



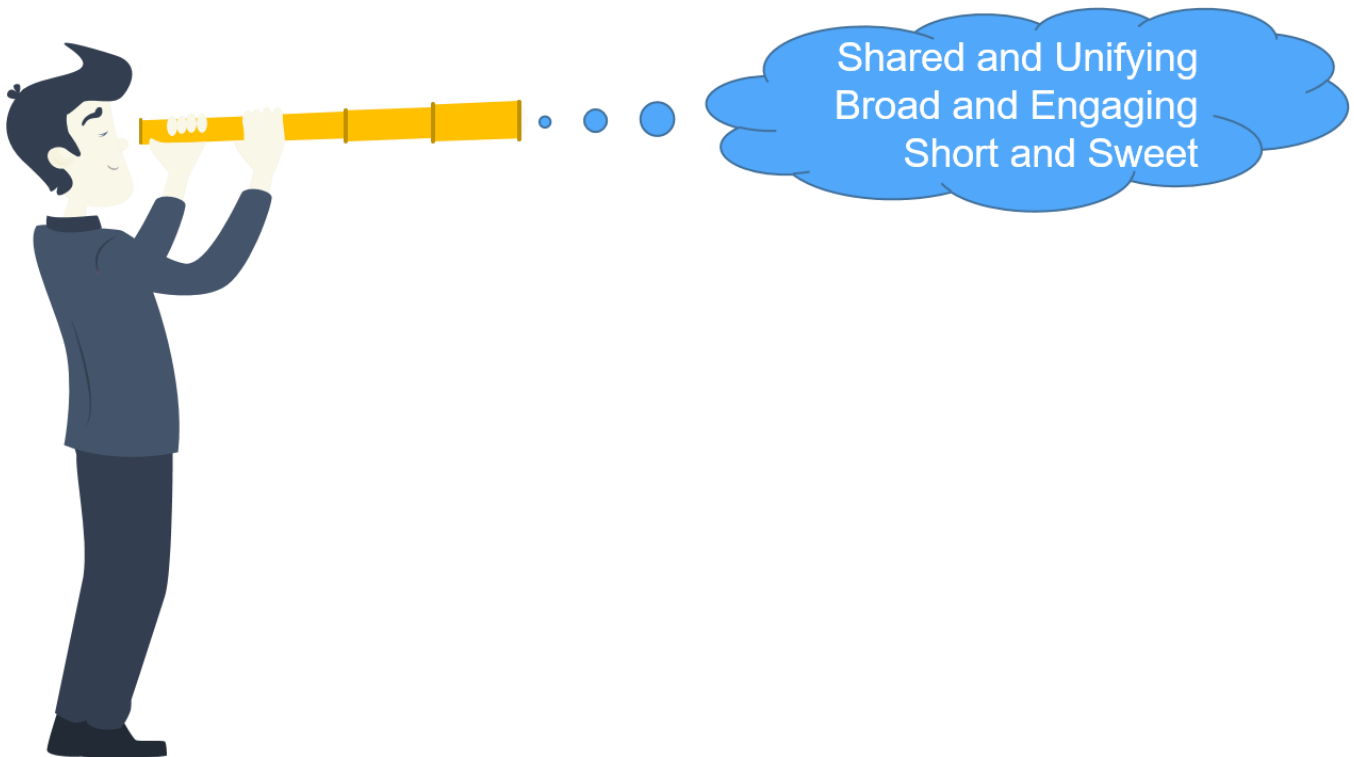
PRODUCT MANAGEMENT

WORKING WITH PRODUCT VISION

Product Vision

- Product Vision is the sketch of the product in the future. You may think of Product Vision as *"postcard from future."*
- Product Vision communicates the essence of the future product concisely and describes a shared goal, directing the stakeholders and development teams.
- An effective Product Vision should provide answers to questions such as:
 - Who will be using our final product? Who will be our target customers?
 - What requirements or needs should the final product be able to meet?
 - What are the critical success factors for our final product?
 - Which features and attributes are critical to the success of our final product?
 - How does our product fare with the existing products already available in the market?
 - What are the revenue sources? What would be the business model?
 - Is the investment in the product worth?

Desirable Qualities of the Vision



SHARED AND UNIFYING

- Vision is the shared goal of the Stakeholders and Development Teams.
- Everyone involved in the Project—management, customers, users, development team, and other stakeholders—should buy into the vision.

- Alignment is created by the shared vision. It facilitates effective teamwork and enables team learning.
- The best way to create a shared vision is to involve the development team and stakeholders in creating the vision as they are responsible for achieving this vision.

BROAD AND ENGAGING

- The Product Vision must be broad and engaging. It should cover the bigger organization and look at the big picture.
- It should engage and inspire people.

SHORT AND SWEET

- The Product Vision must be brief and concise.
- It should contain only information critical to the success of the Product.
- Too long or complex visions create confusion and misalignment and decrease team morale.

Minimal Marketable Product

- In Marketing, future cannot be predicted accurately.
- In today's fast-paced world, market dynamics change in a fraction of a second.
- Because we cannot accurately predict the future, our best chance of success lies in envisioning the **minimal marketable product**—a product with minimum functionality that meets the selected customer requirements.









Example

Let us understand this Minimal Marketable Product from the perspective of the airline industry.

Most airlines offer multiple cabin classes such as First Class, Business Class, and Economy. In economy class, which is more in number in any typical airline seating configuration, again we may have a few sub-configurations such as Economy Deal, Economy Saver, Economy Classic, etc.

Economy Deal	Economy Saver	Economy Classic	Economy Flex
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The features available in each class is different. By offering certain features in each class, the airlines create the Minimum Marketable Product for that class. See the image below for features available on Economy Classic:

Benefits Included			
 Complimentary meal	Yes	 Free Baggage Allowance	15Kgs
 Change Fee	INR 2,400	 JPMiles Earned	75%
 Cancellation Fee	INR 3,400	 Priority Check-in	No
 Upgrade Eligibility ⓘ	Yes	 Lounge Access	No

Basic features: meal is provided, free baggage allowance. A few other features are chargeable as you may have noticed here. In this example, if the airline tries to offer every feature to every class, the ticket fares would be too costly, fewer passengers would fly, and airlines would incur huge losses.

ADVANTAGES OF MINIMAL MARKETING PRODUCT

- Reduction in time to market as product is launched more quickly
- Functionality is released in a gradual timely manner
- Development cost is lower, and Return on Investment is higher and quicker
- Early payments improve cash flow
- By getting early customer feedback, development teams can listen and respond to marketplace demands and changes more quickly and frequently
- Less money will be lost due to an underperforming product

PRODUCT VISION AND RELEASE MAPPING

- Once the vision is available and ready, there could be multiple releases planned to deliver the complete vision.
- In multiple sprints, Vision is turned into a shippable product by leveraging user and customer feedback at Sprint Review meetings. Releases help to deploy the Product increments early and frequently.
- By working with this frequent inspect and adapt, the Scrum team and stakeholders can find quickly if the right product is being developed.

SIMPLICITY

- Creating a product with the minimum functionality that is easy to use is ***Simplicity***.

Ockham's Razor

- Using simplicity as a guiding principle follows a long-standing tradition.
- In the fourteenth century, Franciscan friar William of Ockham allegedly postulated that if given a choice between functionally equivalent designs, the simplest design should be selected. This insight is known as **Ockham's razor**.
- Simplicity is about focusing on the essence of the Product, developing only what is needed and with the ability to adjust and extend as required.

Example

One of the reasons for Google's popularity on search engine front is exactly the simplicity we are speaking here.



Just a simple text box to search—no advertisements, no clutter of unwanted information such as trends, etc.

Less is More

- Just going by common sense, most people think a superior product with a lot of features is required to beat the competition.
- As per Agile Manifesto - “the art of maximizing the amount of work not done” – emphasizes on delivering only the most crucial features required.
- By asking a question such as “Is this feature required or is it critical for the Product?” development teams can find out the most crucial and must have requirements. Any other requirement **is not required at this crucial point of time and can be delivered later**.
- This approach results in a product that is simple and uncluttered and offers only the features a customer or user needs.

Customer Needs and Product Attributes

- Both Customer needs and Product attributes are at the heart of Product Vision.
- Customer needs help us to understand which market or market segment our product is going to address. For example, by looking at infant food needs, an infant food maker can identify the market segment, who are mothers.
- Product attributes are critical priorities that a product must have to meet its needs.
- Attributes can be of **functional and nonfunctional use**.
- Nonfunctional attributes include performance, robustness, style, design, and usability.
- By gathering customer needs and the required detailed minimum set of attributes, Product development keeps the customer as the epicenter of development.
- Needs help us to understand **why the product is needed** and attributes help us to understand **what the product should do and how it should look like**.

Example

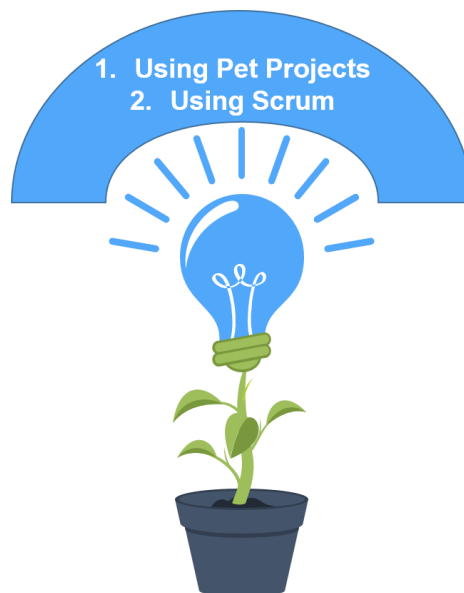
1. The ability to make a phone call from a mobile phone is a need or customer requirement. Whereas, displaying matching phone numbers or contact names as the customer keys in a few digits, displaying a list of recent contacts, etc. are attributes. Another attribute is showing a few messages such as “I will call you later,” “I am in a meeting,” etc. to assist the customer in rejecting the incoming call.

- 2. Sending and receiving text messages on a mobile phone is a customer requirement or need. Thread-based message display instead of timestamp-based display is an attribute. The message storage capacity and the facility to backup and restore messages are some other attributes.

PRIORITIZING ATTRIBUTES

- Attributes must be prioritized.
- Prioritization helps the Product Owner to align highly prioritized attributes to be delivered first.
- When there is a conflict between attributes, prioritization helps to reorganize them.

Developing the Product Vision



USING PET PROJECTS

- A few organizations, such as Google, allow their employees to work on Pet projects.
- Pet projects are private research projects carried out by one or more individuals together.
- These ideas act like prototypes and gradually integrate themselves into the big product ideas and development.

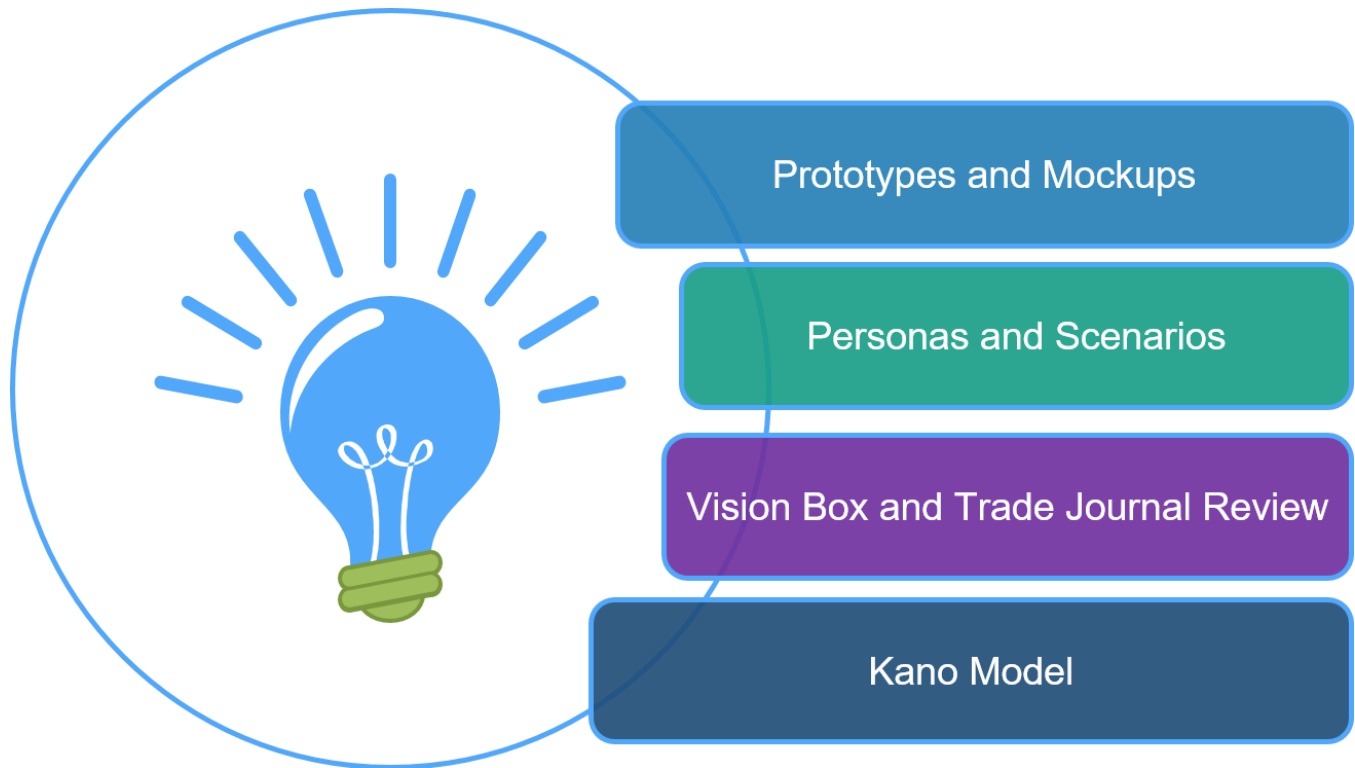
USING SCRUM

- When large complex product development is required for an enterprise, Scrum can be used.
- The Product Owner can lead and direct the visioning activities with the Development team.
- The initial result of these visioning activities is Product Backlog that can contain vision deliverables such as prototypes, proof of concept initiatives, etc.
- As the team continues to work, the high-level attributes start to emerge. They define the future product as per the Product Vision.



A few organizations carry out dedicated Sprints only for visioning called Vision Sprints.

Techniques for Creating the Vision



PROTOTYPES AND MOCKUPS

- Creating the vision is often best used as a discovery process, a process of knowledge acquisition and learning that requires experimentation.
- By implementing and testing prototypes, Development teams experiment to gain the necessary knowledge and early customer feedback.
- These will also help the Development team and Product Owner, along with other stakeholders, to know how the product will roughly look like, how it works, and what it does. It also works as an experiment to check if the ideas are feasible and technically doable.
- The renowned Deming's PDCA Cycle or **Plan-Do-Check-Act** can also be used for these experimentations:
 - **Plan** – The idea is generated
 - **Do** – The prototype is built to validate the idea
 - **Check** – Testing is carried out to test the prototype for feasibility and usability as desired by the Product Owner
 - **Act** – Results or approach is refined, and the experimentation continues



Spike is a sprint or series of sprints specially executed to explore prototypes and design.

PERSONAS AND SCENARIOS

- Target customers can be represented by personas.
- Scenarios present the interactions between our product and these personas.
- A persona represents a specific instance of a user role.
- Personas are given names along with some other relevant information such as their job role, skills, favorite actions, etc.

Example

Let us see a couple of personas in a banking system.



1. Bank Manager Persona:

- Middle-aged person
- Senior most in the bank branch
- Interested in day-to-day totals on transactions
- Looks for data before taking decisions



2. Bank Cashier Persona:

- Could be a younger person
- Manages the cash
- Interested in total deposits and withdrawals at their counter
- Also, interested in getting different currency notes denomination before opening the counter and at the end of day

- Once personas are identified, scenarios are investigated. The scenarios describe a goal or an action that personas will carry out using or without using the banking system.

Example

Let us see a couple of scenarios in a banking system.



1. Bank Manager:

- Daily summary of new accounts opened
- Daily summary of transactions at each counter
- New account opening—approval actions



2. Bank Cashier:

- Validating a Bank account for sufficient balance
- Receiving and processing checks (within and outside the bank)
- Issuing cash to customers

VISION BOX AND TRADE JOURNAL REVIEW

- Two effective techniques for determining the product's value-added and selling points are a product's vision box and a trade journal review.
- A vision box is a mockup of the package in which the product might be shipped.

Example

Let us see the Vision Box for a carton of milk.



1. Ask the team members to work on this milk carton as follows:
 - **Front:** Product name with a picture or drawing, slogan, and **three** (to four) main selling points (Fat Free, No preservatives, etc.)
 - **Back:** A more detailed view of the product, listing functionality and requirements (nutrition information, expiry date, etc.)
 2. Encourage the team to ask questions such as who, why, what, when, and where with respect to the milk carton.
 - Who will be interested in buying fat-free milk?
 - How to make the milk fat free?
 - What packaging is required to keep the milk from spilling outside?
- Prioritize the requirements, get more clarifications

- Trade journal review is mimicking a customer review about the Product. This provides an input to the Scrum team about what they would like to read about the product once it is launched.

Example

Let us see a couple of Trade journal reviews for our carton of milk.



1. The packaging is bold and attractive. However, when I purchased at the super market, I found some dents on the packaging. Not sure if the milk is any way affected.
2. The cap is very difficult to open. I found it very hard. With lot of effort when I opened it, the milk spilled on my clothes. I would not recommend this product to anyone.

KANO MODEL

- You can select the right functionality to create an attractive product by using the Kano model.
- It helps the Product Owner and Development team to know how satisfied a customer might be when a certain product attribute is implemented.

- This model distinguishes between three types of functions: **Basics, Performance functions, and Delighters.**

Example	<p>Let us see the example of Kano model for our Bank</p> <ul style="list-style-type: none"> • Basics: the ability to deposit and withdraw money, check account balance, transfer the money • Performance functions: comfortable waiting facilities, token number display systems, convenient placement, and availability of various forms (such as Deposit or Check Request) in plenty • Delighters: Individual relationship managers (personalized attention) guiding throughout the transaction, enough parking facilities for four wheelers, etc.
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Vision and Product Roadmap

- Product Roadmap shows the Product is likely to evolve over a period, transforming itself from one version to another.
- It allows an organization to plan the required budget and coordinate marketing and launch of related products from the same product line or portfolio.
- Product Roadmaps are **live**. They evolve and change over time.
- All relevant stakeholders—leadership and management, marketing and sales, development and support, suppliers and vendors, subject matter experts, operations teams—must be involved (as required in the case may be) in developing the Product Roadmap.

PLANNING HORIZON

- Planning becomes more inaccurate if the duration for the planning is more. If you come up with a plan for your product for next 5 years, it will most likely be difficult to predict what can happen around the 5-year time window.
- Planning Horizon represents a time window within which more accurate and relevant planning can be carried out.
- Usually, a window of next 6 months to 12 months is more suitable than one for next 2 to 3 years. But Market conditions and product lifecycle are the deciding factors along with organizations' financial availabilities, strategic priorities, etc.

PRODUCT VARIANTS

- Any company with sales across the globe will find it difficult to address customer needs in different segments and different regions.
- Minimal products might not work in all geographies. A few geographies and segments demand more features.
- Product Variants are used to address specific customer segments and regions.

- When multiple features are to be replicated across product variants, using shared features or shared assets would be of great advantage.

Example

Microsoft released Windows Vista with 6 variants in 2006. These six variants were:

- Starter, Home Basic, Home Premium, Business, Enterprise, and Ultimate.
- Unfortunately, these product variants created confusion in the market and the product bombed in the market.

Microsoft seems to have learned from this blunder when they released Windows 8 in 2012. It had only four variants:

- Windows 8, Windows 8 Professional, Windows 8 Enterprise, and Windows 8 RT (targeted at Tablet PCs)

Common Mistakes



NO VISION

- A common mistake is to start product development without a product vision.
- This happens most often in a typical customer-supplier engagement (A customer's product is built by a team of suppliers. Development is outsourced to one or more suppliers.) When customers request individual features that are incorporated into the product with no consideration of the connection between them. The resultant product is known as **feature soup**.
- To combat this common mistake:
 - Ensure that a vision that clearly states the customer, the selected customer needs, and the critical attributes is available. Supplier teams must insist on this at the beginning of the project if they found no vision.

- This vision will then help determine which features should be implemented and will ensure that a useful and valuable product is created.

PROPHECY VISION

- With a bigger Planning Horizon, there is a possibility that the envisioned future product might never come out as per the vision.
- Failures happen even when there is a vision.
- To combat this common mistake:
 - Release a product increment with a few narrow set of customer needs
 - Collect the feedback from customers and inspect and adapt as per the feedback

ANALYSIS PARALYSIS

- Some organizations overdo market research when looking at what their customers want.
- A few organizations are afraid of failures. They want to “get it right the first time, every time.” With this attitude, they try to make fail-safe investments. “We want to play it safe.”
- To combat this common mistake:
 - Keep the vision simple and minimum
 - Release the product as swiftly as possible
 - Collect market feedback and adapt to it as required

Example

Tata Motors, an Indian automobile giant, went on to make “Tata Nano,” one of the world’s smallest passenger cars with a selling price of US \$1600. Lot of analysis has gone into making this model design and launch decision. But when this car was launched in the market, it received lukewarm response and the sales were not at all as expected.

(https://en.wikipedia.org/wiki/Tata_Nano)

WE KNOW BEST WHAT IS GOOD FOR OUR CUSTOMERS

- Some companies don’t rely much on market research and go by their intuition or their technical capabilities.
- They feel that they know what is good for their customers because they have the best technical capabilities.
- The end result may be a product that receive huge investment and time, **but nobody wants it**. This is called **Innovating in an ivory tower**.
- To combat this common mistake:
 - Incorporate customers and users into the development process by inviting them to Sprint review meetings
 - Release the software early and frequently.

BIG IS BEAUTIFUL

- Some organizations invest lots of time and money with associated high risks in the big bang approach to product development.
- The psychology behind this is to launch a product with an abundance of functionality to make a great news story.
- The results are an over-engineered product that is not only expensive but also doesn't work.
- This approach also limits customer interaction and feedback as the required features are already predetermined by the maker itself.
- To combat this common mistake:
 - Release a product with the minimum required narrower set of functionality
 - Schedule an early release and conduct frequent customer interaction with feedback to drive the inspect and adapt approach