AMGI MANAGEMENT GROUP INC.
Managing Creativity and Innovation

AMGI Newsletter I

1 About The Newsletter:

The AMGI Newsletter is published monthly and will focus on practical content in the areas of Business Transformation, Collaborative Product Development, Managing Change and Enterprise Management Systems. We will use our extensive international connections in industry, consulting, academia, and professional association (SCPD, IMechE, SME, CAMC) etc as well as our own consulting experience to keep you abreast of innovation trends.

2 This Months Topic:

Collaborative Product Development Trends & Analysis - Web-Based Product Development: Seeking a Competitive Advantage

(This is the first of three articles on Web Based Product Development published in the SCPD November Newsletter By Scott J. Edgett and Dave Erlandson of Sopheon Company an international provider of software and services to life science and technology companies. Subsequent sections will follow)

Challenges within the Product Development Processes

A. Introduction

The product development process, from concept to launch, is especially complex, with numerous potential pitfalls. Resulting new products are usually only successful if each stage in the process has been followed, with necessary tasks completed and thorough research undertaken at every step.

In a three-part article, we'll examine the new product development process, the common causes of new product failures and steps to increase your success. Part one will focus on challenges facing new product development processes. Part two will review what separates products that are successful from those that are not. In part three, we will examine use of web-based technologies to improve success rates by automating successful NPD processes.

Common causes of new product failures include inadequate market competitive analyses, poor internal communication and weak product definitions. These weaknesses can lead to mismatches with customer expectations, technical or production problems, product defects, higher than anticipated costs, or mistimed market launch.

NPD processes must be completed as rapidly as possible since business competitiveness is shortening most product life cycles. A new product rarely has a life of five to ten years. Products compete for the same customers, or are superseded by superior products. Improving speed-to-market places substantial pressure on NPD managers.

However, the rewards are great for companies that launch winners. On average, products not sold five years ago now account for a staggering 50 percent of company sales. A study of 203 representative US product launches shows a return of 96.9 percent on investments in successful new products, with an average payback period of 2.49 years, and an average market share of 47.3 percent in identified target markets.

B The New Product Battlefield

The advent of the Internet and globalization opens up world markets to many companies. Any company has to compete with domestic and foreign players, wherever it chooses to operate.

In addition, market conditions are never constant. All areas of technology are developing rapidly, and customer needs, wants and preferences change regularly.

Change is a staple for companies that design and manufacture consumer technology goods, like mobile phones. The technology behind mobile communication devices is changing so quickly that only weeks after the most technologically advanced phone has reached retail shelves, it is unfashionable, with consumers looking for the next product iteration.

Unfortunately, in the quest for development speed, many companies have been cutting corners and omitting critical activities. Other organizations have embraced speed-to-market, but have been smart in doing so. Smart companies have worked hard to streamline processes or remove activities that do not produce value. They have also created decision gates that operate in NPD time vs. calendar time.

C The Project Management Challenge

Too often, cutting-edge companies seek success by having multiple teams working on multiple new products or versions of new products simultaneously. For example, Dr. Robert G. Cooper notes in Winning at New Products, "as product version number 1 is hitting the market, its replacement, product version number 2 is already in development, and product version number 3 is waiting in the wings for a go-to-development decision."

Smart processes raise the odds of maintaining healthy product portfolios and providing for sustainable competitive advantage, but they also increase process complexity. It is more difficult for managers in charge of business strategy to keep track of everything under development.

Reducing the time to get a new product to market must not result in improper project management. New products stand a better chance of making it to market and succeeding when

they get there if well-defined new product development processes are in place. Decisions are then factually based, and plenty of homework has been conducted.

D Typical Problems Within a NPD Process

1. Unstable product development processes.
2. Difficulties in managing multiple projects.
3. Difficulty co-ordinating efforts among global work teams.
4. The continual need for efficiency gains within NPD processes.
5. Inconsistent process measurement.
6. The inability to deliver timely information on portfolio analyses to executives.
7. A lack of sharing and/or information reuse.
8. Constant turnover and/or training of new NPD personnel.
9. Lack of productivity due to document preparation for gate meetings.

At present, product successes are inconsistent. The failure rate for new products is high, resulting in many wasted company resources. Studies report that only 59 percent of new products launched are successful, and about 46 percent of the resources invested in the development and launch of new products is squandered on products that never make it to market or fail when they do.

Some companies, however, enjoy success rates of nearly 80 percent, while bringing the same number of new products to market as less successful companies. Top performers generate nearly 50 percent of the overall sales and profits from new product offerings over a five-year period. These companies spend only 20 percent of their new product development resources on losers. Part two will review what separates products that win in the marketplace from those that do not.

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3 Out and About - Educational Conferences of Note:

How to Measure and Maximize Clinical Trial Performance with Metrics: How can R&D accomplish its work more quickly and efficiently without compromising safety and quality? This crucial question requires an understanding of what a company's R&D functions are doing now! Most pharmaceutical and biotech organizations have little knowledge of how well they currently perform their R&D functions.

How effective is your organization at planning and executing clinical trials? How good are its protocols? How efficient is patient enrollment? How clean is the data? Pharmaceutical, biotechnology, device, and contract research companies are beginning to think more seriously about how to measure R&D and clinical trial performance. Companies must improve their development performance and R&D metrics offers a way to do so.

On January 28-29, 2002 at the Hyatt Regency in Princeton, NJ, the Institute for International Research (IIR) will present its "How to Measure and Maximize R & D and Clinical Trial Performance with Metrics" conference. Eight good reasons to attend are:

1. To identify how to gather performance metrics and use them to improve project progress.
2. To enhance benefits of project reporting to the project team, the organization and the metrics group.
3. To increase benefits of project management in your clinical research project.
4. To hear how to modify and establish performance goals, standards and benchmarks.
5. To document cost and time efficiencies in clinical development.
6. To identify successful balanced scorecard approaches to NPD R&D and clinical research projects.
7. To learn new strategies using dashboard performance metrics to evaluate project progress.
8. To review what CROs are doing to implement a standardized metrics system.

Please visit http://www.iirusa.com/performancemetrics/index.cfm/Link=1/NewSection=yes to get additional conference information.

4 In The Public Press - Collaborative Product Development

The Technology Productivity Puzzle

The following article should be of interest to those product developers and technologists who have questions about technology's role in organizational productivity. The assumption that the former always increases the latter is challenged. This writer's opinion is, in part, supported by work at McKinsey, referenced below. If you have an opinion about the subject, and would like to share it, please drop me a note. If you have information sources which may elucidate technology's role in organizational productivity, I'd appreciate learning what they are so I can share them with members. This is an important topic, and one which creates considerable conversation within the IT and NPD functions.

The basic promise of technology is more efficiency and greater productivity. However, links between more technology and more productivity have historically been weak. As the 1990s progressed, we were told that had changed. Technology had reached critical mass within organizations, the reasoning went. We were finally seeing a surge in technology-fueled productivity. A recent McKinsey report differs.

The report entitled, 'U.S. Productivity Growth 1995-2000, states that, "Contrary to popular belief, our research shows that IT was only one of many factors causing the post-1995 productivity growth jump." According to Bill Lewis, director of the McKinsey Global Institute, "There was a big jump in capital spending on IT and a big jump in productivity in the (American) economy as a whole at the end of the 1990s. But the actual correlation between the two is very weak."

The question becomes: if technology is not driving productivity, then what good is it? For a long time we have been sold a technology-driven world of efficiency and leisure. Back in the 1950s, we were promised a 3-day week. But the facts show that we are working longer hours than ever. We were promised the "paperless office." But we have never produced more paper, and it's rising every year.

Thomas Landauer, in his 1995 book 'The trouble with computers,' pointed out that computers had not contributed nearly as much to labor productivity as had been hoped, and that the efficiency of computer applications had been poor.

During the period between 1973 and 1993, American productivity growth was half that of the period 1950 to 1973. While the oil crisis of the 1970s adversely impacted productivity, the period 1973-93 saw a huge investment in technology. Morgan Stanley's Stephen Roach wrote a paper in 1997 entitled "The boom for whom: revisiting America's technology paradox." Roach pointed out that between 1990 and 1996 alone, $1.1 trillion was invested in IT hardware. However, he noted that much spending was a process of running to stand still. "Sixty percent of annual corporate IT budgets," he wrote, "go toward replacement of outdated equipment and increasingly frequent product replacement."

If you wish to discuss this information furthe11r please contact us at amgi@amgimanagement.com