Quality Based Shared Resource Management

Lessons from the business world
Course Goals

- Operating a Business
- Quality Management
- Selling your Service
- Quality Uncertainty
- QMBI
What is currently being done to train core directors and administrators who are responsible for cores?

Are there good courses or other models for training core directors?

Should general guidelines or some sort of certification for training be developed?
There is a desire for training courses.
Courses in General business practices
What business practices specifically?
What is the most useful format?
Are Core Facilities Businesses?

- Sell goods or services
- Raw materials to products
- Produce revenue
- Satisfy stakeholders
Can Core Facilities be run like Businesses?

- Restrictive Regulatory Environment
- Can’t make a Profit (For-profit)
- Can’t have a Surplus (Non-profit)
- Demanding Customer Base
- Small Customer Base
- Cannot Raise Capital in the Usual Way
- Low Level of Financial Risk
Can Core Facilities be run like Businesses?

NO!

There is No Business Incentive
What incentives do we have?

- Institutions Goals
- The Technology
- Personal Satisfaction

Providing a High Quality Service
My Goal

Google
Investigators Know:

- What Core Facilities are available
- Where the Cores are Located
- Who the Personnel are
- What Expertise is available
- What services are available
- How to contact the Core
- How to submit a sample to the Core
- Prices are fair and reasonable
- **The service is of the Highest Quality**
- **There is no Miss-Perception about the Quality**
The Boss Needs

- Wire
- Specifications
  - Length 10 meters
  - Minimum 10 gauge
  - Maximum resistivity of $2.0 \times 10^{-8}$
Product Description

GERRY’S SILVER WIRE
- Wire Diameter metric
- Purchase by length in feet
- One click price calculation

BOB’S BEST WIRE
- Wire Listed in table
- Table includes:
  - Resistivity
  - Size in wire gauge and metric
  - Picture of wire
  - Composition of wire
  - Price per ft and meter
  - Properties of insulation
## Ordering Process

<table>
<thead>
<tr>
<th>GERRY’S</th>
<th>BOB’S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Byzantine order form</td>
<td>One click selection</td>
</tr>
<tr>
<td>Faxed PO required</td>
<td>Credit card</td>
</tr>
<tr>
<td>Undefined shipping cost</td>
<td>PayPal</td>
</tr>
<tr>
<td>One size fits all shipping</td>
<td>Shipping options</td>
</tr>
<tr>
<td>No email confirmation</td>
<td>Free Shipping over $100</td>
</tr>
<tr>
<td>Shipped from factory</td>
<td>Email order confirmation</td>
</tr>
<tr>
<td></td>
<td>Shipped from stock</td>
</tr>
</tbody>
</table>

**Business Practices**
Additional Information

GERRY’S
- One 800 number
- No email
- No FAQ

BOB’S
- Wire gauge to Metric conversion chart
- Properties of insulation
- Properties of conductors
- Recommended use chart
- 24 hour email help
- Direct phone numbers
- References
- Photographs
- FAQ
Manufacturing Process

Quality Management

GERRY’S
- Photo of Outside of factory
- Photo of CEO

BOB’S
- Managers’ bios & photos*
- Employee photos
- Interior Factory Photos
- Diagram of Process
- Draw plate dimensions
- Maximum diameter
- Minimum diameter
- Inspection process

* Production manager is Six Sigma Black belt
Is it Gerry or Bob?

Which vendor would you choose?
# Final order

<table>
<thead>
<tr>
<th>GERRY’S</th>
<th>BOB’S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire diameter +/- 0.01 mm</td>
<td>Wire Diameter +/- 0.03mm</td>
</tr>
<tr>
<td>Resistivity 1.59x10^{-8}</td>
<td>Resistivity 1.68x10^{-8}</td>
</tr>
<tr>
<td>Shipping 2 business days</td>
<td>Shipping 5 business days</td>
</tr>
<tr>
<td>Total Cost $87</td>
<td>Total cost $87</td>
</tr>
</tbody>
</table>
What did Bob Learn in Business School?
WHAT INFLUENCES PRODUCT SELECTION?
The Customers Perception of Quality

• Product or Service Quality
• Doing Business
• Value of the product
• Communication
Quality Perception

What Influences that Perception?

• Quality Management
• Marketing
• Business Management
• Information Economics
“Quality is the level of performance that delights the customer. This is achieved when the customer’s perception of the transaction is that value has been gained. This value is not just about money, but every aspect of the relationship between the supplier and the customer.”