



# RETAIL: 2023 & BEYOND

WHITE PAPER

## THE ULTIMATE GUIDE TO M-COMMERCE

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The key to achieving growth with a mobile commerce strategy that responds to your customers' needs.



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## INTRODUCTION

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6.6 billion\* people now own a smartphone. That's over 83% of the world's population. In 2016, that number was at only 49%. The smartphone market has exploded over the last few years, and most people constantly carry this device around with them.

As such, retail is evolving fast. From a once entirely physical industry, retail has gone online and seen huge success. The pandemic hugely helped the adoption of e-commerce, but now retailers must put mobile users first and adapt their online strategies to prioritise m-commerce.

M-Commerce, or Mobile-commerce, refers to shopping through a mobile device. It includes purchasing products using smartphones, tablets, and even smartwatches. This also extends to in-app purchases. The term was coined almost 15 years ago in 2003 by Pali Research, becoming popular when Blackberry smartphones gained traction with business professionals across the globe.

**In 2024, 43% of all online purchases will be made on mobile.**

## **Retail is going mobile. Are you ready?**

More and more shoppers make purchases "on the go", when in transit or a queue for example. As such, retailers must offer a mobile-friendly online experience that can adapt to a huge range of mobile devices and varying internet speeds. They must also ensure their online presence is consistent with their in-store experience, as 80% of consumers use their smartphones while shopping in stores.

Keep reading to explore the differences between m-commerce and e-commerce, the business benefits, and how adapting your digital architecture facilitates the adoption of a mobile-first strategy.



## M-COMMERCE VS ECOMMERCE: WHAT'S THE DIFFERENCE?

M-commerce, or mobile commerce, is the buying and selling of goods and services through mobile devices such as smartphones and tablets. However, M-commerce encompasses more than just shopping on mobile phones. It also refers to other aspects like paying your bills via smartphone.

The variety of transactions covered by m-commerce can be **categorized into one of three types:**

**1. Mobile shopping:** this is possible thanks to websites that are optimized for mobile, native applications, and even various social media platforms.

**2. Mobile banking:** this refers to the ability to transact money from mobile devices,

allowing users to send money to other parties (peers, banks, retailers...) irrespective of their location. This allows users to send money anywhere, anytime, and usually involves a dedicated app, although some transaction types are limited or restricted on mobile devices.

**3. Mobile payments:** Mobile payments enable point-of-sale (POS) transactions to be completed through mobile devices, in contrast to mobile banking, which frequently includes P2P payments as a feature. This is possible thanks to apps like Apple's Wallet or Android's Google Pay.

E-commerce, on the other hand, refers to the buying and selling of goods and services online through a desktop computer. E-commerce is present across almost all industries and is used for all types of business

**E-commerce is used  
by all types of  
businesses:**

**Business-to-customer (B2C)**

**Business-to-business (B2B)**

**Consumer-to-consumer (C2C)**

**Consumer-to-business (C2B)**

**Direct-to-consumer (D2C)**



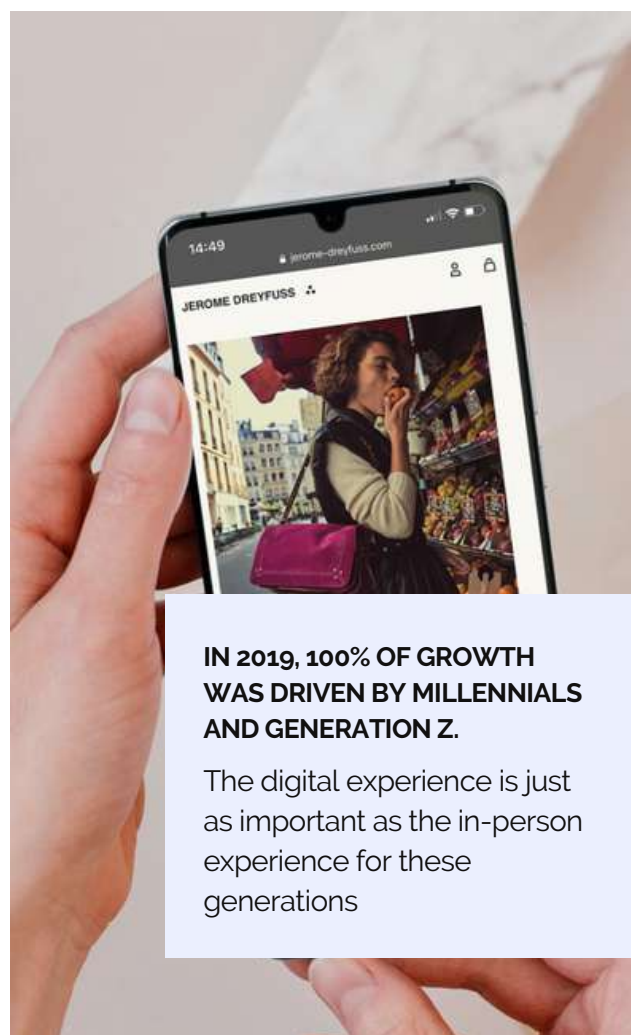
## SOCIAL MEDIA AND MOBILE COMMERCE

Consumers today are so reliant on digital devices that social media networks like Instagram, Twitter, and more recently TikTok have made it possible their users to make purchases without even leaving the platform. Including, and even integrating, social selling into your sales channels is key for brands that want to meet their customers where they are.

### M-commerce has several advantages over ecommerce

However, there are also some advantages to e-commerce. For example, mobile devices have smaller screens, so it can be difficult to browse through long lists of products. This makes e-commerce more interesting for certain demographics and retailers. Additionally, some users feel mobile purchasing is less secure than online shopping. Though this is not necessarily the case, that notion is pervasive in many demographics and can stop some consumers from going through with their purchases.

So, the difference between e-commerce and m-commerce should now be clear to you. But how about we go into more detail about the benefits of m-commerce for e-retailers and the impact it can have on revenue.



**IN 2019, 100% OF GROWTH WAS DRIVEN BY MILLENNIALS AND GENERATION Z.**

The digital experience is just as important as the in-person experience for these generations





## 9 WAYS M-COMMERCE IS ALREADY EVOLVING

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M-Commerce offers up a whole new world of marketing and sales opportunities for online retailers. And with the democratization of smartphones that are ever more high-performing and innovative, there's no doubt that new ways to leverage M-Commerce are on the way. For now, here are a few uses for m-commerce that are still in their infancy and will likely see significant growth over the coming years.

### **Mobile Retargeting**

Advertisers can contextually target their audience. For instance, visitors who have visited a specific location or are close to a business will get an active mobile-targeted ad. Compared to other advertising channels, mobile retargeting offers a higher ROI. Therefore, the adoption rate of this technology is likely to keep growing for retailers.

### **AR or VR on Mobile**

The last two or three years have seen AR (Augmented Reality) and VR (Virtual Reality) among the hottest buzzwords. In 2019, 2.2 billion downloads were logged for AR-embedded applications, and this number is anticipated to increase going forward.

### **Shopping Assistants, AI, and Chatbots**

Chatbots are becoming a crucial tool for tasks like assisting customers in making a transaction, providing buyers with product recommendations and providing after-sales services. These 24/7 chatbots are run on AI technology. When customer service is unavailable, the AI serves as a shopping assistant.

The primary driver of chatbot development is undoubtedly consumers' growing preference for chat messengers & instant assistance 24/7. They are accustomed to using services like WhatsApp, Facebook Messenger etc. to communicate with their friends and family. Therefore, interacting with chatbots or shopping assistants is quicker and second nature.

### **Wearable Payments**

Mobile wallets like Google Pay & Apple Wallet have gained in popularity thanks to their convenience and ease of use. This preference is already extending to include wearables like smartwatches and fitness trackers. In 2025, it is anticipated that wearable payments will account for more than \$100 billion in transaction volume.



## **Mobile Payments and Banking**

Mobile payments are becoming increasingly common among all age groups. The market for mobile payment systems is anticipated to reach \$3081 billion by 2024, according to recent studies.

Mobile banking, which refers to the ability to transact money from mobile devices, allows users to send money to other parties (peers, banks, retailers...) irrespective of their location. This allows users to manage their money anywhere, anytime.

## **Wearable Payments**

Mobile wallets like Google Pay and Apple Wallet have gained in popularity thanks to their convenience and ease of use. This preference is already extending to include wearables like smartwatches and fitness trackers. In 2025, it is anticipated that wearable payments will account for more than \$100 billion in transaction volume.

## **Personalized push notifications**

With a PWA or a native app, retailers can send push notifications to promote special sales, to remind their customers that they have items still in their basket, that a new collection has just dropped... This is invaluable when it comes to re-engaging existing customers and optimizing conversion rates.

## **One-click ordering**

While this practice has already seen significant growth in e-commerce since its inception by Amazon in the 2000s, 1-tap ordering provides an amazing opportunity for e-retailers to reduce cart abandonment. By storing the consumer data and allowing them to create an account for your online store, you can also offer 1-click ordering. This helps convert impulse purchasing desires & greatly simplifies mobile shopping altogether.

**Mobile sales  
are being  
driven by  
younger  
generations**

63% of 18-24  
year-olds shop  
on smartphones  
and 73% of  
millennials shop  
on mobile 1-4  
times per week.



## Social Commerce

We've talked about this before, but social commerce tools have appeared on a variety of platforms, opening up fresh possibilities for both large and small companies. Brands can now use platforms like Instagram and Facebook to promote their products and turn social media attention into sales. The fact that users can find things, read reviews, and make purchases all within their social media feed is a major selling point.

And Social Selling is only set to increase in the coming years so be sure to hop on social media and find new ways to stand out on your shopper's feeds.

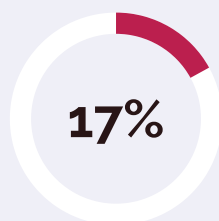
## Progressive web apps

We'll go into more detail about what PWAs are and their benefits in the next part of this white paper. But what you need to know is that PWAs offer an app-like experience without the need to download a cumbersome and data-guzzling native app.

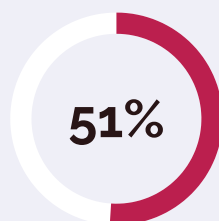
### CASE STUDY

## Lancôme replaced their mobile site with a PWA

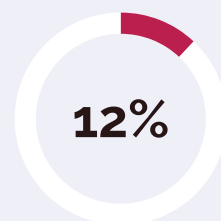
### THE RESULTS



increase in  
conversion  
rate

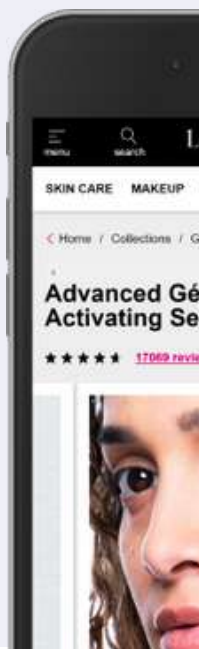
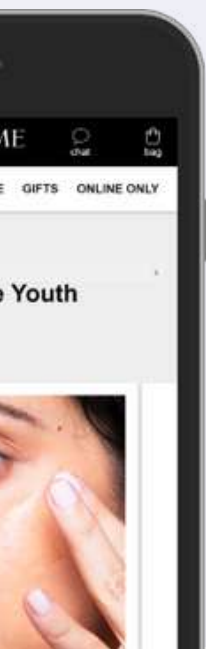


increase in the  
number of  
mobile sessions



increase on  
shopping carts  
recovered

To drive both traffic and re-engagement, Lancôme launched their Progressive Web App with Mobify





## M-COMMERCE AND PWA, A MATCH MADE IN HEAVEN

With the boom in M-Commerce, you might be tempted to think "right, so I need an app for my online business!" While creating a native app is an option, it's far from cost-effective or sustainable. Creating a mobile-first commerce platform that is accessible on any device, with any connection speed, and meets consumers' ever-growing expectations is key. This is where PWAs come in. Not familiar? Let's go over what they are:

### What are PWAs?

Progressive Web Apps (PWAs) are a new breed of web applications that bring the best of the web and mobile worlds together. They're more than just mobile websites that load fast; they're more like hybrid apps. They behave like native applications without needing to be installed. To access them, users don't need to search app stores, they'll simply be in the search engine search results when they're looking up their favorite retailer.

PWAs, created by google in 2015, work offline, provide push notifications and automatically update themselves when new content is available.

### Why are PWAs better than native apps?

You may have heard that native apps are the future of mobile commerce. But we



**"The focus has shifted to finding effective ways for all interfaces to work. Reducing customer effort & friction is key to a successful shopping experience. Consumers want to interact with a business on their own terms." - Laurent Lacaze, CEO, Front-Commerce**

begin to differ. PWAs are more accessible, more flexible, and more cost-effective than native apps. Here are some of the benefits of PWAs over native applications:

**Reduced Cost:** A high-performance native e-commerce app can cost tens to hundreds of thousands of dollars and take anywhere from 6 months to 2 years to develop. (Not to mention 1000s of hours of maintenance to follow.)

PWAs are built using web technologies like HTML, CSS & JavaScript which are free to use and can be built & maintained easily by a retailer's development team.



**Low Data Usage & Storage:** Native apps require users to download and install them via an app store and grant all the necessary permissions in order to function. A hefty process that offers consumers the opportunity to change their minds. Users may also completely skip out if an app is too large or consumes too much data.

PWAs, on the other hand, load everything as instantaneously as a website without a download. Consequently, issues with data use and size disappear.

**Speed & performance:** Background service workers do labor-intensive tasks, resulting in speedier loading. These scripts operate independently of the web page & prefetch all the information required to maintain quick and smooth navigation. Additionally, as the scripts are not active on the page they don't impact page loading time. What's more, as PWAs allow webpage caching, the load time is instant for return visitors, even offline.

**Agnostic:** As they don't need to be downloaded from an app store, PWAs are completely compatible with any browser, platform, or device! All you need is a internet connection.

**Sustainability:** Reduced development times, lower data usage and caching capabilities ensure a significantly lower energy consumption and carbon footprint than a Native app. Combine this with Green coding practices to make a more eco-friendly and sustainable app.

## BENEFITS OF A PWA FOR ONLINE RETAILERS

Unrestrictive communication across all channels

Reliability

Multi-device

Offline Connection

1

Secure HTTPS protocols ensure the security of digital assets & users data

API

Security

2

A tailor-made, faster storefront

Page loading

Real-time updates

Brand engagement

3

A future-ready technical solution

Cost optimisation

GraphQL

Headless platform

4

A user-experience-first platform

Unlimited UX

Seamless display

Faster development

5



## HOW WILL A PWA IMPACT MY M-COMMERCE USER EXPERIENCE?

Firstly, as PWAs are agnostic, you can reach customers worldwide on whatever device they have in their pocket. This will mean your reach is 3 times higher than with a native app. And with phone storage becoming increasingly limited as users download more and more apps, they will be more selective with the apps they choose to download. So offering a low-data option is key.

PWAs also allow you to give your customers a native app-like experience with ultra-fast loading, user-friendly navigation, and personalization. They also help you re-engage existing customers by allowing you to send push notifications, thus drawing them back into your store.

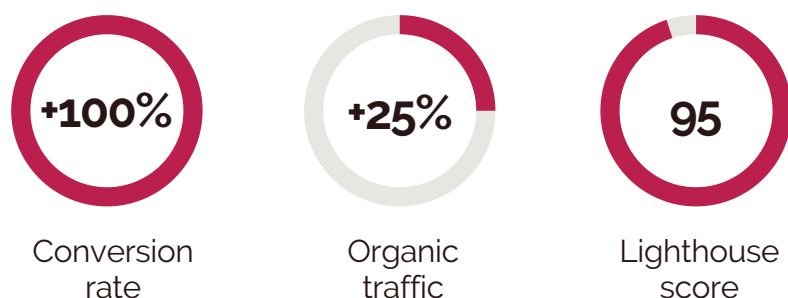
### So to recap, here are the top benefits of PWA for users:

- fast loading times
- strong performance even with a poor network connection
- small size
- app-like user experience
- not downloaded via an app store

### CASE STUDY

## LEVERAGING THE BENEFITS OF A PWA IN B2C E-COMMERCE

Devialet switched to a PWA in 2020 and doubled their mobile conversion rate in just 16 weeks.



### DEVIALET

**“The results obtained are beyond our expectations and we know that there is still room to go further, especially on mobile.”**

– Benjamin Brailon  
Omnichannel Manager, Devialet

[Complete use case →](#)

## HOW WILL A PWA IMPACT MY M-COMMERCE USER EXPERIENCE?

PWAs can make the page load time up to ten times faster, which keeps shoppers on your website for longer, reducing the bounce rate, and increasing the conversion rate. As an example, Asda's clothing brand George switched their mobile site to a PWA and their results speak for themselves:

- Their average page load time was 3.8x faster
- Their bounce rate was divided by 2
- They saw a 31% increase in Conversion Rate
- 20% more pages were viewed per visit
- A quicker site loading time significantly reduces cart abandonment and increases client engagement.

**To capture the consumers' attention today, B2C retailers must set themselves apart from the competition and offer buyers an impeccable customer experience. From an e-commerce perspective, this entails a fluid, superfast, responsive online experience. This is where PWAs come in**

By combining a PWA and a headless architecture retailers can step into the



future of retail.

Brands are increasingly supporting digital channels for their business activities. A PWA ensures a smooth and fast user experience, an important strategy to avoid disappointing clients who are used to a flawless relationship and communication.

Front-Commerce helps brands upgrade their current e-commerce platform to a headless approach by integrating the back-end of their choice with a best-of-breed technical stack based on React, NodeJS and GraphQL.

“

LARRY PAGE

Most of us carry at least one device, all the time, every day. In fact many of us would feel naked without our smartphone. It's hardly surprising mobile search queries - and mobile commerce - are growing dramatically across the world.



## HOW A HEADLESS ARCHITECTURE CAN HELP YOU BE MORE MOBILE-FRIENDLY

Before you start making any sort of m-commerce strategy, you need to ensure that your e-commerce architecture is suitable for handling the new data and traffic load that comes with this additional sales channel. You must ensure that your backend can keep performing despite changes to the front-end, and that the front-end can be updated regularly by marketing teams without negatively impacting the backend. One of the best ways to do this is to switch your e-commerce architecture from a monolithic architecture to a headless approach.

### Back-end, front-end, monolithic architecture, Headless Commerce... explained:

The presentation layer of a website or user interface is known as the front-end. It's what visitors (i.e., customers) view when they visit your site. This area of your website has elements like typefaces, colors, drop-down menus, picture sliders, shopping carts, search bars, and product detail pages that users can directly interact with.

The e-commerce solution's back end, which is managed by servers, controls the operations and data. Orders, client data, and product information are all stored in the data access layer. By processing, storing, and transmitting data to and from the side that communicates with clients, aids in the operation of websites. These tasks are completed by backend components such as the web server, application server, and database, allowing the front end to be interactive.

Monolithic architecture is how many traditional e-commerce platforms were built. Essentially a suite of applications all in one, your PIM, catalog, search, CMS, order management, checkout process, and all other e-commerce functionalities were all part of the same structure. To create a storefront, you would use templates and pages, so the UX was predefined and hard to impossible to modify. All the technology, architecture, languages, and frameworks were often predefined by the e-commerce suite. This is why it's called a monolith,







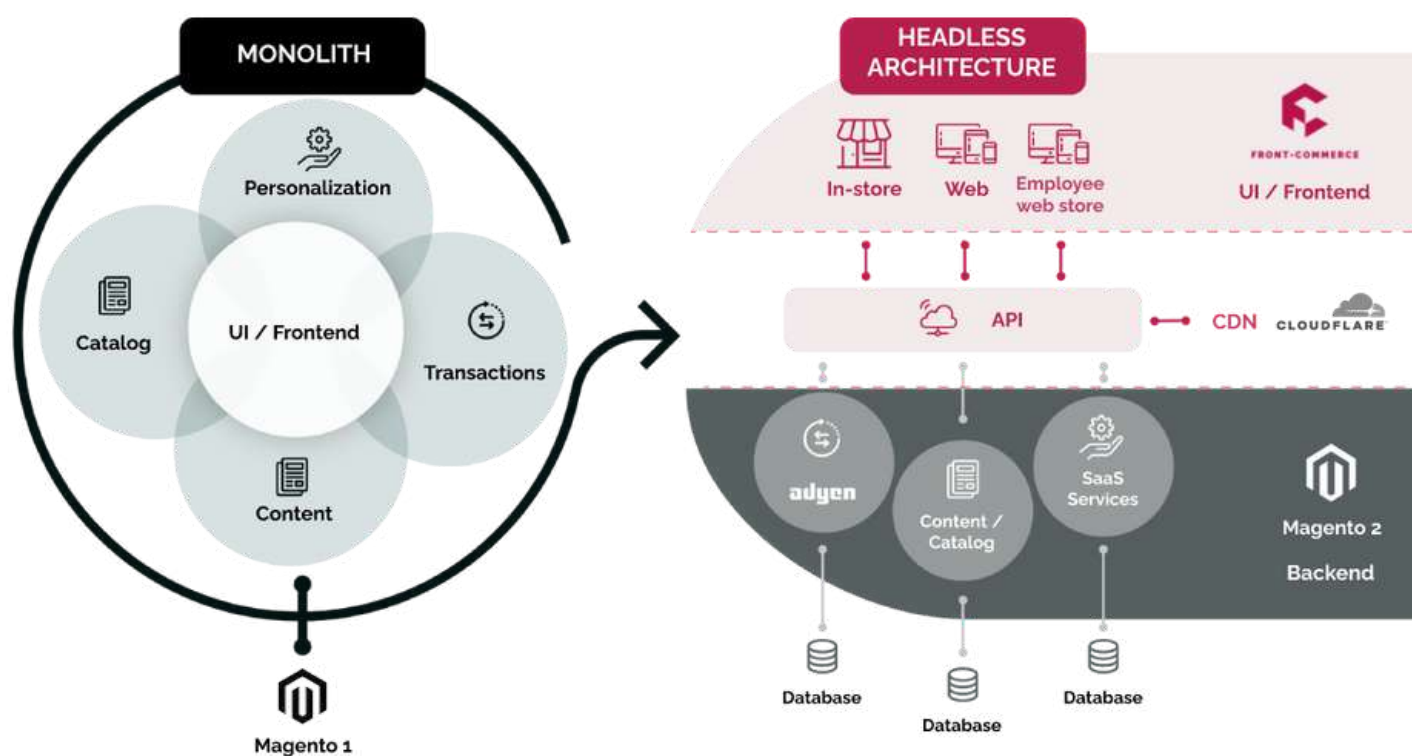
everything is in one big block.

Headless commerce has brought in a different approach. Headless Commerce is an e-commerce architecture that separates the front-end and back-end so that they can function independently. They are decoupled. This enables an online retailer to create a

The Starbucks PWA has increased daily active users by 2x.\*

platform specifically tailored to the demands of its customers and business, which can then be upgraded or developed without lengthy development cycles.

### MONOLITHIC AND HEADLESS ARCHITECTURES AT A GLANCE



### M-Commerce and headless

E-commerce providers are now able to reach audiences in new ways, but monolithic platforms heavily limit their ability to do so. Traditional e-commerce platforms follow a rigid format that requires close front and backend integration, frequently necessitating the use of an intermediate layer to enable communication between the





two. However, when a company's backend commerce operations are intricately linked to the frontend presentation layer, it severely restricts how the platform may be customized to meet the needs of various clients.

By separating the two, businesses get rid of this complexity and can alter each layer independently, as necessary. Building out new marketing channels, integrating new APIs, and adjusting consumer experiences on both the front and back ends all become much simpler.

Businesses need easy ways to extend their tried-and-true web experiences to their customers' phones now that consumer preference for mobile is well-established. And in that regard, headless delivers the best balance of ease of use and convenience you can expect from a modern e-commerce solution.

## **A headless architecture offers businesses looking grow the flexibility and modernity they need to adopt m-commerce sales channels.**

### **The benefits of headless commerce**

**Limitless frontend potential:** Engineers and creative teams (UX & UI) can innovate and create without stomping on each other's toes! Teams have total creative flexibility because there are few restrictions from the back end.

**True omnichannel experience:** Publish content without restrictions across web, mobile, tablet, and IoT devices and add new sales channels as and when you need.

**Cost-efficient:** Save money on replatforming & maintenance with flexible tech stacks. Increase conversion rates & easily add new sales channels to boost ROI. Avoid having to create a costly native app with PWA capabilities.

**Personalized marketing:** Quickly take advantage of opportunities, test unique integration techniques without making significant financial commitments, and rapidly distribute personalized content across many platforms.



## BENEFITS OF A HEADLESS COMMERCE ARCHITECTURE

A fluid shopping experience that drives growth

Omni-channel

Multi-device

Ultra-personalization

1

An e-commerce platform that's ready to adapt at scale

API

Microservices

2

A personalized storefront

Unlimited UX

PWA

Seamless

3

A future-ready platform

Agile

Best-of-Breed

Performance

4

**Faster time-to-market:** Deploy digital updates, content and products as & when you need to without affecting every part of your platform.

**Personalized customer experience:** Leverage the customer data that is stocked in your backend to deliver a frontend experience that matches your customers' needs. As such, you're able to offer your e-commerce and m-commerce customers alike an exceptional online shopping experience.

**Compose your commerce:** Headless is the foundation you need to move towards composable commerce, a modular approach that assembles a customized tech stack of best-in-breed solutions for each of your unique business needs.

**Easier multi-site management:** A decoupled architecture allows you to publish multiple websites using different servers/clouds and technology for each.

**Web performance:** Significantly speed up page loading times and site performance. 1 in 2 visitors abandons a website that takes more than 6 seconds to load. And that number is even higher with mobile commerce, as 53% of mobile visitors leave a webpage if it doesn't load within 3 seconds. Speed is key.



## WHAT TO KEEP IN MIND FOR THE FUTURE OF M-COMMERCE

“

“You need to get to the future, ahead of your customers, and be ready to greet them when they arrive.” — Marc Benioff

M-commerce is here to stay, so you should be looking into how you can integrate it into your e-commerce strategy. Without an efficient mobile experience your brand will miss out on an omni-channel retailing strategy. More and more companies are creating standout user experiences and shopping journeys for

customers. But mobile commerce is also rapidly evolving, and retailers have a wide range of opportunities to take advantage of these new trends and technologies. Reach new audiences and new markets while boosting revenue and increasing conversions.

The key to a successful strategy is to build an m-commerce experience that is structured around a trustworthy yet agile and flexible e-commerce architecture. PWAs and a headless architecture have proven themselves to be the must-have tools for any forward-thinking retailer.

**Put your customer at the forefront of your business. Empower your teams to deliver an authentic brand experience in a digital context with the tools they need.**

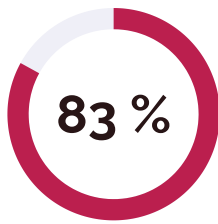




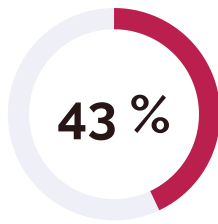
## M-Commerce in 2022 alongside projections from top data experts



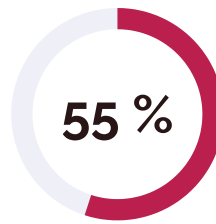
### The smartphone market



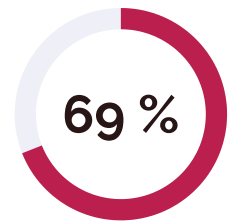
of the world's population has a **smartphone**



of all online sales will be made **on mobile by 2024**



of global **internet usage** is consumed by mobile



of **returning visitors** are mobile users

**Mobile shopping is here to stay**

Mobile sales increased 15% in 2020, generating **\$359 billion** in revenue in 2021

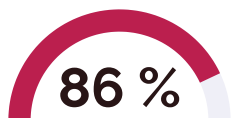
M-commerce could generate more than **\$728 billion** in revenue by 2025

**40%** of users will go to a competitor after a bad mobile experience

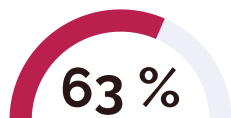
**84%** have experienced difficulty completing a mobile transaction

**But consumer expectations are high**

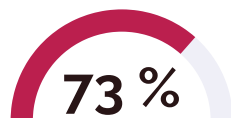
### Connect with younger generations



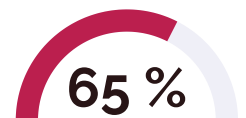
of teenagers **shop online**



of 18-24 year-olds shop with their **smartphones**



of millennials shop on mobile **1 to 4 times per week**



of Gen Z shop based on an influencer's suggestion

Gen Z spend an average of **6.5 hours/day** on their mobiles

Social commerce sales are set to triple by 2025



## SOURCES

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### White paper

- Bank my cell  
How many smartphones are in the world
- Yole Développement  
Wearables in consumer and medical applications 2020
- Davide Brunelle  
Twitter
- Digital.com  
1 in 2 visitors abandon a website that takes more than 6 seconds to load
- Think with Google  
Mobile site load time statistics
- PWA Stats
- Multichannelmerchant.com  
Study Finds 80% of Consumers Shop on Smartphones, M-Commerce Gains
- Venturebeat.com  
Millennials game on mobile phones more than anything else, report says
- Insider  
These Are Teens' Favorite E-Commerce Sites
- Statista  
Leading countries based on retail mobile commerce sales growth in 2021

### Infographic

- CleverTap
- Data.ai
- Insider Intelligence
- Tapjoy
- Ipsos
- Global Market Insights
- Statista
- Shopify

**Designed to interact  
with any kind of  
service & solution**

**Request a demo**



## ABOUT US

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**Front-Commerce is the only digital storefront that improves the customer, merchant & developer experience, at the same time.**

An ultra-fast front-end based on PWA & MACH standards, we help brands evolve their current e-commerce platform to a headless commerce approach by integrating the back-end of their choice with Front-Commerce's best of breed technical stack based on React, NodeJS & GraphQL.

Front-Commerce does the decoupling of the frontend and backend for its clients to provide the headless commerce experience. Our solution is compatible with most backends, allowing us to integrate easily into your systems. You can stay in touch with your customers and we keep all technical considerations up to date.

[Get the fact sheet](#)

**Contact Front-Commerce**  
[contact@front-commerce.com](mailto:contact@front-commerce.com)

## Some of the brands powered by Front-Commerce

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JEROME DREYFUSS

DEVIALET

collégien  
Depuis 1947

KAPORAL

autobernard.com

lepetto  
PARIS

Terräng  
EQUIPEMENT POUR L'AVENTURE

BONNE GUEULE

CENTRAKOR

LILINAPPY  
LA TRIBU RESPONSABLE

ROBERTET  
PARIS

CHAÎNE THERMALE DU SOLEIL

PetDistrib

