

***Beyond the Driver's Seat: Waymo's Journey to Autonomous Leadership***



**WAYMO**

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## **Executive Summary:**

It's late at night. You've just wrapped up a night out with friends, and all you want is a quiet ride home. You're not in the mood for small talk with an Uber driver or sharing a car with a stranger.. Then you remember - you can order a driverless Waymo instead. But you face the question: do you really trust an autonomous vehicle to get you home safely?

Waymo LLC is a leader in the autonomous driving industry. Waymo currently operates in four cities, and has plans to begin offering its services in other cities in 2025. However, Waymo faces issues regarding whether autonomous cars are capable of driving in certain areas and skepticism from riders.

This case study aims to examine Waymo's business and how they can expand their services despite public perception of self-driving cars. Waymo faces challenges in terms of public trust, legality, and driving capabilities.

## **Introduction:**

### ***History***

Waymo LLC is a subsidiary of Alphabet. Alphabet first began exploring autonomous driving in 2009 as part of its Google Self-Driving Car Project. In 2016, Waymo was officially established as its own company under Alphabet, and has since been furthering its technology and expanding its services (Waymo 2025). Per their website, Waymos' mission is to "innovate beyond the impossible in order to save lives that are tragically lost to traffic crashes." Waymo offers a ride-hailing service, Waymo One, that offers fully autonomous ride-hailing using an all-electric fleet of cars.

### ***Business Model***

Waymo currently provides their ride-hailing services in four major U.S. cities - Phoenix, San Francisco, Los Angeles, and Austin - with plans to soon launch in Miami and Atlanta. The company also has strategic partnerships with other ride sharing platforms to help reach broader audiences, such as their Uber collaboration in Austin and Atlanta. In addition to ride sharing platforms, Waymo also works with electric vehicle charging companies and automotive makers such as Hyundai and Jaguar (Vizologi 2025).

Another key component of Waymos' business model is their technology. Waymo is constantly researching and developing new technology and products related to the autonomous driving industry, such as Waymo Driver, the technology behind its fleet of self-driving cars. The Waymo Driver has driven over 20 million miles on public roads, amassing crucial data for Waymo allowing it to further its innovation (Bengaluru 2025).

## ***Revenue Breakdown***

Waymo primarily generates revenue through its Waymo One ride-hailing service. A secondary, but growing source of revenue comes through licensing their Waymo Driver technology to other companies (Vizologi 2025). While ride-hailing is the most visible part of the business for everyday consumers, Waymo is positioning itself as a technology leader in the autonomous driving industry. Waymo also offers other products and services aside from these main two, allowing for other small revenue streams.

In further discussing the current state of Waymo LCC, this study will focus on the following key areas:

- Industry Analysis
- Competition Overview
- Key Financials

## **Industry Analysis:**

Waymo's operations span two primary North American Industry Classification System (NAICS) codes, reflecting its dual identity as a technology innovator and service provider. Under **NAICS 541511 (Custom Computer Programming Services)**, the company focuses on artificial intelligence (AI) and software development for autonomous driving (AD) systems, including advancements in perception, decision-making, and simulation tools. Concurrently, its commercial ride-hailing service, Waymo One, aligns with **NAICS 485310 (Taxi and Ride-Hailing Services)**, positioning it within the Mobility-as-a-Service (MaaS) sector. This hybrid model—combining cutting-edge software development with mobility-as-a-service (MaaS)—enables Waymo to operate at the intersection of the autonomous vehicle (AV) and MaaS industries, leveraging technological innovation to deliver scalable mobility solutions.

## **Five Forces Analysis:**

### ***Threats to Entry***

The autonomous vehicle industry does not face serious threats to entry as there are high barriers to entry - large amounts of capital investments, safety testing, and regulatory knowledge. These barriers make it difficult for most smaller firms to effectively enter the space. However, the industry's potential continues to attract new entrants. While Waymo is currently a clear leader in the industry given its technology and existing capital, it is not immune to future competition.

### ***Rivalry***

Waymo faces competition from major players in the Autonomous vehicle industry, like Zoox (owned by Amazon), Cruise (Owned by GM), and Tesla. Despite this rivalry, the

industry is still relatively fragmented as Waymo offers autonomous ride-hailing and focuses heavily on its technological advancements, whereas Tesla integrates autonomous features into personal vehicles. Although competition is growing, each of the competitors operates with specific niches, limiting the direct intensity of the rivalry thus far.

### ***Bargaining Power of Suppliers***

The bargaining power of suppliers is moderate as Waymo relies heavily on external vehicles, but Waymo also develops most of its sensors in house (Reuters 2024). Waymo purchases vehicles from Stellantis and Jaguar to integrate its technology into, so these companies have a fair amount of leverage. Waymo's integration of its own technology gives Waymo more control over its technology and reduces vulnerability to supplier pricing or availability issues.

### ***Bargaining Power of Buyers***

Waymo is much more vulnerable to the bargaining power of consumers than its suppliers. Consumers hold relatively high bargaining power in the ride-hailing segment. Customers have various options for transportation, other ride-hailing services, personal vehicles, and public transportation. Waymo does have an edge in the ride-hailing industry since its driverless cars have a novelty quality, but many riders are still skeptical of autonomous vehicles. However, Waymo also serves a B2B customer base, including automotive manufacturers interested in Waymo's technology and fleet operators (Canvas Business Model 2025). This segment of consumers tend to have less bargaining power due to the limited availability of comparable autonomous driving systems.

### ***Threat of Substitutes***

Similar to the bargaining power of consumers, the threat of substitutes is also high. Substitutes for ride-hailing services and transportation are more common than substitutes for autonomous vehicles, but Waymo does face pressure from both segments. While Waymo's autonomous vehicles offering provides a novel experience, it must still compete on convenience, cost, and consumer trust. Uber takes up a very large portion of the ride-hailing market as does Lyft. In contrast, the market for autonomous driving technology has fewer substitutes, giving Waymo a stronger position in this market. However, because most of Waymo's current revenue comes from the ride-hailing operations, the impact of substitute services remains a risk.

### **Sensitivity of Sales to Business Cycle:**

Waymo's sensitivity of sales to the business cycle is shaped by its current market positioning and long-term potential. At present, the company operates in limited geographies (e.g., Phoenix, San Francisco) and positions its services at price points comparable to premium ride-hailing tiers like Uber Black, reflecting its early-stage reliance on expensive sensor technology, regulatory compliance, and operational

testing. This niche, high-cost model makes Waymo inherently vulnerable to economic downturns, as consumers facing tighter budgets are likely to prioritize affordability over novelty or luxury.

During recessions, discretionary spending on transportation often contracts, favoring cheaper alternatives such as human-driven ride-hailing (UberX, Lyft), public transit, or personal vehicles. Waymo's premium pricing and limited availability could exacerbate this vulnerability, particularly if competitors leverage dynamic pricing or loyalty incentives to retain cost-sensitive users.

However, Waymo's long-term resilience hinges on its ability to transition from a luxury novelty to a cost-competitive necessity. Transportation is a foundational economic activity, and the broader Mobility-as-a-Service (MaaS) sector is poised for structural growth as urbanization and environmental pressures reduce reliance on private car ownership. Autonomous vehicles (AVs) hold a unique advantage here: by eliminating driver labor, which constitutes 60–70% of traditional ride-hailing costs, AVs could eventually undercut human-driven services on price. For Waymo, this potential hinges on two critical factors:

1. **Operational Scalability:** Reducing per-mile costs through advancements in AI efficiency, fleet management, and sensor technology.
2. **R&D Cost Discipline:** Streamlining development expenses as the technology matures, avoiding the "innovation trap" of perpetual R&D spending without commercialization.

If successful, Waymo could transition from cyclical sensitivity to counter-cyclical resilience. For example, in a recession, consumers might abandon car ownership (a high fixed cost) for cheaper, on-demand AV rides. Furthermore, Alphabet's financial backing provides a critical buffer, allowing Waymo to sustain long-term bets despite short-term market fluctuations—a luxury many competitors lack.

### **Operating Environment:**

Waymo is in the autonomous driving industry, which is both highly regulated and rapidly evolving. While the U.S. doesn't have any federal regulations regarding the use of autonomous vehicles, certain states like California and Arizona have been more receptive to Waymo and other companies like it. Additionally, the National Highway Traffic Safety Administration (NHTSA) requires autonomous vehicle companies like Waymo to submit safety reports (Waymo). Waymo has stood out from its competitors given its transparency in this area. As technology continues to evolve, regulations for AV companies will likely become stricter, and Waymo's transparency and proactivity will help the company continue to be an industry leader.

### **MaaS Market Outlook and Strategic Implications:**

The global MaaS market, valued at 678.1 billion in 2023 (Deichmann) is projected to grow at a compound annual growth rate (CAGR) of 11.6%, which is equivalent to **1.63**

**trillion** market size. This expansion is driven by increased investor funding, which supports technological advancements, geographic expansion, and operational scaling. Waymo’s ability to integrate AV technology into MaaS platforms positions it to capitalize on this growth, particularly as urbanization and sustainability trends amplify demand for efficient, on-demand mobility solutions.

**Competition:**

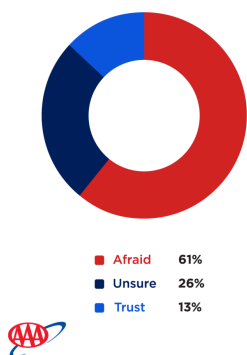
Waymo faces competition across two fronts:

- **MaaS Market Competitors:** Established ride-hailing giants such as **Uber, Lyft, and Didi** dominate the broader MaaS ecosystem. While these firms are increasingly investing in AV technology, their current reliance on human drivers creates cost and scalability challenges that Waymo’s driverless solutions aim to address.
- **AV Technology Competitors:** In the autonomous driving space, **Zoox** (owned by Amazon) offers a differentiated approach with its purpose-built, passenger-centric AVs, though its niche focus limits direct overlap with Waymo’s broader MaaS ambitions.)

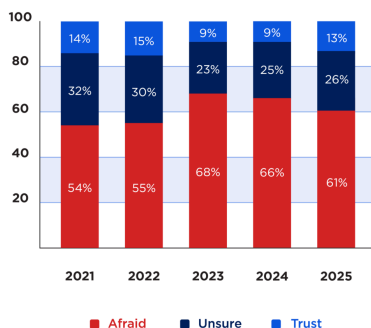
Its most obvious competitors in the ride-sharing industry are Uber and Lyft, who make up the vast majority of ridesharing in markets across the country. However, Waymo acts as a disruptor in the ridesharing space. By offering ridesharing without the hassle or danger of an unknown driver, Waymos offer a quieter, more private ride experience.

**Driver Attitudes Toward Self-Driving Vehicles**

2025 Survey Responses



Driver Attitudes Over Time



A good example of the capacity for Waymo to compete with the Uber and Lyft giants is to look to its second launch market, San Francisco. Waymo launched in late 2023 in San Francisco, and **by the end of 2024, Waymo had reached 22% market share in the city**, behind only Uber at 55% and *tying with Lyft* based on customer receipt data (Jetha). While the product clearly has gained traction in the tech-savvy market, time will tell if this rapid expansion of

market share can continue in smaller markets, where trust in autonomous vehicles may be lower. In fact, recent surveys suggest that **only about 13% of Americans trust self-driving vehicles**, with 6 out of 10 people stating that they would be afraid to ride in one (Moye).

Outside of traditional ridesharing services, Waymo's greatest competition comes from companies who are most poised to enter the autonomous vehicle rideshare industry. These are Tesla, which already has the capability to create autonomous vehicles but lacks the rideshare platform, and Amazon-backed Zoox, which just launched its first market in Las Vegas. Zoox functions similarly to Waymo, with an app and a designated fleet of identical self-driving cars. While Waymo is the clear front runner in this industry, Zoox and to a lesser extent Tesla pose a great risk to Waymo's market dominance (Kolodny and Elias).

As trust is a big factor in consumer willingness to ride in an autonomous vehicle. Since Waymo is currently the biggest name, it can leverage public trust in its product in a way that even skeptical consumers would find riding in a Waymo safe, barring any major incidents.

## **SWOT Analysis:**

### ***Strengths***

One of Waymo's biggest strengths is its identity as a pioneer in the field of autonomous vehicle (AV) technology, being one of the first companies to focus on developing this technology. It is also backed by Alphabet, Inc., the parent company of Google, which has allowed the company to benefit from funding raised by Google and the expertise of the engineers that work there. Additionally, Waymo is a very well-tested product, with its 50 million miles logged providing valuable data to developers (Lee). This extensive testing has given Waymo an advantage over its competitors that have not been able to test their autonomous vehicles out in real-world environments.

Despite public perception, Waymo has an exceptionally strong safety record. In a study conducted by insurance company Swiss Re, it was found that Waymo reduced the frequency of bodily injury claims by 100%. Waymo's autonomous vehicles also decreased property damage by 76% when compared to human drivers (Quintel). Another benefit of Waymo's driverless vehicles is that they keep riders safe from unwanted human interaction. Waymo has been popular with women, who have shared that riding in Waymos makes them feel more safe than taking an Uber or Lyft with a driver they're not sure if they can trust.

### ***Weaknesses***

Waymo faces steep costs for the development and maintenance of its fleet of about 700 vehicles. This includes spending on advanced software for the vehicles, extensive safety testing, infrastructure setup, and regulatory compliance. Waymo has also only established itself on a limited scale, and it is currently only operating in four cities. As a result, a large portion of the general public is unfamiliar with Waymo's brand.

One of Waymo's biggest challenges is public perception of the brand. Many potential users of Waymo's services question the safety of autonomous vehicles, indicating that it will take time for these vehicles to become fully accepted. Such public scrutiny can also influence lawmakers, leading them to impose stricter regulations that will make it more challenging for Waymo to continue its operations.

### ***Opportunities***

Given that Waymo is currently only operating in four cities, it has a great opportunity to expand into new markets, gaining more customers and more exposure to its brand. Additionally, Waymo can continue to look for other applications for self-driving vehicles. The company is currently working on Waymo Via, which would create self-driving trucks and be a great asset to shipping companies. For this venture, Waymo is collaborating with Uber Freight, but the company could continue to seek out advantageous partnerships with other companies.

### ***Threats***

A large challenge for Waymo is dealing with the uncertain regulations surrounding autonomous vehicles. There is a lack of standardized regulations when it comes to autonomous vehicles, but it is possible that at any time, regulations could become strict and force Waymo to temporarily discontinue its operations. Waymo also has to fend off other competitors developing AV technology, including Cruise (General Motors) and Tesla. Tesla is the main competitor to Waymo given that many of its vehicles are equipped with advanced driver assistance. As Tesla continues to develop this technology, it could pose a serious threat to Waymo's dominance.

### **Financial Analysis:**

Waymo has exhibited strong financial performance over the past few years, going from being a product in testing to a service that has been rolled out to the public. Waymo remains a private company, meaning that it does not fully disclose its financial performance to the public. However, the company has released metrics on ride count and number of users that provide insight into the company's growth.

From October 2023 to October 2024, Waymo grew its number of paid rides from 10,000 to 100,000 per week, exhibiting massive growth. In comparison, Uber does over 200 million rides each week, making it about 1,000 times larger than Waymo (Trefis). Although these numbers make it look like Waymo has a long road ahead to catch up with Uber, it is worth noting that Waymo is retaining riders at a higher rate than both Uber and Lyft. As Waymo enters two new markets later this year, it can expect to engage with more customers and increase both rides per week and revenue.

Despite what appears to be promising growth, Waymo has been a costly endeavor for Alphabet and is still in the red. Bank of America has released projections for Waymo's 2024 revenues and losses:



- Revenues between \$50 and \$75 million
- Losses of between \$1.2 and \$1.5 billion

Analysts believe that it will be a number of years before Waymo generates true profit for Alphabet given the capital intensity of its business, but sentiment is positive given Waymo's success in limited markets and its planned expansion (Shtrubel).

In total, Waymo has raised over \$11 billion in funding, and the company is currently valued at \$45 billion. Waymo's most recent funding round was conducted with the help of Alphabet, who led the oversubscribed \$5.6 billion round (Mawakana and Dolgov). Alphabet's reputation and influence has greatly helped Waymo attract investors.

### **Conclusion:**

Overall, Waymo has a great deal of potential to continue its rise to prominence within the autonomous ridesharing space. Waymo's technology and partnerships with both Jaguar and Hyundai, as well as its status as the first successful market entrant leave Waymo with a head start that is theirs to lose. The most suitable competitors, Zoox and to a lesser extent Tesla, must overcome the lead in public knowledge and brand image that they have created.

Despite this, Waymo must still continue to grapple with public skepticism of the technology used for their autonomous vehicles. A majority of the public does not trust autonomous vehicle technology, and rollout in less tech-enabled cities (when compared to their current markets) could prove difficult if public perception of the technology does not change. Public fear of the technology could drive difficult regulation, including bans from certain markets.

While the what is to come remains uncertain for future rollout, Waymo's current growth and financial performance when entering new markets as well as their future partnership with Uber Freight demonstrate that the Waymo brand is primed for success, barring any deviation from their top notch safety record.

For those seeking a private riding experience late at night, Waymo is likely the first to come to mind. However, whether or not Waymo can overcome fears of autonomous driving will likely define their fate.

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