The Path to a Performant Checkout

A Guide for Technical Leaders





4 must-haves for a **frictionless** checkout experience

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As a technical executive, you know that checkout is so much more than the last step in the sales process. It's a crucial component in your technology stack and an essential driver of topline revenue.

We understand that building a state of the art checkout isn't easy. It's one of the most complex product areas within Shopify. So much so that we have hundreds of engineers dedicated to building new and improved features to our own checkout platform.

This whitepaper walks through key checkout imperatives we see based on data from over half a trillion dollars in total sales that have flowed through our checkout. We view these elements as the most crucial in providing a frictionless experience for your customers and your internal development and engineering teams:

We'll explore the following enterprise checkout imperatives:

- 1. Your checkout needs to be optimized for conversion
- 2. Your checkout needs to be able to handle your scale
- 3. Your checkout needs to simplify complexity so you can focus on business needs
- 4. Your checkout needs to be flexible and customizable for your unique requirements

Imperative 1: Your checkout needs to be **optimized for conversion**.

Your checkout shouldn't give customers any reason to abandon their cart.

Research by Accenture shows that 87% of online shoppers will abandon their carts if they perceive the checkout process as being complex—and 60% of online shoppers will walk away if the process takes more than two minutes.²

According to a 2022 Stripe study of the top ecommerce and subscription businesses in the United States and Canada, the average checkout takes more than three minutes, with 99% of sites having at least five basic errors in their checkout flow. These errors include not allowing customers to save their details and not offering popular payment methods.

But ensuring customers aren't walking away isn't just a matter of identifying omissions on your checkout page, it's also about the technology and platform your checkout is built on. And that platform should optimize for latency and throughput, data validation, customizability, payment method compatibility and more. However, many checkout offerings in the market fall short.

Earlier in 2023, one of the Big Three global management consulting firms ran a study to see how Shopify stacks up. <u>Their results were eye opening</u>: overall conversion rates are outpacing the competition by 15% on average, and up to 36% against one major enterprise vendor.

Shopify's conversion rate outpaces the competition by 15% on average.

So what are we seeing as the biggest drivers of conversion?

1. Speed and a streamlined customer flow

Customers want to spend time looking at your products, instead of navigating a long, arduous checkout that prolongs their path to purchase.

¹ https://bankingblog.accenture.com/hindsight-2020-payments-past-shows-futurehttps://bankingblog.accenture.com/hindsight-2020-payments-past-shows-future

 $^{^{2}\} https://go.stripe.global/rs/072-MDK-283/images/State_of_Checkouts_2022_Guide_AMER.pdf$

³ https://go.stripe.global/rs/072-MDK-283/images/State_of_Checkouts_2022_Guide_AMER.pdf

We sweat the details of each step in the buyer journey: optimize time-to-first-byte to guarantee fast and predictable response; server render critical checkout content for fast render; make use of async loading to optimize delivery and provide fast time-to-fully-interactive. Our goal is to be within a couple hundred milliseconds of every buyer and make use of every technique—bundling optimizations, parallel queries, async loading—to provide the best possible experience to every buyer. Finally, we hand craft every single pixel, step, and choice in the user experience, running countless A/B tests to streamline the experience for higher conversion.

2. Customer trust

There are crucial moments across the buying journey that impact trust. A break in that chain at one stage can create a negative experience that cascades across the entire buyer journey.

But there are a ton of checkout microcosms that create risks when not managed properly. Are customers being fairly queued during a sales event? Are discounts applied correctly? Will payment be processed securely?

In 2022, we saw approximately 561 million shoppers purchase from businesses on Shopify. That volume tells us that the look, feel, and flow of our checkout is highly recognizable and trusted.

But Shopify Checkout isn't just a familiar experience, it's a delightful one that builds trust every step of the way. It's seamless, fast, and unfussy—not to mention full of options that consumers expect like discounts and gift cards, delivery promises, local pickup, tax and duty calculation, post-purchase offers, and more.

Making something seem this simple is actually an incredibly complex undertaking. The smooth experience of Shopify Checkout is the byproduct of many sophisticated features working together in perfect harmony, while supporting each business's unique needs and logic.

3. Buyer identity

Privacy and compliance changes have made it more and more difficult to reach and acquire new customers. This places even more pressure on your checkout's ability to convert. A compelling theme that's influencing conversion, is buyer identity, where customers are willing to exchange their personal information for frictionless buying experiences. The way Shopify enables businesses to capture buyer identity today is through Shop Pay, the only fully customizable, one-tap accelerated digital wallet. Shoppers sign up for Shop Pay to checkout faster and to take advantage of buy now, pay later with Shopify Installments. They then get comprehensive order tracking through the Shop App, where they can also find, view, and purchase products from stores that are surfaced based on their purchase history.

Because of this frictionless experience, we've seen over 100 million high-intent, high-value buyers opt-in to Shop Pay, creating a massive buyer identity network that can be targeted with relevant products and offers, driving incremental acquisition without inflating costs.

This Shop Pay identity network compounds value for shoppers, all while providing a simple, fast, and trusted purchasing experience, leading to higher conversion.

According to the same Big Three conversion study, the mere presence of Shop Pay can increase lower funnel conversion by 5%, even if customers don't end up using it.

Shop Pay has been shown to lift conversions by as much as 50% relative to guest checkouts.

We see great power in buyer recognition, confirmed by this data and believe that the future of commerce is identity-driven.

Imperative 2: Your checkout needs to be able to **handle your scale.**

A CTO's worst nightmare is a checkout that can't handle the pressure, leading to cart abandonment and loss of brand trust.

Horror stories of major brands having their checkout crash during peak seasonal sales events is a feeling we internalize, so our clients will never have to experience that pain. That means no difficult board meetings or sleepless nights battling incidents.

But using elastic clouds and auto-scalers isn't enough. You'll need to consider all of the following in order to determine whether your checkout is built for scale:

- Where is your data stored?
- How is your data cached?
- Where is your experience served from?
- How well is your code optimized?
- How well and how often is your platform tested for throughput?
- How responsive is your site's infrastructure to unexpected traffic?
- Can your checkout handle bot attacks?

At Shopify, we decided that using our platform has to be tantamount to hiring domain experts for infinite scale, and superior to what's otherwise available with alternatives. Here's what that translates to:

- **Continual refinement:** There's no need for you to invest in QA and regression testing. Access to huge data sets allows Shopify to continually refine and improve checkout infrastructure through rigorous analytical practices. The result is that when market demands shift, Shopify is ready with the right solutions and your development teams don't have to de-prioritize the roadmap to build checkout enhancements.
- **Global:** Shopify's infrastructure is deployed globally, providing an optimal experience to your internal teams and customers. Shopify is able to respond quickly to queries

and issues as they arise and provide an optimal experience, regardless of location or cultural context. We offer **24/7 coverage monitoring systems** and you'll have a direct point of contact to call when needed.

- **Bad actor prevention:** Shopify is fully SOC2 compliant. Shopify has a dedicated monitoring and response team that handles bad actors, including bots, DDoS attacks, and card testing. Mitigation and prevention is also a focus, including through Shopify's Bug Bounty program. In 2021, Shopify paid \$1 million in bounties to ethical hackers who identified bugs before they became problems.
- **Compliance:** Shopify's checkout manages UX and execution runtime, providing global compliance (e.g. accessibility like WCAG, data collection and access like GDPR, payment industry like PCI DSS, etc.) and regional compliance (e.g. locations of marketing consent checkboxes) by default. This is greatly underappreciated until a business is tasked to build their own.
- Always ready: Shopify is ready to handle any sale at any time. Individual brands have run flash sales spiking to 40,000 checkouts per minute. The platform has also demonstrated its capability in handling large and sustained traffic: During Black Friday 2022, checkouts steadily rose to 56,000 per minute throughout the most active shopping times.

Imperative 3: Your checkout needs to **simplify complexity**.

Checkout isn't just a single function like making a payment-it's a platform in its own right, with a myriad of components that need to work in harmony. Think of it as an orchestration engine between components such as:

- Identity
- Shipping
- Taxes
- Duties
- Payments & PCI compliance
- Market-based pricing
- Languages
- Oversell protection
- Accelerated payment methods
- Address completion
- Discounts & offers
- Bundles

- Buy online, pickup in-store (BOPIS)
- Loyalty & rewards
- Subscriptions
- Pre-orders
- Store credit
- Gift cards
- Flash selling
- Local delivery
- Parcel-locker pickup points
- Bot protection
- Fraud protection
- Analytics & tracking (pixels)

The above isn't an exhaustive list—but it does illustrate the incredible complexity of checkout. Ensuring systems are talking to each other can equate to a massive maintenance cost that no business should have to face on its own.

The checkout experience is a critical component of digital commerce - and one that many brands struggle with" says Vikalp Tandon, Global Commerce Sales and GTM Lead at Accenture Song. "Time and time again, we've seen retailers add unnecessary complexity at checkout that negatively impacts their conversion rate and simultaneously increases development cost. Shopify's checkout solution is designed to help enterprise organizations streamline the path-to purchase for customers, increasing conversion and total sales. This is further complicated by the rapid pace of checkout innovation—installments and deposits, new wallets for accelerating checkout, and delivery promises are just a few examples of features internal engineering and development teams shouldn't have to build themselves.

Consider this: Ten years ago, phrases like "click and collect" or "buy online, pickup in store" (BOPIS) weren't part of the lexicon. Compare that to last year, when almost 67% of U.S. shoppers selected BOPIS shopping methods; an increase from 50% in 2021. Fueled by economic uncertainty, Buy Now, Pay Later (BNPL) programs have also begun to explode in popularity, as have options for split payments.

These innovations—and predicting what trends have staying power and are worth the investment—can be taxing on technical teams who are already juggling maintenance, integrations, and other business priorities.

Shopify Checkout manages this complexity through its design and architecture. Built by a large team of dedicated experts—we have more engineers working just on checkout than some companies have working on their entire commerce solution, bringing together indemand features that work seamlessly together out-of-the-box through configuration alone.

Shopify is always reacting quickly to market and regulatory shifts in checkout so that your technical team can focus on true differentiators for your business—not maintaining the status quo. This includes:

- Added controls to manage cookies in checkout following the introduction
 of GDPR/CCPA
- Regular accessibility audits to stay in compliance with WCAG 2.1 AAv
- When the EU passed the revised Payment Services Directive (PSD2), Shopify proactively worked with PayPal to modify their buyer experience and mitigate an increase in authorization errors
- Cross-border UX that our checkout offers based on local requirements (e.g. content that specifies tax inclusion/exclusion, or unit pricing where it's legally required to be shown)



"If your checkout doesn't work, you're not making money."

When Dollar Shave Club launched in 2011, a viral YouTube video crashed the website overnight resulting in high-stakes pressure on its engineering team. One of its early obstacles? It needed a bespoke checkout that would allow customers to subscribe and make a one-off purchase, all in the same transaction.

Dollar Shave Club made a strategic decision to invest in building its own custom subscription platform and checkout. While this approach initially showed promise, the cost of maintaining and updating the custom checkout was significant. In addition to the upfront investment, the checkout required continuous testing and updates to meet new consumer expectations, compliance, and prevent fraud. Despite these challenges, Dollar Shave Club remains committed to providing a best-in-class, seamless checkout experience for its customers.

"Our customer doesn't care who built our checkout—it is not a point of differentiation in modern ecommerce. They just want a fast experience with trusted payment, shipping, and tracking options. While it's hard to differentiate, it's easy to fall behind on consumers' split second expectations of checkout. If your checkout doesn't perform, you're not making money." says Ranil Wiratunga, Chief Digital Officer and Global GM of DTC. "When customers land in a Shopify Checkout, they feel a sense of familiarity and trust that often leads to higher conversion rates."

Imperative 4: Your checkout needs to be **flexible and customizable** for your unique requirements.

Each business is unique, with specific front and back-end customizations powering the checkout experience. You need to be able to customize your checkout to differentiate from your competitors, and also pivot as those needs change, while avoiding the trap of building from scratch every time.

But customizing your checkout shouldn't have to mean building from zero—instead, it should be about refining proven checkout architecture to meet your business's unique needs.

Shopify offers a rich set of checkout customization tools that allow enterprise businesses to build and augment custom checkout experiences on top of Shopify Checkout. You can add custom banners and messages (like warnings or disclaimers), additional fields, and product offers like upsells, free samples, and donations.

This flexibility ensures that implementing and integrating Shopify's Checkout with your current tech stack doesn't have to require ripping out and replacing your site's entire architecture. Shopify's team of engineers and architects will help you find the best solution for your business.

Shopify Checkout is the best converting checkout in the world for a reason.

With over half a trillion dollars in sales that has flowed through the platform, nearly two decades of development, and a large team of dedicated engineers and user experience professionals improving it every day, Shopify Checkout is able to offer scale, unmatched conversion, and the flexibility to extend and customize to meet the unique needs of your business.

Let's talk about your commerce stack.

Enterprise businesses can now build with the same components Shopify uses to power 10% of all US ecommerce, including the world's best-converting checkout and Shop Pay accelerated digital wallet. Get in touch to learn more.

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