

Project Management Innovations

A Quarterly Publication of the Project Management Institute's
New Product Development Specific Interest Group



Putting KANO in Your New Products Requirements

by John C. Goodpasture, PMP

Is Noriaki Kano of Tokyo Rika University a familiar name to you? Perhaps not. But if you are an NPD project manager with a myriad of requirements, and decisions to make about their importance and impact, Professor Kano's methods may be of some help. Haven't we all faced the dilemma that often there are too many requirements and simultaneously not enough: "push-to-the-market" capabilities mixed with "pull-from-the-market" needs and wants, as well as unspoken requirements or latent requirements, which may not be understood in time to be incorporated into the product design?

Kano analysis is no magic bullet, but it's a tool that can help. Latent (hidden) requirements may be discovered or made more obvious. Requirements that are "ah-ha's" today, but may be taken for granted tomorrow, can be identified and prioritized. And if your resources are limited as those in most projects are, Kano analysis can help set priorities about investment decisions and timelines for incorporating requirements into the baseline.

Exhibit 1 illustrates the Kano Chart (see page 2). This chart is used to categorize requirements. The X-axis represents product functionality or feature richness. To the right is increasing functionality; to the left, decreasing, absent, or dysfunctionality. The Y-axis represents customer satisfaction. Satisfaction increases above the X-axis, it is neutral in the middle where X and Y cross, and decreases (growing dissatisfaction) below the X-axis. These axes form four quadrants. For instance, the upper left represents customer satisfaction in spite of poor or missing functionality. The upper right is the area of "customer delight." But to the lower right and left, the customer is dissatisfied. Perhaps functionality is missing or disappointing. And running through the center is a line representing indeterminate priority or disinterest.

Continued on page 2

**January 2000
Volume 5, Issue 1**

In this issue:

| | |
|-----------------------------|----|
| Kano Analysis | 1 |
| Symposium '99 Review.... | 3 |
| Concept Selection | 4 |
| Common Language | 6 |
| Book Review | 7 |
| Letter from the Chair | 8 |
| SOQ | 9 |
| Call for Articles | 10 |
| Houston Happenings | 11 |
| 2000 Board..... | 12 |

KANO *continued*

Requirements are categorized on the Kano Chart

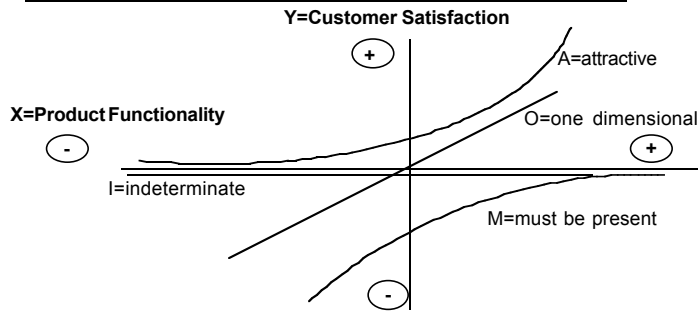


Exhibit 1 Kano Analysis

At first glance, Kano shows what we all know intuitively: some requirements lead to increasing satisfaction with increasing functionality or feature. This idea is represented on the chart as a straight line from the lower left to the upper right. Perhaps a familiar example will demonstrate the principle. Consider the horsepower race in automobiles or, more recently, the computer CPU “megahertz” race. An underpowered, sluggish product starts out in the lower left: the more sluggish, the more dissatisfied. The line extends to the far upper right. In this area are the muscle cars with big iron under the hood or the fastest CPU chips. These requirements are “one dimensional,” “O,” and have the feature that “more is better.” As long as there is demand, “O” requirements require constant investment. Improvement is almost mandatory to maintain or expand market share. “O” requirements are usually a “must” for funding. They require a “set-aside” in the overall product development budget to continue innovation and competitiveness.

Now look at other cases. Along the X-axis lie the requirements that generate no customer interest, whether present or not. These are usually labeled “indeterminate,” or “I.” “I” requirements are not necessarily unimportant. They just do not matter much to the customer. Often, internal requirements fall into the “I” category. Continuing with the computer example, external packaging of the desktop computer used to be an “I” for many consumers. Packaging was pretty standard and did not offer much in the way of product discrimination. But Apple has changed that with the iMAC, promoting the packaging “I” into the “A” category. This is no small achievement. It is more common for the “A’s” to decay over time into “I’s.” But if an “I” is truly an “I,” then should the project include “I’s” with risk, and should limited resources be allocated to “I’s?” The two more interesting cases are the “must exist,” or “M,” and the “attractive/ah-hah!” or “A” requirements. “M” requirements start out along the far right X-axis, but curve dramatically downward in the lower-left quadrant.

The practical view of the “M” requirement is that, if present, the customer is not likely to notice, but, if absent, the customer will be highly distressed. Said another way: “M” requirements are the “me-too’s” that do not discriminate well, but if missing are highly detrimental to product acceptance. Continuing with the computer example, look at the floppy disk drive. Is it an “M,” almost unnoticed until missing, or is it an “I?” Like the “I” requirements, “M” requirements must be constantly reevaluated for their risks, their resource impact, and for obsolescence, perhaps even latent obsolescence.

The “A” requirements are almost the mirror image of the “M” requirements. “A” requirements start high up in the upper right quadrant and curve down to the X-axis in the upper left quadrant. These are the “ah-hah’s!” or attractive discriminators, but often they are latent, not missed if not present [upper left quadrant]. Very often, they are the features that customers did not know they needed until they saw them. As such, the “A’s” originate in the “fuzzy front-end” of product development. Whereas the “I’s” and “M’s” are often legacy requirements from prior product versions, by and large the “A’s” are new-to-the-market. As such, their “staying power” is less proven, their potential to discriminate the product is much greater, particularly with early adopters, but they have a tendency to “decay” toward “M” or “I” once they become mainstream. Perhaps the read/write CD, the so-called CD-RW, is a good example of a latent requirement that has become visible, represents the discriminating buying decision in many cases, but may decay to an “M” as it becomes standard equipment. Obviously, “A” requirements, like the CD-RW, demand creative energy, risk-acceptance, and discretionary investment.

Coupled with other requirements evaluation techniques, Kano analysis adds an important tool to the project practitioner’s toolbox.

Acknowledgement: Shoji Shiba, Alan Graham, and David Walden, *A New American TQM: Four Practical Revolutions in Management* (Productivity Press, 1993), pp. 221-230.

John Goodpasture of Square Peg Consulting specializes in customized application and delivery of project management techniques, business process analysis and characterization, and training of project practitioners. John can be reached at 770-650-6405 or by email at jgoodpas@hotmail.com.

A Review of the PMI NPD SIG Symposium '99

by Jacques Bourque

I have been attending the PMI symposium for the last six years and joined the NPD SIG at its inception. The NPD PMI Symposium '99 was the best I've attended. It was clear that the technical team had selected the papers and presenters with a good sense of the needs of a NPD PM practitioner.



Curt Raschke, 1999 NPD SIG Chair, presenting at the Annual Business Meeting.

Two presentations particularly captured my interest. In the NPD track, the presentation by Hewlett-Packard (# NP04, "Wisdom of Wizards: Creating the Framework for Successful NPD the HP Way!") was brilliant. The presentation included role playing with various scenarios. The presenters demonstrated that change does not come easily and takes time, and also that training is not the only way to implement project management within an organization. Influencing the organization is one of the essential components of a successful organization like HP. The large corporations have to deal with various issues like multiple languages, processes, tools that people use in the same organization.



NPD SIG Members relaxing and networking at the SIG reception.



Greg Stine, Vice Chair Membership

Another excellent presentation was about return on investment presented by Joan Knutson (FS04 Measurement of PM ROI: "Making Sense to Make Cents"). The presentation discussed measuring the investment in dollars spent and the return in dollars per share to your organization. Project managers are not free; they are an investment. We need to show a competitive return.

After a day of attending presentations, it was nice to be able to relax and meet other NPD people at the SIG reception. Nothing like refreshment, a bit of food, and a place where people can discuss their endeavors and what they learned at the symposium.

It is a good way to introduce yourself to others, share your experiences, and have new contacts with whom to discuss issues that you will encounter during the year. This is food for thought (no pun intended!). I learned a lot about NPD PM in Philadelphia, and look forward to future symposia.

Jacques Bourque is Manager, Project Management at Tundra Semiconductor: jacquesb@tundra.com.

Concept Selection: An Overview

by Paul R. Dutto and Fabrizio Panzeri

At the beginning of a product development effort, the NPD team often generates many concepts. Unfortunately, only a few of them are good enough to be pursued beyond the pure concept phase. The dilemma many teams face is how to tactfully proceed with a winning business solution. Organizations need to determine how to separate the winning concepts from the losing ones.

Concept Selection is a technique in which you evaluate the concepts with respect to customer and producer needs. It is generally divided in two steps: Concept Screening and Concept Scoring.

- **Concept Screening** is a quick, approximate selection process aimed at reducing the number of concepts to be examined thoroughly. This step reduces the concepts to few viable ones that include many of the strong points of the discarded solutions.
- **Concept Scoring** entails a careful analysis of a few viable concepts to select the one most likely to both satisfy customer needs and be compatible with producer capacities. To make this selection, all the concepts are evaluated on specific weighted criteria, such as functionality, ergonomics, durability, and manufacturability.

A concept is not the same thing as an idea. A concept has a fairly well-defined statement of customer benefit, form or function, and technology by which the concept is produced.

Concept Screening

Concept Screening serves to reduce the number of concepts that will be thoroughly evaluated. To achieve this, an initial rough screening can be done using the value drivers specific to the target market.

Approach

1 - Prepare the Screening Matrix

- Put all the concepts in the matrix on the left side, as shown in the graph. Make sure that all the concepts are presented with the same level of detail.
- Choose 5 to 10 Screening Criteria, and write them on the top of the matrix, as shown in the Exhibit 1. A good starting point is using market value drivers as the basic criteria.
- Select a Reference Concept. This concept will be the benchmark against which all the others will be rated. The reference concept is usually an industry standard or the most typical solution.

• Caveats

- The criteria have to be capable of screening the concepts. Criteria against which all the concepts rate the same are useless.
- It's important to notice that different Reference models often bias the Concept scoring differently. Therefore, it is important to select as neutral a Reference Concept as possible.

2 - Rate the Concepts

- To rate the concepts, it is best to use a simple method, such as:
 - + "better than"
 - 0 "same as"
 - "worse than"

You can also use a precise objective metric to determine the +/0/- if it is available.

| | Stability | Robustness | Aesthetic | Speed | Weight | + - | Net Score | Continue? |
|--|-----------|------------|-----------|-------|--------|-----|-----------|-----------|
| Y - Retain N - Discard C - Combine | | | | | | | | |
| Three wheeled steel bike | + | 0 | - | - | - | 1 3 | -2 | N |
| Three wheeled aluminium bike | - | 0 | 0 | - | 0 | 0 2 | -2 | N |
| Mountain bike | 0 | + | 0 | + | 0 | 2 0 | 2 | Y |
| Concept race bike | - | - | - | + | + | 2 3 | -1 | C |
| Old city bike | + | 0 | + | 0 | 0 | 2 0 | 2 | Y |
| Tandem | - | 0 | - | 0 | 0 | 0 2 | -2 | N |
| Concept | | | | | | | | |
| Concept | | | | | | | | |
| Concept | | | | | | | | |

Exhibit 1 - CONCEPT SCREENING MATRIX.
New multi-use bicycle: a sample

3 - Rank the Concepts

After rating the concepts, add all the "pluses" and subtract all the "minuses." The score you come up with will allow you to rank the concepts.

4 - Combine and Hone the Concepts

After ranking the concepts, you can see whether some of them can be combined in a new concept that retains the strong points of the combined elements without the weaknesses. It can, thus, be possible to obtain new, more highly rated concepts.

5 - Select the Concepts

Out of the matrix developed thus far, you can now select some concepts for further evaluation. As a rule, keep only the better-than-average concepts (both simple and combined), i.e., that score more points than the average.

Concept Scoring

Use Concept Scoring to select one or more concepts to develop further. To achieve this, screen all the concepts against some weighted evaluation criteria.

Approach

1 - Prepare the Selection Matrix

- Put all the concepts in the matrix on the left side, as shown in the graph. Make sure all the concepts are presented with the same level of detail.
- Choose the 5 to 10 Selection Criteria, and write them on the top of the matrix, as shown in the graph. Generally, the criteria are far more detailed than those used during the screening phase. A good way to find more detailed criteria is to decompose them hierarchically, starting from the criteria used in the Screening phase.
- Weight the criteria using a voting technique similar to the Concept Screening. A good way of weighting the criteria is assigning them a percentile that represents their importance. The sum of all the percentages should be 100.
- Select a Reference Concept. This concept will be the benchmark against which all the others will be rated. The reference concept is usually an industry standard or an obvious solution.
- Caveats
 - The criteria have to be capable of screening the concepts. A criterion against which all the concepts rate the same is useless.
 - It's important to notice that different Reference models (i.e., the products already present in the market or the concepts already accepted by the customers during the market tests) will often bias the concept scoring differently. It is, however, important to select as neutral a reference concept as possible.

2 - Rate the Concepts

To rate the concepts, it is best to use a Multivoting method with a very simple scale, such as:

- 1 - much worse than the reference
- 2 - worse than the reference
- 3 - a little bit worse than the reference
- 4 - a little bit better than the reference
- 5 - better than the reference
- 6 - much better than the reference

If available, you may also use a precise objective metric to determine the performance of the concepts.

3 - Rank the Concepts

After rating the concepts, add the scores using the formula below to determine the absolute rating of the concepts.

$$S_j = \sum_{i=1}^n r_{ij} * w_i$$

4 - Combine and Hone the Concepts

Having ranked the concepts, see if some of them can be combined in a new concept that has the strong points of the combined elements without their weaknesses. This enables you to identify new, highly rated concepts to select.

Example

Company XY wishes to develop a new mobile phone for the European market. This market is already thoroughly penetrated by the GSM1 mobile phones however, the Internet is not that widespread in Europe. The new mobile phone could use Internet features to help penetrate the market.

| | | Weight | Full internet vs limited access | Ease of use | Aesthet impact | Total Score | Continue? |
|--|----------------|--------|---------------------------------|-------------|----------------|-------------|-----------|
| Y - Retain N - Discard C - Combine | | 5% | 35% | 25% | 35% | | |
| Weight: 300g; full internet capable; large memory; touch-screen; aluminium case; high capacity battery | Rating | 2 | 5 | 5 | 5 | 4,85 | Y |
| | Weighted Score | 0,1 | 1,75 | 1,25 | 1,75 | | |
| * Weight: 200g; full internet capable; small case; high capacity battery | Rating | 3 | 5 | 2 | 3 | 3,45 | C |
| | Weighted Score | 0,15 | 1,75 | 0,5 | 1,05 | | |
| Weight: 200g; WAP capable; small colourful case; medium capacity battery | Rating | 3 | 3 | 2 | 4 | 3,1 | N |
| | Weighted Score | 0,15 | 1,05 | 0,5 | 1,4 | | |
| Weight: 150g; WAP capable; small colourful case; low capacity battery; intelligent word recognition | Rating | 5 | 4 | 4 | 4 | 4,05 | C |
| | Weighted Score | 0,25 | 1,4 | 1 | 1,4 | | |

* - reference concept

Exhibit 2 - CONCEPT SCORING MATRIX . New GSM Internet capable mobile: a sample

The best concept is obviously the first one. Its main drawback is the weight of the phone. The European market is used to fashionable mobiles. Some good ideas on how to improve the concepts could be drawn from the second and fourth concepts (e.g., reduce the case dimension; integrate the "intelligent word recognition" software).

5 - Select the Concepts

Out of the matrix developed thus far, it is possible to select one or more concepts to develop further.

Continued on page 10

Common Language: Products and Product Management

by Gregory D. Githens, PMP

This article continues a series on common terms in project management and new product development. In my July 1999 article (page 8), I discussed the differences between stages and phases, and in the November 1999 article (page 2), I explained how project management is an enabler of the new product development process. (See www.pmi.org/sigs/npd/NPD_newsletters.htm for back issues.) In this article, I discuss defining product and product management.

The *PMBOK Guide* defines a project as the work that creates the product of the project. Strictly speaking, the project is a temporary work effort. So, what is a product?

Product defined. Products are clusters of features/functionality that provide a benefit to a customer or market (I won't distinguish between the customers and markets in this article, although the distinction can be significant.) Products can be tangible, intangible, or both tangible and intangible. This broad definition allows us to include services in the definition of product.

The *PMBOK Guide* distinguishes *product-oriented* processes from *project-oriented* processes, and attempts to limit its scope to project-oriented processes. Thus, there is very little in the document that addresses the specification of product requirements. In the NPD application area, we are very concerned with product performance, so we need to keep in mind that product requirements correspond to the features and functionality of the product, whereas project requirements describe delivery aspects like due dates and delivery expenses. Functional product requirements describe the behaviors of the product. Users derive benefits from the functioning of the product. Given the definitional differences between projects and products, I think we should distinguish between *product* requirements and *project* requirements.

Product management defined. Product management is a functional management activity that generally includes responsibilities for a product or a family of products (often referred to as a product portfolio). This includes decisions to add or delete new product family members so as to enhance product performance. These changes to products create projects. Much of the product manager's responsibility is to manage the product over the product life cycle, and meet the organization's objectives.

Simply put, the role of the project manager is to create the project, and the role of the product manager is to manage the created product.

Projects in the product life cycle. The product life cycle covers the entire life of the product from inception to disposal/withdrawal. A project life cycle is embedded in the product life cycle. The product life cycle could contain many projects, for example:

- A project to identify marketable ideas
- A project to turn the idea into a product
- A project to launch/deploy the product
- A project to withdraw/remove/decommission the product
- A project to improve an existing product, addressing new wants and needs by adding product capabilities, such as a line extension.

Sometimes organizations use the term *program manager* for the person who has responsibility for more than development of the product. The generally accepted definition of program manager is one who manages portfolio of related projects.

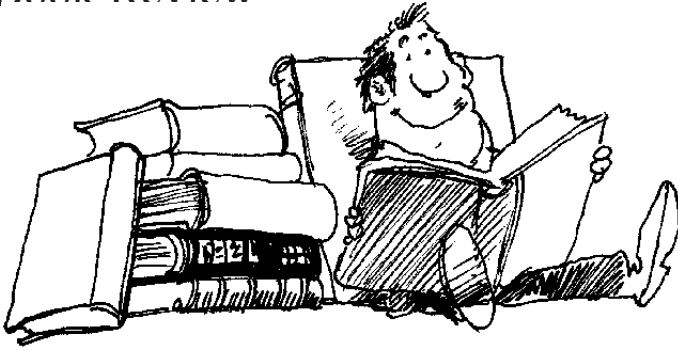
I welcome contrary opinions, as well as the opinions of those who agree and can extend this discussion. I can be reached at Greg_Githens@compuserve.com.

See You at PMI 2000!

The NPD track received many outstanding abstract proposals. Behind the leadership of Shawn Rogers of TI, the selection team is hard at work putting together an informative track (sure to be the best one yet!). PMI 2000 will also provide you with numerous networking and educational opportunities. Future issues of *Project Management Innovations* will provide more specific information.



Book Review



Successful Product Development: Speeding from Opportunity to Profit by Milton D. Rosenau, Jr. (New York: John Wiley & Sons, 2000), 151 + xi pages.)

Reviewed by Greg Githens, PMP

Successful Product Development: Speeding from Opportunity to Profit is the newest book to link new product development performance to speed. NPD success is a broad and complex topic, so Rosenau chose to provide a general coverage of the NPD development life cycle (“opportunity to profit”) and offer some practical guidance on how to cash in more quickly on the NPD investment.

This book is appropriate for persons interested in designing, working in, implementing, or maintaining a NPD process for an established multiproject organization. A new practitioner will find a good review of fundamentals, and the experienced practitioner will find the book offers some stimulating ideas.

Rosenau’s perspective on compressing NPD cycle time offers a new (for me) and useful conceptual framework for leveraging improvements in time performance. His opportunity-to-profit model consists of three intervals: the fuzzy front end, stages and gates, and postlaunch (preprofit sales). You can shorten each interval or all three simultaneously. Through this framework, managers can probe assumptions and desires as they design the NPD process, asking the following: Where are the opportunities for improvement in the fuzzy front end, the development period (stages and gates), or postlaunch work? What are the tradeoffs? What is the easiest and most productive starting point?

Generally, the greatest time-compression leverage is in the early stages of the project. To shorten the fuzzy front end, Rosenau instructs “do just enough work to assure an attractive business case and realistic schedules.” Firms achieve acceleration by developing balancing strategies that integrate five areas: business strategy, product

strategy, idea generation, idea screening, and business case validation. To do so, Rosenau describes the need for firms to use multifunctional teams to take requirements inputs and generate clear product design and performance specifications.

Rosenau describes all of the key enablers that help shorten the stages and gates interval. Since securing and allocating resources is a crucial implementation challenge, he describes two important problems (resource overloading and resource allocation) and describes three solutions found in a well-managed NPD process: establishment of project priorities, implementation of project management software, and use of relationship maps. The book provides some tradeoff curves for optimizing what Rosenau calls time-critical design and development. A project leader or process owner can use these curves to stimulate discussion of appropriate implementation tactics.

In addition to using good resource management as a stages-and-gates compression strategy, Rosenau tells us that it is important to specify product specifications early and make appropriate use of project management tools. Like many technical texts, Rosenau discusses project management in the paradigm of a scheduling/resource-balancing tool, instead of as an organizational discipline. A few sentences on basic definitions of project/program management and concurrent engineering would help alleviate a tremendous amount of confusion in the NPD profession. (Novices often confuse project/program management with the NPD process. Project/program management is a discipline that uses many tools and techniques, whereas new product development is the process of transforming an idea into a commercialized product. Project/program management is an enabler of that process. Concurrent engineering is essentially similar to project management.)

Successful Product Development could have been strengthened by offering a more comprehensive analysis of and solutions to the barriers of implementing structured development processes. In particular, it is not clear that there is a relationship between speed and the NPD process (particularly stages and gates): Why do project teams perceive that process slows the development and then do an “end run?” (For example, many teams file project baseline plans at the time of launch, instead of the start of development.) Do stages and gates speed up or slow down performance? In an era of “Internet Time” in many product development environments, why gate? What are the hazards of copying another firm’s (or book’s) NPD process?

Continued on page 11

Getting Value from Your Membership -- A Personal Perspective

Letter from the Chair

by Ken Delcol, PMP

After attending PMI'99 I got a good dose of reality of how fragile PMI really is. During the SIG reception, a number of people volunteered to help out the SIG; however, by the time we got to the NPD SIG General Meeting, the number of people were a shadow of the number on the list. During the meeting we were reminded that everyone has a day job and most people who volunteer drop out.

So why had I volunteered to be part of the NPD SIG? My organization is very interested in reducing time to market for its new products, which includes both hardware and software. At MDS SCIEX, we quickly implemented the majority of ideas from both management experience and published literature about cycle-time reduction. To further complicate the situation, there was no network in the Toronto area that we could tap into to further improve our capability. There was, however, this SIG at PMI that dealt with new product development. Like most people, I decided to tap into the NPD SIG only to find that it did not have the "silver bullet." I was somewhat disappointed. Instead of giving up, I spent some time talking to then-NPD SIG Chair Greg Githens, who told me that you *get out of the SIG what you put into it*. He suggested that I submit a paper based on my organization's experiences. My supervisor and I decided it would be worthwhile investing some time to evaluate the longer term payoff.

My first investment in the NPD SIG began with a paper for PMI'97 in Chicago. The exercise of writing forced me to think about the work that

we were doing at MDS SCIEX and how to better make use of the vast experiences from PMI members. I got a greater appreciation of how much effort speakers put into their papers/presentations, and I was rewarded by clarifying my own assumptions about what was important to NPD performance

My next investment in the NPD SIG was a paper for the 1998 symposium in Long Beach. During this conference I met Kim Johnson from 3M, who asked me if I would be interested in helping to review papers and running the track chair for PMI'99. I was somewhat nervous at accepting this position because I would have to work remotely with people who have no economic reason to work as a team, make commitments beyond work, and accept commitments from people. And, I hadn't met my "team." In spite of these concerns, I accepted the offer.

It worked out great! I worked with a great team of individuals who helped put the NPD SIG PMI'99 track together and helped deliver the presentations at the track. Finally meeting all of these people in Philadelphia was a wonderful experience. It showed me how a group of diverse individuals all across the globe, with a common focus, could put something together that people value. Nineteen ninety-nine was the best year to date for me in getting value back from my involvement.

My firm also realized two other benefits from involvement in networking in the NPD SIG:

- Our company found more ways to become more innovative. Through then-SIG Chair Kim Johnson, we secured the involvement of 3M in a corporate Innovation Conference with my company. Kim led us to the American Creativity Association and a meeting with key people from 3M to help us at MDS SCIEX to under-

stand how 3M organizes itself for innovation. But the most mind-boggling value add was that our scientists stumbled onto a potential area of mutual interest between 3M and MDS SCIEX. What a payoff for investing personal time and energy in the NPD SIG!

- We got help writing better specifications, which had been a weakness for MDS SCIEX. This training has since lead to a major review of our product specification documentation and an overall improvement in the quality of specifications received by the design organization.

For any type of relationship to grow, you must invest in it. As the relationship grows, based on your investment, it will take you into directions that you never expected and provide you with much more than what you put into it. My experiences with the PMI NPD SIG have certainly proven this. PMI got it right. For a volunteer organization to exist, its members must be willing to invest time into the organization. The structure of PMI is very fragile without volunteers. Each of us can invest different amounts of time; the key point is to start. The PMI NPD SIG has provided me with a number of new opportunities related to new product development that would have never existed if I had decided to stay on the sidelines! I didn't. I got involved, and I can't wait for the unfolding of the year 2000.

The PMI NPD is interested in hearing from you and can use your time investment to help the profession. Trust my experience: your investment will pay off for you personally!

Kenneth Delcol Chair, NPD SIG is the Director of Project Management at MDS SCIEX. He can be reached at delcolkd@sciex.com.

Situational Outlook Questionnaire

by Kim Johnson, Vice Chair
Communications

On November 18, 1999, the Minnesota NPD SIG gathered once again to address another dimension of the SOQ (Situational Outlook Questionnaire) assessment tool, which measures an organization's climate for creativity and innovation. This month we addressed the dimension of *Trust and Openness*, which is defined as follows:

Trust and Openness - *The emotional safety in relationships. When there is a level of trust, individuals can be genuinely open and frank with one another. People can count on each other for personal support. People have a sincere respect for one another. Where trust is missing, people are suspicious of each other, and therefore, they closely guard themselves and their ideas. In these situations people find it extremely difficult to openly communicate with each other.*

Each session addresses the following three areas:

1. Definition of dimension and research statistics.
2. Conversation around what's working/not working in my organization?
3. Action plans from past clients on how to possibly address a specific dimension within the workplace.

The following is background on the discussion that took place on this, the third in the series of the nine dimensions:

What's Working:

- Individual teams -- the smaller the better
- Teams able to set aside their own personal baggage
- Linkage between financial awards? -- Team vs. Individual
- Me vs. We approach
- Communication that is maximized through every possible means
- Core R&D groups that are aligned; no longer having two bosses
- People trusting in their arena of expertise (resources limited aspect)
- Ability to agree to disagree; suspending judgment
- Senior management emulation -- walking the talk
- Willingness to tell the truth

There were some side comments about people losing their focus at the team level and that it may impede trust and openness issues. Also, the comments relating to the ability to agree to disagree overlap with one of the other dimensions of the SOQ, which is debate in the workplace.

We ran out of time, because the regular monthly PMI-MN dinner program was starting, before we could get into action items to take into the workplace. A follow-up reference titled, "Flight of the Buffalo" was mentioned as a means to deal with trust and openness issue.

What's Not Working:

- Conforming to the party line; lacking the diversity of opinions and ideas
- Looking for ulterior motives; not taking an issue at face value
- PEOPLE that have ulterior motives
- The more secretive someone is, the more someone is going to hold back from sharing with you
- Validation of teams -- questioning their timeliness and decisions
- Where egos are involved, it generally prevents dialogue
- Personality clashes
- Saying what you mean vs. controlling information
- Management structure that is controlling teams vs. enabling them (empowerment)

For background data on the tool, please contact Kim Johnson at vpsigs@pmi-mn.org and leave your mailing address. Copies of the assessment tool itself will be given to those in attendance at the monthly meetings.

Quote for Day

"Once the mind has been stretched by a new idea; it will never again return to its original size."

Oliver Wendell Holmes

Call for Articles

The PM field and NPD application area are fast moving and rich with information. *Project Management Innovations* is soliciting well-written articles. Articles should be from 300 to 1,000 words, written for the practitioner, and free of commercial content. Our readership is over 1,000, so this is an excellent chance for exposure. This is your space to network, share information, brag, complain. Please contribute! "How to" and practitioner articles are always appreciated. The next due date is February 25, 2000. Here are suggested topics:

- Letters to the Editor
- Book Reviews
- NPD Project Management Metrics
- Benchmarking Strategies and Data
- Risk in NPD Projects
- How PM Fits into the NPD process
- Creativity
- Tips Building Teams and Managing Technical People
- The "Fuzzy Front End of Projects"
- Tips for Estimating
- Comics and Humor
- Software Tools
- How the Project Manager Creates and Copes with Disruptive Technology

Critical Chain Project Management: Breakthrough or Hype?

This is a controversial topic that we will feature in the next issue of *Project Management Innovations*. We would like to hear your opinions and reviews of the recent articles appearing in PMI publications on Critical Chain, Theory of Constraints, and the Next Big Thing. Is the *PMBOK Guide* irrelevant to NPD? Send your comments/opinions/contributions to Greg Githens by February 25, 2000.

Please send your contributions to Greg_Githens@compuserve.com. We are still seeking volunteers to join the *Project Management Innovations* team.

Call For Technical/Editorial Advisors

Can you spare an hour a month to help a great cause? The NPD SIG needs you. Our needs include editorial support and special projects. You will get a lot out of this.

Concept Selection

Conclusion

Concept Selection has to be approached in a structured, shared way. A good starting point is to approach it in two steps:

- The first step - *Concept Screening* - is quite lean and will help eliminate all the nonviable concepts;
- The second step - *Concept Scoring* - is more cumbersome and will help select between all the good concepts the bests on which to pursue a more thorough and costly effort.

Paul R. Dutto, MS in Electrical Engineering at the Politecnico di Milano, is a senior consultant with Deloitte Consulting in Milano, Italy. He consults international companies to reengineer and develop their NPD or Investment Cycle Processes. He has been a PMI member since 1998 and a PDMA member since 1999.

Fabrizio Panzeri, MA in Economics at Bocconi University, is a chief consultant with Consiel in Milano. He consults Italian companies on Value Creation, Operation and Maintenance Management.

Houston NPD Happenings

Members of the PMI NPD SIG are invited to attend meetings of the Houston Chapter of the Product Development & Management Association (PDMA) for the same fees as PDMA Members. Meetings in 2000 are scheduled for February 25, May 12, September 22, and December 1. Most of the meetings are half-day morning sessions with three in-depth presentations, except for the full-day December meeting.

For more information, see <http://www.pdma.org> or call 800-232-5241. The February 25 Houston PDMA Meeting Topic is "Product Development in High Tech Markets." The confirmed speakers for the February 25th PDMA meeting are: John Gibson, Landmark Graphics Corporation; Axel Sigmar, Input-Output; and Evan Davies, Compaq Computer Corporation.

Book Review *continued*

The chapter titled “Continuous Improvement” contains practical advice that should be widely read by NPD process owners. Continuous improvement yields valuable business benefits because you can both avoid repeating mistakes and find better ways of managing projects and processes. Rosenau enumerates the many obstacles to this essential activity (e.g., people are too busy, memory is fragile, and there is psychological discomfort).

Most of the suggested solutions are commonsense and valuable, and include comments on shaping the culture and collecting and disseminating information. There is a nice discussion of how to conduct the meeting, emphasizing treating the effort as a learning opportunity and using good facilitation techniques.

This book’s unifying theme is the ideal of speeding of time to profit. However, the book did not convince me that the time-to-profit race is an idea whose time has come. I’d like to see a direct, detailed presentation and discussion of evidence supporting the benefits of time to profit. (The book contains an extensive list of references for looking further at the issues, but I wonder how many people will research the information.)

The book mentions three firms (Boeing, Intel, and Hewlett Packard), but it is not clear if they are practicing time to profit, whether it is bringing them benefits, and what barriers they have encountered. Since the topic is touted as important, I want to ask: how does time to profit compare to other NPD performance metrics like portfolios, risk, patents and so forth? Still, the concept of time to profit should be a thought-provoking stimulus for strategic discussions about firm-level and project-level metrics.

It is well worth the time to take Rosenau’s points to senior management for discussion.

The book contains numerous vignettes on product design mistakes and poor customer service (many of them recounted Rosenau’s experience as a consumer). I believe these anecdotes were intended to develop this theme of good product design and its relationship to sales and profitability, but I’m afraid that the casual reader will perceive them as irrelevant. Here is one way that future editions could use time to profit as a stimulus to NPD improvement: Many organizations waste a considerable amount of resources fixing problems that occur after launch because the product development teams often focus exclusively on technical development and pay little attention to postlaunch details (e.g., packaging, ease of use, and customer support). An emphasis on time to profit would force the project team to include needed work in their planning, instead of the project team disbanding immediately at launch and handing off the remaining work to the sales and manufacturing functions. So time to profit can be a pragmatic technique for dealing with a systemic problem and can provide an organizational learning loop that connects continuous improvement learning with upfront project planning.

The book’s preface states that an important objective is clarifying and agreeing on the profit objectives. Poor decision making is certainly a major cause of slow NPD, and I believe that NPD process practitioners are looking for tools and techniques to facilitate the clarification and agreement process. NPD is inherently filled with competing nonfinancial functional objectives. I would like to see more how-to detail showing that agreeing on and clarifying a near-universal goal of profit can accelerate

decision making, and thus the attainment of NPD results. Because the book includes “success” in the title,

I was expecting Rosenau’s perspective and experiences on the strategic implications of NPD process and the tactics for achieving successful performance.

Successful Product Development is presumably a companion book to Rosenau’s *Successful Project Management*, published by Wiley in its engineering series. I looked at the promotional blurb on the back cover, trying to reconcile what it said with what I was reading. The back cover of the book declares that this is a practical hands-on handbook with clear, proven procedures. In the preface, Rosenau states that he intends the book to provide perspective, rather than prescription. I believe this is a valuable book, but it is not an open-on-your-desk manual for the NPD process. I was a little confused by the book’s apparent straddling of technical matters and strategy. I would recommend deepening its focus more on the theme of process and its relationship to speed and strategy.

Successful Product Development is a compact book that states its goals and addresses them in a workmanlike way. Its intended audience will find a good overview of the NPD process and many stimulating concepts that can be used to create an improved NPD capability.

Advertising Opportunities Available

We plan to offer advertising this year to help cover the growing expenses of publishing *Project Management Innovations*, and to serve membership by letting them know of products and services available. Inquire with Greg Githens, PMP at Greg_Githens@compuserve.com



Back copies of selected copies of *Project Management Innovations* are available at

www.pmi.org/sigs/npd/NPD_newsletters.htm

Project Management Innovations
Copyright 2000, All Rights Reserved
PMI New Product Development Specific Interest Group

Project Management Innovations is published as a membership benefit, by and for the members of PMI's NPD SIG. The purpose of this publication is facilitate networking and information exchange.

NPD SIG 2000 Board of Directors

Here are your NPD SIG officers for 2000 and their email addresses. As your representatives, they need and welcome your insight. They are a great way to start networking in the NPD SIG.

NPD SIG Officers

Chair: Kenneth Delcol, PMP
delcolkd@sciex.com

Past Chair: Curt Raschke
c-rashke@ti.com

Vice Chair Communications: Kim Johnson,
kajl@mmm.com

Vice Chair Membership (co-chair): Greg Stine
Greg.Stine@concert.com

Vice Chair Membership (co-chair): David Suh
david_s_suh@fanniema.com

Vice Chair Administration: Kurian Jacob
kurian_jacobckj001@email.mot.com

Vice Chair Technical: Alex Walton, PMP
alex_walton@email.msn.com

Appointed Positions

Newsletter Editor: Greg Githens, PMP
Greg_Githens@compuserve.com

PMI 2000 Track Chair: Shawn Rogers
s-rogers@ti.com

NPD SIG Administrator: Paula Anderson
paulaanderson@worldnet.att.net



New Product Development
Special Interest Group

Paula Anderson
NPD SIG Administrator
4848 Tri Oak Circle
Wyoming, MN 55092

BULK RATE
U.S. POSTAGE
PAID
WYOMING, MN
PERMIT NO. 40