THE RELATIONSHIP BETWEEN PUBLIC HEALTH AND BUSINESS: WATER FILTERS IN PERU

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CLASS ON ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT

- Half a semester on Various Theories of Economic Development
- Student Trip to Developing Country (Bolivia, Peru) to work with Emerging Firms
  - For a cooperative in Peru: Make or Buy decision about feed source
  - A village in Peru: Looking to market an in-village stay to tourists
  - An entrepreneur in Peru: Helping improve her internet marketing
SEVERAL PROJECTS HAVE HAD PUBLIC HEALTH DIMENSION

- **Example:** Drinking water quality in Peru
  - Long established as a major health concern
  - Source of long list of childhood diseases and conditions
  - Several solutions available: Water filters
THE WATER FILTER PROJECT

• Over a decade ago, cheap water filters were developed by "Potters Without Borders"
  • Essentially clay pots with some chemicals added
  • Pots fit over the top of plastic bucket
  • Fill the pots—filtered water collects in the buckets in 45 – 60 minutes
  • Filters eliminate virtually all the bad things in the water

• NGO had been trying to implement a water filter project for years, with no success
  • Why?
THE WATER FILTER PROJECT

- Problem one: lack of consensus within the NGO
  - One division: Water filters would address an important public health concern
  - Other division: Water filters were an opportunity for North Americans to literally get their hands dirty in serving the poor
    - Well healed North Americans would mix the clay, by hand, and put it into the molds for firing
    - And would feel good about (and pay for) the experience
THE WATER FILTER PROJECT

- **Problem One:** Lack of consensus within the NGO
- **Problem Two:** Inefficient manufacturing
  - Even with free labor, this was a very costly approach to making the pots
  - **Plant in El Salvador, at scale:** Pots cost $2 each to make
  - **In Peru:** $26 per pot (due partly to high breakage)
THE WATER FILTER PROJECT

• **Problem One:** Lack of consensus within the NGO
• **Problem Two:** Inefficient manufacturing
• **Problem Three:** High costs made it impossible to sell the pots to the poor
  • **Covering costs + some overhead:** Pots for $36 each
  • **In Central America:** $4 each
  • **Solution:** Have donors fully fund pot making, and then give the pots away for free
THE WATER FILTER PROJECT

- **Problem one:** Lack of consensus within the NGO
- **Problem Two:** Inefficient manufacturing
- **Problem Three:** High costs made it impossible to sell the pots to the poor
- **Problem Four:** People who received pots did not use them
  - They had no “skin in the game”
  - Turns out they did not believe that the water was actually a problem
  - They used the filters as planters—scream at your customers because they aren’t using your product
THE WATER FILTER PROJECT

- **Problem one:** Lack of consensus within the NGO
- **Problem Two:** Inefficient manufacturing
- **Problem Three:** High costs made it impossible to sell the pots to the poor
- **Problem Four:** People who received pots did not use them
- **Problem Five:** The NGO had no marketing plan to generate demand for the pots
  - Our idea: Begin marketing to children in schools
  - But couldn’t do this until there was a solution to the manufacturing problem
WHAT DID WE LEARN

- The medical dimensions of this project were not in doubt
  - Water was bad
  - It caused disease
  - It was bad for the children
  - It could be almost entirely addressed through water filter pots
WHAT DID WE LEARN

• The medical dimensions of this project were not in doubt
• The reasons why the pots were not being used were all business problems
  • No clear strategy in the NGO
  • High manufacturing costs
  • Poor sales/distribution strategy
  • No marketing strategy to build demand
CONCLUSION

- Addressing public health issues typically involves a marriage
  - Understanding how to solve the health dimensions of a situation
  - Using business skills to deliver those solutions
CONCLUSION

• This NGO still manufacturers less than 250 pots per year, most of which are never used to filter water

• Poor quality water in Peru is still a major health issue