Google Maps

Overview & Market Sizing

About

Google Maps is a popular mapping and navigation service developed by Google on Feb 8, 2005. It is available on both desktop and mobile platforms, and has become a go-to resourc for millions of people around the world to find directions, explo new areas, and discover local businesses

Key Statistics

1B+ users/ month

220+ countries & 50+ languages

10M+ business listings

220M+ User ratings & reviews

200M+ Places searched

Top Competitors

Waze

Apple Maps

Maps.me

Here WeGo

MapmyIndia

Market Growth & Size

- **Market Growth**: The global digital asset management market is projected to grow from USD 24.9 billion in 2023 to USD 47.8 billion in 2029.
- **CAGR**: Expected to grow at a compound annual growth rate (CAGR) of 11.1% from 2023 to 2029.
- **Regional Contributions**: Major contributions from North America, Europe, Asia-Pacific, Middle-East Africa, and Latin America.
- **Positive Trend**: Strong growth potential makes this sector attractive for investment and strategic planning.

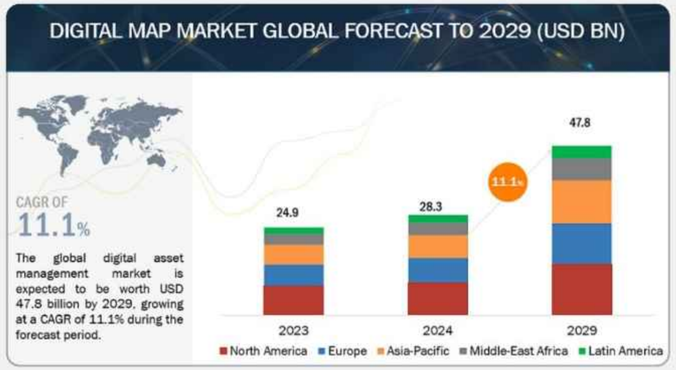


Figure 1: Digital Map Market Size, 2023-2029 (USD Billion)

Revenue Per Download

- **Growth and Decline (2017-2020)**: Revenue rose from $1.32 in 2017 to $1.99 in 2019, then fell to $1.70 in 2020.
- **Stabilization (2021-2023)**: Revenue stabilized around $1.83-$1.86.
- **Consistent Growth (2024-2027)**: Revenue increased steadily, reaching $2.24 in 2027.
- **Overall Trend**: Significant growth over the decade, indicating successful monetization strategies.

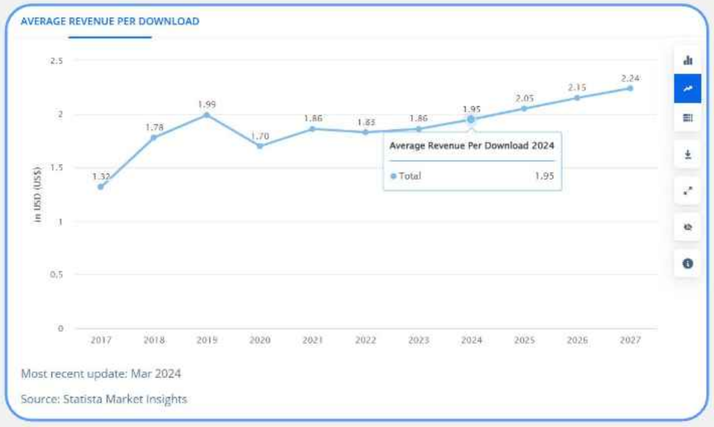


Figure 2: Average Revenue per Download, 2017-2027 (USD $)

User Personae

Ravi Deshmukh | 28yrs | Travel Blogger

Pain Points :

- Difficulty finding specific locations in large complexes.
- Feeling unsafe in unfamiliar areas, especially when traveling alone.
- Generic directions that are hard to follow in busy or complex environments.

Needs :

- Reliable navigation in unfamiliar cities.
- Indoor navigation in large complexes like airports and shopping malls.
- Safety alerts while traveling, especially in unfamiliar areas.

Goals :

- Navigate efficiently and safely through new environments.
- Minimize travel-related stress and uncertainty.
- Ensure personal safety while traveling.

Sarah | 38 yrs | The Concerned Parent

Pain Points :

- Anxiety about driving through unsafe neighborhoods.
- Difficulty in understanding traditional navigation instructions.
- Concerns about family safety during road trips or daily commutes.

Needs :

- Reliable navigation to various locations, including schools, parks, and friends' houses.
- Peace of mind regarding safety, especially when driving with her children.
- Clear and easy-to-understand directions.

Goals :

- Ensure the safety of her family during car trips.
- Reduce stress while driving and navigating new areas.
- Teach her children about road safety and navigation.

Amit Sharma | 24 yrs | College Student

Pain Points :

- Finding specific offices or stores within large malls, tech parks, and corporate complexes is often time-consuming and confusing.
- Navigating through certain parts of the city can raise safety concerns, especially during late hours.

Needs :

- Directions that use well-known landmarks for easier and more intuitive navigation.
- Alerts about potential safety concerns along the route and quick access to nearby emergency services.

Goals :

- Ensure personal safety by avoiding high-crime areas and being aware of nearby emergency services.
- Find parking spaces, entrances, and specific locations within large buildings easily.

Solution 1 : AI-powered Landmark identification

Feature Overview:

Enhanced Voice Navigation with Landmark Recognition integrates easily identifiable landmarks into turn-by-turn voice directions. This feature uses AI and image recognition technology to identify notable buildings, structures, or natural features along a route. It then incorporates these landmarks into the navigation instructions, providing more intuitive and context-rich directions to users.

Key components:

- AI-powered landmark identification
- Natural language processing for clear, conversational directions
- User preference settings for landmark types and frequency
- Integration with existing map data and Street View imagery

Pitfalls & Challenges :

- **Accuracy of landmark recognition:** Ensuring the AI correctly identifies landmarks consistently across diverse environments.
- **Landmark relevance and visibility:** Selecting landmarks that are easily visible and relevant to navigation, avoiding obscure or easily missed references.
- **Keeping landmark data up-to-date:** Maintaining an accurate database of landmarks that accounts for changes in the urban landscape.
- **Consistency in landmark availability:** Providing a seamless experience in areas where prominent landmarks may be sparse.

Users can click on this icon to view the available types of directions. The default setting is distance-based, while the Landmark option provides directions that include nearby landmarks.

Nearby landmarks are displayed in this manner for easier comprehension.

Target Pain Points:

- Difficulty in relating distance-based instructions to real-world surroundings
- Confusion at complex intersections or in areas with poor signage
- Challenges in navigation for users who struggle with spatial awareness
- Stress and cognitive load while driving in unfamiliar areas

Value to Users:

- **More intuitive navigation:** Directions that relate to visible surroundings are easier to follow and understand.
- **Reduced cognitive load:** Users can focus more on driving safely and less on interpreting abstract navigation instructions.
- **Improved confidence:** Clearer instructions can reduce anxiety, especially in unfamiliar areas or for users who struggle with traditional navigation methods.
- **Accessibility improvement:** Particularly valuable for users with certain cognitive impairments or those who struggle with distance estimation.
- **Cultural and local insight:** Can provide interesting information about local landmarks, enhancing the travel experience.
- **Increased safety:** Clearer instructions may reduce last-minute lane changes or turns, potentially decreasing accidents.
- **Offline reliability:** Landmark-based navigation can be more reliable in areas with poor GPS signal or outdated map data.

Solutions 2: Indoor Navigation

Feature Overview:

- **Detailed Indoor Maps**: Provide comprehensive maps of complex buildings.
- **Turn-by-turn Navigation**: Offer step-by-step directions within the building.
- **Point of Interest (POI) Search**: Allow users to search for specific locations, such as stores, restrooms, or gates.
- **Accessibility Options**: Include routes that are wheelchair-friendly and cater to other accessibility needs.
- **Real-time Updates**: Reflect current conditions, like temporary closures or construction.

Target Pain Points:

- **Difficulty in Navigating Large Spaces**: Users often find it hard to locate specific stores, gates, or exhibits in large buildings.
- **Lack of Clear Signage**: In some complexes, signage can be confusing or insufficient.
- **Time Consumption:** Visitors may waste time wandering around, leading to frustration.
- **Accessibility Issues:** People with disabilities or special needs may face additional challenges in navigation.

Pitfalls & Challenges :

- **Map Accuracy:** Ensuring the accuracy of indoor maps can be challenging due to frequent layout changes.
- **Real-time Updates:** Keeping the maps updated with real-time information requires constant collaboration with building management.
- **User Privacy:** Managing and ensuring user privacy, especially in sensitive areas like airports.
- **Technical Limitations:** GPS signals are often weak indoors, so alternative positioning systems (e.g., Wi-Fi, Bluetooth beacons) are necessary.
- **Accessibility Compliance:** Ensuring the feature meets all accessibility standards and regulations.

User Flow

Step 1:
Open App:
User opens the Google Maps app.

Step 2:
Select Indoor Navigation:
User selects the indoor navigation option.

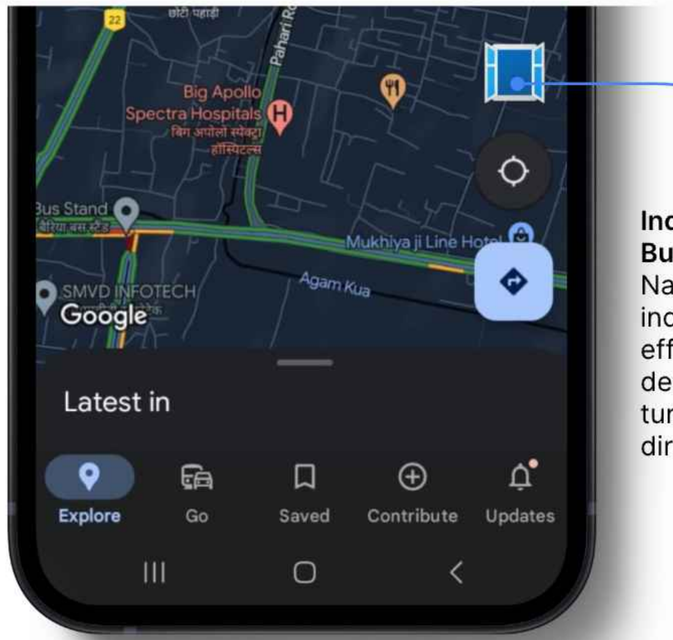
Step 3:
Choose Building:
User selects the specific complex (e.g., airport, mall) they want to navigate.

Step 4:
View Map:
Detailed map of the building is displayed.

Step 5:
Search/Select Destination:
User searches for or selects a specific point of interest.

Step 6:
Get Directions:
App provides turn-by-turn directions.

Step 7:
Navigate:
User follows the directions to their destination, receiving real-time updates if needed

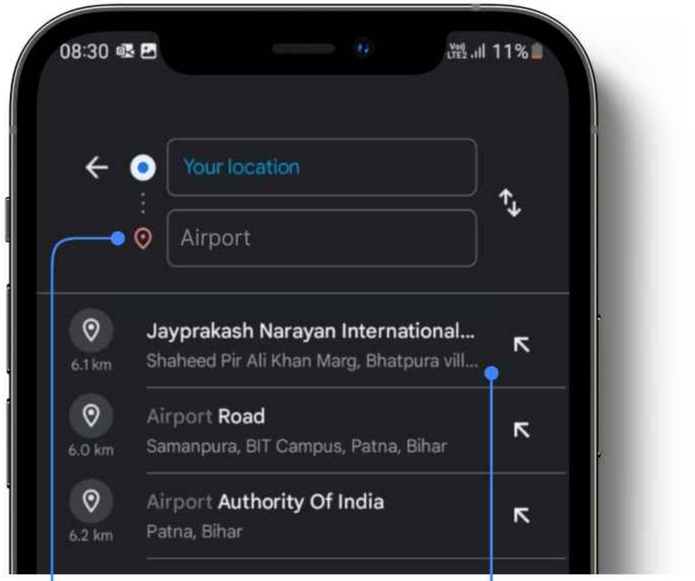


Indoor Navigation Button:
Navigate complex indoor spaces effortlessly with detailed maps and turn-by-turn directions.

Value to Users:

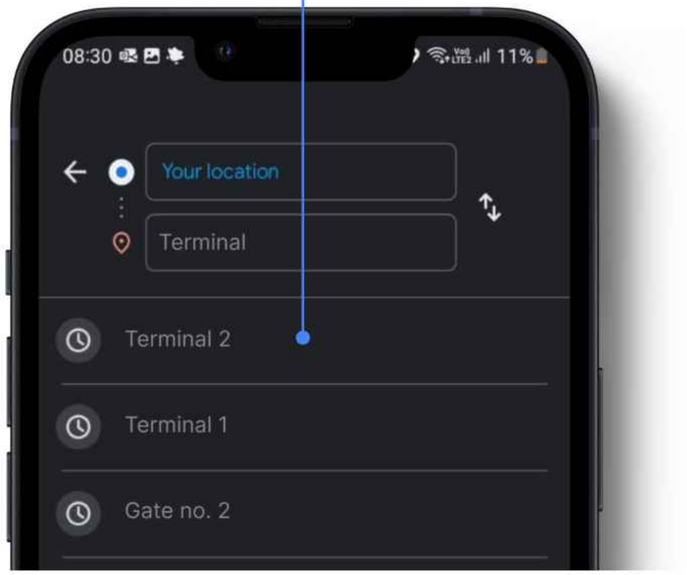
- **Enhanced Convenience and Time-Saving**: Effortless navigation in large and complex spaces, reducing time spent searching for specific locations.
- **Improved User Experience**: Intuitive interface with personalized routes, voice navigation, and real-time updates on conditions within the building.
- **Accessibility and Inclusivity**: Accessible routes and options for users with disabilities, ensuring a more inclusive navigation experience.
- **Safety and Efficiency**: Provides emergency routes, optimal paths, and multi-destination planning, enhancing both safety and efficiency.
- **Exploration and Personalization**: Encourages discovery of new areas and points of interest with features like AR and personalized recommendations, integrating seamlessly with other Google services.

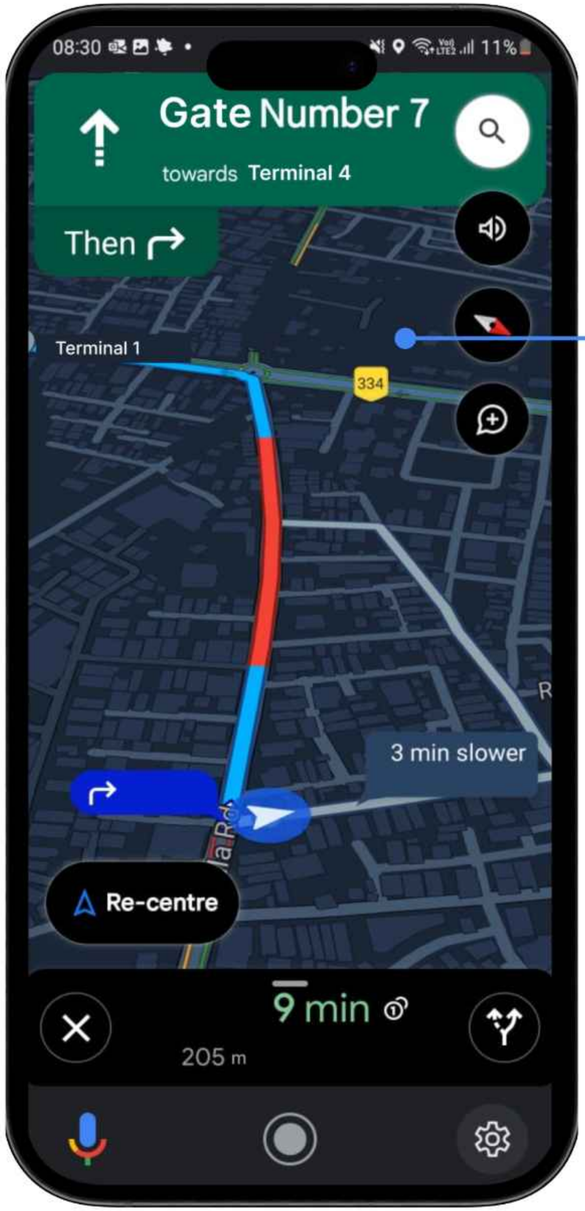
Solutions 2: Indoor Navigation



- The user **scrolls through or searches** for the specific complex they want to navigate, such as an airport, shopping mall, or museum.
- Upon selecting the desired complex, the app **transitions to a detailed overview** of the building.

- The user utilizes the **search bar to type in the name of a specific point of interest** or destination within the complex.
- Alternatively, the user can browse through categories or tap on icons directly on the map to select a destination.





- Upon selecting a destination, the **app calculates the optimal route** and displays turn-by-turn directions on the map.
- Directions are provided in both visual (map with highlighted path) and textual formats (**step-by-step instructions**).
- Users have the option to **choose preferences** such as shortest path, least crowded route, or accessible routes for individuals with disabilities.

Solutions 3: Google Maps SOS

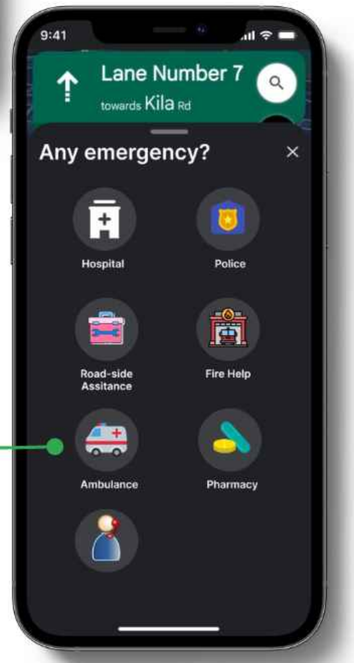
Target Pain Points

- **Difficulties in locating and contacting emergency** services quickly in unfamiliar areas.
- During emergencies, **users may panic** and waste valuable time searching for help.
- In case of **vehicle breakdowns**, users may struggle to find reliable roadside assistance quickly.
- In some regions, **language barriers** may prevent users from seeking help effectively.

Feature Overview

- **The Emergency Assistance feature in Google Maps** will aim to enhance user safety by providing quick access to essential emergency services.
- It will allow users to easily locate and contact nearby emergency services such as hospitals, police stations, ambulances, fire stations, pharmacies, roadside assistance, and other critical helplines.

Users can click on the Emergency Exit Button on the Navigation screen in case of any urgent need.



Emergency Screen pops up. Select the desired emergency options.

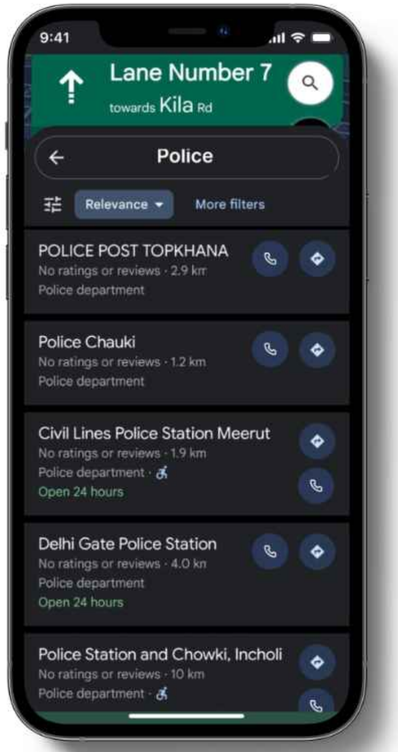
Value to Users

- **Enhanced Safety**: Provides quick access to emergency services, ensuring user safety during critical situations.
- **Peace of Mind**: Users have the assurance that immediate assistance is available whenever needed.
- **Time-Saving**: Reduces the time required to locate and contact nearby emergency services, facilitating faster response and assistance.
- **Single-Click Contact**: Simplifies the process of reaching out to emergency services with a single click, saving valuable time during emergencies.
- **User-Friendly Experience**: The feature is easily accessible via a button on the main directions page, providing a seamless user experience.
- **Support in Unfamiliar Areas**: Helps users navigate and find emergency services even in unfamiliar areas, making it a valuable tool for travellers.

Pitfalls and Challenges

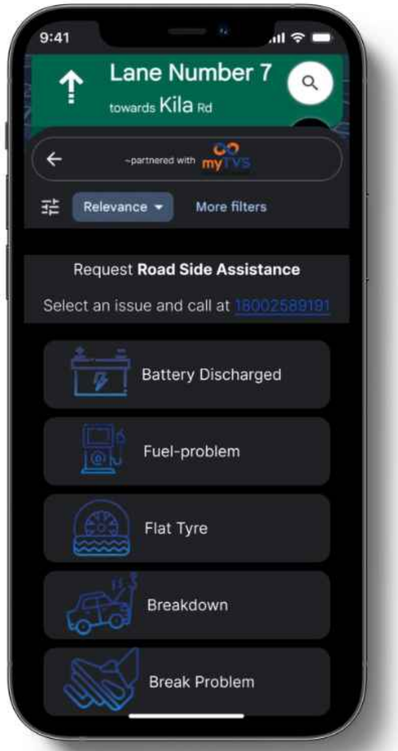
- **Data Accuracy and Reliability**: Ensuring up-to-date and accurate emergency contact information.
- **Service Availability**: Addressing cases where emergency services are unavailable.
- **Dependence on Third Parties**: Managing dependencies on third-party services for emergency response.
- **Liability Issues**: Addressing potential liability for inaccurate information or delays.

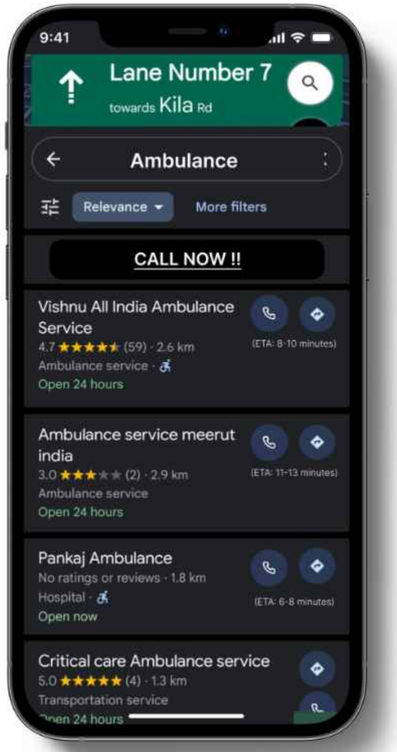
Solutions 3: Google Maps SOS



Clicking on the 'Police' option displays all police stations within a 10 km radius, providing navigation directions and a one-click dial feature for immediate assistance.

The roadside assistance feature can involve a partnership with an after-market service company to offer immediate support for vehicles during breakdowns, ensuring prompt and efficient assistance throughout the journey.





Clicking on the 'Ambulance' option allows users to locate the nearest ambulance and make a call with a single click, ensuring the fastest possible response. Additionally, an ETA is displayed to help users choose the most suitable ambulance service.

The 'Hotline Numbers' option provides users with quick access to various emergency hotlines, such as disaster management, child helpline, tourist helpline, and women helpline. By clicking on a specific hotline, users can instantly dial the number, ensuring rapid assistance in diverse emergency situations

Feature Prioritisation

Features (Solution)	Reach (R) 1: Low, 5: High	Impact (I) 1: Low, 5: High	Confident (C) 1: Low, 5: High	Effort (E) 1: High, 5: Low	RICE Score (R*I*C/E)	Priority
AI-powered Landmark identification	4	4	4	3	(4 * 4 * 4) / 3 = 21.3	
Google Maps SOS	5	5	4	4	(5 * 5 * 4) / 4 = 25	
Indoor Navigation	3	4	4	5	(3 * 4 * 4) / 5 = 9.6	

Success Metrics

Google Maps SOS

Feature	Success Metrics
Emergency Service Effectiveness	• **Success Rate**: Percentage of successful contacts with emergency services initiated through the feature. • **User-Reported Outcomes**: Positive outcomes reported by users after using the feature in emergency situations.
Technical Performance	• **Load Times**: Average time taken for the Emergency Assistance screen and information to load. • **Reliability**: Uptime and reliability of the feature, ensuring it is available when needed. • **Crash Reports:** Number and frequency of crashes or technical issues reported.
User Retention	• **Retention Rate**: Percentage of users who continue to use the feature over time. • **Churn Rate**: Percentage of users who stop using the feature after initial use.
User Satisfaction	• **Feedback Ratings**: Average rating given by users after using the Emergency Assistance feature. • **Net Promoter Score (NPS):** Users' likelihood of recommending the feature to others. • **User Comments and Reviews:** Analysis of qualitative feedback to identify common themes and sentiments.

Indoor Navigation

Feature	Success Metrics
User Engagement	• **Active Users**: Number of users actively using the indoor navigation feature. • **Session Duration**: Average time users spend using the navigation feature per session. • **Repeat Usage**: Frequency of users returning to use the feature
Navigation Accuracy and Efficiency	• **Successful Navigations**: Percentage of navigation sessions completed successfully without issues. • **Average Time to Destination**: Time taken by users to reach their destinations using the feature.
Expansion and Reach	• **Building Coverage**: Number of buildings and complexes mapped and available for navigation. • **Geographical Reach**: Diversity and geographical distribution of users.

AI-powered Landmark identification

Feature	Success Metrics
User Engagement	• **Feature Adoption Rate**: Percentage of users who enable and use the enhanced voice navigation feature. • **Active Users**: Number of users actively using the feature on a regular basis. • **Session Duration:** Average time users spend navigating with the feature enabled per session.
User Satisfaction	• **Feedback Ratings**: Average rating given by users for the voice navigation with landmark recognition feature. • **Net Promoter Score (NPS):** Users' likelihood of recommending the feature to others.
Technical Performance	• **AI Recognition Accuracy:** Accuracy rate of the AI in correctly identifying landmarks. • **Response Times:** Speed of landmark identification and integration into navigation instructions. • **System Stability:** Frequency and number of technical issues or crashes related to the feature.

Go-to-Market Strategy

Pre-Launch (1 Month Before Launch)

1 Teasers and Announcements

- Announce upcoming features on social media and the Google Maps blog.
- Create teaser videos, infographics, and blog posts highlighting the benefits of the new features.
- Start beta testing with selected users to gather initial feedback and testimonials.

Launch (Week 1)

1 Official Launch

- Highlight the features on the Google Maps home screen and app store listings.
- Launch a comprehensive digital advertising campaign focusing on the key benefits.

2 User Engagement

- Send email newsletters to existing users with detailed information and tutorials.
- Implement in-app notifications to guide users on how to use the new features.

Post-Launch (1-3 Months)

1 Monitor and Optimize

- Gather user feedback and monitor feature usage.
- Provide regular updates and bug fixes based on user feedback.
- Expand indoor navigation coverage to more complexes based on user demand.

2 Partnerships and Collaborations

- Partner with major complexes (e.g., malls, airports) to promote indoor navigation.
- Collaborate with local authorities and safety organizations to enhance the safety feature.