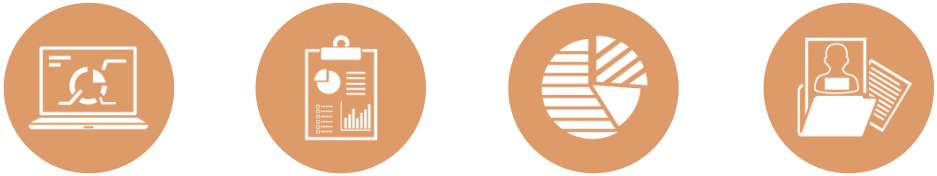
PMI®—Agile Certified Practitioner (PMI-ACP)®

Value-based Prioritization–II



Objectives

After completing this lesson, you will be able to:

- Describe Agile compliance and customer-valued prioritization
- Explain the three relative prioritization techniques
- List the steps used to plan projects using MMF

Compliance is guaranteeing that a product reaching the market will satisfy the rules that regulate the market or stipulated by the company.

- Organizations have compliance standards ranging from branding and messaging of a product to the features and quality of its products.
- Governments require compliance in areas involving finance, security, and standards for products that could affect human health or safety.
- Agile projects must also demonstrate that they can satisfy these compliance requirements.

Prioritization is the act of deciding in what order the team should start working on the requirements.

- Prioritization is required as it enables the adjustment of scope to meet budget or timeline objectives while retaining a useful set of functionality (Minimum Marketable Release).
- Requirement lists need to be prioritized for release planning, iteration planning, and insertion of new requirements.

Factors in Prioritization

The factors to be considered while prioritizing a project are as follows:

Financial value

delivery by features

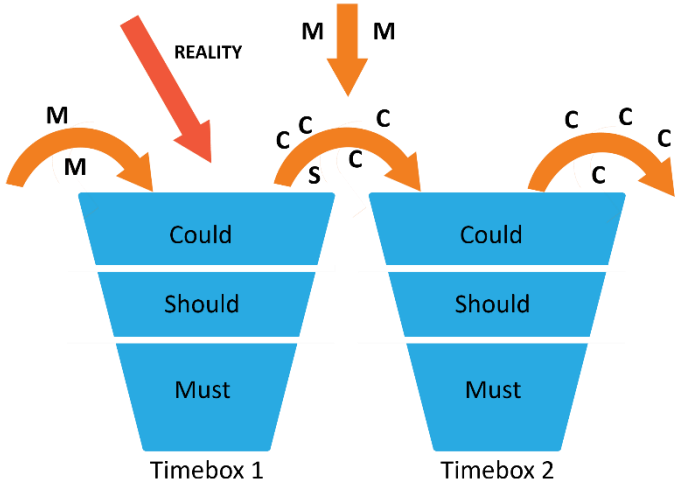
Amount and significance of learning, and new knowledge gained while developing the features

Cost of developing the new features

Amount of risk removed by developing the features

There are three prioritization schemes that can be applied within Agile. The first technique is MoSCoW.

- The prioritizing technique used in Dynamic systems development method (DSDM) is MoSCoW.
- Under this technique, requirements are prioritized based on Must, Should, Could, and Won't.



MOSCOW Prioritization Technique—Real Life Example

Walmart wants to launch a new website where consumer durable orders can be placed online. Tom, the Product Owner is faced with the challenge of prioritizing the following requirements.

Hardware Setup

Search Options Onsite

Online Payment

Customer Registration

Order Placement

Shipment Update through SMS

Customer Login

Capture Shipping Details

If the MOSCOW prioritization technique is chosen, which of the following requirements will fall under Must Have, Should Have, and Could Have.

MOSCOW Prioritization Technique Example—Explanation

The graphic shows how Tom prioritizes requirements using the MOSCOW prioritization technique.

Must Have Requirements

Are non-negotiable and directly impact the success of the project.


Hardware Setup


Search Options Onsite


Order Placement


Capture Shipping Details

These requirements are necessary to launch and run the website. They directly impact customers' usage of the website leading to the increase in consumer durable orders online.

Should or Could Have Requirements

Are less important or 'nice to have' features. Their difference is determined by the level of pain or loss of business value created by not implementing a feature.


Customer Registration


Customer Login

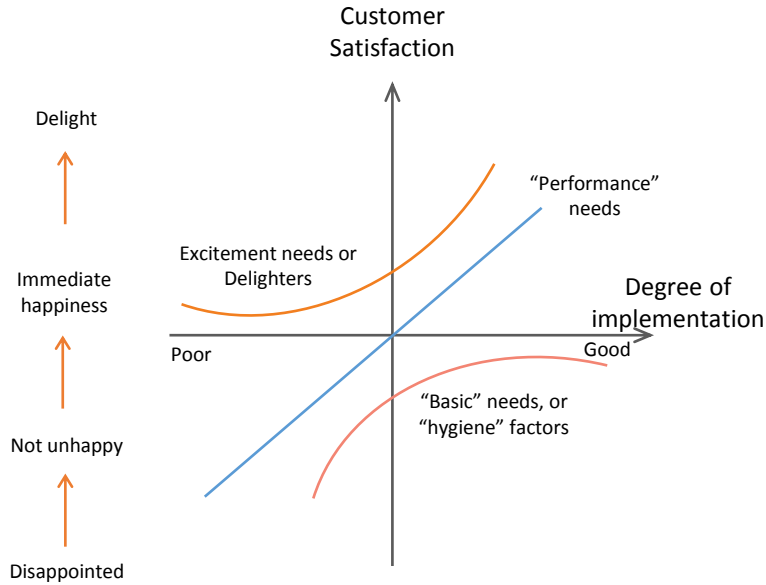

Online Payment


Shipment Update through SMS

Should Have and Could Have requirements usually have a workaround option available. Customer registration and login are not a mandate as orders can be placed without login. Likewise Online Payment is a desirable feature but the customers can pay through cheques, DD and COD, hence workaround is available.

The second technique used for Prioritization is the Kano Model.

- This technique was developed by Professor Noriaki Kano. It strives to fulfil requirements and ensure customer satisfaction.
- Under this technique, requirements are prioritized based on Basic Needs, Performance Needs, and Excitement Needs.



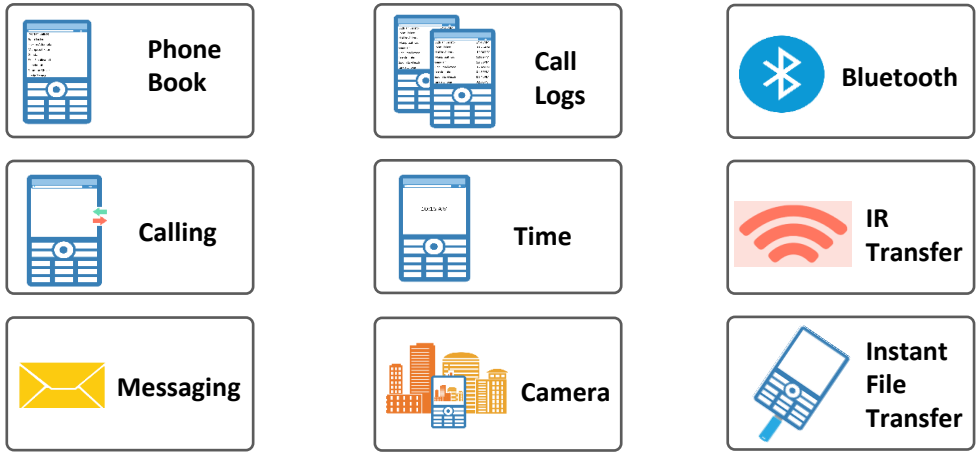
Categories—Kano Model

The four categories of the Kano model are as follows:

Threshold (Must Have)	These features must be present in the product for it to be successful.
Linear (Performance requirements)	These features are where customer satisfaction is correlated linearly with the quantity of the feature.
Exciters and delighters	These features provide great satisfaction, often adding a premium price to the product. Lack of exciter or delighter will not decrease customer satisfaction below neutral.
Indifferent	These features are least important to the customer. They will return little or no business value.

Kano Analysis—Example

A big mobile handset company is planning to launch a new version of their mobile. Jeffson, the Product Owner has come up with a list of features which needs to be developed and included in the mobile. If Jeff chooses to use KANO analysis for prioritizing the requirements, which of these requirements will fall under different categories.



The graphic below shows how the requirements are differentiated using the KANO analysis.

Threshold

Presence of these features does not result in increasing customer satisfaction.

- Phone Book
- Calling
- Messaging
- Call Logs
- Time

Linear Features

The customer satisfaction improves linearly as the numbers of features increase.

- Camera
- Bluetooth
- IR Transfer

Exciters and Delighters

These features bring immense customer satisfaction. They are time consuming and costly to develop.

- Instant File Transfer

The third technique used for Prioritization is the Relative weighting by Karl Wiegers.

- This technique is based on the premise that the features that have the highest benefits after adjustment for costs, risks, and penalties should have the highest priority.
- A feature's priority is directly proportional to the value it provides and inversely proportional to its cost and the technical risk associated with its implementation.
- Each category uses a scale of 1 – 9.
- Benefits reflect the value a feature will provide, penalties reflect the negative affect a customer will experience if the feature is not included, risks reflect the challenges of implementing the feature and costs reflect the actual costs of implementing the feature.

Relative Weightings—Example

Each feature is prioritized based on its relative weighting for Benefits, Penalties, Costs, and Risk. Each feature uses a relative scale of 1–9 to determine its rating.

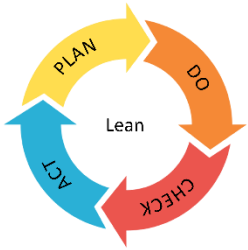
Features	Benefit	Penalty	Total Value	Value %	Relative Cost	Cost %	Relative Risk	Risk %	Priority
Feature 1	8	2	10	27%	2	20%	3	17%	.73
Feature 2	8	3	11	30%	4	40%	6	33%	.39
Feature 3	7	4	11	30%	3	30%	7	39%	.43
Feature 4	3	2	5	13%	1	10%	2	11%	.62
TOTAL	**26**	**9**	**37**	**100%**	**10**	**100%**	**18**	**100%**	

Priority = value %/ (cost % + risk %)

The product owner should continuously assess the product backlog and prioritize its stories based on their customer value. Determining customer value involves activities such as collaborating with customers, creating focus groups, and reducing technical debt (which addresses quality and improving delivery throughput). The issues involved in delivering customer value are as follows:

Focus on Innovation

Concentration on Execution



Lean Thinking

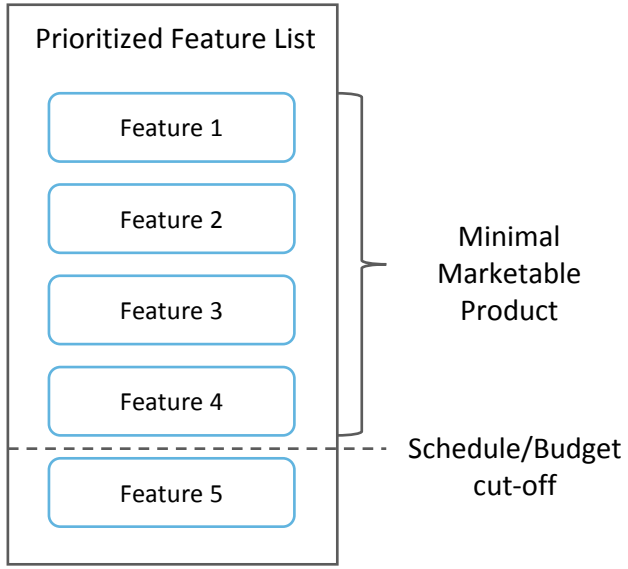
A minimum marketable feature (MMF) is the smallest set of functionality that provides value to the market, whether that market is internal users (as with custom software) or external customers (as with commercial software).

MMF can be used to plan projects that are more predictable and flexible at the same time. The steps are as follows:

Determine the MMF

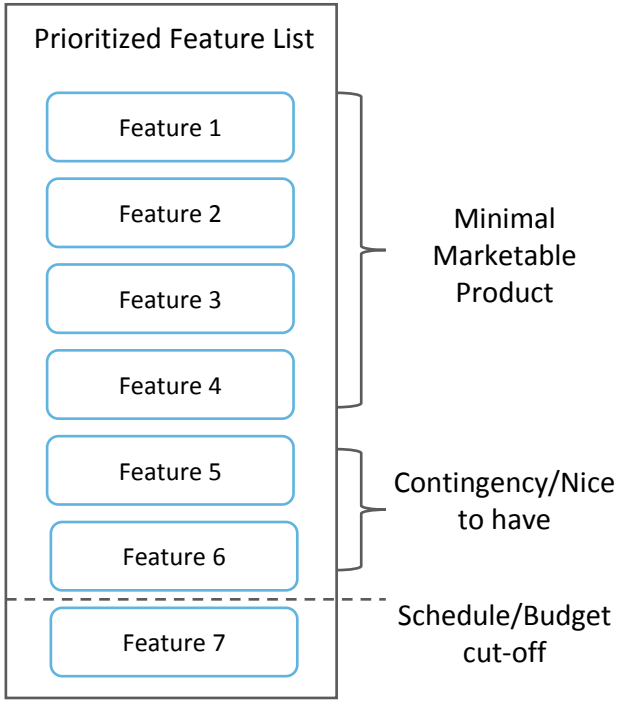
The first step is to determine the MMF.

- Determining the minimum marketable product is to define the minimum set of features that the team is prepared to launch the product with.



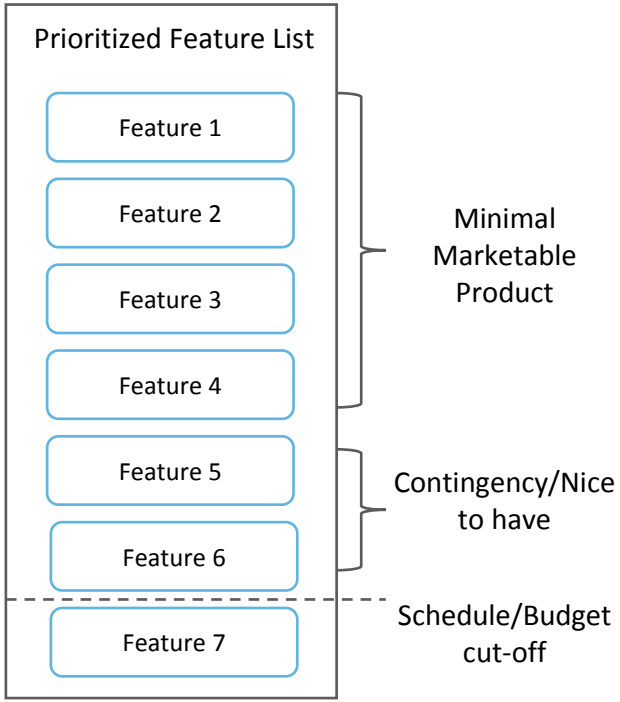
The second step is to introduce slack.

- Introduce some slack or buffer, which depends on several factors.
- The factors to be considered are how long the project is, how many change requests are typically raised during projects in the organization, how reliable the organization is at delivering products on schedule, the type of project being undertaken, etc.



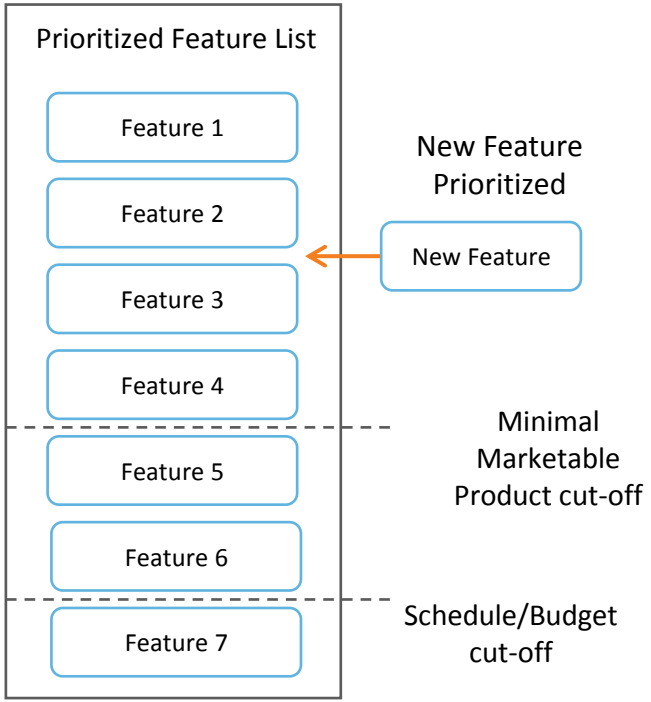
The third step is to manage the changes.

- As soon as the project is initiated, there will be a need to manage changes in the requirements.
- In Agile, change management involves the product owner making the necessary trade-offs against the Agile triangle (value, quality, and budget or schedule, or scope).



The fourth step is to increase the MMF.

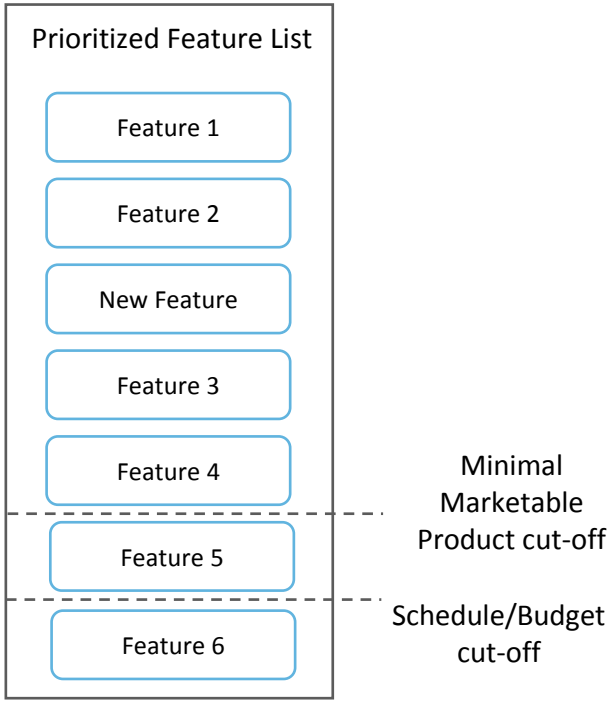
- A ‘New Feature’ needs to be included in the existing minimal marketable product, usually on customer requirement.
- The new feature has to be positioned according to the customer’s prioritization.



Accommodate the New Feature

The fifth and the last step is to accommodate the new feature.

- The ‘New Feature’ which is accepted will be accommodated and becomes a part of the minimal marketable product.
- New feature can be added by reducing the slack or contingency. In this case, the schedule or budget cut-off would not change.



Quiz

QUIZ 1	Which of the following factors is not used in prioritization?

a. Financial value of the features

b. Cost of developing the new features

c. Amount of risk removed by developing the features

d. Cost of removing the new features

QUIZ 1	Which of the following factors is not used in prioritization?

a. Financial value of the features

b. Cost of developing the new features

c. Amount of risk removed by developing the features

d. Cost of removing the new features

Answer: d.

Explanation: Cost of removing the new features is not a factor used in prioritization.

QUIZ 2	Which prioritizing technique considers both the benefits of presence of a feature and the negative impact of its absence?

a. Kano Model

b. MoSCoW

c. Relative weighting

d. Monopoly

QUIZ 2	Which prioritizing technique considers both the benefits of presence of a feature and the negative impact of its absence?

a. Kano Model

b. MoSCoW

c. Relative weighting

d. Monopoly

Answer: c.

Explanation: Relative weighting considers both the benefits of presence of a feature and the negative impact of its absence.

QUIZ 3	What occurs after the Minimally Marketable Features are developed in an iteration?

a. The project moves to a high value delivery mode

b. The project starts gold plating its features

c. The team can allocate the remaining features using MoSCoW

d. The product is ready for release

QUIZ 3	What occurs after the Minimally Marketable Features are developed in an iteration?

a. The project moves to a high value delivery mode

b. The project starts gold plating its features

c. The team can allocate the remaining features using MoSCoW

d. The product is ready for release

Answer: b.

Explanation: Gold plating occurs when more than the MMF is completed.

QUIZ 4	In the Kano Model which of the following categories would a new feature like a 1000 hour battery life on a cell phone fall into?

a. Threshold (Must Have)

b. Linear (Performance requirements)

c. Exciters and delighters

d. Indifferent

QUIZ 4	In the Kano Model which of the following categories would a new feature like a 1000 hour battery life on a cell phone fall into?

a. Threshold (Must Have)

b. Linear (Performance requirements)

c. Exciters and delighters

d. Indifferent

Answer: c.

Explanation: Most cell phone users would be excited/delighted with a phone that a 1000 hour battery life.

QUIZ 5	How does Agile deal with compliance requirements?

a. Compliance requirements must be managed as part of the overall deliverables of the project

b. Agile projects are not a good fit for projects with compliance requirements

c. Agile projects manage compliance by treating the stories as epics

d. Compliance would be a risk that should be documented in the Risk Register

QUIZ 5	How does Agile deal with compliance requirements?

a. Compliance requirements must be managed as part of the overall deliverables of the project

b. Agile projects are not a good fit for projects with compliance requirements

c. Agile projects manage compliance by treating the stories as epics

d. Compliance would be a risk that should be documented in the Risk Register

Answer: a.

Explanation: Agile projects must manage compliance requirements as part of the overall deliverables.

Here is a quick recap of what was covered in this lesson:

- Factors to be considered for prioritization are financial value of the features, cost of developing the new features, amount and significance of learning and new knowledge gained while developing the features, and amount of risk removed by developing the features.
- A minimum marketable feature is the smallest set of functionality that provides value to both internal users and external customers.
- Agile projects must demonstrate that they satisfy the market, organization, and government's compliance requirements.

THANK YOU