

Innovative Development Associates

White Paper

Trends in Software Product
Management

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Customer Centered Product and Market Development

Trends in Software Product Management

New survey reveals insights on software product success.

By Joseph Kormos,

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Most software companies understand that if they don't consistently offer better products they can't compete. Where many miss the boat is in understanding that if they don't have a better *product development system* they won't consistently have better products.

Unfortunately few software companies can even describe their product development system much less claim it to be robust. Symptoms of a weak product development system include:

- ?? An inability to accurately establish status of development projects.
- ?? Lack of "customer presence" in the definition of products and in the selection of new product opportunities. A lack of differentiation and a technology focus to products.
- ?? The feeling that every project charts it's own course without benefit of an established baseline product realization process.
- ?? The tendency to make the same product development mistakes time after time.
- ?? Numerous late changes to requirements.
- ?? A lack of consistency and timeliness in new product decisions.
- ?? An inability to get marketing, planning and product development to play on the same team.

Engaging Management

No matter how uncomfortable the product development situation at your company may be, you'll first need to focus management's attention on the issue before serious improvement will result. Experience shows that management won't seriously try to solve the problem until they believe:

- ?? ineffective product management and development is a significant impediment to company success... even a competitive disadvantage.

?? there are useful, plausible solutions that either haven't already been tried or, if previously tried, deserve another look

One useful method for focussing management attention on the opportunities for improved product development maturity is an audit of the current state of product management and development in your organization. The brief quiz in Appendix A introduces you to a number of the symptoms of an ineffective development system and the factors which could cause future problems. A high score is an indication that a more thorough review is necessary.

Survey Explores Software Product Management and Development

Another useful tool for improving product development practices is to benchmark and compare with other similar companies. While full scale process benchmarking provides the richest opportunity for comparative exchange the time and cost of such benchmarking programs can be prohibitive. A useful alternative is provided by a new industry report which explores product management and development approaches at software companies.

Based on a survey of software companies jointly conducted by Innovative Development Associates and Culpepper and Associates, *"Product Planning Practices in the Software Industry,"* examines issues of customer and competitive research methods, development process, roles and responsibilities of product managers, and key staffing ratios for achieving a balanced product development effort. It provides a foundation for software companies which are examining their product development systems by:

- ?? exploring strengths and weaknesses
- ?? comparing to other similar companies
- ?? identifying practices used by software companies which have achieved above average success in new product development

Product Releases Up, R&D Spending Flat

One of the clear themes of the report is the significant importance that strengthened product management will have on the success of software companies. The survey indicates that software companies expect to put increased pressure on their product development systems. Sixty-six percent of the respondent companies are planning to increase their rate of product and version releases over the next three years. Overall, they will increase new product releases 72% and upgrade/version releases by 40%. Despite the increased activity however, only 32% are expecting to increase their rate of R&D spending, while 27% will decrease spending and most, 42% will keep it the same.

R&D Spending an Erratic Predictor of Success

With software companies expecting to undertake increased product development efforts without a commensurate increase in R&D expenditures and, since R&D spending has traditionally been one of the key measures used by software companies to gauge their commitment to a healthy product development system, the report further explored the relationship between R&D spending and product development success.

The historical perceived link between R&D spending and product development competitiveness, is evident in the survey data. The survey shows that companies which suffered competitive setbacks in the product development arena often increased their rate of R&D spending- in hopes of closing the gap. Conversely companies which rated themselves to be more successful product developers than competitors were less likely to be increasing their rate of development expenditure.

However, the survey also identified that R&D spending is an erratic predictor of product development success. Companies which outspend their competition were shown to release more products than the competition but compared to those which don't outspend their competition they also:

- ?? overrun project schedules to a greater extent
- ?? have project cancellation rates double other organizations
- ?? exhibit no greater improvements in meeting product development budgets and achieving customer satisfaction.

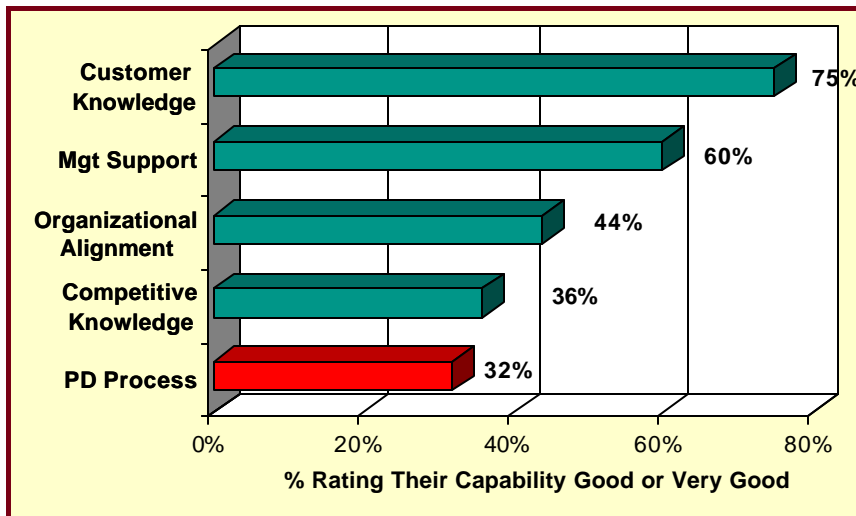
Product Development Success Linked with Business Success

One of the most fundamental areas illuminated by the survey is the clear relationship between business success and product success in software product companies. Those respondents which enjoyed above average business success, as measured by profitability and gains in market share, were also found to exhibit above average success on an index of 10 product success factors.

For example, companies whose market share increased, found that 23% of their new products failed to meet business expectations while companies whose share declined or remained the same experienced a much higher rate of product failure (40%).

Product Development Systems Lack Maturity

The survey also revealed that a large proportion of software companies lack maturity when it comes to their product development systems as compared to many other industries. For example, 54% of new product development programs overrun their schedules demonstrating a definite lack of control and predictability. Also, relatively few organizations track the percentage of their revenues obtained from new or recently released products and even fewer make it a practice to set targets for generating new product revenues. Traditional processes such as phase review systems and project screening criteria exhibited utilization rates lower than other industries.



Among the various aspects of product development systems explored in the survey, respondents found their product development process to be least mature.

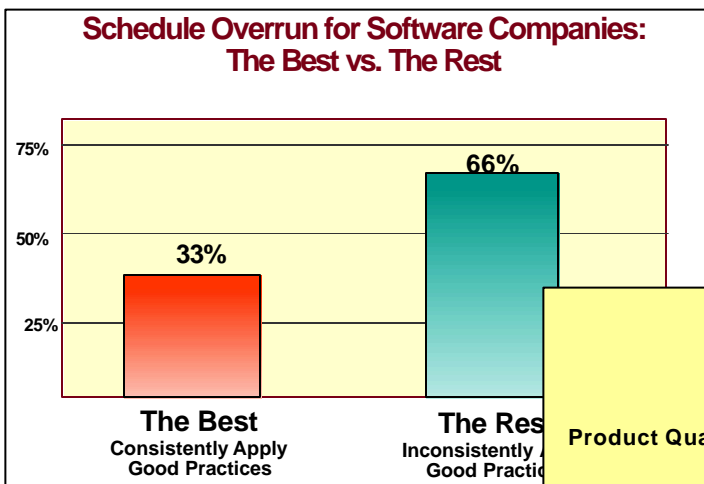
Broad Set of Practices is Linked to Product Development Success

With the demise of R&D spending as a primary barometer of an organization's product development health, what are the appropriate, effective measures of maturity in a product development system? Which practices can be linked to success with new products?

To explore these questions, the survey examined critical product development practices of respondents - to identify the key factors which separate "The Best" - the most successful product development respondents - from "The Rest" - those whose product development efforts were less distinguished in the survey indices.

The common myth in software companies is that product development is consistently out of control in *all* companies. While the software industry clearly lags other industries in developing disciplined, mature systems and processes, not every company operates in a state of chaos. An important finding was that there *are differences* in the rates of product development success among software companies- some companies are taming the product development monster. And, those differences can be traced to the use of a broad set of product development "Best Practices".

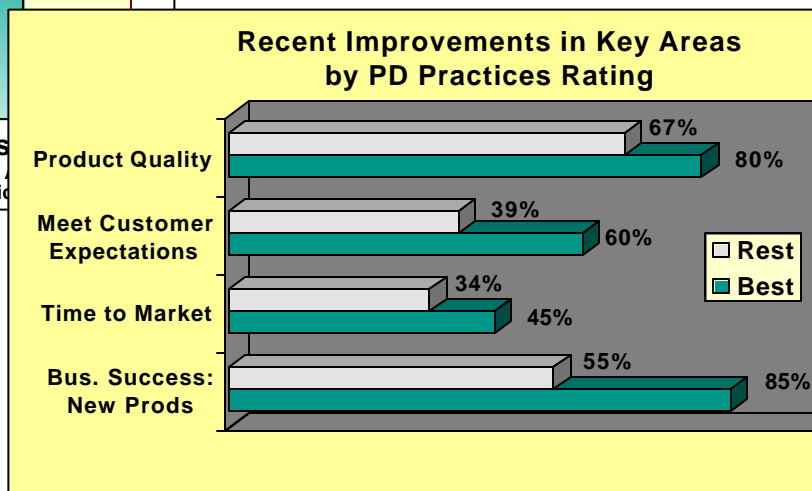
No one individual practice is enough to build an effective product development system and as a result no one practice alone makes a clear difference in a company's product development success. However a clear link exists between the usage of a broad set of product development practices and product success. For example, companies which operate their *Product Development System* by consistently applying a broad set of product development best practices exhibited significantly improved schedule compliance over those who used fewer "Best Practices" or who applied those practices less consistently. They also exhibited less wasted R&D effort and release a greater number of new products in a given time period.



Companies applying a consistent set of effective product development practices exhibited higher degrees of schedule compliance on product development programs.

Companies which applied a broad set of effective product development practices experienced improvements in product quality, customer satisfaction, time to market and business results of new products.

Altogether thirteen specific practices were



identified which were related to above average product development success from software companies. Among the areas where practices were identified are

- ?? development process definition
- ?? expanded customer research and better product definition methods
- ?? management support systems
- ?? closer linking of the product development agenda with corporate strategy
- ?? cross functional teams
- ?? technology mapping
- ?? skills appraisal

A Step By Step Approach

No company can effectively absorb change initiatives in four or five areas at one time - much less thirteen. The key question then becomes how to select the actions which can bring the greatest impact to your organization. Selecting these actions is never easy. And, building a sustained focus on product development excellence is even more difficult. It involves an internal look at current practices via a product development audit and comparative benchmarking of the practices of others.

However, if software companies engage the management team in serious improvement initiatives, build on the practical experiences of others and focus on creating a business based *product development system* their probability of success can be greatly increased.

Joseph Kormos is author of **Product Planning Practices in the Software Industry**, and **Planning Software Products That Sell** both published by Culpepper and Associates. He is also Director of the **Product-MASTERS Collaborative**. His consulting firm, **Innovative Development Associates**, helps high tech companies benchmark and improve product development processes to boost the payoff from their R&D investment. For more information or to order the book contact 513-683-1911 or www.inndev.com

Appendix A

Product Development Scorecard

Symptoms and conditions which signal that it's time to get your product development act together.

Many software companies experience difficulties in the predictability and quality of their product management and development efforts. But is now the time for your company to dig into taking action to resolve these issues? It depends upon how strong the symptoms of problems are and how prevalent the conditions are for additional difficulties.

The following scorecard helps you to rate the importance of these symptoms and conditions to your organization.

Symptoms

Place a check (✓) in the box which best describes the degree to which this symptom has existed in your company in the last two years. Give yourself three points for each "often" answer and one point for each "occasionally" answer.

Future/ Current Conditions

Place a check (✓) in the box which best describes the degree to which this has condition exists is expected to exist in your company in the last two years. Give yourself three points for each "significant" answer, two points for each "don't know" answer and one point for each "modest" answer.

A total score of 20 points or more indicates a need to assess your product development system more deeply.

Symptoms

Complete the question... **"How often in the last two years... ?"**

1. ... has the primary measure of our commitment to product development success been the size of our R&D budget?

✓ Often

✓ Occasionally

✓ Rarely

2. ... has top management's attention to new products been focussed at the end of the development cycle when it's too late to make a difference?
 Often Occasionally Rarely
3. ... have projects been late, milestones missed with a flurry of activity right before deadlines?
 Often Occasionally Rarely
4. ... have products/pet projects appeared from nowhere, without a defined beginning and clear approval stages?
 Often Occasionally Rarely
5. ...have decisions on what product/features to develop next not been based on customer inputs or do the customer inputs seem to reflect personal biases of marketing, sales or development?
 Often Occasionally Rarely
6. ... have customer inputs to product development seemed to consistently come from the same one or two customers ?
 Often Occasionally Rarely
7. ...have we been seriously surprised by competitor product actions?
 Often Occasionally Rarely
8. ... have we seen our key competitors achieve greater improvements in quality, speed to market?
 Often Occasionally Rarely
9. ... have been unable to articulate our points of differentiation resulting in a lack of attention from the market or the sales force. Do our products look a lot like competitors?
 Often Occasionally Rarely
10. ... have products incorporated features few if any customers want ("What's this for?") or been missing critically important features or functions?
 Often Occasionally Rarely
11. ... have Sales, Customer Support, and Customers had useful product ideas but not known how to let you know about them?
 Often Occasionally Rarely
12. ... has misalignment, overlap or gaps in roles and responsibilities of different functions or groups in delivering successful products occurred?
 Often Occasionally Rarely
13. ... have 2-3 critical resources/individuals seemingly been involved in every project?
 Often Occasionally Rarely
14. ...have bad product ideas not been killed but seem to linger or good product ideas not moved forward and been strangled due to no process for allocating resources to consider and evaluate these concepts?
 Often Occasionally Rarely
15. ...have products been released without having met a broad set of pre-established release criteria?
 Often Occasionally Rarely

Complete the question..."We are currently experiencing or expect to experience..."

16. ...a rapid expansion of our development staff
☒ Significant *☒ "Don't Know"* *☒☒* *☒ Modest* *☒ Minimal*
17. ...an expansion of our product line which includes products which are new to the market or new to our company
☒ Significant *☒ "Don't Know"* *☒☒* *☒ Modest* *☒ Minimal*
18. ...a major re-architecting of our flagship product line.
☒ Significant *☒ "Don't Know"* *☒☒* *☒ Modest* *☒ Minimal*
19. ...significant turnover in product development professionals in our company or an expected major reorganization involving product planning, management and development personnel.
☒ Significant *☒ "Don't Know"* *☒☒* *☒ Modest* *☒ Minimal*
20. Turbulence in the marketplace as evidenced by important new competition or new technology.
☒ Significant *☒ "Don't Know"* *☒☒* *☒ Modest* *☒ Minimal*

