

# Behind Every Great Product

The Role of the Product Manager

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## BEHIND EVERY GREAT PRODUCT

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Every member of the product team is important. To succeed, a company must design, build, test and market the product effectively. That said, there is one role that is absolutely crucial to producing a good product, yet it is often the most misunderstood and underutilized of all the roles. This is the role of the product manager.

In this paper we discuss the role and responsibilities of the good product manager, and then we look at the characteristics of good product managers, where to find them, and how to develop them.<sup>1</sup>

### ROLE AND RESPONSIBILITIES

The first confusion that we often encounter when looking at the product manager role is that it is often referred to by another name, or it is lumped in with another role: program manager, product marketing, project management, engineering management, or sometimes in small companies, a founder or executive.

At Microsoft, and at a few other companies, the role of product manager as we use it here is known as a program manager<sup>2</sup>. To confuse things further, Microsoft also has a role known as the product manager, but that is what most refer to as product marketing.

We also find some companies using the old-school definition of product manager, which is essentially the brand manager concept from the consumer packaged goods industry. This is primarily the product marketing function under the title of product manager.

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<sup>1</sup> This paper is based on work originally done with Ben Horowitz and David Weiden while we were all at Netscape Communications. Ben and David are two of the best product management minds I've had the privilege of working with.

<sup>2</sup> This is an especially unfortunate title since most of the industry uses the term "program manager" to refer to a project manager that coordinates across multiple projects.

Yet by whatever title or organizational alignment, behind every great product you will find a good product manager, in the sense we describe here. We have yet to see an exception to this rule.

The problem with combining the product manager role with another role, such as product marketing or project management, is that it is very hard to find someone who can do both types of jobs well. Each of these roles is critical, and each requires special skills and talents. We have known some truly exceptional people that can excel in both roles, but these people are very rare.

Further, for all but the simplest of products, the role of product manager as defined here is an all-consuming, full-time job, requiring a dedicated person. If you ask the product marketing person or project manager to cover the product management role, even if the person has the skills and talents required for both, it is unlikely she will have the bandwidth to do both jobs well. Further, for large product efforts, it is not uncommon to find a team of product managers.

The most common problem we have seen is that a product marketing person is asked to fulfill the role of product manager, and while this person might be outstanding in terms of product marketing skills and talents, creating a product is much different than telling the world about that product. The rest of the product team comes to view this person as simply “the marketing resource” that is useful for gathering market requirements from customers or from the sales force, and serving as the interface between the product development organization and the customers. While this model may yield useful *market* requirements, these are not the same as useful *product* requirements.

Hopefully someone else on the product team steps in and performs the true product management function, sometimes a lead engineer, sometimes a manager. If that person has the skills, and also the bandwidth, the product may still succeed. More often, however, the product is in trouble right from the start.

Let us look now at exactly what the product manager is responsible for:

### **Identifying and Assessing Opportunities**

Product ideas can come from any number of sources:

- Customers
- Your competitor’s customers
- Industry analysts
- Your company’s executives
- The sales and marketing staff

- The product development team
- Your company's customer service representatives
- Your operations staff
- Your own experiences and knowledge of the market and technology

Your job as product manager is to evaluate these product ideas and decide which product ideas are worth pursuing, and which are not. If you do decide to pursue an opportunity, your assessment needs to determine what it will take to succeed.

There are two useful outcomes of an opportunity assessment. One is that you determine the idea should not be pursued, either because the need isn't great enough, or the technology isn't ready, or your team or company is not well-suited, or any number of possible reasons, and you prevent your company from wasting the time and money on a poor opportunity.

The other useful outcome is that you determine that this is indeed a very good product opportunity, and that the time is right and you believe your team can deliver an effective product solution. The key here is to identify what it will take to succeed in this market so that management knows what the company will be getting into.

The other possible outcomes – deciding to move forward on a poor opportunity, or deciding to pass on what would have been a great product for you – are both undesirable outcomes of an assessment.

### **Right Product/Right Time**

First and foremost, the good product manager is responsible for defining the right product at the right time. What this means is that the product needs to have the right features for the right market, and must be able to be executed with the technology available in the required market window.

It is easy to define fantastic products that can't be built, or at least can't be built profitably or in the necessary timeframe. It is equally easy to define products that can be built profitably but which are not compelling to the customer.

The art of product management is to combine a deep understanding of your target customer's needs and desires with the capabilities of your engineering team and the technologies they have to work with in order to come up with a product definition that is both compelling and achievable.

The process of coming up with the right product/right time boils down to insight, judgment, and the ability to make choices. Of the hundreds of possible and even desirable features in the product, which are the few that are actually essential to the

success of the product? Are the technologies mature enough to achieve the quality we need? Can we produce the product economically enough to be profitable?

Generally, the product manager identifies the product requirements and captures them for the product team in some sort of specification, often called a Product Requirements Document (PRD), or a product spec<sup>3</sup>. We discuss more about the process of identifying the critical requirements later, but the owner for the requirements and the person ultimately responsible that those are the *right* requirements is the product manager.

### **Product Strategy and Roadmap**

Usually products grow and evolve over time, so when we refer to a “product” we really mean the collection of product releases for that product. The course a product will take over time is also the responsibility of the product manager. This is important for several reasons.

When a product team is hard at work on a product, they want to know what is next. Will this be the end of the product? Or will they be enhancing the product over time to meet additional needs or markets? This information is not just of passing interest to the product team. The vision for the product line and the product strategy can be very motivational to the team. Often compromises must be made to meet required timeframes, and if the team understands that features they feel strongly about will be coming in a following version, they feel better about their work.

Second, it can help the engineering organization immensely to understand the future of a product as there are hundreds of decisions they need to make architecturally that can depend on future use. It is much better to give them as much information as possible rather than risk the team having to rebuild major components later.

Third, it helps the sales and marketing organization in communicating the vision of the product to customers and industry analysts if they know where the product is going. You must use care in releasing product details and availability both for competitive reasons and because the details and availability will likely change over time. But your customers also want to know where the product is heading.

Once the product manager has painted a clear and compelling picture of where the product is intended to go over the next few years, the product roadmap should chart the course to get there. What capabilities and releases should happen when? What

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<sup>3</sup> Microsoft uses the term “Functional Specification” to refer to this document. By whatever name, the key is that the spec must define the product’s functionality and the complete user experience.

markets will be served by each release? The specifics of each release along the way are then covered in the product requirements document for each version.

The product manager is responsible for this product strategy and the steps that will get the product from here to there. The strategy and roadmap should reflect the input and buy-in of the full product team, and should be reviewed and approved by the company executives.

### **Manages Product Not People**

As if all this weren't difficult enough, there is another responsibility that can be sometimes the most challenging, and which can frustrate even the best of product managers. That responsibility is leading, but not *managing*, the extended product team.

In most organizational structures, the product manager is not directly managing any of the people who actually create the product. Rather, the engineers typically work for engineering managers, and the designers work for design managers, and the testers work for quality assurance managers, and so on.

This means that the product manager is rarely able to guide the product solely by authority. Rather, she has to persuade and cajole the product team members to do her bidding. As the owner of the product requirements, she certainly can influence many aspects of the product through that mechanism, but the product manager quickly finds that there are many decisions that she does not own but which impact her product. For these, she must use her persuasive skills.

The good product manager develops and maintains strong relationships with the members of the team by mutual earned respect and her ability to persuade with facts, logic, enthusiasm and a proven track record.

Why are organizations set up this way? There are two major reasons. First, organizationally it is generally not practical to give the product manager the additional responsibility of actually managing the many people on the product team. Doing a good job managing is itself a very difficult and demanding job. You must provide all the people on your team the assistance they need, worry about their career development, manage the scheduling and resource allocation, and deal with the many project dependencies. For all but the smallest teams and products, it is simply not reasonable to expect a single individual can manage a product and all the people who will be creating that product.

Second, there is a natural system of checks and balances in place when the product manager must convince the rest of the product team based on the merits of an argument rather than by edict. If the product team is strong, the product manager will

benefit greatly from the debates she will have with engineers, testers, designers, and marketing. She will learn from these arguments and either change her opinion, or be forced to think harder and come up with stronger reasons.

There will occasionally be an impasse, especially when the team is strong and people feel passionately about the product (as you should hope they do), and this is generally where executive management can be of assistance. If the decision is an important one, then a broader discussion of the issue is very likely useful and appropriate.

It is undeniable that at times the product manager will feel additional stress due to the burden of having to persuade her colleagues rather than simply instruct them what she needs done. And it will also slow down the decision process at times. But the best product managers do not want the product team to do things simply because she tells them to – she wants them to do them because they believe in her and they believe in the product.

One important point in building the necessary relationship with the other members of the product team is for the product manager to always keep in mind that she is not the architect, or the project manager, or the engineering manager. She needs to trust that these people will do their job. This is especially difficult for the product manager that has done those jobs in the past, but for a healthy product team, each person needs to be empowered to do their job, and not be micro-managed.

This is not to say that the good product manager can't ask questions. Just as the other team members can and should question product decisions of the product manager, the product manager is often in a good position to see the whole product and any issues that might arise. The key is to raise the question with the appropriate team members and let them own and resolve any issues.

### **Represents Product Internally**

The product manager is also responsible for representing the product team across the company. It is tempting to deemphasize this responsibility, and to focus exclusively on creating the actual product, but the experienced product manager knows that neglecting this responsibility can all too easily result in the project getting cancelled, losing resources, or not getting the support within the company that every product needs in order to succeed.

- **Evangelism**

The good product manager is the evangelist for her product – she is constantly championing the product and explaining the vision and benefits of the product.

There are many forms this evangelism may take. You might be invited to speak to other product teams, to new employees, at sales meetings, customer feedback sessions, etc. You may be asked to write an article for a company newsletter, or prepare slides for executive presentations.

The good product manager knows to take this work seriously, to ensure that as many people as possible understand and support her project, and she also knows that she should do everything she can to create *reusable* materials. It is entirely possible at a large company that the product manager will be asked to speak as many as 100 times during the course of a project. Creating reusable, annotated presentations, publication quality articles or white papers, and useful, readable status reports can go a long way towards reducing the time burden that this responsibility includes.

While the good product manager will represent the product to many different types of groups across the company, there are two that are especially important and require specific guidance: executive management, and the sales and marketing organization.

- **Executive Review**

One important group that the product manager will need to work hard to keep apprised is executive management. Most organizations will have some form of periodic review of the product plan. Getting buy-in at these and other executive forums is an especially important but challenging responsibility. It is critically important because executive support is essential for the product effort to continue. It is challenging because often the executives barely know the product manager or the other individuals involved – they want to have confidence in the team, but they know their job is to ensure that the plan is sound.

A good product manager will think through executives' concerns and address as many as possible proactively. She also knows when to defend her position, and when to simply accept feedback and move on. The key is to be diligent in following up on unanswered questions or issues, and ensure that they are addressed prior to the next checkpoint meeting. It is also key to do your homework and bring facts to the presentation, and not simply opinions.

In good companies, executives tend to be smart, experienced, and articulate -- that's why they are executives. As a result, it's easy to assume that they have superior judgment and should set the strategic direction for your product. This is a bad assumption. Executives can be excellent at verifying that a strategy is sound or suggesting interesting ideas, but not necessarily well equipped to set the strategy for a particular product. Executives lack the deep knowledge of the market, competition, technology, customer base and team that is necessary to chart a successful product course.

Beware, because executives can easily sound like they are giving specific strategy instructions when they only mean to suggest alternatives to be investigated and considered. Good product managers understand that executives can verify that a plan is good, but cannot dictate a good plan.

- **Sales and Marketing**

Another important group to which you must represent the product is sales and marketing. Hopefully, you have a dedicated product marketing person on your product team that supports the sales organization. If not, as product manager you may be asked to cover these responsibilities as well.

The marketing and sales organizations will have a legitimate need to understand what is coming, and what the vision is, and how the product will be positioned. They need to integrate this product in with other products, and ensure that the positioning is compatible with corporate positioning and branding, and also work with major customers to ensure that they are primed and ready to successfully deploy the software.

It is tempting to try and avoid the sales organization, especially prior to the product release, but realize that the sales channel is your path to your customers, and without them your product will go nowhere fast. Realize also that in multi-product companies, getting the mindshare of the sales organization can be difficult, so you will need to work hard to ensure that the sales force is equipped with everything they need to effectively sell your product.

The major potential danger when working with the sales organization in advance of the product release is that they can very easily set incorrect expectations with customers regarding timing, features, compatibility, etc. If you provide this level of detail, then you need to know that it will almost certainly make it to your competitors. (A sales rep about to lose a deal to a competitor will do everything she can think of to prevent this, including sending everything she can find on the great new product you're preparing to release to a prospective customer, who will then share it with the competitor to see their response.) If you don't provide that level of detail, then the sales rep will often assume things herself, which can also be very dangerous when some of the assumptions prove incorrect.

Another risk is that the sales force will stop selling the current products prematurely, and focus on the new product too far before it is available (consider especially the case where your product schedule may slip), which can have significant negative impact on your company's financial situation.

The company's sales management can often be helpful in striking the right balance here. They understand the issues involved, and they do not want to risk cannibalizing sales of existing products, or misleading customers.

The good product manager works with the product marketing and field organizations to ensure that the right level of information is distributed at the right time to the right people.

### **Represents Customer**

During the course of defining, designing, building, testing and launching a product there are literally hundreds of decisions that impact the final product. During the many debates and discussions behind these decisions, it is the responsibility of the product manager to represent the target customer.

This is why it is so essential to have a very deep understanding and empathy for the target customer. Not every decision will go the customer's way, but not every decision has to. What is absolutely critical is that the final resulting product is compelling to the customer. The product manager needs to understand the customer enough to know which battles are minor, and which will be decisive.

Other members of the product team represent customers as well – the product marketing person hopefully has relevant experience with the target market, and the quality assurance people should have a good understanding of the customer's environment, and the designers should have a good appreciation for the customer's comfort and tolerances. But the ultimate voice of the customer on a product team is the product manager, and you need to ensure that the customer is considered in every decision that impacts the customer (which will be just about every decision, either directly or indirectly).

## **CHARACTERISTICS OF GOOD PRODUCT MANAGERS**

To perform all of these responsibilities well requires a rare breed, and finding such people is hard. In this section we will discuss what to look for in terms of the personal traits, knowledge, attitude and skills of the good product manager.

### **Personal Traits**

Most skills can be learned, however there are some traits that are very difficult to teach, and as such they should form the foundation of any search for a product manager. We refer to these as the "personal traits" of the good product manager.

It is our belief that the other characteristics can all be learned if the person possesses these personal traits, but without them you are in for an uphill climb.

- **Product Passion**

There are some people out there that just love products. Not necessarily every type of product, but also not just a single type of product. Good product managers have a love and respect for good products, no matter where they come from, and they live to create them.

This passion for product is an essential ingredient as it will often be called upon to provide the motivation to get through the many very difficult challenges, and long hours, of defining a great product. Further, the product manager will need to inspire the rest of the product team, and the passion for a product is contagious.

It is fairly easy to determine whether or not you are talking to such a person by simply asking them what some of their favorite products are and why. It is hard to feign passion; the insincerity comes through. Ask for examples from different domains. Ask what they would improve on their favorite product if they were the product manager. Ask about bad products and why she thinks they are bad.

- **Customer Empathy**

The ideal product manager does not necessarily have to come from your target market (there are pros and cons to this), but they absolutely need to be able to empathize with that target market. This trait is often difficult to find in high-technology companies trying to produce mass market products.

We tend to want to think of our customers as we think of ourselves and our friends. However, the target market may have very different values, priorities, perceptions, tolerances and experiences.

Ask the candidates about the target market, and how they believe they might be different from themselves. Try and detect how the candidate feels about the target market, and most importantly, does the candidate respect and empathize with that target market, or does she view her job as “enlightening” the target market.

This is doubly important for international products, or those products targeted at specific countries or cultures. There are many similarities, and many differences, between cultures. Many of the differences are incidental and not important to defining products. However, some of the differences are essential. Does the candidate you are talking to have enough understanding of the target market to know which is which?

- **Intelligence**

There is really no substitute for innate intelligence. The good product manager must be able to learn very quickly. Good product management is about insights and judgment, both of which require a sharp mind. Hard work is also necessary, but for this job, it is not sufficient.

Hiring very smart people is harder than it sounds. Much depends on the strength and security of the hiring manager. Hiring smart people speaks to the company culture which is another important topic in its own right, but suffice it to say here that if your goal is a truly good product, it is simply not going to happen if you can not find a truly bright product manager.

Assuming you are anxious to find the brightest, most insightful person possible, detecting intelligence is not always easy. There are of course many forms of intelligence, and assessing intelligence is subjective.

One technique is to drill in on problem solving. Microsoft is famous for their very intensive and effective interviewing for intelligence based on problem solving. The technique is to use one or more experts in some topic to drill the candidate on a problem. The interviewer is not looking so much at whether or not the candidate simply knows the right answer (knowledge rather than intelligence), but rather, how well they deal with not knowing the answer. How does the candidate work out problems? When the candidate comes up with a solution, the interviewer changes the question somewhat and asks what the candidate would do then. This is done continuously until the candidate must force herself to deal with a scenario she doesn't know the answer to, and then she is asked to verbalize how she would go about solving that problem. With practice, this can be a very effective technique in assessing a candidate's problem solving capability.

Another approach is to ask two or three people in your organization who are well known for their intellectual prowess, and ask them to interview this person, and help you determine the candidate's problem solving ability. Emphasize to the interviewers that you don't care much whether they happen to be experts in any particular domain but rather how sharp the candidate is and how quickly she can learn.

- **Work Ethic**

Not every role in the product team requires the same level of commitment and effort. However, the product manager role is not for someone who is afraid of hard work. It comes along with the responsibility. The product manager is the person ultimately responsible for the success of the product, and this burden weighs heavily on the good product manager.

Even when skills such as time management and the techniques of good product management are mastered, the good product manager is still consumed with the product. Can you have a family and a non-work life and be a good product manager? We believe you can. At least once you have some experience. But there are many people that want to be able to work 40 hours a week and most importantly, leave their work problems at the office when they leave at the end of the day. This unfortunately is not the life of the successful product manager<sup>4</sup>.

We believe in being very frank with candidate product managers about the level of effort required for successful product management. But to be perfectly clear, it is not about *requiring* the product manager to work certain hours – if you have to actually ask or tell the product manager to come in during a critical point you have the wrong person for the job.

It should also be emphasized that the level of effort and commitment is not uniform throughout the lifecycle of the project. There are certain phases that are much more intense than others. What won't change for the good product manager is the degree to which they care and worry about their product and the lengths they are willing to go to ensure its success.

- **Integrity**

This trait also relates to the company culture discussed elsewhere, but of all the members of the product team, the product manager most needs to reflect the values of the company and the product. In most organizational structures, the product manager does not directly manage the people on the project team, and as such, she can't simply direct the people to do her bidding. Rather, she must work by influencing those on the team. This persuasion is done by mutual trust and respect.

This trust and respect is built over time by the good product manager demonstrating the traits and skills of a strong product team leader. If the product manager is not perceived to have integrity, or honesty, or fairness when dealing with her teammates, then the product manager will not have the degree of collaboration and team effectiveness that she needs to get the job done.

The good product manager may not be an expert in every role of the product team, but she should have a deep understanding and respect for what each team member is

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<sup>4</sup> We should say here that few roles in a company provide the level of job satisfaction that the successful product manager can. Further, for many companies, Product Management is very often used as a proving ground for future company executives.

responsible for, and she should be willing and able to trust those people to do their job.

As the main interface between the product team and both the executive team and the sales organization, the product manager is often put in difficult situations, such as being asked to deliver products earlier, or with special features for large customers. The product team will watch closely how the product manager handles these challenges.

As with intelligence, assessing someone's integrity can be difficult. For candidates with previous experience as product managers, they can be asked about how they dealt with the stresses in past products. Press for details of particular situations; what made the situation hard and how was it dealt with?

- **Confidence**

Many people think of confidence as a result of experience. However, while experience may be a prerequisite for confidence, many very experienced product managers simply do not project confidence (you can sometimes find brand new college graduates simply bursting with confidence, although this is generally the confidence that comes from not yet knowing what they're in for).

Confidence becomes an important trait in that the entire product team, executive team and sales organization is looking to the product manager to convince them that what they are investing their time and money and careers in will be successful. There will be many difficulties along the way, and during these times of stress especially the product manager is looked to for inspiration.

It is important that the product manager be able to project confidence, to be able to remind the team and organization why the product will be successful, and why the vision is a good one. In communicating persuasively, confidence is a critical ingredient.

- **Communication Skills**

While communication skills can, for the most part, be learned, it can take years to become an effective speaker or writer, and these skills will be required from the start. As discussed above, the product manager influences others by persuasion rather than authority – making her case by communicating either through writing, speaking, or both.

Speaking skills can partially be assessed during the interview itself, but written skills should be assessed specifically. We like to suggest that product manager candidates

bring in earlier product specifications that they have written, and material such as white papers or strategic documents.

While good communication skills are absolutely essential, it is important to emphasize that speaking with an accent, or minor grammatical issues with a non-native language, do not constitute poor communication skills. The person must speak clearly enough to be easily understood, and write powerfully enough to persuade, but perfect pronunciation or grammar is not required.

## **Knowledge**

This section refers to experience that can either be learned or brought along with the product manager from her earlier efforts.

The good product manager must bring to the table a very deep understanding of the target customer, the competitors, and the team's and company's capabilities.

- **Know Your Customer**

Everything begins with a deep understanding of your target customer. How do you get this knowledge? The traditional technique is to commission market research, in the form of surveys and/or interviews, and then follow up with professionally facilitated focus groups. Unfortunately, this approach rarely yields the insights and depth of understanding necessary to inspire truly good products.

When used appropriately, this research can be a useful tool, but traditional market research and focus groups have several key limitations. The most significant is that customers rarely can provide the information you need from them via these formats.

Moreover, by the time you see the data, it has typically been filtered and processed by several people, probably few of which have the background and context required to interpret the data and to separate the wheat from the chaff.

Another approach many companies use is to employ industry analysts from major market research companies to understand their customer and their market. There are some truly brilliant and insightful industry analysts out there, but sadly many are not. It can be useful to review industry data, but relying on the data from industry analyst firms has led countless companies down the garden path.

How do you avoid the problems we outlined above? Obviously, you should talk with your customer. But sometimes this is not as simple as it sounds.

In most cases, if you ask a customer directly what she wants, she'll tell you she wants what she already has, only faster, better and cheaper. Further, she has little idea about possible innovations in technology that may enable whole new ways of approaching the problem – she is very likely spending her day doing something other than tracking the newest technology.

What you can do is actually watch your customer. You can study how she actually uses your products or your competitor's products – what she actually does rather than what she says or thinks she does. This is not meant as a slight to customers. We all do this. The good product manager understands this.

You can watch your customer either in her environment (referred to as a field study), or you can bring her in to your facility or a shared usability lab.

While it can be expensive to visit your customer in her own environment, there is really no substitute for this, and you should try to do as much of this as possible. You can learn a great deal about your customer's reality by seeing it first-hand. Further, it does not take all that many visits to see the trends and the issues – they will typically jump right out at you.

It is also valuable to identify a set of target customers and get to know these people very well and use them as a sounding board for ideas throughout product development. These groups are often called “Customer Advisory Boards” or something similar, and they can be very useful to the product manager, both to learn from and to provide initial reference customers for the new product. The key is to ensure that you are not simply building exactly what the customers on the advisory board ask for. You still need to do the hard work of understanding what they truly need, but having ready access to target customers that are willing and motivated to help can speed many of the decisions along the way.

There is one other very important point regarding knowing 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.

The good product manager constantly strives to maintain perspective.

- **Know Your Product**

In addition to having a deep understanding of your target customer and market, you need to have an equally deep understanding of your own product capabilities. It is easy to talk to customers and identify certain winners if you're not constrained by reality in terms of what is possible.

For example, FedEx could dramatically grow their business if they could only come up with a way to inexpensively guarantee physical delivery of a parcel across the country in an hour rather than overnight. But of course transportation technology simply is not at that level.

However, you must also be careful not to dismiss opportunities too quickly either. When Fred Smith proposed that he could economically and reliably deliver parcels overnight most people did not think this was possible. But he had a deep understanding of the business and the technology, and he knew that while it would be very difficult, the pieces were coming together and it was in fact possible.

One of the key reasons that strong product managers often come from senior technical positions is that these people bring the knowledge of what is really possible. When such a person takes the time to obtain the deep customer understanding, great products can result.

- **Know Your Competitors**

Competitors are interesting. Some product managers ignore them. Others obsess about them. Some wish they didn't have any competitors. Few product managers, however, learn as much from their competitors as they can and should.

First, you should be very nervous if you're in a market with no competitors. There is very likely a reason for that. While it's possible you are establishing a whole new breed of product, it's more likely that you are introducing a new way of approaching a problem, and if it really is a problem worth being solved, you'll usually find competitors.

Competitive products can be extremely useful. Virtually every product out there does some things well, and some things not very well. Your job is to gain a deep understanding of just what your competitor's product situation is, so that you can learn from their mistakes as well as their successes.

The natural tendency of most product managers is to discount the competitor's successes, and to overvalue their weaknesses, just as we often do the reverse for our own products. Accurately evaluating a competitor's product, or your own for that matter, is more difficult than it sounds. You must evaluate the product from the perspective of the product's target customer, which you are likely not. And neither is the industry analyst or the member of the trade press who is trying to review the product.

If you are not yet deeply knowledgeable about your target customer and market, you can learn a great deal from doing usability testing on your competitor's products. You need to be diligent about ensuring that the test subjects do not detect bias in any way, but if you do you'll see what the strengths and weaknesses truly are. You can also test your product and your competitor's products side-by-side with well orchestrated usability testing.

It cannot be emphasized enough how important it is that the good product manager obtain this knowledge quickly, and that it must be a deep knowledge and not simply a superficial understanding. That said, we do believe that in most domains and industries, the smart product manager can quickly learn this material.

We have found that domain knowledge is sometimes weighed more heavily by hiring managers than the personal traits discussed above, much to the detriment of the product. A smart product manager can much more quickly become an expert in a typical domain, than an expert in that domain can develop the skills of a strong product manager.

There are of course exceptions to this rule. If you are defining a new type of surgical device, or a defibrillator, or a racing yacht, it can take many years of study to acquire enough domain expertise to do the job. But for most domains and industries, two to three months of dedicated research into customers, technology and competitors can bring the smart, experienced product manager up to speed.

### **Attitude**

Beyond the personal traits and knowledge that a good product manager needs to possess, there are some characteristics that can also be learned that are important in

clearly defining the role of the successful product manager. We refer to these as “attitude,” as they are more of a frame of mind than skills.

- **No Excuses**

The good product manager knows she is ultimately responsible for the success of the product. More importantly, she knows that there are many very valid reasons for the product to not ship, or fail in the market when it does – the product is too difficult to build, it will take too long to get to market, it will cost too much, it will be too complicated, etc. – but she knows it is her job to see that each and every one of these obstacles is overcome.

The good product manager sees herself as the CEO of the product. She takes full responsibility for the product, and does not make excuses. This does not mean that she micromanages the product team, or that she tries to do it all herself, but rather than she is quick to take the blame if something goes wrong, and equally quick to give credit to the rest of the team when it goes well. The good product manager knows that it is through the rest of the team that her product vision will become a reality, but that it is her product vision they are building.

- **Defining Success**

The good product manager measures herself in terms of the success of the product. Little else really matters. She measures product success by both happy, satisfied customers and the relevant business objectives such as revenue and profit.

Success is not the shipping of the product – countless bad products have shipped. Success is also not the lack of defects in the shipped product – the product may work perfectly but still not be useful. It is also not having a single live customer – especially if pandering to that one customer over the needs of the many is the price that was paid.

The key is to make absolutely clear to your product manager that it is all about having a successful product. It is not about how many hours she works, or how thick her specifications are, or how many meetings she attends. The product must meet its business goals, and that starts with the right product.

- **Nothing Sacred**

Finally, for the good product manager, nothing is sacred. She is always willing to learn and adjust course where necessary. She knows that she will make mistakes, but she also knows that she will learn of her mistakes as early in the product lifecycle as

possible and make the necessary corrections, even when it means publicly taking the blame for the mistake in order to move forward.

Sometimes even the vision has to evolve, as the market evolves. Again, nothing is sacred, no matter how much sweat she and the team have put into it. Hopefully, the adjustments are relatively minor, but regardless, the good product manager deals with reality and responds appropriately. It is far worse to lose precious months or years by trying to deny the market response.

The simple reason so many fast-followers are successful is that they see the mistakes of their predecessors, and as they are less attached to the original vision, they quickly attack the real opportunity.

### **Skills**

In order to perform the responsibilities of the good product manager, there are several skills that are important. All can be learned, assuming the presence of the personal traits discussed above.

- **Applying Technology**

One reason many successful product managers come from the engineering ranks is that a big part of defining a successful product is in understanding new technology and seeing how it might be applied to help solve a relevant problem.

While you don't need to be able to invent or implement the new technology yourself in order to be a strong product manager, you do need to be comfortable enough with the technology that you can understand it and see its potential applications.

The key here is to not simply find an application for a given cool technology. There are already far too many technology-based products out there looking for a problem to solve. Rather, you want to start with the pressing problem you're trying to solve for the customer, and then look opportunistically and creatively at the array of technologies available that might be able to help.

There are many ways to develop this skill. Taking classes, reading books and articles, and talking with engineers and architects can all help you learn. Ask the senior engineers on your product team what they would recommend as ways to learn more about the technology possibilities. Brainstorming sessions with the engineering team is another way to learn how new technologies might be applied.

- **Focus**

“The main thing is to keep the main thing the main thing.” There are so many distractions out there, especially for the product manager trying to create a product that customers will love. The ability to keep the focus on the key problem to be solved, and not to succumb to creeping featurism, or the loud voices of a few key people or customers, requires tremendous discipline – both company discipline and personal discipline.

We often recommend to product managers that they write out the vision of their product, and then their top three objectives. For example, it might be “create the world’s favorite Internet auction-based trading site” as a vision, with the priorities of “1) easy to use; 2) safe; and 3) fun.” They should give this to every member of the product team. Then, absolutely everything that you consider doing on that product, you should review in light of this product vision and priorities. You might still need to do some things that are not in support of one of these objectives, but there should be an extremely high bar to justify the investment.

The truth is that nearly every product has features that are not really all that important – if the features were never there it would not significantly impact the sales or customer satisfaction. Much more often, if the features were not there, the product would be better for it as more customers could comprehend and appreciate the resulting simpler product. Focus will help you reduce the number of cluttering features, reduce the time it takes you to build the product, and therefore the time it takes you to get to market.

Developing this skill takes discipline and vigilance. One technique is to set aside a few minutes at the end of each day to reflect on how you did in terms of adhering to the vision and objectives for the project.

- **Time Management**

In today’s e-mail, instant message, and cell-phone based world, it is so very easy to come in to work early in the morning, work frantically all day even skipping food and meetings, and then head for home well into the evening, not having actually accomplished anything important for your product. That is because you have spent the day chasing fires and working on “urgent” items.

It is absolutely essential to get very skilled at distinguishing that which is *important* from that which is *urgent*, and to learn to prioritize and plan your time. If you can’t manage to get the time to focus on those tasks which are truly important to your product, your product will fail.

We have known too many product managers that burn themselves out with 70-hour weeks and the worst part is when we tell them that they're not actually doing their job. The natural response is that they just don't have any more time and can't work any harder. We then go into our lecture on time management and working smarter. So much of what these people spend time doing is avoidable.

The experienced product manager knows that rather than answer the same questions over and over it makes much more sense to maintain a "FAQ" (Frequently Asked Questions) list and make this list available to everyone. Likewise, if you see a theme in e-mails such as confusion over a topic, a short white paper can help everyone understand, not only now but later as new people join the team as well.

Another common source of lost time is meetings. Especially when the product manager thinks she needs to attend every meeting related to the product – the engineering status meetings, the test planning meetings, the marketing meetings, usability test planning meetings, etc. While there will be certain times where these meetings are important, they should be the exception rather than the rule, and the product manager should attend at the invitation of the relevant manager in order to present specific information.

We believe that every product manager needs to allocate at least 2-3 hours per day of true thinking time – time to reflect on the product and the strategy; to step back from the fires of the moment and look at how the product is doing holistically. This is also a good time to look at competitive products or investigate emerging technologies.

The interrupt-driven nature of e-mail, instant messages, and phone calls can make it very difficult to get unobstructed time to actually think about your product and have critical discussions with your product team members. In order to get this time, you'll very likely have to develop these skills and impose a new level of personal discipline in terms of time management. Every product manager should learn how to turn e-mail alerts off, instruct their instant message clients that they are away from their desk or otherwise unavailable, and utilize voice-mail and caller-id, even on their cell phone.

Good product management requires a constant awareness of how your time is being spent, always asking yourself if what you are doing can be leveraged, or asking yourself if you really need to attend that meeting, or weigh in on that e-mail thread.

There are good books and seminars on learning to manage your time (if only you had the time to get to them!) so we won't go into detail on the many techniques, other than to say that it has always confounded us how anyone could possibly manage a product without some form of time planning system (either paper, PC or PDA-based).

- **Written Skills**

Product managers spend a great deal of time writing – composing e-mails, product requirements, white papers, strategy papers, data sheets, competitive product reviews, and more. The good product manager is only taking the time to write these if she believes people are going to read them, and since they are going to be read, they need to do their job well, which is typically to describe, educate and/or persuade.

Being able to write clear and concise prose is a skill that the good product manager uses every day. The good product manager realizes that the readers of her writings are constantly evaluating her based on her writings. Especially with senior management, sometimes these writings are all they have to go on.

The experienced product manager knows that different styles of writing are appropriate for different content and different recipients. It is fine to shoot back a one sentence e-mail reply to the quality assurance manager who just needs to verify whether a given scenario needs to be tested or not. Yet answering a strategic question for a senior executive requires a more formal response.

Written skills can be improved by practice and effort. If your product team has one or more technical writers it can be useful to ask one of them for editorial assistance. The key is to study the corrections not just to improve the specific document, but to learn what type of errors you continue to make and to then see how you can avoid them in the future.

- **Presentation Skills**

The other major form of communication that product managers frequently need to do is a presentation. Presenting in front of a group is hard for many people. Presenting effectively is even harder. Yet this is an important skill for a product manager since many of the most important events in the life of a product require the product manager to stand up in front of company executives or major customers or the company sales force and in the short time you have, explain what your product is about and why it is important.

We have all sat through terrible presentations, with slide after endless slide; the speaker simply reading the bullets; people straining to read the too small print; meaningless graphics; and being unclear what the key messages actually are and why you should care.

In contrast, the good product manager has a minimal number of slides; she is engaging, clearly knowledgeable and passionate about her product, she speaks clearly and to the point, her slides provide relevant supporting data for what she is saying, and

she has unambiguously stated her main points, and what she needs from the audience after the presentation. Her presentation finishes early, she entertains questions and if she can't provide a clear, useful answer immediately she follows up diligently and promptly with the questioner, and if appropriate, the entire audience.

Techniques for effective presentations are beyond the scope of this paper, but there are excellent short courses on presentation techniques, typically involving video-taping and constructive critique from professional speakers. This skill, while for many very uncomfortable, is important for your product, (and it is worthwhile to note, it can make or break your career), so it would serve the good product manager well to study and practice this skill.

- **Business Skills**

Finally, business skills are also important for the product manager. As the main interface with the rest of the company, the product manager will need to work with company finance staff, marketing people, sales, and executive management, and the language and concepts that these people deal with.

We sometimes talk of product managers as needing to be bilingual. They need to be able to converse equally well with engineers about technology as with executives and marketers about cost structures, margins, market share, positioning and brand.

This is one reason why so many product managers are recruited out of business school. The product organization knows that they need someone that can talk the language of the business side, so they hire an MBA. Some of the best product managers we have ever known have come through the MBA path, but as can hopefully be seen from the foregoing, the business skills are but one part of the mix required for a successful product manager, and they can certainly be learned.

It is just as common that a senior engineer moves into product management and acquires the business skills required by reading books, taking courses, and getting coaching and assistance from mentors in the finance and marketing organizations.

## **SUMMARY**

Behind every great product there is a person with great empathy for the customer, insight into what is possible, and the ability to see what is essential and what is incidental. This person has a deep understanding of the customer as well as her own teams' capabilities. She operates from a strong basis of knowledge and confidence. She thinks in terms of delivering superior value to the marketplace, and she defines good products that can be executed with a strong effort.

This person may have the title of product manager, or may happen to be anyone on the product team from an engineer to a company founder – the key is that this role must exist and the responsibilities carried out by someone with the skills and talents the tasks demand.

## WHERE TO FIND PRODUCT MANAGERS

After reading this list of personal traits, knowledge and skills, you may be thinking that such people are extremely rare. They are fairly rare – about as rare as good products are. So where do you find these people?

There are different schools of thought on recruiting product managers. Many companies think that all you need is someone from the marketing organization or someone with an MBA. In the old-school definition of product manager as brand manager, this may have been true, but not for the role as we have defined it.

Some good companies prefer MBA's from top business schools that have an undergraduate degree in a relevant domain (e.g. Aerospace for aircraft manufacturers, Computer Science for software products, Chemistry for pharmaceutical products, etc.), combined with applicable industry experience.

This can work well if you keep in mind two important points. First, a problem with MBA programs, even from top-tier schools, is that they rarely focus on product management as we have defined it, so it is dangerous to assume that the recent MBA grad has any idea of how to manage a product in the sense we discuss here. Second, make sure the people you recruit have the critical personal traits described above – product passion, customer empathy, intelligence, strong work ethic, integrity, confidence and good communication skills.

Our favorite source for good product managers is to look for people with the personal traits described above and then use training, an informal mentoring program, and/or a formal employee development program to develop strong product managers. Such people might be found virtually anywhere in the company. We have seen outstanding product managers come out of engineering, technical support, professional services, product marketing, sales, quality assurance organizations, and the user community. Often these people will approach management asking how they can get more involved in the product. It can also be useful for senior management to approach top performers from across the company about the possibility of product management, as this can be a very valuable experience for those on an executive track.

## TOUGH QUESTIONS

The good product manager is constantly obsessed with the current and future state of her product. These are some of the questions that the good product manager is constantly asking herself:

- Is my product compelling to our target customer?
- Have we made this product as easy to use as humanly possible?
- Will this product succeed against the competition? Not today's competition, but the competition that will be in the market when we ship?
- Do I know customers that will really buy this product? Not the product I wish we were going to build, but what we're really going to build?
- Is my product truly differentiated? Can I explain the differentiation to a company executive in two minutes? To a smart customer in one minute? To an industry analyst in 30 seconds?
- Will the product actually work?
- Is the product a whole product? How will customers actually think about and buy the product? Is it consistent with how we plan to sell it?
- Are the product's strengths consistent with what's important to our customers? Are we positioning these strengths as aggressively as possible?
- Is the product worth money? How much money? Why? Can customers get it cheaper elsewhere?
- Do I understand what the rest of the product team thinks is good about the product? Is it consistent with my own view?

The reason that "thinking time" is so critical each day, and why the job of product manager is so all-consuming, is that these questions require serious and ongoing consideration.





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### **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](http://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.

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