Guide to Product Ownership Analysis

Product Success Starts with Analysis

International Institute of Business Analysis™

Version 1.0

Guide to
Product Ownership Analysis

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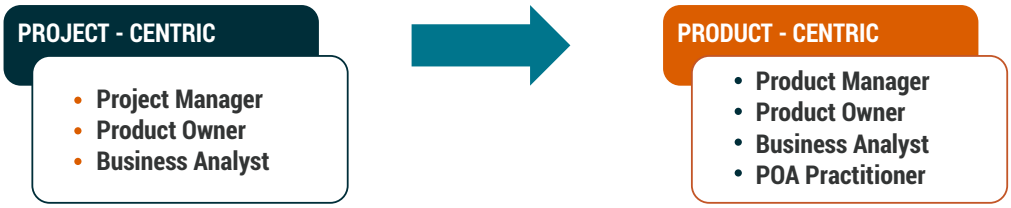
1 Purpose of this document

This is a comprehensive treatment of the Product Ownership Analysis (POA) discipline and follows the IIBA Introduction to Product Ownership Analysis. As more organizations transition from project-centric models to product-centric models, it is important to understand how Product Ownership is evolving and what it takes to deliver successful products.



The move to a product-centric model doesn't reduce the importance of good project management practice, since delivering good quality products requires high-quality execution of work, and multiple streams of coordinated work.

1.1 The IIBA Guide to Product Ownership Analysis

The IIBA Guide to Product Ownership Analysis assists teams to create and deliver exceptional products and services, for their customers and stakeholders, with proven practices cultivated from:

- Traditional Product Ownership,
- Agile business analysis,
- Product management,
- Human-centred design approaches,
- Business model development,
- Lean start-up model,
- Design sprint methods, and
- Lean product development.

1.2 Who Should Use This Guide?

This Guide benefits practitioners who:

- Work as Product Owners,
- Support Product Owners in their work,
- Execute Product Ownership related work,
- Are transitioning to a Product Ownership related role, or
- Are considering Product Ownership as a career path.

It is especially relevant for:

- The Product Owner,
- Proxy Product Owner, and
- Product team practitioners.

1.2.1 The Product Owner

The primary responsibility of a Product Owner is to maximize the value being created and delivered by the team. POA supports Product Owners in their daily challenges and provides them with a wide range of analysis practices that help them create higher quality outcomes.

Ginelle's Bio/Summary
Product Owner

Ginelle recently transitioned from a Senior Business Analyst role to a Product Owner role. She is highly regarded by the business stakeholders for her product knowledge and her ability to understand customer problems. Her analysis, collaboration, and leadership skills have been extremely useful at building a product backlog and the MVP.

1 My Responsibilities

- Maximize the value of the product and champion the Product Vision.
- Ensure that development teams are producing incremental and relevant product value.
- Maintain product backlog priority and sequence to best achieve the business and customer goals.
- Express product backlog items and keep it updated with latest insights and customer/market needs.
- Keep the backlog visible, clear, and transparent to stakeholders at all times.
- Maintain tracing from the backlog back to the Product Vision.

2 Competencies I Have

- Business analysis skills and technique expertise
- Leadership skills
- Strategic skills
- Communication skills
- Solution focused mindset
- Interaction skills and knowing when to say 'no'

3 My Worries and Frustrations

- Business retaining direct access to the customer.
- Started as PO of one project and now spread across several projects at a time.
- "Because of my business analysis background, sometimes I'm expected to 'back-up' the Business Analysts when they are overloaded."

1.2.2 The Proxy Product Owner

For the practitioner working as a proxy Product Owner, POA helps support the Product Owner's objectives and the team's work.

Omar's Bio/Summary
Proxy Product Owner

Omar is the lead Business Analyst on the product team. The PO only has a few hours a week to commit to the team. Omar is responsible for reviews of the story work, acceptance criteria, and requirements done by the other BAs on the team. Omar developed a Decision Matrix that has helped provide clarity and transparency within the team.

1 My Responsibilities

- Maximize product value by understanding how business and customer needs translates to high value product.
- Maintain product backlog by expressing and elaborating product backlog items.
- Ensure that the development team understands items in the product backlog to the level needed, by interacting with PO and the team.
- Review and approve stories, acceptance criteria, and requirements of other BAs.
- Lead demo/review sessions.

2 Competencies I Have

- Business analysis skills and technique expertise
- Communication skills
- Solution focused mindset
- Interaction skills and knowing when to say 'no'

3 My Worries and Frustrations

- Business retains direct access to the customer.
- Team sometimes questions my decisions.
- Team sometimes goes directly to SMEs for answers without involving me.
- Limited time with business leaders, customer, and PO, creating knowledge gaps.

1.2.3 Business Analysis Professional

Business Analysis Professionals can support POA activities to ensure the team's success.

Sherry's Bio/Summary
Agile Analyst

As the product Business Analyst, Sherry has been leveraging her business analysis experience, coupled with her strong domain knowledge, to help the team in product development. Moving into an agile role has been a steep learning curve for Sherry. She is eager to improve working within agile and applying it.

1 My Responsibilities

- Elaborate acceptance criteria and requirements artifacts for PBIs.
- Be involved in backlog refinement and planning workshops.
- Help PO to write "right-sized" and prioritize User Stories.
- Facilitate story refining with PO and team.
- Support the team during sprints to get work to the "done" state.

2 Competencies I Have

- Business analysis skills and technique expertise
- Communication skills
- Solution focused mindset
- Interaction skills and knowing when to say 'no'

3 My Worries and Frustrations

- Collaboration with distributed and virtual teams.
- Unclear guidance for specific tasks / Expectations may be unrealistic.
- Work pace can sometimes get overwhelming.
- BA performance expectations are not clearly defined or measured.
- Managing multiple priorities – not enough time for everything.

2 Evolving Product Ownership to POA

The POA discipline requires a clear understanding of where product development intersects with agile practices.

2.1 Product Development

The biggest risk of product development is to create a great product that nobody wants.

Products can captivate customers and propel an organization to greater success, or they can result in wasted investments that cripple an organization for years. A product's success depends on the customers' perception of how well it solves their problems and addresses their needs. To ensure a consistent flow of customer value, many organizations have embraced agile product development practices.

2.2 Product Owners using Agile

The Product Owner role was used within Scrum and has been embraced by all agile approaches. These approaches have demonstrated that effective Product Ownership activities are critical and pivotal to product success.

An increasingly large number of BA Professionals are:

- Supporting Product Owners,
- Acting as proxy Product Owners, or
- Being asked to take on Product Ownership responsibilities within agile teams.

The fundamental goal of Product Ownership is to maximize the value delivered by the team. The increasingly complex and dynamic nature of this work is the reason why the entire team needs to take responsibility for Product Ownership, it goes beyond managing the product backlog, which is part of the Product Owner's responsibilities.

2.3 Product Ownership Analysis

Product Ownership Analysis (POA) is a researched and studied discipline, with a set of practices, processes, and procedures to create successful outcomes. This Guide describes:

- Frameworks and approaches,
- Techniques,
- Tools, and
- Competencies.

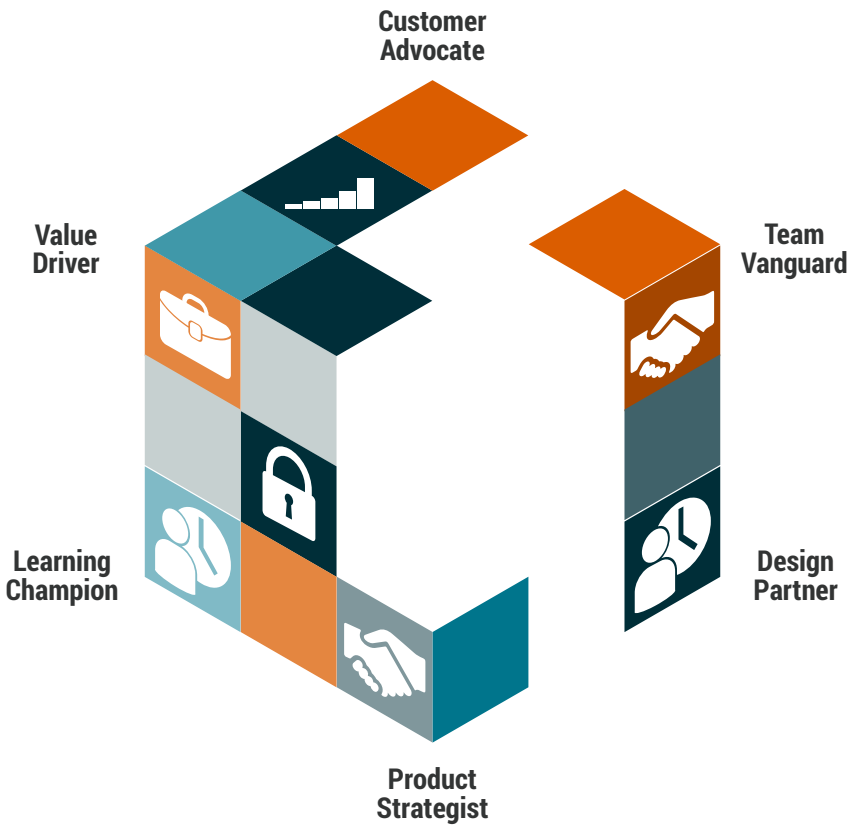
2.4 The Product Owner Role and POA

"The Product Owner is the role on the team that represents the interests of all stakeholders, defines the features of the product, and prioritizes the product backlog."

- *the Agile Extension to the BABOK® Guide.*

Product success requires expanding understanding of the Product Owner's traditional role to encompass tactical and strategic aspects of product development. Effective POA is demanding, complex and multi-dimensional with several key responsibilities to support the delivery team. It requires a multifaceted, enhanced understanding of the Product Owner role which includes acting as the:

- Customer advocate,
- Team vanguard,
- Design partner,
- Product strategist,
- Learning champion, and
- Value driver.



Multi-dimensional role of the Product Owner

2.4.1 Product Owner and Product Manager

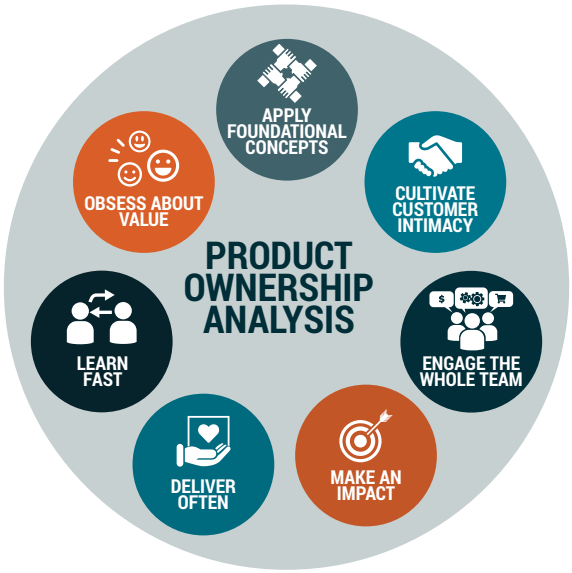
Confusion about the Product Owner role and its relationship to other roles has proven problematic for organizations, (e.g., responsibilities split across the Product Owner and the product manager). Organizations adopting agile approaches often struggle with how best to distribute responsibilities.

Organizational context heavily influences whether both the Product Owner and product manager roles exist, and the allocation of responsibilities.

2.5 Product Ownership Analysis Framework

The POA framework focuses on key concepts, principles, and practices that help practitioners deliver successful products. The seven domains provide guidance for a team to maximize the value delivered.

- Apply foundational concepts
- Cultivate customer intimacy
- Engage the whole team
- Make an impact
- Deliver often
- Learn fast
- Obsess about value



2.6 Value of the POA Framework

POA builds on, and extends, Product Ownership concepts that were introduced with Scrum and adopted by other agile approaches.

	Traditional Product Ownership	Product Ownership Analysis
Definition of role and concept of Product Ownership	Product Owners maximize the value created by the team.	POA supports and enhances the traditional Product Owner responsibilities: • Successful application of analysis, integrated with agile principles, and best practices. • Streamlines how value is delivered for a product with reduced waste.
Focus	Delivery-centric activities.	POA provides additional competencies, principles and practices, and engagement strategies, that provide a balance between delivery-centric activities of a Product Owner, and the analysis-centric activities necessary for effective product development.

	Traditional Product Ownership	Product Ownership Analysis
Approach	The maximization of value often gets translated to strictly product backlog management activities.	POA provides a holistic set of practices to help teams deliver better business outcomes.
Strategy	Achieve the desired output based on: • A prioritized backlog, and • Driven by timelines.	POA promotes a more creative approach to designing high impact solutions, leading to products that are better aligned with customer needs.
Value Delivery	Delivering features that maximize market value driven by backlog management activities.	POA provides a holistic set of practices to help teams deliver better business outcomes by engaging the recipients of that value throughout the process.

3 Understanding Product Ownership Analysis

3.1 Integrating Business Analysis and Product Ownership

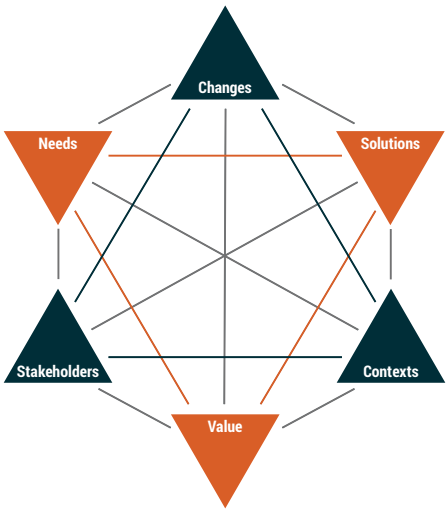
Integrating business analysis and Product Ownership provides a strong foundation for Product Ownership analysis.

Business analysis is:

"*The practice of enabling change in an enterprise by defining needs and recommending solutions that deliver value to stakeholders*". — *BABOK® Guide*

The *Business Analysis Core Concept Model™ (BACCM™)* is a conceptual framework for business analysis that can be applied to POA. The *BACCM* is comprised of six terms that have a common meaning to business analysis practitioners:

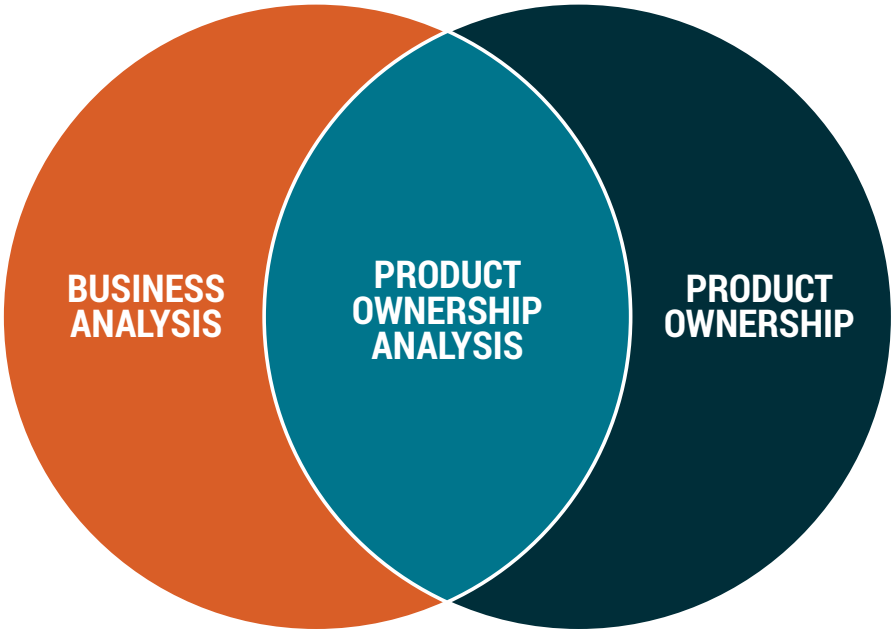
- Changes
- Needs
- Solutions
- Value
- Stakeholders
- Contexts



Business analysis can be powerful when applied to Product Ownership challenges. Application of business analysis techniques leads to robust decision-making and effective problem-solving. When business analysis is applied in Product Ownership analysis, it:

- Creates high-value products for customers.
- Increases productivity in delivering product increments.
- Identifies effective, viable solutions that meet long-term needs.

The intersection of business analysis and POA disciplines highlights where the application of business analysis practices can enhance the quality of outcomes through Product Ownership related activities.



Business Analysis Focus:
- Translating "Why" to "How"
- Managing requirements
- Modelling & communicating requirements
- Enabling change through solutions

Product Ownership Focus:
- Determining "Why" and "What"
- Product vision and roadmap
- Managing shippable value
- Customer advocacy

Product Ownership Analysis Focus:
- Stakeholder engagement
- Process understanding
- Problem understanding
- Decision-making
- Managing feedback and communication

A foundation of analysis results in:

- A structure to discover and assess context, including:
  - Product domain
  - Key trends
  - Organizational dynamics and frameworks
  - Customer environment using tools and techniques, such as:
    - benchmarking and KPIs,
    - Kano Model, and
    - document analysis.
- Mature stakeholder identification, analysis, and management, as well as tools for managing stakeholders with analysis into their:
  - Motivations
  - Attitude
  - Influence
  - Roles and responsibilities
- Ability to identify and assess better solutions through:
  - A planned solution evaluation
  - Assessment approach
- Improved problem-solving skills through:
  - Needs assessment
  - Strategy analysis
- Ability to analyze product metrics and KPIs that support better quality decisions.
- Continually improving internal work processes to improve efficiencies that support value delivery.

3.2 Integrating Agile Business Analysis and POA

Agile business analysis is:

"The practice of business analysis in an agile context with an agile mindset."
— *The Agile Extension to the BABOK® Guide*

POA is a discipline that realizes the core principle of agile business analysis in product development, while applying agility at all levels, from product vision to daily work plans.

The ***seven principles of agile business analysis*** help develop the mindset required for building successful products:

- See the Whole
- Think as a Customer
- Analyze to Determine What is Valuable
- Get Real Using Examples
- Understand What is Doable
- Stimulate Collaboration and Continuous Improvement
- Avoid Waste.

These principles also support team collaboration and communication as the team works to deliver value that resonates with customers.

POA derives value for organizations and customers through the creation and delivery of high-value products.

The ***fundamental objectives that support value delivery*** include:

- ***Gain Deep Understanding of Customers***:
  - Identify customer problems
  - Understand the severity of customer problems
  - Identify opportunities to delight customers
- ***Engage Key Stakeholders***: Engage the team, customers and any other stakeholders that impact the success of the product.
- ***Design Solutions for Impact***: Design the solution that maximizes value delivery within a given business context and constraints (business and technical) while balancing value, feasibility, and strategic considerations.
- ***Create and Deliver Product Value***: Constantly deliver value through an incremental build of product features.
- ***Learn and Adapt***: Analyze value delivery based on regular customer feedback, supplemented with quantitative analysis.
- ***Optimize Product Value***: Make timely, informed decisions to remove impediments and continually improve the team's ability to develop the evolving product.

Effective POA

- Requires adopting the right balance of agile and traditional practices for product development.
- Emphasizes:
  - Sharing a clear and engaging product vision to build understanding for all stakeholders.
  - Maintaining support from key stakeholders in understanding business context and solution viability.
  - Making effective decisions to prioritize needs and value delivery.
  - Ensuring transparency all the time through the Product Backlog.
  - Validating value throughout product build activities.
  - Willingness to quickly learn and adapt.
  - Developing a supportive and transparent relationship within the product team(s).

4 Agile Product Management

4.1 How Organizations Manage Products

A healthy portfolio of products acts as a barometer of success for most organizations by:

- Instilling confidence and assurance in employees
- Generating financial success
- Creating ongoing value for customers

Organizations often start with a single successful product and create a cohesive portfolio consisting of high-value products and services. The challenge is to create a range of successful products that:

- Provide a broader choice for customers
- Help the organization thrive in the competitive landscape
- Reduce management complexity

Traditional product management falls short in managing so many moving parts. Managing a portfolio of products, each of which may be at a different stage of the product lifecycle, requires focus on:

- Sharing cross-functional resources
- Prioritizing value delivery
- Maintaining customer focus
- Creating desired business outcomes

4.1.1 Integrating POA Practices

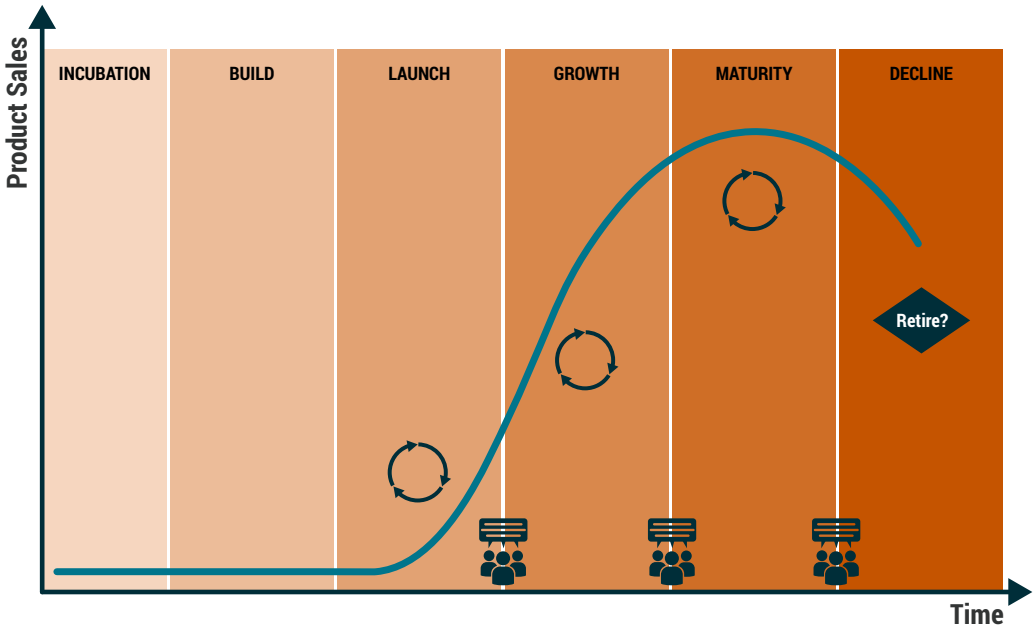
POA practices can be integrated, to create a compelling value proposition for customers. These practices include but are not limited to:

- ***Product Portfolio Management***: Combine customer, market, and competitive analysis with technical innovation to discover and design product offerings that align with enterprise strategy and brand.
- ***Product Development:*** Develop product, and optimize customer value and costs with systematic tools and processes, including:
    - Applying effective product engineering
    - Designing customer experience
    - Managing usable releases
    - Maintaining product quality
- ***Product Communication:*** Constant communication with key stakeholders effectively by:
    - Identifying key stakeholders
    - Managing communication modes
    - Maintaining communication
- ***Product Strategy:*** Discover innovative product concepts with a distinct value proposition focused on targeted customer needs, by:
    - Using delivery and service models
    - Building business cases
    - Managing risk
- ***Product Planning and Lifecycle Management:*** Provide a systematic structure for managing products through stages that assumes end to end responsibility for a product, including:
    - Defining product scope
    - Building product roadmap
    - Estimating financials that create customer value
- ***Product Feedback and Data Analysis:*** Learning via data analysis and eliciting customer feedback, by:
    - Having directed conversations
    - Consolidating feedback
    - Analyzing Analytics
- ***Product Marketing:*** Understanding customer and aligning the products with:
    - Customer analysis
    - Go-to-market planning
    - Product launches
    - Customer relations
    - Sales planning

- ***Product Support:*** Provide best-in-class services for technical support to customers. Without this support, many products can suffer in the marketplace as customers become frustrated and move to a competing product.
- ***Product Research:*** Ongoing research to understand the company's market, personas, and competitors.

4.2 Product Lifecycle

POA is applied throughout the product lifecycle.



Effective analysis throughout each product lifecycle stage allows the team to ensure:

- Fast feedback is used to evolve the product
- Ongoing customer value is delivered

POA practices applied at each product lifecycle stage:

Product Lifecycle Stage	POA Practice
Incubation	• Identify and understand customer needs, gaps, and opportunities, using cost-effective customer-centric design approaches. • Improve the quality of product ideas.
	• Evolve the understanding of customers and the marketplace to solidify a strong product vision.

Product Lifecycle Stage	POA Practice

Build	• Help
	  • Develop a strong value proposition for customers.
	  • Target market segments with a suitable value proposition.
	  • Solidify implementation plans, using relevant strategies for market segments and product launch strategies.

Launch	• Help fine-tune mechanisms to capture product metrics and customer feedback. • Provide opportunities to tweak product features based on initial launch success. • Manage organizational expectations based on the market introduction. • Plan and devise additional tactics for product growth and market penetration based on initial results.
Growth	• Tweak the product to deliver additional customer value. • Search for additional tactics based on market feedback to increase product adoption and utility. • Identify ways to evolve the product organically. • Implement and test product growth strategies to identify the best ones. • Plan and execute implementation tactics to achieve desired product goals e.g., acceptance, adoption, or profitability goals.

Product Lifecycle Stage	POA Practice
Maturity	• Sustain the product by continuously adapting to changing customer expectations. • Apply various strategies to improve, redesign, and optimize the overall customer experience to extend the life of the product. • Plan to revive the product for additional growth. • Plan to retire the product.
Decline	• Codify learnings and successes so they can be reused in future products. • Implement plans to retire the product. • Migrate customers to other products.

4.3 POA and Agile Planning Horizons

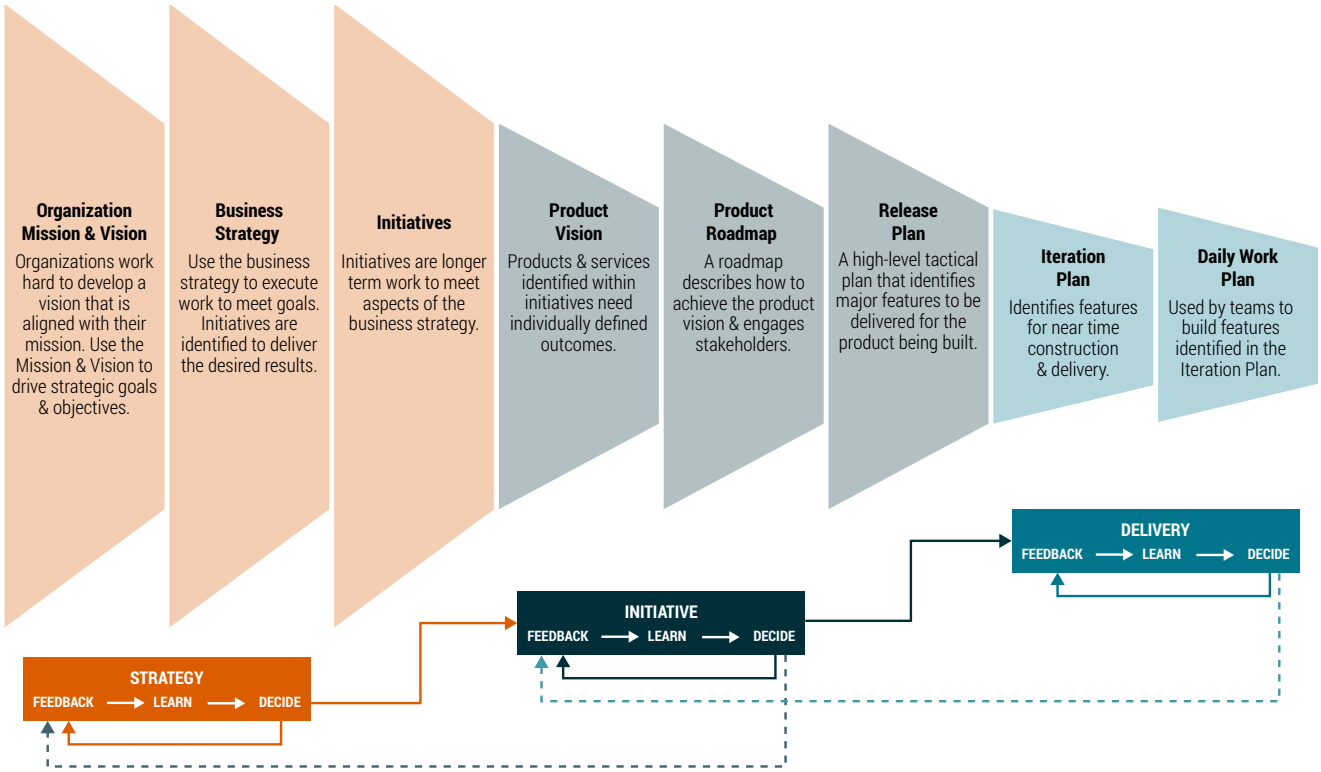
Organizations have adopted the key tenets of agile at all levels of planning and decision-making. In constant and rapidly changing environments, organizations need to respond to opportunities.

The Agile Extension defines three planning horizons:

- Strategy
- Initiative
- Delivery

The planning horizons are a framework to shift perspective between long-term strategic decision-making and the immediate needs of customers. Each planning horizon describes the longevity and impact of decisions, and feedback loops, to allow practitioners to synchronize activities and manage business imperatives. Customer expectations and needs feed into:

- Strategy
- Target markets
- Product portfolio decisions
- Product roadmaps
- Product lifecycle investments



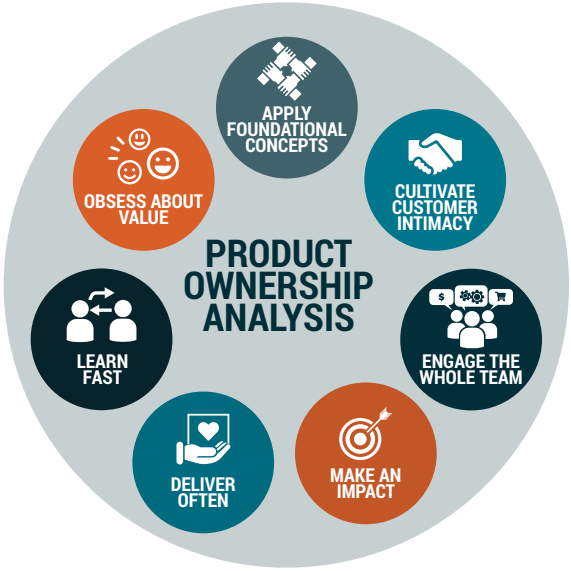
Each planning horizon includes a feedback loop to help the team learn and make informed decisions.

- The Strategy Horizon includes:
  - The organization mission and vision
  - The business strategy
  - Initiatives and outcomes
- The Individual Initiative Horizon includes:
  - Product vision
  - Product roadmap
  - Release plan
- The Delivery Horizon includes:
  - The iterative plan
  - The daily work plan

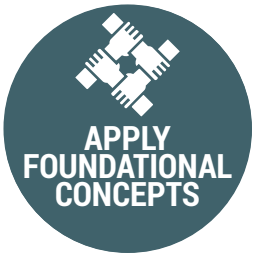
5 The POA Framework

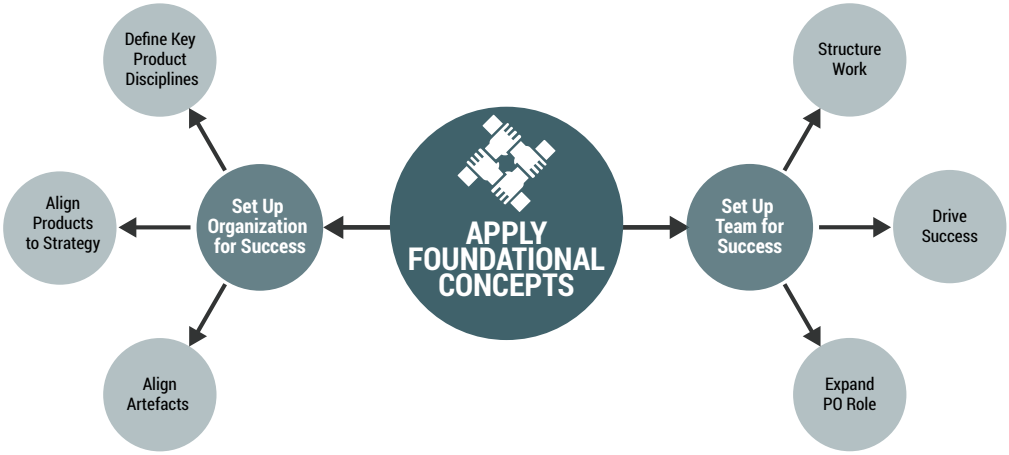
The POA discipline can be viewed and understood through the application of the POA Framework. This framework describes practices, approaches and techniques within seven domains:

- Apply Foundational Concepts
- Cultivate Customer Intimacy
- Engage the Whole Team
- Make an Impact
- Deliver Often
- Learn Fast
- Obsess about Value



5.1 Apply Foundational Concepts





Organizations must vie for customers' attention in a competitive landscape. Customer expectations have increased, making it harder to maintain customer loyalty. Organizations are challenged with how they create products and services and deliver them to the marketplace. Industry research estimates that more than 30,000 products are launched annually, and close to 95% of them fail.

Create and Launch High-Value Products

Organizations need to support Product Owners and teams in creating high-value products and launching them in the marketplace. The organizational context can support or hinder the delivery of successful products.

Organizations view products as the driving force in enterprise success (see 4. Agile Product Management) and focus on:

- Enterprise product practices
- Business functions
- Evolving disciplines around products
- The agility required to build upon a product-first enterprise

Organizational foundation needs to evolve so that each product in an enterprise portfolio can take advantage of these enablers. The Apply Foundational Concepts domain drives product success and provides guidance by asking the following questions:

- Is the organization set up to support product success?
- Does the organization do a good job of setting up teams for success?

5.1.1 Set Up the Organization for Success

Either an organization supports product teams, or it hinders them. The challenge of creating, launching, and maintaining a successful product is complex and difficult. An organization needs to consider what it can do to ensure a supportive environment for Product Owners and the product development teams. Three areas need organizational attention:

- Roles and responsibilities
- Products and services aligned to strategy
- Well defined products for teams to create

Roles and Responsibilities

Product failure can be attributed to poorly defined interactions, or gaps in responsibilities, at the integration points between:

- Product management
- Product Ownership
- Product marketing

Organizations need to holistically consider the entire product lifecycle. By adopting a product lifecycle approach, an organization can make effective decisions about roles and responsibilities across these disciplines to help deliver successful products. Roles will also evolve across the product lifecycle with some roles becoming more relevant in different lifecycle stages.

With clearly defined accountabilities across product management, ownership and marketing, organizations can start to address gaps, and build robust work processes that focus on value delivery to their customers.

Misaligned Products and Services to Strategy

Misalignment causes product failure when the product:

- Does not fit the organization's brand
- Is not an expected type of product from the organization
- Does not satisfy customers
- Was not launched because it did not match the organization's strategy

Products that are misaligned should never have been built. The challenge for an organization is to initiate product creation and to ensure the evolving product remains aligned with the organization's strategy. Unfortunately, organizational leaders often lose visibility to the product once it goes into development. They do not realize when it becomes misaligned.

To help maintain alignment to product launch, organizations can adopt:

- an alignment strategy, and
- build processes that allow greater visibility across the product development work including having regular touchpoints.

Poorly defined products and services

Products that were poorly defined from the onset, or suffered during product build activities, even though they may be good ideas, are another cause of product failure.

It is relatively straightforward to align key artifacts, thoughts, and perspectives with:

- Product vision
- Product roadmap

- Release plans

This helps ensure that product development is supported with important artifacts that describe the product being built and have the appropriate level of detail. Regularly updating these artifacts helps maintain focus and alignment through to launch.

.1 Define Key Product Disciplines

To create and deliver successful products, an organization needs carefully defined roles and responsibilities across:

- ***Product management*** - Manage a product through its lifecycle, from incubation to decline
- ***Product Ownership*** - Maximize the value delivered by the product that is being built.
- ***Product marketing*** - Use market knowledge to ensure the product will resonate with customers

Responsibilities could be aligned across multiple roles, depending on the organization. Some of these roles and corresponding responsibilities include:

.

Product Management

- Product lifecycle management
- Personas
- Business needs
- Product vision
- Product roadmap
- Release planning
- Feature definition
- Financial measures and adoption metrics

Product Ownership

- Customer advocate
- Customer needs
- Maximize product value
- Refine backlog items
- Ensure backlog items are "ready"
- Iteration planning
- Product build tracking
- Backlog item acceptance
- Defect management

Product Marketing

- Market opportunities
- Competitive analysis
- Positioning
- Segmentation
- Personas
- Business case development
- Customer focus groups
- Pricing, promotion, and placement
- Sales forecasting
- Marketing strategy

Product Owners have the greatest opportunity to create successful products because they work directly with the team to maximize the value being created. Product Ownership responsibilities can be shared by the team or other individuals. As strong representatives of customers, a Product Owner heavily influences what is being built and schedules regular touch-points with customers to help determine which features are incorporated and when they get built by the team. POA Practitioners contribute to both the design of the product and the build activities.

How POA Helps with Role Clarity

Although POA Practitioners may not be directly involved in discussions about organizational structuring, they can:

- Call attention to challenges in organizational structuring.
- Encourage organizational leaders to discuss and address the issues.
- Promote use of a product lifecycle approach from conception to retirement.
- Help identify organizational processes that support the full product lifecycle.
- Help steer organizational discussions to clarify the functional units or roles that support each component of the product lifecycle.
- Help integrate product management, Product Ownership, and product marketing practices to address gaps and resolve conflicts.
- Help communicate responsibilities to ensure shared understanding.

Each of these tasks can be performed by either the team, or by designated individuals supported by Product Ownership analysis.

POA Techniques for Role Clarity

These POA techniques discussed below reference the three key disciplines of product management, Product Ownership, and product marketing.

Agile Extension Techniques

- ***Planning Workshop***: Discuss how the organization will address functions and define responsibilities across the three disciplines.
- ***Value Stream Mapping***: Understand the creation of value across the customer experience and make improvements from effectively organizing the three disciplines.
- ***Visioning***: Understand decision options for integrating the three disciplines and clarify the organization's vision of how it creates and delivers products.

BABOK® Guide Techniques

- ***Balanced Scorecard***: Manage performance in any business model, organizational structure, or business process, and develop improvements through the integration of the three disciplines.

- ***Benchmarking and Market Analysis***: Understand how effective organizations organize for product delivery success. This can help:
  - Improve organizational operations
  - Increase customer satisfaction
  - Increase the value delivered to stakeholders
- ***Business Capability Analysis***: Understand how things need to change and what an organization can do to implement those changes to build an integrated environment that can support
  - Product creation,
  - Launch, and
  - Ongoing management.
- ***Business Model Canvas***: Assess how value is created, captured, and delivered to key stakeholders, and understand organizational or environmental changes.
- ***Decision Analysis***: Assess options for integrating the three disciplines and determine the value of alternate outcomes for different ways of structuring the three disciplines.
- ***Interviews***: Elicit information, share data, or build support for a proposed solution.
- ***Metrics and Key Performance Indicators (KPIs)***: Measure delivery across the organization as it is, and because of change.
- ***Organizational Modelling***: Describe current roles, responsibilities, and reporting structures within an organization, and because of change.
- ***Process Analysis***: Assess the processes describing how work is completed across the lifecycle, looking for efficiencies and effectiveness.
- ***Process Modelling***: Provide a standardized graphic model to demonstrate how the product lifecycle is carried out, and explain how to work through it.
- ***Roles and Permissions Matrix***: Ensure coverage of activities across the product lifecycle by:
  - Denoting responsibility
  - Identifying roles
  - Communicating planned changes
- ***Stakeholder List, Map, or Personas***: Identify individuals who need to be involved in decision-making.
- ***SWOT Analysis:*** Evaluate an organization's strengths, weaknesses, opportunities, and threats, to internal and external conditions that impact product creation and delivery.

Case Study: Improving Processes - Cell Phone Manufacturer

Background

ABC Corp, a mid-sized pioneer cell phone manufacturing company was reduced to a small, niche player, because of competitive pressures. The company had several rounds of downsizing over the last few years and operated with a smaller staff complement. There was zero growth in revenues over the last three years, and the company's financial position was rapidly eroding. Cutting expenses allowed ABC Corp to continue operating but it needed to grow sales and revenue to stay a viable operation.

Natalia was one of two Product Owners at ABC Corp. She was at ABC Corp for a year and had five years of Product Ownership experience. Ivan was a Financial Analyst in the finance department and became a Product Manager, the only person with that title at the company.

As an experienced Product Owner, Natalia was frustrated with ineffective and inefficient processes that were obstacles to delivering good outcomes, and she did not know what she could do. She found an ally in Ivan who understood that the next product launch could determine ABC Corp's future success.

Challenge

ABC Corp has not brought a successful product to market in a few years, and none of the last five releases captured enough market shares to cover the original investments. Without market success and increased revenue, the only recourse for ABC Corp would be to sell its business to a competitor.

Action

Natalia and Ivan agreed to:

- Research the issues,
- Assess the current state, and
- Develop recommendations that they jointly presented to their respective managers.

Case Study: Improving Processes - Cell Phone Manufacturer (Continued)

Research

- They spent two months benchmarking similarly sized companies' product development and product management practices.
- They completed online research to identify best practices used by leading companies. For example, they:
    - Identified product lifecycle approaches.
    - Learned about the importance of integrating:
        - product management,
        - product marketing, and
        - Product Ownership practices.

By comparing ABC Corp's environment to industry best practices, Natalia and Ivan developed a:

- ***Future state description*** that clearly described a productive environment that addresses the entire product lifecycle.
- ***Roles and permissions matrix*** that identified who takes responsibilities for the various components of the lifecycle.

Outcome

The two presented this information to their managers who agreed to forward the recommendations for senior management consideration.

Natalia and Ivan socialized their recommendations with other managers to develop additional support. It took almost five months to start implementing their recommendations. Although not all recommendations were implemented, and some were modified, Natalia and Ivan felt they increased organizational support and gained a greater management understanding of what it takes to deliver a successful product. Both felt more confident that they have the pieces in place for future success.

Lessons Learned

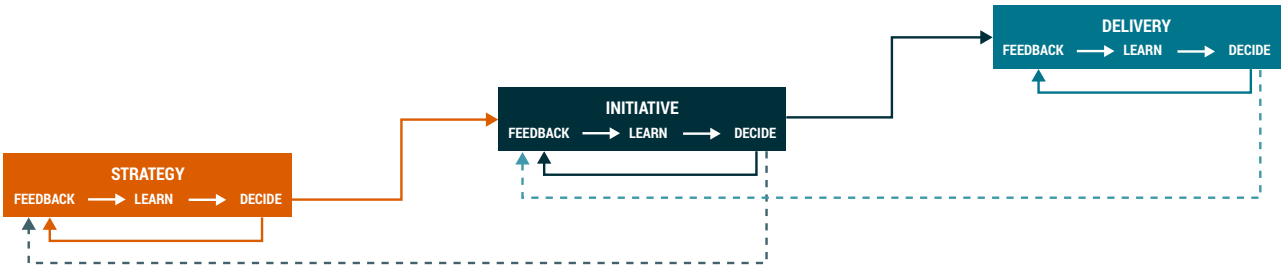
Although Product Owners are not likely to have decision-making authority to address cross-functional processes, they can often influence organizational leaders. Changing organizational processes and integrating work across different functional units can be painstaking and time-consuming work. However, the payoff can be a dramatic improvement in organizational efficiency and effectiveness. In fact, integrating product management, product marketing and Product Ownership practices is a critical ingredient in launching and managing successful products. Product Owners can help influence these discussions and provide real-world insights to add realism to the discussions and the solutions.

.2 Align Products to Strategy

Product value creation needs to align with customer needs and organizational goals and objectives. An organization can align product build outcomes with organizational strategy by applying concepts described in the "Agile Extension to the BABOK Guide". Where strategic alignment is critical, a company should consider aligning with the three horizons:

- Strategy horizon
- Initiative horizon
- Delivery horizon

Each horizon describes time periods for decision making and feedback learning loops to synchronize activities and effectively link actions.



To ensure products are strategically aligned, Product Owners and other individuals must understand:

- Strategic objectives
- Initiatives
- The team's work
- The importance of feedback

Strategic Objectives

A Product Owner should strive to understand the organization's business strategy, which is formulated to give an organization a path to achieve its mission and vision and drives the rationale for the initiative. The business strategy is directly aligned with the organization's mission and vision. Identified initiatives have focused outcomes that an organization wants. These outcomes enable a company to collectively realize its desired vision.

There are specific questions that need to be answered at the Strategy Horizon stage which lead to starting initiatives. Feedback is used to help decide whether initiatives continue or are cancelled.

The Strategy Horizon

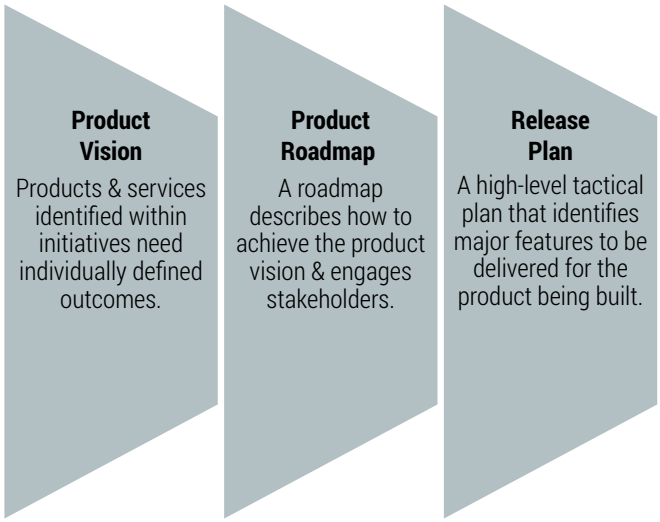
Questions to Ask	***Decisions***
• Is a business need worth satisfying? • Should an initiative be created? • Should an existing initiative be changed or cancelled?	• Impact entire organization. • Need to allocate resources. • Identify products, services, and initiatives. • Look out three months to multiple years.

Deliverables

The first set of deliverables needed for product build activities are:

- Product vision
- Product roadmap
- Release plan

These can be used to align the Initiative Horizon with the Strategy Horizon. The decision-making that needs to occur at the initiative level are:

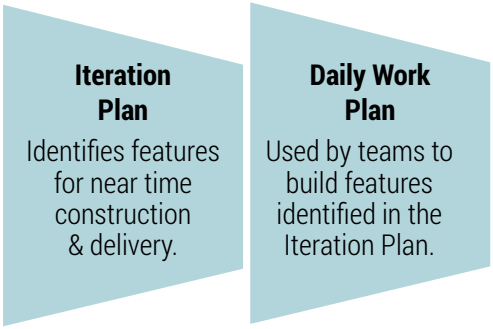


The Initiative Horizon

Questions to ask	***Decisions***
• What features should be delivered and in what order? • Should the existing initiative be continued, changed, or cancelled?	• Impact goal, initiative, or team. • Focus on how to create value. • Impact work products across initiatives. • Look out one to three months.

Align with the Team's Work

Two product management artifacts that are aligned with work at the Delivery Horizon and used to guide build activities, are the iteration plan and the daily work plan. The decisions that need to be considered at the Delivery Horizon level are:

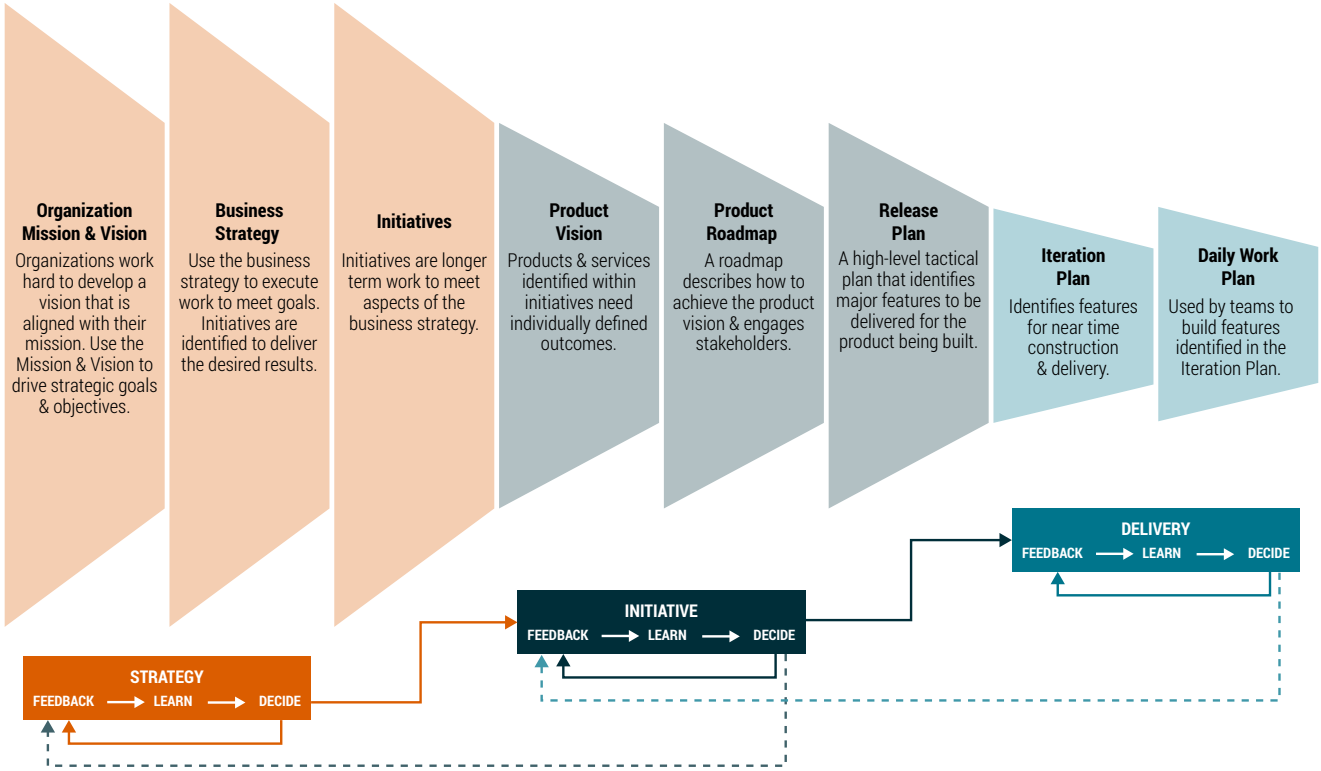


The Delivery Horizon

Questions to ask	Decisions
• What aspects of the features should be worked on, and in what order? • Is there enough to deliver?	• Focus on the delivery related work. • Prioritize value being created. • Strive to deliver value constantly. • Look out one to four weeks.

Putting it all Together

Putting everything together and incorporating the essential feedback-learning loops provides a blueprint for aligning the product being built to the organization's strategic goals and objectives. The feedback-learning loops across the Horizons give the organization the ability to ensure the evolving product builds are aligned with:



How POA Helps Align Across Planning Horizons

The POA Practitioner plays an active role in ensuring work across strategy, initiative, and delivery horizons remains aligned. Product Ownership analysis connects the work of the delivery team to the business strategy, providing the team with a sense of purpose, as well as awareness of their contribution in achieving strategic business goals. Sharing information across feedback loops allows better decision-making to:

- Understand the organizational strategy.
- Encourage organizational leaders to discuss and align, from strategy to initiatives, the work that teams do.
- Be aware of all initiatives and how they may be related.
- Secure funding for changes where they align with strategic objectives.
- Understand how the product being built is an important component of the initiative.
- Understand the value of feedback loops.
- Use feedback at the product build level as critical information for those managing work at an initiative level.
- Drive the discussion and ask for information from those managing work at the initiative level.
- Be responsive to changes and adapt the build activities.

POA Techniques for Planning Horizons

Agile Extension Techniques

- ***Kano Analysis***: Reviewed to understand why specific initiatives were defined in the way they were.
- ***Portfolio Kanban***: Provide real-time visibility to the initiatives across the organization.
- ***Purpose Alignment Model***: Understand the overall focus and priority of initiatives across the organization.
- ***Value Stream Mapping***: Understand the creation of value across the customer experience for the initiative.

BABOK® Guide Techniques

- ***Business Cases***: Describe initiatives that are underway.
- ***Metrics and Key Performance Indicators (KPIs)***: Communicate priorities and measure delivery across the organization.
- ***SWOT Analysis***: Understand the context in prioritizing initiatives.

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Case Study: Transitioning to Agile & Managing Change Processes - Cell Phone Manufacturer

Background

ABC Corp typically uses a standard business case to assess ideas for new products or services that are identified by senior managers. Although ideas can be generated at any time, the management team meets once a year at budget time to select the most promising ideas. Those that are most likely to help ABC Corp meet its strategic objectives for the coming year are selected. Resources are committed to finalizing the details of the business case, and those that demonstrate a strong financial outcome are selected for further work.

ABC Corp slowly transitioned to using agile practices. The organization used a hybrid set of practices, some of which were agile and others that used a traditional plan-driven approach.

1. Business case was selected
2. Project manager was appointed
3. Project team was assembled
4. Progress was reported against the project plan
5. Specific metrics (time, cost and scope based) were reported monthly
6. The project to build the product was completed
7. The marketing team was engaged to launch the new product

ABC Corp was going into the annual budget cycle and many employees felt it was time to do things differently.

Challenges

Although there was some effort to select work that addressed strategic objectives, once underway, little was done to maintain alignment. Given the dynamic nature of the cell phone industry, as well as the intense competition, some products brought to market were obsolete soon after launch. In other instances, a product was built and ready to launch, but when senior management decided it no longer met the organization's strategic needs, it was not launched. In addition, several initiatives were undertaken as a result of a particularly passionate leader, even if it did not align with other organizational initiatives.

Case Study: Transitioning to Agile & Managing Change Processes - Cell Phone Manufacturer

Actions

The team responsible for adopting agile practices at ABC Corp was very vocal about changing well-entrenched traditional management practices. They had success with three separate delivery teams over a 12-month time period.

- One team completed their product build in half the projected time.
- The second team was able to:
    - Demonstrate that the planned product was not aligned with customer needs,
    - Cancel the initiative three months into the work, and
    - Save ABC Corp close to $1 Million.
- The third team was able to:
    - React to the entry of a new competitor,
    - Raise the issue with management, and
    - Adapt the planned build activities to deliver a better product.

Using these wins, ABC Corp needed to seriously think about what it could do to:

- achieve greater alignment,
- improve productivity, and
- increase the chances of success.

Outcomes

The agile team recommended implementing the three initiatives along with the recommended feedback loops horizons. The team:

- Met with the senior management team to discuss this implementation.
- Demonstrated the benefits of the approach they proposed based on the tangible results achieved with three initiatives.
- Provided research on other organizations that had adopted similar approaches and the realized benefits.

The management team agreed to implement the three Horizons approach and pilot the process through one year.

The senior management team agreed to monthly meetings to assess feedback at the initiative level and the strategy level. The agile team was confident that the process would become the standard at ABC Corp.

Case Study: Transitioning to Agile & Managing Change Processes - Cell Phone Manufacturer

Lessons Learned

Changes in strategy development, strategic management, or annual budgeting processes are difficult to achieve. Management desires predictability and it is challenging to see how an adaptive process can provide the level of confidence needed.This explains why:

- Third-party research is important.
- Evidence of what similar organizations are doing is powerful.
- Demonstrating the results of in-house practices carries weight and can help sway opinions.

Product Owners should look for small wins in their organization using new practices that can demonstrate tangible evidence of improved performance. They can build on these with small improvements, which add to prior improvements and move the organization forward. Product Owners can help influence these discussions and provide real-world insights to the discussions and the solutions.

.3 Align Artefacts

Several artefacts are produced to support product development and product growth strategies. Some of these are driven by POA related work, and some are created by other functional units in the organization and used by POA Practitioners. These artefacts include describing strategic consideration and identifying the tactical execution that supports realization of the overall strategy. The key is to only create artefacts when they're needed, and to a level of detail that meets the purpose. Common understanding and shared understanding are more important than comprehensive documentation.

Here is an example of how high-value artefacts could be used to support organizational alignment:

How POA Helps Align Artefacts

The POA Practitioner can work to identify artefacts to describe the product being built with other functional areas, e.g.:

- Finance,
- Product management, and

- Product marketing.

Describing how the artefacts will be used, and why they are important, can influence leaders to adopt them.

Good POA is required as input into the creation and use of artefacts:

Artefact	***Description***	***POA Practitioner's Responsibility***
Product Vision	• Describes the future state of the product and the benefits it will deliver to customers. • It is used to communicate the product goals and objectives, and it provides focus for the team.	• Typically created by a Product Manager or the product management function. • Collaboration with the product team: moderated by the POA Practitioner, is recommended, particularly when identifying product goals and objectives.
Product-Market Fit	• Describes how a product satisfies the needs of its target customers. • Gets updated as the Product Owner learns from customer feedback.	The POA Practitioner should drive this work and collaborate with: • A Product Manager, or • The product management function, • A Product Marketing Expert, or • The product marketing function.
Value Proposition	• Identifies the value created and delivered for key stakeholders. • Requires the Product Owner to have intimate knowledge of customers. • Understands how the product will address customers' pain points or help them capitalize on opportunities.	The POA Practitioner should drive this work and collaborate with: • Product Manager, or • The product management function, • A Product Marketing Expert, or • The product marketing function.

Artefact	*Description*	*POA Practitioner's Responsibility*

Business Model Canvas	• Describes how an enterprise creates, delivers, and captures value for and from its customers.
	• It serves as a blueprint for:
	  • Implementing the product strategy, and
	  • Describing the financial feasibility of the product being built.
		The POA Practitioner should drive this work and collaborate with a Product Manager or the product management function, if it exists.

Product Roadmap	Describes how the product will achieve the vision. The product roadmap: • Gives the product a strategic context, • Helps rally the organization, and • Excites customers about the product's direction.	• Typically created by a Product Manager or the product management function. • The POA Practitioners manage how the product value is incrementally delivered • The roadmap requires sound analysis inputs.

Artefact	*Description*	*POA Practitioner's Responsibility*
Release Plan	Identifies product features planned for delivery over a specific time. It provides information that: • Is aligned with the product roadmap, • Lists the number of planned releases, and • Is about the features that will be delivered in each release.	The POA Practitioner should drive this work and collaborate with a Product Manager or the product management function, if it exists.
Iteration plan	Identifies the product features that will be created and delivered in the next product increment. • Although the team has responsibility for the release plan, the Product Owner must be available to provide business information, as needed by the team. This becomes the basis for the team's daily work plan.	The team owns the iteration plan and decides what to include. The POA Practitioner: • helps ensure the product backlog is refined, • Attends the iteration planning event to provide guidance and information to the team.

Effective POA requires an individual to:

- Identifying artefacts to describe the product being built by working with other functional areas, including
    - Finance,
    - Product management,
    - Product marketing, and
    - Product Ownership.
- Ensure artefacts cover the entire product lifecycle.
- Agree on where each artefact aligns with the product lifecycle.
- Develop a Roles and Permissions Matrix, (e.g., a RACI) to identify responsibilities for artefacts.
- Determine how a Product Owner will use each artefact to communicate and engage key stakeholders during product build activities.

POA Techniques to Align Artefacts

Agile Extension Techniques

- ***Planning Workshop***: Identify artefacts to support the product lifecycle.
- ***Value Stream Mapping***: Understand the creation of value across the customer experience and how the artefacts align with value creation processes.
- ***Visioning***: Understand decision options for integrating the artefacts with the product lifecycle.

BABOK® Guide Techniques

- ***Benchmarking and Market Analysis***: Understand the artefacts for effective product lifecycle management.
- ***Business Capability Analysis***: Understand what an organization can do and how key artefacts support that capability.
- ***Decision Analysis***: Assess options for integrating artefacts into the organization's product lifecycle management processes.
- ***Interviews***: Elicit information, share data, or build support for the use of artefacts integrated into the organization's product lifecycle management processes.
- ***Organizational Modelling***: Identify roles, responsibilities, and reporting structures within an organization for each of the artefacts.
- ***Process Analysis***: Assess how well artefacts align with the organization's product lifecycle management processes.
- ***Process Modelling***: Provide a standardized graphic model to describe how artefacts align with the organization's product lifecycle processes.
- ***Roles and Permissions Matrix***: Ensure coverage of artefacts across the product lifecycle by
    - Denoting responsibility,
    - Identifying roles, or
    - Communicating planned changes.
- ***Stakeholder List, Map, or Personas***: Identify individuals who need to be involved in decision-making for the use of the artefacts.

Case Study: Maintaining Strategic Alignment with Artefacts - Cell Phone Manufacturer

Background

ABC Corp saw the benefits of two changes:

- Implementing a product lifecycle approach, and
- Having monthly planning meetings to assess feedback from inflight initiatives.

Challenge

The management team noticed that some of the detailed work being completed by delivery teams seemed disconnected from the organizational strategy.

Actions

Workshops were held with a cross-functional team that included the Product Manager and the two Product Owners.

A BA Professional facilitated additional sessions to identify root causes of misalignment and recommend what could be done to improve the situation.

Outcomes

The root cause analysis demonstrated that even where there was initial alignment with strategic objectives, little attention was paid to ongoing alignment as the work progressed.

The cross-functional team brainstormed potential solutions to address the misalignment.

After several weeks of work, the team recommended critical artefacts be produced at key points of the work.

- Each artefact was defined, along with guidelines for creating and using them.
- Each artefact had a clear purpose, and each was linked to previously created artefacts.
- As a collection of artefacts, they demonstrated a clear link from strategy to the work being completed.

Case Study: Maintaining Strategic Alignment with Artefacts - Cell Phone Manufacturer

Lessons Learned

Having a clearly defined process for product lifecycle management is a good start but often is not enough. Many organizations find that teams are busy and often get entrenched in the details of product development activities. The "big picture" gets lost. This can be problematic in fast-moving, dynamic environments.

The discipline provided by standard artefacts, how to create and use them, can help teams maintain the link to strategy throughout the product lifecycle.

Product Owners can help influence these discussions, provide insights, and identify the most important artefacts.

5.1.2 Set Up the Team for Success

A team that confidently embraces the challenge of creating the next successful product has:

- Effective communication and collaboration,
- Use of analysis techniques, and
- Expanded Product Ownership role.

Organizational policies addressing these help ensure teams are well-equipped for success.

Every organization wants high performing teams. POA Practitioners can help support high performing teams by:

- Structuring the work effectively from day one,
- Promoting and supporting the use of effective analysis practices, and
- Embracing the multi-faceted aspects of their responsibilities.

Effectively structure the work

Every product, team, and organization has a different context. It is critical to consider context when modifying the approach. Several factors need to be considered to help individuals customize their interactions as POA Practitioners. Decisions made early in establishing team norms pay dividends in team communication and collaboration. The Product Owner does not own these processes but sets the example and tone for them.

Promote and support the use of analysis practices

Good analysis is a crucial part of a POA Practitioner's work. Business analysis is the practice of enabling change in an enterprise by defining needs and recommending solutions that deliver value to stakeholders. Its principles and practices are powerful when applied to product development in which the customer is the key stakeholder. Combined with the application of the seven principles of agile business analysis is a recipe for success.

When conducting analysis, Product Owners face challenges:

- Shorter deliverable time frames,
- Time and resource constraints, and
- Lack of business analysis experience.

Regardless of the challenges, understanding the benefits of business analysis, and applying basic principles will help Product Owners be successful.

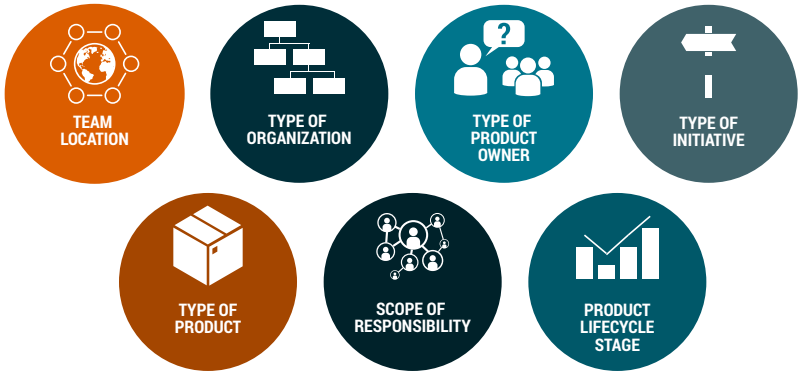
Embrace their multi-faceted role

Effective Product Ownership addresses tactical and strategic aspects of product development work. While providing daily guidance to the delivery team, the Product Owner also ensures that value being created by the team remains aligned with:

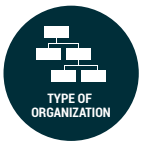
- Customer needs,
- Organizational goals,
- Industry changes, and
- The dynamic marketplace.

.1 Structure the Work

Given the complexity and urgency for creating products that resonate with customers, it is important to set up the team for success. Product Owners face a variety of circumstances that are organization-specific and may differ from one product build or delivery team to the next. Factors that influence working relationships and impact a team's ability to become a high performing team include:



- ***Team Location:*** A co-located team is easier to work with, but many teams are distributed or virtual. Communication becomes more complex, making sharing pertinent information challenging across time zones. The POA Practitioner needs to understand this context and make themselves available to the team.



- ***Type of Organization***:
  - Corporations,
  - Non-profit corporations,
  - Government ministries, and
  - Government agencies, etc.

Organizations can also be described by their structure:

- functional,
- divisional,
- matrix, and
- network, etc.

Complicating matters, different types of organizations may partner to bring a shared product to market. Each scenario comes with challenges for the Product Owner, often stemming from organization culture associated with different types of organizations.

- ***Type of Product Owner Role***: Different types of products require a Product Owner or POA Practitioner with different skills and experience. However, sometimes the ideal skills may not be available. It is important that POA Practitioners acquire the support they need to successfully support the team.

- ***Type of Initiative***:
  - New product development,
  - Upgrade to the existing product, and
  - Implement a new product.

  Product Owners may need to modify their approach based on the type of initiative the team is asked to deliver.

- ***Type of Product***: Regardless of how an organization defines a product, it is important to understand that the type of product being created may determine what kind of Product Owner is needed.
  - Example: If the team is delivering enhancements to a proprietary app for drop shipping and needs the app to integrate with a Payments platform like Stripe, engaging a practitioner that has experience with these technologies, as well as knowledge of payment gateways, would be ideal.

- ***Product Lifecycle Stage***: Recognizing where a product is in the product lifecycle is an important consideration for the Product Owner. A practitioner may be ideal for helping a delivery team create a new product, but may not be a good choice to revive a previously successful product.

- ***Scope of Responsibility***: The delivery team needs time and energy from their Product Owner to deliver. In many cases, it is impossible to get dedicated effort from a busy Product Owner who may be juggling numerous priorities, including other product deliveries and organizational commitments. The Product Owner's primary responsibility is to maximize the value being created by the team. That is impossible without focused

effort. A Product Owner should not be responsible for more than two initiatives at a time.

These factors impact the working relationship between the Product Owner and the rest of the team, as well as how work is executed.

.2 How POA Helps Set Up the Team for Success

Setting the team up for success requires customizing communication and collaboration strategies to effectively support the team. Having the right people in the team is key.

POA Practitioners should ask themselves if they are right for the job. If they aren' t, they should recommend someone else or identify what is needed for POA-related work. Product Owners must get the support they need. They need to develop communication and collaboration strategies to manage interactions with the team.

POA Techniques to Set Up the Team for Success

Agile Extension Techniques

- ***Planning Workshop***: Create a shared understanding of:
  - The approach to product creation,
  - Best structure for the work, and
  - Setup the team for success.

BABOK ®Guide Techniques

- ***Decision Analysis***: Assess the context, the challenges, and potential decisions to help make sound decisions.
- ***Interviews***: Elicit information about the initiative to help determine the ideal Product Owner or help the Product Owner create communication and collaboration strategies.
- ***Risk Analysis and Management***: Assess the context for the work to be done and make decisions on how to best support the team as a Product Owner.

Case Study: Identifying When Need is Needed- Cell Phone Manufacturer

Background

Natalia was one of two Product Owners at ABC Corp, a mid-sized cell phone manufacturing company. As a small organization, both pProduct Owners typically had three product build initiatives. One of the teams Natalia supported completed delivery, which reduced her workload to two initiatives.

Cell phone manufacturers generally release new phones or upgrades in the fall to January timeframe, in order to coincide with major consumer electronics trade shows. A competitor announced the release of an upgraded cell phone three months prior to the typical new release timeframe.

ABC Corp management decided to respond quickly, and Natalia met with her manager to discuss a new opportunity.

Challenge

At the meeting, Natalia's manager informed her that a team had been assembled to add the new features introduced by the competitor into an existing ABC Corp manufactured cell phone. The upgraded phone needed to be ready in three months to be unveiled at the fall trade shows. Natalia was concerned about the new commitment added to a busy workload. She asked for time to think about how to best address the challenge and scheduled a follow-up meeting.

Outcome

Natalia knew she could not say "No, I cannot do it." She took pride in her craft and always found a way to produce results. She assessed what it would take for her to support the team and help achieve the desired outcomes.

She met with key people that she thought could provide information about the new initiative. Natalia spoke with two individuals who shared information about the competitors' upgraded phone. She also spoke with the ABC Corp manager for the cell phone that they were upgrading. During those discussions, Natalia considered:

- The cell phone to be upgraded,
- Technical challenges of upgrading it,
- Size of the team,
- Experience of the team, and
- Location of the team.

Case Study: Identifying When Need is Needed- Cell Phone Manufacturer

Natalia formulated a strategy to support the work as the Product Owner. She concluded that it would be a challenge to find the time to be an effective Product Owner while working on two other initiatives. Natalia decided that engaging a BA Professional as a Proxy Product Owner was the best strategy. She identified Raphael as the Proxy Product Owner since she knew he could perform the detailed work, such as backlog management. Raphael was a respected BA Professional with the underlying competencies and professional maturity to represent her as the Product Owner when she was not available.

Natalia met with her manager the next day and described what she needed to effectively support the new initiative as the Product Owner. Her manager congratulated Natalia on finding a way forward and agreed to make Raphael available.

Lessons Learned

Smaller organizations often have more work to do than people to do it, and new, urgent work routinely disrupts ongoing work. The challenge is to find a way to address these urgent challenges while minimizing any negative impact to ongoing work. For Product Owners in this situation, partnering with a Proxy Product Owner can be a powerful strategy. When a BA Professional is partnered with a Product Owner to support the POA-related work, success rates increase. The Product Owner partnering with a Proxy Product Owner can be a very powerful strategy, particularly when the Product Owner is constrained by other time commitments.

.3 Drive Success Through Analysis

Good analysis is a crucial part of a Product Owner's work.

Business analysis is the practice of enabling change in an enterprise by defining needs and recommending solutions that deliver value to stakeholders.

—

(A Guide to the Business Analysis Body of Knowledge®).

Its principles and practices are powerful when applied to product development where the customer is the key stakeholder. Combining that with the seven principles of agile business analysis results in a recipe for success.

Effective analysis ensures a delivery team creates high-value products for their customers, and organizations deliver measurable value. It helps:

- Launch products that meet customer expectations,
- Improve competitive positioning, and
- Drive organizational success.

Product Owners face many challenges when conducting analysis:

- Shorter deliverable time frames,
- Time and resource constraints, and
- Lack of business analysis experience.

Regardless of the challenges, understanding the benefits of business analysis, and applying basic principles will help Product Owners be successful.

How POA Helps Create Customer Focused Products

Creating Products Customers Care About

Delivering high-value products requires the Product Owner to maintain focus and direct the team's attention.

Objective	*Rationale*

Intimately understand customers	• Identify opportunities to delight customers:
	  • Understand customer problems,
	  • Their challenges, and
	  • Their aspirations.
	• Clarify the most important customer needs that the product needs to satisfy.

Engage key stakeholders	• POA is a team sport. It takes more than the delivery team to deliver a successful product.

Objective	*Rationale*

Define product value	• Understand how:
	  • The customer perceives value, and
	  • How to best deliver that value.
	• Ensure organizational goals and objectives are met.

Co-Create for maximum impact	• Engage customers and stakeholders during product build to ensure ongoing alignment as the product design emerges and the product evolves.
Let the product emerge	• Realize the importance of ongoing touchpoints with customers to maximize opportunities to learn what customers really need.
Maximize product value	• Focus on maximizing value while minimizing the work. A constant focus on value creation allows the team to avoid waste while building the highest value features.

POA Techniques to Create Customer Focused Products

Agile Extension Techniques

Any technique in the Agile Extension can be used based on context and the desired outcomes want, including:

- Backlog refinement
- Behaviour driven development
- Impact mapping
- Job stories
- Kano analysis
- Minimal viable product
- Personas
- Planning workshops
- Portfolio Kanban
- Product roadmap
- Purpose alignment model
- Real options
- Relative estimation
- Retrospectives
- Reviews
- Spikes
- Storyboarding
- Story decomposition
- Story elaboration
- Story mapping
- User stories
- Value modelling
- Value stream mapping
- Visioning

BABOK® Guide Techniques

Any technique in the BABOK Guide can be used based on context and the outcomes including:

- Acceptance and evaluation criteria
- Backlog management
- Balanced scorecard
- Benchmarking and market analysis
- Brainstorming
- Business capability analysis
- Business Cases
- Business model canvas
- Business rules analysis
- Collaborative games
- Concept modelling
- Data dictionary
- Data flow diagrams
- Data mining
- Data modelling
- Decision analysis
- Decision modelling
- Document analysis
- Estimation
- Financial analysis
- Focus groups
- Functional decomposition
- Glossary
- Interface analysis
- Interviews
- Item tracking
- Lessons learned
- Metrics and key performance indicators (KPIs)
- Mind mapping
- Non-functional requirements analysis
- Observation
- Organizational modelling
- Prioritization
- Process analysis
- Process modelling
- Prototyping
- Reviews
- Risk analysis and management
- Roles and permission matrix
- Root cause analysis
- Scope modelling
- Sequence diagrams
- Stakeholder list, map, or personas
- State modelling
- Survey or Questionnaire
- SWOT analysis
- Use cases and scenarios
- User stories
- Vendor assessment
- Workshops

Case Study: Using Customer Feedback - Cell Phone Manufacturer

Background

Natalia was the Product Owner for a team upgrading an existing cell phone to incorporate features that a competitor recently released in a new phone. This competitive product launch was a surprise. ABC Corp wanted to react quickly by offering their own competing product.

Challenge

The team started the work and realized that simply including the same features as the competing phone would not be enough. First to market is a competitive advantage in the cell phone business. The upgraded cell phone needed to provide additional features to have a chance of winning over customers. Which features should be included was an important decision, one that the team struggled with.

Natalia, the Product Owner, met with Raphael, an experienced BA Professional, to discuss how best to proceed.

Natalia highlighted the main points as:

- Customers need to be engaged in the process to create excitement for the new offering,
- The team needed to maximize the value delivered, given the short timeline, and
- The organizational goals for the cell phone could only be achieved if customers were passionate about the new phone.

Action

Raphael recognized that Natalia was talking about POA objectives and recommended business analysis techniques that could be used to meet those objectives. He explained how the BACCM Model helps the team focus on the fundamental concepts of designing a solution for the stakeholder (i.e., the cell phone customer), which can only be done by intimately understanding needs. He emphasized addressing the most important needs, which can only be achieved by understanding context and then enabling change to encourage customers to purchase the new phone.

Raphael recommended:

- That team build the cell phone in small increments, and each increment be reviewed with a small number of potential customers to elicit feedback.
- That the feedback should inform decision-making about which features to incorporate into the next increment.
- That customer feedback questions should be scripted to elicit the most important information about underserved needs.

Case Study: Using Customer Feedback - Cell Phone Manufacturer

Outcome

Natalia saw the value of the approach. It would help ensure they were constantly working on features that were most important to customers and not just what they thought would be important.

Natalia implemented the strategy and the team worked quickly to build one set of features after another, all steered by potential customers. A small group of potential customers turned into passionate advocates, and with each subsequent delivery of additional features, that group grew.

Lessons Learned

Applying the principles of agile business analysis, coupled with a toolbox of business analysis techniques, can be powerful in helping a team create desired outcomes effectively and efficiently. Having an experienced BA Professional on the team allows the team to 'right size' the practices and reduce the time it takes to elicit meaningful information.

.4 Expand Product Owner Role

The Product Owner is responsible for maximizing the value of the product being created by the team. Responsibilities of the Product Owner (per *The Scrum Guide™ - ©2020 Ken Schwaber and Jeff Sutherland*) are:

- Developing and explicitly communicating the Product Goal,
- Creating and clearly communicating Product Backlog Items,
- Ordering Product Backlog Items, and
- Ensuring that the Product Backlog is transparent, visible, and understood.

Most agile methods and approaches have adopted these as the primary responsibilities of a Product Owner. However, given the complexity and challenges of creating successful products, it is time to expand the understanding of what an effective Product Owner can do.

Today's Product Owner

If the Product Owner is going to maximize the value being created by the team, the Product Owner's responsibilities need to evolve.

Product Owner	*This Means*
An advocate for customers	• Build deep empathy for customers and understand their struggles, challenges, and opportunities. • Interact with the emerging product as the customer would. • Develop intimate understanding of the customer, to know how the customer would react.
Champion the work of the team	• Be the "face of the product', representing what the team is building, and socializing the emerging product with key stakeholders, particularly customers. • Assess and share feedback with the team.
Constantly envision and design for impact	• Ensure the product being built will delight customers by exceeding their expectations of what they'd reasonably expect. • Ensure that organizational goals and objectives for the product will be met, and balance within the constraints for this work.

Regularly assess the emerging product for alignment with the intended design	• Determine if the evolution of the product will have the intended impact, and if not, decide what needs to change.
	• Ensure that the product:
	  • Maximizes the value delivered,
	  • Aligns with customer most important needs, and
	  • Exceeds organizational objectives.

Product Owner	*This Means*

Embrace the unknown and be willing to learn	• Assess sources of learning including:
	  • The competitive environment,
	  • Government regulations,
	  • Customer expectations,
	  • New technology, and
	  • Predictive and prescriptive modelling, etc.
	• The most critical information about a product will come from customers or potential customers, so learn as much as possible from this constantly changing context.

Develop a sharp focus on value creation	• Understand customers are the true arbitrators of value delivery. • Put what has been built in front of customers (or potential customers). Determine what to build next, identify features to add, or make modifications to what was already built. • The more the Product Owner is able to cycle through this process, the greater the team's chance of building a product that will delight customers while meeting organizational goals and objectives

The expanded role gives rise to the emerging concept that the Product Owner role is a shared responsibility across the product team with many practitioners contributing.

How POA Helps the Product Owner

If the Product Owner is going to truly maximize the value being created by the team in today's much more complex and intensely competitive environment, then the role must expand. The Product Owner must embrace the following responsibilities and become a customer advocate, team vanguard, design partner, product strategist, learning champion, and value driver.

Considering the Product Owner role to be a shared responsibility also gives the opportunity for the entire team to share responsibility for product ownership analysis. When a specific competency is required, any member of the product team can step up to perform the responsibilities.

POA Techniques to Help the Product Owner

Agile Extension Techniques

- ***Planning Workshop***: Discuss the future of POA and the expanded responsibilities.
- ***Value Stream Mapping***: Understand how the expanded responsibilities for POA help create greater value across the entire customer experience.
- ***Visioning***: Understand how the expanded responsibilities for POA integrate with existing roles within the product lifecycle.

BABOK® Guide Techniques

- ***Benchmarking and Market Analysis***: Understand how other successful organizations define and use the Product Owner role.
- ***Business Capability Analysis***: Understand what organizational capabilities can be modified to integrate the expanded POA responsibilities.
- ***Decision Analysis***: Assess options for integrating the expanded POA responsibilities into the organization's product lifecycle management processes.
- ***Interviews***: Share information about how the expanded POA responsibilities can be integrated into the organization's product lifecycle processes.
- ***Organizational Modelling***: Identify how the expanded POA responsibilities can be integrated into reporting structures.
- ***Roles and Permissions Matrix***: Ensure coverage of activities across the product lifecycle by denoting responsibility, identifying roles, or communicating planned changes.
- ***Stakeholder List, Map, or Personas***: Identify individuals who need to be involved in decision making around changes to roles and responsibilities.

Case Study: Identifying What A Product Owner Can Do - Cell Phone Manufacturer

Background

It was performance review time. Natalia realized that despite ABC Corp having adopted agile practices, some of the traditional practices were still in place. She reflected on her experience over the last year. Prior to joining ABC Corp, she was a Product Owner in an IT department where the teams she worked with developed software applications for internal use. Although she enjoyed that work, she realized that her skills were getting stale and a change was needed. Natalia realized she had adapted quickly to a more dynamic environment. She felt the new aspect of her job was the need to pay more attention to customers and their needs.

Natalia thought about the changes she had witnessed over the last two years at ABC Corp. She reflected on several significant improvements:

- Adopting a product life cycle approach,
- Integrating practices for better alignment,
- Aligning the work done by delivery teams to organizational strategy,
- Using standard artefacts,
- Structuring teams for success, and
- Incorporating effective analysis techniques.

None of the changes were easy but they helped increase the quality of the results across ABC Corp.

Challenge

Natalia realized that was a lot of change in a relatively short time. However, the success rate for new cell phone launches was still lower than what it needed to be. Only a small portion of ABC Corp's investment in products, new ones, and upgrades, was paying off. How much longer could ABC Corp survive before the next breakthrough product was produced?

Natalia questioned, "As a Product Owner and someone who can strongly influence what a product looks like at launch, as well as its ultimate success, am I doing enough?"

Action

After the work Natalia and Ivan, the Product Manager, did to promote the use of a standard product lifecycle approach, they had continued to meet monthly. They developed an "emotional support team" and confided in each other. Their recent discussions had focused on what a Product Owner could do to increase the chances of creating a successful product.

Their research led to an expanded view of POA which Natalia agreed to ‘test drive’ on her very next initiative.

Case Study: Identifying What A Product Owner Can Do - Cell Phone Manufacturer

Outcomes

Partway through that initiative, Natalia found that:

- ***Advocating for customers*** forced her to feel their pain, their challenges, and their aspirations. This emotional connection gave the team a more intimate understanding of customer needs.
- ***Championing the team's work*** allowed her to engage key stakeholders and the team for greater support for the work they were doing.
- ***Designing for impact*** forced the team to connect with customers' emotional needs when working through product design elements.
- ***Delivering smaller product increments*** allowed the team to be more thoughtful about what to create, with the goal of building something small that could be placed in front of a customer for feedback.
- ***Encouraging everyone to constantly learn*** about anything that could impact the product being built allowed the team to make more effective decisions about what to build next.
- ***Having a laser-like focus*** on creating value forced the team to routinely ask: "Are we creating the highest value feature we can deliver for our customers right now?"

Natalia concluded that collectively, these practices allowed her to effectively contribute as a Product Owner, and helped the team:

- Build a higher value product,
- Aligned with what customers needed, and
- Build faster.

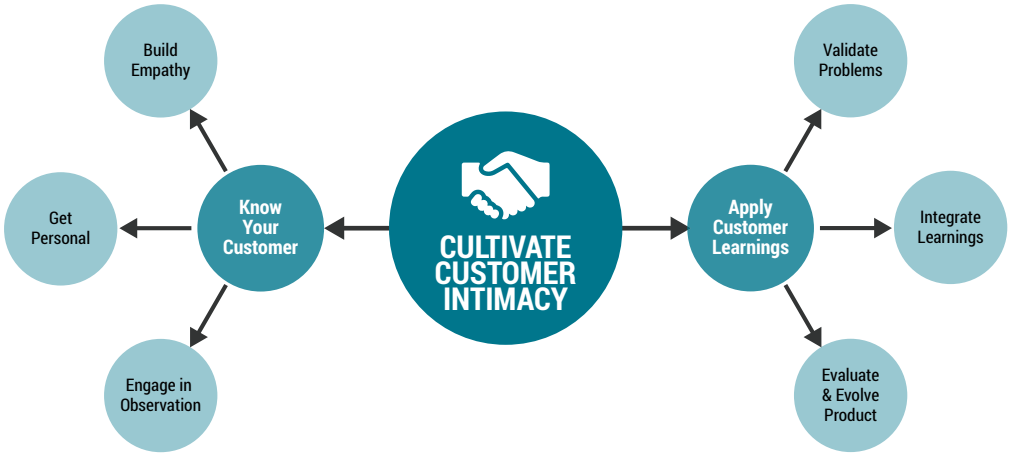
Lessons Learned

The need to create products that stand out and capture attention has increased with the confluence of:

- An intensely competitive environment,
- Greater customer expectations, and
- Innovative new technology.

Product Owners can significantly influence the products that are launched. Using the POA framework, and the expanded view of the Product Owner role provides you with the ability to create their next breakthrough product.

5.2 Cultivate Customer Intimacy



Customer Intimacy centres on knowing people. Cultivating it takes deep attention to identify what customers' value, dedication, and passion.

"Some people say, 'Give the customers what they want.' But that's not my approach. Our job is to figure out what they're going to want before they do. I think Henry Ford once said, 'If I'd asked customers what they wanted, they would have told me, a faster horse!'. People don't know what they want until you show it to them. That's why I never rely solely on market research. Our task is to read things that are not yet on the page." - Steve Jobs

Steve Jobs set an example of cultivating customer intimacy by producing products through his depth of understanding people and showing them what they needed before they realized it themselves.

As the customer advocate to the team, the Product Owner or POA Practitioner needs to maintain a customer-centric view beginning with understanding:

- Customers' needs and wants,
- Customers' place in the market, and
- Customers' present and future view.

The journey to creating benefits for customers begins with getting to know them. Customer intimacy deepens by:

- Building empathy,
- Understanding their concerns,
- Being sensitive to their motivations,
- Identifying with their needs, and
- Clearly defining their problem.

Customer intimacy increases through integration of market knowledge attained through:

- Analytics,
- Domain knowledge,

- Research, and
- Detailed understanding of customer journeys.

Evaluation leads to the emergence of the right focus, enabling innovative design solutions. Solution visualizations can be used to envision their evolving needs.

Cultivating customer intimacy is an investment requiring dedicated effort and teamwork. The Product Owner can inspire and motivate the team to do their best work for their customer.

Every organization has its own identity and values. POA Practitioners have the responsibility to champion the customer and nurture a team culture conducive to identifying with the humanness of customers. Successful products rely on cultivating a detailed level of customer intimacy.

The product or service development effort either succeeds or fails through effective product ownership related work. The desired outcomes occur through:

- Drive and passion to know the customer.
- Leadership and guidance to build a culture of customer-centric teamwork.
- Availability and engagement with the customer, stakeholders, and team to make effective decisions and support empirical teamwork.

5.2.1 Know the Customer

Cultivating customer intimacy means understanding customers as real people by:

- Creating a relationship with the customer.
- Maintaining a presence so customers feel they are being heard and valued.
- Maintaining ongoing connection with feedback loops and engaging activities.
- Inspiring customers to contribute to ongoing improvements.

It is not just about knowing things about the customer. It is about a deeper, more personal knowledge of the customer that is constantly refreshed.

.1 Get Personal

Personal and impersonal knowledge is enhanced with awareness and understanding. Awareness is knowledge and understanding that something is happening or something that already exists.

Understanding brings awareness to life through:

- Comprehension,
- Perspective,
- Context, and
- Intrigue.

This deeper understanding, attained through targeted activities and exercises, often shows that customers may have different needs or preferences than originally assumed.

How POA Helps with Customer Understanding

Effective POA requires the team to invest in establishing personal relationships with customers by adopting the following values in their interactions:

- Trust,
- Respect,
- Empathy,
- Appreciation,
- Communication, and
- Commitment.

These values are essential building blocks to create and sustain customer relationships. POA enunciates the need for practitioners to consciously think about these values to ensure product success.

Building strong relationships makes the difference in the quality of the customer insights that surface throughout the product lifecycle. The success of a product, or even a company, depends on these important relationships.

POA Techniques for Customer Understanding

Agile Extension Techniques

- ***Persona***: Identify deeper motivations, attitudes, and insights into customers and other stakeholders.

BABOK® Guide Techniques

- ***Interviews***: Interact with specific stakeholders to gain more information or knowledge about stakeholder groups.
- ***Mind Mapping***: Identify potential stakeholders and help understand the relationships between them and how they can influence product decisions.
- ***Stakeholder List or Map***: Depict the relationship of stakeholders to the product and to one another.
- ***Survey or Questionnaire***: Understand groups of customers by collecting opinions or feedback about specific topics.
- ***Organizational Modelling***: Determine if the organizational units, or people listed, have any unique needs and interests that should be considered for the product roadmap.

Other Techniques

- ***Customer Journey Map***: Understand the pain points and points of delight as the customer interacts with the product.

- ***Customer Grouping***: Derive commonalities between customers to establish archetypes and their common needs and wants. Those needs should be addressed through the product.
- ***Value Stream Mapping***: Understand the delivery of value to customers and depict how it could potentially be improved based on an intimate understanding of customer needs.

Case Study: Customer Experience - Shoe Retailer

Background

Jen was a Product Owner at a shoe company very successful with online sales. They considered developing their own shoe brand. Given the popularity of mud running, and statistics from their sales experience, they were interested in starting with Trail Running shoes.

Challenge

Given the large number of customers, it was difficult for Jen to analyze the customer needs for the new shoe line. Jen did not know how to discover what the product features should be.

Action - Scenario

Although it is not feasible to interview all customers, it is beneficial to make personal connections with some of them.

Jen asked Peyton, a shoe customer, questions based on responses to prior questions.

Jen:
I really like those shoes you have on.
Why did you choose that pair?

Peyton (Customer):
I don't know. I just liked them.

Jen:
So you prefer green shoes?

Peyton:
No, not really. I usually buy blue.

Jen:
Why did you get the green ones?

Peyton:
I like the style of these.

Jen:
What is special about the style?

Peyton:
They look cool and have the stuff I like.

Jen:
What kind of stuff do you like your shoes to have?

Peyton:
I like good arch support for rolling, good toe support for launch and good heal support for landing.

Jen:
Are there other shoes that have similar features?

Peyton:
Yes, lots of them.

Jen:
Did you try on others?

Peyton:
Yes, a few.

Jen:
Why did you choose this pair compared to others with similar features?

Peyton:
They felt unbelievable when I put them on.
Light and flexible.

Jen:
What else did you feel when you put them on?

Peyton:
Inspired. I just wanted to get out to the trail and run.

Case Study: Customer Experience - Shoe Retailer

Jen thought about her conversation with Peyton. She learned some key information and was a little surprised by some of his comments.

Outcomes

- Jen created a ***persona*** for Peyton and identified Peyton's "job to be done" as getting shoes that were inspiring and comfortable to run in.
- She recognized assumptions she had made and noted them to ***plan for validation***.
- She built a ***survey*** using the information from Peyton. She wanted to compare the uniqueness of his experience with others. To motivate people to respond to the survey, prizes were offered for a pair of the shoes that Peyton had purchased, and a pair of their choice for the first 50 entries. The survey respondents had to select which pair of shoes they would prefer if they were a winner. If the colour they preferred was not available, they could "request a colour for future consideration".
- Jen wondered if Peyton would have chosen the shoes if he had not tried them on. She noted: "***Create an experience*** to feel the shoes" and stuck it on her board to think about.

Lessons Learned

Trying to formulate an approach to discover product features for a large group of customers can be daunting. In this example, discovering Trail Running shoe features required starting with the customer.

Creating personal connections by conversation (e.g., interview) with some customers can provide guidance for the POA Practitioners.

Some of the POA tools and techniques, such as personas and surveys, can be applied for a deep dive into customer preferences, motivations, and attitudes.

Build Empathy

Empathy is the capacity to understand or feel what another person is experiencing from their frame of reference. Empathy means knowing the language of the customer and the perspective of their world. It can influence the design of a solution so that there is a differentiator for why a customer chooses one product over another. Empathy may redirect the whole product concept. The team may be working with preconceived ideas or biases. The need for empathy has increased as people easily compare products and experiences online.

It is not enough to build a feature and claim success because it was delivered under budget and within schedule. The feature must emotionally connect with customers, and the team must focus on what customers feel and experience.

How POA Helps with Empathy

Teams may think they know what customers want, but that is not enough. Building insight and emotional connection invoke a team's passion to help their customers.

Product ownership analysis helps teams crystalize product ideas and distill understanding of customer experiences through empathy. The team can act based on customer experience findings.

Effective POA helps generate empathy for the customer within the team. Empathy enables the team to make informed decisions throughout the design, development and testing of the product.

Crucial insights to build empathy come from:

- Establishing trust and safety
- Making personal connections, and
- Demonstrating sincere interest.
- Creative and perceptive questioning:
    - Setting aside personal experiences and biases,
    - Building awareness and clarification of assumptions, and
    - Using the "5 Why's" technique to get deeper answers.
- Active Listening
    - Understanding the language of the customer, clarifying the meaning of words that can be understood in different ways.
    - Paying attention to body language (non-verbal communication), questioning if it doesn't fit with words that are spoken.
    - Providing compassionate understanding and responses.

POA Techniques for Empathy

Agile Extension Techniques

- ***Persona***: Understand the customer better, which helps in empathizing with their pain points.

BABOK® Guide Techniques

- ***Interviews***: Interact with specific customers, make it more personal and focus on key issues with customer experience.
- ***Observation***: Passive and active observation helps in gaining a deep understanding of customers so the practitioners can empathize better with the issues and challenges.

Other Techniques

- ***Empathy Maps***: A visual tool to establish a shared understanding of the customer and their experience.
- ***Customer Journey Map***: Understand the pain points, and points of delight, as the customer interacts with the product.

Case Study: Customer Empathy - Shoe Retailer

Background

Jen was a Product Owner at a company that is very successful with online shoe sales. The company shifted its focus to an online shopping portal. The product management team had a program to reach out to customers to improve their online shopping experience.

Challenge

Jen made it a point to keep the personas real and reached out to customers through surveys to understand the shopping experience for shoes. She realized that the survey design was flawed as most questions were general, such as, "How likely is it that you will refer others to our product?" and "Are you happy with the time online cart check-out takes?" These questions provided Jen with a notion about the product but not any concrete desired features.

Actions

Jen tried to keep a personal relationship with customers. She invited some of the regular customers to an experience sharing session. Jen asked one of her customers, Jasmine, to relate her last experience of buying shoes.

> ***Example Customer Experience***
>
> Jasmine related that last time she was looking for a pair of shoes, she was planning to go to a meet-up for the first time. She wanted to make the right first impression while showing her creativity and individualism. Jasmine:
>
> Had the perfect outfit but did not have shoes. She felt frustrated as she searched online.
>
> Wished that she could enter a few descriptive words and be matched to a designer and options.
>
> Saw a dressy Lug boot in camel brown, which she thought was a perfect complement to her artsy professional look.
>
> Realized that the boot looked brown, but the colour was called "olive." She was not sure if the boot would be a drab green.
>
> Wished she could download a picture of her outfit and match it to the picture of the boot to be sure the colors would harmonize.

Case Study: Customer Empathy - Shoe Retailer

Outcome

There are many direct and indirect clues Jen could gather from this conversation and from generating an Empathy Map and Customer Journey Map. The conversation helped Jen understand Jasmine better in the context of the situation and the motivation she had when searching for a pair of shoes.

Lessons Learned

By visualizing Jasmine's experience buying shoes, the Product Owner can identify with her. The insight and emotional connection invoke passion within the Product Owner to help this customer, by building better products (in this instance, the online shopping portal). By sharing these insights with the team, they can be reflected in the product.

Engage in Observation

Observation elicits information through viewing and understanding activities, as well as their context. Observation (BABOK Guide, Observation 10.3) is a basis for:

- Identifying needs and opportunities,
- Understanding a business process,
- Setting performance standards,
- Evaluating solution performance, or
- Supporting training and development.

Engaging in observation requires alertness. It is an opportunity to witness perceptively and know the customer.

Qualitative information from customer interaction with the product in its natural environment is gathered. This is real-world use of the product and enables the ability to track the sequence of activities when interacting with the product. This analysis builds on the knowledge about customer expectations for the product, which can be leveraged for product development.

BABOK Guide v3 identifies two observation approaches:

- ***Active/Noticeable***: The observation is an engagement with the customer, allowing for questions and clarifications while observing an activity.
- ***Passive/Unnoticeable:*** The customer is uninterrupted, allowing observation of a natural flow of events without intervention by the observer. Evaluation and discussion about the observation are done afterwards.

How POA Helps with Observation

Observations collect qualitative information from customer interaction with the product. This information reflects real-world use of the product and tracks the sequence of activities that may have gone unnoticed. Effective

analysis builds on the knowledge about customer expectations for the product which could be leveraged for product development.

Observations continue to grow in popularity due to the value that is gained through the analysis of real-life scenarios. Hackathons, observation labs, and observation tools are expanding the opportunities for teams and companies to gain insights through observing how customers use and experiment with a product. Qualitative data collected from a customer's interactions with a product or prototype can be analyzed to uncover ways to improve product design. Sometimes it is good to find people where they would use the product. Take into consideration research ethics, privacy, and permission for the observation activities.

The opportunity to observe the customer in action provides a heightened awareness to see, hear, and feel the real experience. Observation is not looking over the customer's shoulder. It requires full attention and helps the team gain perspective into the customer process and product performance, and reveals value-add opportunities.

POA Techniques for Observation

Agile Extension Techniques

- ***Persona***: Build a preliminary understanding of customers before engaging in observation and detailed later to reflect any remarkable observation.

BABOK® Guide Techniques

- ***Interviews***: Interact with specific customers. Questions aid in active observations about the customers' environment and the experiences.
- ***Observation***: Passive and active observation helps in gaining a deep understanding of customers in their environment, which can uncover relevant insights.
- ***Process Modelling***: Provide a structure to the observations so they can be recorded as a set of activities, and analyzed later, for better comprehension.

Case Study: Customer Service Observation - Insurance Company

Background

Karin was a single mom with two kids, one an active 11-year-old boy and one an adventurous 9-year-old girl. She juggled her role as a dedicated mom and her work in the Customer Service Call Centre for a national commercial P & C insurance company. She loved her job. She worked with a team of great people, but she really loved helping customers. They called her with their frustrations and concerns (for example, their equipment inspections were near or past due, they needed an appointment, and they did not know what to do to report accurately to the state). She enjoyed solving their problems

An internal process improvement initiative was underway and Jaci was the Proxy Product Owner, in addition to servicing some ongoing projects.

Challenge

Being a single mother, Karin valued spending her personal time with her kids. She wondered if she was productive and if she solved the customer issues.

Action

Jaci spent time with Karin doing ***observation*** for an internal process improvement initiative. Karin greeted Jaci and had a chair for her in her cubicle. She walked with Jaci to get some coffee. Karin initiated the boot-up of her system. It would take 20 to 25 minutes for the multiple applications her customer service work required to get up and running. She created an automated macro to start each application so that she could attend to other things and get her day organized while she waited.

Karin's start time was 8:30 a.m. She had to arrive at 8 a.m. to get the system booted up to be ready to start taking customer calls. For Karin, the additional half hour meant that her kids must be enrolled in pre-school daycare and she must drive them to school. She had originally requested the 8:30 a.m. start time so that she could put them on the bus and then head to work. But that request was before she understood the challenges with booting up the systems. She was grateful to have a job that she enjoyed and gave her purpose.

Jaci spent an hour observing Karin. She watched, listened, drew visuals, and took notes. She was inspired watching Karin navigate various systems to get information for the customer. Jaci focused on Karin even though her mind was racing with possibilities for improvements.

The development team from out-of-state came to the service centre for a visit. Jaci was determined to help them know and feel the experience of this internal customer.

Case Study: Customer Service Observation - Insurance Company

Outcome

Jaci set up a video conference with the development team and the customer service team. The development team demonstrated a boot-up process that opened all the required applications in under five minutes. It generated a daily dashboard report that showed the timings and confirmed each application as "ready". If there were delays in overnight batch processes that impeded any application, an automated email went to the manager and the dashboard reported the discrepancy.

The customer service team was surprised. They had not complained or asked for an improvement. The development team had watched the observation session that Jaci had initiated a few weeks prior with horror. They had no idea that the customer service team was dealing with this challenge. They were determined to help the 45 dedicated customer service team members. The development team worked on this improvement as a side project, with support from their supervisor since it did not cause any project delays.

Jaci and her team calculated:

- Quantifiable process improvement value using the observation inputs andan actual cost saving.
- Qualitative benefits, such as morale improvement, of the customer service team.

Lessons Learned

Observation is a critical technique to discover gaps and issues in customer experience. It can be used to uncover unknown issues. Jaci demonstrated true empathy for the customer service team, and Karin in particular, by engaging in observation and generating empathy with the development team. This resulted in the entire team resolving an issue as a unit.

5.2.2 Apply Customer Learnings

The team:

- Connected with their customers,
- Elicited a lot of information at a personal level, and
- Observed customers in action.

Several ideas and opportunities emerge from these activities. It is tempting to start to chase those ideas and to build something amazing for the customer

that they have come to care about. Effective POA leads the effort to activate insights and to validate ideas and assumptions by focusing the team on:

- What problem needs to be solved,
- What alternatives exist,
- What the market is saying,
- What data analysis will point to,
- What is trending in customer groupings,
- What channels will reach them, and
- What will make the product, service or process stand out in the crowd.

Applying customer learnings enables the team to:

- Clearly state the problem to be solved,
- Validate with analysis, and
- Evaluate the ideas and opportunities to design a solution that adds exceptional value.

Through evaluation, the unique vision and the value proposition emerge.

.1 Validate Problems

Most customers have more than one problem that needs a solution. The team probably can not solve all their problems, so decisions need to be made. Finding the problems to spend time and effort on, that will deliver value to customers, is important.

Without a definition of the problem to be solved, the solution may not deliver the expected outcomes. Articulating the problem(s) for a shared understanding, and clarifying the value proposition to solve the problem, requires asking:

- “Is there a problem worth solving?”
- “Does everyone involved understand the problem?”
- “What alternatives are in place to accommodate the solution?”

Validating the problem leads to better ideas, better designs, and better solutions.

How POA Helps Validate the Problem

Even when the team has seen, heard, and felt the customer's challenges, stating a problem can be difficult. To accurately prioritize the problem, the team must refine the backlog, plan the MVP, and maximize value.

To frame the right problem to solve, POA Practitioners need to carefully analyze the problem using:

- Various problem identification and analysis techniques, and
- The knowledge acquired about the customers.

POA Techniques to Validate the Problem

Agile Extension Techniques

- ***Persona***: Assess the traits and motivations to derive the needs of archetype personas.

BABOK® Guide Techniques

- ***Benchmarking and Market Analysis***: Compare solutions and products in the same context to identify missing aspects.
- R***oot Cause Analysis***: Determine underlying causes that create customer pain points and friction in customer experience.

Other Techniques

- ***Cynefin Framework***: Provide a frame of reference for the problem and potential decisions associated with identifying a solution.
- ***Problem framing***: Assess the problem using techniques such as the 4Ws, which help the team collaboratively reflect, synthesize, and articulate the problem.
- ***Problem Scenarios & Alternatives***: Identify the nuances of the problems and alternate scenarios.

Case Study: Validate Problem - Bank

Background

Dhiren was the founder of a new start-up based out of India. He trusted the ABC bank for all his banking needs. He was a techie who had thought of a great business idea, but found starting up a business presented a lot of regulatory hoops to jump through. One of his pet peeves was the amount of paperwork he needed to complete with the bank as a business owner.

Challenge

Dhiren expressed his dissatisfaction to the relationship manager of ABC bank several times. He held several savings accounts with the bank, but for every new service, he was required to go to the bank to complete an enormous amount of paperwork. For a simple business account opening, he had to spend a lot of time at the bank.

ABC bank's IT team employed Vivek as a Product Owner for its regulatory- and compliance-related products. This feedback bubbled up to Vivek to act on.

ABC bank's IT team employed Vivek as a Product Owner for its regulatory and compliance related products. This feedback bubbled up to Vivek to act on.

Actions

Vivek related to the feedback from Dhiren since he faced similar red tape in the past and understood that the index for ease of doing business in India is not the best. Vivek wanted to improve the customer experience for Dhiren.

Case Study: Validate Problem - Bank

He ***interviewed*** Dhiren and created a ***persona***.

The problems Dhiren faced included:

- Regulatory challenges of doing business and setting up new entities, and
- The corresponding paperwork the bank required.

Vivek dug deeper and applied ***root cause analysis*** techniques to understand what the real problem was. Dhiren acknowledged that the regulatory landscape could not be changed overnight and that it was there to safeguard businesses like banks against fraud. What really irked Dhiren was the amount of time he had to spend at the bank to simply open a business account or mitigate an overdraft.

Outcome

After thorough investigation, and ***collaborative brainstorming*** by applying the ***4Ws approach*** to ***problem framing*** with the product team, Vivek found that the real problem was a lack of reuse of basic customer information across business units (e.g., corporate vs. retail) to reduce the amount of information repeatedly requested from customers.

The bank processes, although compliant with regulations, could be digitized to reduce the in-person visits required by the customers.

Lessons Learned

Most practitioners have a rough idea about the problem from customer experience and feedback, but the problem needs to be carefully validated and articulated to get to the real problem. POA techniques that synthesize the real problem include:

- Root cause analysis,
- Problem framing, and
- Reshaping.

Challenging regulatory and business environment can be impractical to solve. It may also require systemic changes. A collaborative effort by the team, while framing problems, creates shared understanding.

.2 Integrate Learnings

Integrating learnings is the place and time where information and theories mix. Some of the information may be relevant, and some may appear to be disparate. Analytics and data reasoning are identified and pursued to feed validations, vision, and value proposition. An established "intelligent learning environment" (ILE) welcomes questioning and expects corroboration.

Intelligent learning depends on a series of:

- Questions,
- Answers,
- Hypothesizing,

- Experiments, and
- Feedback.

It creates a learning culture and environment that enables faster customer-driven learning.

An integrated learning environment includes:

- A problem-solving situation, and
- One or more approaches assist and monitor the learning.

Intelligent learning can drive an integrated product design environment that includes:

- Problem-solving questions that will help design situational approaches.
- Considerations for new products or services:
    - Customer - How do Product Owners know if customers want the product or service? Do they have the right target market?
    - Technical - How do Product Owners know if they can do it?
    - Business Strategic - How do Product Owners know if they should move on it? How do they know if they have got it right?
- Considerations for subsequent iterations:
    - Customer - How can Product Owners make products and services better for customers? What will retain customers?
    - Technical - How much more can Product Owners do? How much more do they need to do?
    - Business Strategic - Is the product/service meeting or exceeding the expected business goals and objectives? Are Product Owners measuring what matters? (See "Measure What Matters.")
- Approaches that assist and monitor the learning include:
    - Considerations for new products or services:
        - Hypothesize to discretely test ideas integrating evidence to prove or disprove assumptions.
        - Experiment to reduce risk and generate valuable insights.
    - Incorporate Predictive and Prescriptive Analytics and Modelling to consider what may happen using historical data, machine learning, and artificial intelligence
- Considerations for subsequent iterations:
    - Hypothesize based on feedback loops and customer input.
    - Experiment through iteration reviews and demonstrations.
    - Use the metrics developed through "Measure What Matters" to guide analytic decisions.

How POA Helps Integrated Learning

The team applies POA by:

- Guiding what to analyze,
- Questioning what data to pursue, and/or
- Provoking what experimentation to try.

POA Practitioners:

- Pursue the activities to cultivate customer intimacy and articulate their problems,
- Guide ideas for solutions,
- Use intelligent learning to differentiate between ideas that may float or sink.
- Initiate a culture that facilitates the integration of customer-driven intelligent learning.

They use:

- Business data analytics,
- Hypothesis testing with experimentation, and
- Information that feeds the:
    - Business Model Canvas,
    - Value Proposition, and
    - Product Vision statement.

This information becomes the foundation of:

- "Measure What Matters":
    - Facilitate the approach to "Learn Fast", and
    - Drive to "Obsess About Value".

POA Techniques for Integrated Learning

Agile Extension Techniques

- ***Kano Analysis***: Differentiate product characteristics and qualities that will help determine valuable product features.
- ***Purpose Alignment Model***: Tie customer learning to value, derived from customers and the business.
- ***Real Options***: Determine the timing and flow of product features that provide value.

BABOK® Guide Techniques

- ***Business Model Canvas***: Determine the value proposition and the components that sustain the value of a product.

Other Techniques

- ***Hypothesize Ideas***: Formulate ideas and analyze decisions based on facts available, about the business environment. These facts can be collaboratively discussed for clarity.
- ***Experimentation***: Test a theory or product prototypes to generate feedback.

Case Study: Differentiate Product - Bank

Background

Vivek, the Product Owner in the regulatory and compliance unit of the bank, was called in to investigate and strategize a new product to reduce customer visits to the bank. The ABC bank leadership wanted to:

- Improve the customer experience, and
- Maintain their track record and brand as the most flexible and future-ready private bank.

Challenge

Although Vivek was instrumental in identifying the original problem, he did not know if that problem was faced by all the customer segments, or only a few. He formulated an approach so he could receive quick feedback.

Action

Vivek explored several ***market research studies*** to understand what the competitors were doing but did not find any new information. He concluded that this must be a new and unique problem that ABC bank may solve first.

He designed a ***survey*** for primary market research and employed ***data analysis***.

He learned that the problem was consistent for "urban customers who were educated and comfortable with digital."

He validated using a ***purpose alignment model***. The problem needed to be addressed since the solution could be a differentiator and was critical to the mission. Twenty percent of the customer base had a similar persona.

Case Study: Differentiate Product - Bank

Outcome

Convinced of the value of solving the problem, Vivek and the product team identified different customer processes across different product lines that were candidates for automation and digitization. The regulatory requirement for completing Know Your Customer (KYC) processes required the most facetime for customers for each business service.

After several focus group sessions with customers and experimentation, an e-KYC product was developed that could be a game-changer for customers who could complete most of the regulatory KYC process from home.

Lessons Learned

The learning process for any product is usually iterative, which follows a cycle of hypothesis to evidence to new features. To integrate intelligent learning, POA Practitioners must employ several analysis techniques, to gather proof points that enable good decisions for creating a differentiated product.

.3 Evaluate & Evolve Product

The team have:

- Asked a lot of questions and discovered answers,
- Integrated analytics,
- Identified trends and preferences.

Evaluation ensures that:

- The right questions have been asked,
- Misunderstandings are exposed, and
- Targeted insights are revealed.

Targeted insights result in product evolution based on:

- deeper customer understanding, and
- intelligent learning.

"You need to get to the future, ahead of your customers, and be ready to greet them when they arrive."

- Marc Benioff, Salesforce founder, Chairman & Co-CEO

Ideas are tested and evaluated, seeking the differentiators that evolve to better product design, to thrill customers.

How POA Helps Product Evaluation & Evolution

"What have we missed?" is asked as part of the evaluation. Slicing and dicing valuable pieces of customer information positions the team to build the:

- Product vision,
- Product backlog,
- Product roadmap, and
- Minimum Viable Product (MVP).

The outcomes of integrating learnings guide the team to decisions on how to move forward. The answers to these questions encompass the next moves for the team, leading to evaluating and evolving.

Question	*Action if the answer is Yes*
• Is the product of value to the customer as-is?	• Move forward as planned.
• Is the product of value to the customer with modifications?	• Change the way we are looking at this product and change the approach.
• Is the product falling short of providing the value?	• Do not move forward as is.

POA Techniques for Product Evaluation & Evolution

Agile Extension Techniques

- ***Kano Analysis***: Differentiate product characteristics and qualities that help determine valuable product features.
- ***Purpose Alignment Model***: Tie customer learning to value, derived by customers and the business.
- ***Real Options***: Determine the timing and flow of product features that provide value.

BABOK® Guide Techniques

- ***Business Model Canvas***: Determine the value proposition and the components that sustain the value of a product.

Other Techniques

- ***Hypothesize Ideas***: Formulate ideas and analyze decisions based on facts available, about the business environment that can be collaboratively discussed for clarity.
- ***Experimentation***: Test a theory or product prototypes to generate feedback.
- ***Value Proposition Canvas***: Ensure the features of the products are aligned to what is valuable to customers and evaluate product-market fit.

Case Study: Identifying What a Product Owner Can Do - Cell Phone Manufacturer

Background

One successful year for the e-KYC product of ABC bank sparked a lot of interest from a competitor who successfully built their own e-KYC workflows to digitize the experience of their most valued customer. Then the COVID-19 pandemic came, restricting the free movement of people globally.

Challenge

ABC bank leadership knew that there needed to be transformative change in response to new variables and a drastically changing business environment. Leadership understood the e-KYC must remain a differentiator and that the target segment was no longer the same.

Action

Vivek, the PO, realized that most of the competitors have launched their own products around e-KYC offerings, and due to COVID-19 most of the bank customers need to go through the same e-KYC process, which is no longer a differentiator for ABC bank.

Vivek thought about the changes to the target customers that needed to be made so that transformation could take place. After collecting customer feedback from surveys and focus groups, Vivek formulated the hypothesis: e-KYC was not sufficient and needed to cater to a different persona (e.g., people with low income, with limited education, and from a rural area). The KYC process needed to be simplified and explained to customers who required easier steps.

Vivek was surprised to learn that his initial assumptions about telecom infrastructure in rural populations were incorrect and most of the country had a good infrastructure to support video communications through mobile.

Outcome

Vivek suggested a hybrid approach for KYC to simplify the digitization and gain customer acceptance. The aproach involved video KYC for most customers.

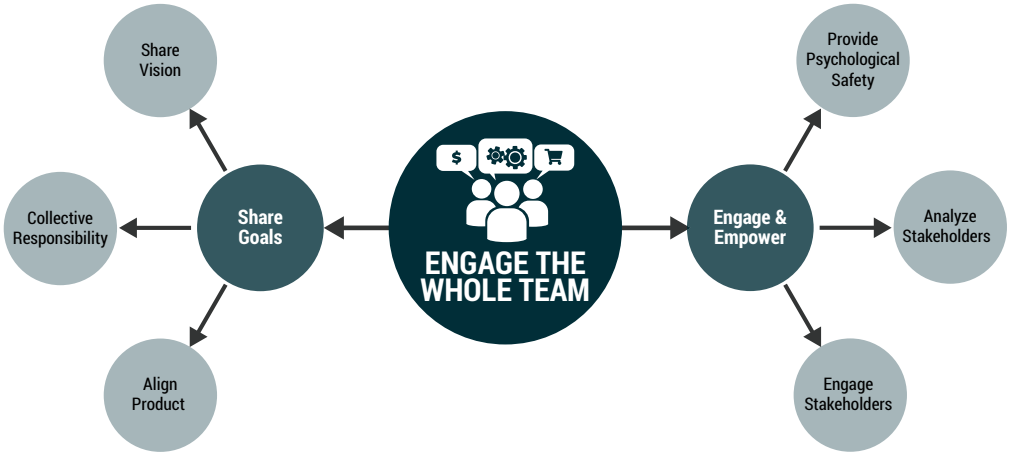
The process was simplified and explained by experts, in the local languages, through video calls or recorded sessions.

Features integrated with a country-wide digital citizen ID program that allowed biometric verification of identity and address.

Lessons Learned

Most products follow the product lifecycle. Due to external or internal forces, the product needs to evolve to reflect the changing expectations of customers. Teams must use their toolset to evolve the product as long as it can provide value to the customer.

5.3 Engage the Whole Team



The common perception is that only the “delivery team” is responsible for building the product. However, effective POA acknowledges how critical the engagement and collaboration of customers and other key stakeholders are to product success. A more holistic view of what it takes to deliver a successful product involves thinking of the delivery team, customers, and key stakeholders as the whole team. Having the whole team collectively responsible for the product's success shifts the mindset of pre-defined roles and responsibilities to one centred on collaboration.

The Agile Mindset

The Scrum Master, Team Coach, or Agile Process Facilitator:

- Is responsible for ensuring that the delivery team works well together, amidst a positive work culture,
- Ensures that the team follows effective agile practices that are collectively defined, and
- Coaches the delivery team to use an agile mindset when working independently and collectively.

The agile mindset is based on core human values:

- Respect,
- Courage,
- Collaboration,
- Continuous learning,
- Customer focus, and
- Value maximization.

The agile mindset:

- Delivers value rapidly and consistently,
- Collaborates courageously,
- Iterates to learn,

- Simplifies to avoid waste,
- Considers context and adapts to realities,
- Reflects on feedback and adapts both product and process, and
- Produces the highest quality products.

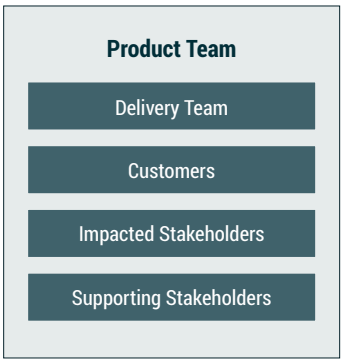
See Agile Extension.

The POA Practitioner adopts the agile mindset to guide the team with a product perspective and the flexibility required for the analysis work. They live and breathe the agile mindset in their approach, demonstrating the mindset and helping the team to do so, as well.

The Product Team

While the Scrum Master, Team Coach, or Agile Process Facilitator works primarily with the delivery team, the Product Owner works closely with the entire product team to ensure collaboration towards the shared goal. The Product Team consists of:

- Delivery team (BA Professional, Developer, Tester, UX, other specialists, etc.),
- Customers or customer representatives, and
- Other stakeholders:
    - Those impacted by the product (internal and/or external), and
    - Those providing support in product development (internal and external) - e.g., internal marketing or external support services.



Collaboration with all team members incorporates the different interests and perspectives for the product in development. POA Practitioners recognize the value of engaging and collaborating with customers and other stakeholders to contribute to product success.

POA Practitioners must plan for the unique communication and engagement of each group while operating as a unified team.

Unified Teamwork

The whole team is critical to product success. Without their contribution, the product will fail. To bring the product team together, POA Practitioners ensure the whole team:

- Has a sense of shared ownership towards the product's success.
- Is engaged and empowered to effectively contribute to the product work.

5.3.1 Share Goal

The Product Owner is accountable for maximizing the value of the product, but the product can not be built without contributions from the whole team. Shared goals are the catalyst for cooperative participation. In Social Psychology, shared goals are referred to as superordinate.

"A superordinate goal is something that is big enough and compelling enough to aid individuals and groups to overlook personal differences in order to achieve something significantly beyond their current reach."

- https://wiki.p2pfoundation.net/Superordinate_Goal

The goal to delight the customer supports a customer-centric culture that engages the product team. It gives them a voice to express their concerns and unique perspectives with common parameters.

To create a quality product, cross-functional perspectives are essential. Managing perspectives through shared goals keeps the focus on the customer and the product. The shared understanding of the customer needs and the product vision, integrated with varied perspectives, serves to enrich and evolve the product.

POA Practitioners focus on three concepts to reap the benefits of shared goals:

- ***Shared Vision***: Represents a common understanding of the product, with a compelling vision to delight the customers.
- ***Collective Responsibility***: In product delivery, each team member is held responsible for the success of the product, and the associated strategic goals. It may extend to organizational responsibility, where all are held responsible.
- ***Product Alignment***: This refers to continuous alignment of vision, strategy, and shared goals, plus alignment to customers, markets, and branding, with readiness to respond to changes.

.1 Share Vision

The product vision is the impetus that guides the work to deliver the product. If the product team cultivates customer intimacy, they share in the vision of the product, and features to delight the customer.

A shared vision inspires and motivates the team. It is active. It is common and collective.

Vision Statement

For [target customer] who [statement of need or opportunity],

the [product name] is a [product category] that [benefit or unique selling point and differentiator].

How POA Helps Shared Vision

Being forward-looking - envisioning exciting possibilities, and enlisting others in a shared view of the future, is the attribute that most distinguishes leaders from non-leaders.

- HBR: To Lead, Create a Shared Vision

A shared product vision is an outcome of great POA, with the whole team pitching in. POA Practitioners listen attentively, and guide the team, to share in the understanding of the customer.

The varied perspectives and interests of customers, the delivery team, and other stakeholders can make a project more challenging. The shared vision helps everyone, amidst their varied perspectives, understand why the product is being built.

The product vision is the guiding force for the team to focus on decisions and resolutions.

An effective tool in enabling a shared understanding, the product vision:

- May evolve through collaboration,
- Should motivate and inspire, and
- Must be shared often.

POA Techniques for a Shared Vision

Agile Extension Techniques

- ***Visioning***: Determine the desired outcome for the product, worded concisely and approachably so that it cultivates a shared understanding by all stakeholders.
- ***Value Modelling***: Segregate values derived by individual stakeholder groups that can be performed as a collaborative exercise to articulate a cohesive product vision.

BABOK® Guide Techniques

- ***Business Capability Analysis***: Understand enterprise capabilities to complement the product visioning exercise.
- ***Business Model Canvas***: Connect business strategies to product strategies, resulting in a comprehensive vision for the product.

Other Techniques

- ***Elevator Pitch or Sound Bite***: A slimmed-down version of the product vision focusing on the value proposition and outcome of the product. It is an excellent tool to communicate the product vision often, in any collaborative setup, to remind the user of the shared goal.
- ***2 Brains***: Tell it & Sell It: A tool in visioning exercise to understand/build emotional and practical connections about the product vision within the product team.

Case Study: Product Vision for Information Management - Real Estate Construction

Background

WRU is a large European enterprise, with a diverse portfolio in construction and retail. The product management office (PMO), with several rounds of involved decisions with their strategic partners, customers, and vendors, recognized a need to simplify the different construction plans and models.

Challenge

The architects, engineers, drafters, and workers all work on their own blueprints or CADs. The work is not centrally managed. A product team was set up to tackle the issue of information management in real estate constructions. The newly formed product team had a variety of stakeholders including:

- Architects,
- Engineers,
- Workers,
- Software development team members,
- PMO group representative, and
- A newly hired Product Owner.

Sem, the new Product Owner, had experience in real estate but not in construction and the civil engineering space. A week after joining the WRU, Sem was asked by the PMO and senior leaders to provide a detailed roadmap for the product for budgeting and long-term goal setting.

Action

Sem was a veteran Product Owner with experience in Product Ownership analysis. Sem understood that the product team never came together and discussed what the product was supposed to do. He knew it was going to be impossible to come up with a product roadmap without a cohesive vision of the product.

To get to this stage, Sem wanted the team to ***collaboratively brainstorm*** the real value of the product. He called a meeting of all the relevant stakeholders for a visioning exercise.

Several key points emerged about the product goals:

- Streamlining the information flow across the team by the PMO representative was prioritized.
- The software team wanted the latest tech stack where geophysical information (e.g., blueprints and CAD designs) can be stored as non-relational entities.
- The architects wanted to have a single source of truth for all the designs.

Case Study: Product Vision for Information Management - Real Estate Construction

- The marketing team wanted to be able to productize this internal solution to go to B2B customers.
- Some end-customers suggested that it should cater to lay users to visualize their properties throughout the construction stages.

Sem added all these value statements for different groups into the value model. However, it was soon apparent that every stakeholder was stating their personal vision of the product.

Sem tried to elicit a common thread between all the value statements by discussing and debating each proposition carefully with the entire group, so that each voice was heard acknowledged.

Outcome

Sem was able to articulate the vision of the product to be:

"An efficient and simplified cloud product that provides a single view of the property from customer contact, designing, project management, quality management, and cost and safety information, on a single digital space for any property construction".

The group agreed on a working name for the product - "HomeQi" to represent the essence/core of construction projects.

Lessons Learned

Typically, products take shape from a variety of ideas to a shared vision as a collective effort between several stakeholders. In this case, the responsibility to craft a vision for the product is not solely on the Product Owner, nor it is always possible for a PO to have the depth of knowledge of the entire stakeholder group to envision a product. It is equally critical to name a product, (even if it is a working name), so that it gives the essence of the vision, and describes what the product is all about.

.2 Collective Responsibility

Product team members may have individual responsibilities, commonly described as:

Agile Team Role	*Description*
Delivery Team	
Product Owner	The Product Owner is accountable for the product and maximizing its value.
Delivery Team	The Development Team is responsible for the delivery of the product. They decide on how the priorities, set by the Product Owner, will be executed.

Agile Team Role	Description
Scrum Master	The Scrum Master is responsible for supporting the Product Owner and the Development Team, through coaching and identifying effective ways of working.
Customers or Customer Representative(s)	
	Customers and/or Customer Representatives, help in understanding the personal and impersonal needs or desires that fuel the product idea. They validate the value of a product and identify areas for improvement.
Other Stakeholders	
Those impacted by the product	There are numerous ways a product may impact a stakeholder, including those: • who invest in, • use, • depend on, or • are interested in the product. Stakeholders ensure that the product is being built with cross- functional perspectives that, when combined, align with the customer and business needs combined, align with the customer and business needs.
Those providing support services	Support stakeholders include those who provide support in product build/support services, (e.g., product marketing or subject matter expertise).

Collective responsibility, with shared goals, and KPIs that measure actual outcomes, provides significant benefits. For example, collective responsibility:

- Commits to, and builds, relationships within the team,
- Ties individual objectives to product and strategic objectives, and
- Keeps the focus on customer value and quality.

Extended Product Team

There may be one or more stakeholders that are not as involved in the product delivery process and are contacted on an infrequent, as-needed basis. They are part of the extended product team and have no direct relation to the product. These stakeholders may not be considered as part of the team, and they may not have any accountability towards the product. Nonetheless, their contributions are valuable and key to product success. POA Practitioners need to manage strong, ongoing working relationships with them.

See Stakeholder Analysis.

How POA Helps Collective Responsibility

Effective POA promotes and supports collective responsibility for product success. Considerations include:

- Empowered commitment to the product vision,
- Awareness across the team, of the strategic objective, and the value proposition, and
- Understanding across the team of their contribution to success and the flexibility inherent with product development.

POA Techniques for Collective Responsibility

Agile Extension Techniques

- ***Impact Mapping***: Trace the impact of delivery activities, through stakeholders, and to organizational goals.

BABOK® Guide Techniques

- ***RACI Matrix***: Highlight the responsibilities of the stakeholders and the product team member or groups. Promote shared responsibility rather than pointing to a specific team member.

Case Study: Backlog Management for Information Management - Real Estate Construction

Background

The 'HomeQi" product from WRU was envisioned to provide a single intuitive source of truth for blueprints, models, and non-graphical information about a property under construction.

Challenge

During their bi-weekly customer pulse meeting, Sem, the Product Owner, along with the PMO team, realized that they were focusing on the expert users, such as Designers and Architects, and neglecting one group of end-customers - the actual home-buyers. They reviewed the product backlog to find it bloated with expert features such as:

- Adherence to design specs and design languages, and
- Co-creating options and generation of technical 3D models of under-construction properties.

Features deprioritized were:

- Simplified property views for lay users,
- Customer sign-ups to the digital platform,
- AR (Augmented Reality), and
- Visualization.

Sem realized there was plenty to do to meet the original scope of MVP with only six weeks until launch.

Case Study: Backlog Management for Information Management - Real Estate Construction

Action

The HomeQi team consisted of seasoned agile practitioners. During the ***post-mortem planning***, they discussed why such an oversight happened and how to ensure they did not repeat it. An open discussion was advocated. The team had a collective sense of purpose to discover the root cause and find a practical solution. The over-representation of expert stakeholders led to a skewed priority of features. Many of the expert stakeholders were internal to the organization, and that influenced the prioritization decisions.

Outcome

One of the team members with Agile experience recommended using "***swarming***" to slim down the backlog. She explained that the product team could work in collaboration to pick up the slack and take care of the left-out features. This idea was readily accepted as the team committed to de-risking the product before the launch.

Lessons Learned

Product success depends on the team, rather than any one person. In this scenario, the entire team had a collective responsibility towards product success derived from a deep sense of psychological safety and open communication. The entire team worked as a unit to avert challenges.

.3 Align Product

Product alignment is a continuous activity in product development. Adapting to change is innate in Agile Frameworks, increasing the potential for product success. Communication, collaboration, and planning across the product team, facilitate product alignment. Alignment may be influenced by factors including but not limited to:

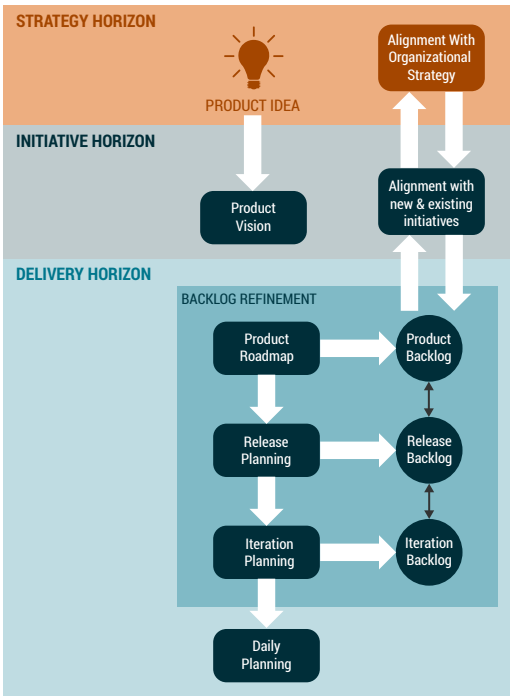
- Customers,
- Stakeholders,
- Organizational strategy,
- Competition,
- Environment, and
- Politics.

The learn and adapt cycle keeps product alignment in check.

Within an organization's product management function, product alignment happens at the Strategy, Initiative, and Delivery Horizons. Regardless of whether it is initiated through the product management or the product ownership function, the alignment influences product planning.

On a delivery level, product planning incorporates checkpoints for product alignment. Continuous alignment of work efforts and customer value, along with transparent communication synchronizes the alignment. Product planning cycles include focused attention on:

- Product vision
- Product roadmap
- Release planning
- Iteration planning
- Daily planning



How POA Helps with Product Alignment

The POA in the Five Product Planning cycles encompasses:

- ***Product Vision*** - The team uses the vision to inspire and motivate the work of the delivery team. It may evolve through the learn and adapt cycle.
- ***Product Roadmap*** - The team uses the product roadmap to visualize planning and track progress towards the goals associated with the vision. This transparency manages expectations and keeps the full product team informed. It also may evolve through the learn and adapt cycle.
- ***Release Planning*** - The team's focus shifts to the Initiative and Delivery Horizon using release planning to demonstrate features that will contribute to the vision and goals. It, too, may evolve through the learn-and-adapt cycle.
- ***Iteration Planning*** - The team focuses on the product vision by:
    - Setting aligned iteration goals,
    - Providing a ready product backlog, and
    - Being available to answer questions.
- ***Daily Planning*** - Although it is optional for some team members to attend Daily Stand-ups, participation:
    - Keeps them informed of progress,
    - Raises awareness of obstacles and needed decisions, and
    - Demonstrates partnership and commitment to the team.

POA Techniques for Product Alignment

Agile Extension Techniques

- ***Purpose Alignment Model***: Assess product ideas in the context of customer and business value.
- ***Story Decomposition***: Represent the requirements for a solution at the appropriate level of detail, aligned to desired outcomes from a stakeholder viewpoint.

Case Study: Product Alignment for Information Management - Real Estate Construction

Background

At a congratulatory team retreat for the successful launch of HomeQi, Les, a member of the senior leadership team of WRU, discussed the five-year plan of the organization. One of the key points was that WRU had to venture into foreign markets, mainly focusing on Nordic countries, in providing construction and project management services.

That got Sem, the Product Owner, thinking.

Challenge

Planning Horizon	*Impacted Element*	*Assessment of Impact*
Strategic	Business Goals and Product Ideas	Alignment of the Product to adapt to new market opportunities.

Initiatives	Vision, Business Model and Product Roadmap	Product Vision remains the same, but the business model adjustment is needed:
		• Transitioning from a Software product to a SaaS product with a subscription option to avail project management and design modelling as a service.
		• Adapt to localization needs,
		  • Languages (i.e. Dutch to Nordic languages, and English)
		  • Templatization of architectural patterns for the specific geographies
		These items were included in the larger product road map.

Delivery	Daily Plan and Features	The backlog was reprioritized with a just-in-time elaboration of some of the epics and features stemming from the above themes (e.g., inclusion of language and currency translation, API inclusion, development of billing plans for subscribers.)

Case Study: Product Alignment for Information Management - Real Estate Construction

The HomeQi product in its first avatar was meant for compiling all construction project data together with true-to-scale visualization. The primary purpose was the standardization of information across work teams. With the plan of geographical expansion, Sem anticipated that the product would require a realignment to the organization's goals.

Action

Sem and the product team decided to decompose this bigger problem into smaller, targetable pieces and thought of using the ***planning horizons***. The team's approach was to:

- Evaluate strategy horizon impact on the product vision,
- Assess initiative horizon changes where larger themes would emerge, and
- Translate it into small pieces of requirements.

Outcome

Summary of the product team's product alignment to WRUs goals.

Lessons Learned

The product alignment process is continuous and iterative to assess and react to the needs. The planning horizons are an excellent construct to think of how the product can adapt in the future. It allows the POA Practitioners to think top-down and decompose changes to smaller, more manageable pieces.

5.3.2 Engage & Empower

Providing the product team with the confidence that their work contributes to something meaningful and valuable is important. It assures them they can do their job well.

Organizational culture and structure have a big influence. POA Practitioners consciously strategize their influence to engage and empower the team, and outward to the customers, stakeholders, and the organization. Trusting in each other builds confidence.

Great POA Practitioners know their circle of influence and operate purposefully and demonstratively. The team, stakeholders, organization and possibly customers, look to them as leaders. They consider them to be trusted partners in the success of the product. Their ability to engage and empower the whole team has the potential to make the shift from good to great, and from success to failure. It is the whole team that gains confidence in their work through shared trust and goals when POA Practitioners lead by example and create a culture of success.

Engaged, empowered teams are recognized as performing better and being happier. People who are engaged and empowered:

- Feel safe,
- Understand the people they help and who that help them, and
- Have meaningful, purposeful connections with those people.

.1 Provide Psychological Safety

A psychologically safe environment fulfils basic human needs that allow people to thrive. It allows people to grow, learn and take risks. Psychological safety is illustrated with trust and honesty. When people feel safe, they think better and do their best work. POA Practitioners want everyone rallied around their product to contribute their best in a trusting, supportive environment.

When psychological safety is not present people may:

- Fear humiliation,
- Fear to speak up,
- Fear to make a mistake,
- Fear that mistakes or foolish questions may be held against them,
- Not ask for help,
- Fear someone taking credit for the work of another, and
- Lack fun and happiness.

Witnessing any of these behaviours in the product team is a call to action for the POA Practitioners.

How POA Helps Engage & Empower

Effective POA contributes to the team's success by actively promoting, and instilling values and principles within the whole team. These values support self-organizing teams and can promote:

- ***Empowerment***, giving teams enough information and resources to make decisions related to how to do their best work.
- ***Trust***, encouraging team members to be trustworthy in word and action and in the decisions they make.
- ***Respect,*** inspiring the team to embrace diversity and demonstrate regard in all interactions.
- ***Appreciative,*** prompting team members to give recognition wholeheartedly. When team members feel valued, they do better work and also become recognition-givers.
- ***Approachability,*** validating the humanness that welcomes questions or concerns that ultimately empower the team's work.
- ***Availability,*** causing team members to recognize the importance of the entire team's work through partnership

This leads to an environment where all team members:

- Listen attentively and show appreciation,
- Acknowledge their weaknesses and ask for insights from colleagues,

- Connect value with metrics, design those metrics with the team, and regularly review those metrics with the team,
- Demonstrate trust while being trustworthy, and honesty while telling the truth,
- Address the "elephant in the room" and speak in a common language,
- Encourage calculated risk-taking and questioning,
- Invite ideas and make room for creativity,
- Celebrate diversity in word and action,
- Conduct retrospections frequently and purposefully, and
- Express gratitude.

POA Techniques to Engage & Empower

BABOK® Guide Techniques

- ***Collaborative Games***: Encourage participation from the team member to build a shared understanding of a problem/solution or build trust within the team.

Other Techniques

- ***Team Building Exercise***: Several team-building exercises can be employed based on diversity and organization culture, tomake each member of the product team comfortable with each other.

Case Study: Engage & Empower with New PO - Real Estate Construction

Background

HomeQi had an over-representation of expert users in the planning exercises which led to the de-prioritization of features requested by a set of end-users (i.e., property buyers).

The product team worked together and took collective responsibility and pride in completing their work. Team members had complete trust in each other, kept communication open, and never failed to ask for help. However, the team was not always unified.

Challenge

When Sem joined as a Product Owner for the HomeQi team, he understood and anticipated some pushback from the team as they struggled to accept him. Some of the team members had been working with the organization longer. Some had specific knowledge about the market and customers. Overall, it was difficult for the new product team to take guidance from a new PO. It was a challenge Sem needed to face head-on.

Case Study: Engage & Empower with New PO - Real Estate Construction

Action

Sem knew that he would need to put in a significant amount of effort to build a cohesive and responsive team that moved as a unit. Sem took the time to understand his leadership style and personality, and he knew that his strength lay in empowering people. Sem was good at inviting ideas and treating the contributions from everyone respectfully.

With this in mind Sem:

- Arranged a few ice breaker sessions to promote an open exchange of ideas.
- Provided scenario-based problems, unrelated to the product concept, so that there were no judgements or bias for team members to solve.
- Encouraged and rewarded contributions from team members by introducing "gamification" at work. It was well received by the team.

There were many challenges and missteps along the way, including:

- Missed deadlines and requirements,
- Buggy code.

Outcome

Many issues were discussed in retrospect. Each team member felt they belonged. For example, Seli joined the team as a Junior Developer and pointed out that the product was not ready for houses that needed "redesign." Seli felt comfortable enough to voice her opinion, despite being a new member of the team.

Sem followed the same principles with other stakeholders. For example, he made it a point not to say:

- "Tell me what you need."
- "So, is this is the feature you are asking for?", or
- "Confirm for me that."

Sem wanted to understand the story behind incisive questions, the experiences and pain points, and did not want to put the stakeholder on the spot. Sem called this practicing internal and external empathy, which leads to an open culture and a psychologically safe environment for everyone

Lessons Learned

Building a psychologically safe environment for everyone requires effort and patience from all parties. Showing empathy, trust, and respect to internal and external team members is the key to developing a great team and product environment. This is always a work in progress and is the responsibility of everyone involved.

.2 Analyze Stakeholder

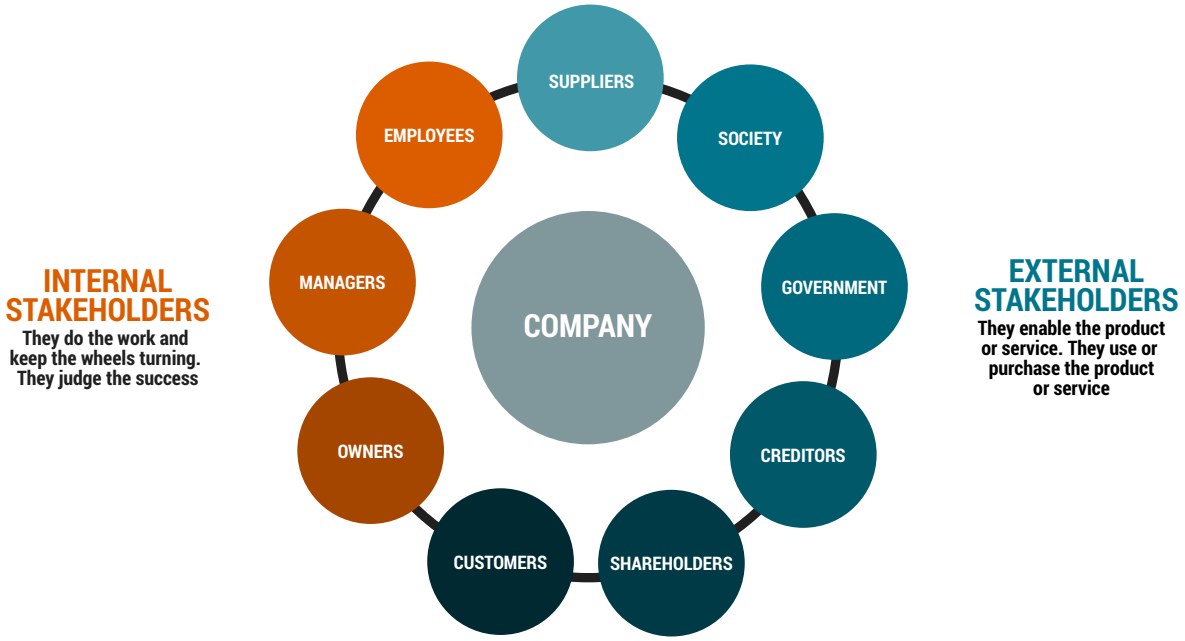
Stakeholder analysis encompasses everyone involved in the success of the product, including business and technology, and internal and external. The outcome positions the team to establish and maintain meaningful relationships with customers and other stakeholders throughout the product lifecycle. Stakeholder analysis contributes to better communication, collaboration, and solutions. It helps the team to understand the people they help and those who help them. Stakeholder analysis starts with identifying the people involved. This may include:

Internal stakeholders

- Owners
- Managers
- Employees

External stakeholders

- Suppliers
- Society
- Government
- Creditors
- Shareholders
- Customers



Stakeholder analysis progresses through understanding the people identified and having a greater knowledge of:

- Titles and roles,
- Geography,
- Influence and interest levels,

- Communication strategy,
- How to gain support or reduce obstacles,
- Techniques/tools that contribute value individually, and
- Any unique information that will build collaborative engagement.

Stakeholder analysis reveals groupings based on the context of their engagement at the strategy, initiative, and delivery. It is the catalyst for beneficial stakeholder engagement.

How POA Helps Stakeholder Analysis

POA Practitioners conduct the stakeholder analysis early in the product delivery process and update it as the work progresses. The stakeholder analysis needs to be continually assessed for the following reasons:

- People involved in the product work may change.
- Communication styles may require unique approaches.
- People who are needed may be missing.
- Collaboration strategy may need to accommodate multiple time zones.

Without a thorough stakeholder analysis, the progress of product delivery is at risk. The team uses the information to plan engagements and raise awareness within the team so that they have improved understanding and engagement.

POA Techniques for Stakeholder Analysis

Agile Extension Techniques

- ***Personas***: Understand and empathize with an intended stakeholder to create a deeper understanding of their posture toward the product.
- ***Retrospectives***: A tool to understand ongoing issues of the product team members to aid in stakeholder analysis.

BABOK® Guide Techniques

- ***Stakeholder List or Map***s: Catalogue stakeholders and their characteristics so that Product Owners can effectively engage with them. Use the stakeholder matrix and onion diagram to gauge the impact and influence of stakeholders with the product.

Case Study: New Stakeholder - Real Estate Construction

Background

WRU recently brought in Terrance, from the London branch office, to the executive committee of the Product Management Office (PMO). He had significant experience in construction.

Challenge

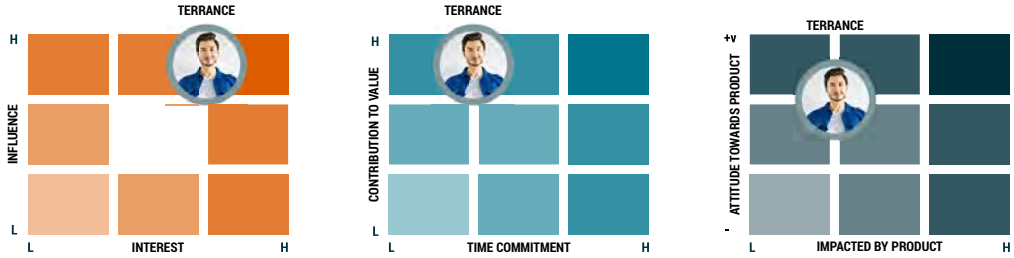
After Terrance heard about HomeQi he appointed himself as the Product Coach for the HomeQi team. Sem believed that Terrance would be a great help in shaping the product with his knowledge of different markets and deep expertise in construction modelling and designing. On the other hand, owing to Terrance's acute interest in the product, Sem anticipated that ongoing product development may get impacted adversely.

Sem had to figure out how to engage Terrance effectively to bring in positive changes to the product.

Action

After meeting with Terrance, Sem conducted a deeper stakeholder analysis to discover traits, interest, influence, and subject matter expertise to manage expectations and take actionable guidance from Terrance.

In addition to the influence/interest stakeholder map, Sem added a few of his parameters. Based on his and the team's interaction with Terrance, Sem came up with:



Outcome

Sem concluded that:

- ToTerrance was a high-interest and high-influence stakeholder who could contribute to maximizing product value.
- Terrance's involvement needed to be managed so that high-value and high-impact product changes would be communicated and he would be consulted.
- Terrance should be consulted on the product road map and high-value epics.
- He should have a catch-up session with Terrance and the PMO Representative after each sprint to discuss high-level items.

Sem added these changes in the collaboration and communication plan.

Case Study: New Stakeholder - Real Estate Construction

Lessons Learned

Stakeholder analysis is an extremely important step in Product Ownership analysis, especially when there is a shift from a project with a fixed duration to a product set up. Stakeholder analysis is a continuous effort. New stakeholders may emerge during the product lifecycle. They can change the direction and influence the course of the product. Good stakeholder analysis is the foundation that product success relies on.

.3 Engage Stakeholder

Stakeholder analysis leads to planning stakeholder engagement - to create meaningful, purposeful connections. Stakeholder engagement aims for each stakeholder to understand the value of their contribution to product success. Thoughtful consideration and planning enhance collaboration and connection.

- ***Collaboration***: The right people are involved at the right time, recognizing their preferences and needs.
- ***Communication***: What needs to be communicated, when and to who, recognizing the most effective delivery methods and the frequency.

How POA Helps Stakeholder Engagement

Stakeholder engagement is core to the POA Practitioner's role as it contributes directly to maximizing the value of the product. Building meaningful working relationships with the product team facilitates better teamwork. It involves establishing an environment for constructive communication and collaboration within the product team. Communication happens continuously, formally, or informally, during:

- Product delivery meetings,
- Various stakeholder events (e.g., reviews and demos), and
- Through virtual communication channels.

Stakeholder engagement:

- Communicates the product vision and builds a shared understanding,
- Assists in engaging the delivery team with customers and other stakeholders,
- Influences others to support the vision,
- Contributes to the negotiation of priorities, and
- Facilitates collaborative agreement on product outcomes.

POA Techniques for Stakeholder Engagement

Agile Extension Techniques

- ***Planning Workshops***: Determine what value can be delivered over an agreed upon period. This is an excellent tool to engage with a group of key stakeholders to understand different stakeholder perspectives.
- ***Reviews***: Facilitate targeted communication and discussions with individuals or a stakeholder group.
- ***Storyboarding***: Describe a task, scenario, or story in terms of how stakeholders interact with the solution. This generally produces better engagement due to visual cues.
- ***Visioning***: Determine the desired outcome for the product, and word it in a concise and approachable manner. Visioning exercise is an important first step in a collaborative effort among key stakeholders.

BABOK® Guide Techniques

- ***Collaborative Games***: Create engagement between stakeholders and provides a fulfilling experience of analyzing a problem or discussing a solution.
- ***Lessons Learned***: Understand stakeholders' satisfaction or dissatisfaction and offer them an opportunity to help improve working relationships.
- ***Risk Analysis and Management***: Identify and manage risks as they relate to stakeholder involvement, participation, and engagement.

Case Study: Stakeholder Engagement - Real Estate Construction

Background

Terrance was a leader who recently joined the Product Management Office and had a high interest in the success of the HomeQi product.

Challenge

Sem concluded stakeholder analysis on Terrance. The collaboration and communication approach needed to be implemented. Sem knew that managing stakeholders was not simply practicing analysis, but engaging the stakeholder in the right way to derive meaningful value.

Action

Sem had a quick session with Terrance to walk him through the product vision and roadmap. He asked Terrance about:

- The product.
- His industry experience with similar solutions.
- Whether the UK market was different.
- Life stories Terrance had to share about the context of the product.

Terrance developed an emotional connection with the product.

Case Study: Stakeholder Engagement - Real Estate Construction

Outcome

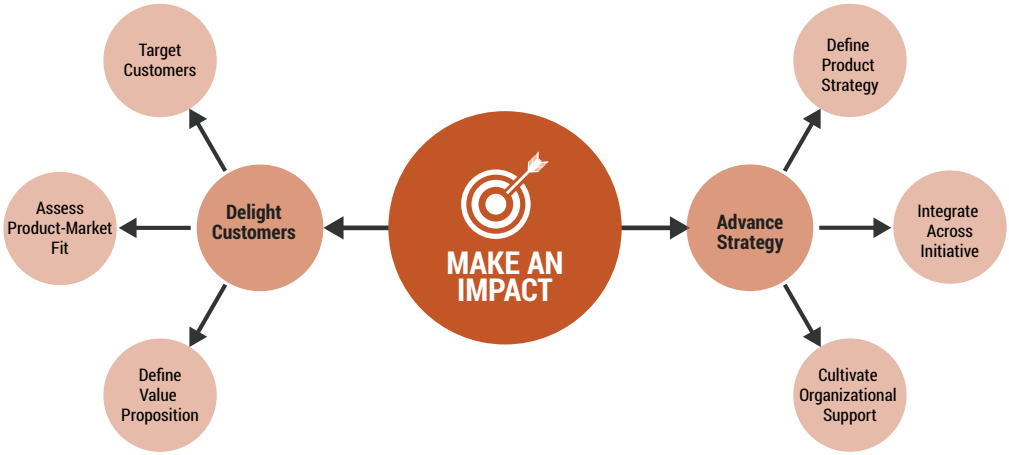
Sem shared his plan on when and how to collaborate and sought Terrance's advice and concurrence.

Terrance was happy about playing an active role in the ***product roadmap***. In one of the discussions with the team, Terrance highlighted that the product was quite similar to new initiatives by UK regulators to streamline construction-related information under a single source and model. He walked the team through these standards called "Building Information Modelling" (BIM), and PAS 1192-2 standards followed in the UK. This helped the team realize the synergy between different regulations and the product. It helped the team align the product to evolving construction data exchange standards by accommodating new and relevant features

Lessons Learned

Stakeholder engagement is an active process. Each stakeholder is different. Their level of collaboration and communication needs should be understood and acted upon. For POA Practitioners it is important to understand the specific communication needs of stakeholders. This is about empathizing and reacting to stakeholders in the way they expect. True value from stakeholders can be derived only when they feel emotionally invested in the success of the product.

5.4 Make an Impact



Every organization emphasizes its desire to make an impact. The organization's vision guides its values and culture. This is established at conception. However, the expression of it can change over time, based on the environment.

To clarify the impact of a product, POA Practitioners should ask:

- "Who is impacted or influenced by the product?"
- "How are customers and other key stakeholders impacted?"
- "How is the team and the organization itself impacted?"

Culture is influenced by organizational vision, and the product is influenced by the team's vision to help the customer, the stakeholders, and the organization. Product-ownership-related activities drive the team to develop the customer-obsession mindset that great products require.

How do we define impact? Example:

- Amazon's impact is not the drive to deliver the highest-quality products; it is the obsession to deliver the highest-quality customer experience from selection to purchase to product delivery. Amazon learned that sometimes customers buy on impulse. In many cases, customers prefer the speed of delivery to the actual quality of the product. This customer understanding guides Amazon to make an impact to delight customers by near-seamless delivery of frequent customer experience improvements. They advance the strategy through:
    - Focusing on cost-effective improvements to the speed of delivery over monitoring the quality of the products, and
    - Allowing the practice of customer ratings and reviews to speak for the quality of the products.

The impact of this can be viewed through two integrated lenses where equal attention needs to be paid to what type of product will resonate with customers, and what will deliver against the organization's strategy.

POA Practitioners use authenticity as a guide to influence the impact of the product. They use the determiners of product design, planning and delivery success while ensuring the product:

- Delights customers, and
- Advances strategy.

5.4.1 Delight Customers

To make a lasting impact, the product must offer great value, newness, and be true to the brand of the organization. Usually, many products are providing similar value propositions and targeting a similar customer base. However, another similar type of product without distinguishing characteristics may not cut it. The problem can be further exacerbated due to many factors, including:

- Lack of key new technology,
- No internal process support, or
- A weak business model.

In a typical visioning exercise, several good ideas are accumulated by a diverse set of stakeholders (including customers) that are likely to delight customers. However, several challenges can surface and get deprioritized due to time and cost. These challenges can include:

Being unaware of new market entrants that may be replicating similar features.

- These product features may not prove popular with internal staff since they are often out-of-the-box ideas that challenge today's offerings.
- Emotionally connected and invested customers tend to have a higher lifetime value than just satisfied customers. Customer delight cannot be an afterthought for POA Practitioners. To achieve customer delight, they must focus on:
- ***Target Customers***: Target only those who will get real value out of the product. Build deep understanding with user personas, that explore customers':
    - Pain points,
    - Feelings, and
    - Desires.
- ***Product-Market Fit***: That pivotal moment when a product is in the right market and can satisfy and create an emotional connection with the customer.
- ***Value Proposition:*** The promise of value to be delivered to a customer, which solves customer problem(s) through the product.

.1 Target Customers

Goal: To define target customers for the purpose of accelerating the potential to delight customers while advancing strategy.

Effective POA highlights the importance of targeting customers through:

- Customer intimacy through relationship building and developing:
    - Personas,
    - Customer journey maps, and empathy maps
    - integrated with intelligent learning reveals groupings.
- Establishing customer groupings that:
    - Organize customer information,
    - Define commonalities and uniqueness of customers that guides segmentation, including
        - Demographic,
        - Geographic,
        - Psychographic, and
        - Behavioural trends.
- Influence the
    - Design,
    - Solution,
    - Marketing and promotional potential.

How POA Helps Target Customers

The Product Owner represents the customer in all things related to product decisions, design, and solutions. In some instances, particularly for internal products, the Product Owner may even be the customer.

By continually asking questions like, "How will this help this customer?", POA Practitioners influence:

- the team,
- prioritize work, and
- refine planning based on the answers.

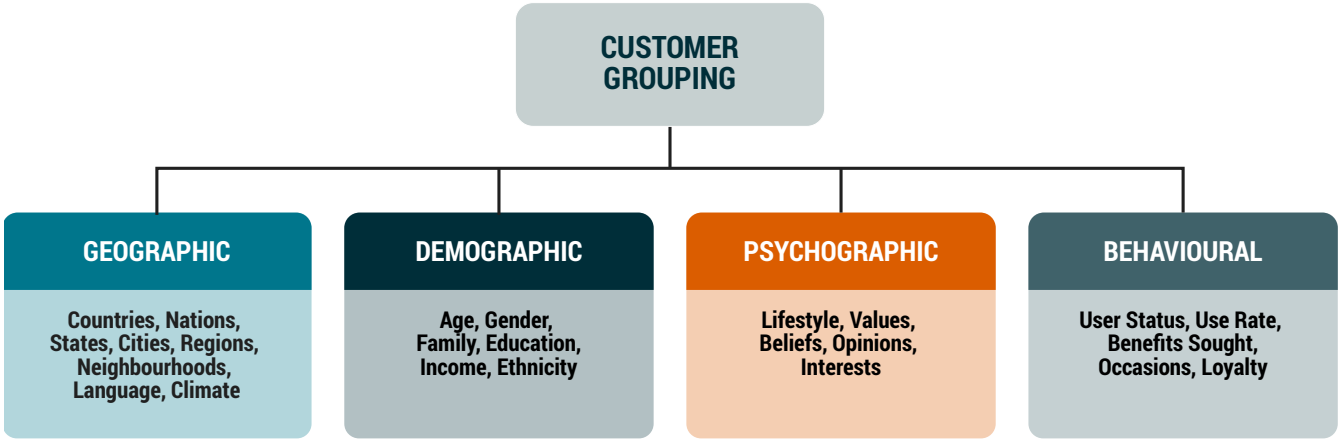
This targeted customer-centric questioning leads to answers that come through collaboratively measuring:

- What matters,
- Prototyping,
- Observation, and
- Evaluation of feedback.

Effective POA advocates to:

- Keep the customer at the centre of everything,

- Guide activities of the team to build a shared understanding,
- Make prompt decisions, and
- Organize to focus on the target.



Customer Grouping helps to reveal the target customer. It facilitates an understanding of the source of their uniqueness and the importance of it. Using this information to identify patterns and similarities leads to additional considerations for grouping. Stakeholder maps may also reveal key grouping considerations.

Some standard groupings can help to guide and identify the techniques to deepen customer intimacy.

Purposeful customer grouping by considerations that are important to them, could include:

Direct Customer Group		***Indirect Customer Group***	
Customer purchases, uses, or services		Customer enables products or services for their organization, internally or externally	
(i.e., utility/phone service, retail, or Insurance).		(i.e., sales department, HR tool, claims processing, online retail purchase fulfillment).	
Customer-centric considerations: What is the product or service solving?			
Product	Services	Product	Services
Design	Consider everything from Product plus	Consider everything from Direct Customer plus	
Functionality	Control	Marketability	
Convenience	Options	Speed to market	

Experience	Empathy	Ease of insight	
Efficiency	Fairness	Reports/Dashboards/Metrics/ROI	
Direct Customer Group		***Indirect Customer Group***	
Reliability	Information		
Performance	Accessibility		
Compatibility			

POA Techniques to Target Customers

Agile Extension Techniques

- ***Persona***: Understand the customers better by empathizing with their key pain points and devising solutions to delight them.

BABOK® Guide Techniques

- ***Interviews***: Interacting with specific customers makes it more personal and focuses on the key issues with the customer experience.
- ***Observation***: Passive and active observation helps in developing a deep understanding of customers to discover known and unknown problems a customer may be facing.
- ***Document Analysis***: Analyzing subjective feedback from customers helps to identify unique aspects of customer problems.

Other Techniques

- ***Empathy Maps***: A visual tool to establish a shared understanding of the customer and their experience.
- ***Customer Journey Map***: Understand the pain points and points of delight as the customer interacts with the product.
- ***Value Proposition Canvas***: Ensure the features of the products are aligned to what is valuable to customers and discover the target market.

Case Study: Target Customers - Retailer

Background

Super C, a leading brick-and-mortar retailer, was an early provider of online ordering, with pickup service at their stores. While their marketing team had significant studies showing that customers were demanding this type of service to avoid lines at the cashier, they were uncertain why this service was not being adopted by their customers at the pace they expected.

They enlisted Gary, a Business Analysis Professional that currently supported the retail services division in product management, to determine if this service was indeed valuable to their customer base.

Challenge

Super C's goal was to increase in-store pickup of products ordered online to 45% over three years. After an initial performance of 25% in the first quarter of offering the service, the numbers dwindled to just below 10%.

Marketing continued to highlight cost savings on shipping, convenience, and expanded product offerings to customers. Supply chain had found innovative ways of ensuring that products ordered online could be sourced through the stores, in many cases on the same day the online order was placed.

Action

To discover why the service was not adopted as anticipated, Gary started with learning how the process worked, to experience the process as a customer. What he found was interesting. Unlike the electronics store he had previously purchased from, at Super C, he was required to:

- Go inside the store to pick up his order,
- Park in a crowded lot, and
- Walk all the way through the store to the customer service centre at the back of the store.

The process took more time than it would have taken for him to come in and shop for the item himself. Based on this experience, he decided to use ***Personas and Customer Journey Maps*** to analyze the real customer expectations and make recommendations for changes to the process to address the challenge.

Based on his analysis, Gary determined that the primary customers interested in the service were in one of two ***Persona*** categories:

- Busy mothers, and
- Young professionals.

Gary visited several Super C stores and ***interviewed*** several people who seemed to fit into these ***Personas*** to map their Customer Journeys.

Case Study: Target Customers - Retailer

Outcome

He discovered that speed in-and-out of the store was essential to a successful journey. Having to park, enter the store, walk to the back of the store, and then walk back to their car was frustrating for customers, especially considering that product pickup was marketed as a convenient online service.

Gary met with the marketing team, who explained that they had hoped the walk through the store would stimulate impulse purchases. They had failed to recognize that much of the convenience of shopping online was the delivery process.

Gary recommended:

- Reserving a special portion of the parking lots at the stores for customer pick-ups.
- Having store employees hand-deliver the orders to the customers so they did not have to leave their cars.
- Having a well-marked space near the entrances of the store would further benefit Super C by having advertising for the service, which could lead more customers to adopt it.

Super C began a pilot with the focused parking spaces and hand-delivery in certain stores and noticed an almost immediate uptick in adoption. This led to a planned rollout across the company. At the end of the first year of the re-release of the product, about 38% of online sales were being picked up at the stores.

Lessons Learned

In this scenario, although the initial solution did not require any systematic changes to entice more adoption of the online pickup service, it set the stage for enough adoption to lead to additional changes that could further enhance the customers' journeys.

For example, without the persona analysis, Super C may not have learned that one of the characteristics of a young professional was to adopt technology early. This led to:

- Development of a geo-fencing technology utilizing smartphones that would alert store personnel that the customer had arrived to pick up their items without them even having to call or text the store.

Also, to meet the marketing department's desire to include traditional retail marketing to encourage impulse purchasing at check-out, Super C stores':

- Online shopping platform was enhanced to highlight suggestive sales of additional items based on what was in the customer's online shopping cart.
- Email alerts confirming customers' orders began including suggested additional items

.2 Asses Product-Market Fit

Product-market fit is when a product is in the right market and can satisfy that market. In other words, that product is in the right place at the right time.

The ***product-market fit provides a framework*** for the alignment of customer needs and organizational goals. It anticipates the expected value to the customer and the organization. The product-market fit is an essential tool for communication to:

- Ensure shared understanding across the stakeholders and the delivery team,
- Plan for the
    - Minimal Viable Product (MVP),
    - Minimal Marketable Feature (MMF),
    - Minimal Marketable Release (MMR), or
    - Minimal Marketable Product (MMP), and
- Integrate across the organization.

The product-market fit is measured quantitatively and qualitatively (see Measure what Matters) and revised based on the outcomes of learning.

How POA Helps Product-Market Fit

The product-market fit provides structure to identify the right market for the product. Whether or not the Product Owner was engaged in the early activities of the strategy horizon, they have a strong voice in both the initiative and delivery horizon. When the Product Owner takes on the role, they inherit the product and the evolution of the product-market fit.

POA Practitioners lead collaborative conversations with the team and stakeholders in the development and ongoing revisions to the product-market fit artefact. Through this level of collaboration, the team strengthens their understanding and commitment to impact customers and the organization.

POA Techniques for Product-Market Fit

BABOK® Guide Techniques

- ***Benchmarking and Market Analysis***: Understand how customer satisfaction improves over time against the previous product or market benchmarks. Market analysis techniques such as PESTLE, CATWOE, andPorter's 5 Forces can be used to provide an overall context for product-market fit.
- ***Decision Analysis***: Assess a product-market fit under different options to determine the value of alternate outcomes.
- ***Value Stream Mapping***: Assess the pieces that are valuable for providing a better product-market fit by analyzing the flow of the
    - Product features,
    - Product workflows, or
    - Transactions.

Other Techniques

- ***Product-Market Fit***: Product-market fit is an artefact and concept used to summarize the analysis of customer expectation vs. product value propositions. It is observed to determine whether or not there is a disconnect.

  (See Measure what Matters)

Case Study: Product-Market Fit - Home Security

Background

Christina, an Enterprise Business Analysis Professional, worked with a mid-size home security provider, Homeview. Homeview was planning its strategic product offerings for the next fiscal year. The executive management team had to decide whether to enter one of two increasingly competitive market segments (based on budgetary constraints). The two options were smart home technology and home health technology.

Homeview enlisted Christina to help identify which segment to select, based on the best fit for their market base.

Challenge

Since Homeview had over 100,000 home security customers with monitoring subscriptions and over 300,000 homes with their systems installed, it made sense to offer new technologies that could leverage the equipment and services already distributed. Homeview wanted to select a line of business to focus that would:

- Increase subscribers, and
- Become a market leader in the specific technology and home security business.

Actions

Christina started with ***benchmarking*** against competitors in the smart home technology and home health technology spaces. Some non-security service companies, specifically cell phone carriers and cable TV providers, were rapidly increasing their presence in smart home technology. A competing home security provider had even teamed up with a leading telecommunications company to provide smart home technology.

There was a separate growing industry offering options for personal health alert technology. Some of the offerings were limited to wired technology that was rapidly being replaced by wireless options. The companies in that space did not appear to be keeping up with current trends. This seemed to be an opportunity that Homeview could exploit.

Case Study: Product-Market Fit - Home Security

Christina analyzed the demographics of Homeview's consumer base and conducted a broader demographic review of consumers in general. It appeared that early adopters of mobile technology were of an age where home health technology would be a desirable addition to their current services. In addition, she discovered that many of Homeview's subscribers were already utilizing their home security alert features to request medical services.

Outcome

There was a gap in the home health technology provider services market and the corresponding desire of home security subscribers to have access to medical services. Plus, there was a saturation in smart home services providers on the horizon. With this in mind, Christina recommended that Homeview pursue the home health technology line of business.

Lessons Learned

The emergence of smart home technology services, while appealing from a commercial standpoint, proved to not be a good choice for Homeview Security. It would have been a completely new type of product to offer and would have to compete against established, large companies already making inroads in the industry. It would have required a major investment in marketing, as well as the technology itself, and still may not have been successful against the giants already in play.

A better plan was to focus on customers established in Homeview's portfolio, as well as similar ones in the broader consumer market. Customers with a growing need for medical services and an affinity for newer technology presented a better fit for Homeview's added services.

Therefore, the company focused its efforts on developing and implementing home health technologies and medical alert service products for that consumer segment.

.3 Define Value Proposition

The value proposition is a promise of value to be delivered to a customer that is developed from the culmination of:

- Ideas,
- Customer intimacy,
- Market insights,
- Evidence, and
- Design.

The value proposition demonstrates:

Understanding of	*Aligns with:*
• Customer pains and gains, • Jobs to be done.	• Pain relievers, • Gain creators, and • Product benefits.

Value proposition clarifies:

- How the product solves or improves the problem or pain.
- The benefits that the customer can expect.
- Why customers should choose this product over the competitor's product.

The value proposition drives compelling value for customers. It is not a slogan or a positioning statement, which focuses on a narrow benefit aligned to competitive advantage.

Through the value proposition, the customer sees part of the solution, and their interest is piqued.

The ***value proposition canvas tool*** helps to ensure that the product or service is positioned around what the customer values and needs. Originally developed by Dr. Alex Osterwalder, it aligns the fit between the product and the market. It feeds the customer segment and value proposition segments of the business model canvas. It provides a visualization that contributes to shared understanding and meaningful conversations.

How POA Helps with Value Proposition

Through alignment to the value proposition, effective POA inspires a value-focused mindset within the team. The team champions this value proposition.

The $100 Test Tool

Using tools like the $100 Test, POA Practitioners create an interesting and fun way to engage with customers or users to validate understanding of value and priority. It can be done with a group, individually or as a fun survey. With this activity, customers get to spend an imaginary $100 on features or options that are presented in a list. Completing this activity with the team and then with customers validates the team's understanding.

Completing this with the team and then with customers, validates the team's understanding.

$100 Test	***Product***	***Online shoe ordering - CX***
Feature/Desire/ Issue	$	Why?
Feature >6 Colour Options	$3.00	I like options but other features are more important
Features: Detailed description	$15.00	Love details!
Features: Comparison to others	$8.00	Depends on what is compared.
Features: Sizing, foot tracing visual	$0.75	I do not see myself doing this.
Visuals: Multiple pictures	$13.50	All perspectives.
Visuals: Picture on model	$10.00	Include info about model, like height and size.
Visuals: Video demonstration	12.50	
Reviews: Improved rating – Customer grouping responses (i.e. "I wear these shoes for...")	$13.50	I'd like reviews from people like me.
Reviews: Pictures from reviewers (incentive: discount for adding pictures)	$13.50	I love this!
Recommend: based on user selection options	$10.25	Let me pick what I want recommended.
	$100.00	

POA helps practitioners with:

- Crafting a strong value proposition,
- Making the value proposition canvas more effective, and
- Aligning validation points that contribute to the product-market fit.

POA Techniques for Value Proposition

BABOK® Guide Techniques

- ***Value Stream Mapping***: Assess the right value proposition by analyzing the:
  - Flow of the product features,
  - Product workflows, or
  - Transactions.

Other Techniques

- ***$100 Test***: Participants are asked to spend an imaginary $100 to choose features that are valuable from a customer perspective.

Case Study: Value Proposition - Retailer

Background

Super C retail stores had locations in the Midwest that also had gas stations and convenience stores on the same property. Super C catered to lower-income shoppers who were looking for bargains. They were introducing a store-branded credit card that could be used at Super C stores, as well as their related gas stations, and convenience stores.

Challenge

The average person in the United States has four credit cards. However, the average shopper at Super C does not have a traditional credit card because they do not have enough income or a sufficient credit score to secure one. However, they may qualify for a store credit card, which is typically easier to obtain. Super C wanted to:

- Build shopper loyalty by offering store credit cards, and
- Grow sales at their gas stations.
- They believed they could offer a value proposition to customers that would address both needs.

Case Study: Value Proposition - Retailer

Action

Product Owner Alicia used a value proposition canvas and focus group feedback provided by the marketing team to make recommendations on how to position the Super C store brand card to customers. Super C customers were particularly interested in the low prices the store offered on all their products. The gas stations, however, had prices per gallon that were in line with other stations in the same areas as the stores.

Alicia suggested that Super C stores:

- Offer five-cents-per-gallon off if a customer used the Super C brand credit card for their gas purchases. The lower cost of gas would attract customers to the Super C stations which would grow the business.
- Give customers a cash-back bonus after the first $500 purchased with their card. This would build brand loyalty because customers would generally need to make multiple visits and multiple purchases to attain the $500 level to achieve the cash-back reward. In addition, $500 in purchases was a lesser amount than competitors were promoting, so Super C customers would gain the benefit faster.

Outcome

When the credit card rolled out, Super C noticed:

- Sales at the gas stations increase,
- Customers' overall single purchases were higher when using the credit card, and
- Repeat customer traffic also increased.

Feedback from marketing surveys and focus groups indicated that beyond the cash-back bonuses and discounts on gas purchases, customers enjoyed the "prestige" of carrying a credit card, and in turn, wanted to shop more at Super C.

Lessons Learned

Super C's customers focused on shopping for low prices. Super C learned that paying attention to customer needs, and offering customers something unique, led to increased loyalty.

5.4.2 Advance Strategy

Effective POA focuses on product delivery, accelerating teamwork, and advancing strategy.

The Strategy Horizon (Agile Extension):

> *Value is created at the Strategy Horizon through understanding and achieving the business' goals. Business goals change; consumer tastes change; competitors create disruptive technology; regulations change. At the Strategy Horizon, the priority of business goals is continually reassessed and emerging opportunities evaluated.*

Effective POA requires navigating the broad view of product alignment while advancing organizational strategy with a detailed view of the product backlog to deliver the product customers love. A value-focused mindset guides the team to align customers and the organization.

POA Practitioners create opportunities to engage the team in understanding strategic value to complement their understanding of customer value. Effective POA focuses on communication, collaboration, and continuous improvement to ensure strategic alignment as the product evolves.

POA influences and is influenced by:

- Product strategy,
- Initiative cross-integration, and
- Organizational support.

Agile mindsets introduce a change from the traditional viewpoint of how these components advance strategy, including how they are planned and measured.

.1 Define Product Strategy

Product strategy largely involves the roadmap of a product. Agile product strategy introduces a dynamic iterative approach where learning and empirical evidence guide the strategy. The Product vision guides development of the initial strategy with built-in refinement cycles that consider customer feedback, market positioning, value proposition, and organizational goals. Unlike traditional product strategy that takes months of detailed analysis, requirement documentation, and planning, agile product strategy minimizes the risk of failure by focusing on fast learning, continually assessing value, consistently collaborating with stakeholders and customers.

How POA Helps Product Strategy

POA Practitioners work collaboratively with the stakeholders and the team to develop an empirical product strategy with inputs from:

- The product vision,
- Product-market fit, and
- Value Pproposition.

A ***Product Roadmap*** is a communication tool to help individuals visualize the product strategy. It manages the tendency to jump to release planning. Steering away from traditional product roadmaps that typically show a timeline of features, effective POA focuses the team on:

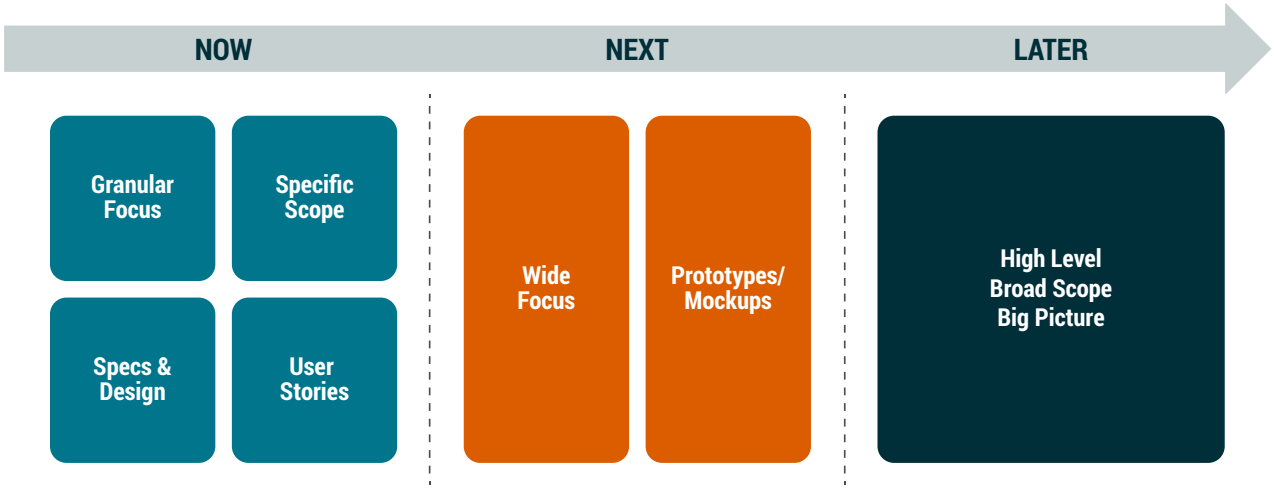
- Goals,
- Benefits, and
- Demonstrations of value.

Three specific types of roadmaps can be used independently or in combination with one another:

- ***Goal-Oriented Product Roadmap***: Focused on outcomes with success criteria. Product Owners use visuals to clarify a unified picture of what success looks like across stakeholders and the delivery team.

GOAL ORIENTED PRODUCT ROADMAP:				
Month	Month	Month	Month	Month
Release #	Release #	Release #	Release #	Release #
Objective	Objective	Objective	Objective	Objective
High Level Feature	High Level Feature	High Level Feature	High Level Feature	High Level Feature
Milestone	Milestone	Milestone	Milestone	Milestone

- ***Now - Next - Later Product Roadmap***: Good communication visual, especially for stakeholders. It poses a challenge if it becomes too feature-focused. Product Owners seek ways to keep it as value and benefit focused as possible.



- ***Story Map***: While story maps are feature and story focused, they are beneficial at the beginning of new product planning. Story mapping invites opportunities for the team to focus on value by:
  - Starting with customer or user activities,
  - Engaging stakeholders to share in the understanding, and
  - Design solution feature ideas.

	USER ACTIVITY		USER ACTIVITY	
	USER STORY	USER STORY	USER STORY	USER STORY
RELEASE #	TASK	TASK	TASK	TASK
	TASK	TASK	TASK	TASK
RELEASE #		TASK	TASK	TASK

Product strategy is a driving force for the team to accelerate maximizing product value. Alignment of expectations is essential to stakeholder and customer satisfaction. POA provides insights, techniques and tools that help the team to manage expectations.

POA Techniques for Product Strategy

Agile Extension Techniques

- ***Story Mapping***: Depict the product flow in the form of stories on a timeline that can be used as a roadmap of the product. Applicable in the delivery horizon for internal team communication.

BABOK® Guide Techniques

- ***Value Stream Mapping***: Analyze the flow of the product features, product workflows or transactions to visually show how value is augmented over time.
- ***Workshops***: Discuss, collaborate and build a shared understanding of the product strategy with stakeholders

Other Techniques

- ***Now-Next-Later Product Roadmap***: Communicate product strategy in the form of a product roadmap that embeds the agile principle of just enough

planning where the Now (near term) is detailed and becomes less granular in the future.

- ***Value Proposition Canvas***: Ensure the features of the products are aligned to what is valuable to customers. This drives the product strategy.
- ***Goal-Oriented Product Roadmap***: Depict product strategy as a succession of goals. It is more appropriate in the initiative horizon for external communication outside the immediate product team.
- ***$100 Test***: Participants are asked to spend an imaginary $100 to choose features that are valuable from a customer perspective.

Case Study: Product Strategy for Project Intake Process - Food Manufacturer

Background

Poultry Plus had some major time-consuming manual workaround intake and approval for new customer projects. The process began when the sales department was contacted by customers who would provide a list of needs for ingredients, manufacturing time constraints, labelling constraints, cost per product, etc. While the customers were innovating to become leaders in pet food production, Poultry Plus' systems were not keeping up with their automation needs. The sales team consulted with Tony, a Product Owner assigned to the IT product development team, and established work on a new project intake process.

Challenge

Tony identified a major pain points of the project intake process:

- The full scope of the customer's needs was not captured in the level of detail required to determine whether they had the capability of meeting the customer's needs.
- The information was garnered from sales team members in informal conversations with the customers and captured in handwritten notes.
- Some teams had spreadsheets that they would fill in with the help of the customer.
- A few well-established customers were sent spreadsheets to fill in on their own.
- Information was not centralized for ease of analysis.
- Once the needs were scoped and capability confirmed, there was a great deal of project administration data that had to be loaded manually into disparate product management systems,. Ths consumed a lot of internal work effort to perform and keep in sync.

Management was extremely interested in keeping internal data-entry to a minimum, especially since the customer had the bulk of the data needed at the outset of describing their project needs. They wanted an electronic solution that captured all the data early on but still supported a personal relationship between sales personnel and the customers.

Case Study: Product Strategy for Project Intake Process - Food Manufacturer

Actions

Tony evaluated the situation and determined that an effective solution could include:

- Rollout of an online information-collecting form for customers to complete,
- Eventual growth to a more robust system with connections to other internal systems,
- Workflows that alerted other departments that had influence and interest in the new customer projects,
- Rules and other educational information that would benefit the customer, and
- A front-end for customers to view the progress of their project approval and progress.

Tony developed a ***product roadmap*** that began with the development of the simple online customer interface for a first iteration. He arranged the roadmap in a timeline of what to do now, what to do in the next iteration, and whatto do later (a ***Now-Next-Later roadmap***) and confirmed with the business that the features were in the right place.

Outcome

Tony focused the team on the first iteration, and they began to write and elaborate user stories to deliver what was needed immediately. The user stories were then prioritized into a story map to drive their development process in delivering small increments of usable functionality frequently. The team enlisted subject matter experts on the business side to verify functions when ready and invited customers to review completed features. The first iteration met the business' initial major pain point and laid the groundwork for future value-added features.

Lessons Learned

There is a temptation to want to deliver a fully featured solution, but sometimes there is a larger, over-arching problem that can be solved with a smaller solution that can be built upon. In this case, a primary problem emerged early in the project: the data needed from a customer was available but not centralized, so the team tackled that first.

Sometimes there is reluctance from a business team to "greenlight" development without all the bells and whistles. Perhaps they are afraid they will not get desired features otherwise. The focus on the ***Now-Next-Later Roadmap*** helps alleviate that fear because the project is clearly not complete after the first iteration; there is still more work to be done, yet the value is already being enjoyed.

.2 Integrate Across Initiatives

POA Practitioners need to understand how their initiative contributes at the strategic, initiative and delivery horizon, as well as integrates with other initiatives. Without planning across initiatives, the product is at risk of not having the needed resources to deliver maximum value.

Types of integrations across initiatives include:

- ***Product integration*** - Multiple teams working on one product,
- ***Strategic Initiative integration*** - Multiple products contributing to a strategic initiative, and
- ***Organizational integration*** - Multiple departments within an organization contributing to the success of the product.

Scaling frameworks can address integration across initiatives including:

- ***Scaled Agile Framework*** (*SAFe®*) for Lean Enterprises. This is a knowledge base of proven, integrated principles, practices, and competencies for achieving business agility using:
    - Lean,
    - Agile, and
    - DevOps.
- Scrum-of-scrums is a scaling mechanism. Scrum scales fractally and limits the number of communication pathways needed to transmit information relevant to the success of the enterprise.
- ***Large Scale Scrum (LeSS)*** provides two large-scale Scrum frameworks which are basically single-team Scrum scaled up:
    - LeSS: Up to eight teams (of eight people each).
    - LeSS Huge: Up to a few thousand people on one product.

How POA Helps Integrate across Initiatives

POA Practitioners have an expanded realm of responsibility and influence when it comes to integrations across initiatives. Imperative to the success of the product, POA advocates partnering to prepare for planning sessions that facilitate teamwork across the initiatives.

- Integrations are planned.
- Teams seek to uncover ways to share tasks.

POA Practitioners empower team members to engage as contributors to the success of each integrated initiative. They navigate communication and engagement with an expanded team as each initiative and integration point requires team members to cross-coordinate their efforts efficiently and effectively. They contribute to the success of integration (scaling) through:

- Transparent communication,
- Creative collaboration and negotiation,
- Being available and interested, and
- Commitment to the success of all integrated initiatives.

POA Techniques to Integrate across Initiatives

Agile Extension Techniques

- ***Purpose Alignment Model***: Assess ideas in the context of customer and business value. It can be extended to an initiative level and to evaluate cohesive business value.

BABOK® Guide Techniques

- ***Value Stream Mapping***: Analyze the flow of the product features, product workflows or transactions to visually show how value is augmented over time. It can be used to understand the cadence of initiatives and builds a bigger picture.
- ***Business Capability Analysis***: Understand the constraints and capabilities of the organization in planning and collaborating against initiatives.
- ***Decision Modelling***: Establish a decision framework for the enterprise and their precedence so that collaboration across initiatives has a clear reference on how repeatable enterprise decisions would be taken.

Case Study: Integrate Across Initiatives - Food Manufacturer

Background

As Poultry Plus continued to modernize the systems used for their growing business, it became evident that the various divisions were using:

- Multiple systems
- Manual processes and spreadsheets to complete their work

In discovery, the IT leadership, in conjunction with executive management, decided that a long-term solution would be to replace the disparate systems with four systems:

- Product management,
- Quality assurance systems for the plants,
- An Enterprise Resource Planning system for back-office functions, and
- A Business Intelligence system which worked across all systems.

Challenge

Implementing the new systems was done in parallel with the processes established at the company so that operations could continue without interruption. IT development proceeded in their business-unit focused scrum teams. It was apparent that overlapping work was being done, and that some gaps in needs for implementation, were being overlooked.

Case Study: Integrate Across Initiatives - Food Manufacturer

For example, the poultry division's need for product management varied from the pet food division's, so customizations to the software solution purchased were different. The poultry division's needs were simpler, and their development was completed faster and did not take into consideration the pet food division's needs. If development continued in favour of the poultry division, a great deal of rework would be needed for the pet food division. Then the rework may or may not meet the poultry division's needs.

Action

It was decided to realign IT operations around a more ***Scrum-of-Scrums*** model to integrate across the initiatives, led by Susan, a Senior Product Manager.

The IT organization was reorganized to focus on products rather than business units. Susan and the Product Owners in each group met regularly to discuss their ***product roadmaps*** and determine where overlaps may occur and where coordination between groups would be required. Care was taken to schedule resources to focus on the current highest-priority development items across the roadmaps, rather than staying within the product team. Susan worked with each team to overcome roadblocks and re-balance resources when needed.

For example, each business unit relied on data provided by Business Intelligence. They needed information beyond their unit, to inform decisions. The product groups knew which pieces of information were coming up in their next sprint that the business unit would need but required resources from Business Intelligence to make that data available.

Outcomes

Susan kept a diagram of the upcoming Business Intelligence needs on a timeline. The product Owners discussed which BI elements were needed in each sprint to allocate resources accordingly. Besides, members of the BI development teams attended sprint-planning meetings with the individual teams to understand the needs at a root level.

Lessons Learned

Communication is key when parallel initiatives are being run across an organization. Otherwise, inefficiencies and rework are common. Poultry Plus recognized this and re-structured the IT operations to avoid common pitfalls in development coordination. The Scrum-of-Scrums model worked well because it ensured that all scrum teams had their needs represented and communicated at a higher level. It coordinated efforts across scrum teams for maximum efficiencies in their development efforts.

.3 Cultivate Organizational Support

Organizational support extends across departments, ignoring silos, to

- Plan and coordinate efficiently,
- Manage risks and assumptions, and
- Harmonize work efforts.

Product success often depends on parts of the organization that may not be directly involved in the product team's day-to-day activities.

How POA Helps Cultivate Organizational Support

POA Practitioners cultivate a support system and create a culture of teamwork across the organization by:

- Managing and using the stakeholder map to effectively communicate with each stakeholder.
- Being attentive to signs of misunderstanding or misalignment and addressing concerns with transparency and authenticity.
- Knowing how the product will contribute to organizational strategy.
- Demonstrating interest in other strategic products and initiatives.
- Having a compelling elevator speech.
- Having social connections with stakeholders.
- Championing the product throughout the organization.
- Asking for help and seeking insights from others in the organization.
- Asking questions to understand and to inspire.

POA Techniques to Cultivate Organizational Support

BABOK® Guide Techniques

- ***Stakeholder Map***: Analyze stakeholders across the organization to create an effective engagement and collaboration approach.

Other Techniques

- ***Working Agreements***: Get a formal or informal agreement for resource and outcome sharing across the enterprise.

Case Study: Cultivate Organizational Support - Food Manufacturer

Background

Poultry Plus is a manufacturer of food products for people and pets.

Poultry is processed for sale:

- To restaurants, and
- In grocery stores.

Pet food manufacturing includes:

- Co-packing (using the customer's formulations), and
- Private label (the company's formulation sold under a customer's private label).

While there are similarities between the business unit operations, there are differences in complexity and application of operations.

Challenge

Executive leaders at Poultry Plus struggled to allocate needed resources to the different business units because:

- Data analysis was inconsistent,
- Data for each business unit was not available in a visual format
- Data elements reported not comparable or available within a single system.

Executive management needed to have a view of the data that clearly indicated key business drivers to make the right decisions for the direction of the company.

Divisional management needed lower-level views of the data to make the right operational decisions on a day-to-day basis. Resources in both business units spent a great deal of time compiling data and arranging it in easy-to-view presentations for the top leaders to review. In most review meetings, there were many questions left unanswered by the data presented, and the divisional resources had to go back and revise the data. Frustrations were high as non-value-added work continued to answer questions and inform decisions.

Case Study: Cultivate Organizational Support - Food Manufacturer

Action

Poultry Plus previously purchased an enterprise data warehousing solution but was not using it to solve the data visibility issue. A POA professional on the development team, Carla, worked with the business leaders and operators to understand what data elements were essential to use in their daily work. She also worked with executives to understand what level of data would answer the critical questions for their level of decision-making. This formed the basis for ***customer personas***, which inlcuded:

- Executive Manager,
- Operations Manager, and
- Operator.

They were arranged on a ***Stakeholder Map***. Their specific needs were listed visually and used to ensure that the right data from the right sources were leveraged to roll up to the executive level.

Carla worked with the Business Intelligence team to compile the data into a usable format for the entire company. The visualizations started at a high-level view across the company and could be drilled into according to business unit, specific projects, and even specific products and suppliers to see where there were changes needed or opportunities existed.

Outcome

The first rollout of a ***"speed-to-market" dashboard*** indicated how quickly products were being manufactured and distributed according to plan, which was given to the operations team for the poultry division. It was so well received that it was quickly adopted by the sales, marketing, quality, and research and development teams in that division and soon after to the pet food divisions.

- Executives were thrilled that they could open a webpage on their tablet and immediately see trends across the company, all in the same context.
- Managers no longer had to manually comb through data to produce slide presentations for status meetings, which freed up their time to work on more productive tasks. In fact, many status meetings across the company were deemed no longer necessary since access to the data was readily available.

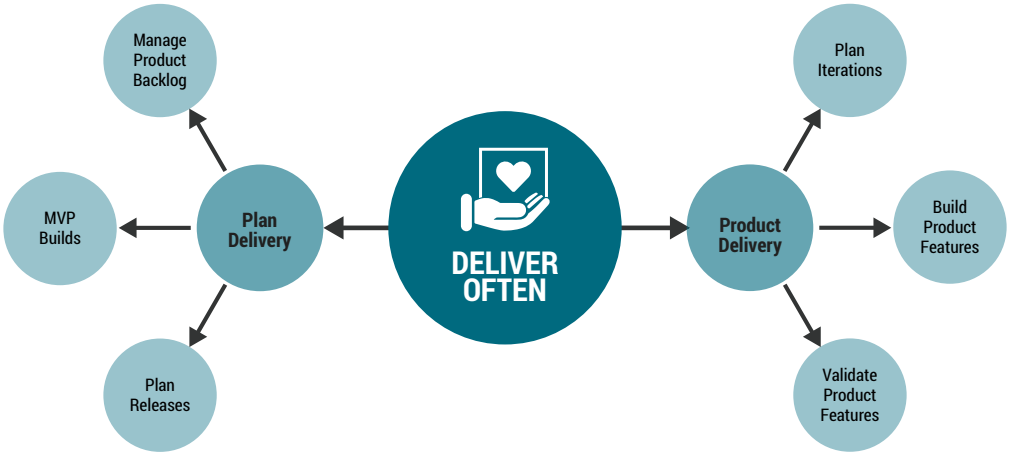
Additional dashboards were prioritized for the creation and put into the development pipeline.

Lessons Learned

Prior attempts at providing data for decision-making across the company did not take into consideration the true needs of executive management and were limited to the daily needs of the different divisions.

The ***stakeholder map*** was an essential element because the primary user "types" for the data had quite different needs for the same data. Working towards pleasing one would not have been useful for the other, and may have led to more disparity, rather than unification.

5.5 Deliver Often



A customer-centric, agile mindset drives the POA Practitioner's thinking and behaviour towards value maximization. This mindset, combined with a set of practices and techniques, enables effective delivery of "*just enough of the right product to the right people, early and often*".

Deliver often is motivated by the desire for continual assessment of value. It:

- Breaks deliverables into smaller-sized, meaningful outcomes that can be shared for early and frequent feedback.
- Focuses thoughts and actions to know the value of each task, and how that task contributes from the product backlog item (PBI) level through to the feature and/or component level.
- Reduces risk and validates assumptions through frequent assessment and evaluation.
- Manages costs and resource planning.
- Guides decisions and is guided by demonstrations of value.
- Requires dedication to ask questions and seek measurable answers.
- Puts the customer at the centre of everything.

The agile mindset helps POA Practitioners rally the team to:

- Plan,
- Prepare,
- Build, and
- Deliver often.

The main aspects of an agile mindset include:

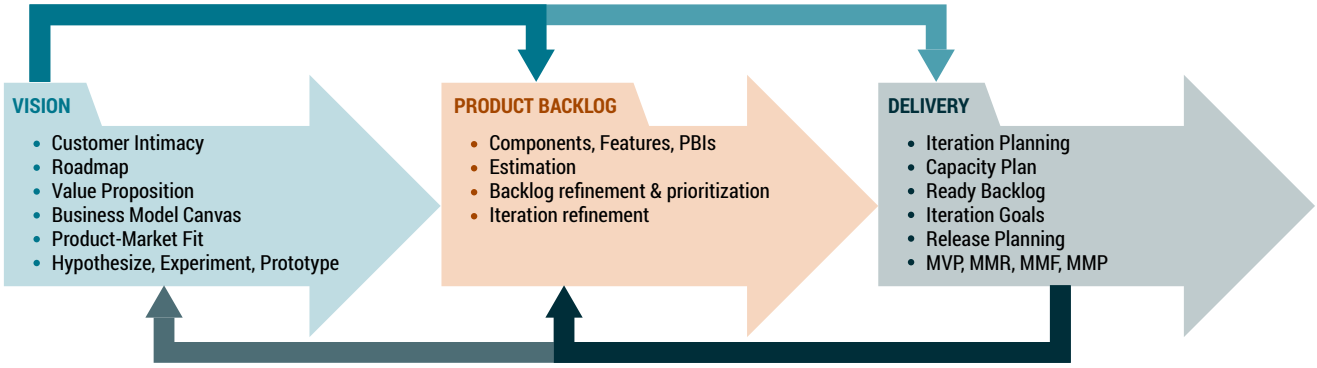
- Deliver value rapidly and consistently,
- Collaborate courageously,
- Iterate to learn,
- Simplify to avoid waste,

- Consider the context and adapt to realities,
- Reflect on feedback and adapt both product and process, and
- Produce the highest quality products.

The main aspects of an agile mindset also guide the Product Owner and the delivery team to identify small, valuable increments that can be delivered to allow for insightful, meaningful feedback and evaluation.

Planned product components are delivered as increments. They:

- Are shared sooner for customer validation, or
- Unfold risk and cost, enabling early adjustments or strategic decisions, or
- Hypothesize and experiment with a focus on the frequency of value assessment.



5.5.1 Plan Delivery

Agile delivery is a business strategy that creates value through fast feedback and short decision cycles. Planning is an activity that is a big part of the Product Owner's role and adopting effective POA can help. Agile planned delivery puts the focus on planning not on the plan.

Agile delivery planning can be iterative and adaptive.

- ***Iterative planning*** prioritizes and refines the work in short cycles designed to provide focus and increase the feedback and learning gained from stakeholders.
- ***Adaptive planning*** involves a continuous change to long-term plans. Evaluation is used to prioritize and refine the work to be done to deliver the highest value.

Agile approaches deliver value incrementally by:

- Slicing the product into small pieces,

- Prioritizing them by business value,
- Addressing the riskiest items as early as possible, and
- Delivering new items of value frequently.

Incremental delivery allows for rapid feedback, learning, and adaptation.

The definition of Agile delivery is broad and leaves room for confusion and misunderstanding. Stakeholders may expect more than what is delivered. For example:

- Stakeholders may not understand an experimental delivery to test technical features that are believed to add value by accelerating business capabilities. Delivering a prototype may be the option chosen to prove and demonstrate the functionality. It may only include basic features that build the foundation but does not demonstrate the full potential from a stakeholder's view.

Planned delivery provides the framework for meaningful communication and collaboration that alleviates this type of confusion and facilitates alignment of expectations.

Planned delivery is healthy for the delivery team. It contributes to the value-focused attribute of an agile mindset by challenging the team to answer, "How will we know?" before starting work. It contributes to a culture of trust and transparency.

The ***Definition of Done*** is used to clarify understanding of what completeness means for PBI work, iteration work and feature work. Applying this concept to articulate a Definition of Delivery enables collaborations and communication across the delivery team and the stakeholders. It sets expectations and helps mitigate any confusion among the delivery team and the stakeholders.

To facilitate planned delivery, the team:

- Manages the product backlog,
- Defines the MVP, and
- Plans releases.

.1 Manage Product Backlog

Effective POA guides the direction of the product and maximizes the value of the product through a product backlog. The product backlog is a list of items related to building a product, referred to as product backlog items (PBIs).

The source of PBIs may trace back to the customer, business, or technical items that are gathered throughout the strategy and initiative horizons. The Product Owner owns the product backlog and holds accountability to manage it.

Iterative and adaptive planning both reference the need to "prioritize and refine the work." "The work" is captured as product backlog items in the product backlog. The PBIs roll up to a component, feature, or shippable product.

A product backlog is not a dumping ground for every request, an issue log for every submission, or a placeholder for every piece of work that may be

considered for a product. In general, a healthy, well-managed product backlog:

- Demonstrates the product development strategy,
- Is the single source for product requirements,
- Includes 1 - 2 iterations of PBIs that meet the Definition of Ready,
- Includes 1 - 2 iterations of PBIs that are in refinement,
- Includes PBIs as a list of all work that needs to be completed to deliver a product,
- Is prioritized, estimated, and sorted, and
- Articulates the business and/or technical value of every PBI.

How POA Helps Manage Product Backlog

As the owner of the backlog, the Product Owner understands the importance and value of consistent backlog management and can use POA practices to good effect. As a central touchpoint for everything related to the delivery of value, the product backlog is a continuous:

- Receipt of work,
- Refinement of work, and
- Delivery of done work.

POA encompasses all the background work that the Product Owner or any other POA Practitioner does to manage the product backlog in a healthy condition. While the Product Owner is accountable for the management of the product Bbacklog, multiple building blocks contribute to the level of health. The health of the product backlog is reflective of the health of the team. Each domain within this Guide helps the team navigate the give and take required for better culture and teamwork, leading to better backlog health and, ultimately, better product delivery.

POA Techniques to Manage Product Backlog

Agile Extension Techniques

- ***Real Options***: Determine when to make decisions. It is useful in determining the flow of the product backlog and the priority of PBIs.
- ***Relative Estimation***: Make future predictions based on:
    - Experience,
    - Knowledge,
    - Complexity,
    - Size, and
    - Uncertainty required to complete backlog items.

- ***Story Mapping***: Assist with prioritizing product delivery and creating an understanding of:
  - Product functionality,
  - The flow of use, and
  - Assist with prioritizing product delivery.
- ***Value Stream Mapping***: Provide a complete, fact-based, time-series representation of the stream of activities required to deliver a product.

BABOK® Guide Techniques

- ***Backlog Management***: Record, track, and prioritize remaining work items.
- ***Balanced Scorecard***: Manage performance in any business model, organizational structure, or business process. It helps with aligning backlog items to objectives.
- ***Brainstorming***: Collaborative planning of PBIs.
- ***Collaborative Games***: A tool to increase participation, collaboration and shared understanding of product backlog or elaboration of PBIs.
- ***Concept Modelling***: Capture the main product and industry domain concepts to help build an understanding of concepts and their interrelationships. It aids in understanding PBIs and their dependence on prioritization, estimation, and elaboration.
- ***Data Modelling***: Capture data elements tied to the product and their relationships which help detail the PBIs and their effect on the underlying data and data structures.
- ***Functional Decomposition***: Successively decompose components, features and PBIs into implementable items and tasks.
- ***Interface Analysis***: Identify where, what, why, when, how, and for whom information is exchanged between solution components, making the PBIs more comprehensive.
- ***Interviews***: An elicitation tool to discover PBIs from stakeholders.
- ***Metrics and Key Performance Indicators (KPIs)***: Verify the success and failure of successful implementation of PBIs.
- ***Prioritization***: A set of tools to manage the flow of the products and PBI.
- ***Process Modelling***: Create a detailed understanding of different processes involved or affected by the product, which helps in discovering new PBIs or analyzing the effectiveness of deployed items.
- ***Prototyping***: Demonstrate the delivered and deployed PBIs to stakeholders in order to gather feedback, or elicit future PBIs.

Case Study: Manage Product Backlog - Food Manufacturer

Background

Tony, the Product Owner for the New Product Intake Process at Poultry Plus, established a ***Now-Next-Later Product Backlog*** at the outset of the initiative and had the high-level features laid out on a timeline for delivery. The next step was to get started organizing the "now" portion of the backlog and drive the product team toward their delivery goals.

Challenge

Although the features had been broken into smaller chunks of delivery for immediate versus longer-term needs, there was a lot of work to do. The team wanted to deliver testable functionality in every sprint to ensure the business users, as well as the end customers, were getting satisfying deliveries that built confidence toward the final release and future revisions. Tony and the team had established a ***User Story map*** and organized it to guide their development timeline.

Action

Note: the term "project" refers to the customer's project they are working on with Poultry Plus, and "Product" refers to the customer's product, which will be sold to consumers.

Tony led the team in activities to manage the backlog each sprint. For the initial sprint, they used ***concept modelling*** determine which features had dependencies and which needed to be completed before the next one could be built. For example, it did not make sense to build customer product details without an understanding of the full project.

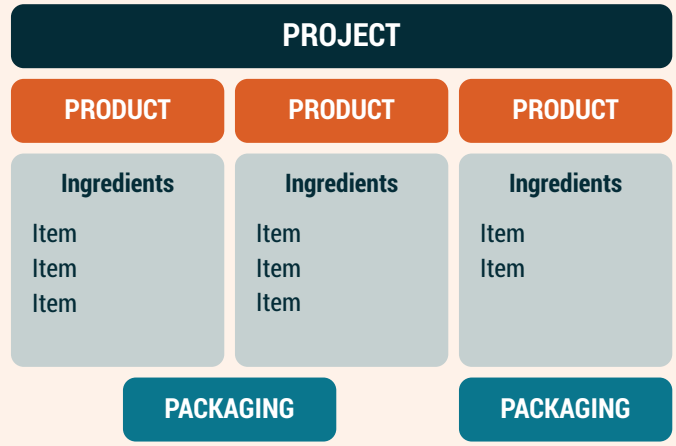
- The first sprint focused on capturing project-level details as entered by the customer.
- The second sprint focused on breaking the project down into product-level details, including ingredients and sourcing.
- The third sprint focused on packaging and labelling, etc.

Tony worked with the business team on ***process modelling and prototyping*** activities to better refine the backlog. He used low-fidelity techniques such as ***whiteboarding and hand-drawing diagrams*** so that the visuals drew out conversations but did not lock in the development team to certain interface designs.

Case Study: Manage Product Backlog - Food Manufacturer

Outcome

For example, when discussing the hierarchy of project, product, ingredients, and packaging, it was determined that one project may have one or many products. In this case, each product had many ingredients, and packaging may have been the same for some products, but not all. This was more easily determined using a visual diagram. After that, the backlog could be organized according to the agreed-upon hierarchy.



Lessons Learned

The business team for the New Product Intake Process was distributed across three different locations, and they did most of their discussion via web conference.

Tony found that the business team could talk easier about ***visual depictions*** since it was easy to re-arrange process tasks using sticky notes and a whiteboard. Since they were not co-located, Tony had to get a bit creative with ***collaborative tools*** to use. He found the use of simple hand-held dry-erase boards held up to his camera to be effective for these conversations. Once agreed-upon, it was just a matter of adjusting the backlog to match the diagrams to keep the development process flowing.

.2 Minimal Viable Product Builds

Minimal Viable Product (MVP) is a concept used to reduce cost and risk associated with developing the wrong product, by:

- Testing a hypothesis,
- Reducing waste, or
- Increasing speed to customers for feedback and learning.

MVP is "the fastest way to get through the Build-Measure-Learn feedback loop with the minimum amount of effort" - Agile Extension.

The MVP aims to:

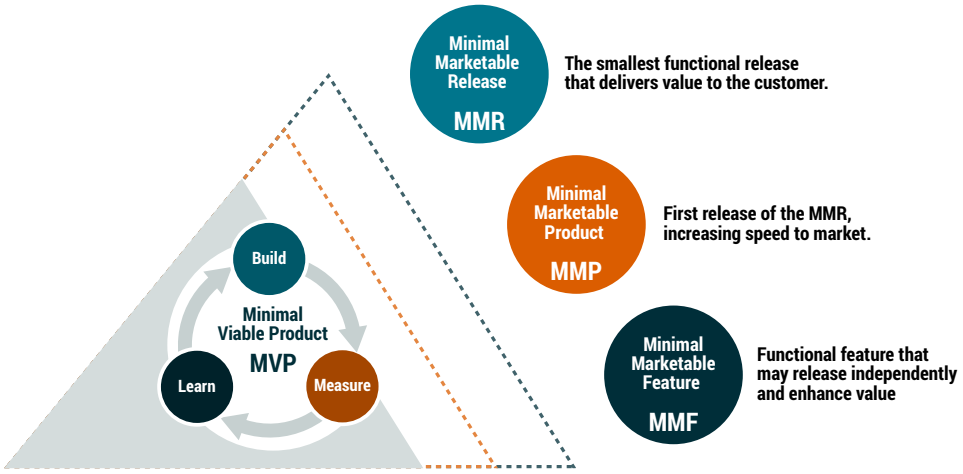
- Represent the smallest, most cost-effective version of the product that maximizes validated learning opportunities from customer feedback.
- Validate a hypothesis through experimentation.
- Be inclusive of technical, market, regulatory or other supporting and enabling work.

The confusion that often exists around MVP appears to be rooted in attempts to create a cookie-cutter approach rather than providing guidance to figure it out given the uniqueness of

- Organization,
- Strategy,
- Customer,
- Product, and
- Value proposition.

The MVP concept needed more clarification to decide:

- What is enough to release,
- When to release it,
- Who to release to, and
- How to improve communication and shared understanding.



This led to the introduction of the:

- Minimal Marketable Release (MMR),
- Minimal Marketable Product (MMP), or
- Minimal Marketable Feature (MMF)

Each is aimed at defining and delivering a simple product with the right user experience.

One or several MVP's may roll up to an MMR, MMP or MMF, each adding components, features or improvements and providing opportunity for intelligent learning and value assessment.

The MVP demonstrated to business stakeholders may:

- Be a prototype or a pilot,
- Be just enough to deliver measurable value, or
- Provide options.

Planned delivery helps answer these questions:

- “How much is enough to add value?”
- “How will we know?”
- “Is there sufficient value to move forward?”

How POA Helps MVP Builds

Feeling the constant passion to help customers, the drive to deliver often, and the urge to demonstrate value, the team wants to get the MVP right.

The MVP Build opens opportunities for carefully planned learning. While customer intimacy is forefront, the team benefits from some technical knowledge. Recognizing the importance of security and the right technical foundation to support the product, must be a priority. Knowledge gained through trusted relationships with Developers and Architects helps the team:

- Prioritize work,
- Balance decisions, and
- Communicate effectively with stakeholders.

What it is		
Building a viable product	***Minimal effort with maximum learning***	***Evidence-based learning***
• Focus on core features that allow it to be a working product and provide value to the customer to gain feedback and validation.	• Consider the minimum features required to get the needed feedback and learning to demonstrate value.	• Maximum learning comes from customers' direct experience with the product, rather than on customer's extrinsic needs and perceptions.

What it might be		
Functional prototype	***Shippable product***	***Cheap and fast***
• MVP is a functional prototype that may be delivered to production. In some cases, MVP might just be the functional prototype.	• While MVP should have sufficient value to be sold to the customer, in some instances it does not have the desired experience needed for it to be shippable.	• Budget and time constraints should not be the primary decision when defining MVP. While it should be cost-effective and release quicker to market, having "cheap and fast" as the goal of MVP has risks.
What it isn't		
All must-have features	***Proof of Concept (POC)***	***A single, fixed release***
• There is a difference between the must-have features of a product and core features that make a working product that delivers value to the customer. MVP focuses on core features delivering value.	• POCs are built for internal use, to check if a product idea is feasible. It often validates a technical aspect of the product.	• While MVP is the first release of the product, it may not include all the features that realize the full value of the product.

POA Practitioners will utilize people, processes, and technology to elicit and analyze information to find the right fit to deliver thoughtful calculated MVP builds. The first MVP is important. How it is delivered may be as important as what is delivered.

POA Techniques for MVP Builds

Agile Extension Techniques

- ***Backlog Refinement***: Ensure items selected for the MVP are defined in detail and with clarity.
- ***Minimal Viable Product***: Determine the MVP build that needs to have rapid feedback.
- ***Product Roadmap***: Communicate direction and progress towards the product vision. It can help the MVP scope to be determined.
- ***Kano Analysis***: Understand which product characteristics or qualities will prove to be a differentiator in the marketplace and help drive customer satisfaction.

BABOK® Guide Techniques

- ***Backlog Management***: Record, track, and prioritize remaining work items including those for the MVP.
- ***Prioritization***: Used with backlog management and backlog refinement, to prioritize items for the MVP.

Case Study: MVP Builds - Food Manufacturer

Background

Early in the development of Poultry Plus' New Project Intake Process, the Product Owner, Tony, recognized that there were other opportunities to connect the information gained from the process to other systems and processes across the company. When planning the product strategy, this was laid out in a Now-Next-Later Product Backlog.

Challenge

Tony and the development team needed to confirm MVP for the New Project Intake Process. Initially, it seemed that simply delivering an online tool for the customer to enter the details would suffice. After all, the main problem was that customer requests existed in disparate, and sometimes not even electronic, systems.

In ***interviews*** with Sales Representatives, Tony discovered that:

- Customers often did not understand enough about the manufacturing processes and regulations to provide complete information. They had to help the customers determine what needed to be considered.
- Customers had creative ideas that may not be able to be achieved in their initial form but could be adjusted minimally to succeed.
- Research and Development and Quality Assurance might have information that they needed from customers to confirm the viability of the request.

Based on this new information, Tony realized that simply asking a customer to fill in a form online might result in incomplete information and not address the main problem.

Action

Tony realized that to ensure the initial release addressed the main problem in a meaningful way, the functionality for MVP needed:

- Guardrails for customers, and
- Functionality for Sales, R&D and QA.

Tony worked with the analysts to determine which data elements from customers were required, or optional.

Case Study: MVP Builds - Food Manufacturer

- Where data came from:
  - Directly from the customer,
  - Collaboration with Sales, or
  - Some other source.
- Opportunities to:
  - Limit customers selections for certain data, or
  - Enter free-text specifications.
- That Sales, R&D and QA needed to have interfaces to the online form to provide their internal information.

Lessons Learned

The team learned that while Minimal Viable Product should be a small, cost-effective version of the final product, the V was critical to assess. Viability leads to adoption, not just by the end-users of a system, but by others impacted by it.

Simply providing an online form for customers to fill in would have been fast and cost-effective, and it would have been modern, but it would not have achieved a viable solution for Poultry Plus. It would have shifted ongoing work online.

For MVP to be achieved, the team had to assess what was minimally viable for their internal users as well as the external customer.

.3 Plan Releases

The team prioritized the product backlog and shaped it into an MVP, MMF, MMP, or MMR aligned to the product vision and Roadmap identifying the "what" to deliver.

The tactical preparation that includes when and how to deliver is called release planning. Release planning translates customer value into an iterative progression to deliver prioritized features.

The outcome of a successful release plan is alignment on:

- The objectives for the next 3 to 6 months,
- The number and duration of the iterations,
- Deliverables or features the team aims to achieve iteratively,
- The iteration level goals,
- Management of identified dependencies and risks,
- The commitment and timing of resources doing the work, and
- The number of releases, value delivered in each release, and ship date for each release.

A release planning session typically takes place every 3 to 6 months (or 2 to 3 months within a scaled framework), although the release plan may need revision after each Iteration.

Participants in the release planning session include:

- POA Practitioners,
- Product Owner,
- Full delivery team,
- Stakeholders,
- Architects,
- Shared service teams, and
- Any essential contributors.

Criteria of the Definition of Ready for release planning:

- High-level capacity plan:
    - The delivery team, and
    - Any supportive resources.
- High-level refinement with t-shirt sizing estimates:
    - PBI elaboration,
    - Development, and
    - Testing efforts.
- High-level dependencies have been identified:
    - Technical,
    - Operational, and
    - Business considerations.

Release criteria are defined, including any hardening or stabilization requirements.

Release planning should be highly collaborative and interactive. It is important to include remote team members.

Tools include:

- Sticky notes, flipcharts, and whiteboards.
- Video conference tools for collaboration.
- An Agile product management tool to manage and share results.

Release Planning Session - Agenda example

- ***Introduction*** - Agenda, participant introductions, release goals.
- ***Product Vision*** - The Product Owner explains the vision to ensure release planning remains aligned.
- ***Deliverables*** - Identified, clearly defined, and assigned business value.
- ***Time-Boxes*** - Duration of release and iterations (number of iterations per release).
- ***Team Capacity*** - Estimate capacity for the delivery team to determine workload per iteration and release.
- ***Agreement*** - Build agreement with the team on deliverables and Definition of Done for features.
- ***Iteration Backlogs*** - Move items from the product backlog to iteration backlog within a release.
- ***Dependencies*** - Identify between items, across teams, across iterations, to resolve/remove dependencies.
- ***Workload vs. Capacity*** - Calculate each iteration's workload and evaluate against the team's capacity.
- ***Risks & Issues*** - Analyze any discovered risks and issues and determine mitigation strategies.
- ***Retrospective*** - Evaluate productivity of the session, ease of collaboration and areas to improve.

*Based on Tabaka, 'Collaboration Explained,' Addison Wesley, 2006

The Product Owner may share the release plan progress as part of each iteration review. This transparency will help if adjustments are required based on the outcome of an iteration. Revisions to the release plan after an iteration may be required:

- PBI's not completed,
- Unexpected complexity, and
- Spikes and unplanned capacity adjustments.

How POA Helps Plan Releases

The team is responsible for much of the release planning preparation:

- Prioritized PBI's with high-level estimates,
- T-shirt sizing, and
- A defined MVP, MMF, MMP, or MMR.

Additional considerations:

- Capacity plans,
- People and technical resource needs,
- Dependencies, and

- Anything that influences the release.

Awareness of where they can use influence to support the design and execution of the release plan is beneficial.

Communication, at all levels, is central to the Product Owner's contribution to collaborative release planning.

POA Techniques for Plan Releases

Agile Extension Techniques

- ***Planning Workshops***: Determine what value can be delivered in a product release.
- ***Reviews***: Demonstrate and inspect an increment of the product with stakeholders for a release.
- ***Value Stream Mapping***: Provide a complete, fact-based, time-series representation of the stream of activities required to deliver a product. It can be modified to assess whether the value is provided, and the strategy is sound.
- ***Visioning***: Explain the release goals concisely. A release is compared to the entire product vision.

BABOK® Guide Techniques

- ***Brainstorming***: Foster creative thinking to support planning activities.
- ***Interviews***: Interact with specific stakeholders to gain information or knowledge to support planning.

Case Study: Plan Releases - Food Manufacturer

Background

Poultry Plus' Product Owner, Tony, had the overall roadmap for the New Project Intake Process development, and had the MVP portion planned to a lower level of detail with user stories and story maps.

Challenge

Tony needed a delivery schedule that made sense for everyone, delivering maximum value functionality each time. He needed to work with:

- The product development team,
- Business stakeholders,
- Architects,
- Shared services teams, and
- Customers.

Since the stakeholders had varying schedules and responsibilities, it was going to be a difficult task.

Case Study: Plan Releases - Food Manufacturer

Action

Tony decided to have a ***planning workshop*** with the stakeholder group, except for the external customers, whose needs would be represented by the sales team. He used the ***product roadmap*** to show which features were planned for delivery in the ***Now, Next, and Later*** sections, and the detailed ***user story map*** for the MVP delivery.

Tony explained to the team that the development was being done in two-week sprints and that the goal for each sprint was to have some functionality to demonstrate. The functionality demonstrated may or may not be ready to release, although it would be available to test.

The team discussed the value of releasing small sets of functionality directly to the customer. They decided that it would be better to have the Sales, R&D and QA teams receive the releases in the small increments first, then roll out to the external customers only when the team was satisfied that MVP was achieved. This way the customers would not be exposed to functionality that may not quite seem "finished" which may lower their confidence in the product.

Using sticky notes on a whiteboard, different pieces of functionality were grouped according to themes, such as "ingredients," "packaging," "volume," "financial estimates," etc.

Outcomes

- Each theme would have its own release.
- Tasks from Architects and other implementation SMEs were:
    - Captured and estimated,
    - Added to the estimates of effort for the stories on the map for MVP,
    - Compared to a calendar, and
    - Scheduled with rough dates for releases.

As development continued, periodic checkpoints were set to ensure that the release plan was on course, or to see if it needed adjustment.

Since the ***Next and Later*** iterations were not elaborated in detail, it was agreed to hold additional release planning meetings when they were closer to begin.

Lessons Learned

It was important to have the external customer represented when planning releases. The sales team:

- Had good relationships with customers,
- Knew the customers may be uneasy accepting smaller increments of functionality and didn’t want to take that risk.

Case Study: Plan Releases - Food Manufacturer

- Agreed to represent themselves and the customer when accepting the releases.

It was important to have the implementation SMEs who were not a part of the development team, present when planning a schedule.

- Including SMEs early in the release planning process allowed them the opportunity to update their own work plans and save room for these tasks on the scheduled dates.
- Otherwise, the team may have eventually faced a situation where they were ready to release but did not have available resources in the shared service teams to complete the releases.

5.5.2 Product Delivery

Agile Product Delivery

- Puts all the planning pieces into play in a cadence of learning and improving.
- Puts the focus is on value and it relies on the quality of the planning.
- Delivers the value of the planning effort.
- Tests the plan and emphasizes planning over the plan.

Delivering customer value frequently enough requires customer-centric planning. For example,

- For Amazon does this frequently enough, maybe hundreds of times each day.
- For a commercial off-the-shelf (COTS) insurance package used internally, every system change could impact processes or procedures requiring updates and communication and training, resulting in a different delivery model.

"Agile product delivery, whether for external or internal stakeholders, includes a degree of uncertainty. By delivering value in a minimum viable way as early as possible, organizations can learn what is valuable and what is not and help to minimize waste and understand what value meets stakeholders' needs."

- Agile Extension

"Teams deliver products iteratively and incrementally, maximizing opportunities for feedback. Incremental deliveries of "Done" product ensure a potentially useful version of working product is always available."

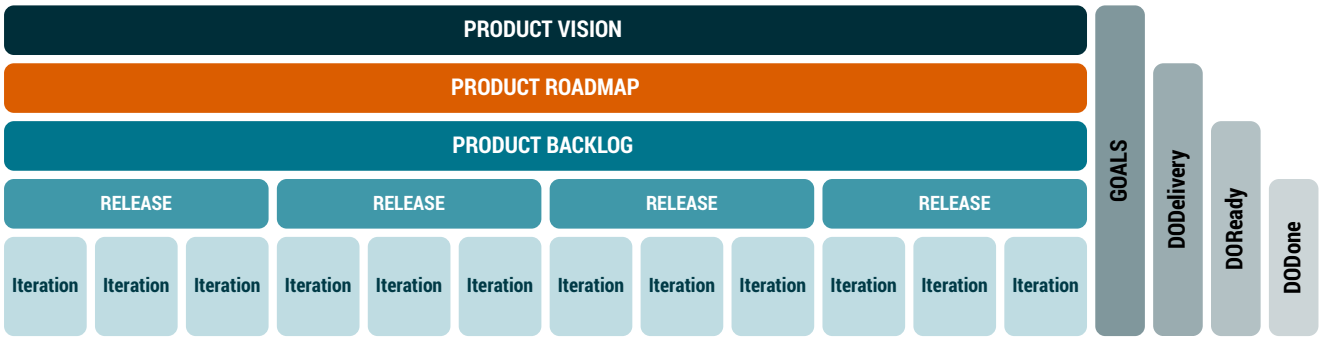
- Scrum Guide 2013

Business stakeholders may not know what to expect from product delivery. Unexpected changes can occur frequently due to the nature of validated learning. Continuous communication by the Product Owner during planning helps manage delivery expectations.

The Definition of Delivery is a concept for the team to collaboratively define what product delivery means for the unique product in progress.

The ***Definition of Delivery:***

- Becomes part of the product roadmap contributing to a shared understanding across the product team.
- Provides visibility and transparency of product delivery's progress.
- A level of granularity to the product roadmap that adds meaning and clarifies interpretations.
- Reinforces the value of, and keeps focus on, setting goals and measuring progress.
- Influenced by the Agile Framework employed by the team.



To facilitate product delivery, the team is fully engaged in:

- Plan iteration,
- Build product features, and
- Validate product features.

.1 Plan Iteration

Iteration planning is an important time-boxed event designed to drive three outcomes:

- The team determines what items or features they can build in the next iteration.
- The team develops detailed task level plans, describing how to get those items, to meet the Definition of Done.
- The team commits, individually and collectively, to the work that they will accomplish together during the iteration.

Two weeks is usually the ideal timeframe for an iteration (or sprint) because:

- It is realistic for the team to plan and commit to what they can get done in that timeframe.
- It increases the effectiveness of improvements based on feedback loops and validated learning.

How POA Helps Iteration Planning

Iteration planning is dependent on having enough product backlog items (PBIs) prioritized and that meet the Definition of Ready, for the team to commit to building, in the upcoming iteration. This preparation happens during backlog refinement.

Iteration Backlog Refinement = Ready PBI's

"***Definition of Ready***" is an agile concept that applies to ensuring enough information about a PBI is completed to be able to implement it, in an upcoming sprint. The team defines what needs to be included in a PBI to ensure that it is:

- Clearly articulated and understood,
- Achievable, and
- Testable.

Work does not start on any PBIs unless they are in a "ready" state. During iteration backlog refinement, the Product Owner introduces the PBIs to be considered within the next 1 to 2 iterations and discusses the acceptance criteria. This is a structured, collaborative meeting to ensure that the team understands the value of the PBI and has enough information about the PBI to be able to commit to the work. Iteration backlog refinement conversations include:

- Architecture and design considerations,
- Risk, assumption, and dependency considerations,
- Quality, test preparation and test data considerations, and
- Requirement and elaboration considerations.

The team asks probing questions about the PBI that will help POA Practitioners update the level of detail needed in the acceptance criteria to get the PBI to a Ready state. When the team is satisfied that they have enough understanding of the work, the PBI is estimated and the status is set to "ready for iteration planning."

Iteration Planning = PBI Commitment

Iteration planning is a structured session that is held after iteration review and retrospective, and before starting the upcoming iteration.

Participants include:

- Delivery team,
- Product Owner,
- POA Practitioners, and
- Any contributors that were identified during iteration refinement to build a PBI for the iteration.

At the beginning of the session, the team agrees to:

- Iteration goal(s),
- A brief description of the theme,
- Feature, and

- The Ready PBI's targeted for the iteration work.

The team continues to reiterate the customer value and benefits. For the remainder of the meeting, POA Practitioners are available to answer clarification questions. The team collaboratively self-organizes to task out the PBI work while balancing items selected with team velocity.

At the end of the session the team:

- Affirms a shared commitment to the iteration goal that is:
  - clearly understood,
  - compelling, and
  - measurable.
- Commits to a set of:
  - PBI's aligned to the iteration goal, and
  - Estimated tasks associated with each PBI. (The team owns the commitment to the iteration backlog, and they decide what is doable.)

POA Techniques for Iteration Planning

Agile Extension Techniques

- ***Planning Workshops***: Determine what value can be delivered in an iteration.
- ***Story Mapping***: Sequence the stories planned for an iteration and track progress over the iteration.
- ***Backlog Refinement***: Ensure there is enough detail and clarity for items in the backlog so that the delivery team can complete an iteration.
- ***Behaviour Driven Development (BDD)***: Focus on the intended customer behaviour to
  - Increase value,
  - Decrease waste, and
  - Increase communication between stakeholders and delivery teams.
- ***Story Elaboration***: Define the detailed design and acceptance criteria for a story to deliver a working solution.

BABOK® Guide Techniques

- ***Data Dictionary***: Assess the impact or added entities to the underlying data model for the product in an iteration.
- ***Prototyping***: Quickly demonstrate value, or elicit information, about the stories slated to be developed in an iteration.
- ***Non-Functional Requirements Analysis***: Ascertain that the product quality parameters are as expected in the iteration.
- ***Business Rules Analysis***: Identify, validate, and express rules governing the functionalities included in the iteration.

Case Study: Plan Iteration - Food Manufacturer

Background

Once release planning was completed, Poultry Plus' Product Owner, Tony, needed to work with the product development team to plan specific tasks at a more detailed level for the New Project Intake Process effort. He worked with the Scrum Master, Joanne, to set up agile ceremonies for their team to use to drive their work.

Challenge

The team had recently come together based on a reorganization at Poultry Plus. Some had not worked together in the past. They were building a brand-new application and did not have a solid sense of the work that would be required. They had to:

- Work together to determine how much work could be done in a sprint,
- Commit to completing it, and
- Deliver at least a demonstration of what had been completed each sprint.

Action

When the team reviewed the backlog in detail, they realized that:

- It was not arranged according to the releases previously planned, and they adjusted it accordingly, and
- They needed to further refine the backlog by adding tasks to cover additional technical discovery. This would ensure that the design required for the stories was completed correctly and efficiently.

Tony led the team in reviewing the ***user stories*** for the first iteration capturing customer contact and company information.

- Some of the stories were vague,
- They weren't certain of how to fulfil the needs, e.g.
    - Did the customer names require salutations, or just first and last names?
    - How should addresses be formatted?
    - Would they need multiple contacts or just one?

These questions were referred to the Analysts to elaborate the stories.

There were questions on usability, which led to a discussion on non-functional requirements, including:

- "When would the system need to be available to the customers?"
- "Would they need to be authenticated users of the system, or could just anyone enter a new project request?"

Case Study: Plan Iteration - Food Manufacturer

Outcome

Fortunately, the sales team had quick answers for the product development team. They sat down the next day to plan the first sprint.

Although many of the team members had not worked together before, several had the experience of developing a similar application and could apply their expert judgment to the estimates. They began by:

- Selecting tasks that were foundational for others to build,
- Estimating the sizes of the tasks by comparing them to one another,
- Setting estimates in hours, and
- Committing to only tasks they estimated could fit into their two-week sprint.

Tony prepared an email to the business stakeholders confirming the functionality that would be demonstrated at the end of the sprint.

Lessons Learned

There was a temptation to assign the tasks and have the individuals assigned provide an effort estimate. Joanne cautioned the team that while individual estimates may be quicker, agreeing as a team on estimates for each task would enable them to better estimate over time, especially as different Developers would take on various tasks over the course of the project.

The team found that planning as a team helped:

- Keep them honest, and
- Gave them suggestions from each person's experience, to shape the estimating process.

Although time-consuming, they found that taking the time at the outset of the first sprint, saved them time on subsequent sprints.

The team decided that:

- Once the first sprint started, the analysts would take on the next set of prioritized stories, and
- The should ensure that they were appropriately elaborated prior to the next planning session.

This way, they would not lose time going back to the business stakeholders to get more details.

.2 Build Product Features

As an outcome of focused, collaborative, committed Iteration Planning, the team builds and delivers PBI's. The product features emerge and evolve by consistently building small, manageable value increments, and adapting increments through learning. This is accomplished with consistent and regular support from the Product Owner.

How POA Helps Build Product Features

The team should be confident in the quality of the product planning to self-organize and begin the work of building the product increment. The Product Owner should step back and let the team do their best work. During the iteration build, the primary role of the Product Owner is to be available.

Questions, clarifications, or decisions, which may not arise until the actual PBI work is started, need quick action from the Product Owner. Otherwise, the PBI may not get done.

The Product Owner should join daily stand-ups to stay in tune with the progress of the iteration and learn of any challenges, or questions, that need to be resolved.

In parallel to the team's iteration work, POA Practitioners:

- Refine the product backlog to prepare for future iterations,
- Provide clarity to any questions from team members,
- Communicate with customers,
- Participate in PBI reviews, and
- Prepare for the upcoming iteration review.

POA Techniques to Build Product Features

Agile Extension Techniques

- ***Reviews***: Collaboratively explain and discuss issues, stories, and work related to the iteration with the product team.

Case Study: Build Product Features - Food Manufacturer

Background

The releases and iteration were planned, and all the user stories elaborated and detailed to the satisfaction of the New Product Intake Process effort. The Developers were ready to complete their tasks. Product Owner Tony was excited to see what would be delivered in two weeks' time.

Challenge

Now was the time to make sure that the Developers had what they needed to execute their tasks effectively, with a minimum of roadblocks and with access to the tools and resources they needed.

Action

Scrum Master Joanne scheduled meetings for 15 minutes every morning to:

- Get a quick assessment from the team on work completed the day prior, and
- Review work planned for the current day.

Product Owner Tony attended the daily meetings and was available to address any roadblocks or help the team.

Outcome

Tony and Joanne stood aside and let the Developers do their work.

Lessons Learned

One benefit of being able to step aside from the day-to-day task work for Tony was that his time was freed up to:

- Work on the backlog to get it ready for the next sprint's refinement activities, and
- At a strategic planning level, provide detail at a lower level for future releases.

This allowed the Developers to use their time more effectively.

Validate Product Features

One of the benefits of agile product delivery is the frequency of validating product features throughout the product development lifecycle.

- In ***waterfall SDLC's***, validation of product features occurs near the end of the lifecycle, just prior to production release, when it is typically too late to influence changes.
- ***Agile*** product delivery integrates validation iteratively, inviting feedback and promoting learning opportunities and changes. This helps increase

the value of the product that will be delivered. Product features are validated through:

- ***PBI Acceptance***, which is solely done by the Product Owner.
- ***Iteration Reviews***, expanding the validation opportunity to include
  - Stakeholders
  - Users
  - Customers
- ***User Acceptance Testing***, which integrates actual users, customers, or representatives of the customer, to validate product functionality and features.

How POA Helps Validate Product Features

PBI Acceptance

POA Practitioners should review the PBI's when the team sets the status of the PBI to “done”. This review includes the:

- Product Owner
- Developer
- Tester

Others may need to be included to add value to the review, like POA Practitioners or an Architect.

The Product Owner has the option to accept or reject the PBI. By reviewing the PBIs as they're done, prior to iteration review, the team may be able to address any issues that would cause the Product Owner to reject the PBI before the end of the iteration. Through conversation with the team, they will determine if the work can be completed. If it cannot, the Product Owner will add the change to the Product Backlog for revision work in the next iteration.

Iteration Reviews

The Product Owner facilitates the iteration review ceremony at the end of the iteration. POA Practitioners can support this work. 30/70 or 20/80 are good guides to balance the time spent on the kick-off and the PBI demonstrations.

The Product Owner:

- Ensures that the right participants are invited to gather meaningful feedback.
- Helps the team to prepare to showcase the work completed. Even things like technical PBI's can be creatively demonstrated to show how they contribute to customer value.
- Highlights how the work completed builds on previous work to show progression.

- Kicks-off by sharing:
  - Information about the iteration that may include a story.
  - An overview of PBI progress within the iteration, and relative to the release.
  - The status of each committed PBI with an explanation of anything that did not get done.
- Orchestrates the demo of each PBI, which may be done by the Developer, Tester, Business Analyst, or the Product Owner, themself. Enabling the delivery team to demonstrate and showcase their work contributes to their sense of pride and puts them closer to the customer and stakeholders.
- Sets the stage for feedback, gathers feedback, asks clarifying questions to understand feedback, and requests further discussion if needed.

User Acceptance Testing

The Product Owner helps to facilitate frequent opportunities for users to participate in testing. Getting feedback from users or potential users gives meaningful insights that influence the released product. Showcase events are often used in place of a formal user acceptance testing, or as a prerequisite to improve the quality of what will be reviewed.

POA Techniques to Validate Product Features

Agile Extension Techniques

- ***Reviews*** (e.g., 3 Amigos, Iterations): Collaboratively explain and discuss issues, stories, and product-related work to iteration with the Developer and QA (for 3 amigos). Iteration review includes a broader team and a larger agenda with an evaluation of the entire iteration.
- ***Definition of Done***: Agree if PBI item is “done” according to agreed-upon criteria.

Case Study: Validate Product Features - Food Manufacturer

Background

Toward the end of their first sprint, the New Project Intake Process team was almost ready to demonstrate the customer and company contact features they had developed. The new application had the requested functionality but did not have the company look and feel. Still, the team was anxious to validate what they had produced.

Challenge

The team needed validation from the business stakeholders that the functionality developed over the sprint was correct. If it was not, then they needed to analyze what was and adjust. If adjustments were needed, they must be considered in the next sprint, when prioritizing work.

Case Study: Validate Product Features - Food Manufacturer

Action

The team agreed to use the ***Acceptance Criteria*** on the user stories as the basis for their Definition of Done. In this case, since the final look and feel of the application was not available, Product Owner Tony suggested that for this sprint, the Definition of Done could be limited to everything in the acceptance criteria except the look and feel. As long as the specified functionality worked as agreed, they could count the development successful.

Tony asked the business stakeholders to bring their laptops to the sprint review meeting so they could take the new functionality on a test drive. The development team had the application set up in a test environment so they could provide a demonstration and then turn it over to the business team to try it.

They demonstrated the way a customer would:

- Sign up for an account,
- Log in, and
- Provide their contact and company information.

They allowed the business team to perform the same tasks.

One of the business stakeholders, Laura, asked if there was a way for a customer to have more than one contact person. Customer projects were so large that customers needed to interact with a team of people, not just one point of contact, she reasoned.

Outcome

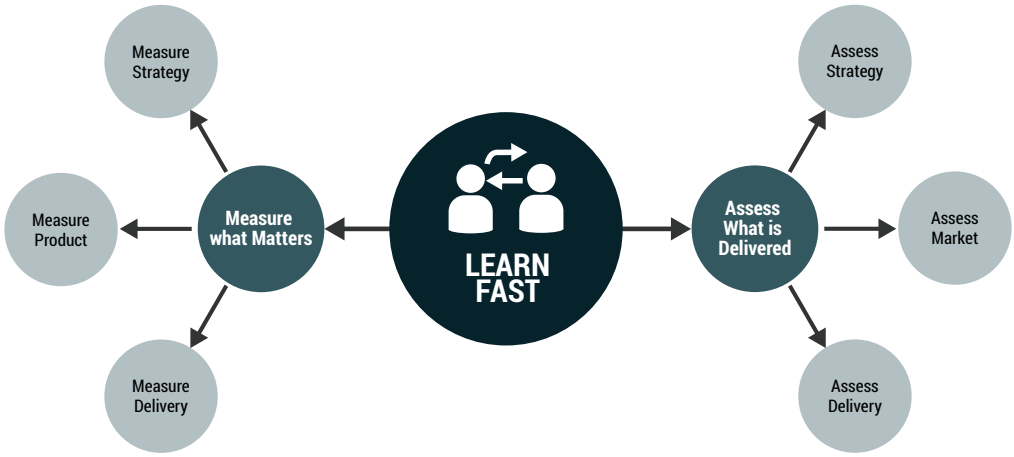
Product Owner Tony reviewed the related user stories and did not find a specification that more than one contact could be established per project, although more than one contact could be associated with a particular company. Tony agreed that they would:

- Develop new stories to cover this requirement, and
- Prioritize for the upcoming sprints.

Lessons Learned

New or missed requirements can arise from a demonstration and user acceptance testing. It is important to recognize that even though such requirements could be viewed as "missed" or that they render the functionality presented as incomplete, the delivery for the sprint can be considered "done." When this occurs, it is critical to communicate with the team that the new or missed requirements will be addressed in a future sprint. Care should be taken to point this out the next time the backlog is reviewed.

5.6 Learn Fast



Speed and innovation are the two areas in the product landscape that differentiate a successful product. Customers have a lot of options. If a product cannot deliver value at the rate of change for customer expectation, it is bound to fall behind the competition. Success depends on:

- The ability to quickly deliver value,
- Understanding the gap in expectation by testing the product in the market, and
- Refining the product.

Most enterprises understand the need for customer feedback and speed to market. However, gaps emerge when enterprises try to consolidate and apply the learnings in an ad-hoc manner. This gap is a result of product teams not exploring the value: To explore the value, consider the following:

- What do customer and business value mean?
- What are the metrics that best describe the value?
- How should the product should change based on learnings?

The Learn Fast domain introduces the two central themes:

- ***Measure what matters***: Understanding the need for key metrics that provide a structured approach to measure and track the learnings.
- ***Assess what is delivered***: Using the insights from the key metrics to refine the product.

Measure what matters

It is imperative for enterprises to measure the performance of product development throughout the product lifecycle. The key metrics are chosen to help estimate whether the product provides the value intended and follows the product vision and strategy, throughout the product lifecycle. These key measures are:

- ***Strategic measures***: These measures determine the effectiveness of a product vision and strategy, and are directly tied to different business objectives, of an enterprise.

- ***Product measures***: These measures outline customer acceptance and the popularity of the product for the intended customer base.
- ***Delivery measures***: These measures indicate the delivery performance and outline the understanding and the ability of the product team, in developing a cohesive product.

Assess what is delivered

Identifying and measuring product objectives is not enough; the product also needs to adapt to the insights the measures indicate. The right insight must be derived by assessing the measures and then used to make changes that are useful for delivering value through the product.

POA Practitioners can help a Product Owner make key decisions about the right changes to the product functionalities and features. Assessing the product through the measures involves conducting:

- ***Strategic assessment***: Measures that provide direction for the product vision, strategy, and roadmap, tied to business value.
- ***Product/market assessment***: Measures to determine the scope and features of the product that provides customer value.
- ***Delivery assessment***: Measures to discover gaps in product delivery and the product team's effectiveness.

5.6.1 Measure what Matters

The value delivered from products must be identified and measured at three levels:

- Strategic,
- Product, and
- Delivery.

All three levels provide critical insight for the product throughout its lifecycle. Although many metrics can be grouped into these categories, most Product Owners use a subset of these metrics. There are several aspects in choosing the right metric based on use, including:

- Purpose of the product,
- Definition of value,
- Type of business model,
- Go-to-market strategy,
- Product lifecycle stage,
- Timing of measurement, and
- Monetization aspects.

There is a ***timing element*** involved in choosing the right set of metrics to be used for understanding value delivered through the product.

For example,

- A customer acquisition rate as a metric can be used to measure the product launch success, whereas
- Measuring performance against specification, or product satisfaction per price point, provides a clearer view of product delivery performance, and products post-launch stability and growth.

Depending on the stage of the product lifecycle, different metrics provide different insights for course correction or sunset activities.

The choice of metric may depend on what ***role*** within the organization is using them. For example,

- Financials and market-oriented metrics are more likely to be used by product management roles, rather than the by Product Owner roles.

At a product level, the measures must indicate how the product serves the target customers and the type of experience the product provides. The product team must think about the implication of strategic and product measures so that the right alignment is achieved between business and strategic goals.

The delivery level measures the performance of internal delivery performance. The delivery measures provide an idea about how product features and requirements are getting added, given the delivery objectives.

.1 Measure Strategy

Strategic measures determine the effectiveness of a product vision and strategy and are directly tied to different business objectives of an enterprise. Strategic measures must indicate how a product:

- Fits into an enterprise's product portfolio,
- Compares to a competitor's offering, or
- Generates financial success in terms of cost, revenue, market share, etc.

How POA Helps Strategic Measures

Although the product management function is primarily responsible for understanding and using these measures to continuously align the strategic performance of the product, Product Owners need to have a good understanding of them including:

- Product lifetime value,
- Revenue share,
- Average order value, and
- Conversion rates etc.

The metrics highlight the current state of the business outcomes generated by the product. POs need to analyze these metrics to determine how the product strategy changes.

For example:

- If the business model for a product is to self-fund future development effort, and the revenue shows a downward trend, the Product Owner may

need to determine how long the product has before running out of funds. The iterations may have to include only higher priority features.

POA Techniques for Strategic Measures

BABOK® Guide Techniques

- ***Benchmarking and Market Analysis***: Compare solutions and products in the same context to identify missing aspects.
- ***Financial Analysis***: Understand the financial aspects of the product.
- ***Metrics and Key Performance Indicators (KPIs)***: Metrics and key performance indicators measure the performance of a product.

Several metrics can be considered depending on the product context within the enterprise. The Strategy-Related Metrics Guide below simplifies the processes for determining the right metrics by providing foundational metrics and their considerations. The Product Owner can also use the practices outlined in the Metrics Guide to determine the right subset of metrics that can serve as KPIs to understand the strategic impact of the product

Strategy-Related Metrics Guide

Metrics	*Description*	*Consideration for Product Owner*
Monthly or Annually Recurring Revenue per User (MRR/ARR)	The ratio of product revenue generated per month/annum to the number of total users.	Used when the product follows a subscriber model or has a contractual setting with customers. It indicates product profitability. PO can use it as a benchmark for designing MVP/MMP scope and competitor analysis.
Return on Investment (ROI)	The ratio of total revenue to the cost of investment.	It is used as a measure for: • Strategic communication • Business case decisions • Budget approvals for the product
Customer Acquisition Cost (CAC)	The total cost of onboarding a new customer to the product.	A decreasing trend can be used as an indicator of product success at a strategic level.

Metrics	Description	Consideration for Product Owner
Net Present Value (NPV)	The discounted cash flow generated from the product minus cost incurred over the product lifetime.	It is an estimate of the product value to the enterprise. Used during business case creation and product planning efforts.
Total Cost of Ownership (TCO)	The total cost incurred throughout the product lifetime, including direct and indirect costs.	It validates product concepts and gives an idea about the total cost incurred, including any indirect or hidden costs.
Internal Rate of Return (IRR)	Rate of return or the discount rate when applied equates the net present value to be zero.	This rate evaluates the possibility of alternate investment of the capital over developing the product. Used for validating product concept with stakeholders.
Time-to-Market (TTM)	Time is taken for the product, set of features, or a single feature to be available and usable by customers.	Validates value or competitive advantage in the product, feature sets or a single feature. Also, as a measure of the efficiency of the delivery process.

Case Study: Strategic Measures - Retailer

Background

Retailer Super C implemented an in-store pickup process for online orders and adjusted the physical location where orders could be picked up. They were working on enhancements to the related applications and processes to continue to grow the service offering.

The company was also implementing a grocery pickup service separate from the online order pickup. There were two separate, distributed development teams for each service.

Case Study: Strategic Measures - Retailer

Challenge

Super C executives wanted to measure how the use of in-store pickup was growing, against:

- Initial revenue expectations,
- Online grocery pickup, and
- In-store sales.

They had set an initial goal of moving to 45% of online purchases being picked up in stores over the next three years.

Gary, the original Product Owner, was interested in how the product was performing so that any additional development or process changes could be addressed.

Action

Gary collected the ***Key Performance Indicators*** that upper management used to assess the success of in-store pickup for online orders. They included weekly and monthly views of:

- Number of online orders picked up in-store vs. the total number of online orders.
- Number of online orders for pickup vs. number of online grocery orders.
- Revenue for online orders picked up in-store vs. total revenue of online orders.
- Revenue for online orders for pickup vs. number of online grocery orders.
- Number and revenue of online orders picked up in-store vs. number and revenue of individual order transactions in-store.

Outcome

Gary reviewed the trend lines and noticed overall favourability. He wondered if there was more to the story. He knew from previously observing the process and interviewing customers that there seemed to be certain hours of the day, and days of the week, that were more popular.

Gary suggested to the management staff that reviewing KPIs around those metrics could be insightful for enhancing the services offered.

Lessons Learned

Since Product Ownership can span the entire lifecycle of a product, it is useful for Product Owners to pay attention to KPIs, which are important metrics for managers to use for making strategic decisions. In this case, Gary could see that there may be more metrics important to the ongoing improvement of the product, which could also translate to operational process change, (for example, having more staff available for hand-delivering orders to customers during peak times).

.2 Measure Product

The metrics grouped under "product measures" outline customer acceptance and the popularity of the product for the customer base. These metrics are one of the most critical sets of criteria used to adjust the scope and product features through a continuous feedback loop. The Product Owner must have clarity around the product measures that indicate the:

- Desirability,
- Experience,
- Marketability, and
- Value derived by the customers.

Examples within this category include:

- Net Promoter Score (NPS),
- Customer Acquisition Cost (CAC),
- Churn,
- Customer Satisfaction Score (CSAT), and
- Customer Effort Score (CES).

How POA Helps Product Measures

The team can use these metrics to:

- Fine-tune features and transactional experiences, and
- Design to maximize the value delivered to the customers.

For example:

- The feedback received for an MVP indicated that the NPS score turned out to be above 60. However, the Customer Effort Score (CES) indicated a higher effort. A Product Owner may infer from the measures that the holistic view of the product is good in:
    - Brand perception, and
    - Product capabilities to serve customer needs.

However, the customer journey to complete the transactions is taking more effort. In this scenario, the customer journey needs to be simplified and acceptance criteria need to be tightened for the stories in question.

POA Techniques for Product Measures

BABOK® Guide Techniques

- ***Metrics and Key Performance Indicators (KPIs)***: Metrics and key performance indicators measure the performance in the context of a product.

The discovery of product metrics requires a clear alignment of business goals and customer goals. To identify the right set of metrics, the product team and the Product Owner must balance a diverse set of measures, which are influenced by:

- Business strategy,
- Product vision,
- Market forces, and
- Customer experience.

This requires critical decision-making and a structured thought process. The Product Related Metrics Guide helps the Product Owner to identify and prioritize the right metrics from a product perspective by:

- Providing some foundational metrics and their use considerations, and
- Defining the best practices involved.

Product-Related Metrics Guide:

- Providing some foundational metrics,
- Their use considerations, and
- The best practices involved.

Metrics	***Description***	***Consideration for Product Owner***
Net Promoter Score (NPS)	A 10-point scale is used to gauge customers' likelihood to recommend the product.	A single holistic measure of the product's perceived value to the customer. Used to • Introduce new features, • Quantify customer experience, or • Measure stakeholder satisfaction after an iteration or sprint.
Customer Effort Score (CES)	Evaluates the level of customer effort required to achieve their objectives, usually on a 5-point scale.	Can be combined with NPS to determine areas of friction in a customer journey with the product, which can eventually lead to backlog refinement.
Adoption Rates	Measures customer adoption of product over a period.	PO can use this metric to understand if high-value features are getting released first or not.

Metrics	Description	Consideration for Product Owner
Feature Usage Rate	A measure of which feature within the product is used most often.	PO can use it to validate high-value features and streamline the customer journey about the feature with a high use rate.
Retention/Churn	The number of product users retained, or churned, during a specific period. Either metric can be used but not necessarily both.	Churn rate can be used to • Analyze when a product may need to be sunset, • Verify product goals, or • Assess market conditions. A similar metric, such as bounce rate, can determine at a feature-level how many transactions are being dropped (to identify the high-risk feature).

Case Study: Product Measures - Retailer

Background

Super C adjusted their processes which improved the adoption of in-store pickup of online orders. The product development team turned their attention toward developing enhancements to the online and mobile applications to further increase customer adoption of the product.

Challenge

Super C had options for customers to pick up online orders of general merchandise and a grocery pick-up service. The Product Owner, Gary, noticed that pickup orders had levelled off between 35-38% for all online orders.

In speaking with a co-worker, Sheila, Gary found out that grocery pickup sales were soaring, outperforming strategic goals by almost 50% over the past three months. Gary's business counterparts had also noticed and tasked him to come up with a way to determine why the performance of online order in-store pickup was stagnant.

Case Study: Product Measures - Retailer

Action

One of the features the team built into the online shopping application was a ***Net Promoter Score (NPS)***, where customers could, with one click, let Super C know how likely they were to recommend the application to others. Gary pulled up the NPSs scores for the previous year and noticed that the scores were evenly distributed around the mid-point, with a few very low scores. There were not any very high scores.

Outcome

Gary consulted with the business and they decided to add an optional free-text field in the NPS survey where a customer could enter comments explaining why they chose the score they did. One month after collection, over half of the NPS surveys returned included comments, in addition to the score, which provided the team with valuable insights to improve the product.

Lessons Learned

Metrics tell an important story, but sometimes there is additional context needed to make the necessary adjustments. When it comes to surveys, customers often will not take the time to provide more detail, so further analysis can be required if the metrics are not answering pressing questions.

In this case, Super C decided to take the extra step to ask for a sentence or two about the NPS they awarded, and they received needed feedback.

.3 Measure Delivery

The metrics considered as indicators of delivery performance for product development outline the understanding and the ability of the product team, in developing a cohesive product. The delivery measures consider the:

- Effectiveness of the development processes,
- Solution architecture, and
- Quality attribute of the product.

A drop in the measures usually indicates a gap or a challenge in the

- Execution process, Product scope, or
- Team productivity.

Typical metrics include:

- Burndown charts,
- Team velocity,
- Cycle time,
- Lead time,
- Throughput,
- Escaped defects, and

- Defect density.

How POA Helps Delivery Measures

The Product Owner uses the delivery measures to conduct a retrospective on the product backlog management process and evaluate the product team's performance.

For example:

- A significant difference between higher lead time and cycle time may indicate an issue with:
    - Team capacity,
    - Prioritization process, or
    - A lack of the ability to elaborate backlog items.

POA Techniques for Delivery Measures

BABOK® Guide Techniques

- ***Metrics and Key Performance Indicators (KPIs)***: Metrics and key performance indicators measure the performance in the context of a product.

The delivery measures are in control of the Product Owner to direct the delivery effort. The metrics used for the delivery objectives are determined so that the right features, and product functions, are delivered at the right time, throughout the product lifecycle. The Delivery-Related Metrics Guide helps Product Owners identify:

- Typical delivery measures,
- Use considerations,
- Techniques, and
- How-to guides for determining the right delivery metrics.

Delivery-related metrics:

Metrics	***Description***	***Consideration for Product Owner***
Sprint Goal Success	A set of objectives for a sprint, agreed upon by the delivery team and Product Owner.	Usually measured as pass or fail after the sprint cycle is completed. This measure helps validate: • Delivery risks, • Assumptions, and • Constraints. It can indicate the effectiveness of the processes such as prioritization and release planning.
Escaped Defects	A count or a ratio of defects that are uncovered by the customer per release.	• Indicative of the quality of knowledge of the team in understanding the user stories, • The effectiveness of the acceptance criteria, and • The ability of the team to validate defects.
Defect Density	The number of defects per lines of code (or story point, or per sprint).	PO can use this metric to understand if high-value features are getting released first or not.
Scope Change Rate	The ratio of additional effort included in the scope of sprints vs. the original effort estimated.	Measures level of scope-creep that helps in sprint planning and effort estimation. Since changes are welcomed in agile initiatives, baseline assumptions for calculations must be agreed upon by stakeholders.

Metrics	Description	Consideration for Product Owner
Burndown Chart	Burndown chart indicates the difference between actual and planned effort over sprints or releases.	PO can use it to adjust sprint plans and release plans, and to investigate any underlying causes of a significant difference, if one exists.
Team Velocity	This is a measure that evaluates the total number of story points delivered per sprint	PO can use this measure as an indicator of predictability across sprints and adjust release plans.

Case Study: Delivery Measures - Food Manufacturer

Background

Poultry Plus had a successful first iteration implementation of a "speed-to-market" dashboard of decision-making data used by executive and operations management. There was a great deal of excitement around this new way of looking at data, and requests for additional dashboards were coming into the product development team. The Product Owner, Carla, assessed the requests as they arrived, and the team did their best to prioritize them within the product roadmap.

Challenge

Although Carla did a great job of communicating when a new request had been received and when development on the request had begun, the backlog of requested dashboards grew. Managers contacted Carla frequently asking when their request would be addressed. The further down the list the request was, the less likely Carla was to have a reasonable idea of when delivery could be expected. She turned to the Scrum Master, Joanne, to assist with a way to better set expectations.

Action

Although Carla did a great job of communicating when a new request had been received and when development on the request had begun the backlog of requested dashboards grew. Managers contacted Carla frequently asking when their request would be addressed. The further down the list the request was, the less likely Carla was to have a reasonable idea of when delivery could be expected. She turned to the Scrum Master, Joanne, to assist with a way to better set expectations.

Case Study: Delivery Measures - Food Manufacturer

Outcome

At the sprint planning meeting, the development team agreed to adopt the new way of sizing user stories using points. They:

- Focused on sizing the stories for each dashboard, giving more points to complex dashboards,
- Noticed some variation in the total number of story points allocated to each sprint,
- Redistributed the stories across the future sprints according to their predicted velocity, and
- Agreed to adjust if they found their average velocity was different than predicted.

Over the next few backlog refinement meetings, Carla worked with the team to:

- Estimate any new-dashboard requests with story points, and
- Add them to the backlog according to priority.

The requests included points, and since they had determined the team's velocity, Carla could reliably give estimated date ranges for a dashboard to be ready.

Lessons Learned

When the team started working with velocity for a delivery measure, there was a temptation to continuously increase their velocity and get work done even faster. The result was team burnout and missed deliveries.

Also, defects were going into production, based on perceived pressure to move faster and faster.

Carla wanted to guard against setting unrealistic expectations both for the team and the business stakeholders. The team focused on limiting their velocity to a pace that was manageable for the team, while delivering quality functionality, frequently. The team settled into a routine that was reliable and satisfactory to the business stakeholders and end-users.

5.6.2 Assess What is Delivered

After choosing the right set of metrics for the product, Product Owners must utilize the information obtained from these metrics. Any metrics used as KPIs must lead to the discovery of new insights. The challenge most Product Owners face is to turn the data obtained from metrics to action. This is due to the abundance of data and an ad-hoc approach to analyzing the metrics.

Each metric contains attributes that help in the product assessment:

- A trigger,
- A frequency of measurement, and
- A level at which the insights are expected.

A trigger situates a metric in the product development lifecycle, which means a metric is only relevant when a situation or scenario presents itself.

For example:

- A mobile product with a freemium model during the MVP/MMP launch phase:
    - May be concerned with ***Daily Active Users (DAU)*** to assess the engagement of the product.
    - May not be relevant during a stable phase when ***Revenue Per User (RPU)*** is more suitable.

The frequency of measure indicates how often a metric will be measured.

For example:

- A delivery metric like ***escaped defects*** can be evaluated each time the product is released to the customers.

A strategic measure highlights a fact about the strategic posture of the product.

For example:

- ***ROI*** may provide an idea about the expected returns from the product which provides insights on the financial perspective. Other metrics may support why the ROI may be high.

For example:

- An increasing trend in the ***Adoption Rate***, which is a product metric, may support the ROI numbers.

Therefore, analyzing at a strategic level does not always equate to just analysis of strategic measures.

Based on the outcome expected, Product Owners can assess various metrics, to perform:

- Strategic Assessment,
- Market Assessment, and
- Delivery Assessment.

The scientific treatment of data from various metrics should be considered, to generate insights when conducting an assessment, where decisions about the products are evidence-based.

.1 Assess Strategy

When a strategic assessment is conducted, the insights are at a level where the product's business or customer value, is evaluated against the:

- Product vision,
- Roadmap, and
- The strategy.

Multiple metrics are involved while deriving the actions that will help increase value. It may involve a combination of:

- Strategic measures,
- Product measures, or
- Delivery measures.

How POA Helps Strategic Assessment

When a strategic assessment is performed, the insights may provide indicators for the business goals of an organization.

For example:

- The assessment may reveal that revenue generated from the product has decreased, which is observed from a stagnating trend in Monthly Average Returns (MAR). The team may choose to:
    - Reorganize the product roadmap to focus on monetization of certain features within the product, or
    - Change the product strategy to focus on improving market share rather than revenue.

POA Techniques for Strategic Assessment

Agile Extension Techniques

- ***Kano Analysis***: Understand which product characteristics or qualities will prove to be a significant differentiator in the marketplace and help to drive customer satisfaction.
- ***Real Options***: Determine when to make decisions. It is useful in determining the flow of the product backlog and the priority of PBIs, against strategic measures.
- ***Value Stream Mapping***: Provide a complete, fact-based, time-series representation of the stream of activities required to deliver a product. It can be modified to assess whether the intended value is provided and the overall strategy is sound.
- ***Visioning***: Assess strategic measures against the overriding vision.

BABOK® Guide Techniques

- ***SWOT Analysis***: Assess the product and organizational strengths, weaknesses, opportunities, and threats to generate strategic insights.
- ***Benchmarking and Market Analysis***: Evaluate the efficacy of strategic capabilities against competitors.
- ***Balanced Scorecard***: Manage performance in any business model, organizational structure, or business process. It helps with aligning backlog items to objectives.
- ***Decision Trees***: Enable considered decisions and their outcomes to align the product to the strategic goals.
- ***Metrics and Key Performance Indicators (KPIs)***: Assess decisions or actions needed to course-correct using strategic and other measures.

Case Study: Strategic Assessment - Retailer

Background

Super C has two lines of business that involve picking up items at the store that were ordered online, but the items were sourced differently:

- The grocery orders were sourced at the individual stores, where store employees would physically pick the items ordered off the shelves to deliver to the customers at their vehicle.
- General merchandise orders were sourced from distribution centres and shipped to the store for customers to pick up, but still delivered to their vehicle by hand by store employees.

Challenge

When reviewing KPIs, Super C noticed:

- Adoption of picking up orders at the store that had been ordered online had stagnated,
- Online ordering of grocery items had skyrocketed.

Management expected in-store pickup of all online orders to grow, and they wanted to understand why one type was flourishing while the other was stuck.

Gary, the Product Owner for the in-store pick up of general merchandise, reviewed product assessment to see if any strategic changes were needed to move the dial.

Action

A month earlier, Gary had the product development team add a free-text option to the Net Promoter Score (NPS). Customers could complete it every time they picked up items ordered online. The team was surprised that many customers filled in the reason for their NPS rating, which anecdotally indicated to the team that customers wanted to like the service, but that something could be improved.

In studying the comments received, customers complained that they:

- Had to wait for "normal" shipping time for online orders to reach the store for pick up but could get their online grocery orders the same day they ordered.
- Did not like having to visit two different websites to order groceries vs. general merchandise.

Gary shared this information with the upper management of Super C. What was normal to the executive team - that Super C had multiple lines of business operating separately, specifically ordering groceries or general merchandise online - was not at all obvious to customers. Customers thought Super C was "just" Super C, whether shopping in a store, online for groceries, or online for general merchandise. Using two different interfaces to interact online with Super C was not resonating with the customers.

Case Study: Strategic Assessment - Retailer

Outcome

The separate development teams for online grocery and online general merchandise came together as a larger team focused on closing this gap. Working with executive management, they performed some ***benchmarking*** against three other major retailers operating multiple channels of sales to customers to see what lessons they had learned and how their customer experiences varied from Super C's.

With this information, Super C was able to:

- Adjust their strategy with the goal to unify all online channels,
- Solve the problems general merchandise experienced,
- Leverage what was going well with online grocery, and
- Apply the best practices in the industry.

Lessons Learned

While metrics tell a story, they do not necessarily tell the whole story. They are very good at showing where opportunities for improvement exist, such as this example where similar lines of business were performing differently.

Gary realized that the product he owned (in-store pick up of online orders) was relied upon by upper management for the strategy of the company. As a Product Owner, he was able to assist with the strategic assessment of the product, which ultimately led to a strategic change across multiple business units.

.2 Assess Market

A market assessment of the product involves understanding how customers react to the product, and what customer actions drive a better experience. This assessment may involve insights from multiple metrics that prompt the Product Owner to change the product scope or features.

How POA Helps Market Assessment

POA is used to continuously assess how the delivered product is providing customer value, which requires generating insights by using multiple metrics. The insights obtained while conducting customer assessment involve multiple customer perceptions about the product, including:

- Usability
- Experience
- Desirability

Although these intangible parameters are quantified through metrics such as NPS, the resulting product changes must be derived through this assessment by the Product Owner. The PO must use multiple techniques, such as:

- Observation,
- Orchestration, and

- Experimentations

To better design, such as:

- Features,
- Transactional experiences, and
- Value of the product.

POA Techniques for Market Assessment

Agile Extension Techniques

- ***Kano Analysis***: Understand which product characteristics or qualities will prove to be a significant differentiator in the marketplace, and help to drive customer satisfaction.
- ***Value Stream Mapping***: Provide a complete, fact-based, time-series representation of the stream of activities required to deliver a product. It can be modified to assess whether the intended value is provided and the product-market fit is sound.

BABOK® Guide Techniques

- ***Decision Analysis***: Assess the product and organizational strengths, weaknesses, opportunities, and threats to generate insights to improve customer receptiveness to the product.
- ***Root-Cause Analysis***: Evaluate the causes of irregularities in the market indicators.
- ***Decision Trees***: Enable considered decisions and their outcomes, so that the market responds positively to specific product decisions.
- ***Metrics and Key Performance Indicators (KPIs)***: Inference decisions or actions needed to course-correct using the product and other measures.

Business Data Analytics Guide Techniques

- ***Exploratory Data Analysis***: Generate market insights that are backed by strong evidence.
- ***Hypothesis Testing***: Scientifically verify an intuition, or market phenomena, that has a bearing on the product.

Case Study: Market Assessment - Food Manufacturer

Background

As a manufacturer of poultry products and pet food, Poultry Plus operates under regulation by government agencies to ensure the safety of food that goes to consumers. Tests are performed at various stages to validate compliance with regulations, as well as quality standards provided by customers whose products are being produced. When a foreign material, such as small metal particles, appear in food, either upon testing or visual detection, a series of processes kick off for investigation to correct the situation and mitigate a similar risk from occurring in the future.

Case Study: Market Assessment - Food Manufacturer

Challenge

Poultry Plus has recently implemented a home-grown application for recording and tracking incidents where foreign materials are detected within the food products produced at their plants. The market for this tracking application is the Quality Assurance organization. There are various access roles for users of the application.

- QA Operators can enter:
  - Details about the foreign material detected, and
  - The circumstances under which it was found.
- QA Managers can:
  - Add notes,
  - Make updates,
  - Enter actions taken to rectify the situation, and
  - Mark an incident as "resolved."

Prior to the application's existence, the process of tracking was done with a series of entries in spreadsheets and emails, which was a very inefficient process.

The new application streamlined the initial capturing of incidents. However, the QA Managers did not enjoy the same efficiencies as the QA Operators and soon their investigation and follow-up activities moved back to manual tracking in spreadsheets. Soon they were wondering why they had agreed to use this new application.

Action

Product Owner, Jenn, used ***root cause analysis*** to determine the underlying reasons for the QA Managers' ultimate rejection of the new application. She worked with the QA Managers to fill in a matrix with details about why they were not using the application.

The reasons fell into a few common categories:

- Data missing from the application,
- Inability to correct data entry errors,
- Inability to determine who worked on a particular resolution, and
- Inability to add more information after the incident was marked "resolved."

Next, Jenn collected ideas from the QA Managers on how these concerns could be addressed and worked with the development team to discuss what options may be available.

Case Study: Market Assessment - Food Manufacturer

Outcome

This assessment resulted in a new set of user stories prioritized ahead of those already in the product backlog.

Jenn and the Analysts on the team held a ***workshop*** with the QA Managers to

- Design their ideal process and prototype including where additional fields could be placed.
- Revisit the access roles, agreeing to add a higher level of permissions so that resolved incidents could be updated after the fact.
- Add version history of the incident report, to include:
    - Who made the entries and/or updates,
    - When they were made, and
    - What updates were made.

Once the enhancements were developed and implemented, the QA Managers adopted the use of the application since all their needs had been met. There were still some desired refinements, but those remained in the backlog for addressing as the processes and the supporting application evolved.

Lessons Learned

When the QA Managers initially rejected the use of the new application, Jenn realized that she had not paid close enough attention to her "market" as a whole. While she did a good job of capturing the needs of the users who entered the incident reports initially, and the in-the-moment investigation that followed, she did not assess what might be needed after an incident was resolved.

An important step in the development process is to consider market needs all the way to the end of the journey.

.3 Assess Delivery

The delivery metrics are a good starting point for delivery assessments since they are tied to a team's delivery objectives. They must be unique for the team responsible for product delivery. For a delivery assessment, the product team collaboratively sets up the delivery goals, and metrics are defined around the goals. Periodic assessment must be conducted to learn whether delivery goals are being met:

- Schedule,
- Quality,
- Cost, and
- Value from each delivery.

How POA Helps Delivery Assessment

The Product Owner is the custodian for tracking the changes to delivery metrics. When the delivery metrics are defined, the assessment is conducted for a metric, or a group of metrics, to determine whether delivery goals are being met.

For example,

- If an upward pattern is shown in a ***Value per Effort*** metric, the Product Owner may deduce that each delivery cycle is producing value for the customer. The "value" in value per effort is defined and agreed upon when the delivery measures are defined.
- A metric where the ***average age of a stor***y is tracked may prove to be a good indicator of whether the product backlog is sufficiently groomed. An older story may indicate that the Product Owner needs to improve the stories and acceptance criteria so that the delivery team can include the stories for development.

POA Techniques for Delivery Assessment

BABOK® Guide Techniques

- ***Metrics and Key Performance Indicators (KPIs)***: Metrics and key performance indicators measure the performance of product delivery. Various delivery and other metrics are defined, and they are used to understand the impact on delivery. Cours- correction required for streamlined product delivery.

Case Study: Delivery Assessment - Food Manufacturer

Background

Poultry Plus was on the verge of rolling out the new lifecycle management system to their pet food division, called OneMethod, a commercial, off-the-shelf product. Although it met 90% of their needs, there were certain functions of OneMethod that required customization or configuration, mostly related to how the data collected in OneMethod would be integrated with the company's ERP system, Higher Vision. The requirements for those customizations were approved and the necessary configurations to the system had been made. The Product Owner, Kavika, was working with the business stakeholders to schedule user acceptance and rollout activities that would hopefully conclude at the end of the month (on schedule).

Challenge

It became apparent mid-month that the business was not ready to move forward with OneMethod. The pandemic of 2020 led to business disruptions and the decision was made to err on the side of stability. The implementation was pushed out.

Case Study: Delivery Assessment - Food Manufacturer

Higher Vision was implementing a new version, which would require significant additional development on the Poultry Plus side to make sure the data from OneMethod would integrate properly to Higher Vision. An implementation SME for Higher Vision accepted a new role. Management wanted OneMethod rolled out by the end of the year.

Action

Given all these obstacles, it was not a simple matter of just taking the existing implementation schedule and moving it out a few months to account for the pandemic disruption.

Product Owner Jenn had to take a few steps back and reassess the schedule.

- She worked with the business stakeholders to assess how the operators were adjusting to the new ways of working, which had been brought on by the pandemic, and gained consensus that they should be able to resume, considering a training and implementation plan, in 60 days.
- She worked with the Development Team Manager to determine when a new resource would become available to take on the effort of rewriting the Higher Vision integration based on the new version. A new resource had been identified, but he would require a period of onboarding and knowledge transfer. Most likely, he would not be ready to complete the integration work for 90 days.
- Other SMEs recommended an additional two weeks of user acceptance testing after the integration development was completed. This time lag was to make sure everyone was confident about the system, given the general level of uncertainty that came with the pandemic.

Outcome

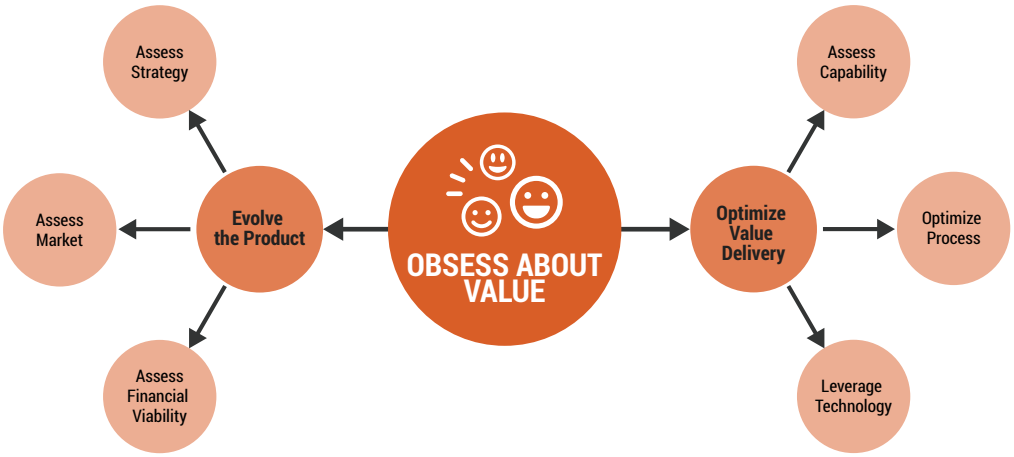
With all these new considerations, Jenn was able to line up a new schedule that, put rollout in January. Upper management was satisfied with this delay.

Lessons Learned

It can be disappointing when eagerly anticipated plans for a major implementation can not be met, but it happens. Contingency plans are good to have, but a contingency plan that allows for a pandemic may be impossible.

When a major disruption to a schedule occurs, it is important to ensure that the schedule does not simply shift, but that all related new obstacles to the shift are assessed so that reasonable expectations can be set.

5.7 Obsess about Value



Product development and innovation are usually hard and complex. When new products are built, with each iteration the team must consider:

- New features,
- Scale, and
- New challenges.

Innovation demands the product teams try new things. It is often a daunting task for the Product Owners to figure out exactly what needs to go into the product. Although there is no instruction manual to understand what the product should be like, the best place to start is knowing what the customer values.

Value from the customer perspective is usually a comparison between the benefits of a product and the cost. The cost can be the actual price, or reduction in effort, by using the product. The industry has spent considerable time and energy in managing the price, and less time understanding the value. The value can be difficult to pin down and it evolves as expectations change over time.

> ***Value is**: "The worth, importance, or usefulness of something to a stakeholder within a context. Value can be seen as potential or realized returns, gains, and improvements. It is also possible to have a decrease in value in the form of losses, risks, and costs. Value can be tangible or intangible." - BABOK® Guide.*

The definition of value is that it is context-driven and has an impact on stakeholders who can either be customers or organizations. Whether the value is tangible (cost-saving or revenue), or intangibles (reducing complexity or providing delight), it is difficult to define what is valuable. Customers and businesses are good at making choices rather than defining what they need upfront. Customers can choose an option that is compared to be more

valuable. Product teams must be cognizant of two critical steps throughout the life of a product:

1. Evolve the product, and
2. Optimize value delivery.

1. ***Evolve the product***: Provide valuable options to the customer by obtaining insights from the customers and other stakeholders quickly. Applying the learnings in the best way possible, so that the most valuable choices are integrated into the product.
2. ***Optimize value delivery***: Optimize the path taken for product development, that is quick to value, by optimizing processes involved in:
    - Product development,
    - Assessing the capabilities of the product team, and
    - Use of technology.

5.7.1 Evolve the Product

Value is delivered when customers use the products and services. Obsessive attention to impact creates the actual realization of value for customers. This is fundamental to recognizing customer needs, as well as how Product Owners fulfil them. The real value can be delivered through this point of impact which should be an iterative process, like a product release. Each release is an opportunity for creating value. Each release of a product targets something of value for the customer, where feedback or data-driven insights can be obtained, and the product can be further refined.

Research into what constitutes value for customers such as:

- Discrete Options Analysis,
- Value Stream Analysis, or
- Understanding the performance of Value-Driven Metrics.

See Learn Fast for analysis insights.

See Deliver Often for providing incremental value with quick delivery.

The learnings from the "Learn Fast" must be converted to product changes. Those product changes are incorporated through the best practices and topics described in "Deliver Often". Together, the learnings and the implementation produce a product that is valuable to the customer. The learnings need to be converted into actions and product changes. The team must consider the context that the learning must be applied to generate value.

For example:

- A certain mobile application allows the customer to purchase electronics accessories. From the value-based metrics described in Learn Fast, it was deduced that the Customer Effort Score (CES) was quite high.
- Upon further assessment of the metrics and subjective feedback from customers, the learning was that the customers usually add a lot of products to the cart, but they do not purchase the product right away.

- However, when the customer wants to purchase a single electronic accessory, they must remove the items already added to make the purchase. This increases the transaction time and friction for customers. The team has multiple options to address, such as:
  - Adding an option for the customer to directly purchase an item,
  - Providing an option to empty the cart in one go,
  - Limiting the items that can be added to the cart.
- To choose the right option, the team needs the right analysis of the context in which value is delivered. In this example, emptying the cart may conflict with the business objective of creating more opportunities to generate revenue through cart items. The changes must be analyzed and weighed against the impact on value delivered to different stakeholders and their contexts.

The Product Owner's ability to build great products and services involves assessing:

- ***Strategic Alignment***: What are the strategic decisions needed because of product/process learnings? (E.g., product changes due to competitive reasons should still be aligned with strategic direction).
- ***Market Alignment***: What are market changes that can drive product changes?:
  - Regulations,
  - Market trends, and
  - Competition.
- ***Financial Viability***: What are the product decisions that may result from the financial analysis that was done on the product? What are the options to consider when deciding?

.1 Assess Strategic Alignment

Strategic alignment for a product indicates the ability of the product to deliver value to a diverse set of stakeholders through product changes, that converge with the organization's strategic objectives, including:

- Cost,
- Revenue,
- Market share,
- Competition,
- Business model changes, etc.

When new features are added, strategic alignment indicates the:

- Impact of new features, or
- Entire product vision to the objective of the enterprise.

How POA Helps Strategic Alignment

Practitioners use POA in assessing multiple options and features that may provide value that resonates with the business objectives. A Product Owner must assess whether the changes to the product, due to new learning, affect the enterprise objectives, and to what degree. The Product Owner is responsible for deciding whether to allow the changes. The Product Owner needs to find a convergence between the value delivered to the customer, and the value delivered to the enterprise. This is often a point of negotiation to determine the right balance.

POA Techniques for Strategic Alignment

Agile Extension Techniques

- ***Real Options***: Determine when to make decisions. It is useful in determining the flow of the product backlog and the priority of PBIs against strategic measures.
- ***Value Stream Mapping***: Provide a complete, fact-based, time-series representation of the stream of activities required to deliver a product. It can be modified to assess whether the intended value is provided and the overall strategy is sound.

BABOK® Guide Techniques

- ***SWOT Analysis***: Assess the product and organizational strengths, weaknesses, opportunities, and threats to continually align the product.
- ***Balanced Scorecard***: Manage performance in any business model, organizational structure, or business process. It helps with aligning backlog items to objectives.

Case Study: Strategic Alignment - Insurance

Background

Seniors' Choice is a leading Australian Insurance company with insurance products ranging from life to non-life, with a specialized portfolio for seniors. Seniors' Choice is rolling out a new business product that helps to make the purchasing experience more interactive for customers.

Challenge

After the successful launch of their new business product the HappiestYears, the company started seeing massive traffic for this software product. The standard indicators, such as Monthly Average Returns (MAR), showed an increase, and the churn rate seemed to have declined. However, customer feedback varied significantly. Some customers found the product to be quite user-friendly, but some reported it was the opposite.

Case Study: Strategic Alignment - Insurance

Action

The product management group and the Product Owner, Bindi, wanted to investigate further. Bindi studied the ***Personas*** carefully to understand if the target market had been correctly represented for this product and created the ***Customer Journey Map*** to determine if the customers were facing any issues. The findings were surprising:

- Since the product promoted direct marketing of insurance products through the web and the mobile application, most of the seniors let their family members use it on their behalf, resulting in steady traffic and MAR.
- Despite the product being extremely intuitive, the product vision got diluted as a solution for seniors. Most revenue was generated from the insurance product lines unrelated to seniors.
- Most family members purchased insurance from their point of view, which underplayed the senior's perspectives, such as:
    - Opting for a defensive driving course,
    - In-car telematics discounts in auto-products, or
    - Free lock replacements in-home products.

Bindi understood through ***SWOT and Balanced Scorecard*** that there was a need to realign the product to the main goals of the business: to serve seniors better. Despite a clear increase in users and revenue, the product management group focused their effort on marketing and demos to the senior group. Bindi started introducing features that would integrate easy call-in service for seniors and introduced touchpoints in the buying process where family members would have to explain to the seniors the features before confirming purchase. She also thought of adding explainer videos for most of the features to make it more tailored to seniors.

Outcome

Bindi understood through SWOT and Balanced Scorecard that there is a need to realign the product to the main goals of the business (to serve their seniors better). Despite a clear increase in users and revenue, the product management group focused their effort on marketing and demos to the senior group. Bindi started introducing features that would integrate easy call-in service for seniors. She introduced touchpoints in the buying process where family members would have to explain to the seniors the features before confirming purchase. She also thought of adding explainer videos for most of the features to make it more tailored to seniors.

The result was a slight drop in the revenue numbers, but Bindi could track that an increasing number of seniors were adopting the software product.

Case Study: Strategic Alignment - Insurance

Lessons Learned

Despite doing well on most of the tangible business objectives, such as revenue and the number of users, the product needed a deep realignment to the core vision of the enterprise, which was to serve the seniors more effectively.

The Product Owner was sensitive and empathetic and understood the problems that were preventing the organization from delivering value to its main segment of customers, despite taking a dip in the revenue.

From the POA perspective, the use of various strategic realignment techniques, such as SWOT and Balanced Scorecard, was used to clearly indicate the problem with concrete insights from the strategic and product metrics to support the PO's decisions because of robust analysis.

.2 Assess Market Alignment

Most successful products are delivered in iterations that address the specific needs of the customers. Each iteration goes through a cycle of learning for the team, where customers express their concern or indicate whether they can derive value. Aligning continuously to the customer needs, which evolve, requires the team to nurture a value-based mindset that is obsessed with providing the right customer value, at the right time. To provide customer value, this is a continuous process of aligning the product with market forces such as:

- Competition,
- Emerging products,
- Platforms,
- Regulations,
- Tends, and
- Changing business models.

How POA Helps Market Alignment

The Product Owner uses various assessment techniques, and best practices, to understand the customers' needs, and outline the features, that provide customer value. The most critical role of a Product Owner is to ensure that the product always delivers the right value through each iteration.

POA Techniques for Market Alignment

Agile Extension Techniques

- ***Minimum Viable Product***: Test the notion of value delivered to customers and elicit feedback for improved customer alignment.
- ***Real Options***: Determine when to make decisions so that the product reacts to the market conditions at the right time by managing the flow of PBIs.

- ***Backlog Refinement***: Ensure that the next set of PBIs is representative of the customer needs or changing preferences.
- ***Personas***: Continuously updated representation of customers to ensure that features get built into the product and provide the right experience.
- ***Storyboarding***: Describe a task, scenario, or story in terms of how stakeholders interact with the product. This leads to deeper discovery and elicitation that helps the product embed real value.

Case Study: Market Alignment - Insurance

Background

Seniors' Choice was a leading Australian insurance company with insurance products ranging from life to non-life with a specialized portfolio for seniors. They launched a new business application, HappiestYears, which provided an array of life and non-life insurance direct purchases.

Challenge

HappiestYears was a successful product after a few early hick-ups concerning the strategic posture of the organization, and branding issues. Customers reported a new problem with issues addressing the needs of the First Australian communities. Bindi, the Product Owner, as well as the entire company, value diversity in the product. An immediate response was needed.

Action

The product management group validated that there was a market for First Austrailian customers as only 40% of the population currently insure their home and belongings. However, there is a significant rise in the income levels YoY.

Bindi, applied human-centred design for the product so that she could study the customers in their own environment, and take the opportunity for the First Australian customers to co-create new business application features with the POA Practitioners.

Some of the deeper insights that emerged from this engagement indicated:

- Social activities play a significant role in the lives of the First Australians. They are more likely to approach their social circle in cases of an unfavourable event.
- Education seemed a barrier to the adoption of insurance-related products that are filled with terms and jargon.

Case Study: Market Alignment - Insurance

Outcome

Bindi considered the insights and decided to make the product more approachable by following ***Human-Centred Design*** principles, and inspiration from the team. After many rounds of discussions and iterations in prototyping, Bindi could converge on a few of these additional features

- A social engagement tool customers could use to discuss any insurance product feature with others, and
- A simplified and recallable case-based journey showing the insurance journey to the customer.

The new features were added with multiple demos to the First Australian customers through rapid prototyping. It launched in the next product release, supported by the product marketing group, which ran campaigns to improve the outreach of the product.

Lessons Learned

This scenario outlines how the product needs a continuous realignment to changing target market, market forces, or customer needs. Bindi stepped up and understood the problem by applying the right technique since the problem required a deeper understanding of customer behaviour and motivation. Human-centred design was a great choice to design new features co-created directly with customers.

.3 Assess Financial Viability

Financial viability indicates whether changes and features discovered from various learnings are feasible to deliver, as well as how product decisions change, by analyzing the financial aspects, such as:

- Price,
- ROI,
- Revenue targets,
- Development cost, and
- Implementation cost etc.

When the financial analysis is conducted on the product, the type of features that need to be delivered is constrained and based on the financial goals. Additionally, good financial analysis can help identify which proposed new features are feasible to implement.

How POA Helps Financial Viability

Effective POA supports the team and the Product Owner to understand:

- Financial goals of the organizations, and

- Various financial objectives that are set for the product to:
  - Assess whether new features or modification to the product can be met, or
  - Limit the value that is delivered through the product or service.

POA Techniques for Financial Viability

BABOK® Guide Techniques

- ***Financial Analysis***: Understand the financial aspects of the product with specific attributes such as cost-benefit analysis.
- ***Balanced Scorecard***: Manage performance in any business model, organizational structure, or business process. It helps contrast financial decisions from a balanced perspective.
- ***Metrics and Key Performance Indicators (KPIs)***: Inference decisions or actions needed to course-correct using financial indicators.

Case Study: Financial Viability - Insurance

Background

Seniors' Choice was a leading Australian insurance company with insurance products ranging from life to non-life with a specialized portfolio for seniors. They launched a new business application, HappiestYears providing an array of life and non-life insurance direct purchases.

Challenge

HappiestYears was originally envisioned as an app-only product with a simplified interface for the customer to purchase an insurance product. However, when it was noticed that it was hard to onboard seniors to a mobile and web platform for applying for insurance, a new tele-channel was opened to support seniors' transition from a call-based application, to app-based insurance applications. The launch of these features was successful, but there was an immediate flattening of the bottom line. The product team was asked to retire the feature or the product entirely if the investment became untenable.

Action

The product management group, along with the Product Owner, Bindi, thought about introducing new features that could be monetized to compensate for the tele-channel. However, Bindi noticed that taking a long-term view might be more appropriate. She had two observations after a thorough cost vs. benefit analysis:

- In the long term, the tele-channel feature will attract the core target segment into the web and the mobile platform as shown by the increasing trend of this customer group after introducing the feature.
- As the familiarity and usability increased for the seniors with respect to the application platform, the call volumes for support would reduce and the tele-channel could be retired.

Case Study: Financial Viability - Insurance

Outcome

After considering these observations, Bindi thought that if a single metric that showed a net positive trend over a period could be portrayed, she could convince the leadership to retain the tele-channel. She chose Internal Rate of Return (IRR).

Lessons Learned

This scenario outlines the importance of the financial viability of new features when they are introduced. Even if the features are deemed critical, they may be retired or repurposed if they risk the entire product based on financials. Besides, the scenario further describes that the right lens of valuing features is needed to make a case for critical features. In this example, the immediate losses can be viewed as an investment for future returns if a long-term product perspective is taken. POA Practitioners need to evaluate carefully before making decisions regarding different features from a financial perspective.

5.7.2 Optimize Value Delivery

Failures of plan-driven approaches are not being able to:

- Know everything at the start of an initiative, and
- Provide specifications with 100% certainty.

A small product increment, or a minimal version of the product, is built and shared with the customer. If the customer does not like some aspects of the product, it can be changed. Then it is put in front of the customer to get feedback, which guides the decision on how to move forward. There is a higher likelihood that the customer liked the product the second time around because the product was changed to address their concerns or issues. This incremental approach is the key to the shortest path to value.

There are factors that directly or indirectly constrain the ability of product teams to formulate the right strategy for delivering value. For example:

- Agile methodologies such as SCRUM, XP, SAFe, and KANBAN can affect the pace and quality of value that is delivered through each iteration or release. The capability of the team members, geography, and team dynamics can affect how value is delivered. While "Evolve the Product" focuses on the process of discovery (this refers to what value is delivered through the product incrementally), "Optimize Value Delivery" describes how best to deliver the value.

Effective POA helps teams influence and optimize value delivery by:

- ***Capability assessment***: Explains how enterprises and product team's capability influences the product delivered,or what features are included.
- ***Process optimization***: Explains how to improve the delivery process using product management tools and techniques.

- ***Technology use***: Explains how technology, infrastructure, and support tools are used to streamline, and organize Product Ownership tasks and enable product teams to deliver the product faster.

.1 Assess Capability

For successful product delivery, a high-performance team is needed with individuals in the team having complementary capabilities. The team structure, roles and responsibilities, and competencies are important in creating a shared vision of the product. Product teams combined knowledge and capabilities drive many aspects of product development (for example, how fast the product features can be built, and whether the team has the capability to build certain features or requirements).

How the product teams operate within the context of the enterprise is determined by:

- Culture,
- Human resources,
- Brand value,
- Methodologies and
- Know-how, etc.

How POA Helps Capability Assessment

The Product Owner is responsible for the success of the product team, so the team can deliver value in the best way possible. POA helps the Practitioners support the team by:

- Imparting product and domain context,
- Analyzing product team recommendation, and
- Influencing resourcing processes to uplift the team's capability and maturity.

POA Techniques for Capability Assessment

BABOK® Guide Techniques

- ***Business Capability Analysis***: Provide a framework for understanding the enterprise capabilities.
- ***Organizational Modelling***: Describe the roles, responsibilities, and reporting structures that exist within an organization that helps steer the product in the correct direction.
- ***Roles and Permissions Matrix***: Track specialized capabilities of the team to understand who can provide specific insights or contributions.

Case Study: Capability Assessment - Telecommunications

Background

A mid-sized telecom player, Loop Networks, was considering a new initiative to create customer engagement and generate more revenue. One of the Product Owners, Jafari, thought of an ingenious product that would be available through the mobile platform of the telecom provider. He envisioned that this product would latch on to the mobile application for the telecom provider, and that when the customers used the application to review voice and data plans or pay bills, there would be offers presented to them in categories such as Leisure, Lifestyle, Electronics, Travel, and Fashion. He anticipated that it would improve partner collaboration and generate revenue through different offers.

Challenge

The product leadership liked the idea but pointed out that there may be issues concerning experts and the partners in the suggested field to craft offers that are valuable for the customers. They also made it clear that if the product were to go live, it should be completed before the new 5G infrastructure update programs went live in 10 months. This prompted Jafari to seriously think about the feasibility of the idea.

Action

Being a seasoned POA Practitioner Jafari knew he was facing multiple challenges in delivering a working product with the idea. But also he knew that it was an opportunity that complemented the 5G infrastructure roll-out. He saw the challenges that needed to be addressed:

- Understanding the enterprise's capability of partnering with different providers to craft offers, and the capability of partners to deliver a seamless experience at their end.
- Standing up a product team with necessary cross-functional capabilities.
- Understanding the schedule pressure and de-risking the product delivery before the 5G infrastructure roll-out.

Jafari dived into a detailed exercise of enterprise capability assessment and started assessing the skills required by the product team to execute the given scope of the product.

Case Study: Capability Assessment - Telecommunications

Outcome

After a thorough examination of enterprise capabilities, Jafari discovered that closing partnerships with a different organization in all the fields would require significant groundwork that might take the better part of the year. Jafari started contemplating partnership in entertainment and leisure. He reasoned that more users are likely to consume media and entertainment content on mobile, hence it had a high chance of upselling capabilities. He considered some of the OTT providers as a partner as they may have a lesser risk since they would already have some technology platform ready to be integrated.

Jafari created a ***roles and responsibility log*** for different cross-functional roles in the organization so that internal and external hiring may become smoother. For the execution methodology, Jafari considered Agile Scrum as the preferred approach to build something high-value upfront.

Lessons Learned

This scenario underlines the importance of assessing different types of capabilities in product development. To develop a product from just an idea to a working product requires convergence of enterprise, partners, and the product teams' capabilities. The PO needs to carefully manage the expectations through capability assessments that reveal what is feasible and what is not given different constraints. Also, when there are a lot of unknowns with respect to functionality and capabilities, an iterative approach is beneficial to reduce the risk of failure.

.2 Optimize Process

Process optimization in the context of product development entails the ability to:

- Streamline methodologies,
- Frameworks,
- Governance parameters, and
- Internal and external controls.

In an iterative process, there will be changes to the delivery process over the life of the product. The Product Owner needs to be capable of adjusting to changes which affect the planning and delivery of the product to customers.

How POA Helps Process Optimization

Expected and unexpected changes occur during product development.

For example, resources and capacity may be scarce from release to release or internal organizational processes may affect the delivery of the product. The Product Owner must:

- Anticipate and accept the changes,

- Optimize:
    - Product strategy,
    - Roadmap, and
    - Backlog to react to any changes quickly.

The Product Owner must assess every change from a value perspective so that maximum value can be delivered despite the changes.

POA Techniques for Process Optimization

Agile Extension Techniques

- ***Retrospectives***: Reflect on learnings to continuously improve and optimize the value delivery process.

BABOK® Guide Techniques

- ***Process Analysis***: Assesses product delivery processes and frameworks for their efficiency and effectiveness, as well as their ability to identify opportunities for change/improvements.
- ***Organizational Modelling***: Describe the roles, responsibilities, and reporting structures that exist within an organization that help the team understand the adaptability of product delivery frameworks.
- ***Risk Analysis and Management***: Identify and formulate mitigations for an optimized process.

Other Techniques

- ***Capacity Planning***: Ensure that the right resources and people are available and allocated to specific tasks so that product value delivery is optimized.

Case Study: Process Optimization - Telecommunications

Background

The product development was well underway for Loop Networks with a strategy to partner with an OTT provider and offer postpaid and data plans with discounted entertainment packages. This set of features were provided with the telecom provider's mobile application.

Challenge

The marketing team and the OTT partner designed many such offers but they needed a faster way to test the response by taking the offers into the market more frequently. There were many other configuration changes that needed to happen for subscribers' base plans in the background as and when the subscribers opt for any offer. There was a very clear need to be fast in learning so that the right offers could be tailored.

Case Study: Process Optimization - Telecommunications

Action

The Product Owner, Jafari, reviewed the current iteration and release process for the features to reach the customers. Jafari concluded from a detailed process analysis that the launch of any new offer into the market was quite similar. For example, the offer is designed and then pushed to a specific set of target customers, but there is a delay by repeating tasks. Jafari suggested that a disciplined agile process be followed, with an integrated DevOps pipeline.

Secondly, Jafari suggested that the few product metrics needed to be tracked upfront. He also suggested that Customer Effort Score (CES) and Bounce Rate for the feature to be tracked and displayed to the product team on a live dashboard.

Outcome

Integrating the DevOps pipeline allowed for quick deployment of the offers and different campaigns. At the same time, the metrics dashboard provided direction for customer reaction to the offers. It allowed the team to quickly deploy and roll back changes and learn from them.

Lessons Learned

Being quick to market and learning fast is a large part of delivering value to the customers speedily. In this scenario, Jafari assessed and optimized the delivery process to achieve quicker results. Using a framework such as DevOps allowed smaller deployments and faster rollback, which is well-suited to launch campaigns involving offers.

.3 Leverage Technology

Support tools and technologies have advanced a great deal for managing products and supporting environments. Teams can provide maximum value when focusing on customers and business value much more effectively by using automated tools. The use of technology is more effective in supporting processes and procedures.

How POA Helps Leverage Technology

The Product Owner is involved in many operational decision-making processes where the value provided is secondary and time-consuming. Utilizing technology to improve the Product Owner's and product team's efficiency creates a faster turnaround.

For example, many planning, communication and collaboration tools exist for product development, which help Product Owners to complete their work effectively. For an evidence-and-data-driven approach to product development, POs can use new tools in:

- Data analysis,
- Reporting,
- Metrics tracking, and
- Dashboarding tools.

POA Techniques to Leverage Technology

Using technology accelerates the techniques. The primary categories of technologies may include:

- Planning and management tools,
- Road-mapping and visioning tools,
- Requirements management tools, and
- Collaboration, sharing and communication tools.

Case Study: Leverage Technology - Telecommunications

Background

The offers feature for the Loop Networks on their mobile platform has reached a steady state. Loop networks have planned to adopt different types of offers from other partners in Lifestyle, Sports, and F&B areas. In addition, Loop Network wanted to go global with this release with a localized instance of the mobile application.

Challenge

With the new expansion plan for the product, Product Owner, Jafari, was overwhelmed with the sheer number of moving pieces and complexities. Also, the pandemic of 2020 and the rise of a remote working culture prevented Jafari from facilitating easy collaboration among teams across the globe.

Action

Jafari decided that the only way he could keep a tab on the entire product effort and the expansion plan from loop networks was by utilizing technology and available accelerators effectively. He analyzed and categorized the POA and execution tasks and conducted a vendor and tool assessment for different technology solutions available in the market. He was guided by the recommendation from the PMO regarding different frameworks and standardized templates. He requisitioned software for:

- Product planning,
- Road mapping,
- Backlog management,
- Iteration and release management,
- DevOps tech stack, and
- Version management.

To effectively work across teams globally he started using conferencing and collaboration tools and promoted remote collaboration best practices.

Case Study: Leverage Technology - Telecommunications

Outcome

With many of the repeatable tasks now automated with integrated analytics and systems view of the product across geographies and separate planning options for different teams, Jafari adopted a Scrum-of-Scrums to scale product activities. This resulted in the right level of information and collaboration across product teams.

Lessons Learned

Complementary technology products really help teams by automating different types of tasks so that the entire team can focus on adding value rather than spending additional efforts planning, tracking, collaborating, and communicating. Using standardized templates, and accelerators built into these software products allows teams to act fast.

6 POA Techniques

This chapter describes important techniques used in POA. These techniques are widely practiced by Product Owners and other POA Professionals in their daily work. Practitioners apply their experience and judgment in determining which techniques are appropriate for a given context, and how best to apply each technique.

Techniques are described with different levels of detail:

- Described in other IIBA publications that:
  - Are contextualized for product ownership analysis (e.g., Value Stream Mapping),
  - Require a more detailed explanation for use within POA (e.g., product backlog), and
- Critical to product ownership analysis but are not described in other IIBA publications (e.g., Customer Journey Mapping).

As the practice of POA evolves, techniques will be added, changed, or removed.

6.1 Backlog Refinement

Purpose

Backlog refinement is used to ensure that there is sufficient detail and clarity for items in the backlog so that the delivery team can complete an iteration.

See section 7.1 of Agile Extension V2 for details.

6.1.1 POA Perspective for Backlog Refinement

Backlog refinement is a technique derived from lean practices where different product backlog items (PBIs) are developed in sufficient detail that the product team agrees that the set of PBIs are "ready" for build activities. POA extends the agile idea of how much refinement is needed, based on team consensus, to instilling the additional good practices described by the domains.

.1 Backlog Refinement and the POA Domains

POA Domain	*Backlog Refinement*
Applying Foundational Concepts	• POA Practitioners may discover elements during refinement that affect product alignment in strategy, initiative, or delivery horizons. • Such changes must be assessed and added to the product backlog to achieve the necessary conformance to the product vision.
Cultivate Customer Intimacy	• Collect and reflect the customer perspective by elaborating PBIs from a user viewpoint and the outcome they're likely to receive. • The outcome should be grounded by empathy for the customer. • Quoting customer examples often helps the team better understand user perspectives, so that the outcomes meet needs.
Engage the Whole Team	• The entire team needs to participate in backlog refinement sessions. It is not the sole responsibility of the Product Owner. • It is the responsibility of the POA Practitioner to consider the opinion of the whole team in what constitutes the characteristics of a PBI to be "ready."
Make an Impact	• POA Practitioners work constantly, using various techniques to prioritize and refine PBIs in the backlog. • They also use this analysis to refine the PBIs to identify appropriate product characteristics, depending on what is needed for the iteration.
Deliver Often	• Right-sizing PBI items is a necessary step for delivering value. • The POA Practitioner may encounter large sized items that need to be analyzed, and decomposed into smaller items or stories. • The appropriate stories are selected to be included in the theme that is relevant for the iteration or the release.

POA Domain	Backlog Refinement
Learn Fast	• As the product evolves, the team's understanding on how much refinement is needed for the PBIs to be ready for the next iteration improves. • In the initial phases, the team collectively decides on the parameters for a PBI, Epic, or user story to be ready for development, which is then assessed in every iteration until a shared understanding is reached.
Obsess About Value	• Optimize product development by ensuring that the PBIs get refined just-in-time, reducing wasted effort on non-essential activities. This frees up the POA Practitioner's time to focus on tasks that provide greater product value.

6.2 Business Cases

Purpose

A business case provides justification for a course of action, based on the benefits to be realized by using the proposed solution, compared to the cost, effort, and other considerations to acquire and live with that solution.

See section 10.7 of BABOK® Guide V3 for details.

6.2.1 POA Perspective for Business Cases

In the context of product ownership analysis, business cases provide value and benefits that are realized continuously over a long period, as opposed to a project context which is a one-time event. Although the business cases are prepared by the product management function, the POA Practitioner provides significant input in the preparation of a business case regarding:

- The roadmap,
- The sequence of features, and
- The customer perspective.

A business case often takes the form of a product plan that is more comprehensive and may include:

- Product vision,

- Product strategies:
    - Strategy assessment of needs,
    - Target market,
    - Competitive assessments, and
    - Industry analysis.
- Business value and benefits (e.g., value propositions),
- Financial assessments (e.g., ROI mapped to product lifecycle),
- Key strategy and product metrics,
- Product roadmap,
- Business model,
- Go-to market strategies, and
- Risk, constraints, and assumptions, etc.

.1 Business Cases and the POA Domains

POA Domain	*Business Cases*
Applying Foundational Concepts	• Created upfront and iteratively developed into a fully developed product plan. • Without the right foundational thinking that explores strategic product alignment, team capabilities, and the organization's resources, it will be difficult to position product build activities for success.
Cultivate Customer Intimacy	• Created from the enterprise viewpoint. • Most organizations recognize that customer value is a critical driver for business success. The business case for a product must be created with a customer lens.

Engage the Whole Team	• Requires contribution from many cross-functional teams, including:
	  • Product management,
	  • Product Ownership,
	  • Marketing, and
	  • Technology functions.
	• It requires significant collaboration and engagement skills for a POA Practitioner to synchronize with different teams to create a business case.

POA Domain	Business Cases
Make an Impact	• It is the first step towards creating a significant impact within internal stakeholders of an organization. • Without the right articulation of value, a business case is likely to fail, especially when a product is not available for demonstration to decision-makers.
Deliver Often	• A product plan that evolved from a business case is a live artefact that drives product development. It is kept current to reflect the prevailing product and market situations.

Learn Fast	• A tool for:
	  • Securing investment,
	  • Learning about market conditions, and
	  • Assessing whether the value and the timing of product build activities are justified.
	• The analysis required to create a comprehensive business case unlocks multiple areas of learning and feedback that is used to evolve the product offering.

Obsess about Value	• The team must be aware of the organization's value to create an effective business case. • The business case for products is no longer unidirectional justification for revenue, cost, or schedule. It encompasses different value metrics. For example: • A product strategy may involve rapid onboarding of users, which sacrifices funds for getting better customer lifetime value.

6.3 Collaborative Games

Purpose

Collaborative games encourage participants to collectively build shared understanding, trust, and team spirit. These games can be used for:

- Elicitation,
- Prioritization,
- Risk assessment,
- Knowledge sharing,
- Problem-solving,
- Decision-making, and
- Planning.

See section 10.10 of BABOK® Guide v3 for details

6.3.1 POA Perspective for Collaborative Games

Games engage and provide team members with a safe space to express themselves. Collaborative games usually involve cross-functional members, the extended product team, and customers, depending on the intent of the game. Several types of collaborative games are used:

- Team-Building Games:
  - Aimed at developing team spirit and trust.
  - Designed for team members to bond and help each other. They may or may not have product objectives associated with them.
- Prioritization Games:
  - Aimed at a group of stakeholders to prioritize product features for iterations and releases.
  - The $100 test is an example. During the activity, participants are asked to spend $100 on a list of proposed features. It helps team members identify the most important features.
- Stakeholder Analysis Games:
  - Aimed at analyzing stakeholders and their disposition towards the product.
  - The "friend or foe game" is an example. Participants are asked to discuss and identify whether a stakeholder would support various product build or team activities.

- Problem-Solving Games:
  - Participants are asked to address a situation or a problem. For example, a semantic environment mapping can be used to analyze a situation in various ways:
    - Rules,
    - Touchpoints,
    - Actors,
    - Environment, and
    - Keywords.
- Games for Product Perception:
  - Designed to elicit a response from customers, stakeholders, or other participants, about the product:
    - Discover what excites them about the product,
    - Assess value propositions, or
    - Identify emotional appeal.
  - Example Games:
    - 2 Brains - Tell It and Sell It,
    - Product box,
    - Elevator pitch, and
    - Sound bites.

.1 Collaborative Games and the POA Domains

POA Domain	*Collaborative Games*
Applying Foundational Concepts	• Collaborative games help in the early stages of team setup and capability analysis. It is surprisingly effective in generating insights in an organization that fuel strategic decisions.
Cultivate Customer Intimacy	• All collaborative games are designed for participants to have a good experience. When customers are part of these games, they express themselves without reservation since the games provide a safe environment for dialogue and exploring ideas.
Engage the Whole Team	• Collaborative games engage the entire team to promote team bonding and build mutual trust. Games help build work agreements and an understanding of team dynamics.

POA Domain	Collaborative Games
Make an Impact	• Since each game has a fun and engaging theme, they are usually memorable for the product team and customers which can leave a good impression on them. • A well-conducted game can motivate the team to be more productive.
Deliver Often	• Collaborative games are often ignored due to work pressure, schedules, and deliverables. However, games can motivate teams to drive towards the desired outcomes.
Learn Fast	• Tying collaborative games to a product objective may provide surprising feedback from stakeholders, the product team, and customers. They can be used as a learning tool when concrete data is not available for generating robust analysis.
Obsess about Value	• Collaborative games support the objective of the team to think and act creatively, unlocking the team's potential to add value and innovate.

6.4 Customer Journey Map

Purpose

A customer journey map is a visual representation of the end-to-end customer experience from the customer perspective. It reveals the customers' experiences and motivations when interacting with a specific brand and products at various touchpoints. This allows organizations to deliver personalized and highly relevant customer experiences.

Description

Organizations undertaking digital transformation have created a heightened need to ensure a robust and seamless customer experience across all customer touchpoisnts. Due to their holistic nature, customer journey maps provide insight on:

- Customer needs,
- Emotions, and
- Touchpoints.

They reveal opportunities to:

- Satisfy pain points,
- Alleviate fragmentation, and
- Expose new opportunities to improve the customer experience.

There can be several types of journeys for different customer segments. Before a Product Owner creates journey maps, they should articulate the objective and know what they want to get out of it. This will help them to determine what type of journey they need to map.

- Understanding how a customer felt before they started the journey may provide:
    - Insights or additional questions,
    - Knowing why they like the way something works, or
    - Hearing what they wish it did (each time they do the thing that they do not like).

Knowing what the organization wants the customer to think, feel, and say at the end of their journey helps them have a better way of understanding customer value and differentiating from their competitors.

Customer journey maps are beneficial in:

- Identifying touchpoints (i.e., where customers interact with the organization),
- Giving an external perspective to the sales process,
- Focusing the business on customer needs at different stages in the buying process,
- Showing gaps between desired customer experience and the one received, and
- Allowing to concentrate resources on what matters most to maximize effectiveness

Components of customer journey maps:

There are variations of customer journey maps. However, common components include

- ***Stages or Touchpoints***: These include the occasions when the customer interacts with the organization in some capacity.
    - ***Awareness*** - The potential customer is aware of a need or problem, and the product is one of the possible solutions.
    - ***Consideration*** - The customer has researched the product and compared it to its competitors to help evaluate whether to purchase it, or narrow down the options.
    - ***Decision*** - The customer has evaluated the product against competitive products and, based on it being "fit for use" and "fit for purpose," decided to purchase one of them.
    - ***Retention*** - Post-purchase, the organization needs to remain engaged with their customers, and gather their feedback to improve the product and the customer experience.
    - ***Advocacy*** - The organization needs to convert customer loyalty to word-of-mouth advocacy.

- ***Activities or Actions***: These occur within each of the stages that include communications and interactions between the customer and the organization.
- ***Channels***: The channels through which the customer interactions and communications happen.
- ***Expectations***: The organization's perception of what the outcome of each stage should be, including what the customer should feel or experience.
- ***Experiences***: The outcome and experience of each stage, from the customer perspective.
- ***Feelings***: How the customer was feeling at each stage, choosing from a range of emotions.

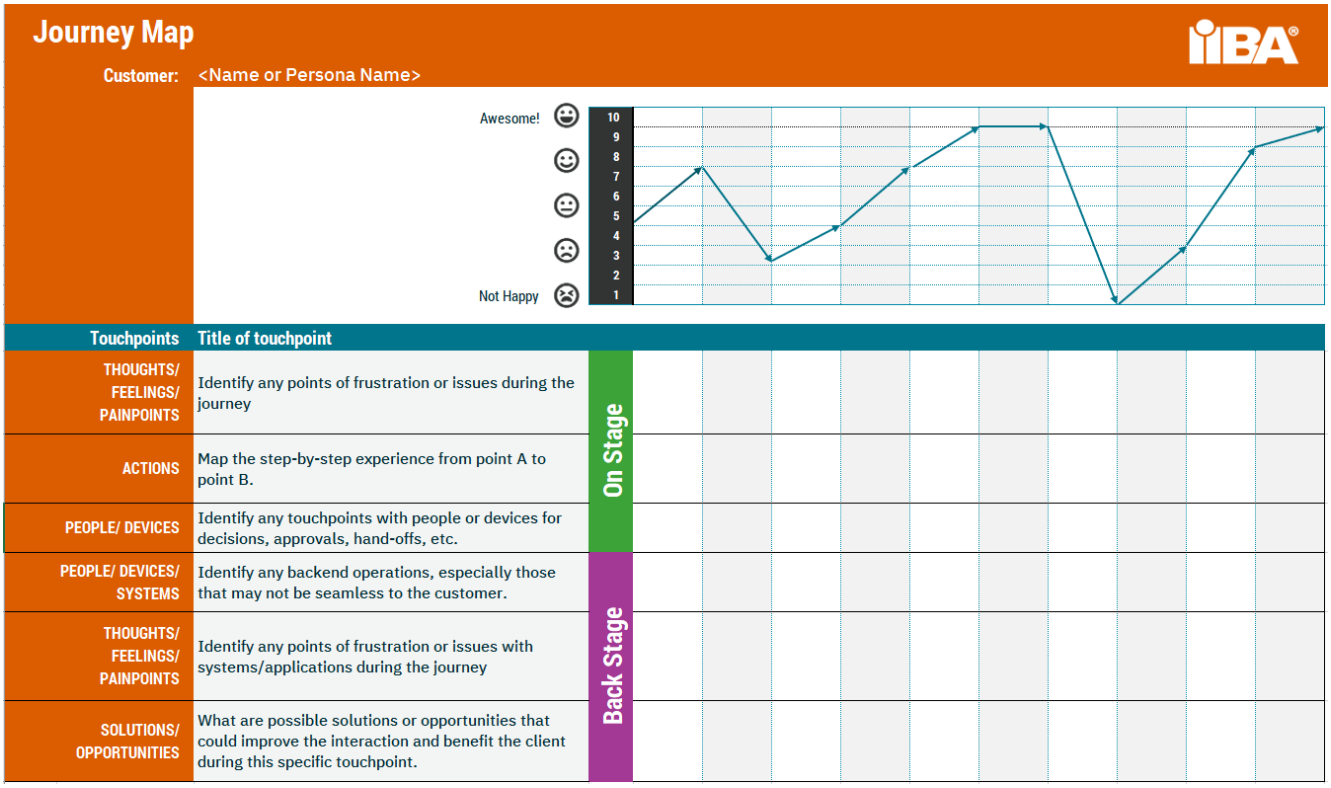
.1 Process to Create Customer Journey Map

There is no one-size-fits-all for a customer journey map since it depends on the business, product or service that is being mapped. Some standard practices for a basic map include:

1. Identify a clear goal for creating the journey map and doe what you want to achieve from the exercise. It may include:
   a. Understanding the current state,
   b. Improving the current state,
   c. Designing the future state,
   d. Moving from known current to desired future,
   e. Developing a customer-centric roadmap, or
   f. Developing an innovative new offering.
2. Identify target customers and define the customer (e.g., persona). Select one or more candidates from each persona to participate in creating the customer journey map.
3. Determine the type of journey map is most appropriate for the project by asking, "What template is best suited? How many customer segments are there? What is the timeline of the journey?" Additional criteria to determine the right type of journey map include:
   a. Customer goals,
   b. Single-touchpoint experience,
   c. Single-channel experience,
   d. Front and backstage experience,
   e. Cross-touchpoint experience, and
   f. Cross-channel experience.
4. Map out all the possible customer touchpoints or stages.
5. Understand what the target customers want to achieve within each touchpoint or stage, and the expected value they want to be delivered.

6. Identify customer pain points (both qualitative and quantitative).
7. Assess, prioritize, address issues, improve experiences and add actions including those responsible for implementing them.
8. Update the journey map to reflect changes in customer needs, or in the marketplace, and improve accordingly.

Sample customer journey map:



Customer Journey Map Considerations

Strengths	*Limitations*
• Created to support a business goal (e.g., improve customer retention). • A customer perspective to identify shortcomings, strengths, and opportunities to make a bigger impact, and get desired outcomes. • Develop a product roadmap to help incorporate the customer experience strategy into the roadmap.	• Not suitable for the ideation stage of the product or service. • Could be short-sighted if a variety of stakeholders are not involved in its creation. • It requires speaking to actual customers, which can be difficult (not based on employees' perceptions). • Needs to be validated and kept updated with continuously changing needs.

Tips for Success

- Identify and map all customer touchpoints (direct or indirect, small, or big).
    - Determine the critical touchpoints that make or break the customer's decision.
    - Use the 80/20 rule to select the touchpoints that can heavily influence and impact the customer.
- Differentiate frontstage touchpoints from backstage touchpoints to provide a separation from customer-facing touchpoints to those with backend activities. Highlight dependencies and links between touchpoints.
- Complement the customer experience with insightful metrics and quotes from customers.
- Collaborate with other internal and external stakeholders involved in the customer journey map to add additional context and insight.
- Provide a comprehensive view that enables organizations to integrate enterprise architecture with customer experience when combined with business process modelling. It also shows multiple paths that can occur between touchpoints.
- Avoid making customer journey maps too detailed as it is easy to get lost in those details.

6.5 Decision Modelling and Analysis

Purpose

Decision modelling shows how repeatable business decisions are made.

Decision analysis formally assesses a problem and possible decisions to determine the value of alternate outcomes under conditions of uncertainty.

See section 10.16 and 10/17 of BABOK® Guide v3.

See section 3.8 of the Guide to Business Data Analytics.

6.5.1 POA Perspective for Decision Modelling and Analysis

In the context of product ownership analysis, product decisions are made with uncertainty on how the product will be received by customers. Three types of critical product decisions can be characterized, with decisions relating to the:

- Product strategy,
- Selected product features, and
- Timing of product features.

Product Strategy: This type of decision pertains to the overall customer needs, target market, and business goals:

- What are the customer needs that can be pursued?
- What is the target market?
- What are the overarching goals?
- What are the success criteria (KRAs and KPIs) for the product? etc.

Practitioners need to employ strategy analysis tools to arrive at decisions and alternatives.

Product Features: This type of decision relates to the actual features of the product, which are the synthesis of different ideas, feature requests, and business considerations that cohesively address identified customer needs. Practitioners can use solution assessment and validation approaches to determine the benefits of each feature.

Feature Priority and Timing: This type of decision requires practitioners to decide on the order in which the features will be released to customers so that the product can generate maximum value or impact. Practitioners can use several of the prioritization techniques, as well as the value matrix, to make informed decisions.

A ***decision framework*** may be necessary, depending on the complexity and organizational processes, and may require standardization of repeatable product decisions. For example,

- Product definition concepts (Definition of Ready, Done, Delivery) can be standardized.

- Decision modelling involves creating a framework with a blueprint on how product decisions must be made, with the aid of:
- Process flows,
- Checklists,
- Decision authority matrix, or
- QA stage gates (so that a common understanding of the decision process can be built for a product).

.1 Decision Modelling and Analysis and the POA Domains

POA Domain	*Decision Modelling and Analysis*

Applying Foundational Concepts	• POA Practitioners make strategic decisions to ensure alignment of
	  • The product strategy to the business strategy, and
	  • The product team structure and the enterprise capability, to deliver a product.

Cultivate Customer Intimacy	• Customer research can be used to make inclusions or to order features, with respect to customers':
	  • Preferences,
	  • Motivations for using the product, and
	  • Value derived from the product.
	• POA Practitioners need to obtain relevant data and insights before making any decision.

Engage the Whole Team	• POA Practitioners may be responsible for managing the product strategy, roadmap, and the product backlog. • External and internal stakeholders participate, as well as being impacted by the decisions. • Stakeholder engagement should be embedded into the decision-making process.
Make an Impact	• Decisions are relevant within a specific time frame. For example, a product decision to forgo revenue to attract more users is only relevant until the product attains a critical mass of users. • Each feature decision, and especially the sequence in which features are developed and released require the team to evaluate the impact it can generate.

POA Domain	Decision Modelling and Analysis
Deliver Often	• Decision analysis and modelling must be conducted for each critical product decision. • For repeatable decisions, an agreed upon decision framework may be established
Learn Fast	• Some decisions can be made based on product metrics, simulations, or A/B tests, and so on. • The team must evaluate the best way to learn more about decision options and the tools needed to validate such decisions.
Obsess about Value	• Every decision must be associated with a goal that ultimately aligns with the product vision. • The business and customer objectives must be addressed through every decision the team makes.

6.6 Definition Concepts (Ready, Delivery, and Done)

Purpose

The ***Definition of Ready***: the team agrees on and prominently displays ***a list of criteria that must be met*** before a backlog item is considered ready for the team to start development work.

The ***Definition of Delivery***: the team agrees on and prominently displays ***a list of criteria of what needs to be done*** for backlog items to be eligible for a delivery or release.

The ***Definition of Done***: the team agrees on and prominently displays ***a list of criteria*** that must be met before a backlog item is considered done.

6.6.1 Definition of Ready

The Definition of Ready is applied to make sure that the team has enough information about a product backlog item (PBI) to be able to implement it in an upcoming sprint. The team defines what needs to be included in a PBI to ensure that it is:

- Of value to the customer,
- Clearly articulated and understood,
- Actionable, so that the team knows what needs to be done (and how),
- Achievable within the iteration (i.e., sized appropriately), and
- Testable.

The outcome is a list of criteria, agreed upon by the team, and prominently displayed. All the criteria must be met, and the backlog item must be estimated before it is considered ready for development.

Criteria included as part of Definition of Ready:

- There is sufficient detail and clarity to start development work, e.g.,
  - Supporting domain knowledge,
  - Any business context on how the user story part is part of a larger narrative,
  - Business rules added,
  - User interface mock-ups required for visual clarity,
  - Non-functional requirements specified, and
  - Data elements defined and data modelling/mapping completed.
- The PBI meets the "INVEST" criteria:
  - Independent of other user stories (as much as possible),
  - Negotiable for changes,
  - Valuable to the customer, stakeholder, or team (based on preferred value metric),
  - Estimable to help rank and schedule its implementation,
  - Small enough to be completed in an iteration, and
  - Testable (even if tests are yet to be created).
- It is sized using relative estimation.
- Acceptance criteria are clearly defined.
- Resources are available and assigned to work on the story.
- The team knows how to demonstrate the completed backlog item.

Definition of Ready can be applied to items other than PBIs. For example, a release plan can have the Definition of Ready criteria before new features are rolled out to the customers. Definition of Ready may include:

- High-level capacity plan for delivery and support resources.
- Size estimates for the PBIs that include:
  - PBI elaboration,
  - Development, and
  - Testing efforts.
- High-level dependencies, including
  - Technical,
  - Operational, and
  - Business considerations.

- Release criteria, including:
  - Any hardening, or stabilization requirements.

6.6.2 Definition of Delivery

The Definition of Delivery requires the team to collaboratively define what needs to be done to be ready for delivery. It is especially useful in complex product releases. The value is in the transparency it creates for business stakeholders and the confirmation that all activities needed for successful delivery are identified and aligned. The Definition of Delivery includes what needs to be done and who needs to do it.

The items identified as Definition of Delivery may be added as PBIs to the product backlog. This approach facilitates recording additional information like tasks, task assignments, due date, and time to completion to Definition of Delivery criteria. It demonstrates that all the readiness activities have been met for delivery.

The Definition of Delivery:

- Becomes part of the product roadmap and release plan, contributing to a shared understanding of work to be done.
- Provides visibility and transparency of the progression for the readiness of product delivery.
- Adds a level of granularity to the product roadmap, which brings meaning and clarity.
- Reinforces the value of, and keeps the focus on, setting goals and measuring progress.
- Identifies marketing, training, technical support, and the detailed product rollout plan, or any other activities identified through input from the team and stakeholders.
- Is influenced by the Agile Framework employed by the team.

Readiness items that may be included in the Definition of Delivery:

- Marketing
  - Branding
  - Materials
  - Delivery
  - Videos
- Training
  - Manual
  - Quick Reference Guide
  - FAQ
  - Videos

- Quality
    - Open or known defects resolved
- Technical
    - Security
    - Operational deployment plan
- Production support
    - 1st level
    - Escalations

6.6.3 Definition of Done

The Definition of Done is used to clarify understanding of what completeness means for PBI work, iteration work, and feature work. It helps to ensure that there is a unified understanding and agreement on quality standards. It consists of a list of criteria that must be met before a work item is considered done. Like all definition concepts in Agile, Definition of Done is a collaborative team effort that must be prominently displayed for the team.

This concept helps support the Definition of Delivery and provides the opportunity to collaborate and communicate across the delivery team and stakeholders. It sets expectations and helps to navigate the confusion that sometimes exists among the delivery team and stakeholders concerning when a PBI is considered complete. Teams that operate based on clearly articulated Definition of Ready, followed by Definition of Done, accelerate velocity, delivery, and ease of acceptance of PBIs.

Examples of criteria under a PBI's Definition of Done include:

- Development has been unit tested.
- 80% of the code has been reviewed.
- Code meets style guide and enterprise architecture standards.
- 100% of acceptance criteria have been developed and passed testing.
- Public API documented according to standards.
- Product note has been updated.
- PBI has been approved by most stakeholders in the product review team.

Definition Criteria

All the definition concepts include a mutually-agreed upon set of independently verifiable criteria. The criteria are statements of common understanding within the team for PBIs intended for a specific goal (development, release, completion etc.). It is a good practice to stay agile and not over-specify the definition criteria. The product team agrees upon the level of detail required for the definition criteria.

Mode of Communication

All the definition concepts promote shared understanding. Therefore, the mode of sharing must be selected carefully. All criteria should be always available to the team.

.1 Process to Create Definition Concepts

- Begin with a collaborative session (e.g., an iteration, release, or delivery planning session):
  - All the criteria for the definition concepts require a shared understanding and trust between team members, and
  - Goals for the definition concepts need to be defined and the differences explained to the team.
- Create a checklist to verify the definitions:
  - For Definition of Done (DoD), a checklist may contain a set of criteria that outline the team's understanding of "Done."
  - The Definition of Ready may include a checklist of expectations from the team that outline whether they feel comfortable with the selected PBIs.
  - The definitions may span multiple PBIs, unlike the acceptance criteria, which are tied to a specific PBI, Epic, or story.
- Review the definitions:
  - The quality attributes of PBIs are usually similar so they can be applied across many PBIs. However, the definitions may require timely revisions as:
    - The understanding of team members matures,
    - Introduction of new team members, or
    - The product undergoes directional changes.

Considerations for Definition Concepts

Strengths	*Limitations*
• It is visible and accessible to all team members, so there is a limited number of assumptions. • It significantly reduces the risk of building something incorrectly. • It is an effective communication tool and orients team members to a shared focus. • It can be easily modified to include organizational considerations.	• It can be confused with acceptance criteria. • It requires team members to have a shared understanding of the criteria. When the team changes, the criteria may require updates. • It minimizes the risk of unintended features to be delivered but does not ensure customer acceptance.

Tips for Success

- Be clear and specific with definition criteria. For example, there is a difference between:
  - “Acceptance criteria must be met." vs. "100% of acceptance criteria has been developed and passed testing." The latter criterion is specific in what it means for acceptance criteria to be met.
- Ensure the criteria is achievable. For example, includie a criterion such as:
  - “Product shipped to the customer" is not feasible for every work increment, or
  - "The customer will save X amount of time per transaction" criterion cannot be met prior to Done.
- The criteria must be agreed upon by the whole team since it is a commitment to quality work.
- The criteria should be revisited and revised if issues arise after PBIs are accepted by the team during product delivery. Retrospectives provide a good opportunity for a review of definitions.

6.7 Empathy Map

Purpose

A collaborative visualization tool is used to gain deeper insight into the experience and emotions of customers. This human-centred design tool helps provide clarity and a shared team understanding of how to get into the hearts and minds of customers.

Description

Empathy is the capacity to understand or feel what another person is experiencing from their frame of reference. Empathy can influence the design of a solution in a way that becomes the product differentiator. It helps create services and products from a customer's perspective, which in turn enhances their perception of the brand. Typically used during customer analysis and early in product delivery, empathy mapping guides the activity to capture meaningful information.

Each customer segment or persona has a corresponding empathy map. These maps can be used on their own or in conjunction with other customer analysis tools including:

- Customer journey maps,
- Customer personas,
- Service blueprints,
- Motivation matrix, and
- Mind maps, etc.

Empathy mapping can be driven by qualitative research. It can help POA Practitioners understand what aspects of their customer they know, and where they need to gather more data. An empathy map can be:

- *One-user (individual) empathy map* - created based on a customer's interview and/or entries made in a diary study.
- *Aggregated empathy map* - created to represent a customer segment by aggregating multiple empathy maps of customers that belong to the same segment.

Empathy maps are beneficial in:

- Enabling questioning of underlying perceptions and assumptions of the customer.
- Understanding the emotional aspects of customer behaviour.
- Developing customer-centric intuition for the product features.
- Highlighting key differences between customer segments or personas.
- Painting a holistic picture of the customer and their needs (used in conjunction with other customer analysis tools, such as personas and customer journey maps).
- Aiding with customer experience design.
- Establishing a trusting and engaging relationship with customers.

Components

The empathy map contains different customer perspectives that help team members and POA Practitioners develop a deeper understanding. These perspectives are:

- Think and Feel,
- Hear,
- See,
- Say and Do,
- Pain, and
- Gain.

Think and Feel

This perspective focuses on customers' thoughts and feelings during a product interaction, customer stage or touchpoint.

- Ask”
    - "What were the customers' thoughts?"
    - "How did they feel?"
    - "What were the dominant emotions?"
- Observe their body language.
- Ask: “What beliefs, motivations or expectations caused them to have these thoughts?”

It helps to understand how they were feeling, supported by their thoughts. Try to identify any thoughts that the customer may have had, but did not vocalize by observing:

- Customer behaviour,
- Expressions,
- Work patterns, and
- Outward disposition.

The POApractitioner needs to analyze the reason they did not bring it up. Qas it because of:

- Uncertainty,
- Politeness,
- Self-consciousness, or
- Fear

For example, some people may be:

- Hesitant to share so much personal data,
- Excited,
- Questioning why (distracted), or
- Confused.

Hear

Practitioners focus on what the customers may have heard about the product by asking questions and observing the customers in their environment.

POA Practitioners:

- Ask what the customers are hearing from their friends and colleagues, or other mediums,
- How this influences their decisions or actions, and
- Ask how this influences the overall analysis. (e.g., the opinion of an accompanying friend and any background sounds).

See

This perspective encourages POA Practitioners to see what the customer sees when interacting with the product or service offering, or during a touchpoint (for example, a pleasing colour theme and design or icons that are not easy to understand).

Say and Do

POA Practitioners should note what the customer said and did during a product interaction, customer stage, or touchpoint. Customer quotes can be included.

Actions taken by the customer are added, as well as how they went about taking those actions. For example, a customer compared prices with

competitive products using an online comparison website, said, "I was expecting something a little different," and asked friends for their opinion.

Pain

This perspective encompasses what the customer's pain points are and what the factors are which could repel the customer from buying the product or service being offered (e.g., the customer was not familiar with a new technology, found it challenging to use, and had limited options).

Gain

POA Practitioners must be aware of the benefits the customer will experience from using the product or service and know which needs of the customer are satisfied. For example, the product may make it easier and quicker for customers to do a manual and tedious task or give access to all the key resources in a single repository.

.1 Process to Create Empathy Maps

A high-level outline of an empathy mapping session:

1. Plan the empathy mapping session:
    - Determine who should be involved in outlining the empathy map for each customer segment.
        - Customers can be part of the session as needed
    - Ensure that the resources required to create an empathy map for a co-located or dispersed team are available. (e.g., online collaborative tools, whiteboards, paper, sticky notes, markers, etc).
    - Identify the personas or customer segments that will be worked on, and the type of empathy map that will be used.
    - Have a clear understanding of the primary goal for empathy mapping and make sure it is shared with the team, so the particpants are aligned.
2. Collect customer research: conduct qualitative customer research and elicit the information required to create the empathy map. Gather customer research that will add insights while working on the empathy map, including:
    - Personas,
    - Customer journey maps,
    - Onterview or survey results, or
    - Data reports.
3. Conduct the empathy mapping session and complete the quadrants:
    - Specify the customer or customer segment at the centre of the map.
    - Review the research and, as a team, identify important findings or highlights, placing them in the appropriate quadrant (Thinks, Feels, Does or Says). If a finding seems to fit into more than one quadrant,

decide collectively on the most relevant quadrant. (This should not interfere with the analysis as the quadrants are seen together to draw key insights).

- Draw further insights and patterns by identifying and analyzing:
  - Recurring themes in thoughts, feelings, or behaviours across all quadrants,
  - Thoughts, feelings, or behaviours that were reflected in one quadrant but not in any of the others (e.g., a thought occurred but was not said),
  - Findings that did not apply to any of the quadrants, and
  - Asking if there are any:
    - New customer insights, pre-existing assumptions, or perceptions challenged?

Considerations for Empathy Maps

Strengths	***Limitations***
• A quick and easy way to illustrate customer thinking and behaviour by customer segment to build a shared understanding for the team. • Challenges any underlying assumptions or biases for understanding the customer. • Complements other customer research techniques by providing deeper emotional facets. • May identify customer needs that they were not aware of. • Promotes understanding of what drives customer behaviours by identifying inconsistencies and contradictions within or between quadrants (e.g., the customer thought negatively but acted positively, or said conflicting statements on the experience).	• Needs to be complemented with other customer research techniques to provide a holistic view of the customer. • Needs to be updated as new findings of the customers arise to remain relevant. • The quality of the insights drawn from empathy mapping, particularly to determine underlying or hidden thoughts or feelings, is heavily dependent on customers and how much they want to share. • Some of the reasoning behind what drives customers to behave in a certain way may be based on assumptions or perceptions.

Tips for Success

- Ensure that the customer is included in the empathy mapping session:
  - To remove any biases,
  - Answer any additional questions, and
  - Validate findings.

- If the empathy map was recorded on a whiteboard, create a digital copy that can be easily accessed by the team.
- It may take multiple revisions to complete an empathy map. There may be outstanding questions that need further research or clarity.
- Even if an empathy map for a persona seems complete, it is important to revisit, review, and update it with any additional new findings.
- When there is a finding that did not fit it into a quadrant, it usually signifies that further research is needed.

6.8 Focus Groups

Purpose

A focus group is used to elicit ideas and opinions about a specific product, service, or opportunity, in an interactive group environment. The participants, guided by a moderator, share their impressions, preferences, and needs.

See section 10.21 of BABOK® Guide v3 for details

6.8.1 POA Perspective on Focus Groups

In the context of product ownership analysis, focus group studies are used by the product management function to learn and perform customer research. However, POA Practitioners also play a vital role in assessing the impact of the focus group outcomes, and how they relate to the product. The POA Practitioner also collaborates in selecting the:

- Target customer group,
- Focus group objectives, and
- Questions that need answers from focus group participants.

Focus groups provide an efficient and direct way of eliciting feedback from customers during product development and can provide information to inform product decisions. Focus group outcomes can be used by the team to modify the:

- Product strategy,
- Roadmap,
- Planned features, and
- Release plan scope.

The focus group is used by POA Practitioners to learn how target customer groups react to specific product features or planned features.

Focus Groups and the POA Domains

POA Domain	Focus Groups
Applying Foundational Concepts	• At later stages of product development, the outcome of focus groups may affect the product alignment to enterprise objectives.

Cultivate Customer Intimacy	• Focus group questions must be carefully crafted to be:
	  • Relevant,
	  • Concise, and
	  • Empathetic yet neutral, to all representative members in a focus group.
	• The setting and schedule must be comfortable for all participants so that they are open to sharing their reactions and motivations.

Engage the Whole Team	• For a focus group, engaging the whole team requires the moderator to elicit information from all participants. • There may be different customer perspectives for the product or features.
Make an Impact	• The focus group needs to clearly articulate the focus group objectives and emphasize the importance of participants' feedback. • The moderator, or the POA Practitioner acting as the moderator, should not influence or bias the feedback with their opinion.

Deliver Often	• Focus groups require planning to:
	  • Identify participants,
	  • Manage their schedules, and
	  • Provide participants with incentives.
	• The gains from a focus group must be balanced with the effort and budget.
	• Focus groups are planned for important events in the product lifecycle, like MVP releases, significant feature releases, or failed launches.

Learn Fast	• Applied as a learning tool where customer feedback is analyzed and decisions are made. • The subjective opinions from the focus group participants can be corroborated with product metrics.

POA Domain	Focus Groups
Obsess about Value	• Practitioners should ensure that the questions and the information elicited from focus group participants are assessed for value. • Questions need to be carefully crafted and the moderator must take steps, such as asking for clarification if the feedback is not clear.

6.9 Human-Centred Design for Products

Purpose

Human-centred design is a practical, repeatable problem-solving approach that focuses on putting customer needs first. In the context of a product, the human-centred design proposes that the customers who are facing the problem have the key to how the product can solve their problems.

Description

Human-centred design offers problem-solvers a chance to:

- Design with real customers,
- Deeply understand the people they're looking to serve,
- Discover new ideas, and
- Create innovative products planted in the customers' actual needs.

Key tenets of human-centred design include (as per the International Standards Organization):

- ***Active involvement of the customer in the product lifecycle***. In human-centred design, the practitioner and customer work together to cocreate the product offering.
- ***Iterative and non-linear approach***. The journey of human-centred design is not completely sequential. The success depends on internalizing customer problems without the designer's bias.
- ***Experimentation and feedback drive the product roadmap***. Human-centred design promotes product prototyping, starting from a most rudimentary form, to evolved techniques such as A/B tests to actively seek feedback from customers.
- ***Using adaptive processes***. Creating a product that appeals to specific needs of different customers, rather than producing a mass market and templated set of features.

Human-centred design draws on a loosely defined process popularized by IDEO, a design and consulting firm, and contains three phases and toolkits intended to drive participation and feedback from the customers who will be using the product.

Components

To successfully apply human-centred design for product development consider:

- ***Mindset***: To dive into human-centred design and guarantee a human focus. It typically includes:
  - ***Creative confidence***: The notion that everyone has creative potential to solve problems given the right set of impetus, process, and tools.
  - ***Experiment***: Ability to make something, test it with customers, and learn from it even though it fails.
  - ***Empathy***: Understand deeply about customers in their environment and how they feel about the problem.
  - ***Embrace Ambiguity***: Ability to be comfortable with not knowing the answer and to allow exploration.
  - ***Optimism***: Having the belief that solutions exist for issues faced by customers and finding ways to move forward.
- ***Process***: Typical human-centred design approaches follow:
  - ***Inspiration phase***: Learning on the job, opening up to creative possibilities, and trusting that as long as practitioners remain rooted in the needs of the communities, ideas will evolve into the right solutions. Key activities include:
    - Framing the problem and building a plan to address important problems,
    - Building an interdisciplinary team to generate ideas, and
    - Conducting primary and secondary research about customers and their problems.
  - ***Ideation Phase:*** Practitioners share learnings with the product team, make sense of a vast amount of data, and identify opportunities for product design. This phase:
    - Involves generating an array of ideas, evaluating the ideas, and pursuing some of those ideas.
    - Focuses on creating tangible prototypes of the ideas and sharing them with stakeholders.
    - Involves iterating, refining, and building until the product follows a concrete set of ideas.
  - ***Implementation Phase***: The solution is brought to customers. Practitioners build partnerships, refine the business model for the product, pilot the product, and stabilize it. It also includes evolving the product as customers' needs change.

Considerations for Human-Centred Design

Strengths	*Limitations*
• The product evolves through human-centred design and has a better chance of success as it focuses on deep understanding of needs, without diving into the potential solution. • It promotes tools for Practitioner that reduce waste and maximize customer insights. • It limits the risks of failure by involving the customer from the start and co-creating the product with those customers. • It benefits from the experimentation and learning process. As the product is prototyped and tested by customers, the details get evaluated and customers provide more accurate feedback.	• It may limit the product to existing processes, methods, and technologies that promote incremental innovation due to overreliance on customers' current problems.

Tips for Success

- Human-centred design depends on the quality of interactions with actual customers, so interviews are aimed at discussions about their experience rather than interrogative answers.
- Experimentation and learning through tangible product prototypes often help in discovering deeper insights.

6.10 Job Stories

Purpose

Job stories are used to represent a product backlog item (PBI) or requirement, in terms of a job to be done, by a stakeholder.

See section 7.4 of Agile Extension V2 for details.

6.10.1 POA Perspective for Job Stories

Job stories are a powerful way to communicate the user's perspective on the "jobs to be done." Many POA Practitioners have the notion that user stories and job stories are mutually exclusive. Regardless of the Agile Framework to be used, job stories and user stories can be complementary in the context of

POA, which allows common user actions to be covered through job stories, whereas more nuanced differences from user to user can be captured through specific user stories.

.1 Job Stories and the POA Domains

POA Domain	*Job Stories*
Applying Foundational Concepts	• Job stories don't play a significant role in this domain.
Cultivate Customer Intimacy	• Job stories focus on the common activities performed by most users, allowing the team to focus on the customer-specific user stories that require deeper analysis and realization of customer pain points.
Engage the Whole Team	• Job stories do not play a significant role in this domain.
Make an Impact	• Job stories emphasize the expected outcome which directly relates to value, providing the team the opportunity to streamline common activities, transactions, and workflows in a product.
Deliver Often	• Job stories are easily integrated with Agile Frameworks like Kanban where Kanban boards can be used to accelerate product delivery.
Learn Fast	• Job stories do not play a significant role in this domain.
Obsess about Value	• Job stories filter out common activities so that the team can dedicate more effort to customer-focused stories to create delight for specific stakeholders. There are many activities or transactions that are not of interest to the customer but that provide business value. Such activities are better captured through job stories. • A job story captures (rather than a user story): • E.g., When searching for a specific insurance policy on the ABC Insurance application, a policy buyer must not be shown any ads. That way, the policy buyer can complete the transaction and not click away from the product.

6.11 Kano Analysis

Purpose

Kano analysis is used to understand which product characteristics or qualities will prove to be a significant differentiator in the marketplace and help to drive customer satisfaction.

See section 7.5 of Agile Extension V2 for details.

6.11.1 POA Perspective for Kano Analysis

Kano analysis is an extremely powerful tool in the context of POA. Usually, during the initial stages of building the product, when most features are being deliberated, there is a general lack of data, KPIs, or other relevant metrics to make decisions. Kano analysis provides a way to analyze different product characteristics before they are released.

Kano Analysis and the POA Domains

POA Domain	*Kano Analysis*
Applying Foundational Concepts	• A modified version of Kano analysis can be used to understand gaps in current product offerings and customer satisfaction, which can lead to discovery of new product ideas.

Cultivate Customer Intimacy	• Can be used with elicitation techniques to develop customer understanding by:
	  • Assessing the impact of a new feature, or
	  • Discussing modifications to features.
	• Provides a clear delimitation of features into threshold, performance, and excitement characteristics.

Engage the Whole Team	• Used to evaluate direct customer input. • If customer opinions and feedback are not available, the team may be engaged to analyze product features.

POA Domain	Kano Analysis

Make an Impact	• Applied to understand which product characteristics can be a significant differentiator by categorizing product characteristics as:
	  • ***Excitement characteristics*** which have significant impact in the short term.
	  • ***Performance characteristics***, which generate long term impact.
	  • ***Threshold characteristics***, which, if missed, would negatively impact product acceptance, even if there are a significant number of exciting or performance features.

Deliver Often	• Used to determine the right balance of features from those planned for release. • Depending on the product strategy and roadmap, a mix of performance and excitement characteristics can be provided in each release

Learn Fast	• Some of the measures identified in this domain can be assessed through Kano analysis to make the learning more impactful. For example,
	  • Customer satisfaction can be a measurable output with NPS.
	  • Performance and threshold characteristics can be qualified with the Customer Effort Score (CES). This leads to identifying which features to include in the next iteration.

Obsess about Value	• To maximize the value of a product the team might select too many excitement characteristics and not enough threshold characteristics. This would lead to misalignment in product-market fit. • Kano analysis can help identify a balanced approach to maximize overall value delivery.

6.12 Metrics and Key Performance Indicators

Purpose

Metrics and key performance indicators (KPIs) measure the performance of the product or other attributes that are relevant to developing the product.

See section 10.28 of BABOK® Guide v3 for details.

6.12.1 POA Perspective for Metrics and KPIs

To create a valuable product that resonates with customers, many characteristics need to be considered. Also, competing goals need to be resolved, including:

- Business objectives vs. customer needs,
- Short-term benefits vs. long-term benefits,
- Strategic considerations vs. tactical considerations,
- Existing market segments vs. new target segments, and
- Customer experience vs. additional features.

Practitioners require this information to compare and contrast, and then make the right decisions. Each of these can be the difference between product success or failure.

From a POA perspective, metrics can be categorized based on the level of impact for the product:

- ***Strategic Measures***: Determine the effectiveness of a product vision or strategy and are directly tied to business objectives.
- ***Product measures***: Outline customer acceptance and the popularity of the product for the intended customer base.
- ***Delivery measures***: Indicate team performance and outline the team's ability to develop a cohesive product.

Common measures to consider and track as KPIs include:

Strategic	*Product*	*Delivery*
Return on Investment (ROI): Ratio of total revenue to the cost of investment.	***Net Promoter Score (NPS)***: A 10-point scale used to gauge customers' likelihood to recommend the product.	***Iteration Goal Success***: An agreed set of objectives for an iteration.

Strategic	Product	Delivery
Monthly or Annual Recurring Revenue per user (MRR/ARR): Ratio of product revenue generated per month/ annum to a number of total users.	***Customer Effort Score (CES)***: Evaluates the level of customer effort required to achieve their objectives, usually on a 5-point scale.	***Escaped Defects***: A count or a ratio of defects that are uncovered by the customer per release.
Customer Acquisition Cost (CAC): Total cost of acquiring a new customer for the product.	***Adoption Rates***: Measures customer adoption of the product over a period.	***Defect Density***: Number of defects per line of code (or story point or per sprint).
Net Present Value (NPV): The discounted cash flow generated from the product minus cost incurred over the product lifetime.	***Feature Usage Rate***: A measure of which features within the product are used most often.	***Scope Change Rate***: Ratio of additional effort included in the iteration scope vs. the original effort estimated.
Total Cost of Ownership (TCO): Total cost incurred throughout the product lifetime, including direct and indirect cost.	***Retention/Churn***: Number of product users retained or churned during a specific period. Either metric can be used, but not necessarily both.	***Burndown Chart***: Burndown chart indicates the difference between the actual and planned effort over iterations or releases.
Internal Rate of Return (IRR): Rate of return or the discount rate when applied equates the net present value to be zero.		***Team Velocity***: A measure that evaluates the total number of story points delivered per iteration.
Time-to-Market (TTM): Time taken for the product, set of features, or single feature to be available and usable by customers.		

To successfully use the insights provided by these metrics, a framework is needed that aligns the signals from these metrics to assess the product goals. Practitioners can use the HEART framework for this purpose.

HEART Framework

HEART is an acronym that stands for:

- Happiness
- Engagement
- Adoption

- Retention
- Task Success

HEART assesses customer experience and value. It consists of customer goals categorized into areas that are assessed through signals that outline a specific insight based on metrics.

For example:

Framework	*Goal*	*Signal*	*Metric*
Happiness	Improve customer satisfaction	Reduction in the effort spent on completing a user goal	Customer Effort Score (CES).

Frameworks allow POA Practitioners to organize and plan how the product needs to evolve by providing a structure to think about the key metrics.

.1 Metrics and KPIs, and the POA Domains

POA Domain	

Applying Foundational Concepts	• Metrics and KPI's provide direction for the product.
	  • Strategic metrics play a significant role in measuring the alignment of the product to the business goals.
	  • Product metrics signify if the product is poorly defined or not.
	  • Delivery metrics signify the effectiveness of the product team.

Cultivate Customer Intimacy	• Since the customer pool can be large, individual feedback or surveys might not completely assess how customers perceive a product. • Metrics such as NPS, CES, Adoption Rate, and Retention Rates are used to better understand the customer perspective. • Although metrics indicate a measurement, the analysis or insights from those measurements require the Practitioner to utilize their knowledge of customer groups and personas, to derive useful insights.

POA Domain	

Engage the Whole Team	• Strategic metrics are commonly adopted by the:
	  • Product team,
	  • Business leaders, and
	  • The product management functions where the POA Practitioners have a significant stake.
	• Product metrics can impact several areas in an organization. For example, they may prompt the team to focus attention on evolving specific features and drive marketing decisions.
	• Delivery metrics must be debated and agreed-upon by the product team. All involved stakeholders need to take part in determining such measures.

Make an Impact	• Typically, metrics are measurable and create a direct and evidence-based impact.
	• Practitioners should
	  • Avoid introducing vanity metrics that only embellish the ongoing work, and
	  • Focus on the value delivered.

Deliver Often	• Metrics that are usually predetermined and Agreed-upon are measured as often as needed to provide direction to the product team. • Depending on specific scenarios, some metrics may get prioritized or deprioritized. For example, a short-term metric, such as Churn Rate, may be ignored when the cost of acquisition rises because of a reprioritized strategy.

Learn Fast	• Practitioners are required to understand metrics and adapt the following as needed:
	  • Product goals,
	  • PBI priorities, and
	  • Effectiveness of the team.
	• A framework like HEART may accelerate the learning process.

POA Domain	
Obsess about Value	• Metrics are one of the ways to evaluate product value and direct customer feedback. • Primary and secondary analysis may also provide significant insights to improve product value. • Some metrics may provide conflicting insights that require the team to assess how best to proceed.

6.13 Minimal Viable Product

Purpose

Minimal viable product (MVP) is used to avoid cost and risk associated with developing the wrong product by

- Testing a hypothesis,
- Reducing waste, or
- Increasing speed to customers for feedback and adoption.

Effective application of the minimum viable product technique is important in POA so detailed below, even though it is described in section 7.6 of the Agile Extension V2..

Description

MVP identifies the smallest set of features or requirements needed to deliver value to stakeholders and satisfy early adopters in the shortest time possible. It focuses on core features sufficient to deploy and deliver stakeholder value. Further features are developed after considering feedback. It applies to

- Product development,
- Services (commonly to test the willingness to pay),
- Feature development (to gauge demand), and as
- Differentiation (market test strategy).

Minimal approaches are frequently chosen based on time and money constraints. Minimal viable product (MVP) enables iterative development cycles by collecting and analyzing feedback before delivering additional features.

What it is		
Building a viable product	***Minimal effort with maximum learning***	***Evidence-based learning***
• Focus on core features that allow it to be a working product and provide value to the customer to gain feedback and validation.	• Consider the minimum features required to get the needed feedback and learning to demonstrate value.	• Maximum learning comes from customers' direct experience with the product, rather than on customer's extrinsic needs and perceptions.
What it might be		
Functional prototype	***Shippable product***	***Cheap and fast***
• MVP is a functional prototype that may be delivered to production. In some cases, MVP might just be the functional prototype.	• While MVP should have sufficient value to be sold to the customer, in some instances it does not have the desired experience needed for it to be shippable.	• Budget and time constraints should not be the primary decision when defining MVP. While it should be cost-effective and release quicker to market, having "cheap and fast" as the goal of MVP has risks.
What it isn't		
All must-have features	***Proof of Concept (POC)***	***A single, fixed release***
• There is a difference between the must-have features of a product and core features that make a working product that delivers value to the customer. MVP focuses on core features delivering value.	• POCs are built for internal use, to check if a product idea is feasible. It often validates a technical aspect of the product.	• While MVP is the first release of the product, it may not include all the features that realize the full value of the product.

Components

There are four primary components in defining the MVP.

- ***Target Audience***: POA Practitioners clearly identify the target market and likely early adopters of the solution. Analysis of these groups identifies what problems they may have related to the proposed solution.
- ***Goal to Achieve or Hypothesis to Test***: POA Practitioners clearly define the goal or the hypothesis to test with MVP.
    - For example, the hypothesis may suggest that the new product will lead to quick adoption by the target audience, or
    - The organization may hypothesize that a new feature in a product will improve customer service.
- ***Defined Requirements***: POA Practitioners select the minimal number of requirements necessary to deliver the MVP. This selection is based on:
    - The target audience,
    - The goal to achieve, and
    - The mechanism to measure learnings.

  The number of requirements necessary is subjective and dependent on context. There must be enough produced to validate the hypothesis. However, it must be the minimal amount to release the solution quickly.
- ***Mechanism to Measure Learning***: To validate the hypothesis or to determine if the desired goal was achieved, POA Practitioners identify objective measurements to interpret the feedback and learning received. These measurements influence further solution development by identifying the success of the current MVP.

.1 Process to Create Minimal Viable Product:

MVP generally follows five steps:

Step 1: Analyze the purpose of the MVP.

- From a customer perspective:
  - MVP helps validate a product idea and to understand customer desirability or usability.
  - MVP helps identify areas of opportunity or improvement.
- The purpose of the MVP will influence the type of MVP created.
  - It is important to determine the primary purpose of the MVP
    - Is the purpose primarily to validate the product idea and gauge desirability, or to evaluate its usability?
    - Is it a brand-new product or an existing product that will be improved?

Step 2: Select the type of MVP approach based on business context.

- Think about creative, low-cost options that test the hypothesis with the target market and achieve the purpose of the MVP.
- The type of MVP selected may vary, from an ad leading to an information page, to a wireframe mock-up, to a functioning product. When considering the type of MVP to achieve the purpose, ask:
  - "What is the minimal set of product features needed to elicit the required feedback?"
  - "What type of product or service is it? Is it an innovative product that customers are not familiar with?"
  - "What is the level of required investment to implement the MVP?"
  - "How much time, effort, and resources are required in developing this MVP?"
  - "What type of feedback is needed from the customer? (E.g., is it related to usability, desirability, or both?")

Step 3: Identify a minimum set of features to test the hypothesis of the solution.

- Conduct journey mapping sessions with the customer and other stakeholders to discover the ideal system interactions in the user journey that mitigate the pains of the user, produce new gains, and delight the customer.
- From the user journeys:
  - Distill all the opportunities and product features,
  - Prioritize those that:
    - Provide the most impact,
    - Address an urgent need, and
    - Have high-impact features and low complexity, NS that provide an easy win.
  - Differentiate between "must-haves" and "nice-to-haves".
- Decide the minimum product features from the "must-haves" to be included in the MVP.

Step 4: Build Product Road Map (MVP -> MMF ->MMP).

- oOnce the features of the MVP are identified, identify the user stories and prioritize them to build the product roadmap. This will lay out the path from the MVP to the minimum marketable feature (MMF), and then to minimum marketable product (MMP), which is the first minimum marketable release.
- Build on the MVP incrementally using an agile approach.

Step 5: Measure Learning.

- With every incremental product release, analyze validated learning from customers to determine next steps.
- Elicit feedback on the feasibility of the solution and additional features needed to increase adoption.

Considerations for MVP

Strengths	*Limitations*
• Orients the team around goals rather than features and establishes the value of a goal mindset over a feature mindset. • Reduces cost and risk by gaining customer feedback before engaging in a full solution. • Avoids building products customers do not want, thereby reducing risk. • Tests actual use scenario instead of relying on market research.	• Requires advanced market analysis to identify the necessary feature set for early adopters. • There is no formula and desired features are the best guess. • It is not useful for a clear or simple solution. • For this situation, the defined minimum viable product (MVP) is the complete product and should be considered as such.

Tips for Success

- Conduct market research to understand the competitive marketplace and identify what features will better position the product for the long term.
- Aim for the least complexity. Build just enough features to offer some basic functionality to illustrate future possibilities (wow factor).
- Target early adopters by evolving the MVP in every release as per the defined product road map.
- Focus on being able to elicit the maximum amount of feedback (validated learning about the customers) with the least effort.
- Remember that it is not about creating a minimal product but about testing an initial hypothesis for a product.

6.14 Non-Functional Requirements Analysis

Purpose

Non-functional requirements (NFR) analysis examines the requirements for a product that defines how well the functional requirements must perform. It specifies criteria that can be used to judge the operation of a product rather than specific behaviours.

See section 10.30 of BABOK® Guide v3 for details.

6.14.1 POA Perspective for Non-Functional Requirements

In the context of product ownership analysis, non-functional requirements play a significant role in product development. They can be used to constrain the PBIs by specifying limits. Non-functional requirements for products have a longer-term effect on products compared to projects.

For example, non-functional requirements determine what hosting or cloud platform to adopt for the product with respect to:

- Product scale,
- Security,
- Accessibility, and
- Serviceability.

Practitioners must treat the analysis of non-functional requirements with care by broadening the categories of NFRs to encompass new technological constraints and challenges.

For example, it may not be sufficient to mention that some of the product APIs must be secure when transferring data in or out of the product. The practitioner may have to understand and analyze the detailed threat vectors for data protection and include them in the NFR analysis.

In a product setting, NFRs are captured in Definition Concepts (Definition of Done, etc) or acceptance criteria. It is recommended to aggregate all the NFRs in one place so that there is a holistic picture.

.1 Non-Functional Requirements and the POA Domains

POA Domain	*Non-Functional Requirements*
Applying Foundational Concepts	• NFRs play a limited role in this domain, except som high-level NFRs. However, if not addressed correctly, they may create challenges for achieving strategic goals. • For example, a marketing goal may position the product as always available, but NFRs related to product availability may not be analyzed upfront. Consequently, the product is not provisioned for better availability and serviceability. This may lead to significant loss of brand if the product becomes unavailable.
Cultivate Customer Intimacy	• NFRs may not seem like the first set of requirements to successfully address the needs of the customers, but most quality requirements (NFRs) augment the product experience. • If the product has the right features but it takes a long time for a customer to complete a process, it generates friction and may increase customer churn. • NFR analysis must also be conducted from the point of view of the customer.

POA Domain	Non-Functional Requirements
Engage the Whole Team	• NFR analysis may require technical expertise that the POA Practitioner may not have. • The entire team needs to validate how NFRs translate in a technical sense for a shared understanding. • There may be feasibility issues that require clarity for the whole team.
Make an Impact	• NFR analysis results in the team ensuring and testing the product on quality characteristics. • Failure to achieve the desired NFRs might mean that the product may be unavailable resulting in negative impact. • NFRs must be analyzed to prevent issues in the smooth operation of the product.
Deliver Often	• Iteration, releases, and story-evel discussions must include quality criteria, so the product team understands expectations, not only from a features perspective, but also from an NFRs perspective. • NFRs may be examined as often as functional requirements.
Learn Fast	• NFR analysis typically includes a threshold value, or a range as a quality attribute. • For example, the product should be able to support 10,000 users in the first three months of launch. • In cases where the product fails to meet these parameters, the team must conduct root-cause analysis to understand and avoid future issues.
Obsess about Value	• Product value involves both aspects of providing the desired features as well as the desired experience. • NFRs play a significant role in fulfilling customer needs for a good experience with the product and achieving customer value.

6.15 Persona

Purpose

Personas are used to understand and empathize with customers, to align the solution with customer needs, or to fully understand the problems to be solved. As a profile of a customer, personas are an archetype that represents the way that typical users or a user group will interact with a product. Personas create a shared understanding of both current and future customer needs by bringing real people to life, and making their needs feel real to those who design and build solutions. Personas also enhance the value of stakeholder maps.

See section 7.7 of Agile Extension V2 *for details*.

6.15.1 POA Perspective for Personas

This powerful customer descriptive technique is fundamental for POA Practitioners to understand the wants, needs, desires, and aspirations of their target customers. It will lead to better problem definition and solution design. Personas challenge ideas and assumptions so that the team can make more effective strategic product decisions.

POA practitioners typically lead the effort to create personas. Leading the effort does not mean that they do all the work. On the contrary, they incorporate:

- Direct customers and user observation,
- Interviews,
- Workshops with market trends,
- Data analytics, and
- Other research and discovery activities.

There is something magical that happens when personas are created. A customer or user becomes "Shay the shoe-buyer" or "Sarah the Sales Representative" or "Rachel the Realtor," enabling the team to relate to them more easily. For many teams, personas become so real that the team refers to the persona name instead of the role during discussions. A Product Owner may hear, "How will Rachel be able to access property comparison data quickly and accurately?" Passion and purpose are ignited within the team to build better solutions when customers become real people and the team is better able to empathize with their customers.

POA Practitioners help guide the team on what information to gather, and how to go about it. They contribute to determining what level of detail is required and how to ask questions that reveal deeper insights.

POA Practitioners engage the team with personas by:

- Having the team create personal personas or a team persona. This a good exercise to get the team to understand the concept and to build team spirit, as well as to make them accessible and visible.
- Inviting the team to contribute to the elements in the persona canvas.
- Demonstrating use of WH questions, Johari window, and the 5 Why's to gain deeper or targeted insights. (See 10.40 Root Cause Analysis in BABOK® V3)
- Facilitating a session with the team to create customer personas based on what is known and assumed, then validate with actual customers. Insights, gaps, and assumptions will be revealed.
- Making the personas visible. Store them in a shared space where everyone can view and collaborate. Bring them up during user story discussions.
- Keeping personas current. Add to them if new or useful information is uncovered.
- Using personas to plan market and data analytics work and to develop meaningful metrics.

Personas bring to life experiences, preferences, personal and professional interests, and challenges. They reveal assumptions and values that may have been missed. They emphasize the importance of building relationships with customers or users and are an effective tool for POA Practitioners.

.1 Personas and the POA Domains

POA Domain	*Personas*
Applying Foundational Concepts	• To establish the right target market for customers, personas need to be studied for the formulation of baseline product strategies.
Cultivate Customer Intimacy	• Personas drive customer intimacy. For a persona to be real and an archetype of the customer group, the POA Practitioner needs to have a deeper understanding of the customer so that the perceptions and assumptions are validated by the customers themselves
Engage the Whole Team	• To build relevant personas for the product, the POA Practitioner and the team need to participate, including the customer who can validate the persona the best.
Make an Impact	• With personas, the description of requirements become relatable stories. The team starts to empathize and think like the persona as the challenges become personal. This motivates the product team and that creates products that solve real needs.

POA Domain	Personas
Deliver Often	• Personas are constantly updated during product development. Some motivation and attitudes of persona are static, and some change based on circumstance. • For example, after a product is released customers may change their opinions of certain features. This is reflected in their personas for future reference and better-aligned products.
Learn Fast	• Learning about and deciding which personas to prioritize for product features requires significant analysis. • The characteristics of a persona need research through meaningful metrics and analysis. • The relevant evidence and data points must be chosen with care to craft useful personas.
Obsess about Value	• Personas centre the product value on the customer, and the product team can validate the perceived value against the feedback of the actual customer. • A repetition of value delivery and the value realization against a persona ensures the right features are being built for the product.

6.16 Problem Definition and Analysis

Purpose

To effectively solve a problem, knowing and defining the problem that needs to be solved is essential. Problem discovery, problem framing, and problem scenarios and alternatives help to define the problem and prepare for solution design planning.

Description

Everyone collaborating on the product, from stakeholders to the delivery team, should have a common answer to these questions before the solution is designed.

- "What is the problem to be solved?"
- "Are we solving the right problem?"

Too frequently, when teams are asked what problem their product solves, they immediately jump to talking about the solution.

Problem definition leads to a clear vision for the product. It pinpoints the target customer, it lays out the product roadmap, and prepares for planning the MVP. Articulating the problem leads to better ideas and better solutions. It is essential for the team to prioritize accurately, prototype, and plan a valuable MVP, MMF, MMR or MMP. These will help answer:

- "Is there a problem worth solving?"
- "Does everyone involved understand the problem?"
- "What alternatives are currently in place to accommodate the problem?"

Problem definition starts with intimately understanding the customer. Insights are assessed to identify the target customer and articulate their problems to be solved. Insights are generated from:

- Personas,
- Customer journey mapping,
- Empathy mapping,
- Interviews,
- Observation, and
- Intelligent Learning through data analysis.

Problem definition invokes compassion for the customer. It stimulates design ideas for hypotheses and experimentation. It reveals risks and assumptions. Whether its a product, process, or service, the team must be able to clearly state the problem to be solved, validate with analysis, and evaluate the ideas or opportunities to design a solution that adds exceptional value.

Problem discovery, problem framing, and problem scenarios and alternatives are problem-structuring exercises that help the team to:

- Define and answer critical questions,
- Validate a problem, and
- Define a problem that is worth pursuing.

The outcome of problem definition is a shared understanding and well-articulated problem statement.

Elements of Problem Definition and Analysis

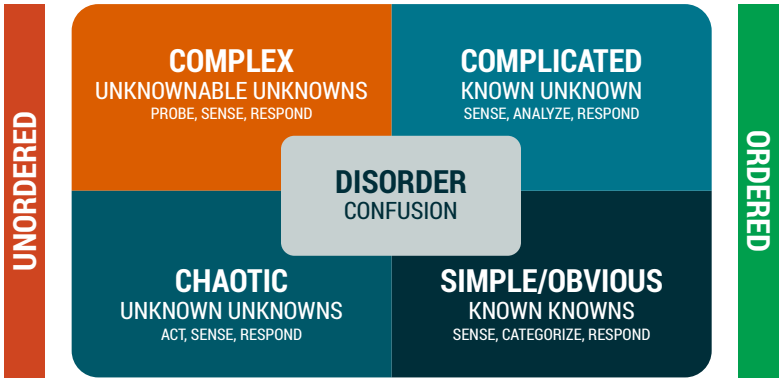
Customer: Problem definition revolves around the customer and helps to identify the target customer. It leads to creating a shared vision and designing innovative solutions aimed at delivering value to that target customer.

Problem Discovery

Most customers have more than one problem that needs a solution. Product Owners probably cannot and do not want to solve all their problems, so decisions need to be made.

The Cynefin framework offers decision-makers a "sense of place" from which to view their perceptions. In agile product or service development, this framework can be used for a variety of decision-making efforts, including:

- MVP planning,
- Feature or user story prioritization,
- User story estimating, or
- Tool selection.



Using this framework creates an opportunity to:

- Ask more questions,
- Ask different questions,
- Capture assumptions and perceptions, and
- Reveal things that need further attention.

It fosters meaningful conversations within the team. It leads the team from uncertainty to certainty around the right problem to solve with the product or service and provides the additional research to gain clarity.

Considerations for the product or service include:

Simple/Obvious

- Simple problem,
- The solution is evident,
- Maybe a quick win, and
- May not be innovative enough to wow the customer.

Complicated

- Need input from experts or analysis,
- Questions are known,
- Usually worth investigating further, and
- Potential to wow the customer.

Complex

- Start here!
- Need to identify and resolve unpredictability,
- Safe to fail experiments or prototypes may help move out of this zone,
- Risk of failure if “complicated and simple”are done first,
- Understand technical implications and requirements, and
- Potential to wow the customer at a high cost if not resolved.

Chaotic

- Extreme innovation zone.

Disorder

- Not knowing where one is.

After applying the Cynefin Framework, the team are out of a state of disorder, know where they are, and are ready to identify good problems to pursue as well as ignore the problems not worth solving. If there are multiple problems and the priority is not clear, it may be necessary to use a prioritization exercise to choose the top problems for framing.

Problem-Framing

Framing the problem using the 4W's will help the team collaboratively reflect, synthesize, and articulate the problem. The problem framing canvas provides structured guidance for thoughtful conversations.

WHO?	WHAT?
Who has the problem? **Is it your customer?** **Have you validated the problem (is it real)?** **Do you have proof?**	**What is the nature of the problem?** **Can you explain it simply?** **How do you know it’s a problem?** **What evidence supports the problem?**
WHERE?	**WHY?**
Where does this problem arise? **What it the context that the customer experiences the problem?** **Have you observed the problem in context?** **Can you describe the context?**	**Why is it a problem worth solving?** **Is it an acute problem for the customer?** **How acute?**

Example of a problem-framing team exercise:

	Action	Time Allotted
Reflect	• Each person on the team completes the proble- framing canvas.	10 min.
Synthesis	• Team members present their canvas, taking note of duplicates. • They use dot voting to identify the two most relevant and most revealing problems for the customer.	20 min.
Reflect	• Each person on the team writes a brief problem statement in their voice (a paragraph), emphasizing the who, what, why, and where.	10 min
Synthesis	• Team members present their problem statement. • They use dot voting to identify the strongest statement or combine useful information from multiple statements. • The problem statement will change through the outcomes of further analysis and solution evaluation.	

Problem Scenarios and Alternatives

When Product Owners have a handle on customers' problem, needs, and desires, that is a good time for them to write some problem scenarios and expand their understanding of the alternatives that customers employ. Their current alternatives can provide another view of what is valuable to them.

This information can be gleaned from personas, empathy maps, journey maps, and the problem-framing canvas.

Extract scenarios where customer pain points arise and the path, they take to alleviate their pain. The current alternatives may be the competition for the product or service.

Product <name of product>		
<describe the problem scenario>	*<describe the current alternative>*	*<describe the value proposition of the current alternative>*

Begin to articulate the value propositions. They do not have to be formal. Generate ideas of potential customer value that the product or service may provide, focusing on any differentiators from competing alternatives.

Considerations for Problem Definition

Strengths	*Limitations*
• Builds a shared understanding across the team. • Prepares for hypothesizing, experimentation and product visioning. • Reveals risks and assumptions. • Stimulates meaningful conversations. • Creates clarity and focus.	• A poor understanding of the customer can impact the quality of the problem definition.

Tips for Success

- Elicit information about customers in their own environment to aid in a deeper understanding of the customer problem.

6.17 Product Backlog Management

Purpose

The purpose of product backlog management is to record, track, and prioritize remaining work items.

Effective application of the product backlog management is important in product ownership analysis so detailed below, even though it is described in section 10.2 of the BABOK Guide V3.

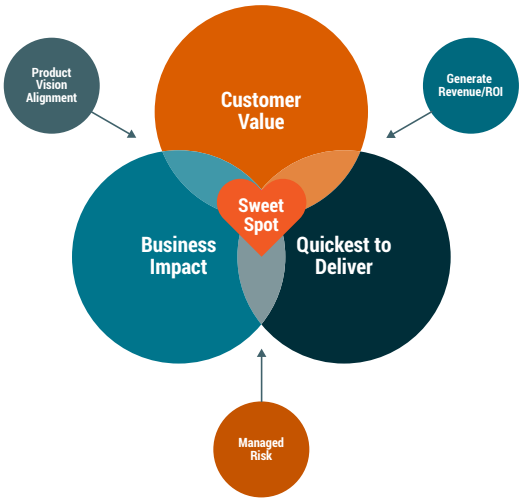
Description

A backlog occurs when the volume of the work exceeds the product team's capacity to deliver. There are a variety of items that can be part of the backlog. Backlog management includes:

- Recording (i.e., what item to formally include in the backlog),
- Tracking, and
- Ordering.

In product development, which is a continuous activity, recording and tracking are enabled by good agile practices, as well as the use of various tools. As long as the product backlog items (PBIs) are ordered in the right way, a product backlog can be extremely effective.

Prioritizing and ordering the product backlog means knowing what to do and when in order to deliver the most value with the least risk, starting with features and moving to product backlog items within those features.



The 80/20 rule, or Pareto Principle, has been proven to apply to product delivery, where 80% of the value is in 20% of the features. The trick is to identify that elusive 20%.

In 2011, the revisions to the Scrum Guide included a terminology change regarding the product backlog from "prioritized" to "ordered." The purpose of the change was to provide the team with flexibility to optimize value based on the context of their work. The change is frequently misunderstood as meaning that prioritization is no longer needed.

For example, it does not add value when everything becomes a "must" through the use of the MoSCoW (must have, should have, could have, will not have) prioritization technique. However, there are times when MoSCoW is useful for conversations and a shared understanding, or validation of ordering with business stakeholders. Also, identifying too many features as a "must" may be an indication of unclear product vision and customer need. Good teams recognize the value of multiple tools to effectively order and prioritize the product backlog. POA Practitioners understand their customers well enough to effectively differentiate between which features must be delivered to add the most value, and which should wait for further learning.

According to the Agile Extension v2, agile delivery takes on two forms: iterative and adaptive.

- ***Iterative planning*** prioritizes and refines the work in short cycles designed to provide focus and increase the feedback and learning gained from stakeholders.
- ***Adaptive planning*** involves a continuous change to long-term plans. Constant planning and analysis are used to prioritize and refine the work to be done, to deliver the highest value.

Prioritizing and ordering the product backlog embodies this iterative and adaptive approach through frequent review and revision, based on feedback and learning. Keeping the focus on features and work items that deliver the most value, and eliminating those that do not, avoids waste by reducing the amount of unproductive work while delivering valuable solutions, early and continuously.

Prioritizing and ordering at the feature level focuses on the customer and business strategy. Cultivating customer intimacy activities reveals insights

into what the customer needs. Product vision and product-market fit align the needs to business strategy and identify features that will deliver a quality product. Carefully ordering and prioritizing the product feature list contributes to planning the MVP, MMF, MMR and MMP.

Prioritizing and ordering PBIs within features captures the details that will bring them to life. Conversations with customers or customer representatives and stakeholders, provide information to order the PBIs based on customer and business needs. Conversations with the delivery team provide information to re-order PBIs based on what makes sense technically, reducing waste and accelerating capabilities.

Effective prioritizing and ordering can make the difference between product success and failure.

Prioritizing is the decision to arrange things in order of their importance, usually as a grouping.

Ordering puts the items in a specific sequence that they should be delivered.

Elements

Decisions: Agile decision-making is a collaborative, iterative, and transparent process. When making decisions related to prioritizing and ordering the product backlog, clarifying a shared understanding of the product vision first. Focusing on value eases the decision-making process. Value, effort, and return on investment (ROI) considerations contribute to prioritizing and ordering

Customer and Market: Differentiating and market positioning contribute essential insights into the prioritizing and ordering decision-making process.

Business Strategy: Prioritizing and ordering align to business strategy, especially considering return on investment and revenue generation.

Product Vision: Validating and guiding prioritization and ordering.

Delivery Team: Provide technical viability assessment for backlog prioritization and ordering.

Techniques to assist product backlog management

In addition to techniques that are already discussed in BABOK V3 and Agile Extension V2, techniques to assist product backlog management include:

- Relative estimation,
- MoSCoW,
- Kano analysis,
- Real options,
- Impact Mapping,
- Purpose alignment model,
- Timeboxing/budgeting, and
- Scoring, ranking, etc.

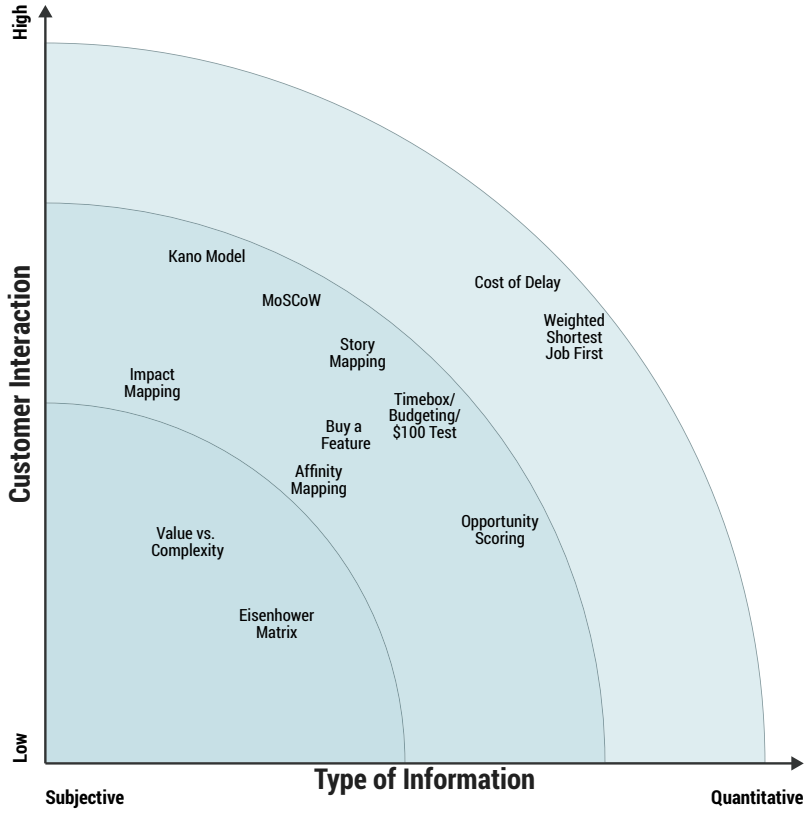
The following techniques are often used in product development:

- ***Cost of Delay and Weighted Shortest Job First***:
  - ***Cost of delay*** is the economic impact of delaying a PBI. This is a lean management concept that evaluates opportunity cost.
  - ***Weighted shortest job first*** is a concept where the cost of delay is divided by the size of the job or story points to determine the high-value job that requires the shortest time to implement first.
- ***Cost vs. Benefit***: Usually a weighted score of different business drivers such as:
  - Cost,
  - Business value,
  - Risk,
  - Effort for each PBI and ranked based on the highest score.
- ***RICE Scoring***: Uses four factors to assess the order:
  - Reach,
  - Impact and
  - Confidence, over the
  - Eeffort.
- ***Buy a feature***: Allocates a price for each of the features which can be based on cost, time, effort, and perceived value, It allows customers to choose features they want to buy in the next iteration and explain why they want a certain feature.
- ***Opportunity Scoring***: Uses voted scores for features where the importance of a feature vs. current level of satisfaction is compared. If the current satisfaction for the available features or solution is low and the importance of the feature to be developed is high, there is an opportunity to develop the feature early.

- ***Value vs. Complexity***: Categorizes features based on value and complexity to provide guidance on which PBI to pursue.
    - For example, high-value, low-complexity features can be easy wins, and high-value, high-complexity features can be considered strategic.
- ***Eisenhower Matrix***: Tracks features based on importance and urgency. High-importance and high-urgency features require immediate attention, while high-value and low-urgency features can be pushed out for future development.

Choice of Techniques

Depending on circumstances (e.g., available stakeholder time or the nature of information available to the POA Practitioner), different ordering techniques can be used. The following decision aid can help with selecting the optimal technique:



Considerations for Product Backlog Management

Strengths	*Limitations*
• Focuses work efforts on what will deliver the most value to the customer and align to business strategy. • Uncovers misunderstandings when prioritization is difficult, or everything is a "must-do". • Invites input from the delivery team for technical considerations.	• Rules of engagement for each of the techniques need to be followed. Otherwise, stakeholders may avoid difficult decisions. • Requires a significant amount of debate and moderation for consensus.

Tips for Success

- Too many "must do" items implies that there may be an unclear product vision. Use this as an indication that root cause analysis should be conducted to understand why it is needed.

6.18 Product-Market Fit

Purpose

Product-market fit, a concept popularized in the start-up world, is used to identify a strong market where a product can thrive. It is identified as one of the foundational steps in building a successful product by understanding who the customers are, their needs, and how the product aligns to those needs.

Description

A good product-market fit happens when customers help sell the product, or when demand exceeds supply. Many organizations fail because they waste money on products that the customer does not want or that does not provide the desired outcome.

Understanding and using product-market fit will inspire new ways to create value for customers and growth for a business. Product-market fit is achieved when the company's value proposition, customers, and distribution channels co-exist in a balanced ecosystem.

Product-market fit is beneficial in:

- Understanding product positioning in the marketplace,
- Helping determine the most-needed product features to excite the customer, and
- Ensuring continued alignment between the product and the customer.

Product-market fit is essential for both start-ups and established enterprises.

Start-ups: The product-market fit is an indicator of start-up growth, and it needs to be measured and tracked correctly. For example,

- Snapchat is a messaging and engagement application that targets younger people with specific needs. It is a successful product that needs to be continuously measured and tracked.

Established Enterprise: An established enterprise needs to evaluate its new and existing products and services for product-market fit. For example,

- Facebook is established, but to continuously improve desirability, it added the Marketplace feature where people can sell and buy items locally. The feature relies on people trusting the seller since they are visible on Facebook and can arrange in-person meetings by using the messaging feature within the application.

Elements

The important elements in a product-market fit model include:

- ***Problem Statement***: Defines the problem, underlying need, or opportunity in the marketplace.
- ***Solution***: A high-level description of the solution and how it will meet the problem statement.
- ***Value Proposition***: Articulates the value being provided to the customer (through the product) and the unique characteristics of the product that differentiate and provide an advantage over competing products.
- ***Customers***: Identifying those who would desire the product and gain value from it.
- ***Assumptions and Risks***: Are there any assumptions or risks to be aware of while analyzing the product-market fit?
- ***Metrics***: Track, measure, and analyze how well the product-market fit is and continues to be over the long-term.

.1 Process to Create Product-Market Fit

1. Identify your customer or customer segments:
    - Conduct market research to understand the target market, and
    - If necessary, create market segmentation to group customers with similar needs and behaviours.
2. Get to know the customer on a deeper level:
    - Understand their personal and impersonal needs, and experiences. Consider using techniques such as personas, customer journey maps, and observations
    - Find specific needs that can create an excellent market opportunity.

3. Evaluate the top competitors and compare their product offerings.
4. Define a high-level solution idea and how it meets customer needs.
5. State the value proposition:
    - Assess the product features that are otherwise missing or not on par with customer expectations that will excite customers, and
    - Identify unique product feature (s or services that will provide a competitive edge.
6. Plan the MVP feature set or product increment:
    - List the minimally required features to satisfy customers' needs. Consider applying the 80/20 rule where 20% of the features deliver 80% of desired customer value.
    - Other key features that increase a product's desirability can be added over time.
7. Elicit feedback:
    - Share the product increment with potential customers to gauge product desirability,
    - Interact with potential customers or buyers by:
        - Encouraging participation,
        - Noticing user behaviour, and
        - Developing insights.
    - Categorize similar feedback to understand common pain areas and find ways to improve the product.
8. Measure product-market fit:
    - Quantitative
        - 40% rule: 40% of your surveyed customers think that the product is a "must-have",
        - Churn rate: Rate at which users stop buying your product (or doing business),
        - NPS score: Net promoter score is the willingness of customers to recommend the product to others,
        - Growth rate: Rate of annual change in the product sale as a percentage, and
        - Market share: Portion of the market owned by the product.
    - Qualitative:
        - Word of mouth: Customers who are recommending the product to other potential customers, and
        - Media buzz: Media and other online channels have generated an interest in the product and provided positive reviews through blog posts, videos, TV shows, etc.

9.Avoid Complacency:

- Keep monitoring the market dynamics to ensure the product-market fit remains aligned, and
- Focus on continuous improvement, and
- If needed, add new features, or adapt existing features.

Problem Statement	***Solution***	***Value Proposition***	***Potential Customers***	***Competitive Landscape***	***Assumptions / Risks***	***Metrics***
What problems need to be solved? What is the opportunity that you see in an untapped market?	What is the solution? How will it solve the problem? Is this a workaround rather than the actual solution?	What is different a specific product offering that isn't in the market? What is the Unique Selling Proposition? What is the market differentiator?	Who are the potential target customers? Has there been growth in the customer base or across other customer segments in the future?	Who are the competitors? How do competitors products compare to the product being developed?	Are there underlying assumptions to consider? What are the risks associated with these assumptions?	***Examples For any Industry*** I. 40% rule ii. Churn rate iii. NPS score iv. Growth rate v. Market share ***Examples for Website/app initiatives***: I. 40% rule ii. Bounce rate iii. Time on Site iv. Pages Per visit v. Returning visitors vi. Customer Lifetime value

Considerations

Strengths	*Limitations*
• Creates a shared understanding of how the product is aligned with customer needs and the marketplace. • Stimulates creative problem-solving and innovation by identifying a product that customers will love and choose over competitors. • A strong starting point to creating the product and ensuring it continues to remain aligned to the dynamic marketplace.	• For a holistic approach to strategic-level product planning, the product-market fit needs to be supported with other strategic techniques (e.g., Business Model Canvas) • Product-market fit needs to be reviewed often to ensure continued relevancy and alignment. • For instance, a product has created the right buzz which initially resulted in strong sales. However, over time, product success rates are stagnant or dropping. There may be a missing or omitted feature that needs to be added to help boost sales. • Product evolution is a vital part of ensuring product-market fit. If emotions and egos come in the way of change, it can have a negative impact on the product-market fit.

Tips for Success

- Product-Market fit may be created in the initial phases of the product conceptualization or during any product launch or release to the customer. The Product-Market Fit is verified at the end of each customer release and feedback will drive the decisions for the backlog in future releases.

6.19 Product Roadmap

Purpose

Product Roadmap is a strategic, visual tool used to communicate direction and progress towards the vision for a solution or initiative. It measures progress against that vision by achieving the stakeholders' desired outcome.

Application of Product Roadmap as a technique is substantial in POA. See section 7.10 of the Agile Extension V2.

Description

A product roadmap is a visual representation of how a team plans to implement its product strategy over progressively longer time horizons. It describes how a product is likely to:

- Grow,
- Align to stakeholders' needs, and
- Acquire a budget for delivery.

It identifies features, requirements, or initiatives, and outlines a path to deliver them over time.

The product roadmap is not a succession of milestones, tasks, and deliverables that do not associate with product goals. The focus of the product roadmap is on goals, benefits, and demonstration of value the product will deliver.

Product roadmap enables iterative delivery by expressing features in terms of now, next, and later. It defines what the solution is and what it is not. It is the starting point for product delivery, so it is a crucial step in product planning:

- It is the link between product vision and product delivery.
- It influences how the product will be built.
- It influences and aligns architectural and technical strategic decisions.

6.19.1 Types of Roadmaps

Three commonly used roadmaps:

- Goal-oriented product roadmap,
- Now-next-later roadmap, and
- Story map.

.1 Goal-Oriented Product Roadmap

The goal-oriented product roadmap focuses on outcomes with success criteria.

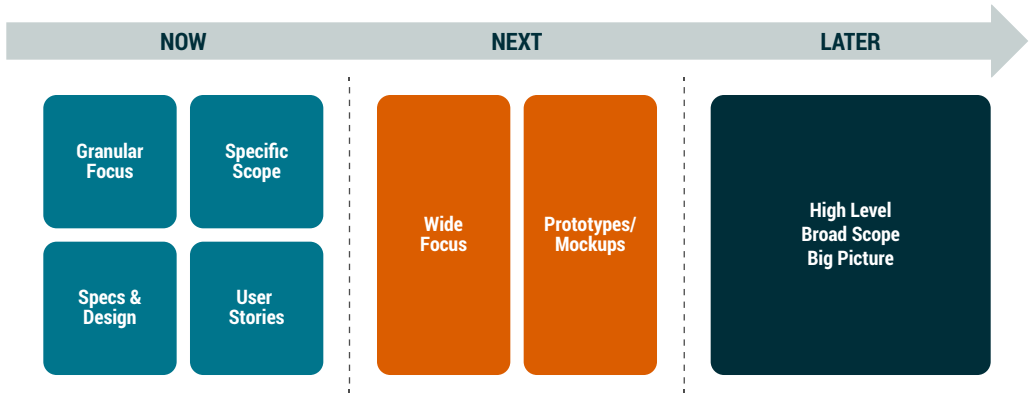
Product Owners use visuals to clarify what success looks like across stakeholders and the delivery team. This type of roadmap can be used to help

guide the outcome of the product, and the thinking about the most beneficial features.

	First quarter	***Second quarter***	***Third quartrer***
Release	***MVP***	***Release 2***	***Release 3***
Goal - What is the goal:			
Features - what product features and/ or capabilities need to be included to achieve the goal:			
Metrics: How to measure success? How to ensure the goal will be reached:			

.2 Now-Next-Later Product Roadmap

The now-next-later product roadmap visually communicates what is being worked on, what is planned, and what has not been scheduled. This type of roadmap is more focused on the features to be implemented but should look at the value and benefit each feature will provide.



.3 Story Map

The story map provides an overview of the features and activities the product could incorporate. While story maps are feature or story focused, they are beneficial at the beginning of new product planning.

Two benefits from story mapping are:

- They start with customer or user activities, and
- The process fully engages stakeholders to share understanding and design solution feature ideas.

	USER ACTIVITY		USER ACTIVITY	
	USER STORY	USER STORY	USER STORY	USER STORY
RELEASE #	TASK TASK	TASK TASK	TASK TASK	TASK TASK
RELEASE #		TASK	TASK	TASK

Both benefits invite opportunities for the team to focus on value. One of the major drawbacks of a Story Map is that it can give the impression that all listed features will be developed.

Components

Defined Vision and Strategy: The product roadmap elaborates the strategy through which the product Vision will be realized.

Defined Desired Outcomes: The P product roadmap articulates organization and stakeholder desired outcomes. Defining the desired outcomes helps the delivery team provide a working solution that adds value.

Product Management Team: The product management team is focused on maintaining the P product roadmap. The product management team ensures the roadmap:

- Reflects the most current priorities and goals,
- Is accessible to those who need it, and
- Tailors the view based on the audience.

It is imperative to have the team's input and buy-in on the product roadmap. They are responsible for product delivery, and they have the expertise required to gauge the feasibility of the roadmap deliverable timelines.

Themes: Product roadmap includes themes that represent a collection of requirements, features, or stories.

High-level Requirements: The product roadmapp is comprised of high-level requirements or features that are expected to deliver value to achieve the vision and goals for the solution. These high-level items represent a group of requirements or stories.

.4 Process to Create a Story Map

1. Begin with the vision and its associated goals:
    - Explore and understand the reason why the product is being developed and what customer needs will be fulfilled by the product.
    - Evaluate market opportunities the product can:
        - Take advantage of,
        - Fulfill important demands, or
        - Alleviate key market pressures.
    - Identify the goals that will help achieve the product vision (if not already done), with customer and market considerations in mind.
2. Determine product capabilities or features required to achieve the goals:
    - Work with stakeholders to determine features the product could include to achieve the goals.
3. Prioritize the possible features:
    - Consider the
        - Product budget,
        - Available resources,
        - Dependencies, and
        - Other constraints.
    - Prioritize the product features based on prioritization criteria and constraints, e.g.:
        - Hgh-impact and easy win features,
        - Time,
        - Budget,
        - Dependencies, and
        - Fesource availability.
    - Give each feature a timeframe for implementation.

4. Develop the roadmap:
    - Identify which type of roadmap or maps you are going to create.
    - Determine the frequency of releases. Start-ups or new products may prefer more frequent deliverables, while mature products may go for longer releases.
    - Begin placing features into time blocks, paying attention to:
        - The availability of resources and their specialties,
        - Environmental constraints and availability,
        - Other dependent initiatives, and
        - Any other constraints that may impact timeframes.
5. Share the roadmap:
    - With stakeholders and resources to obtain their buy-in, and
    - To build the product backlog.

Considerations

Strengths	*Limitations*
• It is visible and accessible to all stakeholders and ensures stakeholders feel their needs, input, and feedback will be addressed. • It is an effective communication tool and orients stakeholders to a shared focus. • It presents a unified view of the solution direction. • It can be used to facilitate a discussion of options and priorities. • There can be different views based on the audience for key information. • For example, executives, solution teams, and external customers may have different views. • It can be updated or changed as market influences change. • It can help track the progress of the strategic plan for the product.	• Ineffective if the organizational environment leads to a frequently changing vision and desired outcomes. • Can be misused as a milestone or date-driven roadmap. • Time-consuming to maintain if overly detailed or multiple views are required. • Can become just a list of features to be implemented. • Can become too detailed, losing its purpose and effectiveness.

Strengths	Limitations
• It is a good starting point for planning the work and ensuring that work aligns with the product vision and strategy. • Technical and architectural considerations are included in the plan.	

Tips for Success

- The timeframe for roadmaps varies. A long timeframe (2+ years) is not beneficial due to the high level of uncertainty.
- Items under each hierarchical level should have a unique colour to effectively show the thought process.
- Ensure that stakeholders understand that the roadmap includes features that could be implemented, but it does not guarantee implementation.
- Ensure that architectural and technical considerations are included.
- A roadmap is a living document and must be updated as needed.
- State the benefits the product is likely to create (or value delivered to the customer).
- Do not focus on details (this is not intended to be the backlog).
- Stay flexible—your roadmap will change.
- Roadmaps should only be developed after the product strategy is defined and agreed upon.

6.20 Real Options

Purpose

Real Options is used to help determine when to make decisions.

See section 7.12 of Agile Extension V2 *for details.*

6.20.1 POA Perspective for Real Options

In the context of product ownership analysis, practitioners can use real options to determine the sequence of PBIs to be delivered. The options can be defined with different stakeholders, including the:

- Business,
- Customer, and
- Product team.

A PBI may be thought of as an option with a certain decision:

- Postpone,
- Abandon,

- Scope up,
- Scope down, or
- Switch, etc.

Real options can be easily adapted with a decision tree to evaluate the value if a certain option is chosen over others.

.1 Real Options and the POA Domains

POA Domain	*Real Options:*

Applying Foundational Concepts	• Real options provide a framework for decision analysis, and an opportunity to review the urgency of decisions from a business perspective.
	• Decisions can make use of real options with respect to
	  • Structuring work and teams,
	  • Aligning the product to the strategy based on features, or
	  • Choosing the right business capabilities needed for product development.

Cultivate Customer Intimacy	• Real options allow assessing options from the perspective of different personas including the customer. • Decisions with maximum value for customers can be determined by using the real options technique. • For example, some of the options or PBIs may become irrelevant if not included in the product at specific times, and real options allow an analysis of such options with an expiry timeframe.
Engage the Whole Team	• Qualifying options to be real and imminent requires a team effort. • POA Practitioners may outline the initial analysis but the whole team, and especially the extended product team, need to decide as a group which options are relevant.

POA Domain	Real Options:

Make an Impact	• For an impactful delivery of product features two elements must be met
	  • The value that is derived, and
	  • The timing of the release.
	• Real options is a critical tool to analyze the timing as well as the value of different decision options.

Deliver Often	• Real options promote a continuous process to evaluate the sequence of features and PBIs. • An iteration or a release planning meeting can leverage real options to prioritize PBIs.
Learn Fast	• Historical evidence, data points, product metrics, and customer feedback, can become a learning mechanisms when applying real options. • Analysis results become more robust when there are mechanisms in place to observe both the options and consequences.
Obsess about Value	• Value is generated, not only by making the right product decisions, but also the right timing. The real options technique helps practitioners determine the urgency and impact of decisions.

6.21 Reviews

Purpose

Reviews are used to demonstrate and inspect an increment of the solution with stakeholders to elicit feedback to determine if the solution being developed aligns with the need.

See section 7.15 of Agile Extension V2 and section 10.37 of BABOK® V3 for details.

6.21.1 POA Perspective for Reviews

In the context of product ownership analysis, practitioners can use reviews to verify work products or working solutions and elicit feedback to learn from stakeholders. Reviewing a working product increment is more relatable to stakeholders than evaluating the PBIs, user stories, or other product documentation. It also elicits better feedback than other forms of reviews.

Outcomes from reviews include:

- A shared understanding of the evolving product,

- Validation of product alignment with customer needs,
- Identification of defects or possible resolutions to the defects, and
- Determination of next steps or changes in priorities.

Reviews are equally important when looking at smaller incremental work, such as a user story or a small number of user stories. The work needs to be understood by key stakeholders, agreed upon, and delivered. The Developer, QA and the POA Practitioner form a triad. These key stakeholders evaluate the progress of the set of stories from planning to delivery. Such reviews are often referred to as the ***Three Amigos review***.

.1 Reviews and the POA Domains

POA Domain	***Reviews:***

Applying Foundational Concepts	• Reviewing work products involves assessing:
	  • Product strategies,
	  • Roadmaps,
	  • Team structure, and
	  • Product concepts.
	• Rather than focusing on deciding whether a work product is right or wrong, reviews invite discussions and feedback.

Cultivate Customer Intimacy	• Although reviews are often internal to the product team (that might not have customer representation), POA Practitioners present the customer perspective. • Additionally, customer reviews can be conducted to discover the nuances of customer needs that result in more aligned products.
Engage the Whole Team	• Due to lack of time, reviews are often conducted with a small number of team members. However, reviews are meant to elicit feedback from the entire team. • POA Practitioners must ensure that the whole team is represented, and all the key stakeholders are present in a review meeting. The “three amigos” can represent various perspectives within the team and fulfill the role of key stakeholders.
Make an Impact	• Reviews often accompany a demonstration of the working product that helps garner more attention and feedback from the participants.

POA Domain	Reviews:
Deliver Often	• Reviews must be conducted, at least for each iteration of product increment, so that feedback from the team can be actioned through managing the product backlog. • It produces better alignment and de-risks the product from major surprises when released to the customer.
Learn Fast	• Reviews ensure that learning from a delivered work product is immediate by eliciting first-level feedback from the team since they have the best understanding of the product. • The customer perspectives are added by the POA Practitioner in review sessions. By conducting reviews often, the risk of developing unwanted features is reduced.
Obsess about Value	• POA Practitioners should ensure that reviews demonstrate the value of the work product in question. • The focus should be on the value delivered rather than the amount of effort spent, or the process of development, or any cross-dependencies etc., that digress the reviews from value discussion.

6.22 Risk Analysis and Management

Purpose

Risk Analysis and Management identifies areas of uncertainty that could negatively affect value and analyzes and evaluates those uncertainties. It also develops and manages ways of dealing with the risks.

See section 10.38 of BABOK® Guide V3 *for details.*

6.22.1 POA Perspective for Risk Analysis and Management

In the context of product ownership analysis, risk analysis and management is a continuous process for a longer duration than a time-boxed project. The Product related risks often fold in the components of market and business environment risks that are long term. Careful identification and mitigation are required to address product risks. Risk categories, from a product point of view, include:

- ***Delivery and Execution Risk***: Relates to risks involved in the development of the product involving cost, schedule, resources, as well as the risk of developing unintended features that do not create value.

- ***Market Risk***: Relates to the risks where the product does not generate the right outcomes for the business or customers.

While practitioners are familiar with delivery and execution risks, the market risks are mitigated by:

- Additional customer research (e.g., ethnography),
- Right-sized product launches (e.g., MVP),
- Phased rollouts (e.g.,aAlpha and beta launches),
- The sequence in which chunks of features are delivered,
- Customer acceptance of features (e.g., A/B tests),
- Functional Research (e.g., Spikes, PoC), and
- Metrics and Key Performance Indicators (KPIs).

.1 Risk Analysis and the POA Domains

POA Domain	***Risk Analysis:***

Applying Foundational Concepts	• Risk analysis and mitigation is inherent to product development effort and starts with the identification of customer needs. This requires analysis of organizational capabilities. Challenges to organizational capabilities may come from team competencies, including:
	  • Delivery capabilities, and
	  • Organizational support mechanisms.
	• In this domain, risk analysis and management are applied to uncover and plan for any systemic challenges to product development.

Cultivate Customer Intimacy	• The market risk component can be mitigated by a deeper understanding of customers, and whether the product is fulfilling customer needs. • Risk analysis and management requires Practitioners to apply their customer knowledge while identifying any risks and applying risk mitigation approaches.
Engage the Whole Team	• Identification of risk and the associated management practices need to be discovered as a team. • The POA Practitioner may suggest, and bring in, the customer perspective for risk identification. However, the entire team needs to highlight any delivery and execution-related risks.

POA Domain	Risk Analysis:
Make an Impact	• Risk management techniques need to be impactful so that the business and customer outcomes are not severely affected. • In the life of the product, there are product decisions that may make or break the product and cause irreversible consequences. Such decisions must be weighed with detailed analysis and an appropriate mitigation plan.
Deliver Often	• Risk analysis and management must be conducted often to keep the risk register current. • The product team conducts the risk analysis and management exercise at least once an iteration to reflect the current state.
Learn Fast	• Unmitigated risks are the primary cause of failed products. • The product team must conduct the risk analysis and management exercise to uncover all risks that may potentially cause issues. • Fast customer feedback, appropriate metrics, and analyzing KPIs help the team better manage risks.
Obsess about Value	• Even if delivery and execution risks are carefully managed, the product may still not be successful if it does not generate the desired business outcomes or provide enough customer value. • Market risks are considered in detail when risks are analyzed in a product context.

6.23 Spikes

Purpose

Spikes are used to time-box research, design, exploration, investigation, or prototyping activities to understand the effort required to deliver a backlog item or an initiative.

See section 7.16 of Agile Extension V2 *for details.*

6.23.1 POA Perspective for Spikes

In the context of Product Ownership analysis, it is often required to investigate or research concepts, novel ideas, or a user story to baseline the effort required to deliver. Designated team members may be required to elaborate or investigate PBIs for clarity.

Spikes are used primarily to establish an effort estimate, and POA Practitioners provide the necessary background knowledge or product vision that drives the need for the PBI.

On a larger scale, Proof of Concept (POC) is used where the goal is to demonstrate the value of

- A particular thought process,
- Product idea,
- Prototype, or
- A group of PBIs.

This type of analysis is more prevalent when new products are incubated, or investment decisions need to be made.

.1 Spikes and the POA Domains

POA Domain	

Applying Foundational Concepts	• Spikes can be used in the initial phases of the product lifecycle to verify if organizational context allows the team to be productive.
	  • For example, spikes can be used to understand the team capabilities and where team members can develop the necessary capabilities to deliver certain PBIs.
	  • The team can also identify and learn to use organizational sources effectively to investigate PBIs.

Cultivate Customer Intimacy	• Spikes do not play a significant role in this domain.

POA Domain	
Engage the Whole Team	• Individual spikes are often attributed to a single team member who would be responsible for discovering appropriate details. • Although only one team member may analyze a PBI, the results are debated and discussed to develop a baseline estimate for delivery.
Make an Impact	• Spikes require purposeful activities with a goal to establish some form of estimation baseline. • Once the spike is conducted to provide better clarity, the discovered information or research must be strong enough to create shared understanding.
Deliver Often	• Spikes are often used as a technique in the initial phases of the product lifecycle when the PBIs are in flux or require more elaboration. Once the understanding of the product team improves, a smaller number of spikes need to be accommodated.
Learn Fast	• Spikes are intended for the team to learn about PBIs faster to gain clarity. This requires sharing discovered information often with the team, taking opinions and collaborating. • Spikes usually entail additional effort beyond traditional iteration effort, so faster learning is required.

Obsess about Value	• Spikes and POCs are often used to understand potential value. Although objectively different in scale and scope, both require a deeper understanding of value.
	  • For dpikes, value of PBIs need to be understood and explored for estimation.
	  • For POCs, value needs to be demonstrated and established for a larger set of PBIs or products.

6.24 Stakeholder Lists and Maps

Purpose

Stakeholder lists and maps assist the POA Practitioner in analyzing stakeholders and their characteristics. This analysis is important in identifying:

- All possible sources of product requirements,
- Methods of engagement,
- The target market for the product.

See section 10.43 of BABOK® Guide *v3 for details*

6.24.1 POA Perspective for Stakeholder Lists and Maps

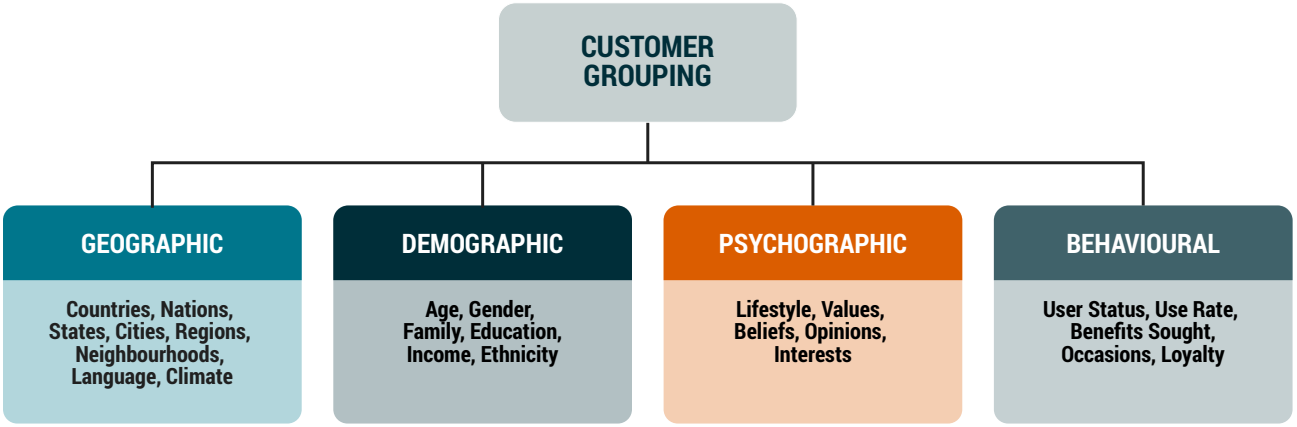
Stakeholder lists and maps are primarily used for identifying and analyzing stakeholders so that the right level of engagement can be achieved. Traditionally the activity was directed internally to identify the sources of requirements. However, in the context of POA, stakeholder lists and maps can aid in segmentation, targeting, and positioning the product.

Apart from the typical stakeholder matrix, RACI, and onion diagrams, logically grouping customers and deriving customer personas provide better insights into how the product needs to develop and how the right messages can be communicated to customers.

Customer Grouping: Organizes information by identifying commonalities and uniqueness for a set of customers to guide segmentation that influences the design, solution, marketing, and promotional potential, including:

- Demographic,
- Geographic,
- Psychographic, and
- Behavioural trends.

Customer grouping can be a first step in identifying persona archetypes. Product features can be planned depending on customer groups and the analyzed preferences. A common scheme of customer grouping is:



.1 Stakeholder Lists and Maps, and the POA Domains

POA Domain	*Stakeholder Lists and Maps and Customer Grouping*
Applying Foundational Concepts	• Product value is realized only when targeted customers use the product in a way that provides the desired experience and addresses their unique needs. • Correctly identified and analyzed information about the target customers leads to well-defined product scope that is aligned with the business strategy.
Cultivate Customer Intimacy	• Customer grouping is the first step in identifying different market segments for the product. It helps the POA Practitioner understand if there are unique needs and ways to deliver value to each segment. • For example, an insurance company may want to engage customers through different channels if the customer grouping is along generational lines (e.g., Baby Boomers vs. Generation Z) since they will have different expectations.

POA Domain	*Stakeholder Lists and Maps and Customer Grouping*
Engage the Whole Team	• Identifying customer groups requires multiple iterations and analysis from the entire product team. • For example, a tech-savvy member of the product team can provide insights on how certain customer segments will perceive the product. • Each member of the product team can provide valuable perspectives that lead to a better product.
Make an Impact	• A product will generate the right impact when the customer derives value consistently or receives an unexpected but positive experience from the product, which the customer may not have thought about. • Customer grouping allows the team to assess multiple scenarios and uncover both explicit and latent needs that help increase impact for the targeted customer group.
Deliver Often	• The primary customer groups seldom require a complete overhaul, but their characteristics and traits are reviewed often. • The persona representing a customer group may go through various updates to reflect a change in that persona's perception of the evolving product. • If the product scope evolves and is different from the original goals, it may result in a change of customer groups. The Practitioner needs to internalize the changes for more effective product decisions.
Learn Fast	• Stakeholder analysis, from an external perspective, reveals how to address specific customer needs. • It can be used to compare, prioritize, and deploy features, as well as learn from feedback.
Obsess about Value	• Customer grouping and analysis may reveal competing priorities and needs between different customer groups. • The team needs to decide and sequence PBIs in a way that provides the best value to customers.

6.25 Story Mapping

Purpose

Story Mapping is used to assist in creating an understanding of product functionality and the flow of usage, and to assist with prioritizing product delivery.

See section 7.20 of Agile Extension V2 *for details.*

6.25.1 POA Perspective for Story Mapping

In the context of product ownership analysis, practitioners can elevate this tool to track the flow of PBIs and prioritization of product features. It can also be used:

- As an input to iteration and release planning.
- To plan desired outcomes in different agile horizons
  - For example, it can be used as a component of the product roadmap or in the context of planning MVP for the product.
- To discover dependencies and critical paths to realize different product features.

.1 Story Mapping and the POA Domains

POA Domain	*Story Mapping:*

Applying Foundational Concepts	• Story maps usually provide a top-down view of:
	  • PBIs,
	  • Epics,
	  • Stories, and
	  • Steps in a delivery horizon.
	• Story maps can be summarized to identify product goals and objectives for better alignment to business or customer goals.

Cultivate Customer Intimacy	• A story map is a fluid tool that captures customer activities and goals as relatable stories and allows the discovery of pain points. • Similarly, the view can be reorganized from a drill-down of PBIs to user stories to a sequence of user stories for a specific user. This helps POA Practitioners to realize how each user would interact with the product and reveals gaps.

POA Domain	*Story Mapping:*
Engage the Whole Team	• The product team uses the story map to get a bigger picture to plan their activities more effectively. • The team can provide additional input by reviewing how stories are developed relative to each other.
Make an Impact	• Story maps are effective as a visual tool in iteration planning, release planning, and team discussions. • They can be used as a visual anchor for product teams to track progress and provide a sense of accomplishment when a story gets delivered.
Deliver Often	• Story maps changes often as the delivery priorities for the PBIs, schedule and budget change. • By keeping the story map current the product team always has visibility into how the product is progressing.
Learn Fast	• Story maps provide several cues for POA Practitioners to course-correct, by identifying gaps in the flow of PBIs. • They can also provide quick learning on how to adapt iterations and releases if some of the story development activities become distressed.
Obsess about Value	• A story map is an excellent tool to visualize the value for different customer personas vs. value delivered.

6.26 Value Modelling

Purpose

Value modelling focuses solution development on value delivery by tracing decisions to the value perspective of the stakeholder.

See section 7.22 of Agile Extension V2 *for details.*

6.26.1 Product Ownership Analysis Perspective

In the context of product ownership analysis, value modelling is used to define the product as a combination of customer and stakeholder value. It helps the team trace product decisions (e.g., inclusion or exclusion of features) to customer value, derived or deferred.

.1 Value Modelling and the POA Domains

POA Domain	*Value Modelling*
Applying Foundational Concepts	• Many poorly defined and misaligned products are described as merely a set of features or solution components. The value that can be derived from them is ignored. • Different value models (for example, value proposition canvas, value model, mean value charts, customer value flowcharts) align the product to stakeholder goals. • Value models mitigate the risk of poorly defined products for team members and the organization.
Cultivate Customer Intimacy	• Different types of value models show gaps in the expected and perceived value from the product from different stakeholder perspectives. • Value models are created with a stakeholder in mind hence the value model collates the spectrum of value derived by the stakeholder. This helps in the discovery process and creates an emotional connection.
Engage the Whole Team	• Value modelling requires practitioners to take perspectives from the team members and derive customer values being delivered. • Include the stakeholder in the discussion when creating the value model as it is specific to a stakeholder or customer segment.

POA Domain	*Value Modelling*
Make an Impact	• Value models provide a visual construct to easily understand the nature of value being delivered, which better illustrates impact than a list of features.

Deliver Often	• The value model must be updated when customers' needs evolve due to:
	  • Changing expectations,
	  • New ways to achieve outcomes,
	  • Novel ideas, or
	  • Additional features

Learn Fast	• Value models use all available subjective and quantitative analysis to evaluate the decisions that lead to customer value. • A set of value-based metrics can be used to track perception of customer value and learn what needs to change.
Obsess about Value	• The entire focus of the value model is to shift the understanding of the product from a solution-based outlook to a value-focused outlook. • This enables products to be envisioned and delivered in a top-down approach where each PBI, story, and features trace it back to the envisioned value of the product.

6.27 Value Proposition Canvas

Purpose

The value proposition is the culmination of ideas, customer intimacy, market insights, evidence, and design articulated into a promise of value to be delivered to customers. It demonstrates a clear understanding of customer pains, gains, and jobs to be done, and introduces alignment of the pain relievers, gain creators, and product(s) benefits.

Description

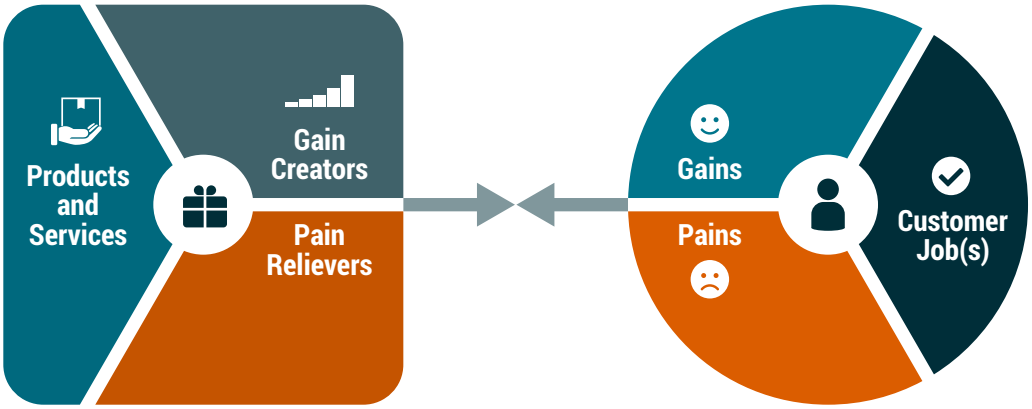
The ***Value Proposition Canvas***, originally developed by Dr. Alex Osterwalder, is used to understand the product's value from the customer's perspective. It clearly and simply states:

- How the product solves or addresses the problem or pain,
- The benefits that customers can expect, and
- Why customers should choose this product.

A product's value proposition should appeal to the customer, in comparison to other competitive products.

The value proposition canvas tool helps to:

- Ensure that the product or service is positioned around customer values and needs,
- Align between the product and the market,
- Feed into the customer and value proposition segments of the business model canvas (or vice versa), and
- Provide a visualization that contributes to shared understanding and meaningful conversations.



The Value Proposition Canvas diagram explained:

Value Proposition Map (square on the left)	***Customer Profile (circle on the right)***

Describe the product and how the product addresses the customer's pains and achieves the customer's expected gains.
• ***Products and Services***: Focus on the product and what it can offer to get the customer jobs done.
• ***Pain relievers***: The pointers to how the product or service will solve customer pains and frustrations.
• ***Gain creators***: The product's features and offerings that will provide the desired outcomes and customer experience.
	Understand the customer's challenges, before deciding on a product. The circle is divided into three components, where the jobs the customer fulfils, as well as their associated experiences, are captured.
	• Customer job(s): that include:
	  • The functional (practicability), social (sense of duty), and emotional (preferences) activities or tasks customers are trying to perform,
	  • The problems they are trying to solve, and
	  • The needs they wish to satisfy.

	• Pains the customer experiences in the process of getting the job done:
	  • The negative experiences,
	  • Frustrating outcomes or emotions, and
	  • Risks.

	• Gains the customer expects and needs:
	  • The benefits,
	  • The positive experiences, and
	  • The satisfaction.

.1 Process to Create Value Proposition Canvas

1. Define the customer or customer segments:
    - Start with understanding customer segments,
    - Discuss within the team and agree on who the real customers are, and
    - Create a canvas for each customer segment.
2. Understand the customer and complete the customer profile:
    - Detail the various jobs of customers. Try to uncover how these activities are done, how they feel about it, and what social qualities come into play.
    - Discuss the challenges or pains that the customer faces for doing each of the activities when trying to complete the job.
    - Understand the gains of customers which are generally the hidden ambitions, above and beyond the pain relievers.
3. Identify a product aligned to the customer needs and document through the value Pproposition map:
    - List the solution options after the brainstorming session, and
    - Select a solution that addresses the customers' jobs, pains, and gains.
4. Determine canvas success
    - Make sure there is a canvas for each customer segment,
    - Identify jobs or activities to be done by the customer (3-5),
    - Prioritize the pains and gains of the customer (3-5 for each),
    - Every pain and gain could be mapped to a pain reliever or gain creator, and
    - The product and services offered should cover the gain creators and pain relievers.

Considerations

Strengths	*Limitations*
• Stimulates innovation through creative ideation of products aligned to customer needs, in a structured time-boxed ***process***. • Creates a shared understanding among the team on customer-product alignment. Alignment is powerful, particularly in bringing awareness to assumptions and viewpoints related to customer jobs, gains and pain points. • Shows customer-product alignment in an easy and simplified manner.	• Each customer segment will need its own canvas. • Merging multiple customer segments into a single canvas may weaken the value proposition and diminish the benefits of a value proposition canvas.

Tips for Success

- The sequence for completing the canvas should be customer map first, followed by the value proposition map. This way, it is clear what the customer really needs. Design the product based on those needs.

6.28 Value Stream Mapping

Purpose

Value Stream Mapping is used to provide a complete, fact-based, time-series representation of activities required to deliver a product or service to the customer.

See section 7.23 of Agile Extension V2 *for details.*

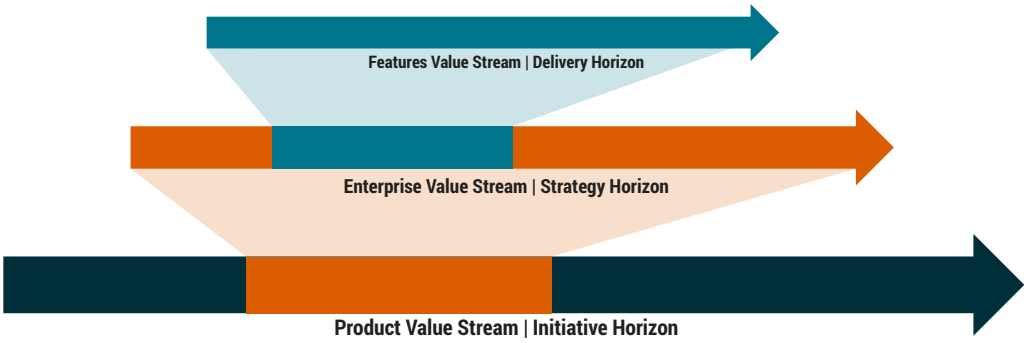
6.28.1 POA Perspective for Value Stream Mapping

Value stream mapping has its origin in manufacturing, for analyzing supply chain elements. This technique is adopted in the context of product ownership analysis. Historically, the definition of value in supply chain processes has been either cost or cycle time, but from a POA perspective, the extended product team often decides the definition of value. It may change depending on the product lifecycle.

For example, customer acquisition may be used as a measure of value during product launch and may change to customer lifetime value during the product maturity phase.

The definition of value may be fluid in agile product management and can be a subjective assessment, as opposed to a defined metric, if the product team has a shared understanding of the value delivered through the product.

Product value stream is often defined at the appropriate agile horizon to derive maximum value.



.1 Value Stream Mapping and the POA Domains

POA Domain	*Value Stream Mapping*
Applying Foundational Concepts	• A tool to gain a broader portfolio view for a group of products. • To evaluate the output from one product to determine if it is beneficial to another, which provides strategic alignment for the product to enterprise objectives.
Cultivate Customer Intimacy	• The learnings and analysis from value stream mapping from other domains can be used to augment a deeper understanding of the customer, and for evaluating or evolving the product.
Engage the Whole Team	• To conduct value stream mapping, the entire product team, as well as cross-functional representatives, must be involved for a variety of perspectives.
Make an Impact	• Analyze the flow of product features, product workflows, or transactions to assess the pieces that are valuable for a better product-market fit and to craft a better value proposition. • Helps practitioners find the right time to ship product features for maximum impact.
Deliver Often	• Plan the delivery of features by analyzing the flow of product features, product workflows, or transactions, to visually show how value is enhanced over time. • Helps in effectively planning iterations and releases by taking a cue from visual inputs from different value streams (i.e., where the team is tracking multiple descriptions or definitions of value).
Learn Fast	• Contextualizes different KPIs across value streams to ensure that each element improves the metrics and allows planning of iteration and releases that help with strategic, market, and delivery assessments.

POA Domain	Value Stream Mapping
Obsess about Value	• Applied at different agile horizons to capture the essence of value delivery. • Provides more detail than process flows, which takes the “time” element to enumerate the flow of activities. • Value stream can adapt to a different definition of value to continuously assess strategic, market and product alignment.

6.29 Visioning

Purpose

Visioning is concisely worded to determine the desired outcome for an initiative.

See section 7.24 of Agile Extension V2 *for details.*

6.29.1 Product Ownership Analysis Perspective

In the context of POA, visioning is used as a technique to derive a cohesive, integrated, and aspirational view that captures the essence of why the product should exist. It describes the value provided (value proposition) to a specific group of stakeholders (target market) that satisfy their unmet needs.

.1 Visioning and the POA Domains

POA Domain	Visioning
Applying Foundational Concepts	• A team exercise can be conducted with relevant stakeholders to formulate a guiding statement aligned with the organization's vision and product vision. • Shared often and used as a tool to develop shared understanding for the product team. • Visioning exercises are open-ended discussions.

POA Domain	Visioning
	• The exercise must be undertaken often so that product vision remains aligned to the direction a product is taking. • For example, products after the initial launch usually need to be re-evaluated to determine if the product is still solving the right problem. The product visioning exercise must be conducted every time a product pivots.
Cultivate Customer Intimacy	• Product vision is the synthesis of customer needs. • A clear understanding of vision is critical to the product team, and customers often strongly relate to a well-crafted product vision. • An emotional connection is built with the product if customers are influenced by it, which aids in building the right brand.
Engage the Whole Team	• Visioning exercises can not be performed in isolation. • The vision represents the enterprise and product team's perspective about the problem the product is solving. • The team needs to be motivated by the vision and should have their ideas heard when formulating the product vision.
Make an Impact	• Product vision communicates the purpose of the product now and in the future. • The product vision is about making a statement that has far-reaching consequences and creates a lasting impact.
Deliver Often	• Delivering the product often is a way to test the product against the vision that was originally crafted. This philosophy is consistent with good agile practice so a product can take the most efficient path to deliver against the product vision. • Visioning does not have a significant role in ensuring timely deliveries and is not required to be conducted as often.

POA Domain	Visioning
Learn Fast	• Most of the strategic, market and delivery assessments are conducted with the product vision as the centre of focus. • Learning from key stakeholders and customers can be used to improve product-market fit. The product vision can be updated as needed to align with and drive appropriate product changes.
Obsess about Value	• The product vision is the guiding statement that drives the whole product team to obsess about what value needs to be delivered so that the product vision can be fulfilled. • It can also be used to assess the value delivered through each product increment and identify changes that are needed.

Appendix 7: Contributors

A special thanks to everyone who contributed to the Introduction and Guide for Product Ownership Analysis

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Guide to Product Ownership Analysis

Product Ownership Analysis (POA) is a discipline that can be used to assist teams in creating and delivering exceptional products and services for their customers. The Guide to Product Ownership Analysis provides a foundational understanding of the Product Ownership Analysis discipline and outlines a defined framework, techniques, and case studies for practical application. Look for the Certification for POA at IIBA.org.

Explore more information about Product Ownership Analysis at **iiba.org/POA**.

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