



The API Economy and Its Impact on Ecommerce





Introduction

Businesses who have lived through the evolution of the digital age are well aware that we've experienced a generational shift in technology. The rise of software as a service (SaaS), cloud, mobile, big data, the Internet of Things (IoT), social media, and other technologies have disrupted industries and changed customers' expectations. In our always-on, buy anything anywhere world, customers want their shopping experiences to be personalized, dynamic, and convenient.

As a result, many businesses are trying to reinvent themselves. Success in a fast-paced economy depends on continually adapting and innovating. Companies have to move quickly to keep up; there's no time for disjointed technologies and old systems that don't serve the customer-obsessed mentality needed to thrive in the digital age.

Speed is one of the most important factors for determining a company's success. It's crucial for updating technologies and processes, bringing new products to market, expanding into new markets, and establishing strategic partnerships faster than the competition. However, as new technologies, digital features, and customer expectations converge, speed is proving to be a challenge for businesses.

So, how can companies capitalize on this need for speed?

The answer for many businesses—especially those competing for ecommerce dominance in their industries—lies in the API economy. Let's explore the API economy, how APIs can impact ecommerce, and how you can leverage ecommerce APIs to grow your business.

APIs and the API Economy

APIs, or application programming interfaces, enable one application (such as your ecommerce platform) to expose services (such as catalog content, order management, pricing information, and customer data) to other applications.

Simply speaking, an API helps systems “talk” to each other. A well-defined API is the glue that connects data together and allows authorized applications or machines to easily access it.

APIs bring a new level of data sharing and connectivity to multiple applications, regardless of their data structures and technology platforms. APIs have proven to be extremely important to enterprises, contributing to their agility, efficiency, innovation, and growth—ultimately affecting their bottom line. These benefits have created the API economy, which can be defined as the way APIs positively impact a company's profitability.

APIs make it easier for businesses to:

- Integrate and connect people, places, systems, data, and algorithms
- Share data and information
- Enable transactions
- Leverage third-party algorithms
- Authenticate people and things
- Develop new products, services, and business models
- Create new user experiences



The API economy is an enabler for turning a business or organization into a platform. Platforms multiply value creation because they enable business ecosystems inside and outside of the enterprise to consummate matches among users and facilitate the creation and/or exchange of goods, services, and social currency so that all participants are able to capture value.



— [Kristin R. Moyer](#)
VP and Analyst at Gartner

Most businesses find that the API economy is an excellent way to create new capabilities, features, services, and experiences to delight customers and drive revenue.

As such, APIs continue to be a huge factor in many organizations' business models. As technologies like mobile, the Internet of Things, and augmented reality accelerate their growth, the API economy will continue to expand rapidly.

How Ecommerce APIs Can Impact Your Business

Proper data orchestration is the key to smooth enterprise ecommerce implementations and ongoing operations, and APIs help facilitate this process.

They connect your ecommerce platform with numerous back-end systems, including:

- Enterprise resource planning (ERP)
- Product information management (PIM)
- Customer relationship management (CRM)
- Order management system (OMS)
- Warehouse management system (WMS)
- Point-of-sale (POS)
- Content management system (CMS)

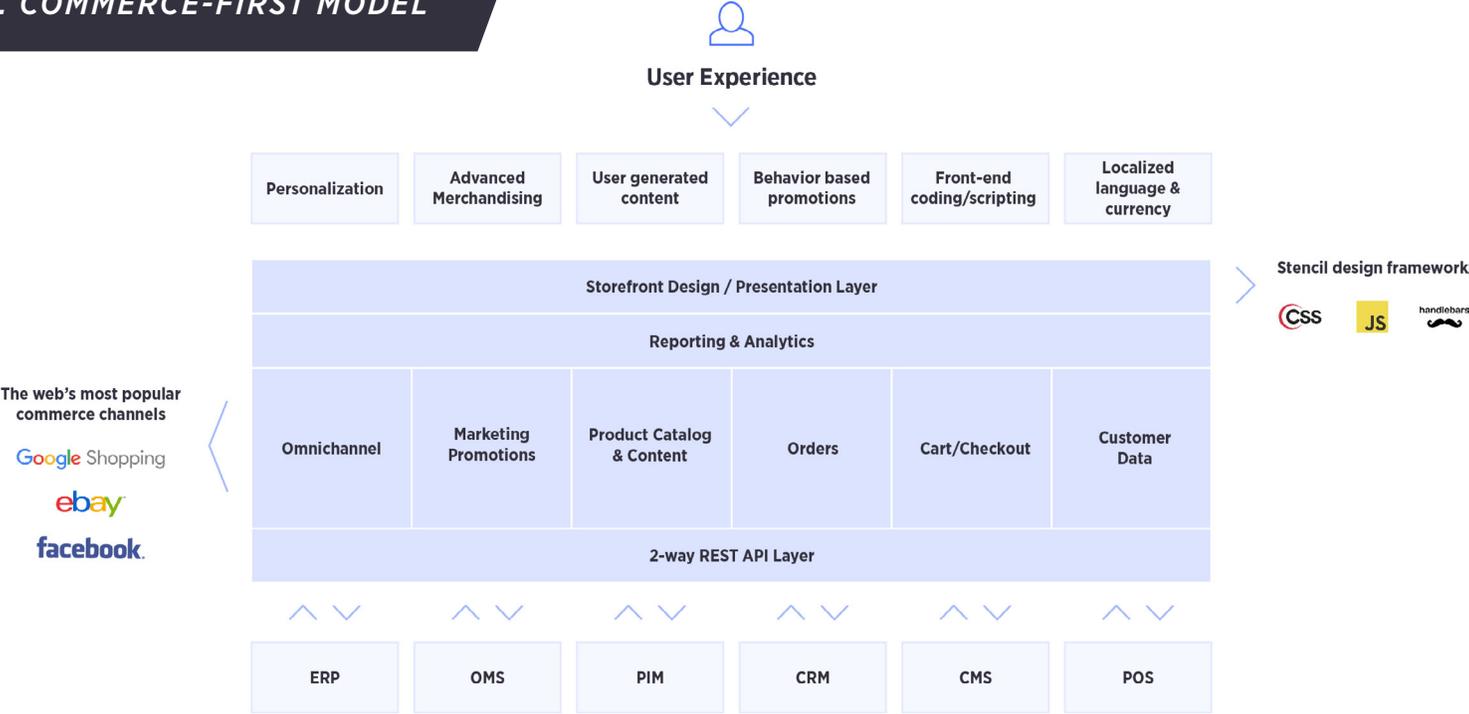
Correctly integrating any or all of these systems is critical for your business to be as efficient, agile, and adaptive as possible.

The smooth, accurate flow of information related to things like inventory, customer, pricing, and order data can be the difference between increasing revenues or increasing costs and developing a loyal customer or losing him to a competitor.

Ecommerce Models

There are two main strategies for approaching ecommerce, and each has an impact on data orchestration and APIs.

1. COMMERCE-FIRST MODEL



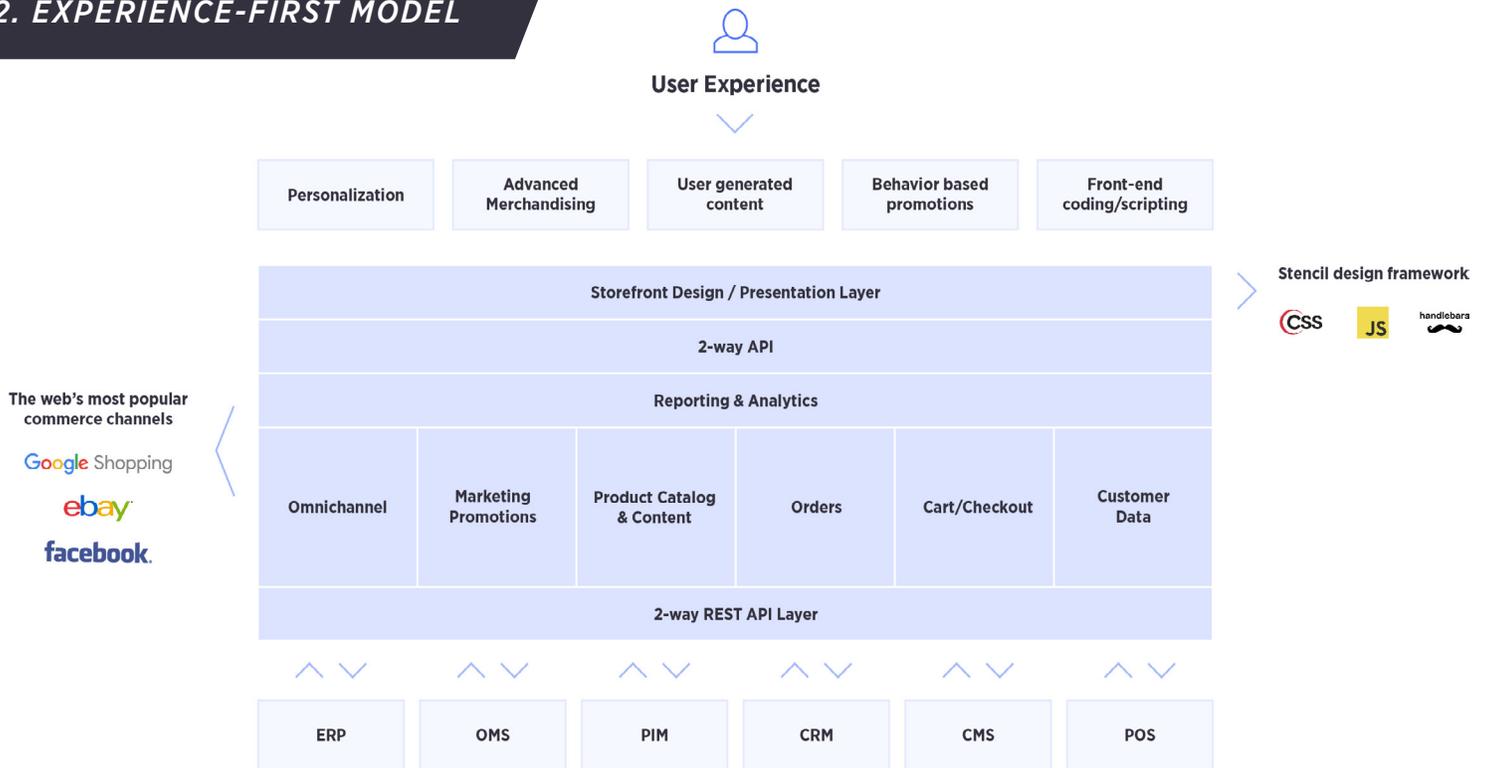
The commerce-first model uses an ecommerce platform on the front-end for the user experience and checkout, and leverages APIs on the back-end for data orchestration with an ERP, PIM, OMS, or other system. Businesses who choose this strategy typically use highly extensible SaaS technologies as spokes for the larger business hub.

IMPORTANT

On a SaaS platform, the number of API calls available is critical for making sure the platforms and data orchestration function properly, so businesses need to be able to have high or unlimited API call volumes.

All SaaS platforms manage this differently. Be sure to ask your provider or include the request for information in your RFP to the various solutions.

2. EXPERIENCE-FIRST MODEL



The experience-first or headless commerce model takes extensibility one step further, decoupling the presentation layer from the ecommerce platform using popular content management systems like WordPress.

API connectivity is important to ensure proper data orchestration across the decoupled systems. The focus for this model is to attract customers with excellent content experiences first, and then to drive them to a more traditional ecommerce experience.

Headless ecommerce platforms allow you to take advantage of the API economy to use best-of-breed applications at the presentation layer to solve your business' specific challenges. Accessing APIs to complete a digital ecosystem enables companies to go to market at a lower cost and focus on their core capabilities.

Using APIs on Different Platforms

It's important to note that not all APIs were created equal. In fact, when it comes to speed, efficiency, and cost, there are huge differences depending on whether you're using an on-premise or cloud solution like Magento or a SaaS solution like BigCommerce. There are even significant API differences between SaaS solutions like BigCommerce and Shopify Plus.

It's also worth noting the difference between open APIs and private APIs.

- **Open APIs** mean that they're open-source and therefore publicly accessible to web and mobile developers.
- **Private APIs** can only be used by internal developers (or contractors) working within the organization that developed them.

Magento

For example, like most on-premise platforms like Magento, connecting to an API is the responsibility of the business or its developer. And, since API rates depend on the quality of a company's servers/hosting account, faster API rates can end up costing significantly more.

BigCommerce's open API provides all of the benefits of a SaaS platform—such as being hosted for businesses, having a lower total cost of ownership, and going to market faster—with the flexibility to create custom integrations and functionality faster and without the additional cost and frustration.

Shopify Plus

Shopify Plus limits businesses to 10 API calls per second, whereas BigCommerce can handle 400+ calls per second and processes updates up to 100 times faster. Performing an ERP inventory sync of 25,000 products and variants on Shopify Plus would take two hours compared to only 60 seconds on BigCommerce.

Most enterprises have huge product catalogs, so having a fast and robust catalog API is paramount. While Shopify Plus caps businesses at 100 SKUs per product and only three options per product, BigCommerce can handle up to 600 SKUs per product with 250 options.

Leverage APIs to Improve the Customer Experience

Consumers want to be able to shop anywhere, anytime, so you need to deliver a consistent customer experience across all commerce channels. API-led commerce can enable you to provide omnichannel shopping that meets your customers' expectations.

At its core, omnichannel commerce is really about data orchestration. From your ecommerce platform and ERP to your POS and mobile applications, you need to be able to unify data from all of your enterprise systems into a location where it can be analyzed and used. To do that, you need to make the right connections.

Businesses find achieving true omnichannel commerce viability so challenging because it's very difficult to get all of your systems to talk to one another. However, once you get it right, you will have a much clearer and simpler view of your customers. The insights you gain from this clearer view can help you create better shopping experiences for them.

When it comes to omnichannel, the goal of integrations is to essentially hide all of the complexity of the underlying data and present a simplified view of a customer, a product, and a channel.

You can achieve this with API-led connectivity, which is a way to connect data to applications through a series of modern and reusable APIs that play a specific role in your omnichannel strategy. They unlock data from systems, turn data into processes, or provide an experience. Rather than connecting things point-to-point, with this strategy every asset becomes a modern API that can be discovered through self-service without losing control.

To better understand how this works, it's best to view the API-led approach to connectivity by organizing APIs into three types:

- **Systems APIs:** Your core systems, such as your ERP or CRM, typically aren't easily accessible because their connectivity interfaces are proprietary and complex. System APIs provide a way to bypass this complexity.
- **Process APIs:** These APIs break down data silos, interacting with and shaping data either within a single system or across systems. They don't depend on the source systems where the data originates or the channels where the data is to be delivered.
- **Experience APIs:** Data is now shared across channels, each of which can access the same data but in a variety of forms. Experience APIs enable data to be reconfigured so that it is more easily used by its audience—all from a common data source instead of having to setup separate point-to-point integrations for each channel.

This API-led strategy unifies your data so you can execute omnichannel commerce more effectively, thereby providing your customers with consistent shopping experiences across channels. It also enables you to leverage APIs to consistently address and manage the changing needs of your business.

13 Ways Your Business Can Use Ecommerce APIs

Most ecommerce platforms provide APIs to make it easy for their applications to connect with other systems. The following thirteen ecommerce API examples can boost your site's performance and functionality while improving the customer experience.

1. Product information API

A product information API enables you to connect your product catalog pages with a database to share detailed information about the products you sell, including product ID, description, title, specifications, images, pricing information, etc.

2. Catalog API

A catalog API helps you create, edit, and manage your product catalog. This API enables you to update thousands of products within minutes and supports integration with other key systems such as point-of-sale, inventory management, and reporting.

3. Site search API

The site search API is especially useful for large ecommerce sites with a massive number of products. It makes drilling down to a specific brand, product, or model easier for shoppers, and also helps them discover brands or products they may not previously have known about.

4. Login API

The login API helps you manage customer identities. It allows you to give customers the ability to log in to your ecommerce site on systems they already use, such as Amazon, Facebook, and G Suite.

5. Cart API

The cart API allows you to view customers' shopping carts. Cart APIs enable you to integrate features that personalize the customer experience at checkout, including discounts, coupons, shipping, abandonment tools, and B2B-specific components like invoicing and quote generation.

6. Checkout API

The checkout API allows you to fully customize your checkout experience, adding in additional payment methods, additional required fields and altering the UX to better appeal to your customer set and increase conversion. A checkout API allows for this level of customization while the SaaS platform continues to maintain PCI compliance, mitigating fraud and security risk for the retailer.

7. Payment API

A payment API is critical for your ecommerce site to accept electronic payments. This API ensures that your site has a fully functional payment processing system that is easy for customers to use.

8. Sales tax API

Sales tax laws vary by country, state and, sometimes, district, so you need to be able to accurately calculate tax at checkout. With a sales tax API, you don't have to worry about sales tax complexities and you can be sure that customers are charged the right sales tax amount every time.

9. Social proof API

Social proof in the form of Facebook likes, Twitter comments, and product reviews signal to shoppers that your ecommerce site is trustworthy. You can use a social proof API to stream social media feeds directly to your site and product pages. Social networks like Facebook, Twitter, and Instagram have developer APIs that you can customize and add to your site.

10. Marketing automation API

A marketing automation API allows you to automatically add customers to an email list and then segment them based on the products they bought, the purchase amount, location, or any other segmentation criteria.

11. Shipping API

A shipping API enables you to automate processes from the sale through the package being delivered to a customer. For example, after a sale has been made on your ecommerce site, a shipping API can be activated to trigger the process of a product being picked up from your warehouse and being sent to a customer. This API can then provide a tracking tool to track a package as it travels to its final destination.

12. Recommendation engine/personalization API

Recommendation engines or personalization APIs analyze a shopper's browsing behavior and recommends relevant products to them. These APIs make finding the right product fast and easy, and even enable shoppers to explore new brands and products.

13. Anti-fraud API

An anti-fraud API allows you to detect fraudsters before they do any financial damage to your business. This API screens various elements of a transaction, such as proxy, geolocation, email, credit card, etc., and flags orders that are potentially fraudulent.

Enhancing the functionality of your ecommerce site is now easier than ever with APIs. From catalog APIs to cart APIs to shipping APIs and many more, you can improve your ecommerce operations and performance, make your business more efficient, and provide customers with the shopping experiences they desire.

Final Thoughts

In our fast-moving digital world, businesses have to keep up or risk losing market share to competitors.

As you continue to fine-tune your ecommerce strategy, figure out which route you are taking and ask yourself:

- Is your business commerce-first or content-first?
- Do you need presentation layer APIs or only back-office APIs?
- Is your data currently being transferred in near real-time from system to system?
- Do you have a central data hub (like your ERP)? Can it connect to your ecommerce platform?
- Are you building a monolithic system or a more agile spoke and hub system?

The API economy allows you to take advantage of agile marketing and channel expansion opportunities without disrupting your back-office data orchestration and security.

From connecting features that simplify shopping to creating a true omnichannel commerce offering, the API economy can help you streamline your business, build customer loyalty, and increase profitability.



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Build a commerce experience as you intend it -- fully customizing every pixel of your site to win customer loyalty and a larger share ecommerce sales.

Learn more about open APIs at BigCommerce and see how high extensibility allows you to seamlessly integrate with your back-office systems, customize your ecommerce shopping experience, and get the flexibility you need to scale your business faster.

Or, request a personalized demo of our robust ecommerce platform. We'll show you exactly how powerful APIs and extensibility can be.

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