January Event with Marisa Mayer of Google.com
Creativity in the Product Management Process

Marissa Mayer of Google.com addressed a standing room only crowd at the January 8th meeting of the SVPMA. Marissa spoke about creativity in the product management process and her experiences at the company. She has been with Google since June 1999 and has led nearly every user-interface effort in the last three years. Marissa opened with Google's mission:

to organize the worlds information and make it universally accessible and useful

and a simple formula:

Smart people
+ Creative environment
+ Outlets for ideas
= Innovation

This (and a lot of hard work) has catapulted Google.com into a top 10 property in every major global market. Google handles 150 million searches a day.

First and foremost, Google focuses on search differentiation. The company measures this on *accuracy*, *comprehensiveness* - Google has over three billion pages catalogued, *performance* - return results in less than half a second, *integrity* - Google does not accept paid placements in search results, and *user centered design*. Further, the design teams adhere to a simple three point philosophy:
• Build products that matter
• Generate and capitalize on network effects
• Don't be evil, which ties into their integrity and resisting the temptation to develop "big brother" capabilities

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Debugging the User Code
by Steve August

This three part series will explore the impact of incorporating users into the product design/development process. Part I makes the business case that user oriented design/development not only creates better products, but also increases revenue and cuts costs. Part II will explore the process of integrating users into each phase of the design/development process. Finally, Part III will offer advice and resources helpful to implementing user oriented design/development, including information about cost and budgeting.

Part I: The business case for user oriented product development.

In developing any given technology product, great care is taken to make sure the technology works correctly. Software is constantly debugged, hardware is systematically checked and everything possible is done to ensure that the product functions as designed.

Yet, in the end, an organization's bottom line success is measured not by the sophistication of its technology, but by

Letter from the President

Dear SVPMA Members,

As most of you know by now, we've restructured the SVPMA membership model to one of annual membership. I want to thank each of you who have signed up as an SVPMA annual member for your commitment to the organization. The SVPMA couldn't be what it is today without the loyalty and dedication that you show to both this organization and to the profession of product management.

For those of you who have not yet signed up, I strongly encourage you to do so. While the cost savings alone justify the investment, the opportunity to meet with your peers on a regular basis and learn about how to address the issues that Product Managers face is invaluable. And when you sign up now, the annual membership is only $60 instead of $100 which works out to the same $5 per meeting that we offered in the past.

While the new model does mean a bit more in up-front costs, it also provides significant benefits. The new model allows us to better project attendance at meetings and avoid costly last-minute room expansion charges. It also assists with cash flow and planning issues, since we can now pay in advance for costs such as the hotel and food provided at meetings. But most importantly, we're hoping that the up-front commitment from you will mean more frequent attendance at meetings. One of the key mandates of the SVPMA is to provide you with a forum for networking with your peers. It's our hope that the more often you see the same faces month after month, the more likely you'll be to develop relationships with your peers and build the foundation for a strong network.

We've made some impressive strides within the organization over the past six months. We've had some fantastic speakers, including:

• Dan Miller, Digital Impact - Financial Tools for Product Managers

Continued on next page

"Stress the importance of thinking hard, not working hard"

From *Debugging the Development Process* by Steve Maguire, Microsoft Press

"Keep meetings small by making it safe for unessential people not to attend. A published agenda, rigorously followed, is the easiest way to make nonattendance safe"

From *The Deadline* by Tom DeMarco, Dorset House Publishing

- Marissa Mayer, Google - Creativity in Product Management
- Paul Wiefels, Chasm Group - Applying the Chasm Group Model to Product Management
- Robin Purohit, Veritas - How to Segment a Market and Determine Price Points
- Barbara Nelson, Pragmatic Marketing - Using Personas to Build MRDs

In the upcoming months, we'll have more excellent speakers including Directors of Product Management from Oracle and Tibco, covering a wide range of relevant and interesting topics.

I also encourage you to check out the SVPMA website at www.svpma.org - we've added a wealth of information and resources for your reference and also created a forum for you to share information with your fellow SVPMA members.

I think you'll agree with me that the SVPMA board has done an amazing job over the past year in building and growing this organization. We're proud of the product management resources that we're able to provide to you from our monthly events, to our newsletters and the extensive information on our website. I want to take a moment now to introduce you to the team behind the SVPMA it is because of

their dedication that the organization is what it is today. The members of the SVPMA board are:

Ivan Chalif - Web
Greg Cohen - Newsletter
Mark Harnett - Marketing
Gautam Patil - Events
Simon Peel - Membership
Ray Stendall - Finance
Bill Kong and Laura Lukitsch - Board Members Emeritus

Please join me in thanking these dedicated individuals the next time you see them at an SVPMA event. We also always welcome ideas, suggestions and volunteers, so please feel free to share your thoughts with any one of us.

With best regards,
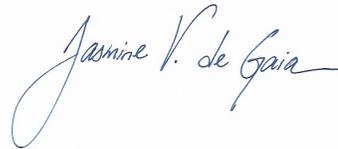
Jasmine V. de Gaia

Jasmine de Gaia
President, SVPMA

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how well it serves its customers. To be successful for any length of time, a company's offering must give its intended users enough value that they will pay for it.

It is ironic, then, that for all the elaborate systems and processes that ensure the technology works as intended, testing technology products with their intended users is often a slap dash affair. Beyond gathering an initial requirements list, understanding the user experience in terms of both usefulness and usability - is often an afterthought, done too late in the product cycle to be of use. In the rush to get a product out the door, there is often no time or money to spend on understanding the user's perspective.

However, statistical and anecdotal evidence is mounting that paints this strategy as penny wise and pound-foolish. Study after study shows that integrating the user experience into product development not only creates better products and more satisfied customers, but reduces the cost of development, support and maintenance. The net result is increased revenue, reduced costs and increased bottom line ROI.

Guiding the development process
There is no direction without customer data - data about how work is structured, what matters to people, and real characterizations of market.
Hugh Beyer & Karen Holtzblatt, Contextual Design

According to usability gurus Norman Nielson Group, "the user experience encompasses all aspects of the end-user's interaction with the company, its services, and its products." Understanding the user experience the customer data that Beyer and Holtzblatt refer to in the above quote - provides a powerful tool not only for creating more satisfying and profitable products, but also provides an essential framework for organizing a more efficient development process.

First and foremost, by understanding customer needs and desires, project teams can focus their development efforts on product features that will deliver the most value to their customers. Without this crucial information, all the efforts and resources of the team are predicated on what often proves to be an educated guess. Armed with an understanding of the user point of view, teams can make concrete

determinations about how to focus their resources - how to mate the product with the customer's work flow, which features to develop, and which issues to tackle for subsequent releases.

The net effect for development teams is that they can more efficiently develop useful and usable products for their customers. The bottom line for companies is increased revenue and reduced costs.

While integrating the user experience into product development cannot overcome a bad product or an unworkable business plan, it can measurably add to an organization's bottom line. Yet these benefits so often go unrealized, as the up front cost of user testing is often judged to be too expensive. More often than not, however, the savings realized by cutting user testing prove to be a false economy.

Thinking strategically about cost

"Over the last two years, we have really built in the user experience point of view. Unless you do that, you're not going to hit the target. More early and frequent user interaction translates into less business risk."

    Stephen Whalley, Manager of Technology Initiatives at Intel Corporation

Cost is the most common reason given for not doing user testing. Yet, studies show that an appropriate level of investment in user testing actually helps control costs and limit unnecessary and expensive rework. In fact, evidence shows that the earlier user testing is incorporated into development, the greater the benefit.

In his book Software Engineering: A Practitioner's Approach, Robert Pressman determined that the costs of correcting problems get progressively more expensive as a product moves from definition through development to release. In fact, it can be *as much as 100 times more expensive* to correct a problem after a product is released than in the early stages of its development.

Stage in Development Cycle	Cost of Change (in units)
Definition	1
Development	1.5-6
After release	60-100

Pressman also found that 80% of software maintenance costs are spent on unforeseen user requirements, and only 20% are due to failures. In other words, 80% of the cost of maintenance is spent on delivering the product that users wanted in the first place.

Yet, the impact of user oriented product development is not limited to just the development process. The ability of a product to satisfy customer needs has an impact on the whole organization. Customers also interact with marketing, sales, training and support. If the product is not intuitive to use, then the company will end up with the expense of support calls. If the product does not satisfy its function for customers, it will require more resources to sell. If the product is hard to learn, training costs will rise. If the product fails to meet customer expectations initially, it necessitates expensive rework.

Clare-Marie Karat examined the impact of user oriented development in her 1990 study entitled Cost Benefit Analysis of Usability Engineering Techniques. In the study, she found that the benefits grew depending on how many people were affected by the improvements. She cited one case where IBM spent $20,700 on usability work to improve the sign-on procedure in a system used by several thousand people. The resulting productivity improvement saved the company $41,700 the first day the system was used. In another case, on a system used by over 100,000 people, for a usability outlay of $68,000, the same company recognized a benefit of $6,800,000 within the first year of the systems implementation. The study found that for every dollar invested in developing more usable software, organizations derive $10-$100 in benefits.

Reaping the benefits

"Improving user experience can increase both revenue and customer satisfaction while lowering costs."

  Forrester, Get ROI from Design, June, 2001

Forrester Research published a report in June of 2001 that examined the positive impact of developing e-commerce sites around the user experience. In the report Forrester modeled a hypothetical apparel retailer e-commerce site. The site faced issues on how to improve sales and drive revenue. 500,000 users visited the site's home page, but of those users only 3.3% would end up purchasing generating $1,348,397 in revenue. By conducting user testing, the retailer was able to understand why users were bailing out before purchasing. The reasons ranged from no intention to buy, to confusing wording, to an ineffective search feature, to getting asked for a credit card before being shown shipping charges. Once the retailer understood the obstacles that were derailing

user purchases, it could calculate how much each problem would cost to fix and prioritize which issues to tackle first.

The cost of the user testing and the highest priority fixes totaled $490,900 and resulted in an improved purchase rate from 3.3% to 5.0%, boosting revenue from $1,348,397 to $2,059,014. Forrester estimated that the user testing and fixes paid for themselves in 52 days.

Separating the winners from the losers
"Companies that succeed have a deep understanding of their customers. They use that understanding to consistently develop products that deliver ongoing value.
Marty Cagan, Good Product Management, Inc.

Marty Cagan's twenty-two years of experience managing products for Hewlett Packard, Netscape, AOL and E-Bay has helped him identify patterns of successful companies, and common failings of unsuccessful companies. According to Cagan, "the single biggest mistake, especially in Silicon Valley high-tech companies, is to assume that if you like your product then your customers will too. We are absolutely not our customers, and we seriously

miss the mark when we believe we are." Cagan goes on to say that companies need a constant reality check to ensure that they consistently deliver value for their customers.

A quick survey of successful companies bears witness to the notion that customer oriented companies tend to thrive. Amazon.com has relentlessly focused on the user experience, developing features such as one click purchasing and recommendation lists, and has emerged from the dot.com era wreckage as the Internet's leading retailer. Google, with its accurate search engine, spell correction, and clean interface continues to succeed, attracting an ever increasing number of fanatical "Googlers."

Established technology heavyweights have also weighed in on the benefits of understanding the user experience. IBM has developed an entire section of their web site dedicated to ease of use issues, and started an ease of use email newsletter (http://www.ibm.com/easy). Intel, realizing that success is measured more in customer satisfaction than in megahertz, has started spending more time understanding users in each phase of development. Says Stephen Whalley, Manager of Technology

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February Event with Dan Miller of Digital Impact
Financial Tools for Product Managers

Dan Miller of Digital Impact presented to a packed room at the February 5th meeting of the SVPMA. Dan spoke about Financial Tools for Product Managers, taking the audience through a series of methods to assist in accelerating the sales process, measuring results, and evaluating projects.

Currently the Director of Product Marketing and Management at Digital Impact, a leading provider of direct marketing solutions, Dan spoke from the perspective of a single product company focused on winning its market. The first area of analysis was the customer lifecycle, in particular moving prospects through the sales cycle, focusing on cost per lead and lead to proposal ratio. This data allowed Digital Impact to focus its marketing efforts on fewer mediums, lower its costs, and achieve better results.

In the second part of the presentation, Dan demonstrated how to build an ROI calculator for the sales team. The goal of the calculator is not so much

to prove the return to the customer, since they will run their own numbers, but to demonstrate that you understand their business. Therefore the calculator should speak the customer's language, comparing the status quo (i.e. do nothing) to implementing your solution.

Dan then reviewed a few basic definitions, highlighting the difference between accrual accounting, which spreads the investment across the useful life of the product, and cash basis, which looks at the actual cash inflow and outflows. Dan emphasized the need to use cash basis analysis for decision making. We then examined three methods to measure cash flow and returns:

- IRR (or ROI): the rate of return from a stream of cash flows
- NPV: The net present value of a stream of cash flow assuming a specified rate of return.

Initiatives at Intel Corporation, "We used to just set high goals from a technology point of view, but now we're setting high goals from a usability, ease-of-use and reliability point of view also."

If Silicon Valley learned one painful lesson from the dot.com collapse, it was that no matter how advanced or sophisticated the technology, no matter how far reaching the vision, the bottom line will always be that companies that do not deliver significant value to their customers will not survive.

The "deep customer understanding" that Marty Cagan refers to in the above quote is not an accident or an exercise in ESP. It is a product of systematically keeping users in the loop - from concept development through each new release. In the next article in this series, we will take a look at how orienting product development around the user experience can be implemented in each phase of product development, from concept to release.

Steve August is the Director of Business Development for KDA Research (www.kdaresearch.com), a San Francisco based consulting company that specializes in integrating consumer and user experience into products and communications. Steve August can be reached at steve@kdarsearch.com

- Payback: The number of periods required for an investment to provide cash flows equal to the total original investment.

IRR returns a percentage, which can be useful in comparing projects. Its down fall is that it does not show the magnitude of the return, so a $100 investment that returns $10 would have the same IRR as a $10,000 investment that returns $1000. NPV is useful in that it incorporates the time value of money, similar to IRR, and also accounts for the absolute value of the return. Payback, the least rigorous method, is the easiest to calculate and suitable for short time horizons of a couple of years or less. Dan cautioned against including terminal value, a method for estimating cash flows in perpetuity. Terminal value tends to distort the comparison and is better suited for acquisitions rather than projects.

Throughout the presentation, Dan emphasized that financial analysis provides a common language to review projects but does not replace business sense. Further, it is not a substitute for speaking with your customers and prospects. The presentation caused everyone in the audience to reflect on how they could apply these simple tools to their decision making processes and analysis.

Strategies for Market Sizing

by Gene Alston

Market sizing is often the purview of market research suppliers who apply statistical measures to quantify market potential and growth. For those markets so blessed to have coverage by a market research supplier such as IDC or Forrester, sizing the market is relatively pedestrian just buy the report. Because many high technology products address markets that do not yet exist, market sizing in these situations takes on a whole new flavor. Most new markets require building a market sizing forecast from the ground up. A method for market sizing will be presented in this article along with a case study applying this method to size a new product category.

The first step in creating a market sizing forecast is to define the market to which the product or service is directed. One of the main considerations here is to define the market in a manner that allows one to leverage data available from public sources. As such, market definition for market sizing is often defined along high level boundaries of

potential users of the product such as consumer versus business or enterprise versus service provider. By defining markets in these categories, the potential market can be quantified using statistics from agencies such as the Small Business Administration or U.S. Census Bureau.

After quantifying the *potential* users in a market segment, the *addressable* market is determined by taking a realistic look at the part of the potential market that comprises the relevant target market for the product. The addressable market is usually determined by further segmenting the potential market to more closely fit the target market. This type of segmentation can take on various shapes and sizes but often involves some form of demographic segmentation (*e.g.* number of employees, revenues, location, access to underlying technology) coupled with factors such as customer needs and preferences or customers usage. When defining the addressable market it is advisable not to include company-specific factors such as limitations of the distribution channel

or service footprint. Because these factors are unique to a particular company, they limit the company's share of the addressable market but not necessarily the category's growth. Once the addressable market of customers is quantified, total market volume can be derived by multiplying the assumed unit volume per customer by the number of customers expected to use the product.

The second step in market sizing is to project market growth over the forecast period (typically 3-5 years). Market growth is determined by estimating the adoption (or penetration) rate of the product over time. While there are many ways to plot adoption rate over time, the most common pattern of market growth for technology markets is the familiar S curve. The S curve portrays an adoption rate that is initially slow but which accelerates as market penetration moves beyond the early adopter phase. Growth in the later stage of the market slows as competitive pressures increase and the market reaches saturation. A common equation used to describe this growth function is the Bass model. The Bass model can be described as follows:

$$S(t) = [m - Y(t-1)] * \left[p(0) + q * \left[\frac{Y(t-1)}{m} \right] \right]$$

In this formula $p(0)$ = initial probability of purchase, $Y(t-1)$ = total number of people who have bought by the end of the period $t-1$, m = the total market (as defined in the first step), and q = the rate of adoption. There are many other variants of this formula that account for successive generations of technology, or the effects of pricing and advertising on a particular product; however the Bass model best captures the basic S curve adoption cycle. The other variants go beyond the scope of this article. If you are interested in learning more about the other variants of the Bass model, please see the references included at the end of this article.

For the budget constrained, quantifying the inputs often involves more art than science. In the absence of market research using stated intent-to-purchase measures, initial probability of purchase can be obtained by proxy using sales of similar products, sales channel interviews, or by judgment. Similarly, adoption rates can be obtained indirectly by analogy to similar product adoption rates or by judgment. The output of this model will be a unit volume forecast. In order to forecast category revenues, additional assumptions regarding Average Revenue per Unit (ARPU) must be determined along with price declines over time.

As with any analytical exercise, the numbers should be taken with a grain of salt. One measure to ground any market sizing exercise is to validate it against other data. In this regard, one good reality check is to compare the forecasted revenue against the target market's forecasted spending on the general category of services. Good questions to ask here are "How much of the overall market budget will the revenues for this service consume?" and "How much of the individual customer's wallet share will this product command?"

This article provides just one framework for sizing a market; however there are many other approaches to tackling the same issue. The common theme in all market sizing efforts is to quantify the potential market and the addressable market. The Bass model provides one easy way to use analogous adoption patterns for similar products to forecast adoption of a new product. Finally, as with any approach, validation against other data or direct customer insight is advisable.

Case Study

SlideCo is developing a new high definition projector (HDP) that would enable businesses to display PowerPoint presentations and high definition video from the same projector unit. The HDP is initially slated to retail for $10,000 per unit. How would SlideCo size this market opportunity?

Using U.S. Business census data, management first sized the domestic businesses market at approximately 6.2 million businesses. While this new HDP could be used by any company, because this is a high end piece of equipment management thinks only medium to large sized businesses would have the budget to purchase such an item. Of medium/large-sized businesses, only a portion would need the HDP based on their current use of conventional projectors for multimedia presentations. Management believes that companies that conduct more than five multimedia presentations per year would be the relevant addressable market for the HDP. Anecdotal information suggests that approximately 25% of the medium/large companies fall into this category and thus comprise the addressable market for this new product. Management also estimates that each company would purchase an average of five units.

With total market unit volume on hand, the management team studies the adoption pattern for several other products but thinks that this product would have similar characteristics to the original overhead projectors released in 1960. Through research, the team learns that the original overhead projector had an adoption variable of $q = 0.55$ and initial probability of purchase of $p = 0.028$. Armed with this information, SlideCo creates a unit forecast of sales over the next 10 years (see figure 1). Category spending on audio visual equipment reveals that the $10,000 ticket price for the HDP although high, is inline with the corporate spending patterns of companies that would purchase the HDP. Applying all of these inputs in the Bass model, the management team finds that sales for the HDP would peak at about $33.9 Million based on the addressable market and rate of adoption.

Gene Alston is a Director of Product Development at XO Communications where he is responsible for the Web Hosting product line. He has a JD/MBA from UCLA's School of Law and Anderson School of Business. When he is not writing, he enjoys trail running and an occasional game of racquetball.

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- Furukawa, R., Kato, H., and Yamada, M., "A Conceptual Model for Adoption and Diffusion Process of A New Product," Review of Marketing Science, Working Paper 3, Volume 1 (2002)

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U.S. Census Bureau Data

Number of U.S. Businesses (thousands)	6,200
Percentage of Businesses by Category	
<500 Employees	99.7119%
500 to 5,000 Employees	0.2581%
>5,000 Employees	0.0300%

Assumptions

Addressable Market	
Large/Medium Sized Businesses	17,862
% Doing Multimedia Presentations	25%
Customers	4,466
Units per Customer	5
Units (m)	22,328
Initial Probability of Purchase (p)	0.028
Rate of Adoption (q)	0.55
Average Revenue Per Unit	$10,000

HD Projector Unit Volume
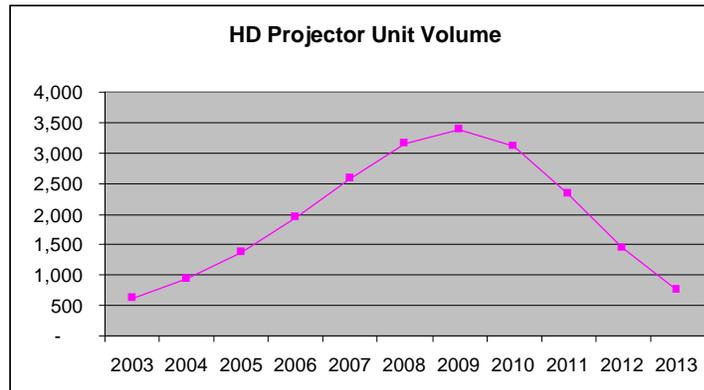
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Cumulative Units Y(t-1)		625	1,567	2,950	4,900	7,492	10,645	14,036	17,135	19,472	20,922
Period Units S(t)	625	942	1,383	1,951	2,592	3,153	3,391	3,099	2,337	1,450	764
Period Revenue ($ in thousands)	6,252	9,419	13,827	19,506	25,916	31,533	33,905	30,990	23,372	14,496	7,639

Figure 1: HD Projector Unit Volume Forecast using the Bass Model

Improving Beta Programs
by Rich Mironov, reprinted with permission from Product Bytes

Mo' Beta

At some time in every product cycle, the executive team wants to help product management "improve" its customer beta process[1]. This is generally because the last beta took too long, didn't get enough useful customer feedback, or failed to prime the revenue pump for a post-GA sales blitz. Notice that these three goals are mutually exclusive…

One way out of the beta dilemma is to recognize the different audiences and objectives for a beta cycle,

then structure different programs for each. Here, I've sorted beta prospects into three camps: the **Loyal Opposition**, the **Overcommitted**, and the **Reluctant Volunteers**.

The Loyal Opposition

These are the most fanatical technologists among your current customer base. If you're big enough to have a user group, the Loyal Opposition crowds into late afternoon roadmap sessions to trade

configuration tips and lobby for missing features. They love your product almost as much as they love pointing out minor errors.

If you don't already, you should pamper the Loyal Opposition. During beta testing, they will shred your pre-release software, grammar-check your documentation, and invent bizarre uses for your new features. (These are all good things!) They **don't generate any short-term incremental revenue,** though, because they are already paying customers.

Plan as many early code drops as you can to the Loyal Opposition: this supplements your internal QA effort with unconventional thinking. Consider a limited edition t-shirt for those who find bugs, and keep your sales team away from these eccentric gems. Drop compliments about them in obscure USENET locations.

The Overcommitted

These customers and prospects are easy to recognize: they call your sales team frequently for assurance that your release is still on schedule. In the extreme, they have built their own product or service delivery schedule around your GA release dates and have no slack. When your GA delivery date inevitably slips, they are in deep water.

Including the Overcommitted in your beta program is required, not optional. It gives your sales team a face-saving way to gloss over promises, and gives customers a hope of hiding their optimism. You may grumble and refuse initially, but expect to be overruled by the VP Sales.

Overcommitted beta customers are high risk, though. They will expect production-ready products that are fully tested, since your sales team has given them this impression. Some will put your "early GA release" directly into production. If your testing cycle has been shortened to recover lost engineering time, you may have a disaster on your hands. Try to assign a support engineer or smart field SE to each account, and be prepared to demand some very quick fixes from Engineering.

Reluctant Volunteers

Let's be realistic: most beta customers never install your product. Your handcrafted CD and installation manual will probably be shelved next to 80 other untouched beta products.

Reluctant Volunteers come from a pair of mistaken impressions: sales teams think that beta installations will help close deals faster, and CIOs think their network managers (or sys admins, or database experts, or help desk teams, or software architects) have idle time to play with new stuff. Your sales rep "calls high" and convinces the customer's CIO to be a beta site. When this trickles down the org chart, no one offers to give up another weekend to debug your code. *(If you look up "passive aggressive" in the dictionary, you'll see a picture of a Reluctant Volunteer.)*

You'll spend most of your beta program chasing Reluctant Volunteers. Consider asking each for a test plan as a rapid way to sort the interested few from the uninvolved many.

Recapping:

Group	Result	Revenue	Risk
Loyal Opposition	Real feedback if given a long beta cycle	None	None
Overcommitted	May save face for sales rep and customer	Some	High
Reluctant Volunteers	None	None	Wasted Effort

Sound Bytes

In theory, we all love beta testing. In practice, loyal customers are joined by a few panicked prospects in a rush to general release. This generates scant feedback and minimal revenue. If you want useful results, plan a long beta phase for friendly customers followed by a short, post-QA cycle for urgent situations.

Rich Mironov is a principal at Mironov Consulting (www.mironov.com). He specializes in product strategy and strategic planning for early-stage technology start-ups. Product Bytes is his monthly newsletter.

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[1] For those unfamiliar with beta tests, this is the phase after a (software) product is fully coded and initially tested, but not yet ready for revenue shipments. The classic development phases are called alpha (internal coding and rough testing), beta or limited release, and GA ("general availability") or FCS ("first customer shipment"). Every start-up cheats on testing in order to ship GA revenue units sooner.

BOOK REVIEW
The Strategy and Tactics of Pricing by Nagle and Holden

The Strategy and Tactics of Pricing: A Guide to Profitable Decision Making by Thomas T. Nagle and Reed K. Holden is one of those classic texts that I find myself referring to year after year. The book was first published in 1987, reissued a second time in 1995, and now updated for the third edition which came out in 2002. In just under four hundred pages, the authors address how to become a strategic pricer and use pricing to drive business strategy and success.

The four P's of marketing are Product, Promotion, Placement (*i.e.* distribution), and Price. The first three are a company's attempt to create value while *price* is how a company captures some of that value in the form of profit. The book starts with exposing the weakness of cost plus pricing (Product --> Cost Price --> Value --> Customer). Although easy to implement, it leads to overpricing in weak markets and under pricing in strong markets, resulting in mediocre financial performance. Rather one should attack the problem the other way (Customer --> Value --> Price --> Cost --> Product), using value based pricing to guide the product development investment and then pricing more profitably throughout the life cycle of the product.

Similar to the four P's mentioned above, Pricing has the three C's: Costs, Customers, and Competition. Chapters two and three are devoted to understanding relevant costs, because these drive pricing decision. To simplify, this is the incremental or variable cost of each additional unit produced. One question to ask is whether costs go up or down with an increase in volume (e.g. one factory might require overtime or more equipment to produce an additional unit, while a different factory might have excess capacity and be able to save on materials by ordering larger quantities). Taking a couple of examples from industry, when fuel prices rise, if an airline is unable to pass the increase on to the consumer, management will often reduce the number of flights, which positively changes the mix between full paying and discount fare passengers. This non-intuitive strategy represents one method for dealing with an increase in costs. In contrast, a petroleum company must purchase a gallon of new gasoline for every gallon it sells to replenish its inventory. If the company does not raise prices immediately, rather than waiting until the less expensive inventory is depleted, it will experience reduced cash flow for every new gallon sold.

Knowing the true unit cost of a product or service enables the strategic pricer to calculate its contribution margin. Breakeven analysis stems from this and understanding whether selling more of a product at a lower price is more profitable than selling less for a higher amount. The analysis then drives many other sales and marketing strategies, such as sales commission and promotions.

Customers know that goods and services can usually be procured for less than a product's true worth. Value pricing, therefore, requires not just analyzing the value of the product or service to the customer but also examining the alternatives. Thus, a product's economic value is the value of the customer's best alternative plus whatever differentiates your company's product. In total, there are ten factors that influence the role of price in the purchase decision for a customer, which Nagel and Holden cover in detail.

The third C is Competition. The authors discuss strategies to manage competition without resorting to or matching price cuts. One company, when faced with a newcomer, instituted a distributor rebate program to reward those who matched their prior years purchase volume. The distributors now had a solid incentive to sell only the incumbents product, because carrying the newcomer's offering would jeopardize the rebate. A second example discusses how Anheuser-Busch increased its advertising budget threefold when faced with extreme price competition from smaller regional brand breweries. Since it costs 30 percent more to purchase regional advertising, this became a very effective strategy that the competition could not cost effectively match.

Ultimately, cost, customer, and competitor analysis combine to provide the necessary information to create a coherent pricing strategy. Nagle and Holden spend the last quarter of the book to delving into other pricing topics. These include pricing through the product and market lifecycle, the psychology of pricing, and the challenges of measuring price sensitivity.

The Strategy and Tactics of Pricing is an enjoyable read, which is a true accomplishment given the quantitative nature of the topic. The book holds the title of "the top selling book on pricing. " After reading it, it is easy to understand why.

The development process starts with collecting product ideas, prioritizing them, forming small self-organized teams, and user-centered design. Google believes ideas come from everywhere and has established multiple channels for collecting ideas from brainstorm meetings to email to web forms. In brainstorm sessions, Marissa tries to cover six ideas in one hour, devoting 10 minutes to each. The organization also uses Sparrow Web, which is a program from Xerox PARC that facilitates collaborative web pages, to help capture ideas and casual conversations.

Google then compiles a top 100 list from the work already in development, ideas for new projects, and all maintenance efforts. Each idea is ranked on a scale from one to five for user retention, usefulness, diversification of revenue, and chance for success. Resources are allocated against this list, which usually run out somewhere in the threes. The development efforts are sized to take approximately 3 - 4 months each.

The projects are then spread between three person development teams. Each team represents a project and co-locates during its duration. Teams form and disband frequently as development efforts finish. One engineer on each team will act as technical lead. A product manager will work with three teams on average. With 180 engineers, Google can develop 60 concurrent projects. This provides the company with an opportunity to invest in high-risk projects. Google also keeps its organization flat. There are only 5 engineering managers, which means each manager has 30 40 direct reports. To allow visibility across the organization, each team member sends out "snippets" on Monday morning on how they allocated their time the previous week.

Through regular user studies, Google has maintained its clean user-interface while creating an easy site to navigate. The roots of Google's minimalist design go back to 1998 before the company had a Webmaster. The company did not conduct its first user study until January 2000 when Marissa uncovered major usability issues with the site. Among the learnings, she found that users had a "laser focus" on the search results and ignored everything else on the screen, including help. Further, the lack of fancy graphics confused many users into thinking the page had not finished loading.

In creating its News search, which is now in beta, Google used the principle of iteration. The idea originated after the events of September 11th, when a Google employee was looking for ways to group similar articles to learn the latest news. The company went through many different design and layouts before settling on the layout that is now available through the site.

Marissa concluded by emphasizing the need to match process to the problem at hand. In particular:

1. Use an idea gathering and prioritization process that works for your company
2. Use multiple techniques in understanding user needs
3. Maintain a flexible execution path that is appropriate for the product
4. Ensure your service provides value to and is designed around the user

ON THE MOVE

If you or a product manager you know has recently been promoted or started a new job, please email the SVPMA at OnTheMove@svpma.org .

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