BA5804: Managing the Global Enterprise
Spring 2013 CL2014
Team 3
Applied Research Technologies - 2006

- Emerging technology giant
- Consists of 60 business units; $11 billion revenue

- Healthcare (Medical Diagnostic Equipment)
- Industrial Automation (Robotics)
- Energy (extraction, conversion, transportation, etc.)
- HVAC (Heating Ventilation & Air Conditioning)
Fostering Innovation & Entrepreneurial Culture

- Successes built on its innovation and entrepreneurship was encouraged
- Decentralized management philosophy
- Push 30% of sales for new products
- Independent R&D teams – US and abroad
- Promote “Tinker Time”
  - Half day a week on other projects
Peter Vyas -

- 32 years old
- Previous role - Lab Manager in HVAC
- Appointed as manager of Filtration unit in 2001
- Seen as an excellent talent manager by his management.
- Initiates series of appointments
  - Recruited Janice Wagner for Marketing Manager position
- Betting on mini-oxidation technology to revive Filtration business unit. (this is his 3rd attempt)
Cynthia Jackson -

- Appointed VP of Water Management as the mini oxidation was re-launching for the 2\textsuperscript{nd} time
- Seems to be weary about the Filtration units business prospects.
- Felt that the Filtration Unit was not doing a good enough job planning and assessing their business development
Business Structure

- Corporate R&D group – subsidiary in India
  - Independent from Business Units
- Some people in the R&D teams are directly assigned to business units. (as advisors?)
- Between Front end / backend structure and Matrix
  - Marketing and sales are grouped by product line
  - Centralized R&D in different geographies
Business Structure (cont.)

- SCORE B: Competence in working across countries
- T-Shaped Structures
- Transnational Structures
- Matrix Structures
- Front-end/Back-end Structures
- Score A: Geographic dispersion of skills, capabilities, and resources
Mini oxidation – Previous attempts

• **1st attempt**
  • Safe drinking water for 3rd world countries
  • Paid for by aid agencies
  • Failed due to technical issues
  • Bad odor

• **2nd attempt**
  • Same technology aimed at armies and NGOs in western countries
  • Relied on previous technology, odor problem fixed
  • Failed due to high power consumption
Mini oxidation 3rd attempt

- Domestic water treatment for irrigation purposes
- 26% of US is in moderate to extreme drought conditions
- $2000 target retail price ($1000 wholesale)
- HVAC Marketing relied upon to succeed
  - Originally Filtration came from drilling equipment
  - Selling to household consumers needs to be under HVAC branch
- HVAC is a different branch on the organizational chart
  - Why should HVAC make an effort?
  - As long as the filtration unit is not within the HVAC organizational branch it maintains a high risk of failure
### Profitability Breakthrough Analysis

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forecasted Cash Flow</strong></td>
<td>-2</td>
<td>0.545</td>
<td>1.062</td>
<td>1.772</td>
<td>2.178</td>
<td>2.614</td>
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<tr>
<td><strong>Cumulative NPV</strong></td>
<td>-2</td>
<td>-1.54583</td>
<td>-0.80833</td>
<td>0.21713</td>
<td>1.267477</td>
<td>2.317985</td>
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</table>

**Cash Flow (Millions of Dollars)**

-0.545 to 2.614
<table>
<thead>
<tr>
<th>Service</th>
<th>Revenues (in $ millions)</th>
</tr>
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<tbody>
<tr>
<td>Water Treatment Equipment</td>
<td>11660</td>
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<tr>
<td>Delivery Equipment</td>
<td>1780</td>
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<tr>
<td>Chemicals</td>
<td>34130</td>
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<tr>
<td>Contract Operations</td>
<td>1400</td>
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<tr>
<td>Consulting/Engineering</td>
<td>11660</td>
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<tr>
<td>Maintenance Services</td>
<td>2350</td>
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<tr>
<td>Instruments and Testing</td>
<td>7460</td>
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<tr>
<td>Wastewater Utilities</td>
<td>4020</td>
</tr>
<tr>
<td>Drinking Water Utilities</td>
<td>35070</td>
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</table>
MANAGING CONFLICT OF INTEREST
How effective have Peter Vyas and Cynthia Jackson been in their respective roles?

- **Peter Vyas**
  - He is able to brings product to the market
  - One trick pony?
    - Not multi-tasking effectively
  - Very good conflict resolver, able to cross culture barriers, and very good talent manager
  - Risk Taker

- **Cynthia Jackson**
  - Politician
  - Driving organization for more accurate and cost sensitive business plans
  - Promoting culture of joining R&D forces to maximize value proposition to customers
  - Thorough in demanding exceptional business plans
  - Risk Averse
Peter Vyas – Move Forward?

- Performed due diligence on background of products
- Going along with ART culture
  - “No shame in failure when stretching for big objectives”
- All of his eggs are in one basket!
  - Risky Strategy proposition
- Did not review due diligence after 1\textsuperscript{st} and 2\textsuperscript{nd} trials
- The technology matured after 2\textsuperscript{nd} attempt
  - Now has differentiation advantage over competitors
  - First to market
- 3\textsuperscript{rd} try can be considered as capitalizing on knowledge gained from first two tries – \textbf{not aligned with energy customer base}.
- \textbf{Vyas may be forced to move forward due to his connection with mini-oxidation unit – HAS NO OTHER OPTION}
Cynthia Jackson – Move Forward?

- She will be able to capitalize on the success, yet if it fails it will be her first failure in this role
- Initial complaints – failures were due to technical mishaps not market research
- Focus on marketing forced her to make revisions and fine tune their planning
  - Cutting cost – focus on one of two products (chose RIMOS)
  - Driving for cross R&D cooperation
  - Operating income payoff is within 3-4 years
    - Pushed for stress test – she received push back from marketing
    - Acceptable for these forecasts
- From her perspective, Vyas might be seen as being locked on one idea.
- **Approve last attempt before scrapping the unit**
- **Request Filtration Unit be transferred under HVAC**
- **Or create joint marketing agreement so that HVAC gets payback?**
What kind of organizational changes would you suggest in order to ensure that emerging market teams are able to contribute to the innovation mandate of the organization?

- Current org chart which is aligned according to products, cannot accommodate adjacent products that are aimed at completely different customer base.
- Filtration Unit should be re-organized to report under HVAC group
  - Coordinate their value proposition with their customer base
  - Inject innovation into HVAC group
- Add “Center of Innovation” corporate body to align and govern entrepreneurship in different business units with their core business competencies.