Market Research and Competitive Analysis of the Smart Parking Management Systems

Phase 3: Primary Research

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for

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Problem Statement: What if drivers are offered parking spots that are more affordable and secure, and parking providers are offered real-time dynamic parking pricing and a more reliable payment system?

Part 1 – Define Target Respondents

According to the Primary and Secondary Research that I conducted, the following are the top 5 stakeholders associated with my problem statement while accessing a sustainable solution:

Stakeholder	Relevance
Daily Commuters	Frequent users of street or lot parking — high frustration, behavior-driven insights
Apartment Residents	Have long-term needs; care about security, consistency
Garage Managers	Know occupancy trends, pricing tactics, and system flaws
City Planners	Care about infrastructure impact, enforcement, data
NYC Municipality	Gatekeepers of policy, pilot approvals, public expectations

Part 2 – Develop Survey/Questionnaire

After rigorous brainstorming, the following questions were developed to perform a Bias-Free Survey/Questionnaire environment:

Experience

- "How often do you have trouble finding a parking spot?"
- "Where do you usually park — street, garage, private lot?"
- "On average, how much time do you spend looking for parking?"

Value Perception

- "Would you pay extra for parking that is secure and monitored?"
- "What would make a parking spot feel safe and convenient for you?"

Tech Adoption

- "Have you used any parking apps? If yes, what was your experience?"
- "What are 2–3 must-have features in a parking app or system?"

Pain Points

- "What challenges do you regularly face while parking?"
- "Are there areas or times when parking becomes particularly frustrating?"

Pricing Sensitivity

- "What's the maximum extra amount you'd be willing to pay for a guaranteed spot during busy hours?"

- “Would a pay-per-minute model, flat fee, or dynamic pricing feel most fair to you?”

Future Outlook

- “If a device automatically verified your parking and charged you securely, how would that change your experience?”

Link to the survey: Link

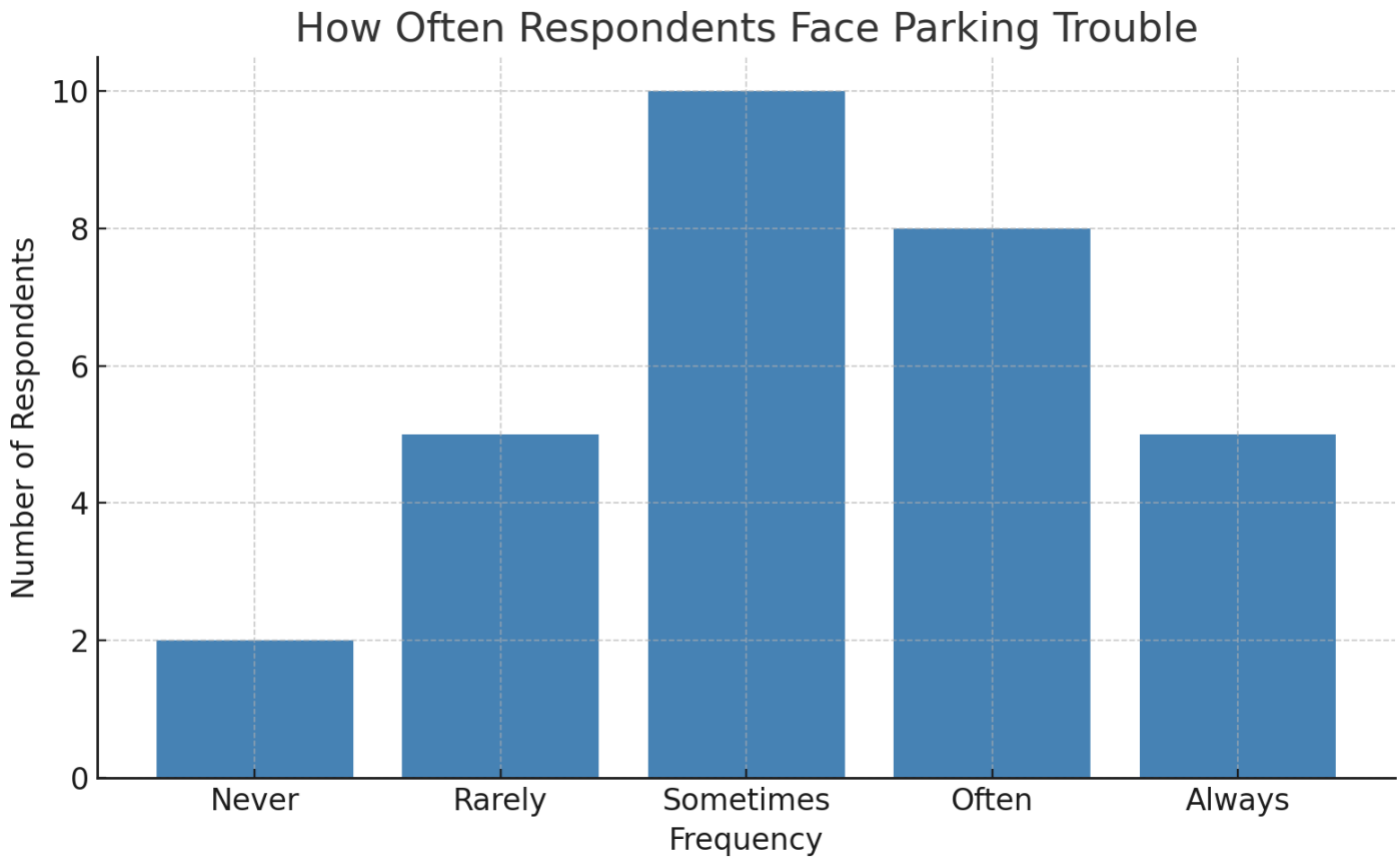
Part 3 – Results of the Primary Research

Category	Common Response	Stakeholder	Targeted Area	Insights
Pain Point	"I don't feel safe parking in dim garages near my home"	Resident	Safety, Location	Emotional blocker to adoption
Feature Need	"It would help to know if a spot is truly empty before arriving"	Commuter	Realtime, Availability	Feature Priority
Behavior Trigger	"If I could pre-book, I'd happily pay $5 to skip circling"	Commuter	Prebook, Willingness	Price Sensitivity Insights
System Friction	"It's frustrating when one app works for one garage but not another"	Commuter	Fragmentation	Platform Opportunity (Aggregation)

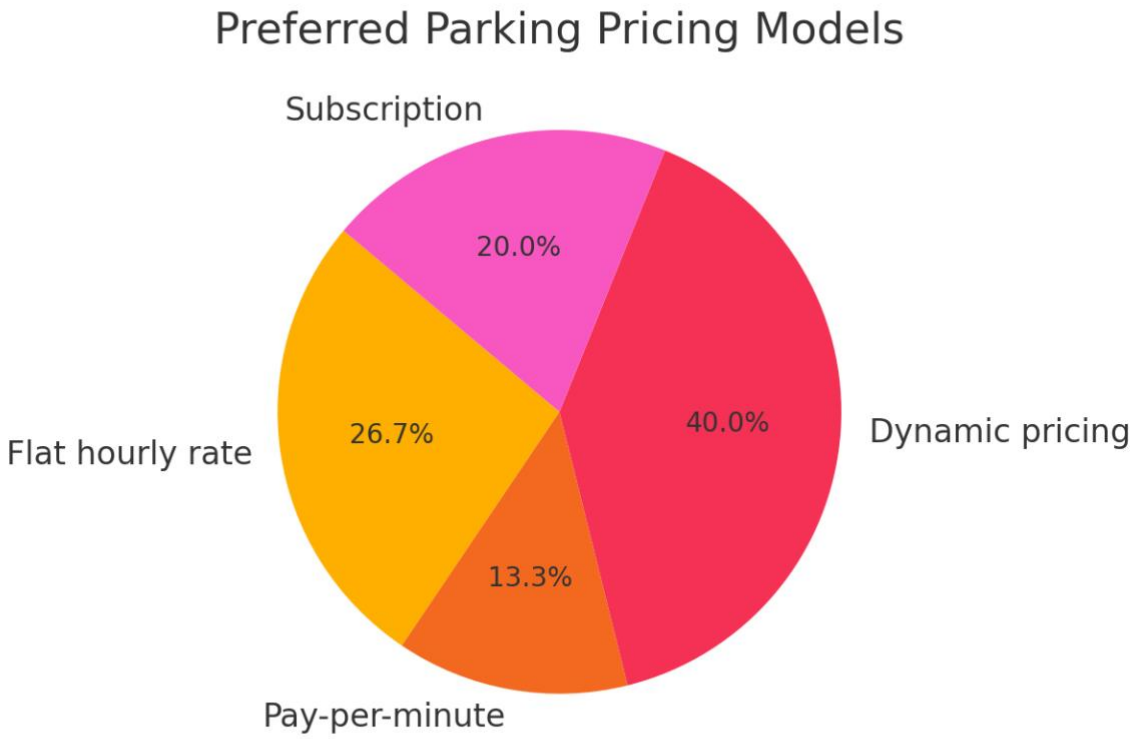
Policy Barrier	“We need pilot tech to comply with ADA and privacy code”	NYC Municipality/ City Planners	Compliance, Privacy	Legal and Stakeholder Framing

Visual Representation of Responses and Insights from the Research:

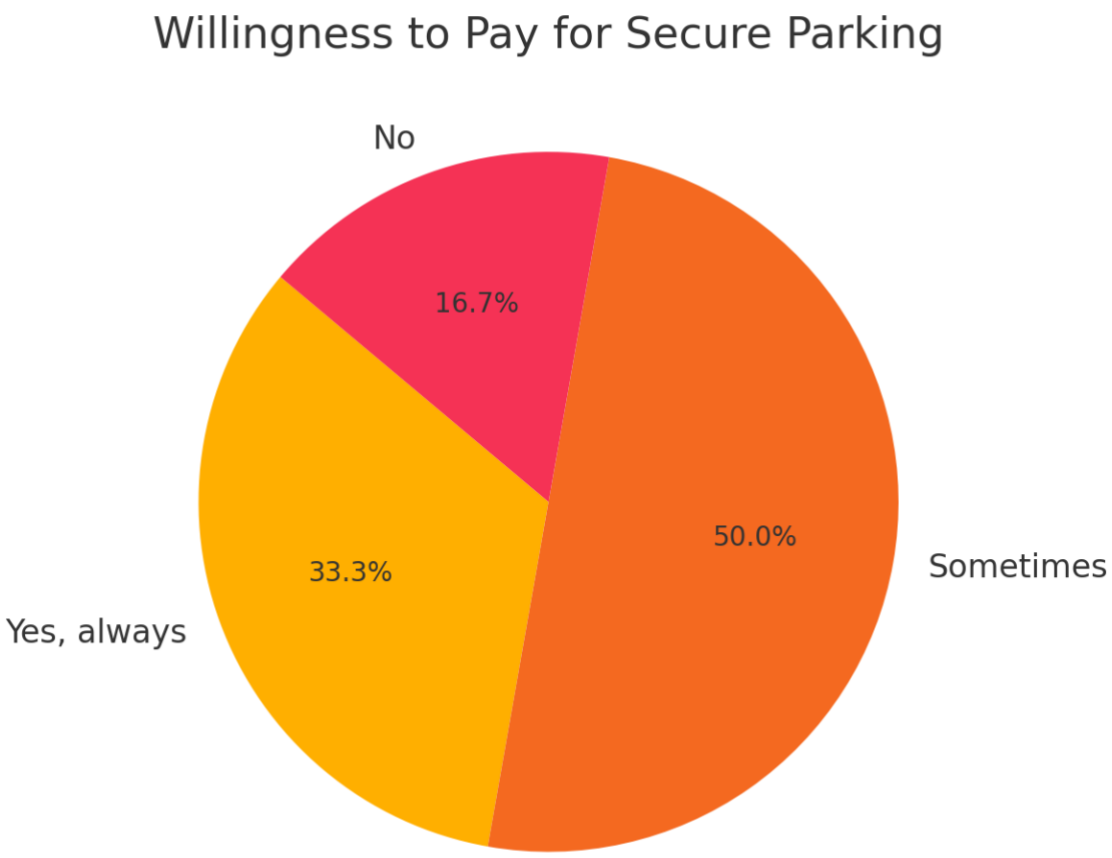
1)



2)


Preferred Parking Pricing Models
Subscription
20.0%
Flat hourly rate
26.7%
40.0%
Dynamic pricing
13.3%
Pay-per-minute

3)


Willingness to Pay for Secure Parking
No
16.7%
50.0%
Sometimes
33.3%
Yes, always