

Business Model Canvas

Designed for:

Designed by:

Date:

Version:

Key Partners

Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform?

MOTIVATIONS FOR PARTNERSHIPS: Optimization and economy, Reduction of risk and uncertainty, Acquisition of particular resources and activities

Key Activities

What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams?

CATEGORIES: Production, Problem Solving, Platform/Network

Key Resources

What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships Revenue Streams?

TYPES OF RESOURCES: Physical, Intellectual (brand patents, copyrights, data), Human, Financial

Value Propositions

What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying?

CHARACTERISTICS: Newness, Performance, Customization, "Getting the Job Done", Design, Brand/Status, Price, Cost Reduction, Risk Reduction, Accessibility, Convenience/Usability

Customer Relationships

What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they?

Channels

Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels integrated? Which ones work best? Which ones are most cost-efficient? How are we integrating them with customer routines?

Customer Segments

For whom are we creating value? Who are our most important customers? Is our customer base a Mass Market, Niche Market, Segmented, Diversified, Multi-sided Platform

Cost Structure

What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive?

IS YOUR BUSINESS MORE: Cost Driven (leanest cost structure, low price value proposition, maximum automation, extensive outsourcing), Value Driven (focused on value creation, premium value proposition).

SAMPLE CHARACTERISTICS: Fixed Costs (salaries, rents, utilities), Variable costs, Economies of scale, Economies of scope

Revenue Streams

For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?

TYPES: Asset sale, Usage fee, Subscription Fees, Lending/Renting/Leasing, Licensing, Brokerage fees, Advertising
FIXED PRICING: List Price, Product feature dependent, Customer segment dependent, Volume dependent
DYNAMIC PRICING: Negotiation (bargaining), Yield Management, Real-time-Market

Business Model Canvas

Designed for:

Capstone Project

Designed by:

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Date:

04/07/2024

Version:

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Key Partners

Key Suppliers: Suppliers of FPGA devices, embedded devices (e.g., Raspberry Pi), and necessary hardware components.

Key Activities performed by Partners: Providing necessary hardware components, technical support, and potential collaboration in research and development.

Key Activities

FPGA ML accelerator implementation.

Optimization of accelerator allocation and request processing policies.

Transmission of images from end devices to the FPGA edge node.

Key Resources

Physical resources: FPGA devices, embedded devices, development boards, development software.

Intellectual resources: FPGA design tools, ML algorithms, optimization algorithms.

Human resources: Researchers, developers, technical experts.

Value Propositions

Energy-efficient acceleration of vision algorithms for edge computing systems.

Enhanced performance and efficiency compared to GPU-based accelerators.

Potential cost savings and increased processing speed.

Customer Relationships

Establishing and maintaining relationships with customers through technical support, updates on project progress, and addressing any concerns or issues.

Integration with the rest of the business model through customer feedback and continuous improvement.

Channels

Channels for reaching customer segments may include direct sales, partnerships with technology distributors, and online marketing.

Integration of channels with customer routines may involve providing tutorials, technical documentation, and customer support services.

Customer Segments

Potential customers include companies or organisations involved in edge computing, IoT (Internet of Things), and image processing applications.

Cost Structure

Fixed costs: Salaries, hardware purchases, development tools.

Variable costs: Maintenance, marketing, customer support.

Economies of scale: Bulk purchases of hardware components, efficient resource utilisation.

Revenue Streams

Revenue from the sale of FPGA devices and related hardware components.

Potential revenue from licensing ML algorithms or offering subscription-based services.

Advertising revenue from marketing the project and related services.

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