WHITE PAPER

The Payment Construction: How to Build Success in E-Commerce

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Relevance of Specialization

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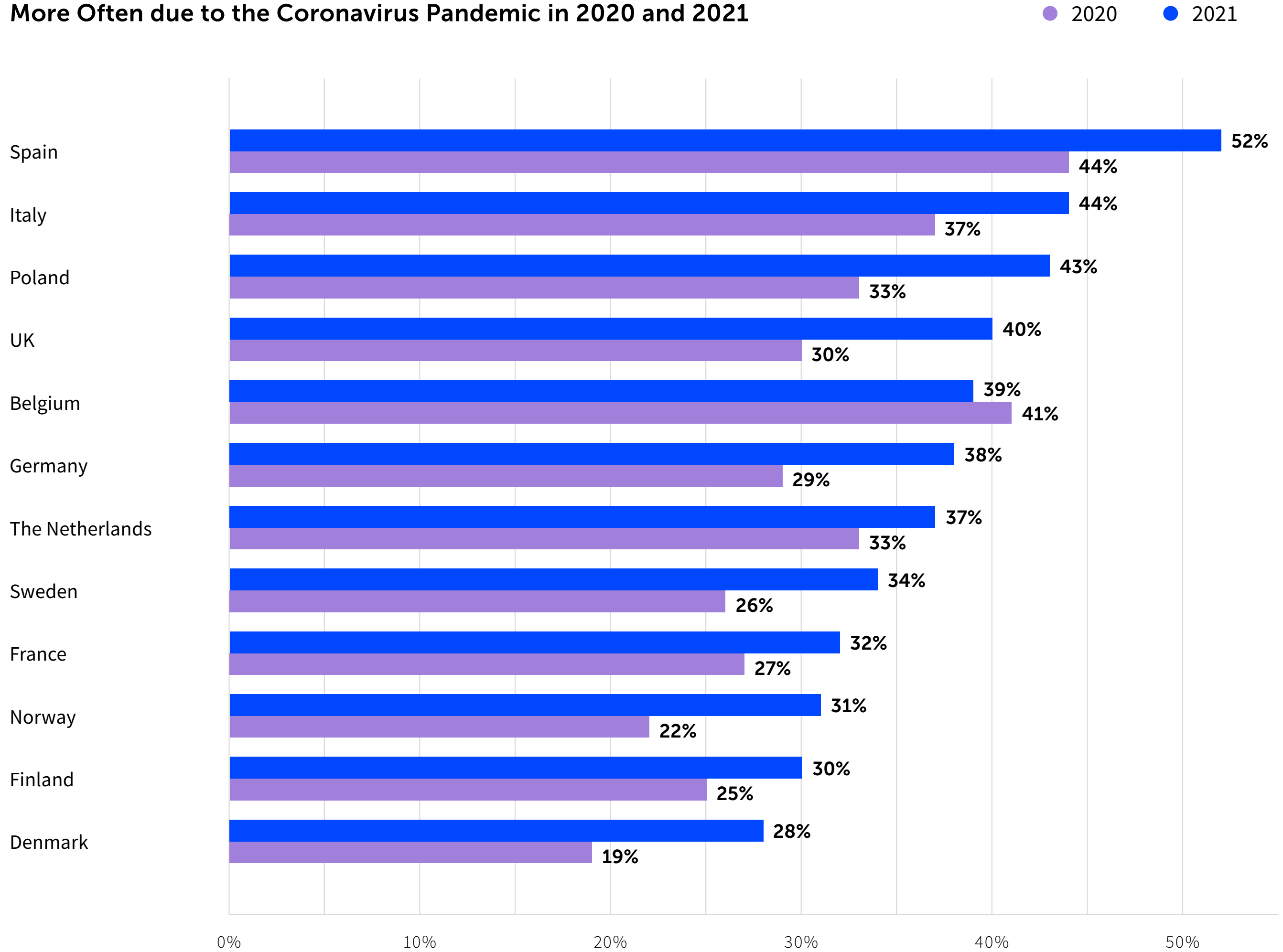
In order to be competitive in the retail business sphere, any organization must recognize the importance of e-commerce. This is particularly true in the wake of the COVID pandemic and the resulting push toward increased digitalization. Case in point, e-commerce has become the driving force for revenue, dwarfing other brick and mortar business. [According to Raydiant](), consumers in 2020 indicated that 45% preferred to shop online rather than in a physical store. However, when asked that same question in 2021, the number of customers preferring digital shopping experiences increased to 54%. [According to Statista](), the share of European customers shopping more often online increased by 5%-10% from 2020 to 2021, except for Belgium, where shares have already been quite high. This trend is expected to continue.

Share of Respondents in Selected European Countries who Shopped Online More Often due to the Coronavirus Pandemic in 2020 and 2021

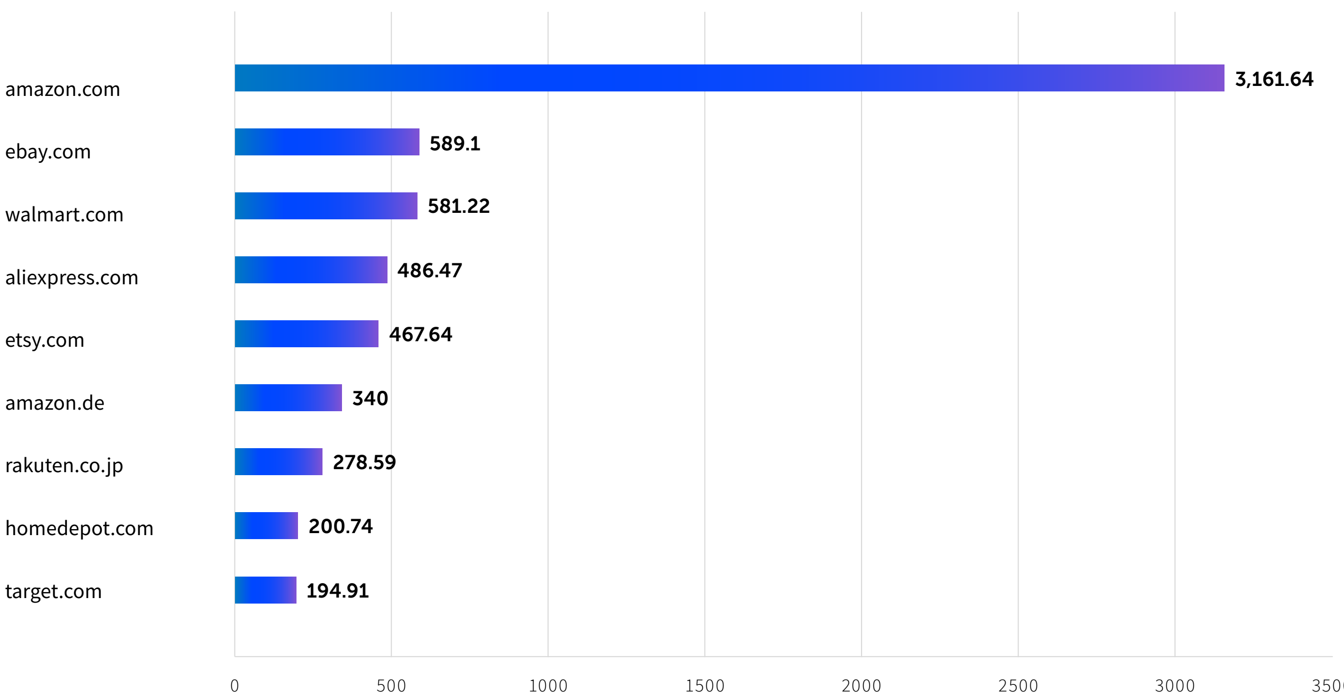


This change in consumer behavior is an opportunity for an e-commerce provider, even if the pressure from the market is high. Using the example of various companies noted below, the move toward e-commerce can imply business opportunities. **The example of Otto** shows that transforming the business model to prioritize e-commerce is one of the most important success factors.

Otto started working on digitalization in 2007. After just one year, the revenue generated by online sales at **otto.de** exceeded the revenue generated by offline sales. In the financial year of 2021/2022, their sales increased by 13%, presumably due to the change in customer preferences mentioned above. It's worth noting Otto's business model was originally built around a print catalog which has since been discontinued due to a realignment of focus.

Walmart tells a similar success story on its journey into e-commerce. **According to Statista**, the Walmart website has the third highest traffic of all retail websites worldwide. In addition, Walmart has evolved from an e-commerce merchant into a successful retail platform.

Most Visited Online Retail Websites Worldwide in 2022, by Monthly Traffic (in Million Visits)

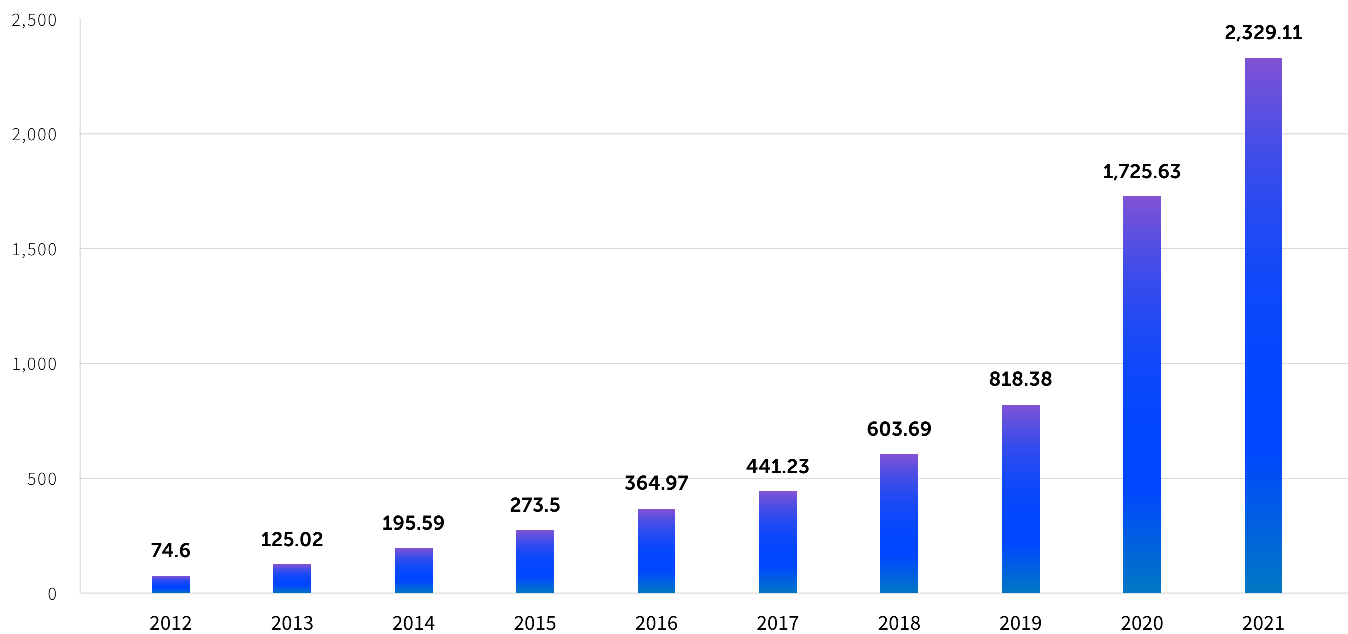


The major market players, with their horizontal orientations, control a large share of the market. [According to Forbes](), 58% of global sales in e-commerce is owned by just six companies. Technological competence is a critical factor in establishing relevance as an e-commerce provider. Given that major market players primarily operate as platform providers, technical superiority of the marketplace solution is more likely to determine success than the product offered.

For businesses engaged in e-commerce, this creates pressure to specialize in either the product or supply process. Since it is nearly impossible to withstand the big players' market power and technological competence, the result is the occupation of a niche market position, which can either correspond to the product(s) offered or the offer processing.

Specially tailored customer journeys or financing and payment options, domain expertise, or personalization through machine learning are just a selection of the tools that can be used here. One of these **successful niche players is AirnBnB**, which offers flexibility and transparency to customers and accommodation providers with its specialized payment and settlement process. **Etsy, with its focus** on new design trends, especially for artisanal and vintage objects, was also able to double its revenue in its niche from 2019 to 2020.

Annual Revenue of Etsy, Inc. from 2012 to 2021 (in Million U.S. Dollars)



Change in Customer Demand

The changing demands of customers on the user experience in e-commerce are examined in the **Embedded Finance Whitepaper** by EPAM and Mambu. Here, embedded finance strategies and their opportunities are discussed quantitatively and qualitatively.

According to the report, customers want a custom, simple and frictionless shopping experience. In fact, 80% of customers claim they value personalizing the specific offer or the platform user interface. On the one hand, this leads to a need for the provider to use artificial intelligence (AI) and machine learning (ML) models to personalize the offer. On the other hand, it also leads to the need for data collection along the customer journey for training of the AI/ML models. Customers want a simple customer journey with a seamless experience that avoids friction such as media breaks or unnecessary process steps, and building those journeys requires collecting and analyzing customer data.

What Today's Customers Want from Retail and Bank Interactions

PERSONALIZATION

80%

want personalization from retailers.

SEAMLESS EXPERIENCE

73%

say experience is a key purchasing decision factor — services that reduce friction differentiate.

TRUSTED BRANDS

54%

of consumers trust a tech company more than banks.

ON-DEMAND SERVICES

Google search for same day delivery is up

160%

in 2 years. Consumers want instant gratification.

SIMPLER JOURNEYS

Customers are overloaded. Exposed to

4k–10k

ads daily, it's difficult to win customer focus.

The increasing turnover generated by changing the business model from physical store to e-commerce demonstrates a demand by customers for digital offerings. This is further supported by EPAM's **Consumer Banking Report** — a survey of 26,000 consumers on their banking behavior.

Along with customer experience demands, payment and financing requirements are changing. As noted in the EPAM's **Consumer Banking Report**, customers are adopting services from various providers to curate their own financial services experiences. Globally, 77% of respondents reported using or holding financial products, service or accounts from providers different from their primary banking institution, with the average respondent holding up 2.2 of these products.

Embedded finance options are also increasingly becoming a critical component of the customer journey and are more in demand than ever. Again, according to the **Consumer Banking Report**, 51% of respondents have already used an embedded finance product, with the most popular product being "Buy Now Pay Later" services.

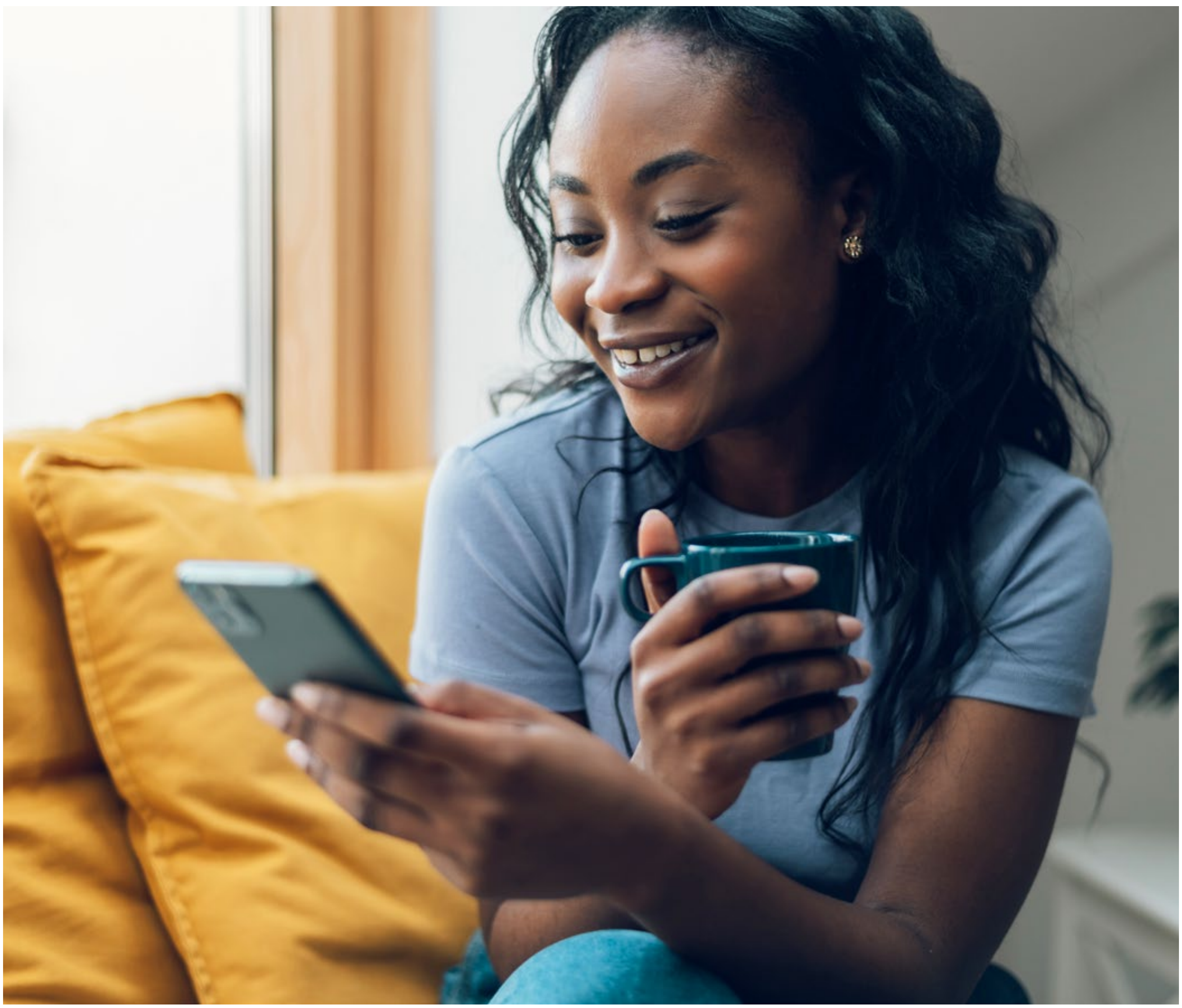
The report also identifies banks' three customer relationship success factors: Digital ubiquity, proliferation and personalization. The latter two can also be applied to payment services. The proliferation of financing and a variety of payment options provides customers with the flexibility and simplicity they need to complete the customer journey. The personalization of the customer experience reduces unnecessary process steps and enables a convenient user experience.

Relevance of Specialized Payment Processes

In an environment where customers are increasingly demanding a seamless, secure and tailored payment experience, an e-commerce business that offers a specialized payment process can better connect with its customers' particular demands.

This also allows the business to gain customer loyalty, accelerate customer acquisition, strengthen top-line growth and profitability and ultimately, make the business more competitive.

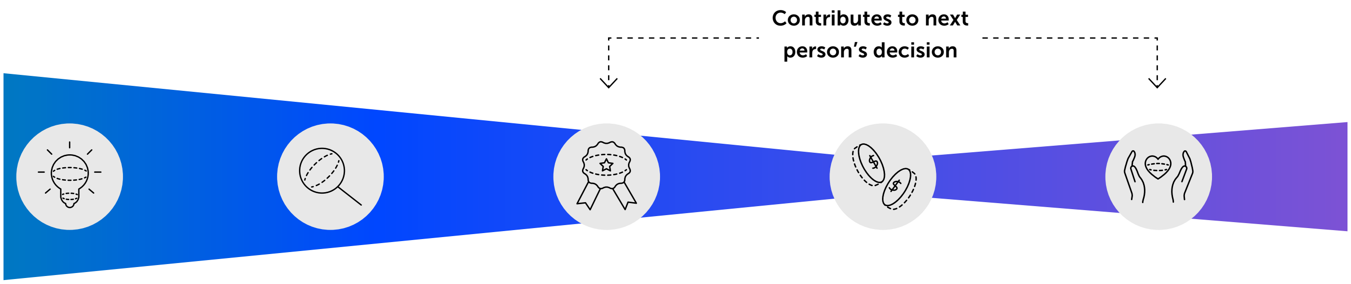
To best optimize the specialized payment process, the e-commerce business must ensure the process is well integrated and tailored to the customer journey, target customers, market segment(s), countries and merchants.



Aligning the Payment Process to the Customer Journwey

The **customer journey map** represents the process of the customer's interaction with a business (or in this case, e-commerce website) from start to finish. The customer journey is often defined as a 5-step process, beginning with awareness through to advocacy.

Figure 1: Modern Customer Journey



01

AWARENESS

Interest & Awareness

Social/Search advertising
Email/Text marketing
Loyalty programs
YouTube/Video ads
Television
Billboard
Online display advertising
Newspaper/Magazine
Radio
Word of Mouth

02

FINDABILITY

Search

Organic Search
PPC
Maps
Directories
Apps
"Near me"
GPS

03

REPUTATION

Research

Blogs & Articles
Reviews
Social media
Word of mouth

04

CONVERSION

Purchase

Website
Online booking
Purchase via app
In-store purchase
Salesperson
Maketing Materials

05

ADVOCACY

Experience

Post-purchase expectations vs. reality
Social post
Write a review
Blog
Word of mouth

Conversion is the stage of the payment process that lies at the center of the customer journey. At this stage, all the actions the e-commerce business and prospective customer have taken have resulted in the two reaching a common ground. At this point, the customer makes a purchase, generating returns on investment, sales growth, a growing customer base and hopefully, customer satisfaction and loyalty.

In this stage of the journey, inefficient payment runs the risk of resulting in cart abandonment, loss of prospective customer revenue and reputational damages. **According to payments provider Stripe**, 52% of shoppers that abandon a purchase complete it with a competitor.

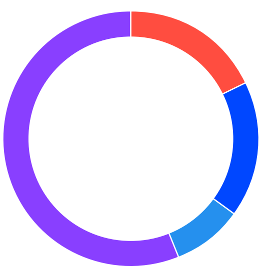
Inconvenient Payment Processes Result in Cart Abandonment

Cart abandonment causes the e-commerce economy to lose out on billions of dollars in revenue each year. To put this in perspective, according to [a study conducted by the Baymard Institute](), in 2022, "$260 billion in orders were lost due to cart abandonment in the US and EU."

Based on [a separate 2022 study](), the average online shopping cart abandonment rate is 69.82%, globally. The customer's negative experience with the payment process accounts for 27% of an incomplete checkout. Specifically, a lack of diversity of payment methods accounts for [9% of abandonment]() while a lack of trust in the payment method's security [accounts for the other 18%](). As implied, optimizing the payment process and the payment gateway can help e-commerce businesses reclaim 27% of lost revenues from unfinished transactions.

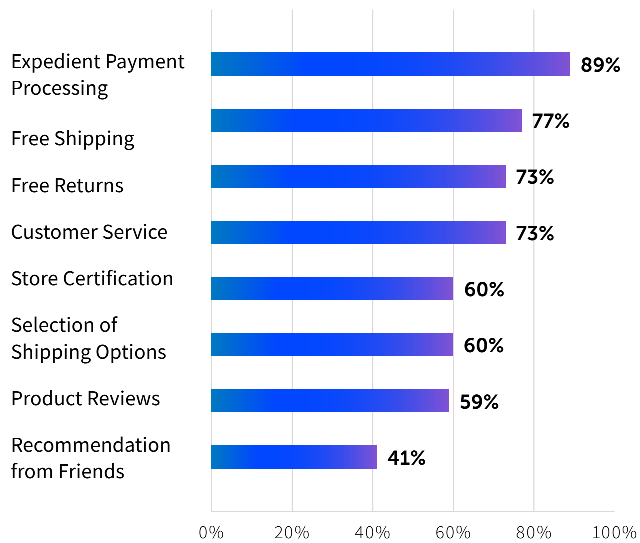
Going one step further, a [2022 survey of over 12,000 retail customers in Switzerland]() found the biggest determinant of customer satisfaction in e-commerce is an "expedient payment process", cited by 89% of respondents.

Figure 2: Reasons U.S. Customers Abandon Carts, 2022



Didn't trust the site with credit card data	18%
Complicated/lengthy checkout process	17%
Not enough payment methods	9%
Non-payment reasons	56%

Figure 3: Most Important Success Criteria of Online Stores from a Consumer Perspective Switzerland, 2022



The impact of the payment process on cart abandonment — and revenues — is especially evident in research conducted leading up to the passage of the Payments Service Directive 2 (PSD2) regulatory technical standard in Europe.

Going into effect in 2018, the PSD2 regulation established stricter security requirements for online transactions throughout the EU. Provisions of the regulation include:

- Making the 3-D secure protocol, a protocol that is designed to provide an additional layer of security for online credit card and debit card transactions, compulsory
- Introducing the mandatory provision of third-party payments providers (TPPP) as an additional middleman between the bank and the merchant
- The requirement for strong customer authentication (SCA) in the payment process

Although the security measures existed prior to PSD2, the compulsory compliance created challenges for merchants to balance improved check-out security with customer satisfaction.

On the customer side, additional interaction steps were added at the check-out stage to verify the transaction's validity. For instance, when initiating a payment request via credit card, the customer now must enter their credit card details and also confirm payment either via a bank app or via biometric scanning. Although this process is common today, when it was first made compulsory in 2018 in the EU, the volume of abandoned purchases skyrocketed to an **estimated loss of nearly EUR 57 billion**.

The PSD2 case study and statistics show that efficient payment processes are an inherent determinant of the e-commerce business's competitive advantage and top-line growth. Businesses need to ensure that they are familiar with the structure and functionalities of a well-performing payment process.

Amazon's Comprehensive Payment Process and Seamless Customer Experience

An efficient payment process needs to align with the customers' high standards and evolving needs, including low friction, high security, instantaneous and a diversity of payment methods.

Amazon is one of the largest e-commerce platforms in the world, registering **2.9 billion visitors** in December 2021 alone, which generated an average of **$1.29 billion sales per day**, or $53.75 million in sales per hour. To handle this substantial volume of daily transactions, Amazon has implemented a comprehensive payment process. It offers customers — new and returning — a frictionless and flexible checkout experience designed to build customer loyalty.

The following suite of features contributes to Amazon's specialized payment process:

01

Extensive Number of Payment Methods

In total, 10+ payment methods are available on Amazon's payment system (Amazon Pay) internationally. Options offered by Amazon at online checkout include:

CREDIT AND DEBIT CARDS
Mastercard, Visa, AmEx, business cards, local schemes

INVOICING
via payment links, SMS, or "purchase on account"

PAY BY INSTALLMENTS
BNPL

PAY BY POINTS
Amazon partners, i.e., AmEx

GIFT CARDS AND VOUCHERS
Amazon gift card

Local options include: Country-specific payment schemes; bank transfers; other alternative payment methods such as iDeal and Bancotact for customers from Netherlands and Belgium.

To meet customers' different liquidity constraints, features such as payment in installments, credit cards and invoicing are offered to enable different customer groups to shop and Amazon and are smoothly integrated into the checkout process. These payment methods promote inclusivity for customers and drive potential sales and revenue for Amazon.

By striving to offer an all-encompassing payment solution, which uses local payment service providers and the latest payment technologies, Amazon's goal is to ensure that no customer abandons their cart due to not being offered a fitting payment method.

02

Optimizing the Customer Journey

One of Amazon's offers designed to optimize the customer journey is the 'buy now with 1-click' option. The 1-click checkout option allows customers to pay for an order in one step simply by pressing this button. Amazon stores the customer's purchase preferences — a combination of personal data (i.e., delivery address) and payment method details (i.e., credit card). This information is automatically leveraged when the customer clicks the 1-click buy button, making the transaction fast and easy. It's worth noting, however, that Amazon is liable in cases of fraud related to the use of this option.

In addition, Amazon allows customers to pay using their Amazon account at stores outside the Amazon platform. When selected, Amazon Pay automatically uses its customer's purchase preference information at the store's checkout process, making it easy for customers to pay across the e-commerce landscape. **In February 2021**, customers paying with Amazon Pay at a merchant's online checkout spent on average one minute and 27 seconds completing the transaction, which is 49% faster than a regular online checkout of two minutes and 53 seconds. As such, Amazon Pay improves customer loyalty, retention and acquisition.

Furthermore, Amazon strives to ensure that its regulatory compliance does not impede the user experience. In the context of PSD2 and 3-D Secure, Amazon improves the user experience by preferring to be liable and sending non-secure requests. Unless issuers require strong authentication, additional authentication by the customer can be waived.

In addition, Amazon performs 3-D Secure at the time a customer enters their card details, then transmits a delayed Merchant Initiated Transaction (MIT) when orders are placed. This means that Amazon bears the chargeback risk but doesn't have the problem that the issuers would reject non-secure transactions as MITs are always without 3-D Secure. All of which is to say, Amazon takes deliberate action to minimize the customer's regulatory burden at a secure check-out.

03

Offering Their Own Payment Methods

Aside from Amazon Pay, Amazon has developed its own payment offerings to strengthen their relationship with customers and drive revenues. First, Amazon payment options are tailored to each market. In Germany, for example, the Amazon credit card is offered for free to all Amazon Prime customers which not only serves as an additional revenue stream but also helps to improve customer retention. The loyalty scheme bound to this card allows customers to receive 3% cashback for each Amazon purchase and 0.5% for non-Amazon related purchases, further driving customer loyalty.

The Amazon case study here highlights the importance of a high degree of flexibility at the payment gateway. The efficiency of the payment process minimizes cart abandonment and the entailing revenue loss and improves the customer experience while maintaining regulatory compliance. Amazon also strengthens customer acquisition and loyalty by tailoring the user experience in the payment process to fit the company's diverse and international range of customers.

2m 53s

average online checkout time

1m 27s

average online checkout time with Amazon Pay

The E-commerce Platform Provider's Offering Must Meet the Merchants' High Demands

Offering an efficient payment experience to your customers is only one side of the coin for the payment gateway. An e-commerce business must also provide an efficient payment offering to its merchants. Just like customers, merchants often have high demands, expecting stable, user-friendly payment systems with **high uptime and comprehensive reporting**.

The more merchants an e-commerce business hosts, the more complex it is for the platform provider to manage payment reconciliation and refunds and to resolve edge-cases. Consider the example of a customer placing an order on a marketplace platform. Their cart contains products from several different merchants. The e-commerce business needs to collect the bulk payment from the customer and accurately distribute the received money to the merchants.

Payment is distributed according to each merchant's product price and often after the platform usage fee has been deducted individually from each merchant, accordingly. Payment notification needs to be forwarded to the merchants to enable delivery initiation after a successful payment. Convenient return and refund processes must be set up to manage payouts to customers. Additionally, extensive reporting and statistics must be accessible to the merchants to allow them to analyze the performance of their sales and returns, the most commonly used payment methods and the fees paid to the platform provider. As such, a marketplace payment gateway must coordinate and facilitate this seamless and accurate payment experience for its merchants for each transaction.

This coordination becomes increasingly complex in edge-cases, such as when the customer demands a partial refund. The marketplace must now coordinate with the appropriate merchants to correctly quantify the refund amount and complete the request. This process can become even more challenging if the e-commerce business does not own its payment gateway and must additionally coordinate with the payment gateway provider.

Amazon once again serves as a good illustration of an attractive payment process for merchants. First, Amazon offers incentives for new sales partners, such as cashback on first sales, discounted usage fees for small-to-medium sized businesses and flexible rate structures. In addition, Amazon also offers more advanced payment offerings for larger merchants, such as access to APIs and selling reports (as part of the "Professional Plan"), the option to sell with programs like launchpad and Homemade, recurring payments set-up services, VAT Calculation Services and **cross-border payment reconciliation**.

The complex merchant-side offerings and coordination (particularly in edge-cases), requires a highly effective and often fully owned payment gateway, which the e-commerce business can build in-house for better management and tailoring. Implemented correctly, the merchant-side benefits include:

- Improved customer retention (through merchant-based loyalty programs)
- Fewer payment failures and chargebacks (through the smart routing to a reliable payment service provider or less risky payment method in the given context)
- Easier refund handling (including partial refunds and instant refunds if offering an e-wallet)
- Automated periodical settlement
- Billing and pay-outs to the preferred payment instrument
- Flexibly adjustable reporting based on available payment data

The Data Created in the Payment Process Provides Crucial Information on Customer Behavior

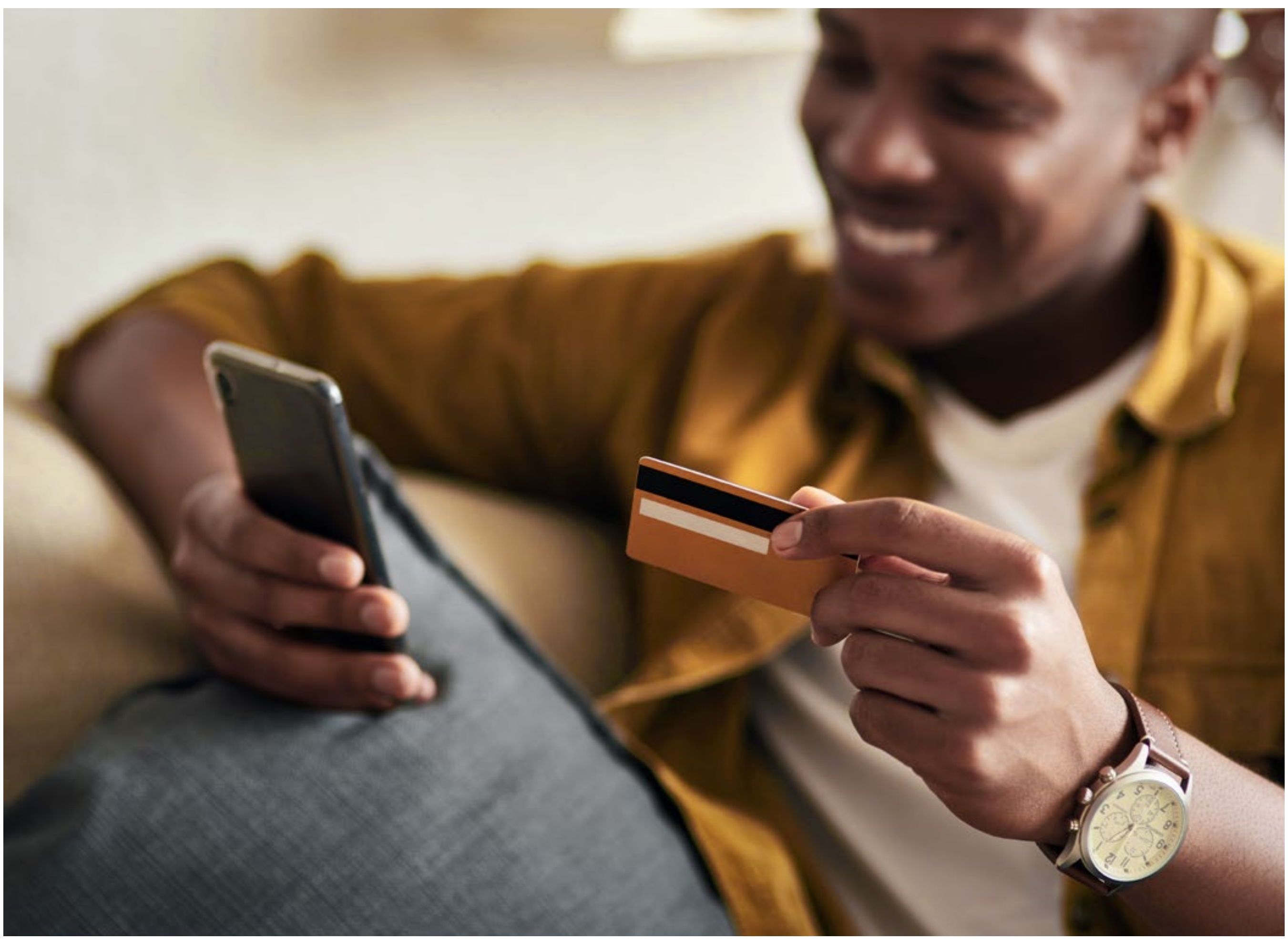
The payment data generated when a customer moves through an e-commerce business's payment process can reveal insights into topics ranging from customer behavior to the efficiency and security of the website, providing opportunities for continuous business development.

There are a range of payment metrics to be derived from payment data that are associated with subsequent areas of business improvement. For example, measuring and analyzing the average transaction amounts per customer helps reveal a business's most valuable customers, while their transaction history and behavior gives insights into **how their loyalty was earned**.

Conversion rates, namely the proportion of customers who completed their transaction after starting the payment process, can reveal potential weaknesses of the checkout page. Identifying the most common payment methods allows an e-commerce business to make these options **more prominent in the checkout process**.

Perhaps most importantly, payment data allow the e-commerce business to understand their customer's inherent motivations beyond their behavior and make predictions on cash flow, planning of inventory, distribution center locations for optimal delivery times, as well as scheduling of new releases and **identifying customer preferences**. The metrics used to deduce this information are obtained from the payment gateway and the nature of an e-commerce business's ownership over its payment gateway determines the scope of the payment data they can process.

The e-commerce business that owns its payment gateway (having developed it in-house) has full access to the customer's payment data under the GDPR or other relevant personal data regulation. However, if a business purchases its payment gateway, its access to the payment data being generated may be restricted by the payment gateway provider's terms of sale.



Building a Payment Gateway

A payment gateway is a technology or service for orchestrating and handling online payment processes — typically the checkout process in e-commerce — but also handles refunds and other payment related services. The payment gateway ensures that the payment and financing process runs as efficiently as possible. The service collects personal customer information and payment data, leads customers through the payment process and transfers the information to a payment processor. As such, the payment gateway forms the final element of the customer journey and contributes significantly to the customer experience on the e-commerce platform.

The e-commerce platform now has to decide whether to buy a standard payment solution on the market or develop a gateway in-house. Purchasing a gateway form a third-party provider often includes software-as-a-service (SaaS) solutions that can be integrated into the purchasing process. The alternative is to develop the payment gateway in-house, which implies building up the company's own resources, competencies and responsibilities. However, this decision has a fundamental impact on the ability to offer a specialized customer experience on the market, to react flexibly to the changing needs of the customer and to analyze customer behavior.

While developing the payment gateway in-house can lead to specialization in the market, doing so is associated with its own challenges. An e-commerce company must first aggregate its own payment domain competencies and capabilities. When opting for an external payment gateway, fewer resources are required and the payment service provider can often recommend partner development teams.

The relatively high cost of resources, development efforts and processes typically result in a longer time-to-market for in-house development compared to purchasing from a third-party provider. In addition, the longer project duration is inevitably associated with higher initial costs. Consequently, operating and maintenance costs are higher initially and in the long-term if used to process low transaction volumes when compared to a purchased solution. The e-commerce business also needs to consider that in-house operation of the gateway implies full responsibility for availability (i.e., downtime) and accountability for compliance and data security.

That being said, in-house development allows for full control over the important levers of specialization. The flexibility of the payment solution enables control over features and a seamless experience in a personalized customer journey. The control over data flows enables transparency over customer behavior and the possibility to adapt the payment experience to customer needs.

Additional Advantages to In-house Development Include:

SEAMLESS USER EXPERIENCES

Customers have limited patience for inconvenient, complicated or obscure payment solutions which they may consider untrustworthy. Customer payment gateways can fine-tune the user experience more precisely than off-the-shelf purchases. Polishing the user interface and the payment flow helps to offer a seamless checkout experience and reduces friction. Functionality such as the storage of customer payment details to avoid annoying re-entering during the purchase or to offer special flows like a simplified one-click checkout or BNPL option enhances the customer journey.

CUSTOM-TAILORED FEATURES

Innovation and smart features decisively define the success of a platform. For unique business models, payment gateways off-the-shelf may not support the full extent of planned features (like recurring payments, support for specific marketing campaigns or cryptocurrency support, for example). Building an in-house solution will give a company the flexibility to update the offering just when customer and merchant demand reaches a critical mass and secure the edge in customization and speed of reaction.

UNIFIED PAYMENT ORCHESTRATION LAYER

To meet the preferences of specific national markets, access to a wide variety of payment methods needs to be offered to the customer. An e-commerce platform also needs to integrate various local payment service providers. A possible approach is to rely on a unique integration for each payment service provider, which unfortunately leads to a fragmented payment system that's inefficient and costly to maintain. A custom solution can act as a payment orchestration layer, unifying various payment service providers within one integration. Hence, companies are able to add the full variety of payment methods demanded by customers in a shorter time-to-market.

DATA SOVEREIGNTY

Using a customized in-house solution also means storing all customer data and historical payment data internally. While this comes at an additional cost, it is outweighed by the benefits of data sovereignty. An analysis of customer payment data gives e-commerce companies insight into how the platform is used, the preferred payment service providers and so on. An e-commerce provider can use these learnings to facilitate improvement. For example, data may be used to derive customer preferences to tailored products or solutions, offer specific payment options to specific customer groups, improve fraud and risk prevention, predict chargebacks and more.

STREAMLINE MERCHANT MANAGEMENT

In addition to customers, merchants are also participants in the payment process, although the two groups have different requirements. Having full control over the payment gateway allows the business to streamline the merchant onboarding process. An example might be a fully digitized registration and verification process. An optimized merchant UI might help attract new suppliers and sellers which, in the long run, might serve as an important condition for growth.

SIDE BUSINESSES

An e-commerce provider might share the in-house payment gateway over multiple businesses, increasing the transaction volume on the gateway and decreasing the costs per transaction. In addition, the provider might offer the gateway as a service to the market as a side business, acting as an external payment provider to other e-commerce businesses with a similar offering, or which feature similar customer journeys.

LONG-TERM COST SAVINGS

The cost of developing a payment gateway in-house is often a deterrent for companies. However, in addition to the initial costs, the long-term costs and the development of the cost structure, should be taken into account. With increasing volumes, the transaction-related costs of external payment providers may rise. On the other hand, the operating costs of the company's own gateway are distributed over the increasing transaction volume so that the costs of the individual transaction decrease relatively. In-house development should therefore be seen more as a long-term investment that will amortize in contrast to the rising costs for external providers.

Qualifying of Target Group

The recommendation for custom development does not apply across the board to every e-commerce provider. The financial benefit of a payment gateway implemented in-house is only apparent at scale. This means that a certain volume of transactions must be processed to justify the in-house development. The size of this volume must be determined in each individual business case.

In addition, the business model and the business process must justify divergence from a standard process. No additional benefits can be gained by specialization if the customer journey doesn't deviate from the industry standard. The question needs to be asked whether the customer experience could be improved.

Organizations should also conduct an assessment of the suitability of the business model for the in-house development of a payment gateway. It makes sense to first analyze the company's own business and customer behavior, paying particular attention to:

01

TRANSACTION VOLUME

Determination of a minimum transaction volume required to justify the investment in developing an in-house payment gateway.

02

BUSINESS CASE

Development of a business case to evaluate the costs and benefits of implementing an in-house payment gateway and considering factors such as development costs, maintenance costs and potential revenue increases and cost savings.

03

BUSINESS MODEL

Evaluation of the business model to determine if an in-house payment gateway provides a competitive advantage or differentiation from competitors.

04

CUSTOMER JOURNEY

Evaluation of the customer journey to determine if an in-house payment gateway provides an improved customer experience and/or increases customer satisfaction.

05

SECURITY

Security evaluation of the in-house payment gateway to ensure industry standards and protection against fraud and cyber threats.

06

COMPLIANCE

Ensuring in-house payment gateway compliance with relevant regulatory requirements (PCI, DSS, GDPR, etc.).

07

TECHNICAL EXPERTISE

Evaluation of technical expertise present in the business and the resources necessary to develop and maintain an in-house payment gateway.

08

INTEGRATION

Evaluation of the ability to integrate the in-house payment gateway with existing systems and processes (e-commerce platforms, ERPs, etc.).

09

TOTAL COST OF OWNERSHIP

Evaluation of the total cost of ownership, including development costs, maintenance costs and potential revenue increase/ payment cost savings, to determine if developing an in-house payment gateway is financially viable.

Reducing the Effort of Implementation

Modern software development has evolved from being solely reliant on in-house development, which itself is resource-intensive. Developing a large amount of code in-house also increases the risk of errors in the system. Instead, modern software development leverages established third-party components wherever possible.

Typically, expert frameworks or open-source frameworks are utilized and result in high code quality due to the deep domain knowledge and community contributions. Relying on well-tested and battle-proven software frameworks can provide a shortcut to a functional payment gateway without sacrificing flexibility.

Getting support from a specialized implementation partner is critical to success and speed. The development project requires payment experts with specific domain knowledge that are unlikely to be present in the company at the time of the decision. Beyond the challenge of hiring such experts, the timing of their hiring must be carefully orchestrated so the project can be realized.

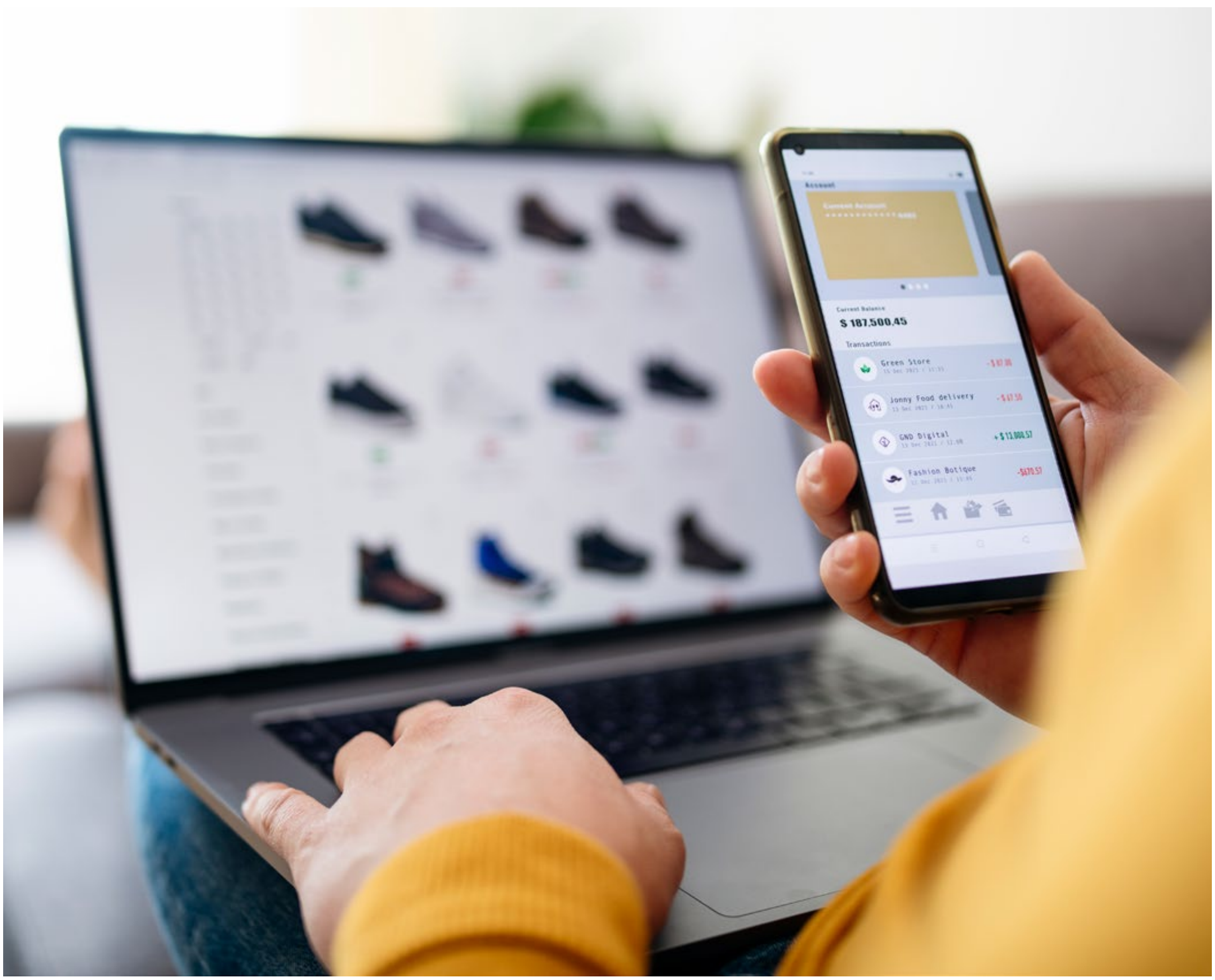
After the completion of the project, only a subset of these resources will be needed to operate the new payment gateway. However, it's important to ensure adequate coverage during the implementation stage. This can be done by aligning with a specialized implementation partner. In addition to meeting short-term needs, these providers often offer well-coordinated teams that bring best practices, domain knowledge and the necessary technical competencies. This cooperation enables a short time-to-market and higher code quality.

Conclusion

It is recommended that e-commerce players with a non-standard product or process and a high transaction volume consider developing their own payment gateway.

The flexibility to create personalized customer journeys and the sovereignty over the payment data provides the basis for specialization, which is necessary to compete in the e-commerce market dominated as it is by the large players.

The use of modern implementation approaches such as leveraging existing proven frameworks can partially reduce the initial cost of in-house development and provide the long-term benefits of operating a company's own gateway, at an earlier time-to-market. Using a specialized payment solutions development partner makes it possible to cover short-term resource requirements to make this a reality. In addition, these partners can help shorten project runtimes by skipping the learning curve while providing a high-quality final product.



Request a Free Consultation

The partners **trimplement**, **EPAM** and **CORE** offer support on the entire journey of in-house development of payment gateways.

trimplement is a specialized payment software partner that has been developing payment, e-wallet and virtual account management applications for over a decade.

Together, these three partners offer unique knowledge to all challenges along the entire value chain, from strategic target definition and in-house product development to the operation of the payment gateway. Starting with the strategic decision to differentiate in the market, including the gateway, up to the evaluation of this decision in an assessment of the business model and customer behavior, these partners can contribute the necessary development resources and domain knowledge to help overcome the short-term resource peak and meet the immediate demand for expertise.

To avoid reinventing the wheel, **trimplement** additionally can offer a framework that can dramatically shorten development time for a self-built payment solution. The combination of framework and competencies offers the potential to configure and realize the most versatile requirements for a payment, including:

- Integration of all customers' favorite payment methods and currencies.
- Smart payment routing to improve payment transaction success for your merchants and lower transaction costs.
- Provision of electronic wallet accounts to optimize refund handling.
- Integration of external service providers through APIs and extension points.

EPAM is a global software development company with over 30 years of experience and over 60,000 employees. EPAM can flexibly scale development resources even for large development projects.

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CORE is a boutique IT consultancy that has strategically advised companies worldwide for over 10 years based on detailed market knowledge, in-depth technology expertise and high methodological competence.

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trimplement is a leading payment consultancy and software development company. Since 2010, their payment software experts have been building custom-tailored payment orchestration and e-wallet solutions for global enterprise companies.

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