

Milestones

Customer Needs Assessment

BIO 2006 – Chicago
Lead presentation, BIO Defense Track
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A needs assessment is a qualitative and quantitative insight into customer needs at critical stages of product development using a variety of market research tools, including questionnaires, stakeholder forums, SWOT analysis; customer satisfaction surveys, and focus groups, to mention a few using scientific intelligence gathering conventions and instruments.

1. Technology chasing market

Too often researchers assume they understand customers without engaging in formal market research. They have an expertise and they know what the customer wants. We call it technology development in search of a market.

A good example is a research team that developed a device that tested the level of readiness of war zone field commanders, intended to be used "far forward." The device as presented at a project review panel weighed 18 pounds. The business case subject matter experts suggested that the research team focus on reducing the weight and footprint of the device. The research team was surprised – first they heard of this product requirement because they never asked.

2. The more things change, the more they stay the same

One of my biotech industry heroes – Dr. Tom Fogarty, founder of Three Arch Ventures – pointed out at a JP Morgan panel on future market trends in 2001 that for boomers it's not all about access to technology. Medical practice is a service business whose primary objective is the prevention, maintenance and repair of customer problems - 'customer' defined as patient." This plus the forward march to personalized medicine and the FDA instructing drug development companies to include a biomarker test to detect HER2 protein to determine who benefits from the use of a cancer therapeutic and who

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doesn't – Genentech and Herceptin® cancer therapy – compels us to understand our customer as never before and for more than marketing reasons. There are clinical, business and finance reasons for doing so. Customer needs assessment becomes a make or break aspect of medical products development and a way to anticipate problems before they become product killers.

3. What is a needs assessment?

- A needs assessment is a qualitative and quantitative insight into customer needs at critical stages of product development using a variety of market research tools, including questionnaires, stakeholder forums, SWOT analysis; customer satisfaction surveys, and focus groups, to mention a few using scientific intelligence gathering conventions and instruments.
- **When** As this graphic depicts, it is performed at numerous points in a product development cycle from inception through sales and marketing.

4. **Assessment architecture**

- Later this week, Dave (Gabriliska) and I will be visiting a Chicago based medical center to study pregnant and new moms and their newborns and the business of upper respiratory pathogens, clinical, business and financial ramifications; current practice for which diagnostics arte currently used to distinguish between bacterial and viral URIs; we'll also visit a university business school to ascertain the cost benefit/ROI implications to inform business models and later a military installation to learn more about how germey recruits are managed clinically and how much it costs to gain insights into product cost and reimbursement.
- Customer needs assessment can occur at one or more auctionable milestones "Auctionable" defined as when a company's value increases. And as this graphic shows, needs assessment can occur at a variety of inflections.
- Dave and I have developed a customer needs assessment architecture the activities for which fall into discrete categories allowing us to enter into the product development picture irrespective of stage of development. One of the "deliverables" of a needs assessment is decision support tools for PIs, executive management teams, and we believe going forward congressional liaisons whose business it is to decide which constituent gets the congressionally directed funds through grants.
- We have a set of topics that typically make up the initial interview with clients. The web address is posted at the end of my show.

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5. CASE HISTORY –

- Closely held publicly traded company sought to extend its current successful technology to an orphan market
- Its rationale was largely ideological. An ethnic minority of soldiers was being disadvantaged professionally due to a medical condition that sometimes resulted in early separation from the service.
- Subject of a customer needs assessment, subject matter experts that were interviewed and told us:
- Insignificant market - 2%
- Challenging care transition due to 30-state legislative intervention that would preclude use by soldiers themselves
- Makes difficult/costly OTC goal
- **Recommendation:**
retarget product

6. From a financial strategy point of view...

A customer needs assessment can be performed at an early stage when risk to investors is high with hopes of security non-dilutive high risk money. If the goal is government funding, it will require the research team to become familiar with military topics that define military needs. These are formal and are published. Is your technology addressed in topics, does it bin into existing requirements or does a requirement need to be developed – takes time and money. If the answer is yes, then the mechanism for bringing it to the military's attention is a white paper. Chris will discuss this later this morning.

When the risk has been mitigated, it may be time to solicit money from angels and later VCs as delineated in your financial strategy. You need to understand the perspective investor's investment criteria, marrying your technology, customer needs with the ability of your technology to generate a return on investment. The vehicle for demonstrating this is the business plan, a tool the military will ask for as well.

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7. **Above all else, can I make a business case for the technology and product?**
8. **What comes out of a customer needs assessment?**
 - Provides insights into the needs of customers at critical stages of product development
 - Do you have a market or do you have to create one as Dave pointed out
 - What is the size of your market correlated to needed resources – informs how much money you will need to raise, when, and how it affects partnering and ownership issues, to name a few.
 - i. Basis for customer “listening posts”
9. **What benefits emerge having undertaken a customer needs assessment?**
 - Real world focus on *marketable* ideas
 - Validates technical and market viability
 - Unmasks competitor *oh-no's*
 - Managing investor risk
10. **Take home**
 - a. Build strategic capability – early concept through post sale – integrity and importance of “customer listening post”
 - b. Look down range – stakeholder exit and liquidity – event and ability to compete for \$\$\$
11. **www.thinkmilestones.com/bio2006**