

THE DIRTY DOZEN PRODUCT PITFALLS

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Bad products are everywhere. Products that simply aren't useful, don't work right, are too difficult to learn, or that take forever to sell. Little wonder, as there are so many things that have to go right in order to create a successful product. There are, however, some pitfalls that occur so frequently and are so damaging that we believe they are at the root of the vast majority of bad products.

In this paper we review each of these pitfalls and describe why it's so easy to get confused and fall into these traps. Keep this list handy, as it can hopefully serve as a reminder of the dangers to avoid in your own product development efforts.

1. Confusing Customer Requirements with Product Requirements

Many product teams look to the marketing function or sales or the customer to define the product to be built. If you're building a custom product, or doing contract product development work, then letting your marketing or sales organization define your product may be fine. However, if you're trying to build an innovative product that will meet the needs of a wide range of customers, then this approach will rarely produce the product you want.

The logic goes that the marketing organization communicates with the sales organization and the customers, and hence they are in the best position to know what product is required. However, there are several reasons why few good products are created this way.

First, customers don't necessarily know what they want. Not because they aren't smart, but because it is very difficult to proscribe a specific solution and predict its effectiveness without actually building it, or at least building a prototype.

Second, customers don't know what is possible. It takes significant time and expertise to stay abreast of the many developments in technology that may apply to your problem.

Third, customers aren't in a position to see the wide range of needs and opportunities. The customers are busy with their own lives and jobs and don't have the time to learn about others in the market and how their needs may be similar or different.

Product management is responsible for defining the right product. It is the job of the product manager to deeply understand the target market and their needs, and then to work to combine what is possible with what is desirable, to create products that solve real problems. This is why top product managers often come from the engineering ranks; they understand what is possible, and when they see an unmet need they can often envision new and innovative solutions.

Product *marketing* is also very important, just very different. Product marketing is all about communicating what the product does to the target market, and supporting the sales channel with the tools they need to effectively sell. Good product marketing is difficult and critical, but it is not at all the same thing as inventing the actual product.

2. Confusing Innovation with Value

Innovation without a clear purpose is simply technology looking for a problem to solve. There are countless products on the market today simply because they were now possible, not necessarily because they solve a real problem, or solve the problem better than other solutions.

What motivates the engineers on the product team may not be the same thing that motivates others. Engineers care a great deal about the technical challenge itself, and the particular technologies that they get the opportunity to learn and use.

However, if the engineering team is provided with a clear vision and product strategy, and if the engineers are provided the opportunity to see the customer problems directly, then they can often come up with innovative solutions to very real problems, and breakthrough products can result.

The key is that innovation needs to happen in the context of a vision and strategy. The innovation needs to be in support of providing true customer value.

3. Confusing Yourself with Your Customer

It is very natural and all too easy to think of yourself as more like the target customer than you really are. The reason this is so dangerous is that when we come to think of ourselves as a proxy for our customers, we apply a very different standard to the

product. There are many negative consequences of this confusion, but the most common is an unusable product.

For example, you may be able to learn and use your product quite easily, yet the actual target customer, who is not immersed in the world of similar products, may find the product overwhelming, complicated, frustrating, and completely unusable.

Or, given that we live and breath our products for months or years at a time, we may anxiously await new releases, while the actual target customer may not have any time to even think about what new features you might be delivering, let alone find the time to install the new version, and explore the new functionality.

To keep us honest and on track, we must constantly put our products in front of customers directly from the target market, and consider carefully their response and constantly strive to keep their perspective in mind and not our own understandably skewed viewpoint.

So many products today are unusable to all but the product's creators. Typically this is the result of poor product design and no usability testing. When usability testing is performed, it is often too little, and too late in the product lifecycle to matter.

If you haven't had your product tested for usability recently, it is likely the insights you will gain from testing will benefit you greatly. The goal should be to redesign your product as necessary to get to the point where you can run usability testing with people from your target market and have these potential customers emerge enthusiastic and eager to buy the product.

Even in companies that routinely perform usability testing, it is often done after engineering has begun to build the product. This creates pressure to downplay the results and lower the standards, otherwise the necessary changes will cause the product schedule to slip dramatically and significant effort and costs will be wasted – not exactly the sort of report a manager wants to give to her superiors.

The use of prototypes during usability testing can significantly help in building confidence that the product you eventually build will, in fact, be usable and desirable.

4. Confusing the Customer with the User

It is remarkable how many product efforts do not distinguish between the customer and the user. In truth, these people typically bring very different needs to the table. The person who buys the product to address a business requirement may have very different concerns from the people that sit down and use the product every day.

Sales people understand this distinction, and often break the types of users down further into the various people in a company that influence a purchase. But too often the product team is just exposed to the customers – the buyers or economic decision makers – who may do their best to try and represent the needs of the users too, but it is critical to have a clear understanding of the different types of people that will actually have to use the system.

The technique of personas or user profiling can help to raise this issue early and ensure the product team is addressing the needs of the different types of users as well as the customer.

5. Confusing Features with Benefits

It is very easy to get absorbed with the specifics of the features that make up your product, rather than the benefits that those features may provide. The product's value proposition speaks to the benefits, not the features.

Your product simply must have a crystal clear, simple and compelling value proposition. Your target market must be deeply understood, and the people in that market must perceive that your product solves a real problem.

There are several possible reasons for poor value propositions. The most common is that the product is just not solving a significant enough problem. It may be that it is an interesting technology still looking for the right application, or it may be that the product is valuable and useful, just not to the people in the target market. It may also be that the product is simply too expensive relative to the benefits.

It is also possible that the product is ideal for the target market, and very economically priced, but the messaging is so complicated that the value is lost in the haze.

If you can't go up to someone in your target market and in less than a minute explain what the product is all about and why the product is relevant to them, then you have a significant problem, either with the value of your product, or your messaging.

6. Confusing Building Right Product with Building Product Right

When most people talk of doing a good job creating a product, they think of whether or not a good process was followed, and whether the project completed on schedule and within budget, and met the quality goals. These are essentially issues around building the *product right* – doing a good job on the execution of the product.

Unfortunately, this doesn't say anything about whether or not the product that was built has any value or will actually be paid for by real customers – in other words, did the product team build the *right product*?

It is essential that the product be implemented effectively if the product is to actually work reliably and perform its functions as required. However, all of that effort is for naught if the product itself isn't useful. It is important for every member of the product team to keep both questions in mind at all times.

In general, usability testing will help you determine if you have built the right product, and quality assurance will help you determine if you have built the product right. Don't fall into the trap of only tracking the much more easily quantifiable QA metrics.

7. Confusing Good Product with Good Business Model

There have been countless good products that couldn't sustain a business. It is not enough just to develop a good product. In a product company, the product needs to sustain the business. You need both to be successful.

A good product must be in support of, and aligned with, the company's business model. Sometimes this can be difficult. Consider the situation that TiVo faced. Their mission was to dramatically improve the television viewing experience, and as we all know, commercials are not usually the favorite part of that experience (with the notable exception of the Super Bowl). However, the television industry is largely funded by commercials. While TiVo's competitors decided to go up against the industry head-on, the people at TiVo worked with the industry and came up with a business model and product that customers loved and still let customers move quickly through commercials, but did it in a way that left room for the industry to continue to feed their families too.

8. Confusing Inspiring Features with “Nice-to-Have” Features

One of the most neglected aspects of product definition is the emotional element. Put bluntly, it is hard to get excited about a boring product. Yet when products are being specified, inspiring features and ideas are almost always the first to get cut in the near-constant negotiation to develop a product in the desired timeframe.

It is relatively easy to come up with a product with a solid list of functional and practical features, but not have one that creates the desired enthusiasm or loyalty.

Without that enthusiasm and excitement, it is much harder to build a community of loyal customers, which makes it much harder to sell and support the product.

When looking for ways to inject excitement in your product, sometimes you'll find it is the features themselves that are inspiring, and other times it is something a little less obvious, like the emotional impact of the visual design.

Many product teams treat visual design as an afterthought. Near the end of the product development process, they find a graphics design firm to come up with icons, or colors, or packaging, and they provide what polish they can to create a professional looking product. But the design is much more a factor in the user experience than most product teams realized.

The best way to get an early assessment in the product lifecycle whether or not your product will be inspiring is to observe the response during user testing. You may have to experiment with several different ideas, but when you strike the right chord you will see it instantly in the response of the test subjects.

9. Confusing Adding Features with Improving Product

Visit any product team with a product that is struggling, and you will almost certainly find the team racing frantically to implement a new set of features that the team hopes will address the problems and finally get the customers to take the plunge and buy.

Sadly, adding features is rarely the formula for improving your product. It is understandable since the sales force is likely telling you (quite loudly by now) that “the customer likes the product but really needs it to do x” or the marketing folks are saying “we simply have to add y and z immediately because our competition is killing us.” Or worse, you find the team following the shotgun approach of “we’ve tried a and b, so it must be c and d that we’re missing.”

Occasionally, you really are lacking some crucial functionality, but if it is so very crucial, it is hard to understand how it was missed earlier. More likely, your product has one or more of the other issues in this list of common problems, and rather than addressing the underlying issue, such as usability or value, we instead look to features as the answer.

Ironically, adding features often exacerbates the problem, as more features tend to make the product that much more complex, and difficult to use, and hard to communicate.

The good product team is constantly improving the product, which primarily means making the product more usable and accessible to an ever-wider audience of target customers.

10. Confusing Impressive Specifications with an Impressive Product

Many teams diligently follow their company's product lifecycle, and produce thorough product requirements specifications, and several thick design and architectural specifications filled with UML diagrams and impressive graphics, and while these documents can be useful in terms of helping to ensure that the product team has thought about a range of important issues, it must always be kept in mind that paper documents can do very little to ensure you're actually building a product that your customers will want to buy.

With high-tech products, the actual target users must be able to interact with the product in order to decide if they will actually like the product and want to use it. This is why it's critical to keep in mind that doing a good job on specifications is not a substitute for validating the product, preferably with high-fidelity, interactive and rich prototypes.

Too many product teams put too much trust in their requirements and design documents, and they don't find out until the product is in beta that people either can't figure out how to use the product, or they can use it, but they don't care to because they don't see the value. This is not a sign of weak product managers, designers or architects, but rather an acknowledgement of the fact that it is simply the nature of high-tech products, especially software, that you need to interact with the product (or a reasonable simulation) in order to evaluate the actual experience and predict the eventual success.

11. Confusing a Complete Product with a Sellable Product

Even with the best of products, if your organization is not set up to effectively distribute and sell the product, or if you cannot reasonably support the product, then your product will not get the response you are hoping for.

You need to look closely at your organization's structure, the business model, the sales and distribution model, and ask yourself if the product you are creating can be effectively sold and supported in this model. It is much easier, in general, to adjust the product to fit the company structure and business model than it is to change the company to meet the needs of your product.

This is especially important to consider after acquisitions or changes in the company business strategy. Remember that these whole product issues are just as important as the product itself, and that many otherwise good products have languished in the wrong company.

12. Confusing Product Launch with Success

Finally, many product teams lose sight of the real measure of success. Success is not launching on time, or getting good reviews from the press, or winning competitive evaluations, or getting the product installed successfully, or even landing major new customers and cashing the big checks that come along with those sales.

These are all good things but they don't speak to the ultimate goal of having happy customers successfully using your product. Unfortunately, many product teams stop short of this goal. They either give up too soon, or they move on to the next product, or they get distracted.

It is very easy to get obsessed with what a competitor is doing, or worry about how some new technology will impact the product, or any number of factors that distract you from the real prize, which is a rapidly growing community of inspired, enthusiastic, and loyal customers.

Summary

Beyond these common product pitfalls, it is worth emphasizing in closing that everything starts with the right people on the product team. These are the people that will make the thousands of decisions during the course of the project that will determine the success of the product. While good process and technique can significantly improve your chances for success, without the right team in place there is frankly little hope.

Not every person on the team must be a proven superstar, but each person on the team must be able to perform her job competently, and the team as a whole needs to work together effectively.

About the Author

Martin Cagan is the Managing Partner of the Silicon Valley Product Group. During the course of the past 20 years, Martin Cagan has served as an executive responsible for defining and building products for some of the most successful companies in the world, including Hewlett-Packard, Netscape Communications, America Online, and most recently as VP Product Management and Design for eBay. The Silicon Valley Product Group (www.svproduct.com) is dedicated to serving the needs of the high-tech product management community by providing content, services, and professional development for product management organizations worldwide.