

Kano Model & PLC (Product Life Cycle)

(Product Development & Customer Satisfaction)

International Innovation Management

ACPA7003

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Kano Model

- Published in 1984 by Prof. Noriaki Kano of 'Quality Management' at Tokyo University of Science.
- Kano model is for product development & customer satisfaction
- The model captures two factors:
 - 1) Customer satisfaction
 - 2) Desire for a product or feature

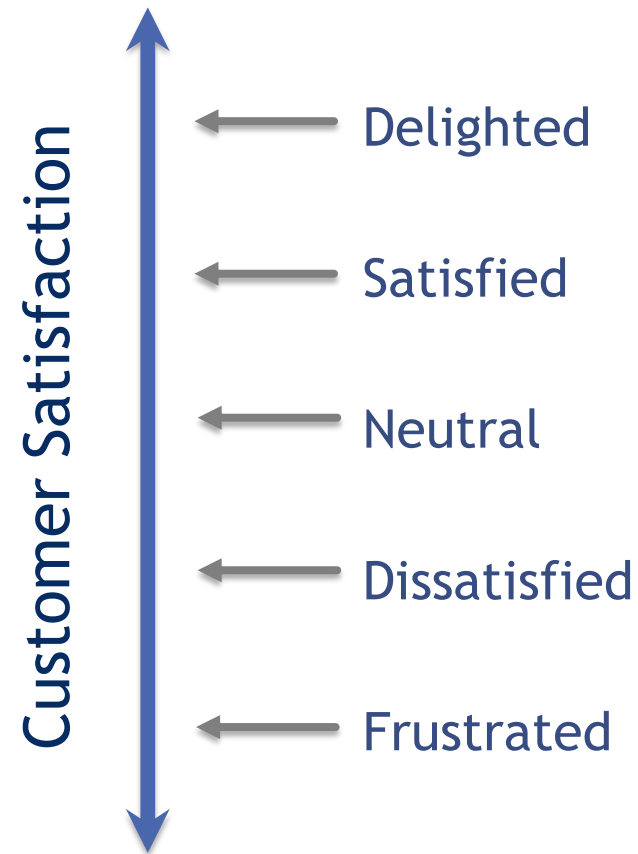
Kano Model - Simple model of quality



Kano Model - 'Performance' aspects



Kano Model - 'Performance' aspects

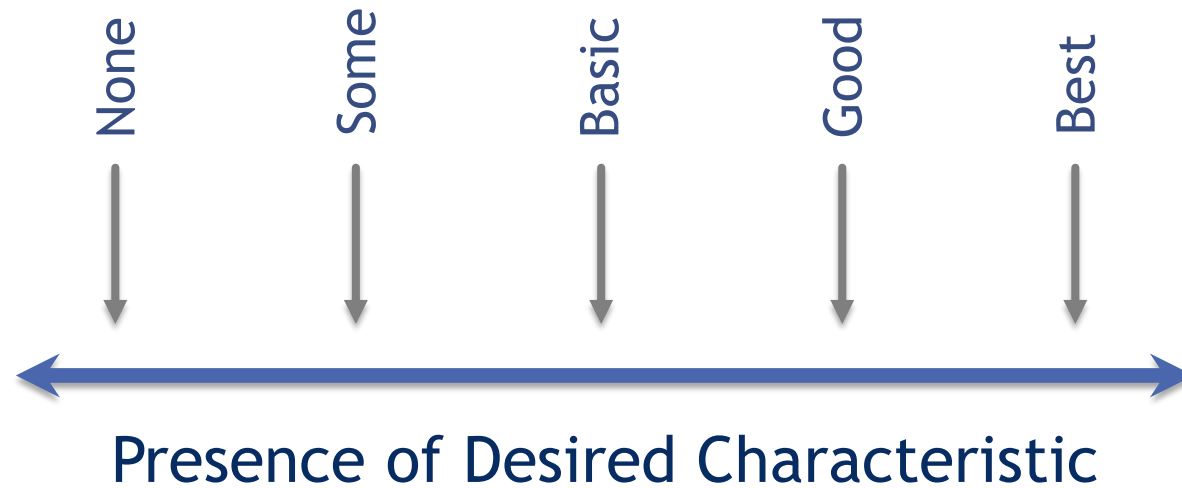


Kano Model - 'Performance' aspects

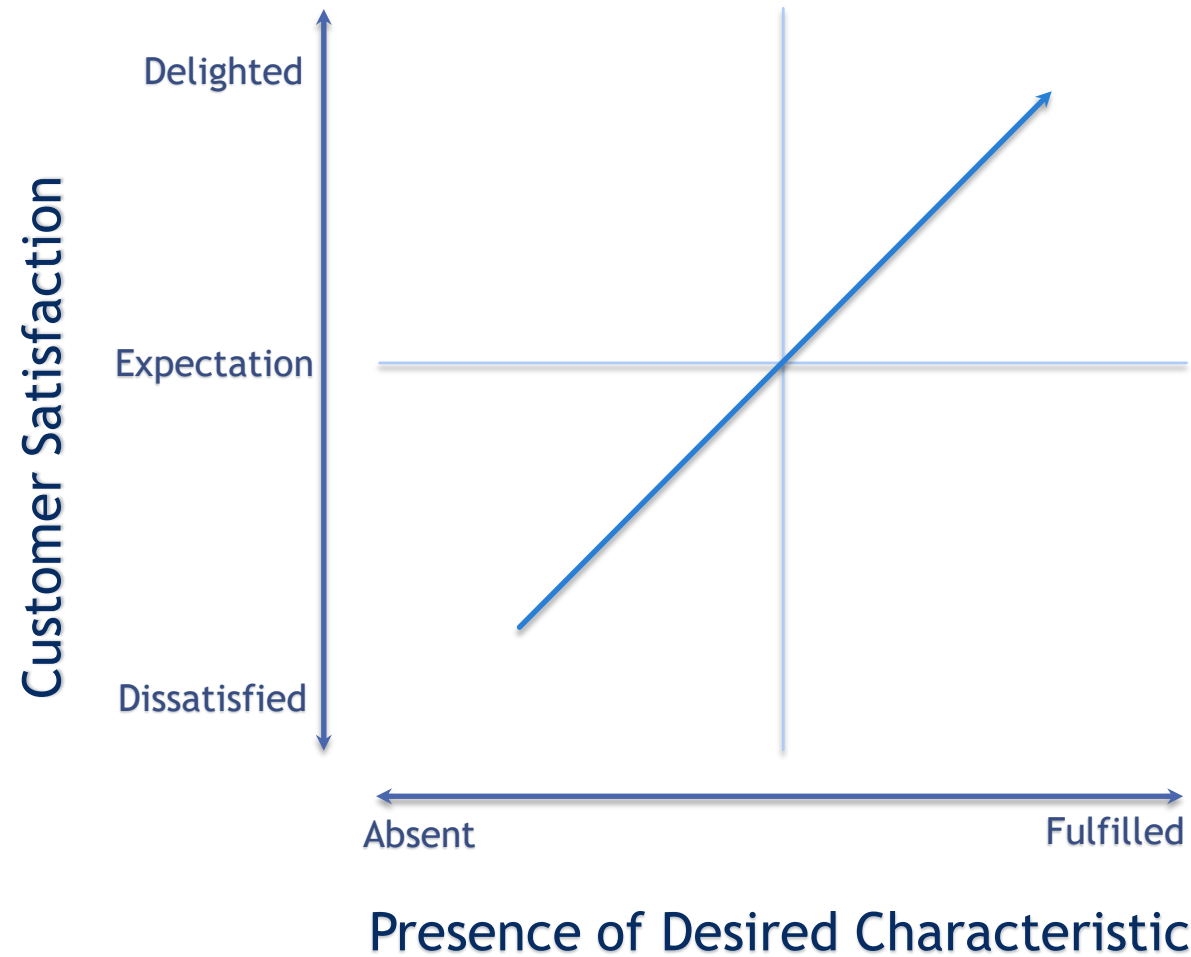


Presence of Desired Characteristic

Kano Model - 'Performance' aspects



Kano Model - 'Performance' aspects



Kano Model - 'Performance' aspects

Performance needs

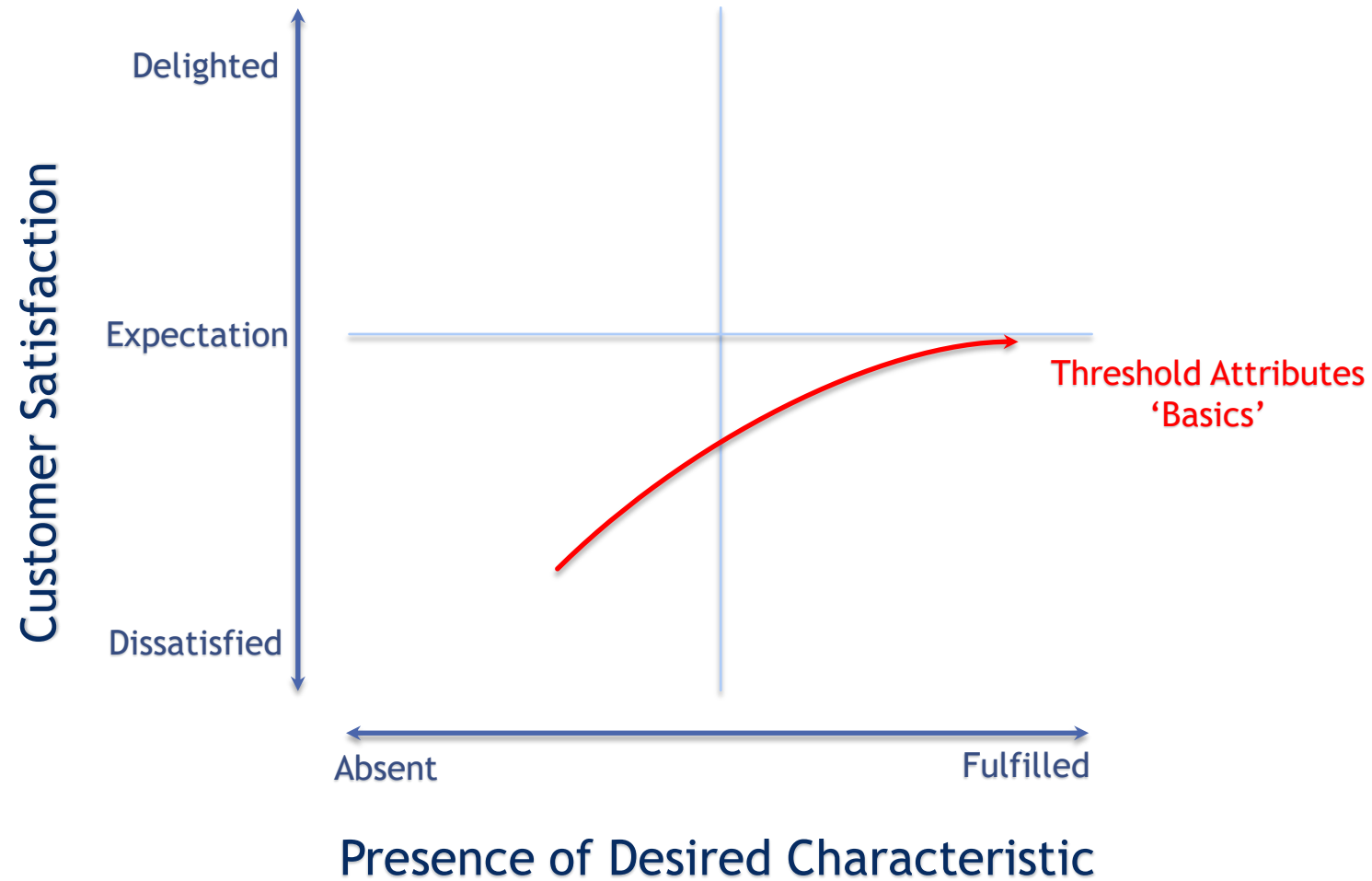
- 'Spoken' needs and wishes for features familiar to competing products
- Readily accessible to market research
- Generally additive in producing customer satisfaction
- Low achievement of performance factors can give rise to customer dissatisfaction

Kano Model - 'Performance' aspects

Examples

- Mobile phone battery life
- Mobile phone camera picture quality
- Internet connection speed
- Cloud storage space
- Car fuel economy (*mpg*)

Kano Model - 'Basic' aspects



Kano Model - 'Basic' aspects

Basic needs

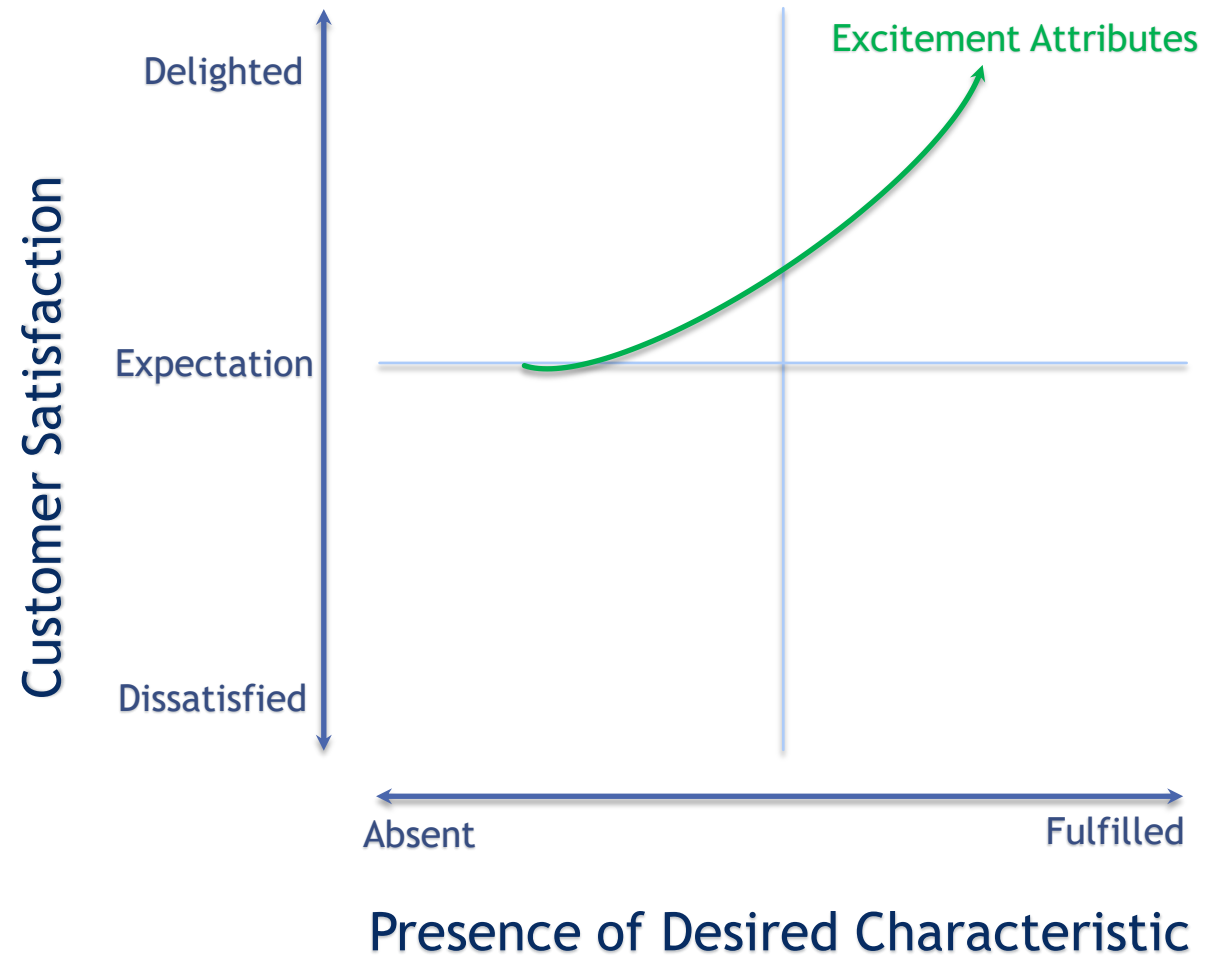
- 'Unspoken' needs & wishes for features typical and expected from competing products
- Difficult to discover through market research
- Discovered by competing product analysis
- Failure to achieve any basic needs will result in customer dissatisfaction

Kano Model - 'Basic' aspects

Examples

- Air conditioning in a new car
- Shops that take card payment
- Internet conferencing/meeting rooms that work without glitches
- Hot & cold running water in a hotel room
- Adequately chilled drinks from vending machines

Kano Model - 'Excitement' aspects



Kano Model - 'Excitement' aspects

Excitement needs

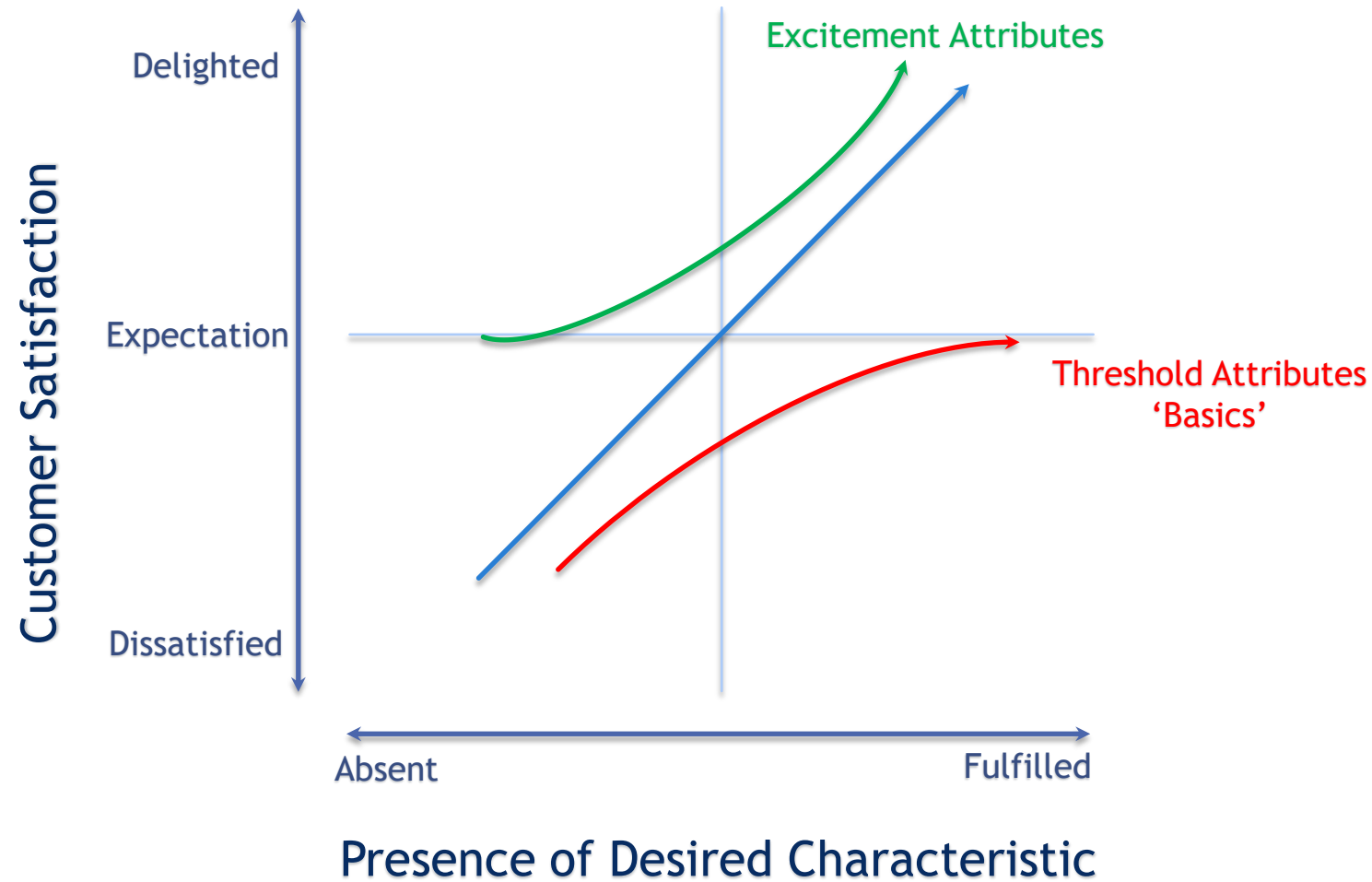
- Unspoken', latent customer needs and wishes unprecedented in competing products
- Satisfying genuine needs that are not just gimmicks
- Extrapolated from market research aimed at understanding of customer's underlying wishes and their unresolved frustrations with existing products
- Failure to achieve excitement factors does not lead to customer dissatisfaction
- Difficult to discover through market research

Kano Model - 'Excitement' aspects

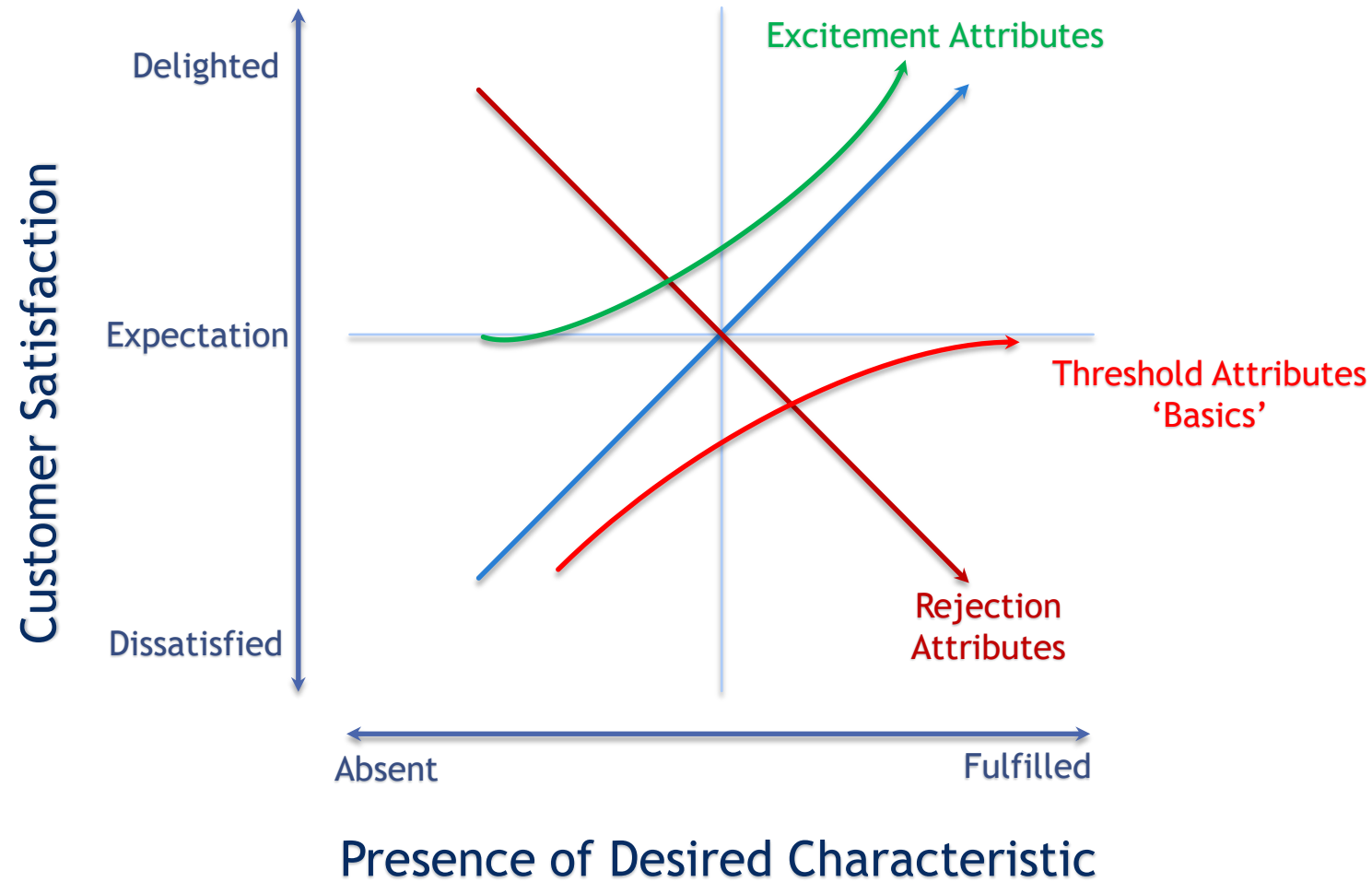
Examples

- First time using a smartphone
- First time using google maps street view
- Self parking car
- Autonomous vehicles
- Smart products for homes

Kano Model - Complete model of quality



Kano Model - Complete model of quality



Kano Model

Feature	Description	Avoid	Include
Basic			
Excitement			
Performance			
Indifferent			
Dissatisfaction			

Kano Model

Feature	Description	Avoid	Include
Basic	Minimum expected standard		
Excitement			
Performance			
Indifferent			
Dissatisfaction			

Kano Model

Feature	Description	Avoid	Include
Basic	Minimum expected standard		
Excitement	New ground breaking features/products		
Performance			
Indifferent			
Dissatisfaction			

Kano Model

Feature	Description	Avoid	Include
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Dissatisfaction			

Kano Model

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Kano Model

Feature	Description	Avoid	Include
Basic	Minimum expected standard		
Excitement	New ground breaking features/products		
Performance	Steady and good quality that improves		
Indifferent	Customer's do not care about		
Dissatisfaction	Upsetting features or products		

Kano Model

Feature	Description	Avoid	Include
Basic	Minimum expected standard	—	✓
Excitement	New ground breaking features/products	—	✓
Performance	Steady and good quality that improves	—	✓
Indifferent	Customer's do not care about	✗	—
Dissatisfaction	Upsetting features or products	✗	—

Discussion - 1

‘Exciters’

What products can be regarded as ‘exciters’ of their time?

e.g. iPhone

What made them a success?

e.g. User friendly, intuitive design, many features & apps.

Example of Product Evolution - Video



VHS



DVD



Blu-ray



UHD 4K

Example of Product Evolution - Typing



Typewriter



Computer



Laptop



Tablet

Example of Product Evolution - Audio Player



Wireless Radio



Stereo

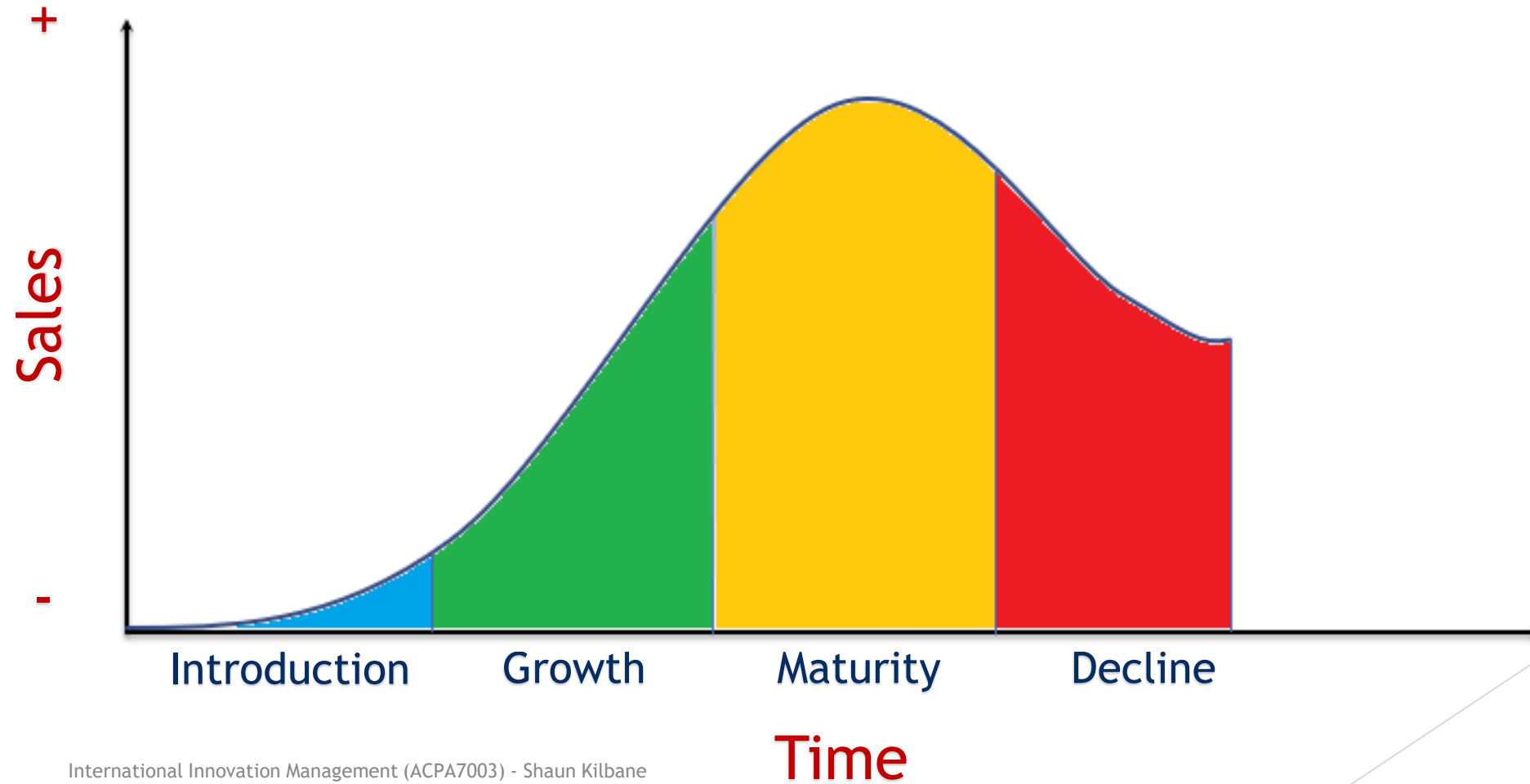


Smart Speaker

Product Life Cycle

- PLC refers to the life cycle of a product in terms of from when it was introduced, to when it was removed from sales.
- PLC may be referred to as a way of strategizing ways to continuously support and maintain a product.
- The life cycle concept is broken down into 4 stages: Introduction; Growth; Maturity; Decline.
- This theory may be used by organisations to identify phases and to plan accordingly.
- The model may aid with decision making e.g. when to increase advertising, reduce prices, expand into new markets or consider different tactical approaches.

Product Life Cycle Template



Introduction Phase

- This is when the public first sees or hears about a product.
- Product appears in stores for the first time, people start seeing TV adverts.
- During this phase, a company may choose one of two pricing strategies:
 - 1) Set prices high to recoup initial expenses that went into producing the product. Desire for a product or feature. e.g. A mobile phone manufacturer with new technology may introduce mobiles at ~10-20% above the prices of their most premium mobiles. They may price their phones higher because of the hype and anticipation of the new technology. The company also knows many people will pay the premium for it to earn substantial profits.
 - 2) Set prices low to attract more potential customers, by introducing a mobile with basic features at reduced prices, making the product more enticing for frugal customers.

Growth Phase

- The growth phase refers to when sales and profits for the new product start rising. A company will usually keep product prices approx. the same during the growth stage to maximize earnings.
- Product quality is maintained. However, a company will usually expand its product distribution during the growth stage. e.g. A consumer-products company might start selling its organic cereal in new markets, based on positive marketing research from consumers. Eventually, the organic cereal will start appearing in stores across the country.
- It is common to still increase advertising during the growth phase to promote sales further.

Maturity Phase

- Success often leads to an increase in competition.
- Other companies may eventually start introducing similar products, especially if the initial product is very successful.
- Consequently, the demand for the product and its competitors will peak at some point. Sales growth will start to decline.
- Some companies may lower prices to capture additional market share or new customers.
- At this point, a company may need to develop new products/features/services to differentiate its products from the competition's. e.g. The company that first introduced the product may enhance its customer-service department to establish itself as the service leader in the industry.
- The company's exceptional customer service may be the distinguishing element that draws additional sales and customers.
- The company may then promote its superior customer service in most of its advertising.

Decline Phase

- Demand for the product will eventually decline as newer technologies are introduced.
- Companies can either maintain the product, sell it at heavily reduced prices or discontinue the product.
- A company that maintains the product may continue increasing sales by finding new uses for the product. e.g. A soap manufacturer may discover through market research that restaurants and industrial companies like the cleaning properties of its soap. Subsequently, the company would start selling its soap to both consumers and businesses.
- This type of strategy could help extend the product life.

Example of product life cycle

This example shows how the yoghurt product category has moved through the product life cycle by remixing elements of the marketing mix. examples of stages and how PLC evolved.

Introduction

- Yoghurt available in health food stores.
- Functional and plain packaging.
- Promoted as a health food.

Example of product life cycle

Growth

- Yoghurt available in supermarket chiller cabinets.
- Packaging gets a makeover.
- New flavours introduced; Strawberry and Vanilla.

Maturity

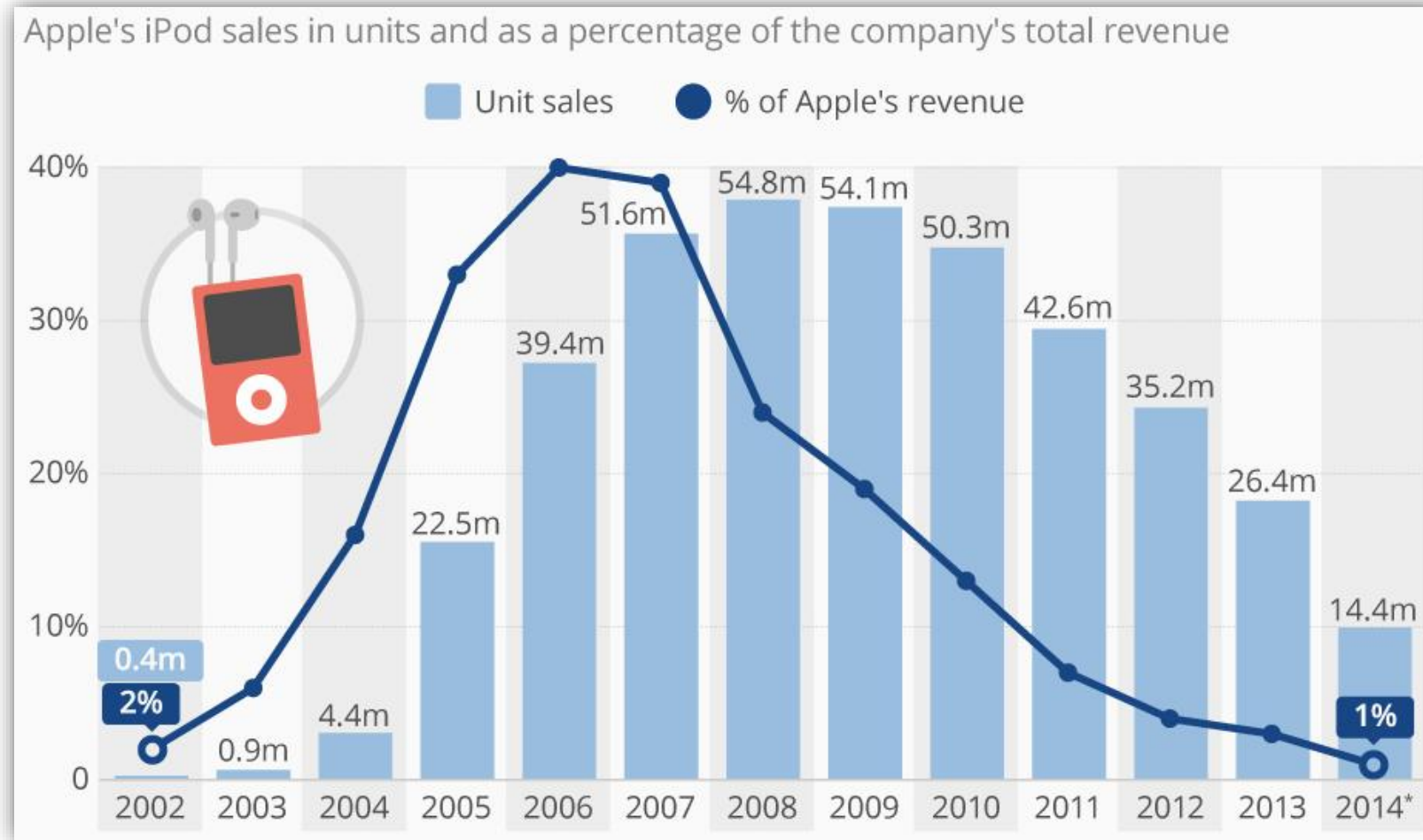
- Product re-invented with added fruit, added muesli, added chocolate.
- Packaging changes into different shapes and sizes.
- Promoted as a fun snack, luxury treat.

Example of product life cycle

Decline

- Not yet.
- A tip is to review customer feedback continuously, to ensure your products don't reach the end of their shelf life.
- Carry out regular customer surveys.
- Get feedback to establish what does work and what does not.
- Determine why it does not work and address the issue.

iPod in Decline



(Statista, 2019)

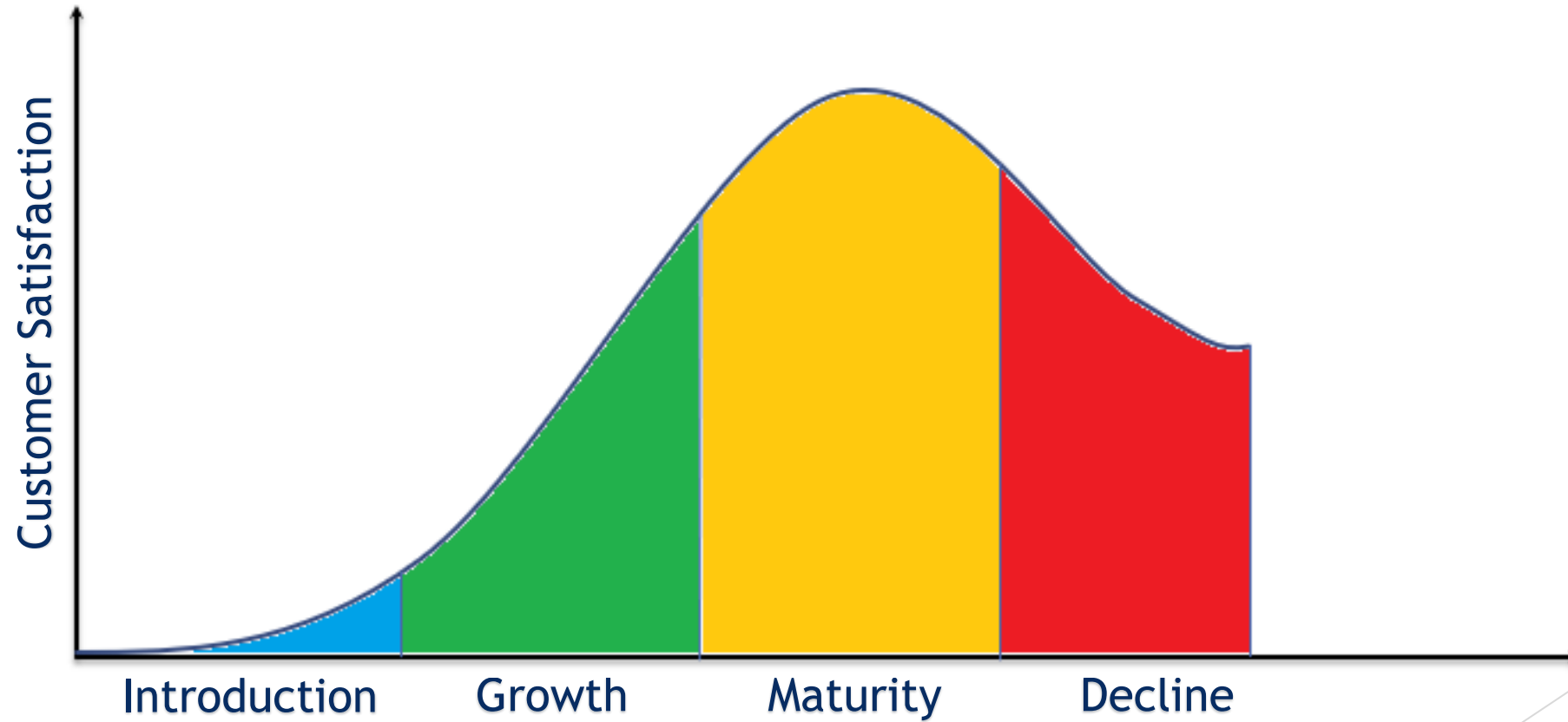
What to Watch for

- If product sales are declining, you need to know why. Products move into decline due to improved offers from competitors, changes in behaviour or because there is no longer a need for the product.
- Failure to manage the risks can result in catastrophic failure for an organisation.

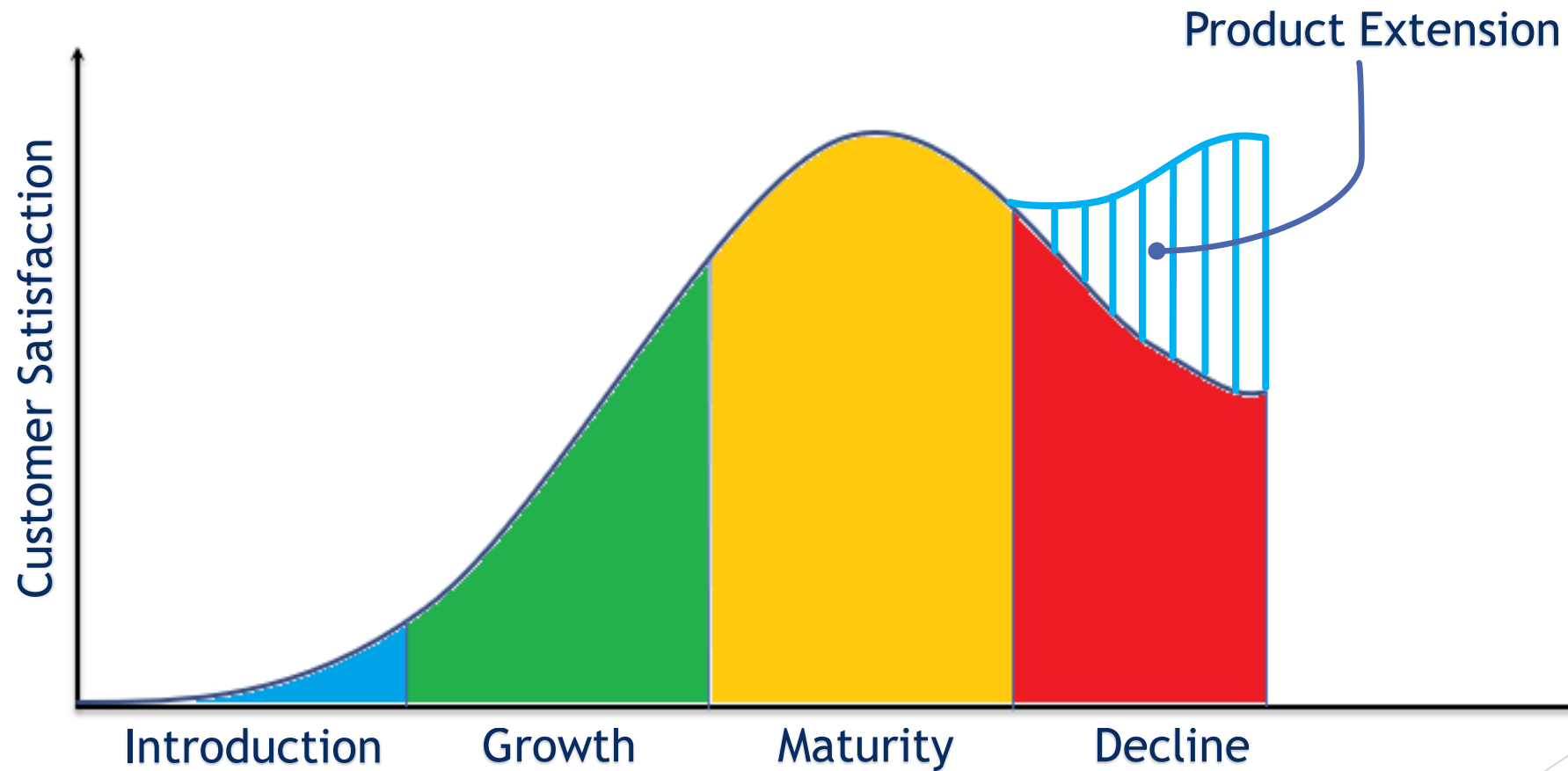
Challenging the Theory

- Many products have been around for generations, and show no signs of decline or death.
- Their survival is a function of keen attention to brand identity and equity. Companies that nurture consumers' impressions of the value the product delivers year after year can stave off its demise indefinitely.
- A well-managed brand can live forever. American Express, Budweiser, Camel, Coca-Cola, thrive in their respective categories after years on the market. Even brands that have died can be reincarnated, though perhaps in more limited distribution.

Product Life Cycle Template



Product Life Cycle Template With Extension



Discussion - 2

Extension Strategy

Consider methods for extension strategy.

e.g. Product - Improved version of the same product

Discussion - 2

Extension Strategy

Consider methods for extension strategy.

Product - Improved version of the same product

Price - Can reduce price of the product to increase/maintain sales

Promotion - Different advertising method

Name - Rebranding of the product

Different Countries - Try a different country to sell

Different Markets - Try a different markets to sell

Selling Method(s) - Can the product be used in a different market?

Packaging - More aesthetically pleasing packaging