

# **WELCOME**

# **Software Product Management**

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# Product Management

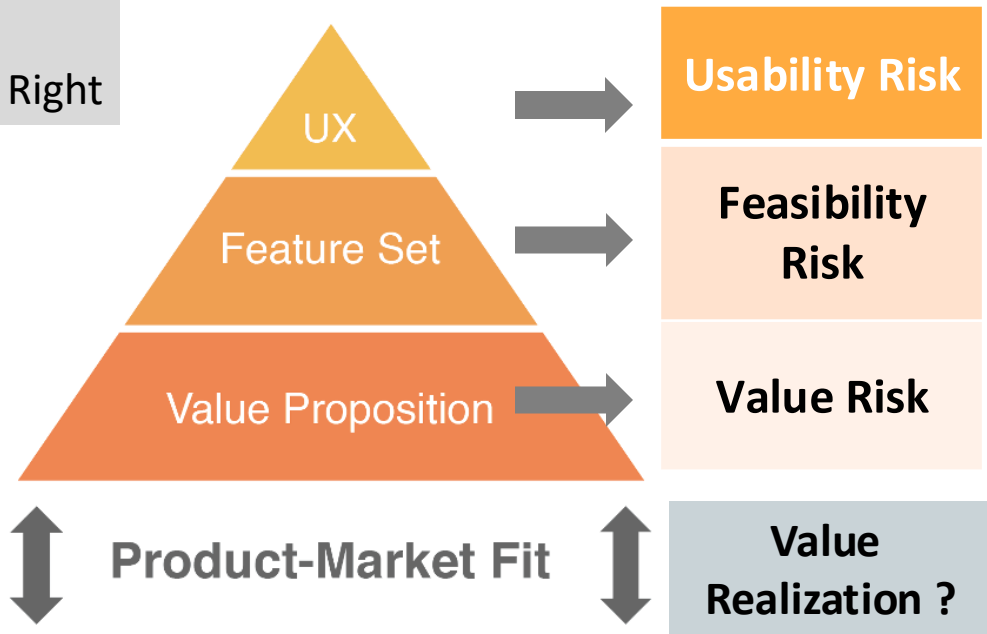
- **"Software Product Management is the discipline and practice of strategically overseeing software product development, delivery, and ongoing enhancement to meet customer needs and business objectives. It involves identifying market opportunities, defining product strategies, collaborating with cross-functional teams, prioritizing features, and ensuring the successful execution of product plans throughout the product lifecycle."**
- **In essence, Software Product Management encompasses the end-to-end process of guiding software products from conception to market launch and beyond, while considering customer requirements, market dynamics, and organizational goals. It involves making decisions, setting priorities, and managing resources to create valuable and successful software products.**

## What did So Far...

- What will happen if you do not manage product?
- Evolution of product/ product companies - Startup, Scale up, Enterprise
- Product Life Cycle - Need to end of Life
- Technology Adoption Cycle Adoption = Need + Access + Affordability
- Good Product team - Tackle risks early – Value, Usability, business Viability, Feasibility
- Types of Product Managers
- The minimum viable product is that version of a new product which allows a team to collect the maximum amount of validated learning about customers with the least effort.”

Build the Right Product & Build the Product Right

Product



Market



Peter Drucker	4. Industry & market changes
1. Unexpected occurrence	5. Demographic changes
2. Incongruities (incompatibilities)	6. Change in perception
3. Process needs	7. New knowledge
8. Social Enterprise 9. Bottom of the Pyramid, 10. Unmet Needs	

Tools for the Product Managers

Sample Users, Observe, Analytics Competition	
POC, Alpha, Beta Prototype Early adopter	
Value - Qualitative Landing page, Crowdfunding, A/B, Partners Competitor analysis, Growth	
Marketing (brand); cost of sales, channel ability, Service (touch?); Profitability, Legal (IP, Privacy), Growth	
MVP Marketing Material Landing page Video Ad Marketing A/B Crowd finding	Wireframe Mockup Interactive Proto Wizard Oz concierge Live product Fake Door Analytics

## Exercise - MVP

You are the Product Manager for SAP HANA Database in 2010 (when it started)

HANA - Large DB, Real-time performance, Analytics

HANA is being developed both for existing customers and for potential customers

**You have been asked to create an MVP roadmap - exploit all MVPs to add value to the product - can we discuss**

the primary focus would be to ensure minimal risk and obtain valuable feedback from both existing and potential customers.

## Exercise - Open CS-4

- 1. Choose a Software Product You Use: ANY**
- 2. Write a Short Description of -purpose and features**
- 3. What Problem Is It Solving? (is it improving productivity, making communication easier, or streamlining a task?)**
- 4. is that an Underserved Need**
- 5. Business Value Proposition: Unique benefits does the company claim to provide through this product?**
- 6. Do You See the Same Value?**
- 7. Measuring the Value: Propose metrics or indicators you would use to measure the value of the product.**  
**For instance, user satisfaction, time saved, ease of use, or increased productivity.**

# Innovation At InnAccel

## Saans



Non-invasive breathing support system for neonatal & pediatric patients in **all settings including transport**.  
**Global patents granted.**

**Impact : 1 MM lives/yr**

- Around the world, birth is a joyous occasion. But for some, a birth is a family tragedy
- The "preventable" challenges faced by mothers-to-be and new mothers are:
  - About 3 million neonatal deaths occur each Year
  - ~ 800 women die every - causes related to pregnancy and childbirth
  - These deaths occur more in low & low-middle-income countries
  - That is "every 11 seconds", a pregnant woman, or newborn dies somewhere in the world.
  - India's neonatal mortality rate is 26 per 1,000 live births, (death occurs in 28 days of life) which is 0.75 M deaths annually.
- It is a "know-do gap", or a gap between what "works" & what is done in "practice".
- Bridge the gap with innovative context-specific adoption and implementation



# **Business Model Canvas**

## **Visual Representation of the Business**

# Business Model Canvas - Visual representation of the Business

## Classic-

1. **Customer Segments:** Defines the target audience. Who are you creating value for?
2. **Value Proposition:** What problem are you solving or what unique value are you providing?
3. **Channels:** How do you deliver your value proposition to customers?
4. **Customer Relationships:** How will you interact with your customers?
5. **Revenue Streams:** How will you make money?
6. **Key Resources:** What assets are required for delivering the value?
7. **Key Activities:** What are the main actions you need to perform?
8. **Key Partnerships:** Who are your partners or suppliers?
9. **Cost Structure:** What are the major costs involved?

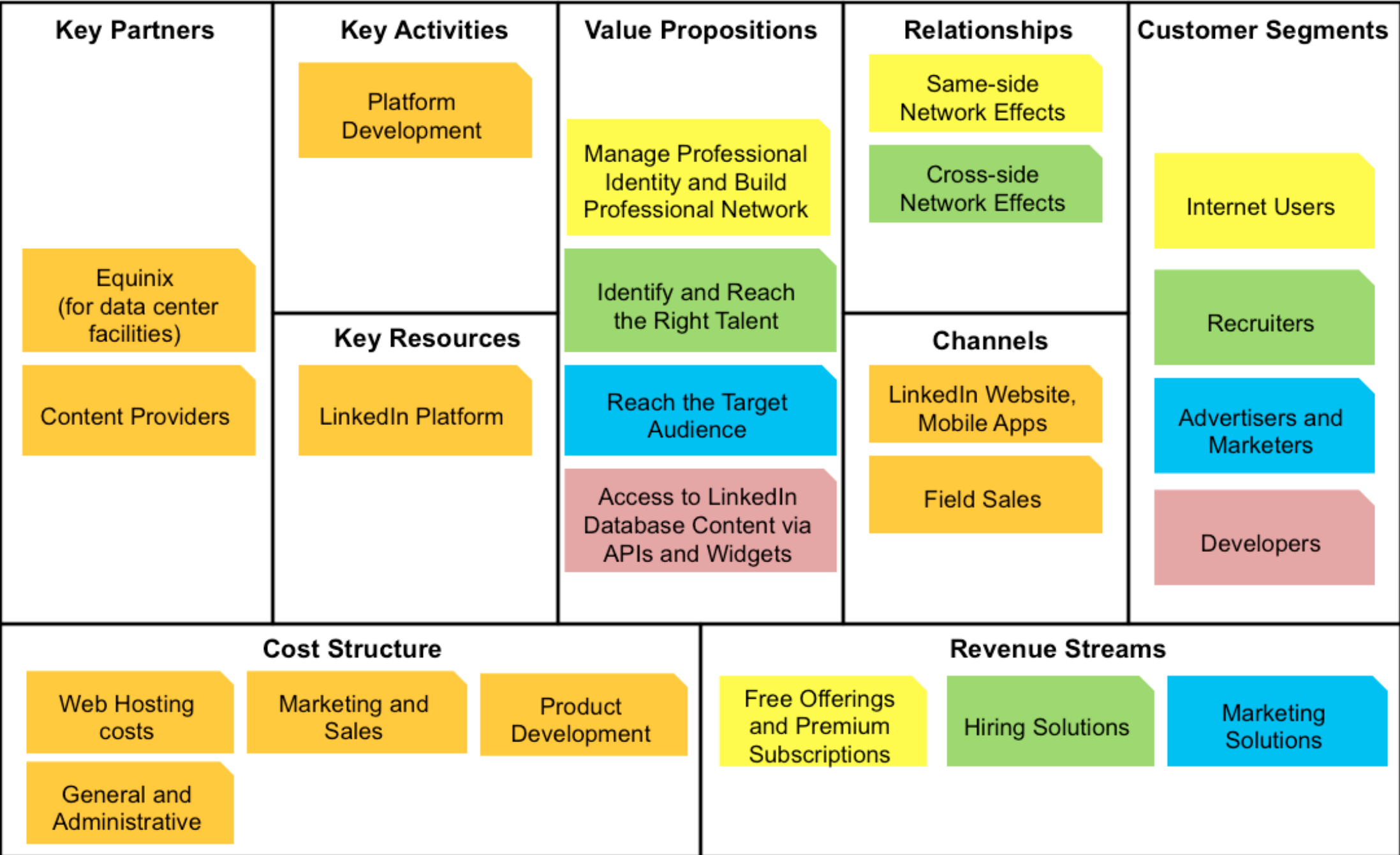
## Lean -

1. **Problem:** What key problem is the product solving?
2. **Customer Segments:** Who are the target customers?
3. **Unique Value Proposition:** What makes your solution different?
4. **Solution:** How are you solving the problem?
5. **Channels:** How do you reach customers?
6. **Revenue Streams:** How will you make money?
7. **Cost Structure:** What are the costs involved?
8. **Key Metrics:** What will you measure to track success?
9. **Unfair Advantage:** What is your competitive edge that is difficult to replicate?

# Classic Model

Key partners	Key activities	Value propositions	Customer relationships	Customer segments
<p>Who are our key partners? Who are our key suppliers? Which key resources are we acquiring from our partners? Which key activities do partners perform?</p>	<p>What key activities do our value propositions require? Our distribution channels? Customer relationships? Revenue streams?</p>	<p>What value do we deliver to the customer? Which one of our customers' problems are we helping to solve? What bundles of products and services are we offering to each segment?  Which customer needs are we satisfying? What is the minimum viable product?</p>	<p>How do we get, keep, and grow customers? Which customer relationships have we established? How are they integrated with the rest of our business model? How costly are they?</p>	<p>For whom are we creating value? Who are our most important customers? What are the customer archetypes?</p>
	<b>Key resources</b>		<b>Channels</b>	
	<p>What key resources do our value propositions require? Our distribution channels? Customer relationships? Revenue streams?</p>		<p>Through which channels do our customer segments want to be reached? How do other companies reach them now? Which ones work best? Which ones are most cost-efficient? How are we integrating them with customer routines?</p>	
<b>Cost structure</b>			<b>Revenue streams</b>	
<p>What are the most important costs inherent to our business model? Which key resources are most expensive? Which key activities are most expensive?</p>			<p>For what value are our customers really willing to pay? For what do they currently pay? What is the revenue model? What are the pricing tactics?</p>	

LinkedIn



# Lean Canvas

Channels can be email, social, ads, blogs, articles, trade shows, radio & TV, webinars etc.

Metrics can be - how many visited, how many signed up, what is the usage, how many continued using

Unfair advantage can be insider information, a dream team, getting expert endorsements, existing customers etc

<b>Problem</b> Top 3 problems	<b>Solution</b> Top 3 features	<b>Unique Value Proposition</b> Single, clear, compelling message that states why you are different and worth buying	<b>Unfair Advantage</b> Can't be easily copied or bought	<b>Customer Segments</b> Target customers
	<b>Key Metrics</b> Key activities you measure		<b>Channels</b> Path to customers	
<b>Cost Structure</b> Customer Acquisition Costs Distribution Costs Hosting People, etc.		<b>Revenue Streams</b> Revenue Model Life Time Value Revenue Gross Margin		
PRODUCT		MARKET		

# **Exercise - Lean Canvas**

## **If you are Developing a Uber APP**

## Problems

1

- Difficulty in finding a clean, reliable and affordable ride in a timely manner

Uber

User's needs

## Solutions

4

- A mobile app that connects riders with nearby drivers, making it easy and convenient to get a ride

Product features? Core function?

## Key Metrics

8

- People downloading the app
- People creating an account
- People making at least one trip
- Number of people making at least 5 trips a month

What is the core business?  
What are the key index  
around the core business?

## Unique Value Proposition

3

- A safe, reliable, and convenient way to get a ride in minutes, without having to worry about cash or hailing a taxi

What differentiated value does the product offer?  
What are the product advantage?  
What are the basic attributes?

## Unfair Advantage

9

- No need to pay the same regulatory fees that other taxis were subject to

Barrier to cost?  
Barrier to channel?  
Barrier to patent?  
Barrier to resource?

## Channels

5

- Mobile app stores
- Social media and online advertising
- Strategic partnerships with businesses and travel companies

In what ways can users be reached?  
How do we reach them?  
How are our channels integrated?

## Customer Segments

2

- Urban dwellers who need to get around the city quickly and easily
- Business travellers who want a reliable and professional ride service
- People who need a ride when public transportation is not available or convenient

Who do we serve?  
Who are our core users?  
Basic attribute segmentation  
Behavioral attribute segmentation

## Cost Structure

7

- Marketing and advertising
- Driver acquisition and retention
- Development and maintenance of the mobile app and backend technology

What are the fixed costs?  
What are the variable costs?

## Revenue Streams

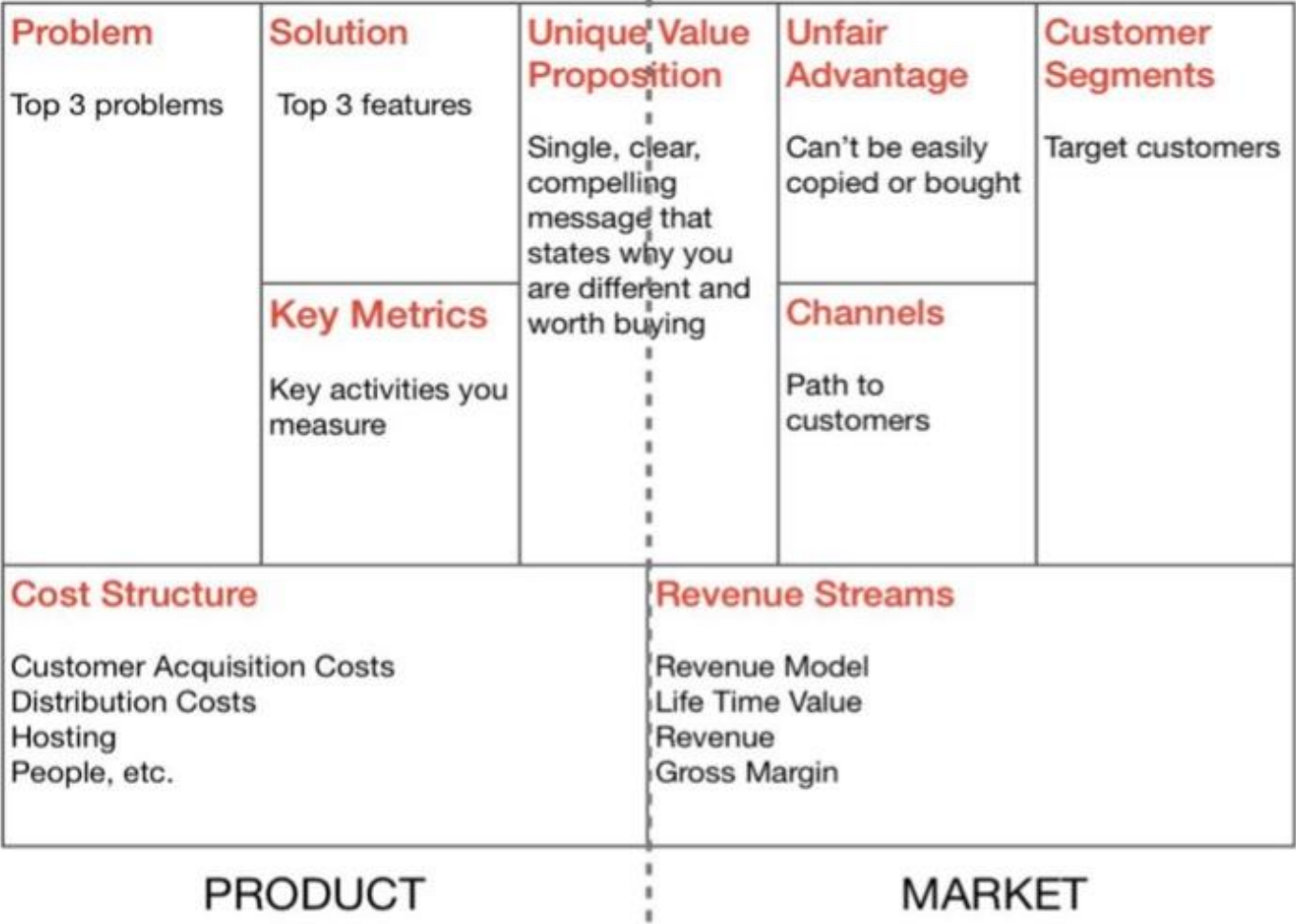
6

- Commission on every ride
- Surge pricing during peak demand times

How much are users willing to pay?  
How would users prefer to pay?



Key partners	Key activities	Value propositions	Customer relationships	Customer segments
Who are our key partners? Who are our key suppliers? Which key resources are we acquiring from our partners? Which key activities do partners perform?	What key activities do our value propositions require? Our distribution channels? Customer relationships? Revenue streams?  <b>Key resources</b>  What key resources do our value propositions require? Our distribution channels? Customer relationships? Revenue streams?	What value do we deliver to the customer? Which one of our customers' problems are we helping to solve? What bundles of products and services are we offering to each segment?  Which customer needs are we satisfying? What is the minimum viable product?	How do we get, keep, and grow customers? Which customer relationships have we established? How are they integrated with the rest of our business? How costly are they?  <b>Channels</b>  Through which channels segments want to be reached? How do other companies do it? Which ones work best? Which ones are most cost effective? How are we integrating routines?	For whom are we creating value? Who are our most important customers?
<b>Cost structure</b>		<b>Revenue streams</b>		
What are the most important costs inherent to our business model? Which key resources are most expensive? Which key activities are most expensive?		For what value are our customers willing to pay? For what do they currently pay? What is the revenue model? What are the pricing tactics?		



What is Missing?



Focus:.	Broad, covering all elements of a business	Startup-centric, focusing more on problem-solving and customer discovery. .
Components	Key Partners, Key Activities, Key Resources, Value Proposition, Customer Relationships, Channels, Customer Segments, Cost Structure, and Revenue Streams.	Modified to focus on risk by replacing sections like Key Partners with <b>Problem, Solution, Unfair Advantage</b> , and <b>Key Metrics</b> .
Audience:	Typically used by established businesses and startups to outline their entire model	More suited for early-stage startups testing ideas in high-uncertainty environments

Key Differences:

- **Problem-Solution Fit:** Lean Canvas emphasizes the problem and solution more, highlighting what pain point the startup is solving.
- **Unfair Advantage:** Lean Canvas includes this unique element to help startups think about their differentiators early on.
- **Risk Focus:** Lean Canvas focuses on identifying and minimizing risk, especially around product-market fit, making it more agile.

In short, the **Classic BMC** is broader and more comprehensive for existing businesses, while the **Lean Canvas** is optimized for startups in the idea-validation phase.



# Product Management - Contrast

In the beginning - Uber

In the beginning - Ola

# Unknown Territory vs Reference Model

## Key Differences:

### 1. Risk Appetite:

1. **Unknown Territory:** Requires a **higher tolerance for risk**, as you're exploring unproven ideas.
2. **Reference Model:** Lower risk, but the challenge lies in **optimization and differentiation**.

### 2. Learning Curve:

1. **Unknown Territory:** You'll need to **educate both yourself and the market**, as many solutions have never been tried before.
2. **Reference Model:** There's already a learning curve established, so your focus shifts to **improving existing models**.

### 3. Decision-Making:

1. **Unknown Territory:** Decision-making is based on **hypotheses**, market experiments, and **educated guesses**.
2. **Reference Model:** Decisions are more **data-driven**, as you can benchmark against existing successes and failures.

### 4. User Education:

1. **Unknown Territory:** Educating the market on a new product or service is critical.
2. **Reference Model:** Your users are often familiar with the product category, so **conversion and retention** become the focus.

# Scope of the assignment

Product Management methodologies - evolution, industry

Product Management with AI

Evolution of Product Metrics - types, insight and impacts

Product failure analysis - in-depth analysis & potential remediation

Product Success analysis

Product Ideation

Product Pivots

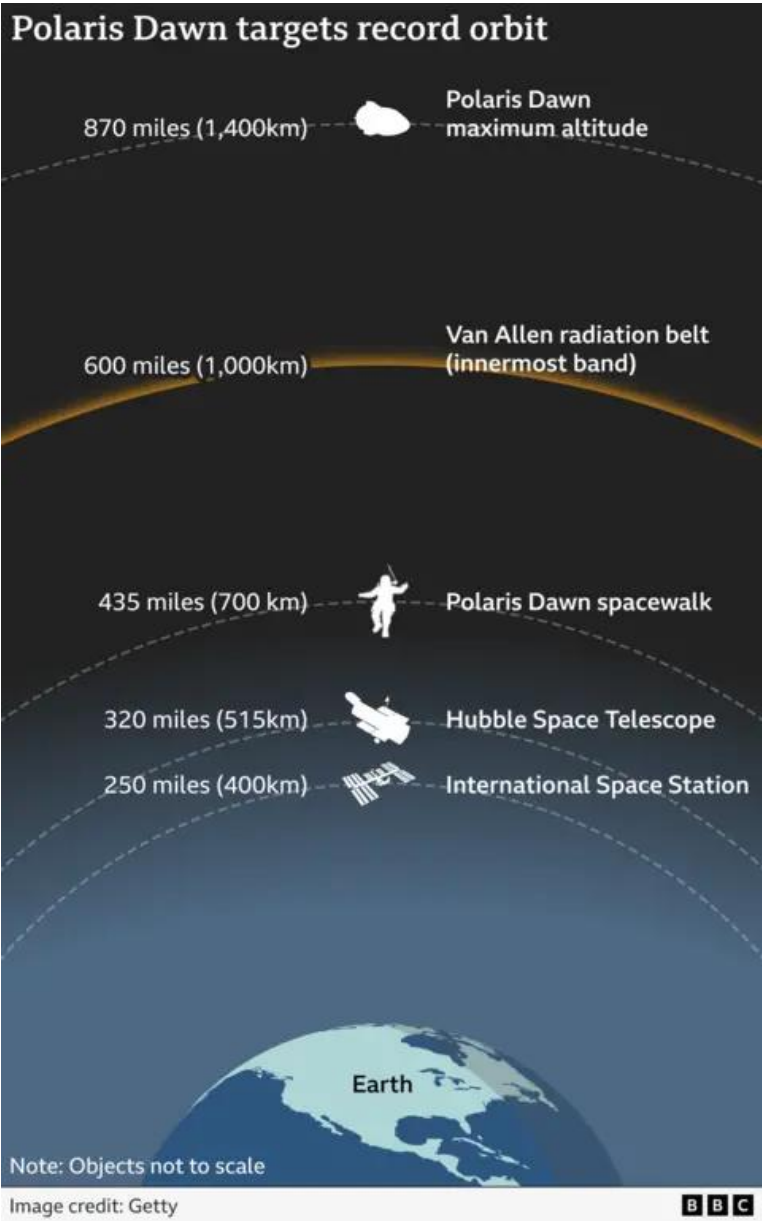
**Choose the Topic and give a brief description**

**Report due by Session 9 & Potential Viva in Session 10**

# Product Management - Contrast

SpaceX - Commercial Space Walk

Uber - Urban Mobility



## SpaceX Civilian Spacewalk:

**Safety-Critical:** Ensuring **life-or-death** safety systems are flawless.

**Complex Technology:** Managing cutting-edge space tech, safety protocols, and life support systems.

**User Experience for Civilians:** Designing an experience for non-experts in an extreme environment.

**Regulation and Compliance:** Stringent aerospace regulations and government involvement.

## **Uber Ride:**

**Customer Convenience:** Focuses on optimizing the user app experience and transportation logistics.

**Scalability:** Managing a highly scalable global platform.

**User Safety:** Ensuring driver and rider safety through less critical but still important measures.

In summary, **SpaceX's role** is far more focused on **technical precision, safety, and mission-critical systems**, while **Uber's role** is centered on **user convenience, efficiency, and scalability**. Both require cross-functional collaboration but with very different stakes.