

PRODUCT DEVELOPMENT Best Practices Report

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EXPERT INTERVIEW: Preston Smith on the Pros and Cons of Outsourcing Product Development

The outsourcing trend continues unabated, despite evidence that the rate of increase may be slowing on some fronts. Is it a good idea? Are companies sacrificing long-term success for short-term advantage? How do you know when outsourcing makes sense? What are the tradeoffs? We put these and related questions to Preston Smith, co-author with Donald Reinertsen, of the best selling book, *Developing Products in Half the Time*:

BPR: What explains the growing trend to outsource product development?

PS: "Outsourcing is primarily a means of leveraging the organization's resources, and resources have gotten tighter over the past several years. Companies have downsized. At the same time, pressures in the marketplace have mushroomed, creating apparent needs for a greater variety of new products than the lean staff can handle.

"Marketplace pressures also draw firms into new markets, technologies, or design approaches for which they lack essential skills. Then, the fastest way to get the new product to market is to farm it out to a development shop that has the needed skills in place. It is the wise company that recognizes that it is either short of resources or lacks specific resources for a non-standard product--then outsources it. All too often, the firm just trudges on, creating schedule and quality problems for that project and all other projects it infects in its quest for resources."

BPR: How does outsourcing fit into a developing products in half the time strategy?

PS: "So much of developing products in half the time is simply a resource issue. The chapter in *Developing Products in Half the Time* on project overload is perhaps the most universally comprehended chapter in the book.

Outsourcing is a direct and immediate means of dealing with overload. Unfortunately, outsourcing is not entirely free of problems. The really good outsourcing firms are not cheap. And you cannot outsource the project and forget it; to keep the project on track and in line with your desires, you will still have to invest considerable quality time in managing, coordinating, and overseeing what your partner is doing.

"There is another factor working to your benefit here. Outsourcing houses are built to be fast. They generally use small, highly experienced, highly motivated, cross-functional, co-located teams, and have an effective, non-bureaucratic development process. They have quick, easy access to industrial design, prototyping and model making, and customer research resources. In most cases, they can move faster than your internal organization. And because they are offsite and contractually bound, they are much less likely to be sent off on tangents than an internal team that is subject to conflicting directives."

BPR: What do you see as the key economic factors to keep in mind in pondering outsourcing?

PS: "Clearly, time to market is an important factor to assess financially. If you look at outsourcing without assessing the cost of delay, outsourcing is likely to look expensive; thus you will not outsource. Instead, you will make do internally, delaying that project and every other one under development. Another factor is the sales appeal of the completed product. Many outsourcing shops have impressive capabilities to do customer research, industrial design, and model making. To the extent that these capabilities improve the product beyond what would normally be done internally, they add quantifiable value.

"Regrettably, the economics of outsourcing is approached as being much different than it is. When companies develop products internally, they mostly use resources to which they have already committed, so developing one

more product using on-board resources seems quite doable. But the full expense of an outsourced product is visible, so it receives more financial scrutiny. Because most firms have a plethora of product opportunities, any project uses resources that could go to another opportunity, and, to be fair, each should be justified using its full burden on the organization, independently of whether it is outsourced."

BPR: Same question, put another way: what are the opportunities and the risks?

PS: "First, the risks. All development projects have plenty of risks--whether done internally or externally. Beyond these, external projects face two more. One is the possibility that the relationship or communication between the manufacturer and the development house will sour. Then the result falls short of the manufacturer's expectations. The other risk is one of reintegration. When a project is sent out, it must eventually come back and be owned by the sourcing company, usually for volume manufacturing and sales. Unless the corporate immune system has been deactivated through careful planning and involvement, and unless the product is carefully designed to fit the client's manufacturing, sales, distribution, and service systems, it may never fit as well as an internally developed one.

"However, for most products market risk exceeds the more apparent technical risk. To the extent that the development house's superior model making and customer research reduces market risk, outsourcing will be less risky than internal development.

"The opportunities resulting from outsourcing fit into two areas. Outsourcing allows you to leverage your resources on demand, enlarging your ability to develop products without permanently adding staff. Secondly, It can give you fresh product ideas that are unlikely to have emerged internally.

"There is a secondary opportunity that may in fact outweigh the primary ones. Because development houses are built to be fast, there is much that an astute manufacturer can learn from its partner about fast development. Many companies ask me to help them arrange benchmarking partners, but seldom can they find noncompetitive partners close enough to their business for them to really learn applicable development techniques. In contrast, outsourcing is a perfect opportunity to get an intimate look at how another firm might develop your exact products far faster or more effectively than you currently can.

"To exploit this opportunity, I would be quite clear about expecting it when seeking a partner, both with your own people and theirs. Arrange lots of visits and on-site time, and pour over the project documentation, analyzing every detail for opportunities to adapt their approaches. At the end of the project, explicitly have a lessons-learned session resulting in action plans. Few manufacturers even realize that this opportunity is there for the asking."

BPR: How do I decide to pursue such opportunities rather than build my internal capability?

PS: "A useful way to consider outsourcing is to recognize that when you do it you will forfeit learning about your products and processes directly, in exchange for the potential of learning how another skilled party deals effectively with the same product and process issues. Both types of learning are valuable. You should ideally develop a substantial portion of your products internally so that you have the core strength--and so that you can work more equitably with your partner when you do outsource. But total inside development is also unhealthy, because it cuts you off from potentially valuable fresh approaches in both products and processes."

BPR: How do I know I'm not sacrificing my long-term well-being for short-term advantage?

PS:"This could be tough to detect in advance. In 20-20 hindsight, IBM, of all companies, made a huge strategic mistake when they outsourced the key level of their PC computer, its DOS operating system, to a little startup in Redmond, Washington. The rest is history. However, this is a rare case.

"Seldom would the development house have a long-term interest in your product. Although much of the concern here can be overcome through carefully written contracts and through the quite careful security that development houses normally observe, favorable experience in partnering will dissipate the concern over time. I suspect that the companies successfully using outsourcing would characterize the long-term effect in terms of its advantages, not its limitations. The advantages appear as fresher, more successful products and a more dynamic view of product development."

BPR: How do I decide who's a good fit as an outsourcing partner?

PS: "Chemistry is a vital factor, just as it is with hiring employees who fit well. This being the case, this mating process is highly subjective, and there is no real prescription. As with recruiting

employees, I would arrange liberal direct contact, ask questions that test their candor and integrity, and check references pointedly. And encourage them to do likewise, as the chemistry has to work both ways. Try to start with a small project to make it easier with a new partner, and work on building the relationship from there.

"Some development houses are exploiting current communications technology to provide virtually open project record access to their clients via a Web page with appropriate firewalls in place. I would look for such indications of sharing and openness. This trust and openness has everything to do with rapid product development. Any outsourced project, no matter how carefully structured, will have occasions when a change (read "increase") of scope arises, simply due to natural learning or changes in the market or technology.

"Without a trusting relationship, such propositions lead to unnecessary delays while assertions are checked out and a contract amendment is drafted and approved. (If time matters, this is the worst possible time to get the lawyers involved.) If you've developed a trusting partnership, work can proceed while the contractual details are settled equitably off of the critical path."

BPR: Brother International's Richard Brenner (who brought an imaginative, award-winning product to market in partnership with Design Edge) likes outsourcing, even in an R&D resource-rich situation. Says Brenner, "It's wonderful to have someone working for you who's not stuck in the corporate box." How much merit do you see in what he says?

PS: "A great deal. Even if you are mainly contracting for extra hands, these firms can provide a breath of fresh air. The wise manufacturer encourages this, because it is a bonus in any case. MIT professor Tom Allen explains the not-invented-here syndrome in terms of a group that works closely, developing knowledge. After two to three years together, they know enough that they start rejecting outside information, thinking that they know better. Allen's primary solution is to stir the pot by shuffling people. But outsourcing can do the same thing, provided that you allow your partner to break your box open."

BPR: What do you say to those who see outsourcing as an admission of corporate weakness?

PS: "Dare them to escort you from your corporate box--on product and process issues!"

Management Roundtable, Inc. • 92 Crescent Street • Waltham, MA 02453 USA
tel: 800-338-2223 or 781-891-8080 • fax: 781-398-1889

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