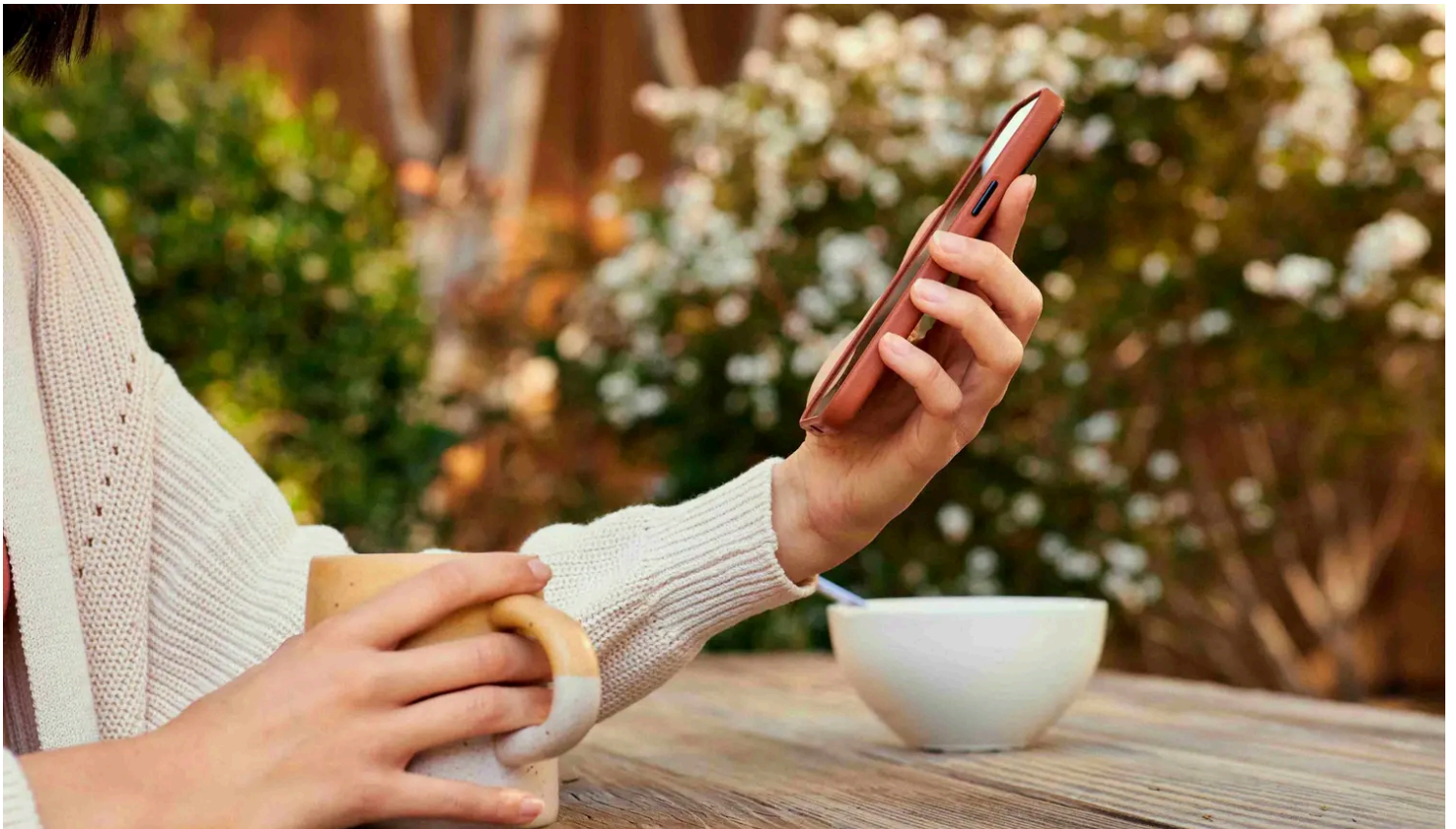


How online payment processing works

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5 mins read



With e-commerce poised to make up nearly a quarter of all global retail sales by 2027,¹ many businesses are setting up digital shops to accept payments online and capture more sales. But after a customer hits "check out," how does the money get to your company's account?

Whether you're expanding a brick-and-mortar business to accept payments online or starting a new venture from the ground up, it's important to understand how online payment processing

really works – who's involved, how you get paid, and what processing fees you might incur. That way, you'll be prepared with a suitable plan for you and your business.

In this guide, we'll cover the basics of payment processors from how they work to their benefits for websites and e-commerce operations.

What is online payment processing?

The reasons businesses should incorporate streamlined online payment processing solutions are straightforward: they help to boost customer satisfaction, bolster transaction security, and further bottom lines.

But first, we should explain how online payment processing works. In basic terms, it refers to how money moves from your customer to your business. Though this may sound simple, there are many moving parts involved in processing credit and debit card payments, whether online, via phone sales, or even in person.

You, the business owner or merchant account, are one end of the transaction. Your customer is on the other end. A sophisticated array of technology bridges the gap between the two, designed to facilitate this exchange efficiently and securely.

By understanding the mechanisms of online payment processing software, you can make informed decisions that enhance transaction reliability and customer trust, which may ultimately lead to business growth.

The business

The main moving part of online payment processing is the merchant, who is considered you or your business. However, to accept credit and debit card payments from online customers, you will likely need to partner with one of the many available merchant account providers, including our [PayPal merchant account](#).

This merchant account (sometimes called an acquirer) accepts payments on your behalf and deposits them into a business merchant account they provide. For instance, you can [accept online payments with PayPal](#).

The online payment processor

[Payment processors](#) (or merchant account services) handle all the heavy lifting in online payment processing. This involves everything from moving the transaction through the processing network to sending you a billing statement, and then working with your bank to ensure you get paid. In other words, it includes everything it takes to process online payments.

Often, your merchant bank is also your online payment processor, which helps simplify things. For example, with PayPal, funds are settled directly into your PayPal account, where they become available for immediate use – no bank transfers and waiting periods needed.

The payment gateway

One of the technologies involved in online payment processing that enable you and your customer to transact is the [payment gateway](#). For us, it's called the [PayPal payment gateway](#). This is software that links your site's shopping cart to the processing network.

The payment gateway plays a crucial role in the checkout process. It not only securely transmits the customer's payment information from your website to your payment network for processing but also performs essential security checks to prevent fraud, including verifying digital signatures and encrypting sensitive data like credit card numbers.

Given that more than 70% of online shopping carts are abandoned on average,² choosing a payment gateway that provides a frictionless, secure payment process can be a game-changer for driving conversions and repeat business.

The customer

Traditionally, for your customers to pay for your goods and services, they would need a credit or debit card. The bank that then approves the card (and lends them the cash to pay you) is called the issuing bank.

Online payment processing benefits

Online payment systems offer convenient, quick, and secure transactions, leading to improved customer experiences, efficient record-keeping, and helpful integration capabilities. Adopting these systems can optimize payment processes and contribute to the overall growth and success of a business in the digital age.

Convenience

Online card processing systems have long provided a convenient way for customers to make purchases from anywhere, anytime – eliminating the need for physical store visits or carrying cash.

While this convenience was groundbreaking, the digital shopping landscape now demands even greater flexibility and innovation in payment solutions. Beyond traditional credit and debit cards, modern consumers expect options like digital wallets, like PayPal, Google Pay or Apple Pay, along with newer methods such as Venmo and buy now, pay later options.

With 13% of customers abandoning their shopping carts because of insufficient payment options,² these alternatives provide much-needed convenience.

Expanded customer base

By accepting online payments, businesses can reach a broader customer base beyond their local area. Online payment processing for small businesses enables those companies to cater to customers from different regions and even international markets.

Quick transactions

Online payments are typically processed swiftly, allowing for faster transaction completion compared to traditional payment methods.

Improved security

Online payment systems often employ advanced security measures to help protect customer information.

Enhanced customer experience

Online payment systems offer a seamless and user-friendly interface for customers to complete transactions with features like saved payment information, one-click purchases, and automated recurring billing options.

Integration with other business systems

Many online payment processing systems integrate with other business software and systems, such as e-commerce platforms, inventory management, and customer relationship management (CRM) systems.

For example, linking payment processing with an e-commerce platform can automatically update inventory levels as sales occur, while CRM integration ensures customer data is continually refreshed with each transaction.

These integrations not only save time by reducing manual data entry but also provide valuable insights into customer behaviors and preferences, aiding in more informed decision-making.

How does online payment processing work?

As a business owner, it's helpful to understand exactly what it looks like to process online payments. Or, in other words, how money moves from your customer to your business.

There are two stages to [online payment processing](#): authorization (approving the sale) and settlement (getting the money in your account).

Card authorization

When it comes to how credit card processing works, the authorization process goes roughly like this:

1. Your customer buys an item on your site with a credit or debit card.
2. That information goes through the [payment gateway](#), which encrypts the data to keep it private and sends it to the payment processor.
3. The payment processor sends a request to the customer's issuing bank to check to see if they have enough credit to pay for the item.
4. The issuer responds with a yes (an approval) or a no (a denial).
5. The payment processor sends the answer back to you that the sale was approved and tells your merchant bank to credit your account.

The full range of these steps happens quickly. In fact, all of the above takes place within one to two seconds, in most cases.

Settlement

The second piece of the online payment system process (where you get paid) is the settlement:

1. The card issuer sends the funds to your merchant bank, which deposits the money into your account.
2. The funds are available.

Although the settlement process can sometimes take a few days, certain banks might allow you to access your funds even before they are officially transferred. They also may keep a portion in your account that you can't touch – just in case the customer returns the item later (called a reserve in payments).

Want funds sooner to better manage business expenses and improve cash flow? PayPal's payment processing can help. Once funds settle into a merchant's PayPal account, they are available for immediate use – there's no need to wait for a bank transfer. Check out our [step-by-step guide to PayPal payment processing](#).

How to set up online payment processing with a third-party system?

We know you may have questions swirling in your head: What do I look for in a payment processor? How do I choose a payment gateway [a payment gateway](#)? How can I set this all up without being overwhelmed?

Here's a general breakdown of how to set up online payments for your business:

- **Find the right partner.** Research online payment processing companies and select a reputable one that suits your business needs, considering factors such as transaction

fees, security features, integration options, and customer support. Remember, the cheapest online payment processing service is not necessarily the best match for your business.

- **Create an account with a payment processor.** Sign up for a merchant account with the chosen payment processor. Provide the required business and banking information.
- **Integrate the steps into your operation.** Determine how you want to integrate online payments into your website. Some potential options include using an e-commerce platform with built-in payment integration or integrating a payment gateway into your custom website.
- **Ensure compliance with Payment Card Industry Data Security Standard (PCI DSS).** Your website and payment processing setup must comply with [PCI DSS guidelines](#) to protect cardholder data.
- **Get started with test transactions.** Perform test transactions to ensure the payment processing system works correctly. Experiment with different scenarios, such as successful payments, declined transactions, and refunds, before launching the system to your customers.

Once set up, it's important to continuously monitor your online payment processing system, review transaction reports, and stay updated on any changes or enhancements offered by your payment processor.

How to set up an online payment system without a third-party system?

Wondering how to set up an online payment form without a third-party processor? It can be a complex task. Here are a few steps you can take:

- **Research payment service providers and sign up.** Explore different payment service providers (PSPs) and select one that aligns with your business.
- **Explore developer resources.** Access the developer resources provided by the PSP, which can help you integrate their payment solution into your website or application.
- **Establish a secure website.** Implement SSL encryption on your website to ensure secure communication between your customers and the payment service provider during transactions. Obtain an SSL certificate and configure it on your website.
- **Integration options.** Choose the integration method, such as API integration, hosted payment pages, or shopping cart plugins. Follow the PSP's documentation and guidelines for seamless integration.
- **Maintain compliance.** Ensure your integration adheres to relevant security standards and compliance regulations, such as PCI DSS.

- **Go live.** Once you have successfully tested the integration, switch to the live or production environment provided by the PSP. Update your website or application to enable real transactions and start accepting payments from customers.

How to add a payment method to a website checklist

Now you're ready to create a website with payment options or add payment to your existing website. Once you've selected an online payment processing company, set up an account, and chosen the integration methods, you can:

- Add payment buttons or forms to your website.
- Implement security measures.
- Perform test transactions.
- Start accepting payments from customers.

Payment processing pricing and fees

We've learned about how payments come in once they're processed, but what about the other side of the coin? What will it cost? As you may have guessed, everyone who touches the transaction wants to get paid, including the issuing bank, the credit card association (Visa, MasterCard, etc.), the merchant bank, and the payment processor.

At its most basic, every time you process a sales transaction, you pay four [payment processing fees](#):

- **A percent of the transaction amount.** The issuer gets paid by taking a percentage of each sale, which is called the interchange. This fee varies depending on various factors, such as industry, sale amount, and type of card used.
- **Another percent of the transaction amount.** The credit card association (Visa, MasterCard, etc.) also charges a fee, also known as an assessment.
- **Yet another percent of the transaction amount.** Your merchant bank takes a cut by charging you a percentage fee. The amount here also varies by industry, number of sales, monthly processing volume, etc.
- **A dollar amount for every transaction processed.** The payment processor (who might also be your merchant bank) makes money by charging an authorization fee every time you process a transaction (whether it's a sale, a decline, or a return). Plus, it can charge fees for setup, monthly usage, and even account cancellation.

Usually, the first three fees (the percentages) are all added together and quoted as a single rate, while the transaction fee is quoted separately (e.g., 2.9% + \$0.30).

Most pricing structures generally fall into one of three categories:

- **Flat-rate pricing.** You pay a fixed percentage for all transaction volume, no matter what the actual costs are. All the above fees are included in this single rate. For example, you are charged a bundled rate of 2.9% of the transaction amount + \$0.30 per transaction. On a \$100 sale, the fee you pay is \$3.20.
- **Interchange plus pricing.** Your merchant service charges you a fixed fee on top of the interchange. For example, 2.0% + \$0.10 on top of a 1.8% interchange fee. On a \$100 sale, the fee is \$3.90. Learn more about [IC++ pricing](#).
- **Tiered pricing.** The processor takes many different interchange rates and lumps them into three buckets (or pricing tiers): qualified, mid-qualified, and nonqualified. However, because the processor defines the buckets any way it wants, this method can be expensive. As an example, the fees you pay on a \$100 sale could range from \$2.50 to \$3.50, depending on how the transaction has been classified.

For more information, visit [PayPal pricing](#).

Ready to start accepting and processing payments quickly and easily? Explore [PayPal Complete Payments](#) and learn more about [new innovations revolutionizing commerce](#).

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¹ Statista. (2024, Feb). E-commerce as percentage of total retail sales worldwide from 2021 to 2027.

² Baymard Institute. (2023, Jul). 49 Cart Abandonment Rate Statistics 2024.