Doordash: Automated Delivery Management

Enhancing Efficiency with Self-Driving Control

Product Owner: Abdalaziz Aldultli

Background

Why Are We Here?

- Revolutionizing Food Delivery with Automation
- Enhancing Efficiency and Reliability
- Embracing Self-Driving Technology for Short-Distance Deliveries

"Empowering Delivery, Redefining Convenience"

Business Case

Initial Focus

Where are we starting?

Why We Chose This Focus: Aligned with company goals of improving efficiency and addressing key pain points.

The Pain: High delivery costs and inconsistent service due to manual processes and resource inefficiencies.

Metrics: The average delivery cost globally is $6.4 per cubic meter, with **14%** of deliveries experiencing delays. (Statista)

Potential Causes: Manual routing processes and suboptimal resource allocation contribute to inefficiencies.

Call to Action: Implement automated routing and optimize resource allocation using data insights to enhance efficiency and reduce costs. This approach will drive operational improvements and enhance customer satisfaction.

Opportunity

What's the problem?

Market Perspective:

- The global food delivery market has become a global market worth more than $150 billion, having more than tripled since 2017.

Competitive Landscape:

- Competitors like UberEats and Grubhub are investing in technology-driven solutions to optimize delivery processes.

Company Goal:

- Our goal is to leverage automation and technology to optimize operations, reduce costs, and enhance customer satisfaction, positioning ourselves for growth in this dynamic market.

Proposal

What's Our Solution?

Key Functionality:

Automated Routing

Real-time Tracking

Remote Intervention

Data Analytics

Objectives:

Cost Reduction

Enhanced Efficiency

Improved Customer Experience

Return On Investment

What can we do?

Estimated Costs and ROI Projection

Costs: (FinModelsLab)

- **Development Costs: $200,000**

- **Implementation Costs: $150,000**

Revenue and Cost Savings: (Yahoo!Finance)

•**Cost Savings per Delivery = $10×0.20 = $2.**

•**Total Annual Cost Savings = $2×100,000 = $200,000**

•**Additional Annual Revenue= $1,000,000×0.10 = $100,000**

•**Total Impact= $200,000+$100,000 = $300,000**

Return on Investment (ROI):

•**ROI (%) = −14.29%**

Annual ROI: ≈ 85.71%

 achieving ROI: 1.17 years

Measurement

How will we know if we're successful?

Cost Reduction

Customer Satisfaction

Delivery Efficiency

Success Criteria

Achieve Cost Savings

Improve Delivery Efficiency

Increase Customer Satisfaction

Competitors

Uber eats

Uber Eats is a prominent player in the food delivery industry, offering a convenient platform for ordering food from a wide range of restaurants and eateries.

- **Key Features of Uber Eats:**

1. **Restaurant Partnerships**

2. **User-Friendly App Interface:**

3. **Delivery Options**

4. **Promotions and Discounts:**

Market Penetration:
• Uber Eats has achieved significant market penetration in numerous cities globally, leveraging the widespread popularity of the Uber brand and its established ride-sharing network.

Revenue and Growth 2017-2023:
• In 2023, Uber Inc. generated approximately 12.2 billion U.S. dollars in revenues in its 'Delivery' segment, which includes Uber Eats and Uber Direct. This figure constitutes an increase compared to the previous year's revenues of 10.9 billion dollars.

Our Advantages

Why are we better?

Why Choose Our Product Over Competitors like Uber Eats?

1. **Tailored Automation for Short-Distance Deliveries**

2. **Advanced AI-Driven Routing and Remote Intervention**

3. **Dedicated Customer-Centric Features**

4. **Data-Driven Optimization and Cost Efficiency**

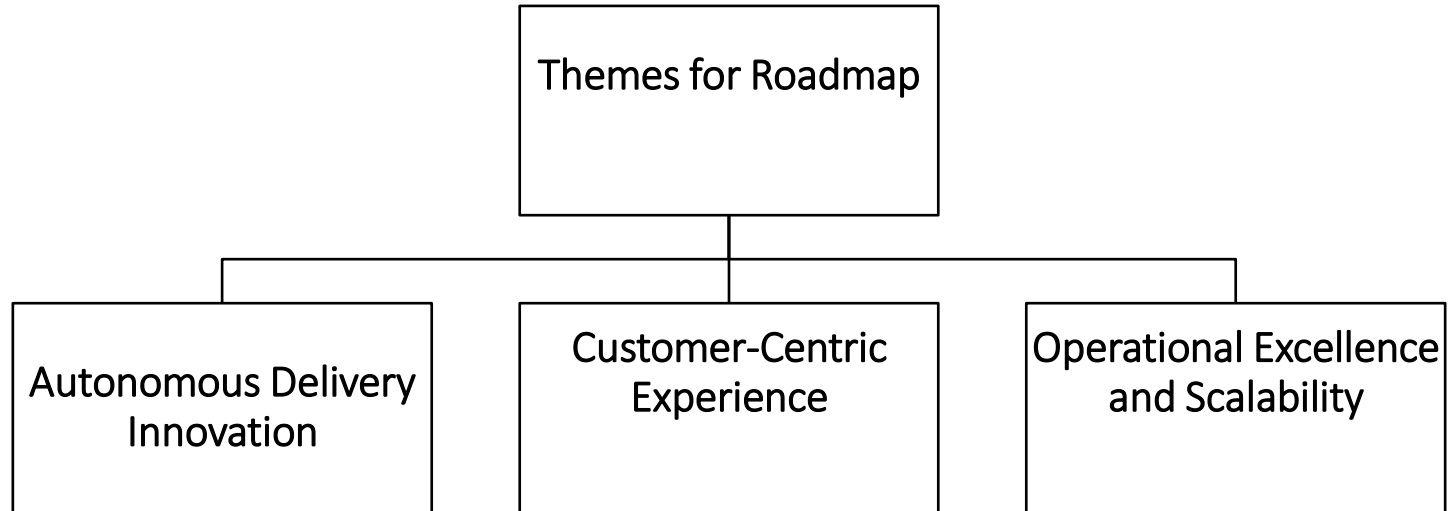5. **Focused Innovation and Market Differentiation**

Roadmap and Vision

Roadmap Pillars

Where do we go from here?

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                    │  Themes for Roadmap │
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| Autonomous Delivery Innovation | Customer-Centric Experience | Operational Excellence and Scalability |

Autonomous Delivery Innovation

Advancing Self-Driving Technology

1. **Enhanced Obstacle Avoidance:**

   Develop advanced obstacle detection and avoidance capabilities for self-driving robots. Implementing robust sensors and AI algorithms to navigate complex urban environments safely and efficiently, reducing the need for manual intervention.

2. **Dynamic Path Planning:**

   Implement dynamic path planning algorithms that can adapt in real-time to changing traffic conditions, road closures, or unexpected obstacles. This feature ensures optimal delivery routes and minimizes delivery times, enhancing overall operational efficiency.

Customer-Centric Experience

Real-Time Tracking and Communication

1. **Precise Real-Time Tracking:**

   Implement accurate real-time tracking of delivery robots on the customer-facing interface. Customers can track the exact location of their delivery in real-time, enhancing transparency and reducing uncertainty.

2. **Interactive Communication Channel:**

   Develop an interactive communication channel between customers and delivery robots. This feature allows customers to communicate specific delivery instructions or preferences directly to the robot, ensuring personalized and efficient service.

Operational Excellence and Scalability

Optimized Resource Allocation

1. **Data-Driven Resource Optimization:**

   Implement data analytics tools to analyze delivery patterns, demand fluctuations, and traffic conditions. Use these insights to optimize resource allocation, including robot deployment and scheduling, to maximize efficiency and minimize operational costs.

2. **Automated Fleet Management:**

   Develop an automated fleet management system that dynamically assigns tasks and optimizes routes based on real-time data. This feature streamlines operations, reduces idle time, and enhances overall fleet productivity.

Where do we go from here?

Widening the scope

Market
Expansion

Global
Deployment

Innovative
Customer
Engagement

Integrated
Mobility
Solutions

Sustainable
Delivery
Ecosystem