

Case Study 1: AI-Based Personalized Learning Platform (EdTech Startup)

Business Idea

An AI-powered platform that provides personalized learning paths for university students.

Lean Canvas Element	Description
Problem	Students receive generic learning materials; instructors struggle to personalize learning; low engagement in online courses.
Customer Segments	University students, universities, online learners, lecturers.
Unique Value Proposition	"Personalized learning powered by AI that adapts to every student's pace."
Solution	AI tutor, adaptive quizzes, personalized study plans, learning analytics dashboard.
Channels	University partnerships, social media, app stores, educational conferences.
Revenue Streams	Monthly subscription, institutional licenses, premium AI tutoring, certification fees.
Cost Structure	AI development, cloud hosting, software engineers, marketing, customer support.
Key Metrics	Monthly active users, course completion rate, subscription renewal, learning improvement score.
Unfair Advantage	Proprietary AI recommendation engine trained using educational performance data.

Discussion Questions

- How does AI create customer value?
 - What are the biggest risks?
 - How can customer acquisition costs be reduced?
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Case Study 2: Halal Food Delivery Platform

Business Idea

A mobile app connecting Muslim consumers with verified halal restaurants and grocery stores.

Lean Canvas Element	Description
Problem	Difficulty finding trusted halal restaurants; uncertainty about halal certification; limited delivery options.
Customer Segments	Muslim families, tourists, students, halal restaurants.
Unique Value Proposition	"Trusted halal food delivered with verified certification."
Solution	Certified halal directory, food delivery, GPS search, digital halal verification, loyalty rewards.
Channels	Mobile app, influencers, Islamic organizations, social media, referral programs.
Revenue Streams	Delivery commissions, restaurant subscriptions, featured listings, advertising.
Cost Structure	App development, delivery logistics, payment processing, marketing, certification verification.
Key Metrics	Number of orders, customer retention, average order value, restaurant partnerships.
Unfair Advantage	Exclusive partnerships with halal certification bodies and trusted restaurants.

Discussion Questions

- How important is trust in this business?
 - What partnerships are essential?
 - Which revenue model is most sustainable?
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Case Study 3: Smart Agriculture IoT Solution

Business Idea

IoT sensors and AI analytics helping farmers optimize irrigation and fertilizer use.

Lean Canvas Element	Description
Problem	Water wastage; unpredictable crop yields; inefficient fertilizer use; high operating costs.
Customer Segments	Small farmers, commercial farms, agricultural cooperatives, government agencies.
Unique Value Proposition	"Grow more while using less water and fertilizer."
Solution	Soil sensors, weather prediction, AI recommendations, mobile dashboard, automated irrigation alerts.
Channels	Agricultural exhibitions, government programs, distributors, farmer cooperatives.
Revenue Streams	Hardware sales, SaaS subscription, maintenance services, consulting.
Cost Structure	Sensor manufacturing, cloud infrastructure, R&D, field support, software maintenance.
Key Metrics	Sensor installations, crop yield improvement, subscription renewal, water savings.
Unfair Advantage	Proprietary predictive agriculture algorithms and local climate datasets.

Discussion Questions

- Which customer segment should be targeted first?
 - What barriers exist for technology adoption?
 - How can recurring revenue be increased?
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Case Study 4: Sustainable Fashion Marketplace

Business Idea

An online marketplace for eco-friendly clothing brands.

Lean Canvas Element	Description
Problem	Consumers cannot easily identify sustainable fashion; limited visibility for ethical brands; greenwashing concerns.
Customer Segments	Environmentally conscious consumers, sustainable fashion brands, designers.
Unique Value Proposition	"One trusted marketplace for verified sustainable fashion."
Solution	Verified sustainability ratings, online marketplace, carbon footprint information, resale options.
Channels	Social media, fashion influencers, sustainability events, SEO, email marketing.
Revenue Streams	Sales commission, premium brand memberships, advertising, affiliate marketing.
Cost Structure	Website development, verification process, marketing, payment systems, customer support.
Key Metrics	Gross merchandise value, repeat purchases, customer acquisition cost, brand onboarding.
Unfair Advantage	Independent sustainability verification framework and strong ethical brand network.

Discussion Questions

- How can the marketplace build consumer trust?
 - What is the greatest competitive advantage?
 - Which customer segment should be prioritized?
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Comparison of the Four Lean Canvas Models

Industry	Primary Customer	Revenue Model	Key Innovation	Main Competitive Advantage
AI Education	Students & Universities	Subscription + Licensing	Personalized AI learning	Proprietary AI recommendation engine
Halal Food Delivery	Muslim Consumers	Commission + Advertising	Verified halal ecosystem	Trusted certification partnerships
Smart Agriculture	Farmers	Hardware + SaaS	IoT + AI precision farming	Predictive analytics with local data
Sustainable Fashion	Eco-conscious Consumers	Marketplace Commission	Verified sustainable shopping	Independent sustainability verification

Suggested Classroom Activities

1. Identify the riskiest assumption in each Lean Canvas.
2. Propose a minimum viable product (MVP) for each business.
3. Compare the business models and discuss how the **Unique Value Proposition** differs across industries.
4. Recommend one improvement to each canvas based on customer feedback.
5. Ask student teams to create an updated Lean Canvas after conducting customer interviews.

These four case studies span **education, food delivery, agriculture, and e-commerce**, giving students diverse examples of how the Lean Canvas framework can be applied across industries while emphasizing customer problems, value creation, and startup experimentation.