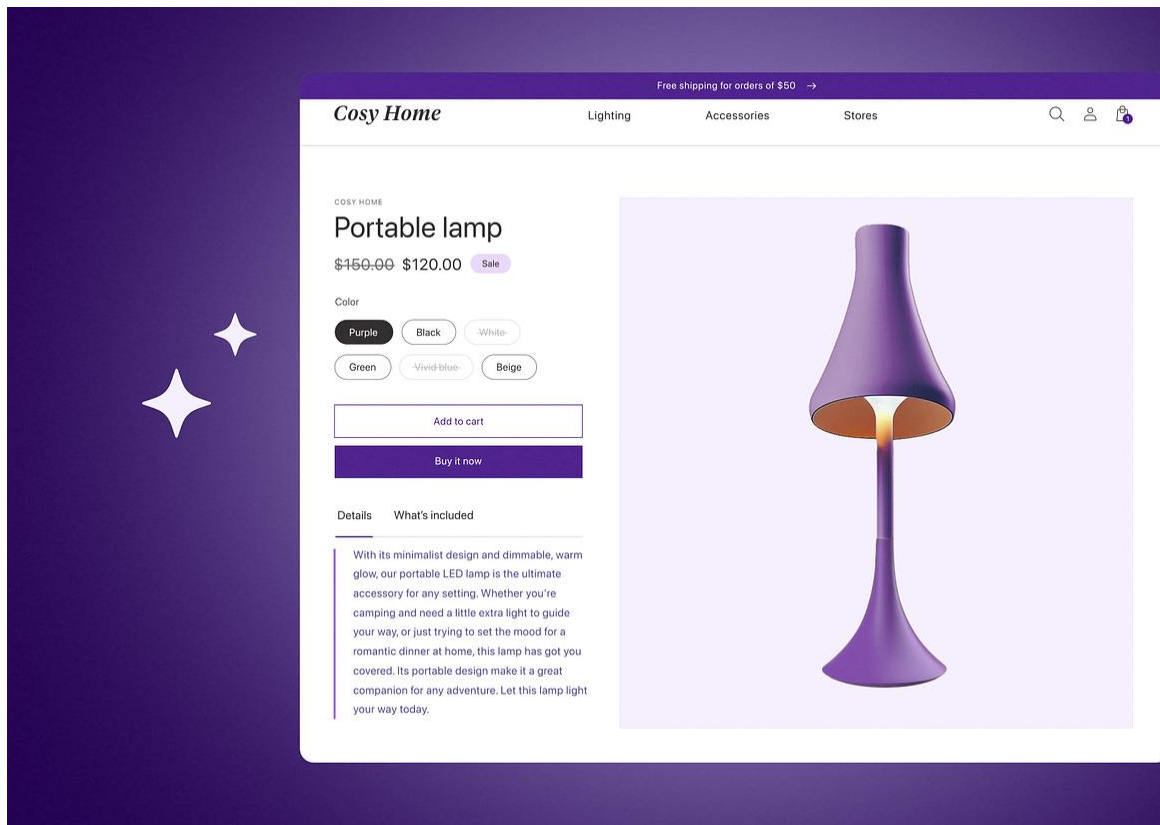


AI PRD Case Study for Shopify Auto Write



Shopify Auto Write. Source: [Shopify blog, 2023](#)

This section applies the AI PRD framework to a real-life AI-powered feature I (Miqdad) worked on in Shopify called **"Auto Write."** It is a product description automation tool leveraging Large Language Models (LLMs).

1. Executive Summary

Purpose: Briefly summarize the initiative and success criteria for those who won't read the entire document.

Shopify's Response (Good Example):

“This product requirement document outlines Shopify’s Auto Write, an AI-powered feature leveraging Large Language Models (LLMs) to automate product description generation for merchants.

It aligns with the growing e-commerce market opportunity (17% GMV growth to \$55B in Q2 2023) and Shopify’s merchant-first strategy, capitalizing on our competitive edge in platform integration and proprietary data.

The launch is planned for Q3 2023. The pilot will target small and new merchants to enhance efficiency and SEO performance.”

2. Market Opportunity

Purpose: Clarify if the opportunity is strategically compelling, timely, and positioned to deliver meaningful value.

Key Questions:

Is this the right market growth stage (e.g., emerging, maturing, declining)?

What is the market’s current growth rate (e.g., CAGR), and what data supports this?

What’s the potential for this opportunity in the future? Can it create enough business value?

Shopify’s Response (Good Example):

In 2023, Shopify saw a growing need for merchant efficiency as e-commerce shifted rapidly online, with merchants demanding faster, high-quality content. Shopify’s Q2 2023 GMV grew 17% to \$55B, reflecting this trend.

Shopify was strategically early on the curve of deploying practical LLM-based productivity tools at scale, capturing first-mover advantage in AI-generated e-commerce content.

Common Traps Avoided:

Avoided jumping on short-lived AI trends by focusing on a validated market need (productivity improvements).

Used GMV data to back the opportunity, not assumptions.

Factored in the broader shift to digital commerce, not just tech hype.

3. Strategic Alignment

Purpose: Articulate how your AI product or feature aligns with your vision, strategy, and objectives.

Key Questions for an AI Product:

Does this align with our company's vision and long-term strategy?

How does this support our company objectives?

Does this play to our strengths and competencies?

Shopify's Response (Good Example):

Auto Write was aligned with the company's vision of making commerce simpler for merchants.

It supported Shopify's focus on merchant efficiency, SEO optimization, conversion improvement, and reducing friction in the merchant onboarding journey.

It was aligned with Shopify's strength in merchant-focused solutions and leveraged its deep e-commerce expertise.

Common Traps Avoided:

Avoided chasing AI for its own sake, linking Auto-Write to their merchant-first strategy.

Used their e-commerce platform strengths, not untested areas, to deploy Auto Write.

4. Customer & User Needs

Purpose: Prioritize solving the highest-value user problems clearly and precisely.

Key Questions:

What are the key market segments and user personas?
What are their primary jobs-to-be-done and pain points?
Are there any constraints (e.g., geographic, language, regulatory)?
Which user problems, if solved, would generate the most frequent, severe, and widely experienced value?

Shopify's Response (Good Example):

High frequency: Shopify identified a frequent pain - merchants struggle with manually writing product descriptions, a tedious daily task.

High severity: This slowed merchants down severely, hurting SEO and conversion rates.

Wide magnitude: Almost every merchant faced this issue frequently, leading to meaningful widespread value.

Common Traps Avoided:

Shopify avoided focusing on niche, low-frequency use cases that wouldn't impact a broad merchant base.

5. Value Proposition & Messaging

Purpose: Communicate the unique value proposition clearly and compellingly.

Key Questions:

Which problems for each market segment do we address?
What are the key capabilities and features (high-level) that solve those problems?
What are the benefits and customer outcomes?
How is this different from what others offer?
How can we clearly and compellingly communicate our product's unique value to resonate with each segment?

Shopify's Response (Good Example):

Shopify Auto Write targets (Who) new and small merchants, (Problem) addressing their struggle with slow, manual product-description writing. Its (Features) AI-powered generation feature creates SEO-optimized descriptions instantly. This (Benefits) cuts writing time, improves conversions, and boosts SEO, helping merchants launch faster. Unlike (Differentiation) generic tools, it's built into Shopify's platform for seamless use.

Common Traps Avoided:

Shopify skipped vague buzzwords.
Instead, it defined clear benefits (time saved, conversions up) tied to merchant needs and explained how those benefits would be achieved rather than simply listing features.
Explained what's different about Auto Write.

6. Competitive Advantage

Purpose: Clarify your product's defensibility and ability to sustain competitive advantage.

Key Questions:

What makes us think competitors can't/won't copy our strategy?
How defensible and durable is our advantage in creating long-term?

Shopify's Response (Good Example):

"Shopify Auto Write's defensibility stems from its deep integration into the Shopify platform and access to proprietary merchant data, making it tough for standalone AI tools to compete. Rivals face adoption hurdles without Shopify's ecosystem and workflow fit."

Common Trap Avoided:

Shopify avoided weak, easily copied advantages, anchoring Auto Write in platform integration and data.

7. Product Scope and Use Cases

Purpose: Define the key capabilities and features with tasks our product (or a feature set) must perform exceptionally well.

Key Questions:

What are the key capabilities and features?
Can we link designs or prototypes for better alignment?
What are the desired customer outcomes?
What are the high-risk assumptions? How can we test them with minimal effort?

Shopify's Response (Good Example):

"Key features include (tied to customer needs and value proposition defined previously):

*AI-generated product descriptions
Human-in-the-loop pattern for editing AI-generated descriptions
AI support for both product description generation and editing
Multiple editing entry points (...)*

Design: [Shopify Auto Write prototype]

The desired outcomes are:

User Adoption Rate: Target 15% WoW usage within 180 days.

Merchant Satisfaction: 80% of feedback submitted is positive.

Reduction in merchant churn: Reduce the time for stores to be published from the draft state.

SEO Impact: Monitor lift in organic traffic for those leveraging the feature.

High-risk assumptions were tested through usability testing and technical spikes before the implementation.”

Common Traps Avoided:

Shopify initially fell into the trap of trying to address all user needs, but it corrected its course quickly.

Auto Write was launched in 2023 with core functionality (e.g., standard tones/styles).

Shopify refined based on merchant feedback.

8. Non-Functional Requirements

8.1 General Requirements

Purpose: Define the essential system attributes (e.g., performance, scalability, security) that ensure the product operates reliably under expected conditions.

Key Questions:

What technical, performance, scalability, security, and reliability attributes must our product achieve to deliver and sustain its intended value?

What are the peak load and user volume expectations?

Shopify's Response (Good Example):

Scale to 15% of merchants at peak load.

Perform load test to understand and confirm specific limitations (e.g., delivers descriptions in [X]ms for [Y]% of queries).

Provide a disabled state if/when there is an API outage.

Common Traps Avoided:

Shopify addressed technical, latency, scalability, and compliance requirements, avoiding vague targets.

It did it early, avoiding treating non-functional requirements as afterthoughts.

8.2 AI-specific Requirements

Purpose: Ensure the AI consistently delivers accurate, reliable, ethical, and user-aligned outputs.

Key Questions:

What are the key AI architectural choices?

What accuracy, reliability, and ethical standards must our AI meet (e.g., best practices, brand voice, and legal compliance guardrails)?

How will we measure these qualities?

How will we maintain them over time?

Shopify's Response (Good Example):

Choose OpenAI GPT-3 (Davinci-003) with clear guardrails on outputs.

Stream model's output for lower latency (display responses in real time).

Limit time (and debounce) between regeneration (to prevent excessive requests).

Provide guidance around the use of generated content.

Moderate generated content for iOS to align with Apple's App Store requirements.

Implement robust feedback loops for continuous model refinement and human-in-the-loop quality assurance measured by quarterly review cycles.

Common Traps Avoided:

Shopify avoided blindly trusting LLM outputs without ongoing validation.

9. Go-to-Market Approach

Purpose: Define how you rapidly demonstrate measurable value and grow user adoption.

Key Question:

Are there build and release phases (e.g., an MVP addressed to early adopters)?

What are the first market segment(s) we want to focus on?

How can we win those customers, rapidly demonstrate the value, and get evidence to accelerate further growth?

Shopify's Response (Good Example):

Released Auto Write in 2023 as a pilot with minimal features within Shopify Magic.

Focused on early-adopter merchants needing content efficiency.

Targeted 15% merchant adoption within 180 days - realistic targets for conversion and efficiency improvements confirmed early through A/B testing.

Demonstrated value with faster content creation and conversion gains and used success stories to grow adoption.

Common Traps Avoided:

Shopify set clear metrics (15% adoption) and tested via A/B, avoiding vague or unrealistic goals.

Kept the scope tight with core features, iterating based on feedback instead of overbuilding.

Insights from Shopify Auto Write Case Study

Shopify identified a **compelling market opportunity** and tightly aligned the Auto Write product with the company's vision and strategy.

They explicitly focused on solving **high-frequency, high-severity merchant pain points** (time-consuming product description creation).

They avoided common AI pitfalls by:

Testing their assumptions (in particular, usability).

Defining precise non-functional requirements and guardrails on AI outputs.

Staying lean (the pilot approach) rather than over-engineering the solution.

Designing feedback loops (both quantitative and qualitative "vibe checks") to inform continuous improvement.

Do you know someone who can benefit from the AI PRD template and case study?

CHAPTER V: Conclusions

This primer provided a comprehensive, structured approach to crafting effective AI Product Requirements Documents (AI PRDs).

It introduced the AI PRD as the core of the AI product development lifecycle. It connects strategic context, product excellence, and go-to-market, all anchored by a single, universal spine: **value creation**.

Each AI PRD section is designed to help you design an AI product or feature that solves critical user problems, aligns with your strategic strengths, and delivers measurable business impact in a competitive, scalable way.

Remember that the AI PRD isn't a static artifact. It's a **living, continuously updated alignment tool** driven by constant testing and feedback loops.

By adopting the structured PRD framework outlined in this post, you can confidently navigate strategic, product, and technical complexities.

By anchoring each decision to clearly articulated value creation, you'll ensure clarity and cross-functional alignment, ultimately delivering sustained and measurable value to users and your business.