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The State of Cross-Device Commerce.

H2 2016 · United States

The challenge ahead

Closing the gap across devices

A new paradigm. Personalized marketing starts with understanding cross-device behavior, allowing marketers to use multiple signals to understand consumers' buying processes and to enhance their overall experience.

A new focus. To reflect an increasingly cross-device, user-centric eCommerce environment, we've changed the title of this report from *State of Mobile Commerce* to *State of Cross-Device Commerce*.

What's inside?

4

Key Findings

5

Cross-Device
Commerce Trends

16

US Mobile Retail
Commerce Trends

22

Global Mobile Retail
Commerce Trends

28

A Look Ahead

30

Appendix

Key findings

Cross-device is here to stay

Again this year, about one-third of online retail transactions involved two or more devices.

Old models fall short

Retailers using conventional device-focused analytics do so at their peril, undervaluing consumer engagement and missing the opportunity to optimize advertising spend.

No vertical is exempt

Cross-device buying is the new norm across all retail categories.

Forget “browse on smartphone, buy on desktop”

As smartphones extend their role from browsing to purchasing, retailers must ensure the user experience is consistent, synchronized and seamless not only for mobile, but across all devices and platforms.



Cross-Device Commerce Trends .

The new path demands a new view

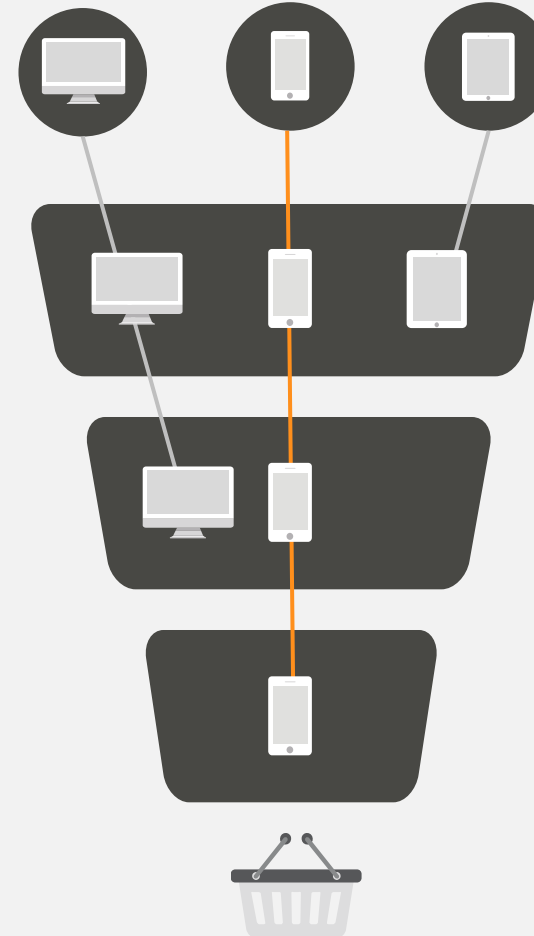
Consumers use multiple devices in the buying journey, from searching and browsing to buying.

Device-centric: Traditional analytics tools look at activities on a single device, providing only a partial and distorted view of a multidevice journey.

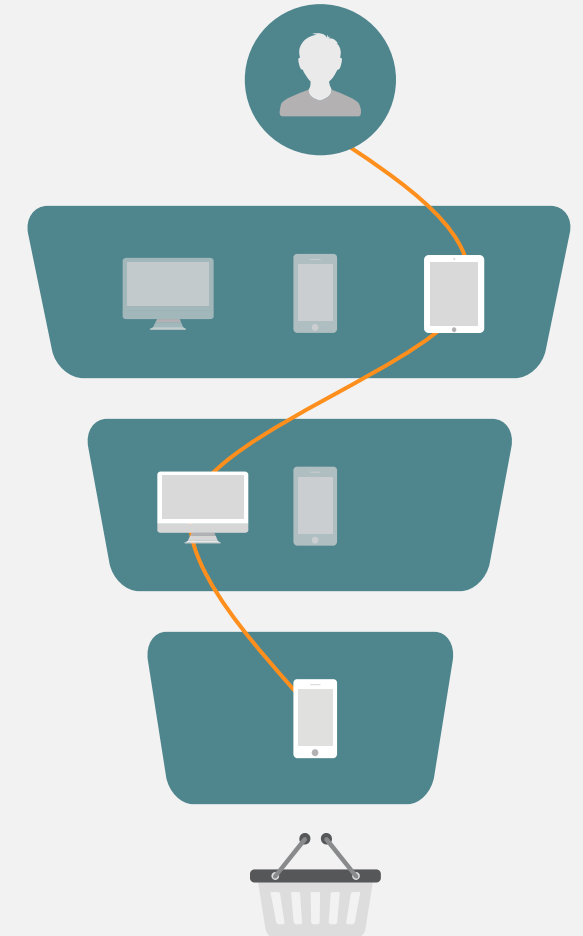
User-centric: Only advanced cross-device measurement can accurately follow the buyer across devices and capture full-journey behavior and intent.

The Path to Purchase

DEVICE-CENTRIC VIEW



USER-CENTRIC VIEW




You can't afford to misunderstand 31% of buyers

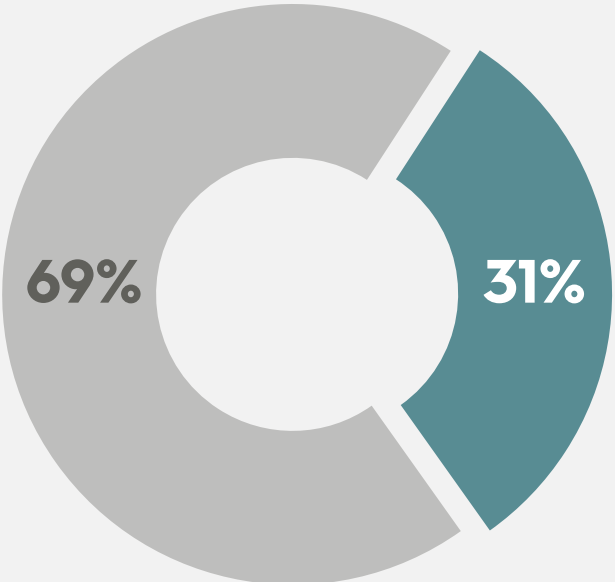
Nearly one-third of all transactions involved two or more devices from the first website visit to the point of purchase.* Without cross-device measurement, marketers risk miscalculating key metrics and ROI for one in three transactions.

US Share of Transactions by Number of Devices Used, Q4 2016

Number of devices used from first website visit to purchase*



of all online transactions involved **only one device**



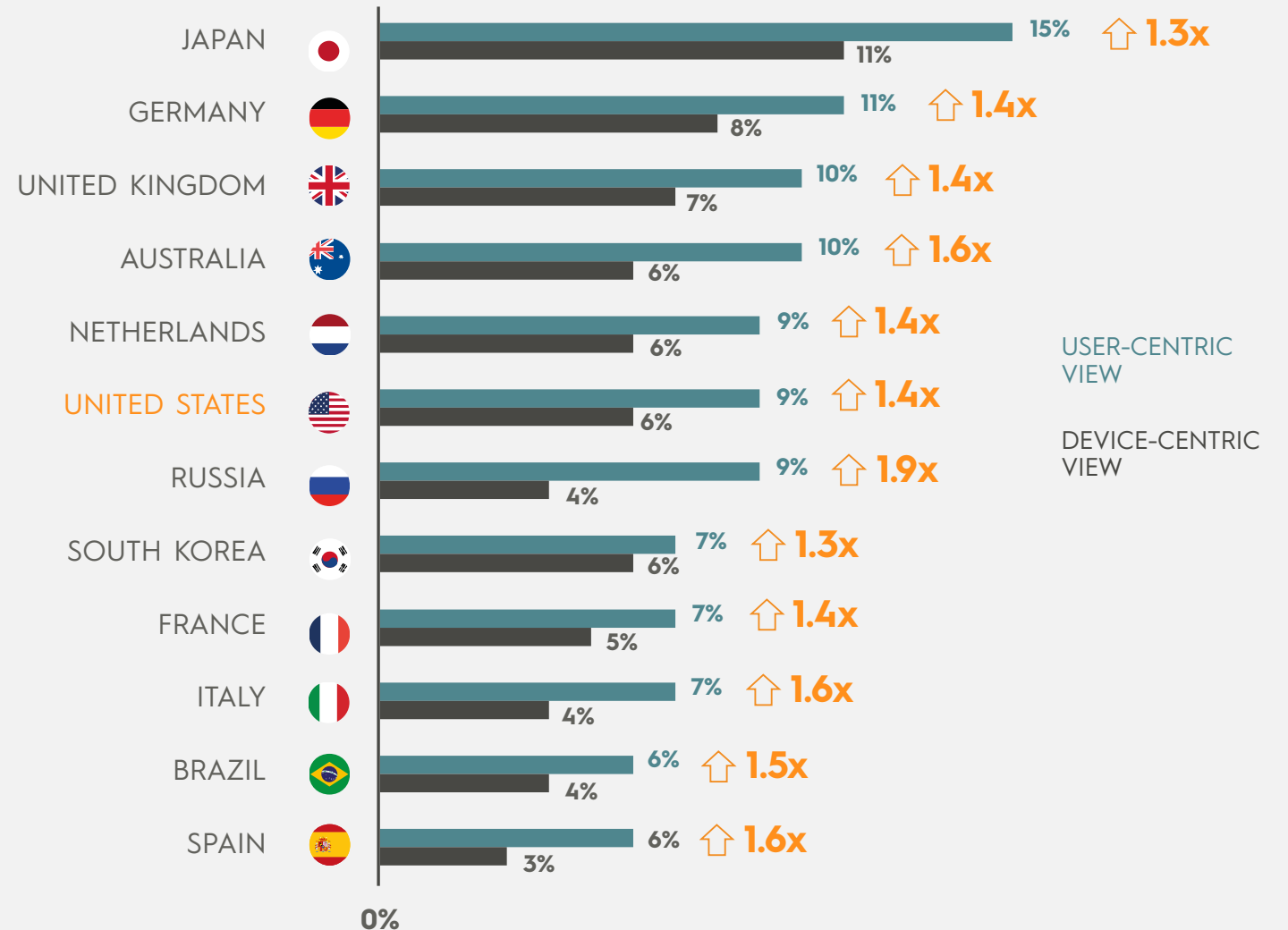
of all online transactions involved **two or more devices**

Don't undervalue your users – know how to measure

In the US, a user-centric view through cross-device measurement shows that conversion rates are 1.4 times higher than the conversion rates seen through a device-centric approach.

Without an accurate cross-device measurement, retailers misunderstand, undervalue and ultimately underinvest in users.

Conversion Rate by Country Device-Centric vs. User-Centric Analysis, Q4 2016



Source: Criteo dataset Q4 2016, all categories, excluding apps
Definition: Conversion rate = share of product page visitors who made a purchase

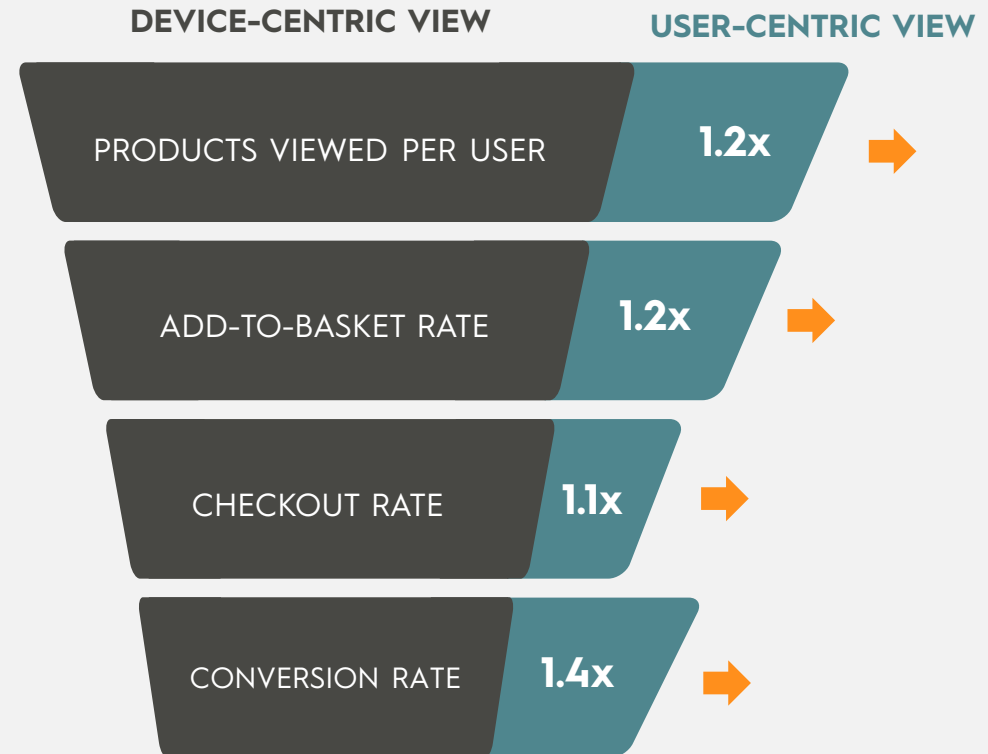
Improve accuracy at every step

Cross-device measurement shows that consumers convert more than previously thought, and that they:

1. view more products than traditional analytics tools suggest
2. are more likely to place items in the shopping cart and complete the transaction

Cross-device measurement helps retailers to accurately identify where bottlenecks lie and optimize consumer experience and marketing spend accordingly.

US Retail Conversion Funnel Device-Centric vs. User-Centric Analysis, Q4 2016



Source: Criteo dataset Q4 2016, US, all categories, excluding apps

Definitions:

Add-to-basket rate = share of product page visitors who added a product to basket

Checkout rate = share of add-to-basket visitors who made a purchase

Conversion rate = share of product page visitors who made a purchase

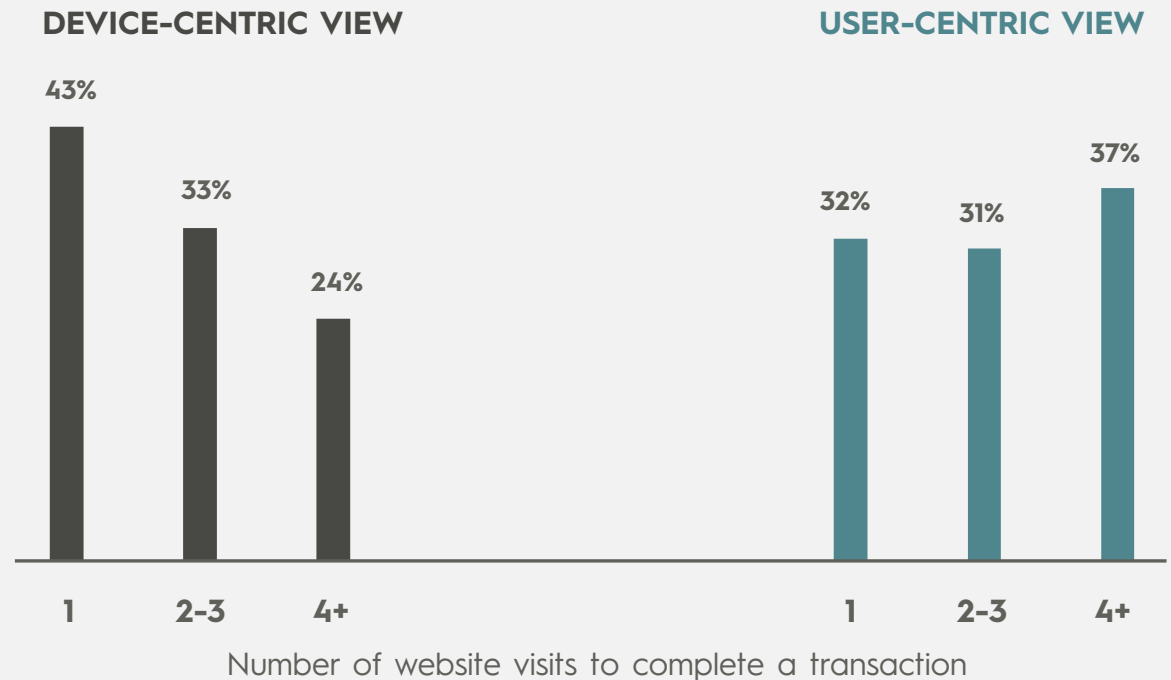
The 41% difference

Device-centric measurement can be misleading, recording as single-visit purchases what are actually visits by the same user on another device.

Correctly applied cross-device measurement reveals that buyer journeys are 41% longer than partial-view models indicate, enabling marketers to:

- optimize offers and user experience at every step
- increase the likelihood of conversion on every visit on any device

US Share of Retail eCommerce Transactions by Number of Visits Device-Centric vs. User-Centric Analysis, Q4 2016

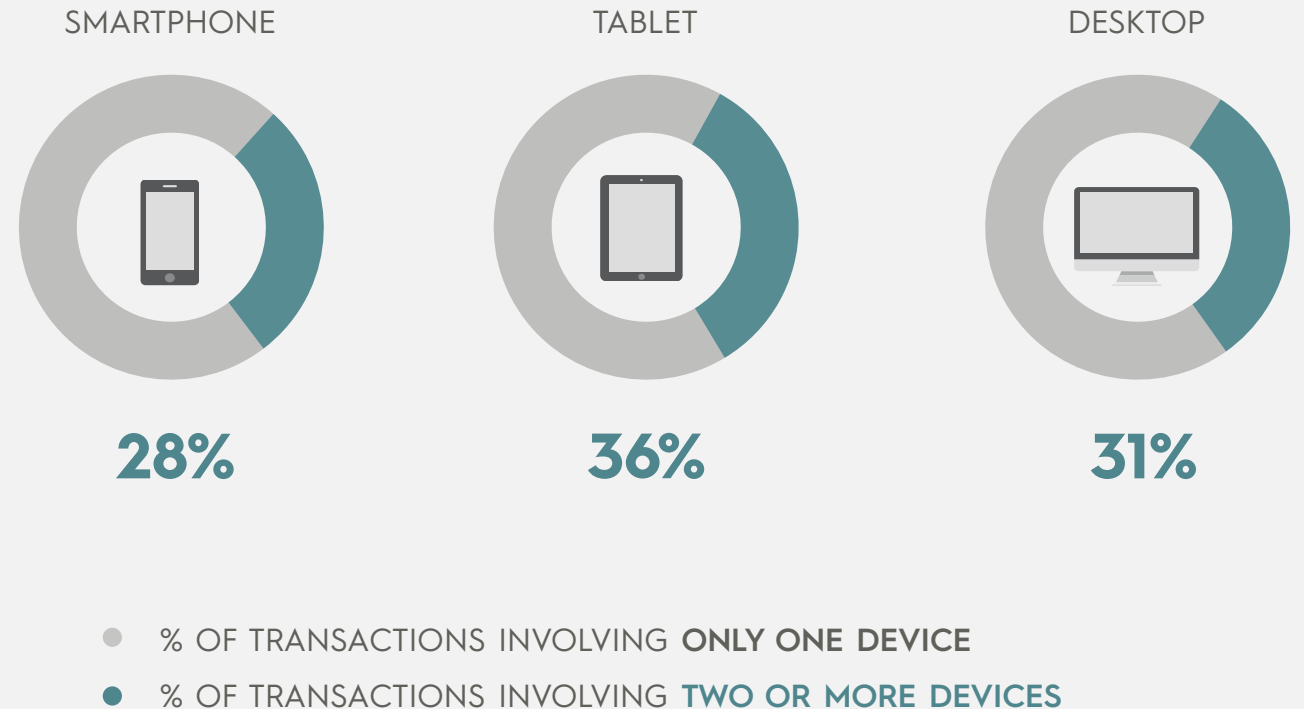


Cross-device shopping conquers all devices

Cross-device buyers are fairly evenly represented across the three purchase devices: desktop, smartphone and tablet.

This fact reinforces the vital need for retailers to offer a seamless user experience across all devices to capture the final purchase wherever it may take place.

US Cross-Device* Share of eCommerce Transactions by Device, Q4 2016



Smartphones are present from start to finish

Forget the conventional wisdom “browse on smartphone, buy on desktop.” Consumers now reach for their smartphones for both searching and purchasing.

Twenty-five percent of all cross-device transactions completed on a desktop started on a smartphone, and 35% of those completed on a smartphone started on a desktop. And regardless of purchase device, nearly one in three cross-device transactions starts with a smartphone.

Retailers must ensure a synchronized experience across desktop and mobile.

Devices Used in Path to Purchase in the US, First and Last Touchpoint in Cross-Device Transactions, Q4 2016

FIRST DEVICE USED TO BROWSE



59%



31%



10%

FINAL DEVICE USED TO PURCHASE



ANY DEVICE



25%

of cross-device desktop transactions started on smartphone



35%

of cross-device smartphone transactions started on desktop

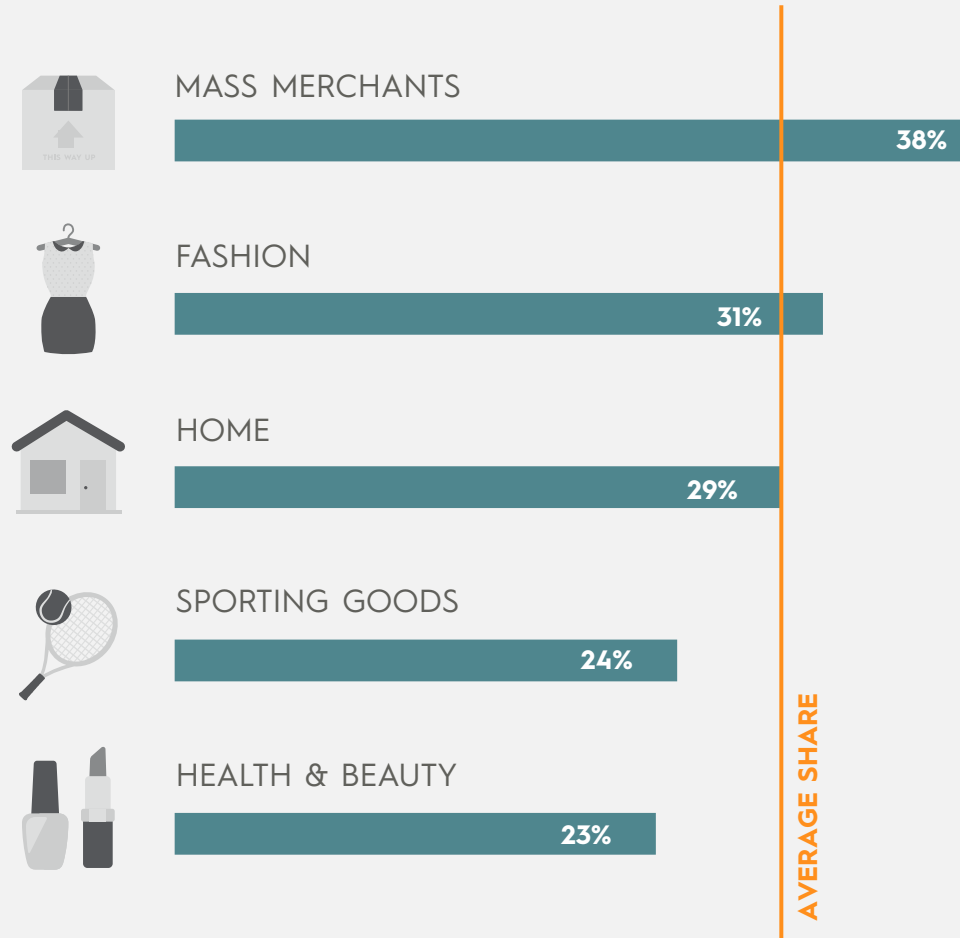


No retail sector is exempt

In the US, cross-device shopping is seen in all retail categories, with at least 23% of transactions involving multiple devices.

All retailers should be implementing cross-device measurement to accurately assess buyer behavior and intent across devices and maximize ROI.

US Cross-Device Mobile Share of Retail eCommerce Transactions by Subvertical, Q4 2016

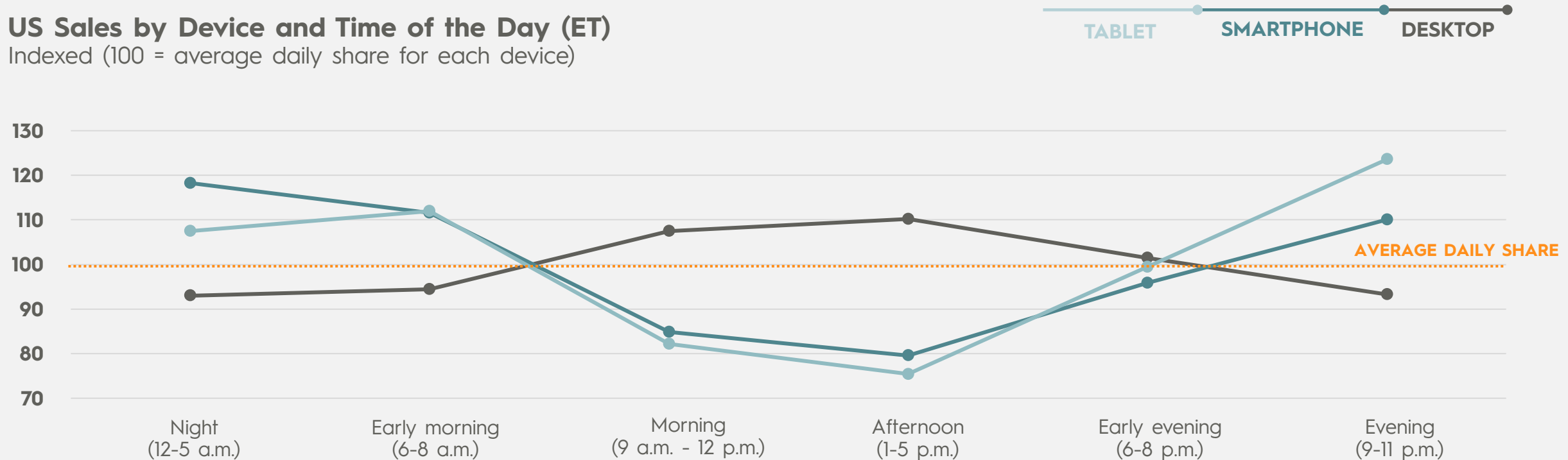


Device preferences vary throughout the day

In the US, desktop purchases peak during work hours, while mobile devices dominate at all other times. To maximize impact, know your consumers' buying cycle across devices and adapt your campaign strategy to reach them at the right time on the right device.

US Sales by Device and Time of the Day (ET)

Indexed (100 = average daily share for each device)

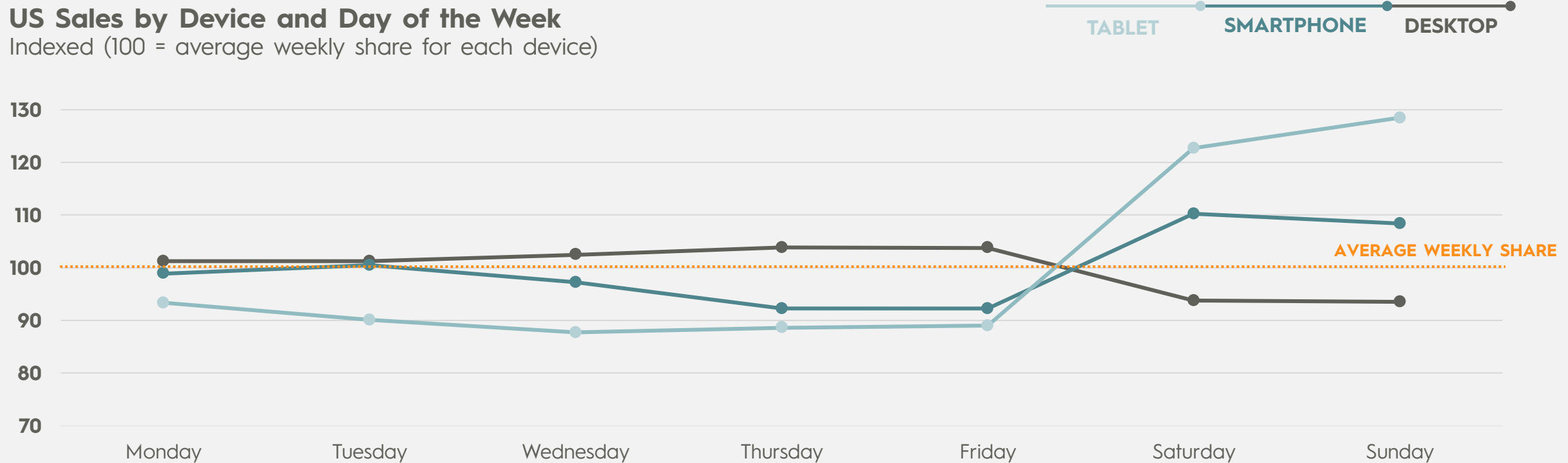


Mobile sales peak on weekends

In the US, tablet and smartphone sales soar on Saturdays and Sundays.

US Sales by Device and Day of the Week

Indexed (100 = average weekly share for each device)



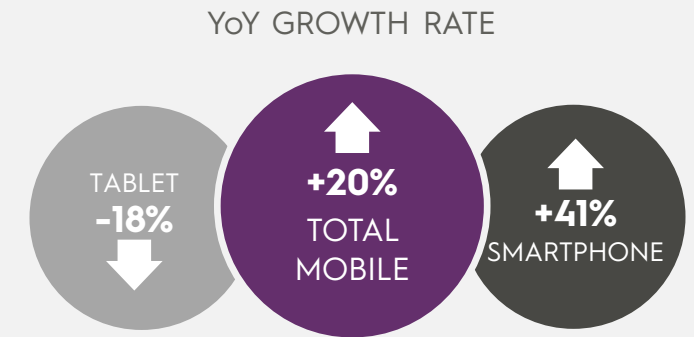
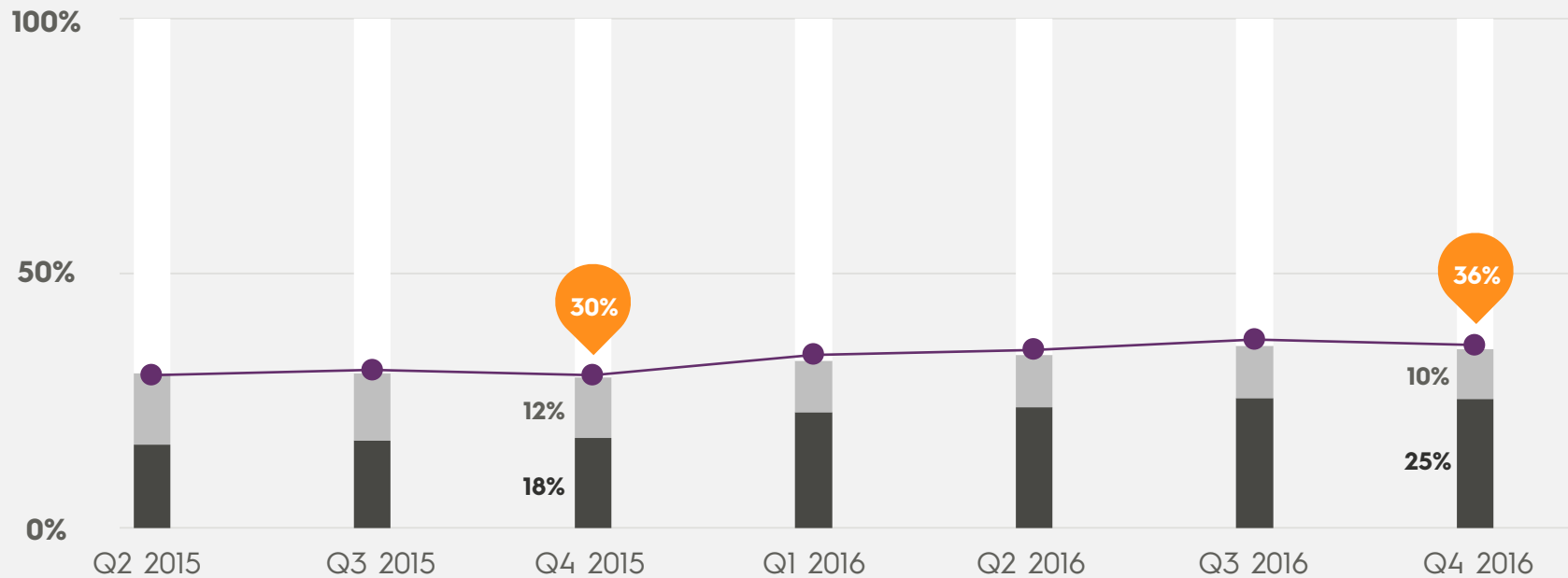
An aerial view of a city street, likely in New York City, showing a mix of brick buildings and modern skyscrapers in the background. The image is overlaid with a semi-transparent brownish-purple gradient. A white line graphic starts under the end of the text and extends to the right, ending in a rounded rectangular shape.

US Mobile Retail Commerce Trends .

Smartphones grow, tablets slow

In the US, nearly two in five online purchases are completed on mobile, a year-over-year increase of 20%. Smartphones now account for a quarter of all online retail sales in the US, showing a year-over-year increase of 41%, while tablets continue to decline.

US Mobile Share of Retail eCommerce Transactions by Device, Q2 2015 to Q4 2016

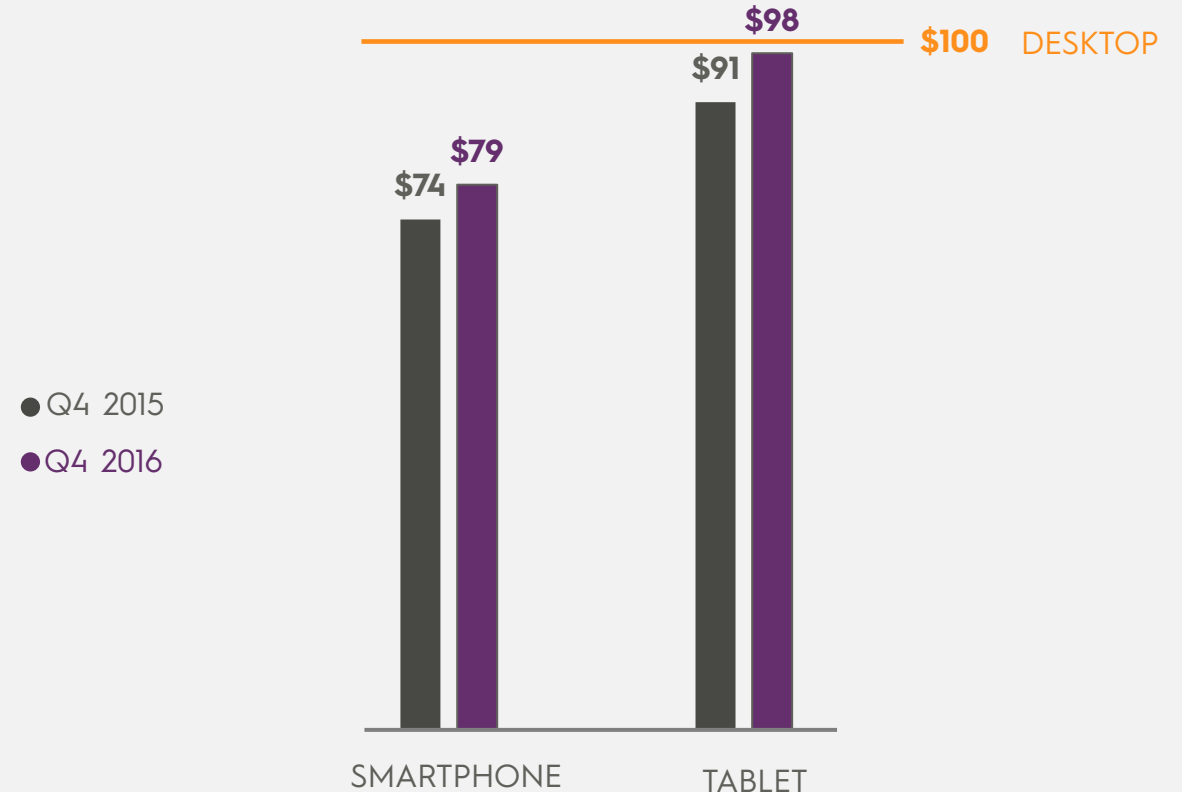


Smaller screens are seeing bigger baskets

On average, shoppers now spend \$80 on smartphones for every \$100 spent on desktop per transaction - a seven percent year-over-year increase.

Tablets are approaching parity with desktops for transaction value.

US Retail Mobile Commerce Average Order Value by Device, Q4 2016 vs. Q4 2015
(Indexed versus Desktop*)



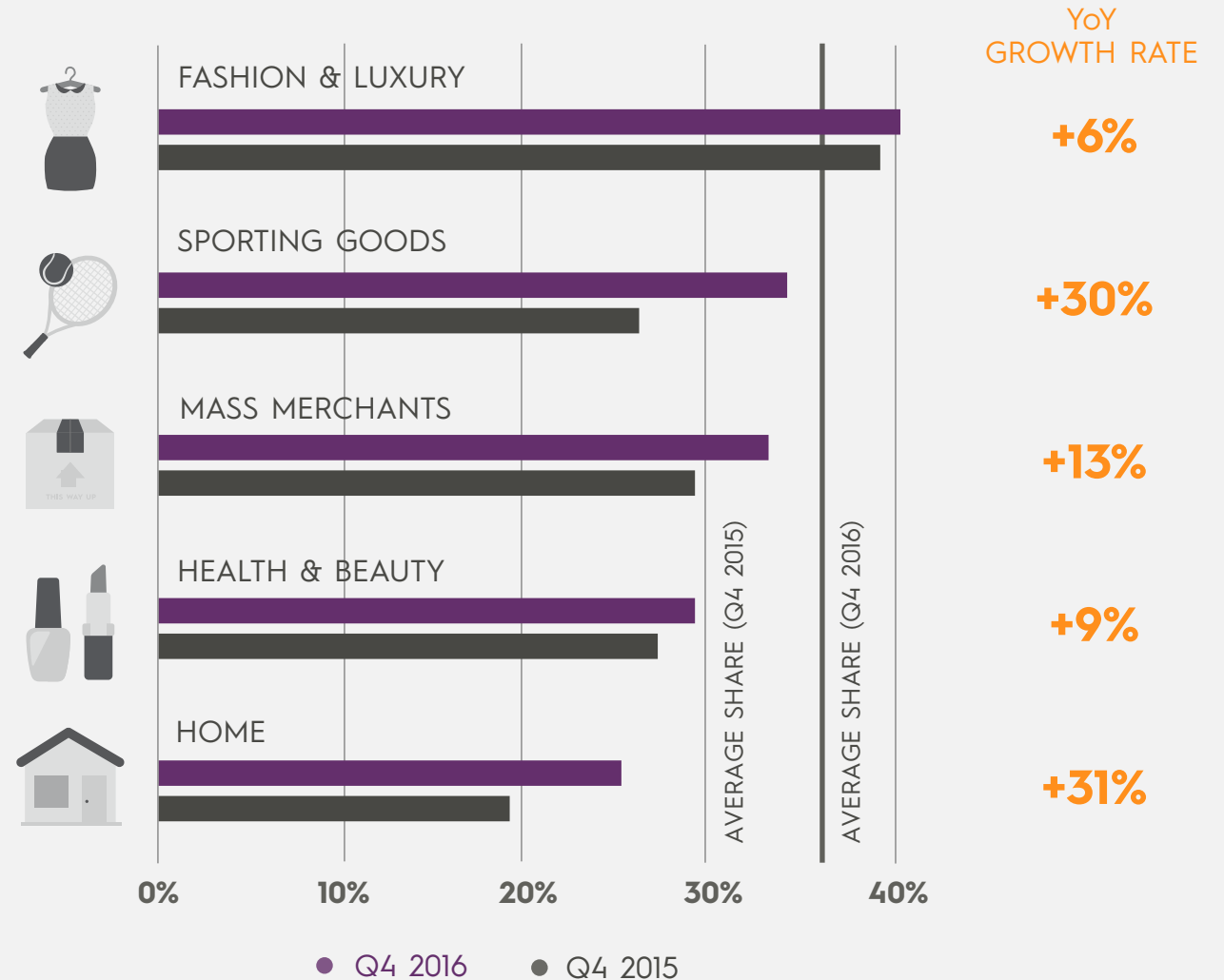
Fashion leads, but for how long?

Fashion & Luxury retains the biggest share of mobile transactions.

At number two, Sporting Goods grew 30% year over year, overtaking Mass Merchants and Health & Beauty.

The Home category also showed strong growth of 31% year over year.

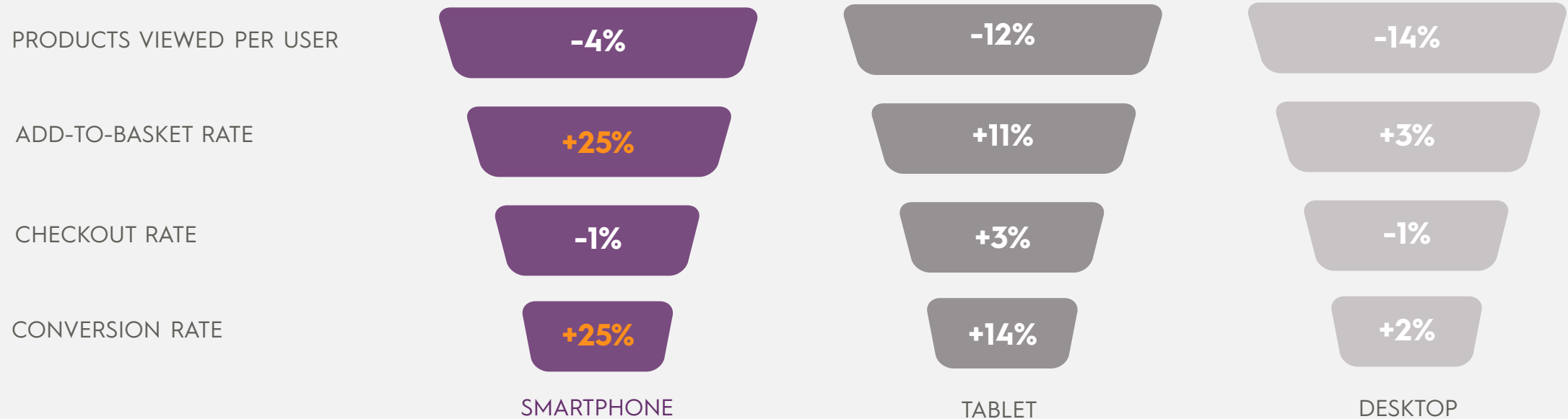
US Mobile Share of Retail eCommerce Transactions by Subvertical, Q4 2016 vs. Q4 2015



Smartphones aren't just for browsing

Shoppers can find the products they're looking for faster than ever. On smartphones, add-to-basket and conversion rates increased 25% year over year. Streamlining the path from product selection to transaction completion (think one-click ordering and smart autofill) will convert even more shoppers into buyers.

US Retail Conversion Funnel by Device, Percent Change Q4 2016 vs Q4 2015

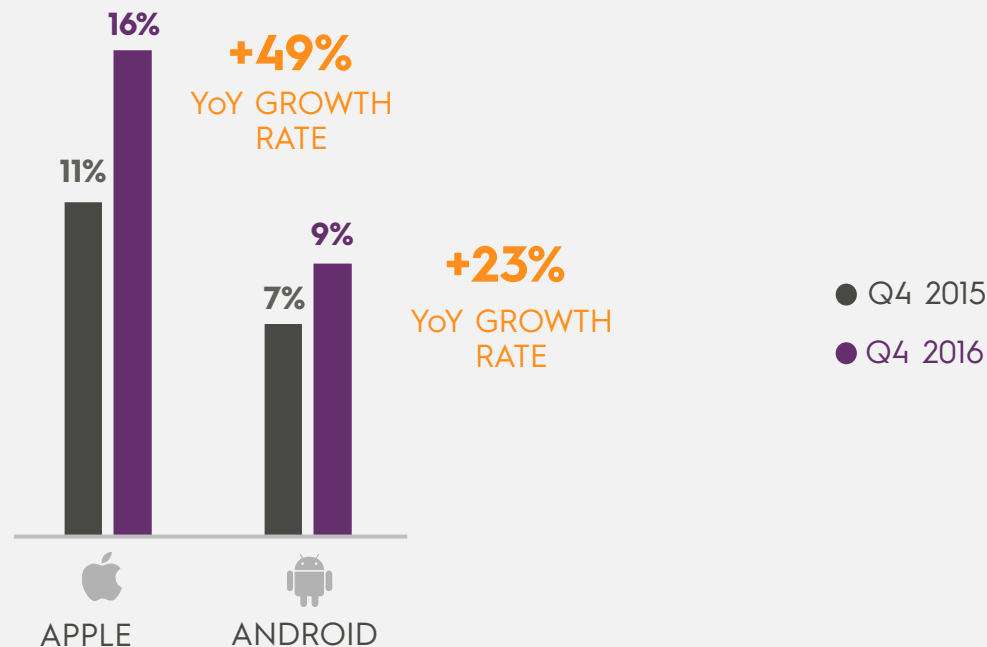


Source: Criteo dataset Q4 2015 and Q4 2016, US, all categories, excluding apps
Definitions: Add-to-basket rate = share of product page visitors who added a product to basket. Checkout rate = share of add-to-basket visitors who made a purchase. Conversion rate = share of product page visitors who made a purchase

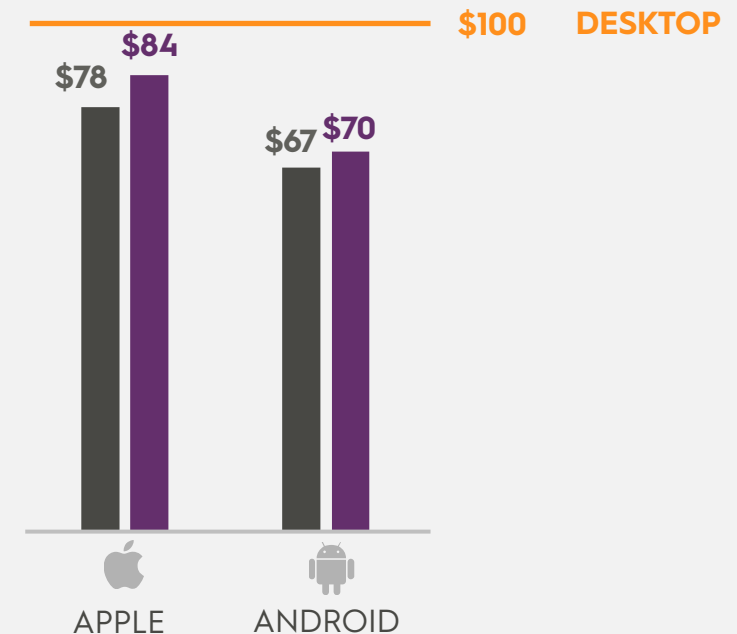
iPhone pulls ahead

iPhone-based transactions in the US increased 49% year over year – that’s more than twice as fast as Android-based ones. Similarly, the average value of each iPhone transaction (per \$100 spent on desktop) grew by \$6 vs. Android’s \$3.

US Share of Transactions by Smartphone OS, Q4 2016 vs. Q4 2015



US Average Order Value by Smartphone OS, Q4 2016 vs. Q4 2015 (Indexed versus desktop*)



An aerial photograph of a dense urban area, likely Tokyo, with a semi-transparent green overlay. The text 'Global Mobile Retail Commerce Trends' is written in white, sans-serif font. A white line starts under the end of the text and curves into a rounded rectangle on the right side of the image.

Global Mobile Retail Commerce Trends .

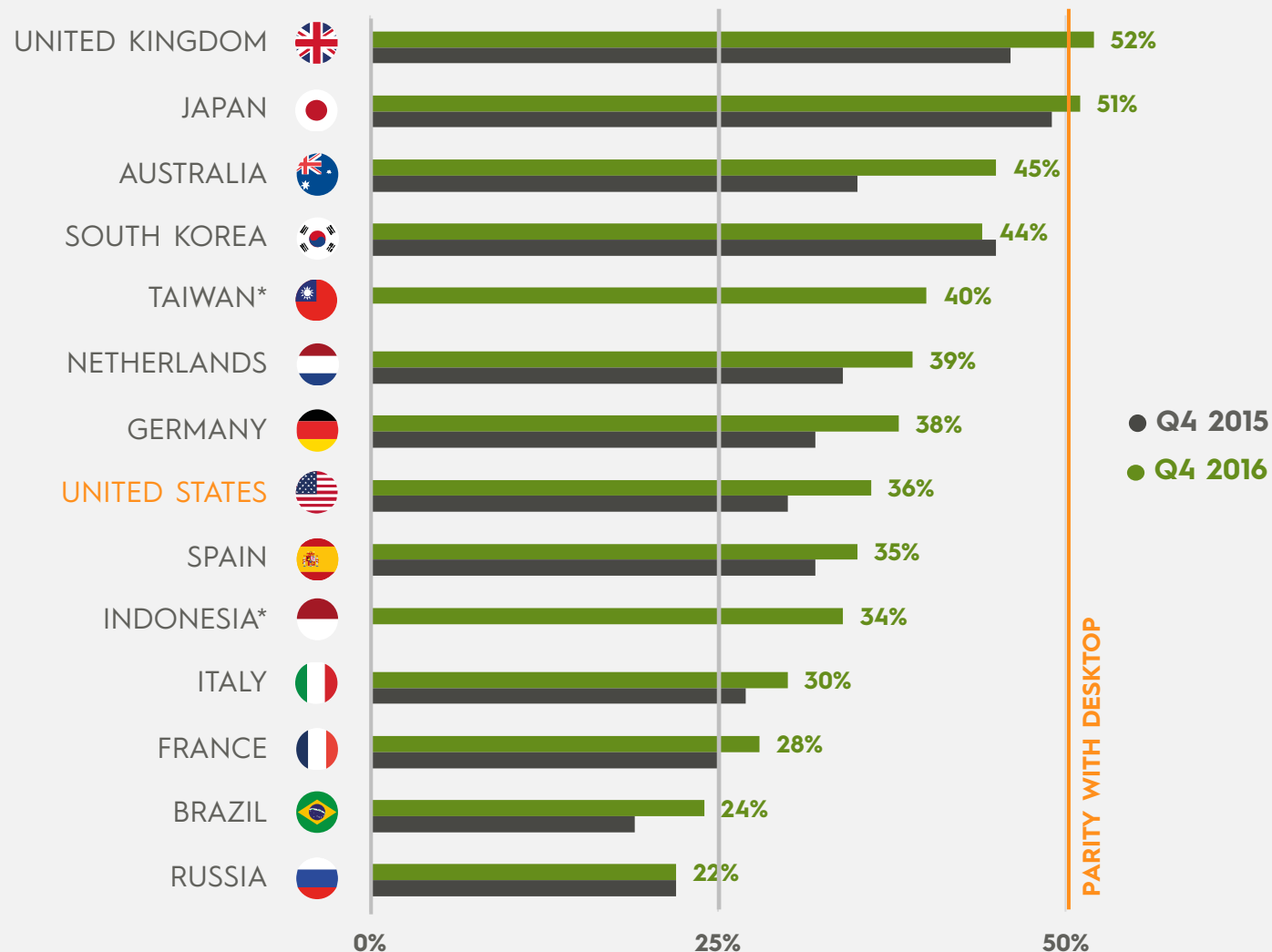
A new world order

The UK leapfrogged Japan to take the top spot in mobile share of transactions, with both countries selling more on mobile than desktop.

Australia took the third spot from South Korea and showed the strongest year-over-year growth.

Countries to watch? Brazil and the US, both with big year-over-year gains.

Mobile Share of Retail eCommerce Transactions by Country, Q4 2016 vs. Q4 2015

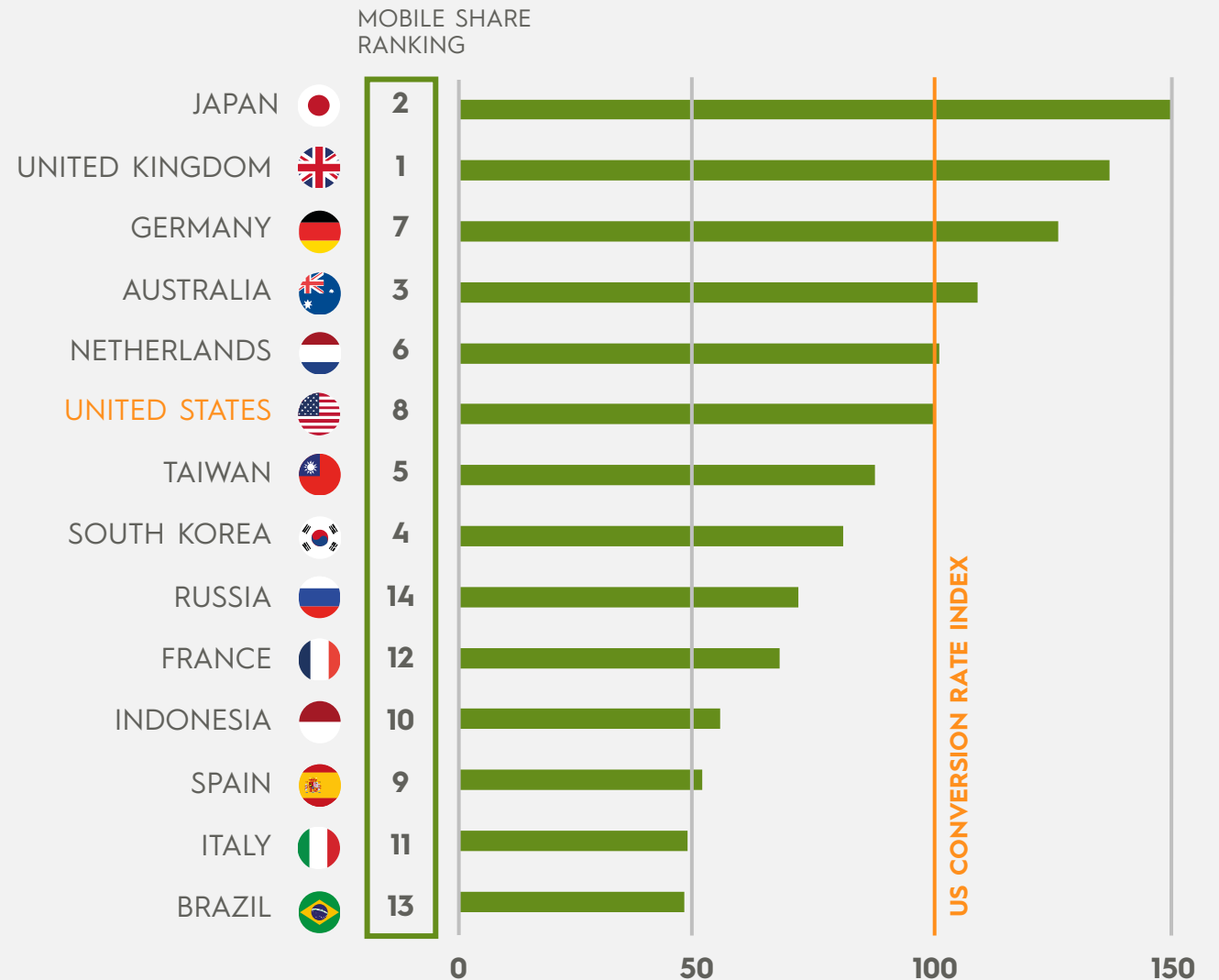


Source: Criteo dataset Q4 2015 and Q4 2016, all categories, excluding apps
* Base too small in Q4 2015

The UK and Japan also lead in mobile conversions

Interestingly, Germany is number seven in mobile share but ranks number three in mobile conversion rate.

Global Retail Mobile Conversion Rate Index, Q4 2016 (vs. the US)



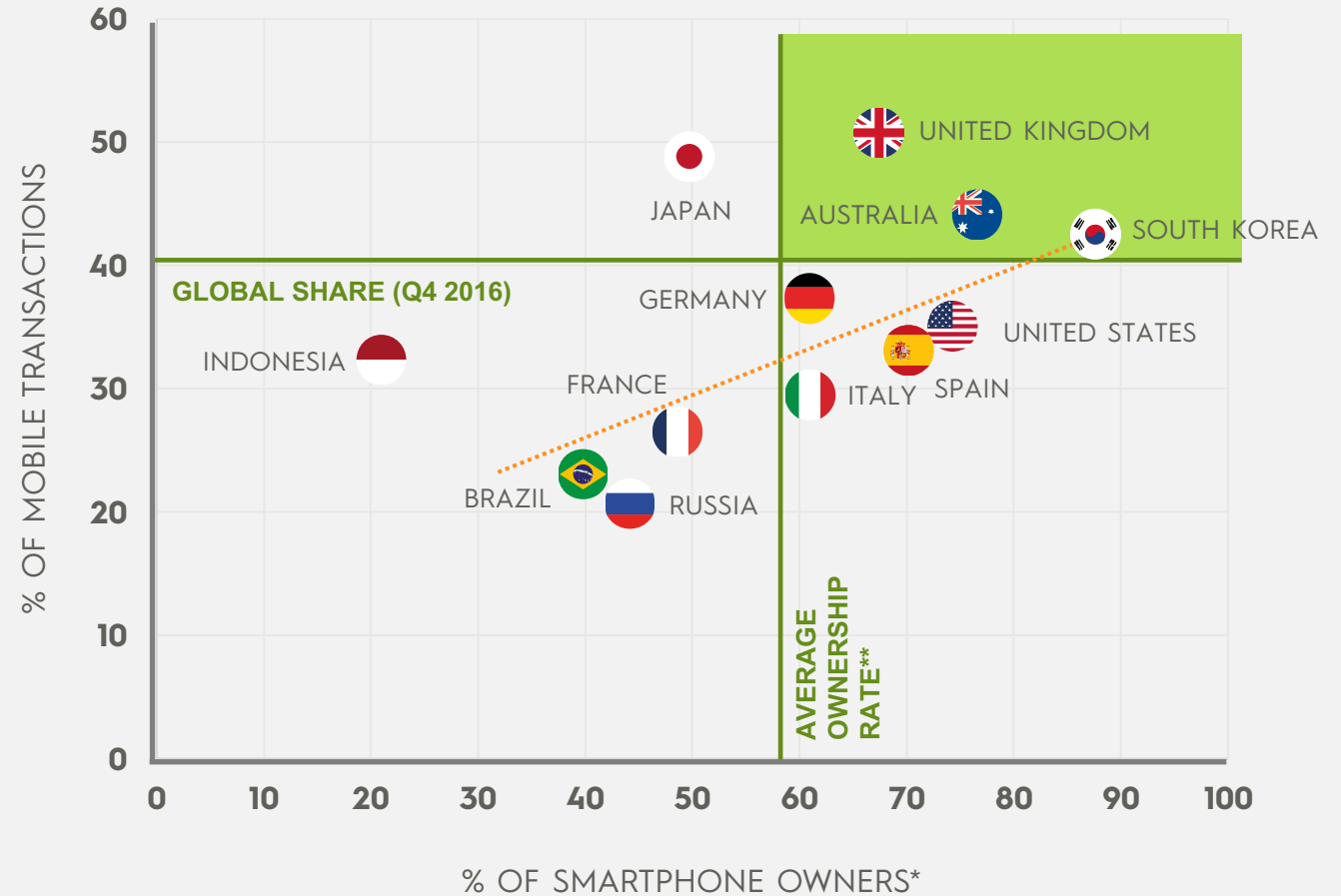
More access equals more buying

Mobile commerce transactions correlate strongly with smartphone ownership for most markets.

This trend is clear in South Korea, Australia and the UK, where ownership rate and transaction share are both high.

Indonesia appears to be an exception to the rule.

Mobile Share of Retail eCommerce Transactions Q4 2016 vs. Smartphone Ownership per Country



Source: Criteo dataset Q4 2016, all categories, excluding apps

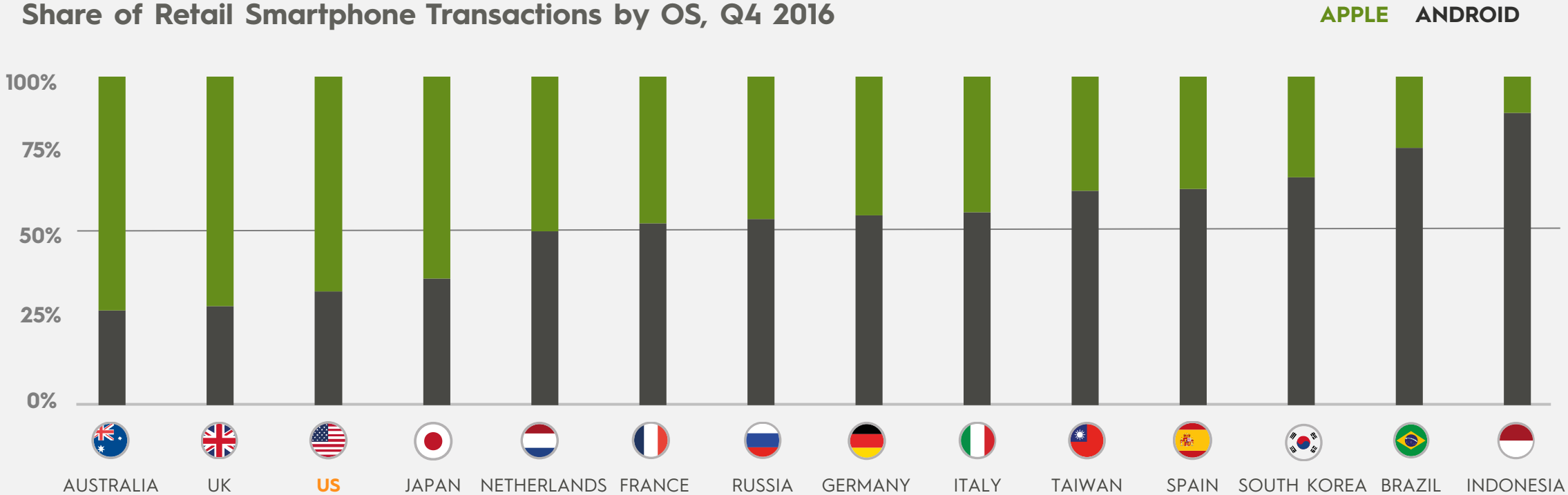
*Source: Pew Research Center Spring 2015 Global Attitudes survey. Q71 & Q72 (no data for Taiwan and the Netherlands) and the Ministry of Internal Affairs and Communications Japan

**Average ownership among all countries shown in graph

iPhones dominate in top mobile markets, lag elsewhere

In markets that ranked highest in mobile share of retail eCommerce transactions - Australia, the UK and Japan - around two-thirds of online transactions are made on iPhones. US consumers also prefer to buy on iPhones. Android devices have a clear lead in all other markets.

Share of Retail Smartphone Transactions by OS, Q4 2016

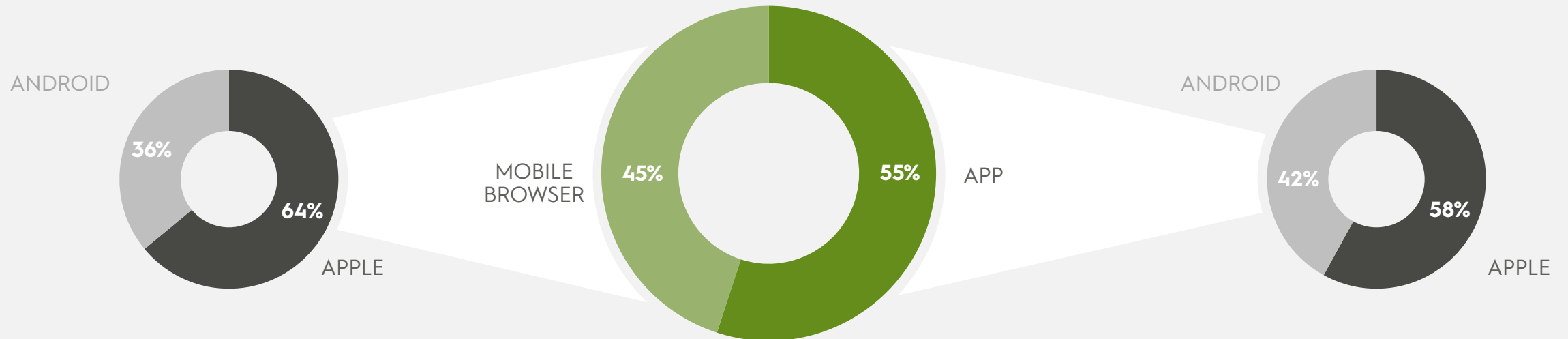


Apps outperform mobile browsers for retailers who invest*

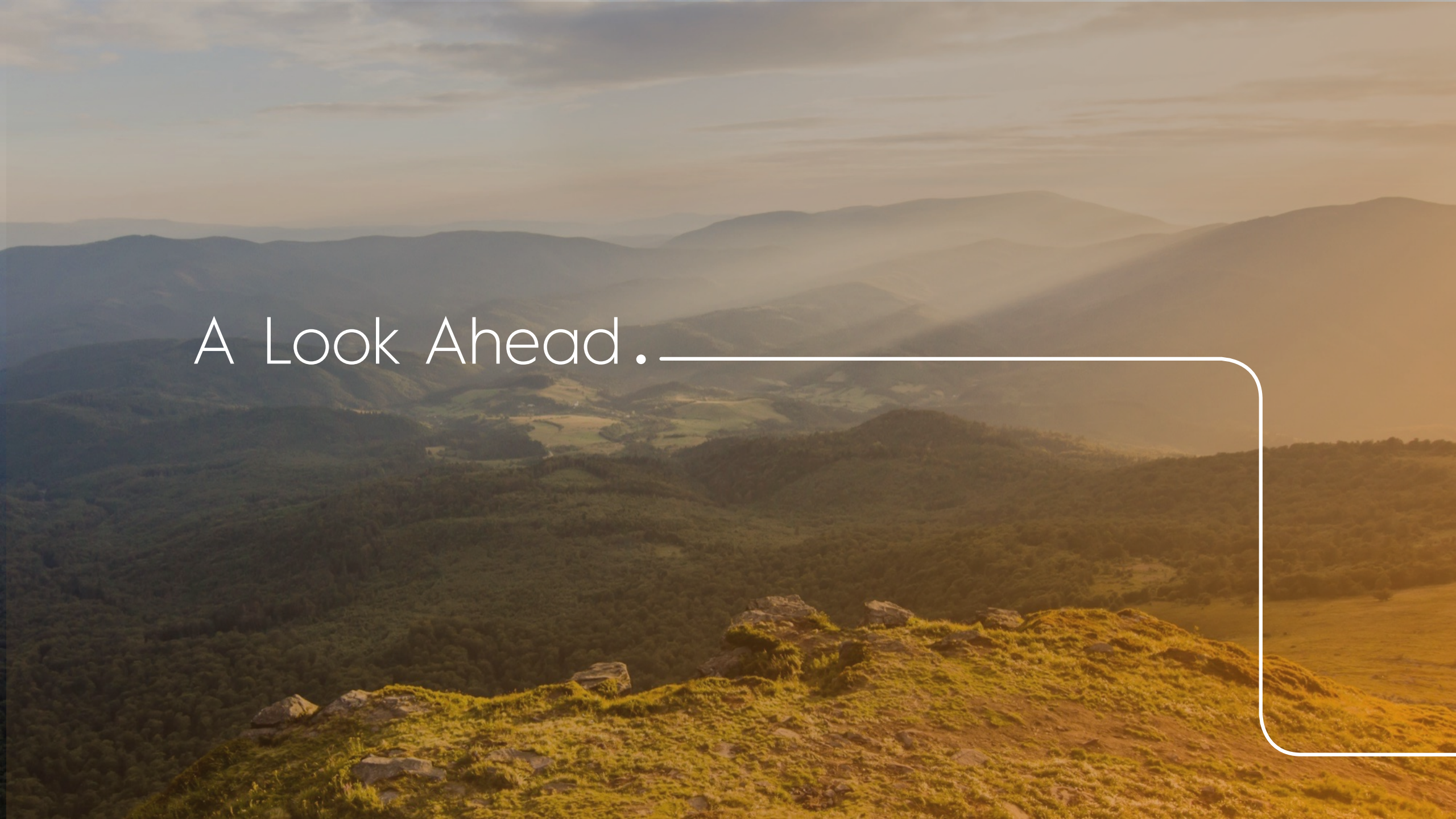
Committed retailers capture more transactions on apps than on mobile browsers.

In both platforms, iOS devices capture the majority of these retailers' transactions.

Global App Share of Retail Mobile Transactions, Q4 2016



A Look Ahead. _____



The cross-device opportunity

Cross-device measurement is non-negotiable

Retailers who lack a cross-device perspective will have a distorted view on up to 31% of their transactions.

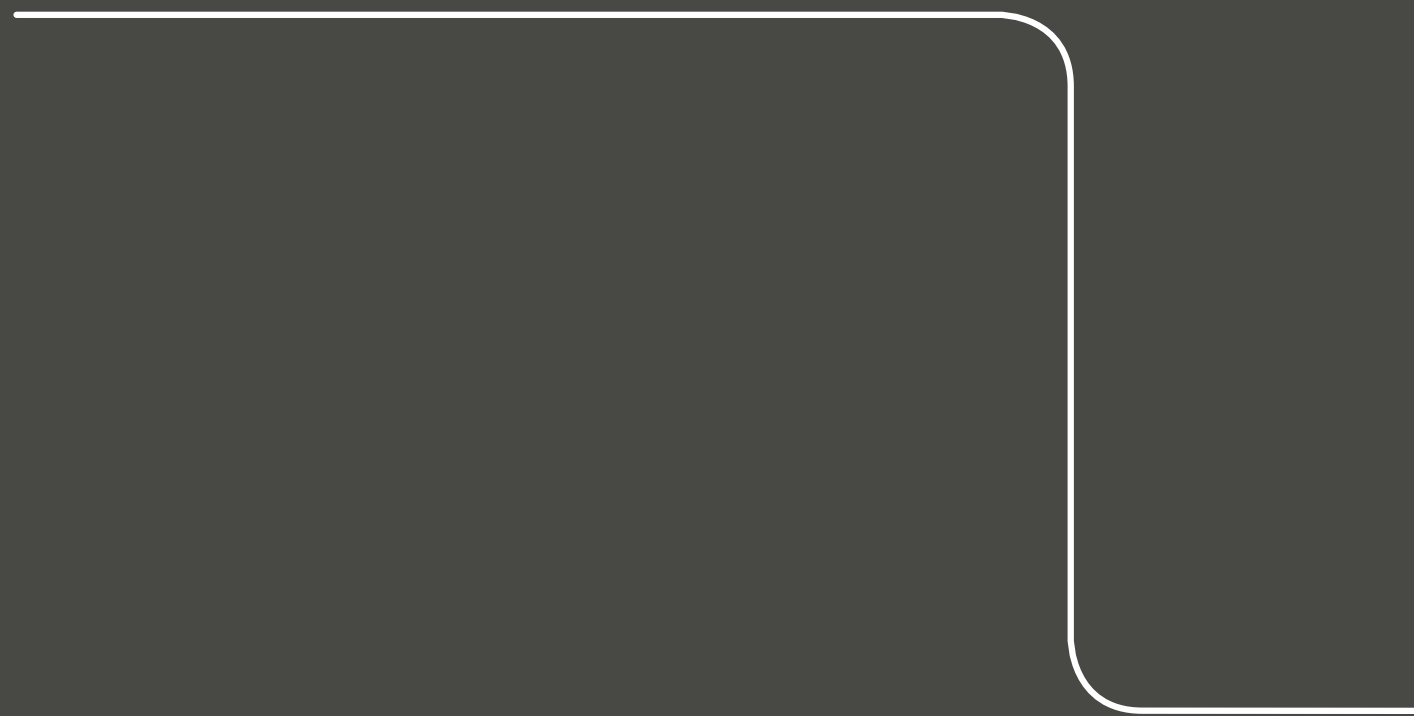
Differentiate your experience

Retailers that deliver a seamless and personalized user experience across devices will stand out from the crowd.

Be ready for what's next

The common identifier that enables cross-device tracking is also the link necessary to merge online and offline customer data – the next frontier for retailers.

Appendix .



Methodology

Individual transaction data analyzed:

Over **3,300** online retail businesses globally

1.7 billion transactions per year across desktop and mobile sites

\$720 billion in annual sales

How can marketers use this data?

Benchmark your performance on relevant KPIs for your mobile browser, mobile app and cross-device channels

Definition of metrics

METRIC	DEFINITION	FORMULA
SHARE OF TRANSACTIONS	The percentage of transactions that occurs by device, operating system and environment during the total period.	device transactions/total transactions
CONVERSION RATE	The share of product page visitors who have made a purchase within a given time period.	buyers/product page visitors
PRODUCTS VIEWED PER USER	The average number of products viewed by each visitor within a given time period.	total number of products viewed/visitors
ADD-TO-BASKET RATE	The share of product page visitors who have added products to basket within a given time period.	add-to-basket users/product page visitors
CHECKOUT RATE	The share of visitors who have finalized a transaction after having added products to basket.	buyers/add-to-basket users

About Criteo

Criteo (NASDAQ: CRTO) delivers personalized performance marketing on an extensive scale. Measuring return on post-click sales, Criteo makes ROI transparent and easy to measure. Criteo has 2,200 employees in 31 offices across the Americas, Europe and Asia Pacific, serving 13,000 advertisers worldwide with direct relationships with 17,500 publishers.

Criteo ads reach over 1.2 billion unique Internet users (comScore, January 2016).

This and future reports may be found at www.criteo.com/resources.