cost and revenue components, rather than getting mired in the details.

## Cost of theme park development

One of the main costs for the development of a theme park is leasing the land. Theme parks do not buy the land outright because of the risk in selling off such a large piece of land in the future if the theme park is closed down.

After leasing the land, the cost of building the theme park is entirely driven by the time taken to build the theme park. Therefore, labor costs are the main variable component. Your team has painstakingly projected that it will require 400 days for a team of 100 workers to construct and set up the theme park in any of the three locations.

The cost of acquiring, transporting and setting up the actual rides will be the same regardless of the location, so this should not be a factor in the cost-benefit analysis.

After the theme park is built, it will be critical to consider the operating cost of the theme park. The operating cost will only be affected by the number of days it is operating due to weather conditions. During the peak season (summer), the ride frequency is projected to be higher, and therefore resulting in higher operating costs.

## Revenue from theme park

To estimate the number of visitors every year, it is important to consider the number of families who will have the disposable income to visit the theme park. The population to be considered lies within a two-hour driving radius around the theme park, as families are unwilling to endure a four-hour drive with their children to and from a theme park.

Thrilly classified the relevant population under three socioeconomic statuses. Families under status $C$ will not visit Thrilly due to their lack of disposable income. On the average, families under status B will visit Thrilly once every two years, and families with the highest socioeconomic status (A) will visit Thrilly once every year. Families' average spending in the theme parks on food and concessions is slightly different based on their socioeconomic status.

The ticket price for an adult is $\$ 40$ and the ticket price for a child is $\$ 30$, regardless of the season.

## Other considerations

Beyond the obvious financial calculation, it would be also necessary to evaluate other nonmarket and nonfinancial issues that come with the developing and operating of a theme park. However, your team has not gotten around compiling this information, so you will have to infer the critical issues based on your experiences.


## Exhibit 2: Weather conditions and operating cost

Number of peak (summer), off-peak (spring and fall) and closed (winter) days

| Closed (Winter) | No. of days |  |  |
| :---: | :---: | :---: | :---: |
|  | 90 | 80 | 70 |
| Off-Peak (Spring and Fall) | 190 | 198 | 200 |
| High Peak (Summer) | 85 | 90 | 95 |
|  | A | B | C |
|  | Operating cost per day (\$000) |  |  |
| Low Peak | 26 | 24 | 26 |
| High Peak | 32 | 33 | 31 |



## Questions

Which area will you choose to set up the theme park? Please support your answers with the necessary calculations, using the calculator available to do so.

| Cost calculation |  |  |  |
| :---: | :---: | :---: | :---: |
| Locations | A | B | C |
| Building the theme park |  |  |  |
| Leasing Cost | \$7.5M | \$8.2M | \$8.4M |
| Construction costs = <br> Labor cost per day * No. of workers * No. of days of operation | $\begin{gathered} \$ 200 * 100 \text { workers } \\ * 400 \text { days }=\$ 8 \mathrm{M} \end{gathered}$ | $\begin{gathered} \$ 195 * 100 \\ * 400=\$ 7.8 \mathrm{M} \end{gathered}$ | $\begin{gathered} \$ 180 * 100 \\ * 400=\$ 7.2 \mathrm{M} \end{gathered}$ |
| Annual operating cost of the park |  |  |  |
| Operating costs $=$ Cost per day * days in respective season | $\begin{aligned} & \$ 26,000 * 190+ \\ & \$ 34,000 * 85=\$ 7.98 \mathrm{M} \end{aligned}$ | $\begin{aligned} & \$ 34,000 \\ & * 198+\$ 40,000 * 80= \\ & \$ 7.722 \mathrm{M} \end{aligned}$ | $\begin{aligned} & \$ 32,000 * 200+\$ 38,000 \\ & * 95=\$ 8.145 \mathrm{M} \end{aligned}$ |


| Revenue calculation |  |  |  |
| :---: | :---: | :---: | :---: |
| Annual Revenue |  |  |  |
| Number of Status A customers who visit each year | $350,000 * 30 \%=105,000$ <br> children $150,000 * 30 \%=50,000$ <br> adults | $320,000 * 25 \%=80,000$ <br> children $180,000 * 25 \%=45,000$ <br> adults | $360,000 * 20 \%=72,000$ <br> children $140,000 * 20 \%=28,000$ <br> adults |
| Number of Status B customers who visit each year | $\begin{aligned} & 350,000 * 50 \% * 0.5= \\ & 87,500 \text { children } \\ & 150,000 * 50 \% * 0.5= \\ & 37,500 \text { adults } \end{aligned}$ | $320,000 * 50 \% * 0.5=$ <br> 80,000 children <br> $180,000 * 50 \% * 0.5=$ <br> 45,000 adults | $\begin{aligned} & 360,000 * 60 \% * 0.5= \\ & 108,000 \text { children } \\ & 140,000 * 60 \% * 0.5= \\ & 42,000 \text { adults } \end{aligned}$ |
| Ticket Sales | $\begin{aligned} & (105,000+87,500) * \$ 30 \\ & +(50,000+37,500) * \$ 40 \\ & =\$ 9.275 \mathrm{M} \end{aligned}$ | $\begin{aligned} & (80,000+80,000) * \$ 30+ \\ & (45,000+45,000) * \$ 40= \\ & \$ 8.4 \mathrm{M} \end{aligned}$ | $\begin{aligned} & (72,000+108,000) \text { chil- } \\ & \text { dren } * \$ 30+ \\ & (28,000+42,000) \text { adults } \\ & * \$ 40=\$ 8.2 \mathrm{M} \end{aligned}$ |


| Final calculation |  |  |  |
| :---: | :---: | :---: | :---: |
| Total Building Cost $=$ <br> Lease + Build | \$7.5M+\$8M = \$15.5M | \$8.2M+\$7.8M = \$16M | $\begin{aligned} & \$ 8.4 \mathrm{M}+\$ 7.2 \mathrm{M}= \\ & \$ 15.6 \mathrm{M} \end{aligned}$ |
| Total Profit $=$ Revenue Operating Cost | $\begin{gathered} \$ 12.775 \mathrm{M}-\$ 7.98 \mathrm{M}= \\ \$ 4.795 \mathrm{M} \end{gathered}$ | $\begin{gathered} \$ 10.9 \mathrm{M}-\$ 7.722 \mathrm{M}= \\ \$ 3.178 \end{gathered}$ | $\begin{gathered} \text { \$10M-\$8.145M }= \\ \$ 1.855 \end{gathered}$ |

Based on the building cost and net profit, location C will be the most attractive option financially.

What do you think are the top drivers in the net profit of each location, excluding building cost?

Given that the number of adults and children do not differ significantly, one of the key drivers is the socioeconomic status of the population within the two-hour drive, as it determines both the frequency of visits and the amount of non-ticket spends.

The other key driver is the theme park's daily operating costs in each specific location as it directly affects the bottom line.

These two drivers are important levers that affect the net profit for each location.
What are the top nonfinancial or noneconomic considerations to be taken into account when operating the theme park at the area you suggested?

It is critical to manage positive relationships with the surrounding residential clusters by working with local officials to determine how to best manage traffic and noise pollution. Thrilly may have to co-invest in some initiatives to reduce these negative effects. If residents are irritated, then the customer base may shrink, as some residents may boycott the theme park and encourage their neighbors to do so.

Another issue is to continually assure parents about the safety of rides, in the light of accidents in any other theme parks. A major accident in any theme park will adversely affect the number of customers, so it is critical to mitigate the adverse implication of these incidents.

