

Assignment 1

Understanding the Product and Users

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1. **Pick a Product & Analyze it: Select a product you use frequently. It should be something you have strong feelings about. Analyze - what you love about it, and what you wish it did better.**

For this assignment, I am picking a digital product - the “**AutoZone**” mobile app

Why I am picking this product:

- **Personal Connection:** I'm passionate about automotive work and regularly work on cars, giving me an authentic user experience and understanding of real pain points.
- **Market Opportunity:** The US automotive aftermarket is a \$400+ billion industry with 280+ million vehicles, but most retail experiences are still outdated - huge potential for digital innovation.
- **Relevant Expertise:** My hands-on automotive knowledge lets me identify improvement opportunities.
- **Growth Potential:** This intersection of my automotive interest + massive underserved market + clear digital transformation gap makes it an ideal product to analyze for meaningful insights.
- **Bottom line:** I can analyze this as both a genuine user who feels the frustrations and someone who understands the broader market opportunity.

2. **Understand Company Context & Positioning: Note down its mission, how it makes money, and what makes it different from competitors.**

- **Mission Statement:** AutoZone's mission statement is 'to provide knowledgeable, trustworthy service, quality parts, and helpful solutions, so every customer feels confident tackling their vehicles.' For more than 30 years, AutoZone has been committed to providing the best parts, prices, and customer service in the automotive aftermarket industry
- **How AutoZone Makes Money:**
 - **Revenue Streams: Retail Sales** (70% of business): Domestic retail sales accounted for \$14.3 billion of total revenue in fiscal 2023
 - **Commercial Sales:** Commercial sales segment generated \$1.41 billion in revenue for fiscal year, serving professional repair shops with on average, \$15,900 of revenue per week.
 - **E-commerce:** E-commerce sales represented approximately 6% of total domestic sales, totaling \$858 million in fiscal year 2023
 - **Digital Services:** ALLDATA software subscriptions and extended warranties
 - Fiscal year 2024 sales reached \$18.5 billion, a 5.9% increase from the prior year

- **What Makes AutoZone Different from Competitors:**

- Mega-Hub Distribution Strategy: AutoZone's mega-hubs stock up to 110,000 SKUs and are capable of fulfilling orders for nearby stores and customers within 24 hours, ensuring even obscure parts for older vehicles are available.
- Technology & App Integration: 94% of its inventory is available same-day, with an average order fulfillment time of 47 minutes.
- Comprehensive vehicle lookup system and barcode scanning

- **Competitive Positioning vs. Rivals:**

- vs. O'Reilly: O'Reilly Auto Parts looks like the top choice for the consumer looking to shop for everything on our list based on overall pricing, but AutoZone wins on specific promotions and convenience.
- vs. Advance Auto Parts: Advance Auto Parts is bringing up the rear as the most expensive, but it offers the most generous price-matching policy
- vs. NAPA: NAPA focused more on commercial/wholesale, while AutoZone splits retail/commercial more evenly

- **Key Differentiators:**

- Store Design: Modern, well-organized retail environments optimized for DIY customers
- Rewards Program: \$20 reward after 5 purchases of \$20 or more
- Duralast Brand: Strong private label with lifetime warranties on many parts
- Scale Advantage: Largest store network enables better inventory distribution and competitive pricing

To sum up: AutoZone's competitive edge comes from combining retail accessibility with commercial-grade distribution infrastructure, making hard-to-find parts readily available while maintaining competitive pricing on common items.

3. Reverse Engineer Top 3 Features: Analyze the Problem they solve, how & why they work.

- **Vehicle-Specific Parts Lookup**

- Problem It Solves: The core pain point in automotive parts shopping is buying the wrong part. With thousands of variations across years, engines, and trim levels, customers frequently purchase incompatible parts, leading to wasted trips and frustration.
- How It Works:
 - User enters vehicle details: Year → Make → Model → Engine/Trim
 - App filters the entire catalog to show only compatible parts
 - Each product page displays "Fits Your [Vehicle]" confirmation
 - Cross-references part numbers with the vehicle VIN database

- Why It Works:
 - Confidence Building: Eliminates the #1 fear in DIY automotive - compatibility
 - Reduces Returns: Dramatically cuts wrong-part purchases that hurt both customer experience and AutoZone's costs
 - Competitive Moat: Creates switching costs - once you've entered your vehicle, you're less likely to price-shop elsewhere

- **Real-Time Inventory Check + Reserve for Pickup**

- Problem It Solves: The "drive to store only to find it's out of stock" problem. For automotive repairs, time is critical - a broken car means lost productivity, so availability certainty is crucial.
- How It Works:
 - Live inventory sync between app and store POS systems
 - "Check Other Stores" feature shows availability within radius
 - "Reserve for Pickup" holds the item for a specified time window
 - Push notifications when the order is ready
- Why It Works:
 - Time Value: Automotive customers often need parts urgently - knowing availability beforehand is highly valuable
 - Store Traffic Optimization: Drives foot traffic by guaranteeing successful trips
 - Inventory Velocity: Helps move inventory from overstocked locations to where demand exists

- **My Garage (Vehicle Profiles)**

- Problem It Solves: Re-entering vehicle information repeatedly. Most households have multiple vehicles, and remembering exact engine specs, trim levels, and years becomes tedious during frequent shopping.
- How It Works:
 - Save unlimited vehicle profiles with custom names ("Dad's Truck," "Sarah's Honda")
 - One-click switching between vehicles during shopping
 - Historical purchase tracking per vehicle
 - Maintenance reminders based on vehicle age/mileage
- Why It Works:
 - Friction Reduction: Eliminates repetitive data entry that causes cart abandonment
 - Personalization: Creates a customized experience that feels tailored to user's specific needs
 - Lock-in Effect: The more vehicles you add, the more valuable the app becomes, creating switching costs
 - Data Collection: Gives AutoZone rich customer insights for targeted marketing and inventory planning

4. Identify the User Segments: Define Primary User Segments, Sub-Segments, Needs, and their problems.

- DIY Enthusiasts (Weekend Warriors)
 - Sub-Segments:
 - Hobbyist Mechanics - Enjoy working on cars as a passion
 - Cost-Conscious Maintainers - Do basic maintenance to save money
 - Project Car Builders - Restoring/modifying older vehicles
 - Needs:
 - Part compatibility verification
 - Installation guidance and difficulty ratings
 - Quality vs. price comparisons
 - Tool recommendations and availability
 - Project planning and parts lists
 - Problems:
 - Fear of buying the wrong parts
 - Uncertainty about installation complexity
 - Overwhelmed by too many part options
 - Need to research part quality and reviews
 - Time constraints for weekend projects

- Emergency/Reactive Users (Crisis Mode)
 - Sub-Segments:
 - Breakdown Victims - Car won't start/run
 - Inspection Failures - Need quick fixes for state inspection
 - Urgent Commuters - Need car working by Monday morning
 - Needs:
 - Immediate part availability
 - Store hours and locations
 - Same-day pickup/delivery options
 - Simple installation guides
 - Cost estimates for repair vs. replace decisions
 - Problems:
 - Time pressure and stress
 - Limited automotive knowledge
 - Need parts ASAP regardless of price
 - Can't afford to buy the wrong part
 - May need mobile/roadside assistance

- Professional Commercial Users
 - Sub-Segments:
 - Independent Shop Owners - Small/medium repair businesses
 - Mobile Mechanics - On-site repair services
 - Fleet Managers - Company vehicle maintenance
 - Needs:
 - Bulk ordering and commercial pricing
 - Reliable delivery schedules
 - Professional-grade parts availability
 - Account management and credit terms
 - Inventory management integration
 - Problems:
 - Managing cash flow with parts costs
 - Ensuring parts availability for customer jobs
 - Competitive pricing pressure
 - Need for technical support
 - Time efficiency for multiple jobs

- Maintenance Schedulers (Proactive Users)
 - Sub-Segments:
 - High-Mileage Drivers - Regular wear item replacement
 - Fleet Vehicle Owners - Multiple personal vehicles
 - Preventive Maintainers - Follow strict maintenance schedules
 - Needs:
 - Maintenance reminders and schedules
 - Bulk purchase planning
 - Seasonal preparation (winter/summer)
 - Long-term cost tracking
 - Quality parts for longevity
 - Problems:
 - Remembering maintenance schedules
 - Planning for seasonal needs
 - Balancing cost vs. quality for wear items
 - Managing parts for multiple vehicles
 - Avoiding emergencies

5. Select the top 2-3 problem hypotheses to focus on in the next phase: In your initial research, you would have identified many areas of improvement. Frame the 2-3 problems you think are most worth exploring. Write them clearly as hypotheses - assumptions you will validate in Week 2.

Based on my analysis of user segments and current app functionality, here are the most impactful problems to explore:

- Hypothesis 1: Search Overwhelm & Compatibility Anxiety
 - Problem Statement: Users abandon purchases because they can't confidently identify the right part from overwhelming search results.
 - Hypothesis: I believe that DIY Enthusiasts and Emergency Users experience significant friction when searching for parts because search results show 100+ options without clear compatibility indicators or quality guidance, leading to cart abandonment and wrong-part purchases. I will know this is true when we see high search-to-cart drop-off rates and elevated return rates for compatibility issues.
 - Why This Matters: Affects all user segments and directly impacts AutoZone's core value proposition. Poor search experience = lost sales + increased return costs.
- Hypothesis 2: Emergency Users Receive Generic Experience
 - Problem Statement: Users in urgent/crisis situations get the same experience as casual browsers, despite having fundamentally different needs.
 - Hypothesis: I believe that Emergency/Reactive Users (car won't start, inspection failures) struggle to complete urgent purchases because the app doesn't recognize their time-sensitive context or prioritize speed over selection, causing them to abandon the app for phone calls or competitor visits. I will know this is true when we see shorter session times, higher bounce rates during peak breakdown hours (Monday mornings, winter months), and customer service calls for urgent orders.
 - Why This Matters: Emergency users are less price-sensitive and willing to pay premiums for convenience - a huge revenue opportunity if served properly.
- Hypothesis 3: Installation Confidence Gap Blocks Purchases
 - Problem Statement: Users hesitate to purchase parts because they're uncertain about installation complexity and their ability to complete the job.
 - Hypothesis: I believe that DIY Enthusiasts and First-Time Maintainers delay or avoid purchases because the app doesn't provide clear installation difficulty ratings or confidence-building guidance, leading to extended research sessions, cart abandonment, and ultimately choosing professional installation over DIY. I will know this is true when we see high cart abandonment rates for complex parts, long dwell times on product pages, and users searching for installation videos/guides outside the app.
 - Why This Matters: Installation anxiety prevents AutoZone from capturing the full DIY market and pushes users toward full-service competitors.