Business Plan for “The STEM Museum”

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We organized our plans for the development of our project using a Gantt chart

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Sub-task</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determine Customer Need</td>
<td>Begin Project</td>
<td>6 days</td>
<td>Tue 1/11/14</td>
<td>Tue 1/21/14</td>
</tr>
<tr>
<td></td>
<td>Create/Send out survey</td>
<td>4 days</td>
<td>Thu 1/13/14</td>
<td>Tue 1/28/14</td>
</tr>
<tr>
<td>Define Problem Space</td>
<td>Analyze survey results</td>
<td>1 day</td>
<td>Tue 1/28/14</td>
<td>Tue 1/28/14</td>
</tr>
<tr>
<td></td>
<td>Create business plan</td>
<td>6 days</td>
<td>Tue 1/28/14</td>
<td>Tue 2/4/14</td>
</tr>
<tr>
<td>Specifications</td>
<td>Research/determine</td>
<td>3 days</td>
<td>Tue 2/4/14</td>
<td>Thu 2/6/14</td>
</tr>
<tr>
<td></td>
<td>marketing needs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brainstorming</td>
<td>brainstorm marketing ideas</td>
<td>3 days</td>
<td>Tue 2/11/14</td>
<td>Thu 2/13/14</td>
</tr>
<tr>
<td>Evaluate Ideas</td>
<td>Determine types of</td>
<td>3 days</td>
<td>Tue 2/18/14</td>
<td>Thu 2/20/14</td>
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<tr>
<td></td>
<td>marketing to use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td>Create finance spreadsheet</td>
<td>4 days</td>
<td>Thu 2/20/14</td>
<td>Tue 2/25/14</td>
</tr>
<tr>
<td></td>
<td>Determine cost of</td>
<td>1 day</td>
<td>Tue 2/25/14</td>
<td>Tue 2/25/14</td>
</tr>
<tr>
<td></td>
<td>marketing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Determine start up costs</td>
<td>3 days</td>
<td>Tue 2/25/14</td>
<td>Thu 2/27/14</td>
</tr>
<tr>
<td></td>
<td>Determine upkeep costs</td>
<td>3 days</td>
<td>Tue 2/25/14</td>
<td>Thu 2/27/14</td>
</tr>
<tr>
<td>Presentation</td>
<td>Create PowerPoint</td>
<td>3 days</td>
<td>Thu 2/17/14</td>
<td>Mon 3/3/14</td>
</tr>
<tr>
<td></td>
<td>Finish Project</td>
<td>2 days</td>
<td>Mon 3/3/14</td>
<td>Tue 3/4/14</td>
</tr>
</tbody>
</table>
We recognize the opportunity to create an economically sustainable and educational museum.
By considering our start up costs, expected monthly costs and estimated monthly income, we’ve allowed the museum to be economically sustainable.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Monthly Cost</td>
<td>$66,070.00</td>
</tr>
<tr>
<td>Monthly Revenue</td>
<td>$68,400.00</td>
</tr>
<tr>
<td>First Year Cost</td>
<td>$1,116,340.00</td>
</tr>
<tr>
<td>First Year Profit (before grants)</td>
<td>-$295,540.00</td>
</tr>
<tr>
<td>Yearly Profit</td>
<td>$27,960.00</td>
</tr>
</tbody>
</table>
The start up costs for the museum are spread throughout the exhibits and groups

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>$20,000.00</td>
</tr>
<tr>
<td>Water Filtration</td>
<td>$200,000.00</td>
</tr>
<tr>
<td>Structure</td>
<td>$10,000.00</td>
</tr>
<tr>
<td>Agriculture</td>
<td>$30,000.00</td>
</tr>
<tr>
<td>Energy Production</td>
<td>$50,000.00</td>
</tr>
<tr>
<td>Waste Water</td>
<td>$4,000.00</td>
</tr>
<tr>
<td>Energy Usage</td>
<td>$9,500.00</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$10,000.00</td>
</tr>
<tr>
<td><strong>Total Start Up Cost</strong></td>
<td><strong>$323,500.00</strong></td>
</tr>
</tbody>
</table>
A large portion of the start up cost will be covered through various grants

- Google RISE - 25 k
- NSF Scholarships in STEM (S-STEM) Program - 10 k
- Toyota USA Foundation - 300 k
Donations will also play an important role in getting the museum up and running

- Penn State, University Park - land on North campus
- Penn State alumni foundation - ads in Penn Stater Magazine
Our monthly costs include each individual exhibit, as well as maintenance, advertising, and employee salary.

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>$5,000.00</td>
</tr>
<tr>
<td>Water Filtration</td>
<td>$20,000.00</td>
</tr>
<tr>
<td>Structure</td>
<td>$500.00</td>
</tr>
<tr>
<td>Agriculture</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>Energy Production</td>
<td>$10.00</td>
</tr>
<tr>
<td>Waste Water</td>
<td>$500.00</td>
</tr>
<tr>
<td>Energy Usage</td>
<td>$100.00</td>
</tr>
<tr>
<td>Maintainence</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>Advertising</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>Employee Salary</td>
<td>$36,960.00</td>
</tr>
</tbody>
</table>

**Total Monthly Cost**: $66,070.00
Comparing our expected monthly costs with our projected monthly income shows a relatively low net profit.

75% of people would be willing to pay $12 a ticket. Considering exhibit sizes, 190 estimated customers a day (5,700 per month).

<table>
<thead>
<tr>
<th>Expected Monthly Costs</th>
<th>$66,070</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Monthly Revenue</td>
<td>$68,400</td>
</tr>
<tr>
<td>Net Monthly Profit</td>
<td>$2,330</td>
</tr>
</tbody>
</table>
Having a low net profit has led us to become and enjoy the benefits of a non-profit organization.

- Exempt from federal income tax
- Allows net profit to go back into the museum
- Money can then be used for
  - Unpredicted maintenance
  - Future improvements/expansions
Advertising would be achieved through multiple avenues in an attempt to get the best value for our advertising dollars

- **Radio Ads**
  - 12 Ads per month
  - Monthly Cost: $564

- **Billboard**
  - Monthly operating cost: $400

**Total Monthly Cost:** $964, leaving $36 for unanticipated costs
Our marketing strategies revolve around cheap communication methods that reach many people at once.

- Alumni Magazine
- Facebook Page
- Email
Questions?
Works Cited

- http://stemgrants.com/