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Product management and project management in the age of Agile

Product management and project management are disciplines which are often confused by many people, including all levels of business executives. The arrival of Agile methods has brought further unclarity between these two terms.

This whitepaper addresses how product management differs from project management and how the two disciplines fit within an Agile environment. Furthermore, it provides practical insights with real-life examples of how some of the best companies differentiate the product and project management positions. Finally, the whitepaper examines key success factors on how to thrive in product and project management.

Introduction

What is the difference between product and project management? How often do you confuse the job of a product manager with the duties of a project manager? With the arrival of Agile methods, many are wondering whether product management has now completely replaced project management or whether a project manager can still thrive in today's constantly changing business environment.

This whitepaper addresses the following questions: How does product management differ from project management? What are the areas of responsibilities of product and project managers? How does product and project management fit within an Agile environment? Furthermore, the whitepaper provides practical insights with some real-life examples of how some of the best companies differentiate the product and project management positions. And finally, it examines key success factors on how to thrive in each of these two disciplines.

Definition

In order to define and compare *product* with *project* management, let's begin by defining what a product and a project actually mean.

Product vs. Project

*A p**roduct** is "anything that can be offered to a market for attention, acquisition, use or consumption that might satisfy a want or need".[1] A **project**, on the other hand, is "a temporary endeavor undertaken to create a unique product, service or result".[2] Projects are unique in nature, they are not a routine operation.*

Product management vs. project management

Now that we have defined a product and a project, what about their respective disciplines – product management and project management. According to The Product Management Body of Knowledge, ***product management*** is: "*a discipline that provides managerial focus to products that in turn will generate measurable business benefits".*[3] Product management has a broad focus, as it is about the entire life cycle of a product.

On the other hand, ***project management*** is different, it is more time constrained. A project has "*a defined beginning and end in time, and therefore defined scope and resources*". Then ***project management*** "*is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements*". [2]

Key responsibilities of Product Managers and Project Managers

Product managers are responsible for overall success of the product through all stages of its life cycle. They shape the vision of the product, develop, communicate, validate and evolve the product strategy, and make strategic decisions about what gets built by determining and prioritizing the work.

The product roadmap is a tool used to communicate the product strategy and it often shows the product initiatives among the existing offerings of the company. Marty Cagan – widely recognized as the primary thought leader for technology product management – says the product manager's goal is *to discover a product that is valuable, usable, feasible and viable.* [4] That is achieved by tackling four major risks as early as possible:

a) ensure customers will buy or use the product (hence avoiding the value risk);
b) customers will figure out how to use it (usability risk);
c) engineers can build what is needed with the time, skills and technology the company has available (feasibility risk);
d) the solution will work with the various aspects of the business, such as consistency with brand promise and legal compliance (business viability risk).[4]

Looking at the vast scope of responsibilities, the product manager is often considered to be the "CEO" of a product. However, unlike a real CEO, product managers have no formal authority on people, so they lead by influence to help build great products.

Project managers, on the other hand, create, execute and control the project plans. They manage all the details of a project throughout the project management lifecycle. Their job begins after a project or another initiative has received the green light to begin.

The main responsibilities of a project manager include:

a) developing a timeline and project milestones;
b) organizing workflow and resource allocation;
c) ensuring the successful delivery of the project on time/schedule, within budget and scope (the so-called Triple Constraint). [5]

Overall, the project manager is responsible for overseeing and managing the development of the product.

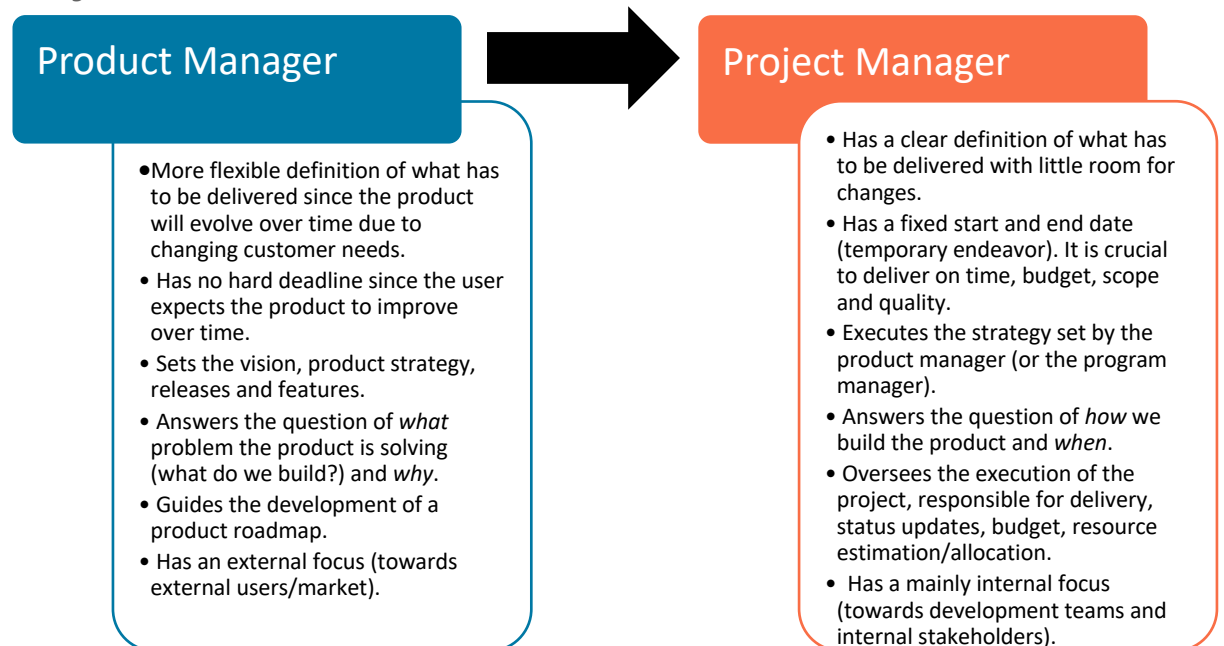Figure 1 summarizes the differences between the responsibilities of a product manager and a project manager.

Product Manager

- More flexible definition of what has to be delivered since the product will evolve over time due to changing customer needs.
- Has no hard deadline since the user expects the product to improve over time.
- Sets the vision, product strategy, releases and features.
- Answers the question of *what* problem the product is solving (what do we build?) and *why*.
- Guides the development of a product roadmap.
- Has an external focus (towards external users/market).

Project Manager

- Has a clear definition of what has to be delivered with little room for changes.
- Has a fixed start and end date (temporary endeavor). It is crucial to deliver on time, budget, scope and quality.
- Executes the strategy set by the product manager (or the program manager).
- Answers the question of *how* we build the product and *when*.
- Oversees the execution of the project, responsible for delivery, status updates, budget, resource estimation/allocation.
- Has a mainly internal focus (towards development teams and internal stakeholders).

Figure 1: Differences between the responsibilities of a product manager and a project manager

Different strategies for product discovery and product delivery

Companies must understand that they need to employ two different types of strategies depending on the activities they are performing. To discover when to use each strategy, companies must understand that they have two very different tasks [4]:

- Decide WHAT to build (***product discovery***)
- Delivering / building what you have decided to build (***product delivery***)

Product discovery is different from product delivery. Discovery work is closely tied to product management, it is about trying to find a solution that is valuable, usable, feasible and viable. The goal in product discovery is to learn as quickly as possible and to build the RIGHT product (focusing on the "what"). Delivery work, on the other hand, has significant overlap with the principles of project management. The focus in product delivery is on reliability, performance, maintainability and scalability. The goal here is to quickly deliver a quality solution, it is about building the product RIGHT (focusing on the "how"). During the product discovery phase, a product team uses prototyping tools to quickly generate and communicate ideas for experimentation and learning (product managers and designers spend the majority of their time doing discovery work). The objective is to validate hypotheses about what will create value for users and the business. Once these hypotheses or ideas are validated, requirements are translated into features and user stories, so that engineers/developers can then build the solution. The key difference is that prototypes are created during product discovery (usually taking a few hours, up to a few days), whereas product features are actually built and delivered during product delivery.

In broader sense, *product management* is largely about product strategy and discovery work, whereas *project management* focuses primarily on execution, as summarized in Figure 2.
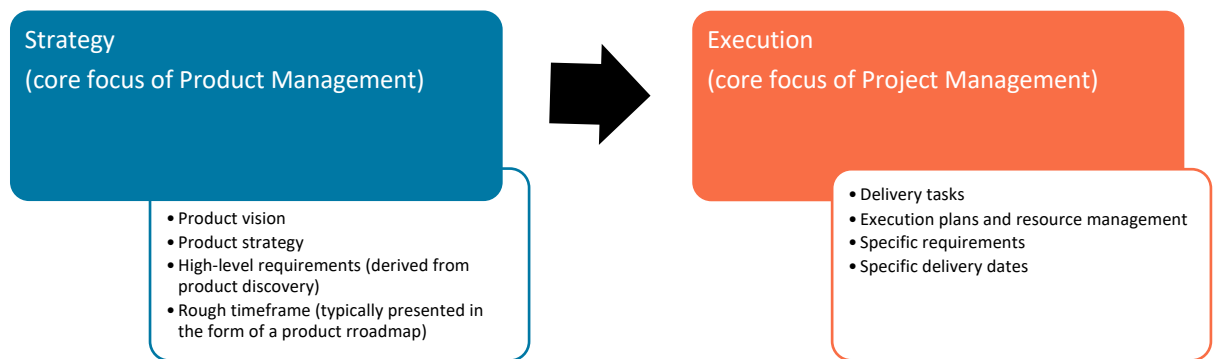
Strategy (core focus of Product Management)	→	Execution (core focus of Project Management)
• Product vision • Product strategy • High-level requirements (derived from product discovery) • Rough timeframe (typically presented in the form of a product rroadmap)		• Delivery tasks • Execution plans and resource management • Specific requirements • Specific delivery dates

Figure 2: Summary of product and project management

In the context of Agile

Let's now talk about product and project management within the context of Agile. Modern product management has shifted toward applying Agile principles, which is about short development cycles, and fast feedback. Within the realm of Agile, we can distinguish a few frameworks, such as Scrum, the most popular Agile project management framework [6], aiming to develop, deliver and sustain complex products.[7] Scrum implies that the team does not need a project manager anymore to tell them what to do and to track their progress, as they are self-organizing and can manage the work themselves.

Product Ownership

The Scrum Guide has introduced the role of a Product Owner, which has created some confusion between what product managers and product owners do. According to Scrum, the Product Owner is a single person with both the authority and accountability to make decisions to maximize product value, which are made transparent through an ordered (i.e. prioritized) Product Backlog.[7] Scrum is a simple framework whose original purpose was to help teams develop software. The Product Owner is, as a result, often regarded as a tactical role tasked with managing the Product Backlog and collaborating with the development team. The Scrum framework does not explicitly mention other common product management practices such as product strategy development and product roadmapping. However, as the person in charge of the product whose goal is to maximize value, the Product Owner must play a key role in creating the product vision and strategy.

Taking all these responsibilities into account means that a Product Owner (a Scrum role) is essentially an "Agile Product Manager" (a job function). The combination of deep customer understanding (while talking to customers) with the ability to apply technology (while engaging with developers/engineers) defines the Product Owner as a strong product person who can solve customer problems.

So how do product management, product development and product ownership compare to one another?

As highlighted earlier, product management involves a deep understanding of the customer, market, and business needs. Product Managers are responsible for product strategy and setting the product vision, but they also play a crucial role in the discovery process. They research market trends, leverage data at their disposal, talk to customers, prioritize ideas, and define the high-level requirements of the product. While not directly involved in the execution, they ensure that what is being built aligns with the product strategy and provides value to customers. They often work closely with marketing, sales, finance, legal and support teams for a successful product launch and post-launch management. Overall, it is a discipline which has a strategic, externally facing, customer, market and business focus.

Product development, on the other hand, is more closely tied to the discipline of project management. It is about building the product according to the requirements, fix bugs, and iterate on the product based on feedback. It has a lot more tactical, internal and technological focus. Yet, product development also touches product discovery. Developers (especially tech leads or lead engineers) are increasingly getting involved in the product discovery process, especially in modern

product organizations. They might participate in user research, prototype testing, and ideation, helping ensure feasibility of solutions.

Product ownership originates from Scrum and could be positioned somewhere at the intersection between product discovery and product delivery (Figure 3). The Product Owner participates in discovery, but their primary focus is on defining, prioritizing, and refining the product backlog. The Product Owner also plays a crucial role in delivery. They clarify requirements for the development team, make decisions on the scope of work for each sprint, and accept or reject work results.
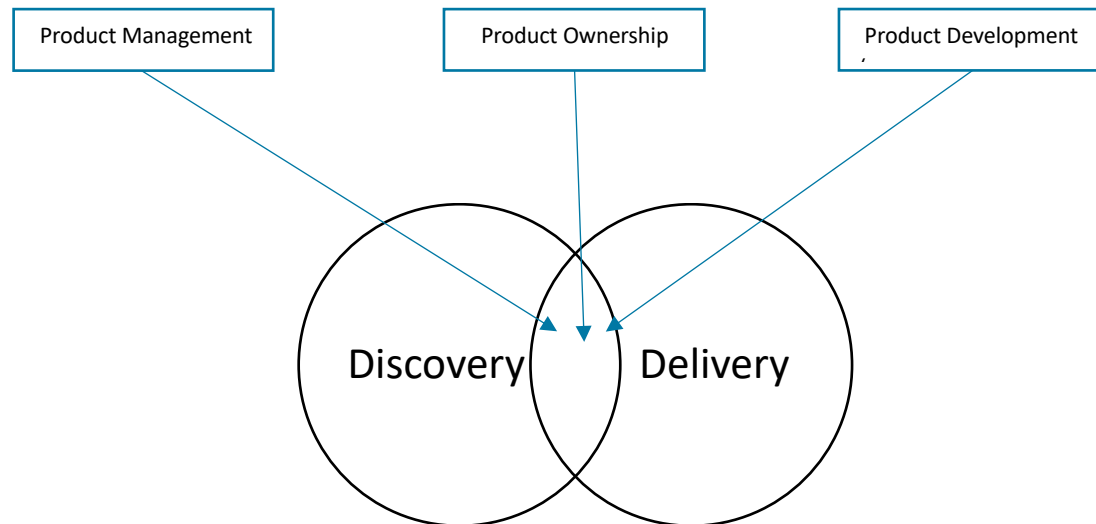
Figure 3: Product work within the context of product discovery and delivery

Practical perspective
Real life examples in an Agile environment

In the ideal situation, especially within a small company or a startup using Agile methods (specifically Scrum), the Product Owner is the single person end-to-end responsible for all product work. I am convinced this is the best approach to achieve effectiveness and better product decisions. However, is one person able to manage all the strategic, high-level work while also being expected to lead the tactical, delivery work?

In practice, this is hardly feasible, especially when we talk about a scaled environment in very large enterprises. Based on my experience, there are usually two people filling the product role in big organizations where products can grow too big for one person to provide guidance at both strategic and tactical level. A common way to share product ownership in a scaled environment is to split the strategic and tactical responsibilities.

For example, one of my clients, a big international bank, had one person with a more external focus being responsible for interacting with customers and following up on the market trends (called Product Manager or Commercial Product Manager), and another person with more internal focus looking after the tactical work, managing the backlog and interacting with the development team and internal stakeholders (called Product Owner, considering the organization had adopted Scrum). The reasoning is simple – typically, organizations do not have someone with either the skills or the time required to cover both roles. There are many "product managers" that are not technical enough to effectively collaborate with developers or engineers. And there are many "product owners" who do not have the ability (e.g. not very astute business-wise) and do not feel comfortable getting out of the building and interacting with customers. Moreover, the reality in an Agile development world is that product people are often buried in project management tasks (even though, ideally, they should focus on more strategic work instead), associated with (software) releases, working with the development team on the Product Backlog and managing internal stakeholders, so they often do not have enough time to interact with end users and explore the market.

Another client of mine, a high-tech giant, also makes a clear distinction between product and project management. The company manufactures complex machines for the semiconductor industry, so product work is crucial. The organization is organized around product teams. Each product team has a Product Development Manager (also referred to as a Project Manager) and a Product Manager. These two roles are quite separate – the project manager is focusing on operational management and making sure each project gets completed on time, within budget and specification. In contrast, the product manager has a more external focus. This person is essentially a marketeer, focusing on improving sales and profitability.

Career path choices when embracing the Agile way of working

Most project managers coming from an environment using the Waterfall method are curious what kind of role choices they have when transitioning to the Agile way of working. From my point of view, these people have a few role options:

- *Become a Product Owner*. This is a suitable role for product people who have a passion and experience in understanding and driving business value as well as collaborating with stakeholders.
- *Become a Scrum Master*. This role is for a person who has a passion and experience towards growing healthy teams and would like to help organizations embrace agility, empiricism and continuous improvement.
- *Continue to take on the role of a "project manager".* From team point of view such project managers in Agile organizations are essentially stakeholders. A project manager may support Scrum teams and the wider organization. Based on my experience, within a scaled environment in larger organizations, a "project manager" can act as:
  - o Project Lead, who defines and accepts delivery and integrates large work packages (such as Epics or initiatives) in a product context;
  - o Program Manager, who is responsible for multiple related projects in a big organization;
  - o Portfolio Manager, who is responsible for selection, prioritization and alignment of portfolio of projects and programs with an organization's strategy.

Key success factors to thrive in project and product management
Skillset to succeed in project management

In order to be a successful project manager, such an individual should possess the following skills:

1. *Strong communication skills* – imperative skills in order to be able to clarify what the specific tasks of a team are and what team members must do, but also to have effective discussions with stakeholders.
2. *Effective leadership skills* – leading, inspiring and motivating a team to accomplish project goals.
3. *Problem-solving skills* – having the ability to solve business problems in an effective way.
4. *Personal organizational and time management skills* – knowing how to get things done on time and how to organize your work and tasks first before trying to organize the work for other people.
5. *Team management skills* – ability to manage from an operational point of view; effectively promote teamwork, delegate and monitor tasks, resolve conflicts, set goals and evaluate performance.
6. *Negotiation skills* – knowing how to negotiate the use of resources, budgets, schedules and scope creep to satisfy all parties/stakeholders.
7. *Risk management skills* – being proficient in identifying, planning and managing project risks is pivotal in order to meet deadlines.

Skillset to succeed in product management

In order to be a successful product person, the following skills are paramount:

1. *Being a product evangelist* – the trait that distinguishes product people from the rest of the pack is the gift of storytelling and product evangelism. The best product people are passionate and knowledgeable about the product, and they are often visionaries who are full of imagination about the future.
2. *Strong interpersonal and communication skills* – ability to communicate effectively with customers, stakeholders and the development team.
3. *Effective leadership skills* – ability to influence (without authority) and support the individuals to jointly work towards shared goals as well as making your team's life better by coaching and inspiring them. Possibly the most important leadership quality is empathy – our capacity to understand other people's feelings, needs and interests and to take the perspective of the other person. Being empathic is what allows the best product people to influence others, encourage change and create an environment of trust and psychological safety.
4. *Strategic thinking* – taking a strategic and holistic approach to bring a product to the market. Being strategic also means having the ability to prioritize your tasks and delegate accordingly to keep an eye on the bigger picture.
5. *Creativity and innovation* – thinking outside the box and coming up with innovative ideas to solve business problems. This also means being intellectually curious and being eager to learn about and experiment with the latest technologies.
6. *Excellent analytical skills* – having a strong analytical mindset is the guiding light for taking product decisions. Successful product people are able to make confident product decisions by analyzing data at their disposal.
7. *Persistency* – pushing companies beyond their comfort zone with compelling advice and constant communication in the face of stubborn resistance.

For people who would like to be successful in a product role (e.g. as a Product Manager or Product Owner), key success factors include:

1. *Strengthen your capacity to empathize*. The best product people are also great leaders. To succeed as an effective product leader, you should cultivate a genuine caring attitude for the people you want to lead, whether you like them or not. This will help you handle many challenges you come across in your product role. For example, an effective way to change the behavior of a difficult or challenging stakeholder or development team member is to empathize with them. Working on your ability to be mindful of your mental state can help you strengthen your capacity to empathize. Moreover, you should take a genuine interest in the other person, make an effort to listen actively with the intention to understand and do not prematurely judge what the other individual is saying.
2. *Become an expert in your users and customers*. Become the go-to person within your company for understanding your customers. Without understanding the customers' pain, issues and desires, a product person can never be successful as he/she would struggle to come up with solutions to customers' specific problems.
3. *Become a real expert on your product and the industry your company operates in*. You need to know your product, your competitors, key trends happening in technology and in your industry as well as customer behaviors and expectations. Due to today's competitive environment, it is no longer sufficient to have a product that have the same features as a competitor's. For example, if you are working towards the launch of a new product, you need to make sure your product has strong differentiating points, so that the customer decides to switch to your offering.
4. *Become an expert in your business*. This means knowing how your business operates, understanding the role your product plays in the organization and knowing well who your various stakeholders are. Moreover, it implies establishing a strong relationship with your key stakeholders and business partners. You must convince them that you understand their environment (empathy is again what you need here) and that you will work on bringing them solutions that fit their needs and constraints.
5. *Secure the right management support*. Make sure you find a management sponsor within your organization, who can act as an advisor and escalation partner. Your ability to influence and lead others as well as be respected by the stakeholders and development team is dependent on the management support you receive.

6. *Work hard to build good collaboration and relationship with your product team* (which is typically comprised of a product manager, a product designer and different types of engineers/developers at a minimum).
7. *Really successful product managers feel comfortable using data and analytical tools*. Nowadays data is of paramount importance to understand what the customer thinks about or is doing with your product. Measuring data using analytical tools is the way to improve by focusing your efforts and resources on what really matters.

Conclusion

The jobs and responsibilities of product management and project management are different enough, with some exceptions in small companies or startups. This separation is mainly required due to the nature of strategy-oriented product management versus execution-oriented project management. Product management strives to determine what product to build to solve problems for stakeholders and users. Product managers' goal is to come up with the fastest and cheapest ways to test ideas, make experiments, validate and, if needed, evolve the product strategy. Therefore, it is critical for them to talk to customers (as much as possible) in order to learn about the pain points and discover the best ideas successfully. Project management, on the other hand, determines the best ways to allocate resources and how to build and deliver products on time/budget/scope to stakeholders and users. Project managers' goal is to satisfy the business and they measure success based on the achievement of their specific deliverables. The collaboration between the product manager and project manager is key to ensure that they succeed in their roles, ultimately ensuring that products launch fast and perform well in the market.

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About the author

Martin Andreev is a transformation consultant at Highberg. He has consulting, (IT) project and product management experience in the IT, banking and high-tech semiconductor industries. With both theoretical and practical knowledge on Agile practices and methods, he is determined to help anyone interested in value-oriented, adaptive, and iterative ways of working.

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