

MOBILE IN TRAVEL REPORT SERIES 2016-2017

THE MOBILE TRAVEL MARKET IN 2016



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WELCOME

Welcome to our Mobile in Travel Report Series and thank you for choosing EyeforTravel's research.

Mobile technology is the key disruptive influence in the travel industry. The possibilities it affords and the demands it is creating are challenging every aspect of the travel journey. There is now an expectation for instantaneous information that can be accessed by consumers whenever they desire it through the mobile web and apps.

In order to deliver this experience travel brands need to conduct an enormous amount of work behind the scenes. Building, optimizing and maintaining a mobile strategy can quickly become a costly exercise. However, few, if any, brands can operate without mobile web or native apps if they do want to win the customer's booking.

The Mobile in Travel Report Series seeks to give travel brands all the tools they need to succeed in this sphere, from understanding consumer trends to the nuts bolts of app construction. This report series will allow you to comprehensively understand mobile in travel through:

- ✓ The current state of the m-commerce in travel.
- ✓ Mobile search and purchase behaviors.
- ✓ A complete understanding of mobile web and native apps and their inherent advantages.
- ✓ Answering whether mobile web or native apps are more important.
- ✓ Investment strategies.
- ✓ Mobile website construction.
- ✓ The cost of app development and how to build successful apps.
- ✓ Driving app downloads and keeping apps on users' phones.
- ✓ Understanding how partnerships in travel aimed at mobile are changing.
- ✓ Ensuring mobile content and payment is secure and trusted.

We hope that this research enables you to improve your brand's mobile offering and create an optimal customer experience.

Alex Hadwick

Head of Research, EyeforTravel

ABOUT

We bring together everyone in the travel industry, from small tech start-ups to international hotel brands, to form a community working towards a smarter and more connected travel industry.

Our mission is to be the place our industry goes to share knowledge and data so that travel and tech brands can work collaboratively to create the perfect experience for the modern traveler.

We do this through our network of global events, our digital content and our knowledge hub - EyeforTravel On Demand.

Our Values

We believe the industry must focus on a business and distribution model that always puts the customer at the center and produces great products. However, to deliver an outstanding travel experience, the strength, skills and resources of all partners in the value chain must be respected and understood.

At EyeforTravel we believe the industry can achieve this goal by focusing on a business model that combines customer insight with great product and, most importantly, places the traveler experience at its core.

At our core we aim to enable the above by valuing impartiality, independent thought, openness and cooperation. We hope that these qualities allow us to foster dialogue, guide business decisions, build partnerships and conduct thorough research directly with the industry.

These principles have guided us since 1997 and will continue to keep us at the forefront of the industry as a vibrant travel community for many more years to come.

Our Services

Our events are the heart of EyeforTravel. These draw in experts from every part of the travel industry to give thought provoking presentations and engage in discussions. It is our aim that every attendee takes back something new that can help their business to improve. This might be in the fields of consumer insight

Alongside this we provide our community with commentary, reports, white papers, webinars and other valuable expert-driven content. All of this can be accessed through one place - the On Demand subscription service.

We are always expanding the content we make, so please get in touch if you want to write an article for us, create a whitepaper or webinar, or feature in our podcast.

EyeforTravel by the Numbers

60,000+ database contacts

2,500+ annual event attendees

100,000+ monthly online reach

1,000+ online conference presentations

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1. MODERN MOBILE CONSUMERS

1.1. Introduction

Mobile has transformed our world in just a few years, unleashing new ways of connecting, consuming and working. Mobile devices, whether smartphones, tablets or wearables have become the portals through which we approach the world. They hold our most personal details and help us navigate through physical spaces, social networks and shopping.

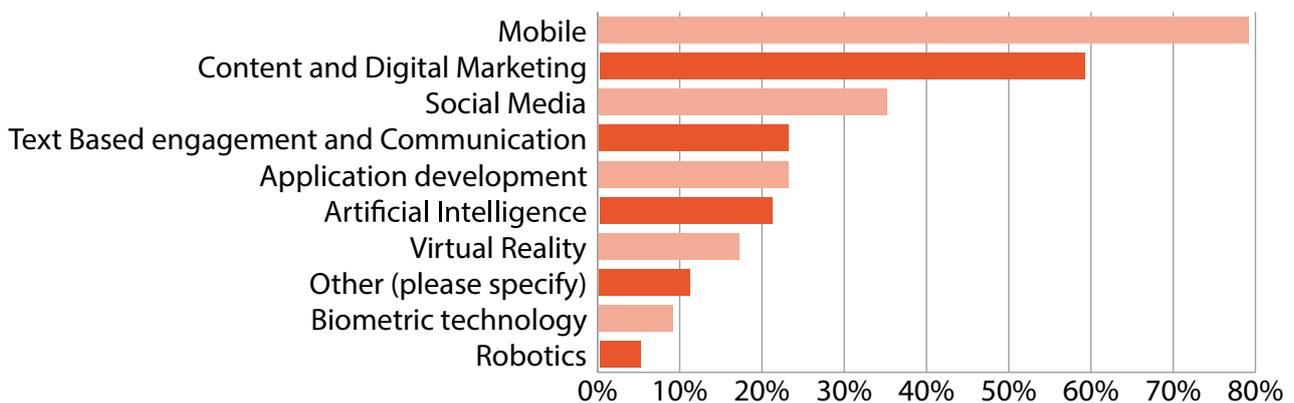
Travelers are using mobile devices for everything from researching destinations and booking flights, to accessing rooms through mobile-enabled keyless entry. The travel industry has begun to unwrap the huge possibilities that mobile devices offer for transforming the industry over the years to come.

1.2. Travel Industry Outlook for Mobile

For the travel industry, mobile has been an enormous focus, particularly in the last two years. Reaching consumers on mobile is seen as an area of enormous opportunity, allowing the potential for unfettered and unprecedented access to the consumer.

In a survey of 183 European travel industry executives conducted by EyeforTravel in mid-2016, mobile emerged as an area of huge interest (see Figure 1). Asked to name where they saw the greatest opportunities in 2016, 79% of the travel executives named mobile, while 59% mentioned content and digital marketing, and 35% said social media. App development, which is of course linked to mobile, was in fourth place with 24% (EyeforTravel Marketing and Mobile Strategies to Engage the Connected Traveller, 2016).

Figure 1: Greatest Areas of Opportunity for Travel Executives



Source: EyeforTravel Marketing and Mobile Strategies to Engage the Connected Traveller, 2016

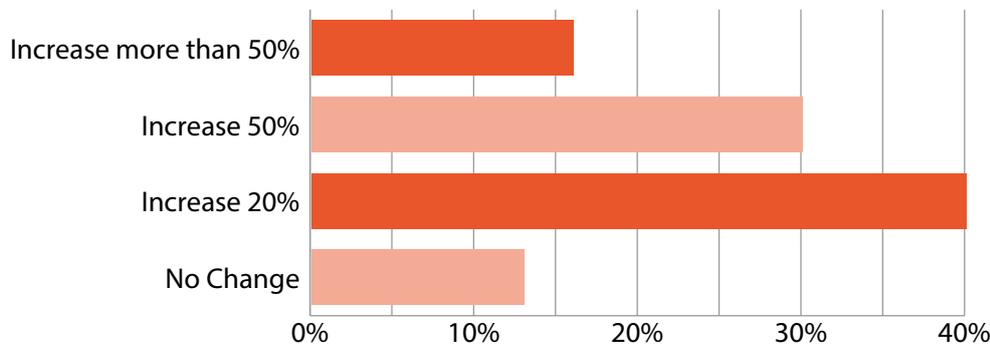
Table 1: Tick Three Areas That You Think Will Be the Greatest Opportunity or Focus for You in 2016

Answer Options	Response Percent
Mobile	79.0%
Content and Digital Marketing	58.8%
Social Media	35.3%
Application Development	23.5%
Text Based Engagement and Communication	23.5%
Artificial Intelligence	21.0%
Virtual Reality	16.8%
Other (please specify)	10.9%
Biometric Technology	9.2%
Robotics	5.0%

Source: EyeforTravel Marketing and Mobile Strategies to Engage the Connected Traveller, 2016

When they were quizzed on how much they expected their mobile budget to increase over the next two to three years, 40% said it would increase by a fifth, under a third thought it would rise by half and 16% predicted it would rise by more than 50% (see Figure 2; EyeforTravel Marketing and Mobile Strategies to Engage the Connected Traveller, 2016). Strikingly, no executives thought that their budget would decrease over this time frame (see Table 2).

Figure 2: How do you expect your mobile / digital budget to change in the next 2-3 years?



Source: EyeforTravel Marketing and Mobile Strategies to Engage the Connected Traveller, 2016

Table 2: How do you expect your mobile / digital budget to change in the next 2-3 years?

No Change	13.4%
Increase 20%	40.3%
Increase 50%	30.3%
Increase more than 50%	16.0%
Decrease	0.0%

Source: EyeforTravel Marketing and Mobile Strategies to Engage the Connected Traveller, 2016

This raises the question of how these rapidly increasing budgets will be spent. On improving the mobile web experience? Or creating new and better native apps? Travel brands need to think carefully before rushing in and spending their precious marketing budgets as there is not a one-size-fits-all approach. Although a mobile presence is critical for any travel brand that wants to work independently from the online travel agents, it can be an expensive and time consuming affair to get right and maintain, especially in the face of a highly competitive environment.

Retailers and brands talk about moving to a “mobile first” world where most transactions and engagements occur on smartphones, tablets and wearables. However, some argue that this forces customers down the mobile path. Brands need to allow customers to access their services on a wide range of devices and through multiple platforms rather than fixating on mobile. Customers will use desktops or laptops, tablets, mobiles large or small, and they may have phablets, smartwatches or Apple TV. Travel providers need to work out the digital journeys that their customers take and make sure they offer an effective, seamless way of helping them achieve their goals. That is not so much a mobile-first world as a customer-first world.

That said, the use of mobile devices to research, purchase, and access travel products has rocketed over the past five years and is set to continue.

The big questions for businesses today are about how to thrive in the mobile world and make sure that they give customers what they want and need through these devices. Mobile commerce is expanding rapidly, but its growth lags behind the rising amounts of time we spend on our mobiles. Typically, people spend most mobile time connecting through social media, using their Facebook, YouTube, Snapchat or Pinterest apps, rather than shopping. Furthermore, the path to making sales via mobile is rocky, with many people still preferring to complete their purchase on desktops.

1.3. Smartphone Adoption

Mobile growth has hit its peak in the developed world and – if anything – is slowing somewhat. On our planet of some 7.4 billion people, mobile subscriptions were estimated at 7.6 billion in 2015, with some 4.7 billion unique subscribers and operator revenues of some USD1 trillion, according to GSMA Intelligence (GSMA, 2016).

The penetration of subscribers globally stands at 63%, with rates ranging from 43% in sub-Saharan Africa to 85% in Europe. But, overall, new subscriber rates are slowing due to saturation in developed markets and the difficulties of connecting low-income populations in developing markets. The global subscriber base will reach 5.6 billion people by 2020, accounting for over 70% of the world’s population, according to GSMA (GSMA, 2016).

Smartphones are responsible for 80% of mobiles sold in the first quarter of 2016, according to the Ericsson Mobility Report, and it predicts that in Q3, smartphone subscriptions will surpass those for basic phones for the first time.

But, while new subscriptions are low in the mature markets of Western Europe and North America, there has been significant growth in India, the Asia-Pacific region outside China, and Africa, according to Ericsson (Ericsson, 2016).

Worldwide mobile phone sales are healthy, though slowing. In the first quarter of 2016, some 335 million smartphones were shipped worldwide, only 600,000 higher than the figure a year before, according to IDC’s Worldwide Quarterly Mobile Phone Tracker (IDC, 2016).

The research company calls this “the smallest year-over-year growth on record.” IDC attributes these flat sales to smartphone saturation in developed markets and notes declining sales from market leaders Apple and Samsung. As Roberta Cozza, Research Director at Gartner, said in a report in June 2016: “The smartphone market will no longer grow at the levels it has reached over the last seven years.” She said smartphone sales hit their highest growth in 2010, with 73% growth (Gartner, 2016).

Smartphone penetration has reached its highest level worldwide in South Korea, with 88% of the total population owning a smartphone, compared to 72% in the US, 68% in the UK, 67% in Canada, 60% in Germany, and 58% in China, according to a survey by Pew Research Centre in 2015 (Pew Research Centre, 2015).

Many of these countries are leaders in outbound tourism. The top six outbound markets by number of trips in 2015 were Germany, USA, UK, China, France, and Canada, according to World Travel Monitor (ITB, 2016). So there is clearly plenty of opportunity for travel brands to boost their mobile participation in these markets.

The picture over the next five years is one of ever-greater adoption of smartphones, particularly in the developing world, while most people in developed countries who want one will have one. This will pave the way for the global spread of two highly transformative new technologies, the Internet of things, which connects together billions of objects via embedded sensors, and 5G. This could have a huge impact on the travel industry, allowing consumers to connect with transport and accommodations in new and seamless ways.

Time spent on mobile devices (smartphones and tablets) is increasing rapidly as people use these devices to engage with their social media apps such as Facebook, Twitter, Snapchat, Tinder and LinkedIn.

The non-voice time spent on mobiles in the US increased from 46 minutes a day in 2011, to 2 hours 54 minutes a day in 2015. This is greater than the 2 hours 12 minutes a day spent on desktops and laptops, according to eMarketer, but remains lower than the time spent watching television, which eMarketer put at 4 hours 11 minutes a day in 2015 (eMarketer, 2015).

It seems like the increases are not about to end. In 2020, the arrival of 5G connectivity is expected, heralding a new epoch in mobile, with connection speeds up to a hundred times faster than current 4G and with much greater capacity. This should provide a huge boost for new technologies accessed via mobile phones such as virtual reality worlds and chatbots, which can understand natural language conversations in written and spoken English. Travel brands are already testing out these new developments. The incredible success of the new Pokémon Go app shows that there is plenty of mileage in augmented reality systems on mobile, where virtual images are superimposed on the real world.

Brands are under pressure to make their mobile experiences as good as the best - so they need to be able to match the likes of Pokémon Go, Facebook and Snapchat. Alongside this, there may be new devices, technologies, platforms, and services that arise to completely change the game again. Travel companies – indeed all businesses – need to be ready to adapt their strategies to the next unforeseen technological breakthroughs which could disrupt their business.

1.4. Mobile Usage Patterns and the Rise of M-commerce

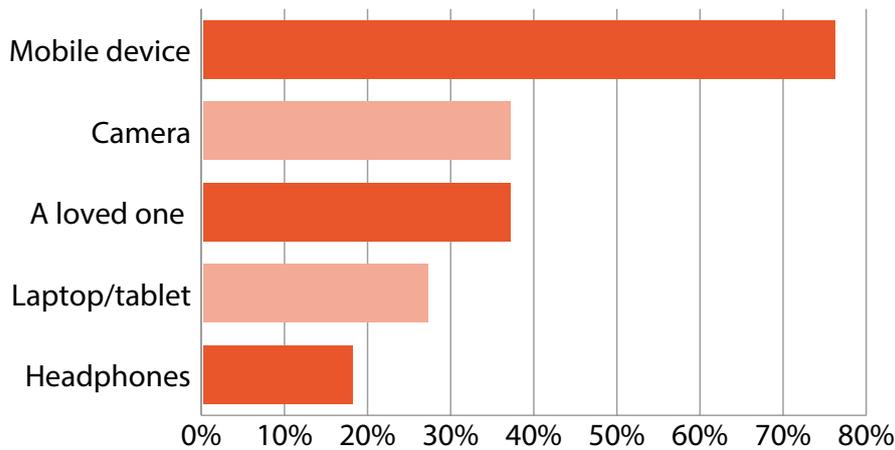
Mobile has transformed the way people book accommodation. Globally, 42% of people have booked a hotel on mobile, rising to 53% for under 30s, according to the Hotels.com mobile travel tracker (Hotels.com, 2016).

This is a global study of 9,200 travelers across 31 countries. It also found that over a quarter of people said they booked a hotel while in bed and 10% while on the toilet.

Some 76% of travelers named their mobile device as their number one travel accessory, while 42% have made a same day hotel booking thanks to their mobile, with 14% booking their hotel in the airport departure lounge (see Figure 3; Hotels.com, 2016).

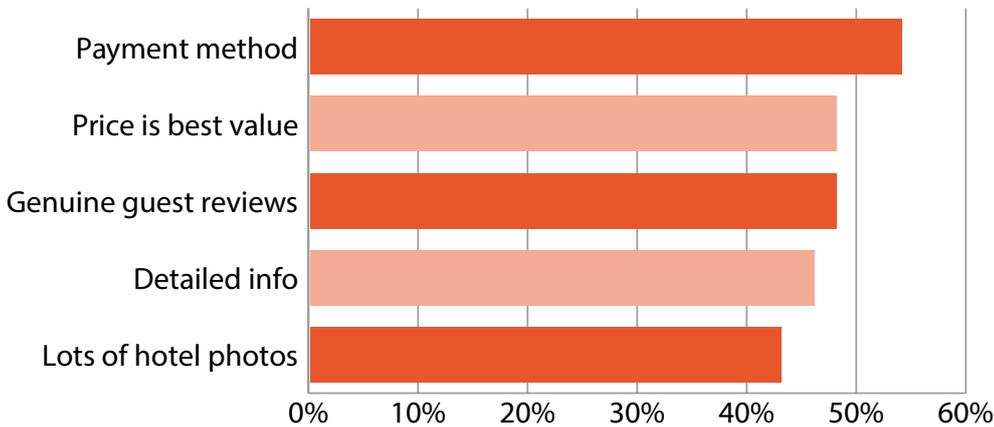
Nearly half of travelers say their mobile is the primary way of finding interesting spots, events, and restaurants while they are away. And 28% say they only select a hotel if it has free Wi-Fi (Hotels.com, 2016).

Figure 3: Top Five Travel Accessories



Source: Hotels.com, 2016

Figure 4: Most Important Factors When Booking on Mobile



Source: Hotels.com, 2016

Meanwhile, analysts SimilarWeb have noted a huge trend toward mobile usage in the travel industry as people become more comfortable using their mobile devices to research and book their travel plans on the go. Its report "Trends in the Online Travel Industry 2015-2016" analyzed the behavior of leading travel sites in the US between March 2015 and March 2016.

They found that mobile web traffic was increasing almost across the board, with the exception of travel recommendation sites. Hotels and accommodation and OTAs both saw double digit rises in US mobile traffic over the year to March 2016. Airlines and cruise sites saw less impressive growth, but still reasonable, of 4.2% and 5.4%, respectively (SimilarWeb, 2016). They attribute the fall in traffic to travel recommendation sites to more mobile traffic for these sites coming proportionally more from apps, which was not measured in the research. Overall, for all of these types of sites mobile traffic is now estimated to be close to or more than half of all traffic, underlining how crucial it is.

Table 3: Share of Mobile Web Traffic for Hotels and Accommodations, Airlines, OTAs, Cruise, and Travel Recommendation Sites in the US 2015-2016

	March 2015	March 2016	Change
Hotels and Accommodations	47.9%	54%	12.8%
Airlines	45.1%	46.9%	4.2%
OTAs	43.8%	49.3%	12.5%
Cruise	49.7%	52.4%	5.4%
Travel Recommendation Sites	54.4%	51.7%	-5%

Source: SimilarWeb, 2016

Interestingly, SimilarWeb also found that, for all of these categories of sites, mobile engagement statistics – pages per visit, duration – were down for mobile sites but broadly up for desktop sites. This is a potential sign that more consumers are using app sites or downloading apps to complete their bookings, as there are considerable discrepancies. For example, mobile web pages viewed per visit on desktop for hotels and accommodation rose nearly 50% over the period, duration of visit rose 12.47%, and the bounce rate fell by 17.26%, but pages per visit on mobile fell 6.32%, duration decreased by 4.74%, and bounce rates fell under 1% (SimilarWeb, 2016). Overall, OTAs performed better in these metrics on the mobile web than airlines and hotels and accommodation. Outgoing referral traffic was also down across the board as brands attempted to keep and complete the booking on their own sites.

The entire digital world seems to be empowering customers to make their own decisions about purchases rather than relying on advertising and paid search rankings. Smartphones are personal research tools that are creating a generation of well-informed and agile consumers who are gaining increasing independence and confidence.

1.5. Mobile Commerce

Mobile commerce is on the rise, though its growth has been patchy in the travel industry. People have tended to use mobiles more as research devices in their downtime when waiting for a bus or at an airport. Many people prefer to finish making their purchases on the larger screens offered by tablets, desktops, and laptops.

A Goldman Sachs forecast estimated that global mobile commerce sales will reach USD626 billion by 2018 and Statistics MRC forecasts that the global market will be worth USD1,067 billion by 2022 (Evigo; 2014; medGadget, 2016). If correct, this is vast growth from the estimated USD155 billion sold in 2015 by the 500 largest m-commerce retailers according to Internet Retailer (Internet Retailer, 2015).

These figures are for purchases made purely through mobile but, in fact, the path to purchase in e-commerce comes via multiple channels and devices. Some 40% of e-commerce transactions involve multiple devices along the path to purchase, and around a third of those are completed on mobile, according to Criteo in its Q4, 2015 State of Mobile Commerce Report (Criteo, 2016).

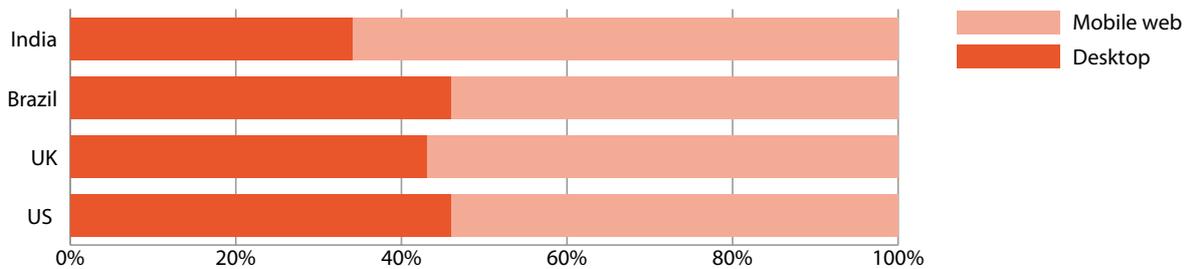
In terms of the entire online retail environment, dedicated shopping apps dwarf the mobile web “at all points on the path to purchase, from browsing products to the sale itself,” says Criteo’s report. Its figures show that shoppers using mobile apps browsed 286% more products than mobile web shoppers (Criteo, 2016).

In the UK, m-commerce has overtaken e-commerce for the first time this year, according to IMRG. Desktops and laptops accounted for 49% of sales, tablets for 33%, and smartphones for 18%. This increase in m-commerce shows that consumers are more confident and are using mobiles with bigger screens, while retailers are credited by IMRG with taking steps to make the mobile shopping experience more seamless. And as Tina Spooner, Chief Information Officer at IMRG, said: “We increasingly use our smartphones for managing so much of our lives, it is only logical that completing purchases on retail sites would gravitate over to these devices as well.” (IMRG, 2016).

1.5.1. M-Commerce and Travel

Mobile devices are playing a huge role in researching travel and holidays, according to a survey by Jumpshot. It analyzed web and mobile traffic for top travel sites TripAdvisor, Expedia, Booking.com, Priceline, Airbnb and India's MakeMyTrip in the first quarter of 2016, using its 100 million-strong global panel of consumers.

Figure 5: Percent of Mobile Web vs Desktop Daily Visitors Across Selected Top Travel Websites by Region

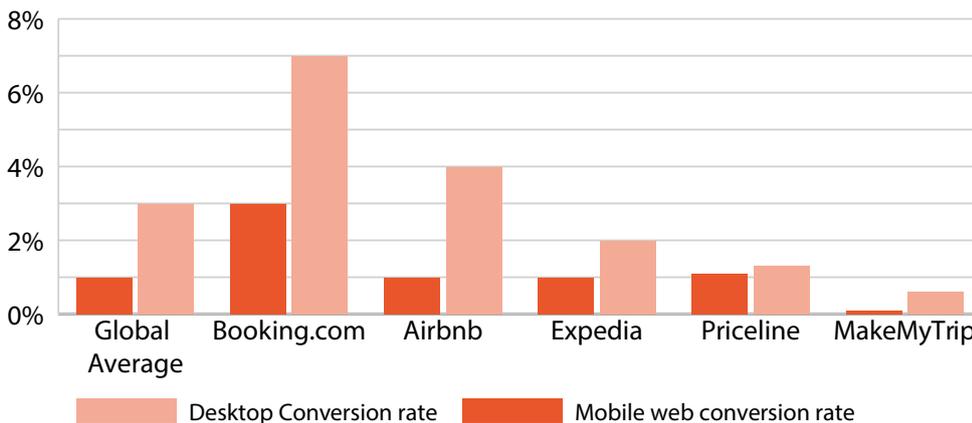


Source: Jumpshot, 2016

According to the research the mobile web is in the ascendancy. In all four regions analyzed – the US, UK, Brazil and India – it found that all of the travel sites analyzed received the majority of their daily visits via mobile web.

However, when it came to splashing the cash people were more likely to buy on desktops. The average conversion rate for all sites on desktop was 2.7 times higher than on mobile browsers. Globally, the travel sites had a conversion rate of 3% on desktop and 1.1% on mobile browsers for accommodation bookings. However, Booking.com had more than double the global average conversion rates with a 2.6% mobile web conversion rate and a 6.5% desktop conversion rate. The report attributes the success of Booking.com to: “A combination of savvy digital marketing, persuasive design, ease-of-cancellation and intuitive user interfaces.” (Jumpshot, 2016).

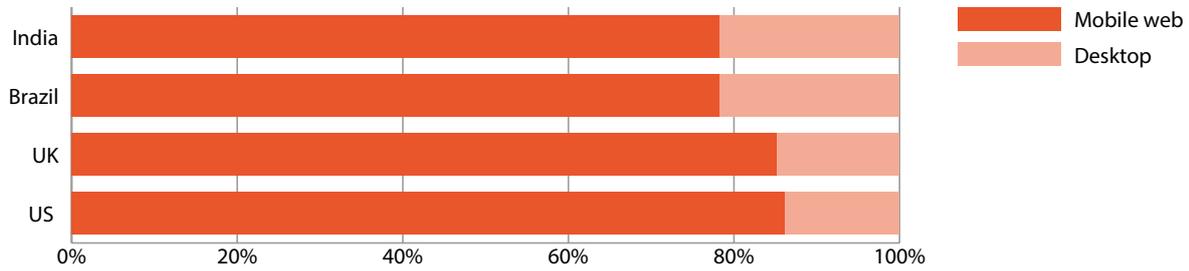
Figure 6: Global Conversion Rates for Accommodation Bookings Made on Desktop and Mobile – Global Average and Selected Key Sites



Source: Jumpshot, 2016

Not only is conversion better on desktop – which has been found widely in other research – but when it comes to the booking phase, far more accommodation purchases are made on desktop. For accommodation bookings, about 80% of conversions were on desktop. In the US, just 14% of bookings are made on mobile web. This rises to 22% in Brazil and India (Jumpshot, 2016). However, it should be noted that these percentages do not account for in-app purchases, so mobile is likely to have a somewhat higher market share (see Section 2.3 for more).

Figure 7: Percent of Desktop vs Mobile Web Accommodation Bookings Across the Top Travel Websites by Region

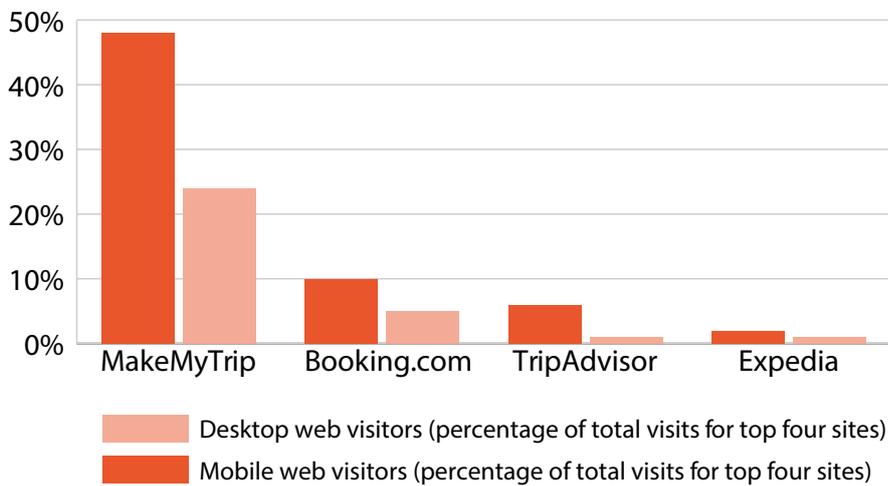


Source: Jumpshot, 2016

In India, we can see the greatest difference, with visits to leading travel sites conducted on mobile about two thirds on the time (see Figure 5). When this is broken down into the top four sites for India, we can see that for Booking.com and TripAdvisor this rate is even stronger, with double the number of visitors originating from mobile for Booking.com and a ration of 6 to 1 for TripAdvisor (see Figure 8; Jumpshot, 2016).

Indeed, it is Asia-Pacific that will be a huge driver of m-commerce, particularly in the case of travel. M-commerce accounted for 25% of digital sales in India, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam, according to Criteo (Criteo, 2016). China’s rates of both e- and m-commerce has been staggering and it is one of the most innovative m-commerce markets, particularly with regard to social media apps (see the Partnerships, Data and Mobile Security Report). These countries have not gone through the same technological development phases as Western countries and mobile was always the critical device for accessing the Internet. We can expect global mobile transactions in travel to increase more rapidly as the middle classes of these countries grow, accelerating the slower transitions seen in countries such as Germany (see Section 2.3 for more on German booking patterns).

Figure 8: Distribution of Daily Visitors for Top Four Indian Travel Sites



Source: Jumpshot, 2016

2. MOBILE WEB VS NATIVE MOBILE APP

Mobile usage is soaring, with the amount of time spent on smartphones and tablets overtaking the hours spent on desktop - and even expected to eat into TV watching. Given this, how should travel brands engage their customers on mobile devices? Do they need to spend heavily on creating high quality native apps? This requires separate versions - one for the iOS operating system on Apple iPhones and iPads and another for Android operating systems. Or is it enough to have a well-executed mobile website which works across different devices?

Creating dedicated native apps is an expensive business – with some of the top airline apps costing upwards of GBP1 million – but they provide a powerful brand experience which offers a good return on investment for large businesses. Smaller companies, however, will think twice about investing in native apps.

Airlines often have regular business and leisure users, but for the majority of consumers, travel is an occasional activity, so they are reluctant to download an app onto their phone to use, at most, three or four times a year. Many brands feel that having a strongly-designed mobile website will enable them to engage with occasional visitors and they can then encourage them to download a native app.

A third option is mid-way between the expense of a native app and ease of use of a website. This is the hybrid app, essentially a mobile website which is wrapped up as an app and can be marketed on an app store and downloaded by customers. However, these rarely offer the seamless experience of native apps.

The world of apps is increasingly crowded. After Apple launched the App Store in 2008, apps were largely in the gaming and entertainment arena. But by the time the Google Play app store launched in 2012, many brands felt they needed to have a native app, even if only to prove they were in tune with the times. But some believe we have reached 'peak app'. Apple Chief Executive Tim Cook announced in June that there were two million apps in its App Store and that there had been 130 billion app downloads since 2008. The App Store has paid out more than USD50 billion in revenue to developers (The Verge, 2016). This makes it tough for any app to stand out, both in the App Store and on users' phones.

There is evidence that some brands are thinking again about their use of native apps and are looking to boost the mobile web as a way of luring one-off visitors and appearing in search results. With many brands launching high quality "responsive" websites, which are usable on a variety of devices - desktop, tablet or mobile - some travel brands are wondering whether they can shift spending away from native apps toward creating a powerful mobile web experience.

Lyft's Chief Business Officer David Baga told a panel debate at the EyeforTravel San Francisco Summit 2016: "I think it is the beginning of the resurgence of the web experience."

Meanwhile, Amanda Richardson, Vice President of Product for US late-booking brand Hotel Tonight, said: "One of the things that we've seen is just app fatigue. There are three million apps out there so how do you get users to engage and give you a try? Apps are getting bigger and there's less storage space and we have seen a continued rise in mobile traffic to our website so we decided last September to take a try at launching mobile web. Our strategy was to date before getting married, date on the web experience then convince you to engage with the app."

2.1. What Are the Advantages of Mobile Web Apps?

Mobile web apps are not really applications at all, they are websites with the clarity and simplicity of an app. They are accessible on the mobile web browser by typing in the URL, storing them in favorites or via a search or social link. They run on the browser and are typically created using the HTML5 programming language.

The mobile web offers users an immediacy, relevance and ease of navigation that encourages consumers to come back again and again. In terms of travel, the role of mobile web is largely at the top of the purchase funnel as people use it to undertake general research. Although it can also be used for purchasing, people typically prefer to use a desktop, laptop or tablet for this.

The mobile web has numerous benefits for travel brands. It is compatible across devices, so a single website can reach users across different platforms and browsers. A mobile website can be updated easily - simply publish the edit and it is visible. To upgrade native apps, by contrast, an update has to be pushed to users who then need to download it.

Web apps are easily searchable on Google and other search engines and these results can appear in industry lists and directories. Mobile web apps have huge reach and are often viewed by many people.

And, of course, the great advantage is that mobile web apps are lower cost and easier to build and maintain compared to native apps. This is a strong pull for smaller companies or those who are just dipping their toes in the mobile market.

2.1.1. How HTML5 Has Changed Mobile Web.

Web apps took off after the release of HTML5, which has been developed over the past eight years. HTML5 is optimized for the creation of mobile websites and apps, and responsive websites that can be read across different devices are easily built using HTML5. And it offers offline caching so that once it is loaded on a mobile site, if the signal goes down, the user can still use various elements of the website.

HTML5 has significant advantages over previous versions of HTML. It supports audio and video, whereas earlier versions required third party players such as Adobe Flash Player, QuickTime and Silverlight to play audio and video.

One of the major benefits of HTML5 is that it has allowed brands to create apps that work across different platforms but that are actually websites playing inside the app. These hybrid apps have enabled many brands to develop apps without having to go to the expense of building separate versions for iOS and Android.

As Jake Davis, Design Director at developer Pocket App, explains: "HTML5 apps used to have various performance issues. They used to work OK on iPhones, but Android phones struggled because of the varying levels of processing power so the pages wouldn't fully load up all the time. Sometimes you would destroy the veil of it being a native app because you could watch the page load up, so even a low tech user would notice the buffering. Now HTML5 is a lot better because the technology has got further and the processing power of all these devices is way higher than just a few years ago, and HTML5 has developed more hardware functionality with plugins and platforms."

2.1.2. The Capabilities of the Modern Mobile Web

Mobile web has improved in terms of its speed and functionality in a few short years, progressing through 3G to 4G and heading for superfast 5G sometime around 2020. Travel brands are thinking again about their mobile strategies. Given that the long tail of travel customers may only use a booking service at most a few times each year, they may be reluctant to download an app to their phone. So brands are increasingly looking at creating mobile websites which deliver the core functions of a native app.

2.1.3. Hybrid Apps on the Mobile Web

Hybrid apps provide the advantages of both web apps and native apps. Hybrid apps are built like mobile websites, using web technologies such as HTML, CSS and JavaScript. But they are hosted inside a native application that uses a mobile device's Web View, a type of browser window. So, these apps can run across different types of devices – iOS or Android – without needing to be designed specifically for each. And they can access the device's camera, accelerometer, contacts and more. However, they often lag behind native apps in the smoothness of their transitions between different hardware. So, moving from one area of the app to another requiring a change of access from, say, camera to contacts, can be slow and clunky, with buffering similar to waiting for a web page to load.

Hybrids offer the marketing advantage of giving a brand a presence in an app store – something many consumers would expect to see – without requiring as much investment as a native app. Some businesses create hybrid apps as a stopgap measure as a way of figuring out the requirements they need for a native app.

German airline Lufthansa has a hybrid app which has sophisticated functions and which customers are happy to have on their phones, says Mobile Services Manager Elke Rosak. She says more bookings come from the apps than the mobile web portal, though both attract a similar number of visitors.

The flight booking and check-in are linked to back end services via the web portal, but the native part of the app allows customers to store personal data in the app, such as passport or visa details. This native information in the app is taken over to the booking flow or the check in flow which makes booking and check in much easier than starting from the portal, she says.

"The users would love to have a more native approach, since it is so much faster and everything. However, as we want to spread the app offer to the widest number of users of operating systems, we would have to program everything natively into iOS and Android separately. It would be a lot of cost and maintenance to have native content in all our apps really up to date and functioning correctly. That is why we decided to go for the hybrid approach so that we can maintain, for example."

"We have a customer feedback tool in our app and [we] are not getting much negative feedback. Once in a while we do have feedback that it would be nice if it were more native yes, but in general I don't see that our customers are really that unhappy with it. That doesn't seem to be a major concern."

2.2. What Are the Advantages of Native Apps?

Native apps offer the advantages of platform-specific design, ease of use and they help carve out a space on a user's mobile phone, which is a powerful piece of branding. Users download them from the Apple App Store or Google Play for Android devices and they are easily launched with a click. They are usually smoother and more usable than web apps or hybrid apps and they tap into a wide range of the mobile device's functions, such as camera, compass, notifications, and swipe gestures. Many of the options on native apps can work offline.

Native apps have greater use among regular and higher spending customers and since they are already occupying space on the phone, they are more likely to be used repeatedly.

2.2.1. A Captive Consumer – the Value of Having Consumers Use the App as a Primary Touch Point and to Repeatedly Reference Them.

Once an app is installed on a user's phone, it is assumed that they will then be likely to use it with frequency. This allows the brand to build up a relationship with the consumer and access data about their behavior. However, with the saturation of apps, it is difficult to become one of the native apps that users regularly open. ComScore research showed that in June 2015, Americans spent two hours a day on their mobile apps – three hours for millennials. Half of that time was spent in just one app – usually Facebook – and 88% of that time was spent on the top five apps, usually including Facebook, YouTube, and a mail app. People typically have dozens of apps on their phones but use a small number of them, with the rest used infrequently (comScore, 2015). Jim Pickell, President of HomeExchange.com, told the 2016 EyeforTravel

Summit in San Francisco that just 1% of the time spent on apps is on travel apps. “Apps tend to appeal to power users and loyal customers,” he said. But he warned: “If you launch an app with the most loyal customers and they are not happy with it, they may not come back.” Meanwhile, Glenn Stress, Director of Digital for North America at Starwood Hotels and Resorts, told EyeForTravel: “We see our app as a real privilege to be on someone’s phone so we want to add value. We design it for our power users, we are less concerned about downloads, more about engagement, particularly with our elite members, our road warriors. 75% of our Platinum SVG (Loyalty scheme) base has downloaded and interacts with our app and 50% of Gold members.”

2.2.2. Data Gathering from apps.

A huge advantage of native apps is being able to access all the features of a smartphone and gaining consent to access critical information such as geolocation and social media profiles. The power of this data is enormous. It can be used to build up a picture of consumer journeys – how they come to purchase your products – and also to improve the user experience.

Rory O’Sullivan, mobile product manager at Momondo Group, which operates Cheapflights.co.uk, says: “You are nothing without the data. If you don’t know what your customers are doing and how they are interacting with your products, you can’t make conscious decision to be able to act on that and understand them. Without a decent tracking solution and analysts who can delve into this in detail, it is difficult. You are making judgements based purely on your own thinking.”

“We’ve recently changed the filters in our app, so what we’ve been able to do is measure the impact of that change, has there been a positive or negative impact on the users getting through to the next phase? Are they getting through quicker? So we know the same amount of people are using filters, but they are finding it easier to use. They are making the same number of changes as they were before but it is done in a shorter period of time, so it is more effective to get the user the flights that they want.” He says Cheapflights has a business intelligence team and a product analyst to make sense of the data. He says they use data to offer clever additional services, so when a user opens the app, they use the location data to detect where they are so they can pick out the nearest departure airport.

“It is one thing having access to that data and another to find ways of using it to benefit the user. You have so much data on location, whether they are connected to Wi-Fi or not, that you have got to pick the right piece to focus on.”

2.2.3. User Experience

Native apps are faster to download and display content and can carry out more complex operations. This does not require an Internet connection.

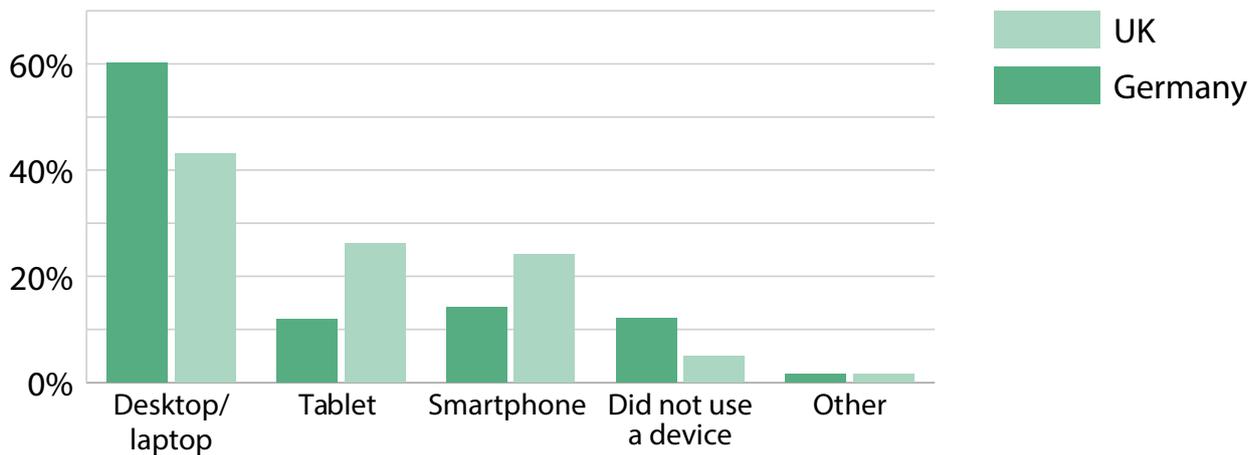
2.3. Which is Winning and Does it Matter?

People are spending long hours on mobile apps – according to comScore, 54% of all digital time in the US is spent on apps (comScore, 2015). However, the mobile web is also attracting many unique visitors. US mobile browser traffic is twice as great as mobile app traffic, according to a report last year by Morgan Stanley (VentureBeat, 2015). So, people are spending time on social media and gaming apps, but when they go on the mobile web, they will be visiting ten or fifteen different sites in a few minutes.

These stats are for the overall web environment, however, and it is important to dig deeper to understand how consumers are shopping for travel products specifically. When EyeForTravel surveyed UK and German consumers in mid-2016 we found that mobile – meaning smartphones and tablets – were important components, especially during travel research, but this decreased as users moved over to purchase and was highly variable between the two countries. For researching a holiday, just under a quarter of UK travelers said that they used a smartphone as their primary research device and just over a quarter used a tablet. For

Germans this fell to 14% and 12%, respectively (see Figure 9). In total, for the UK this means that mobile is now more important than desktop in the research phase. In terms of digital sales, however, desktop remains dominant in both countries, accounting for 80% of sales in Germany and 57% of accommodation sales and 60% of flight sales in the UK (see Figure 10). In the US, eMarketer estimates that in 2016 mobile devices will account for 36% of travel sales by value (eMarketer, 2016). Criteo's estimates of mobile sales for the three markets above are 29% of bookings for the US, 28% for the UK, and 15% for Germany (Criteo, 2016).

Figure 9: Devices Used to Research and Plan Journeys in the UK and Germany



Source: EyeforTravel's UK Consumer Survey 2016; EyeforTravel's German Consumer Survey 2016

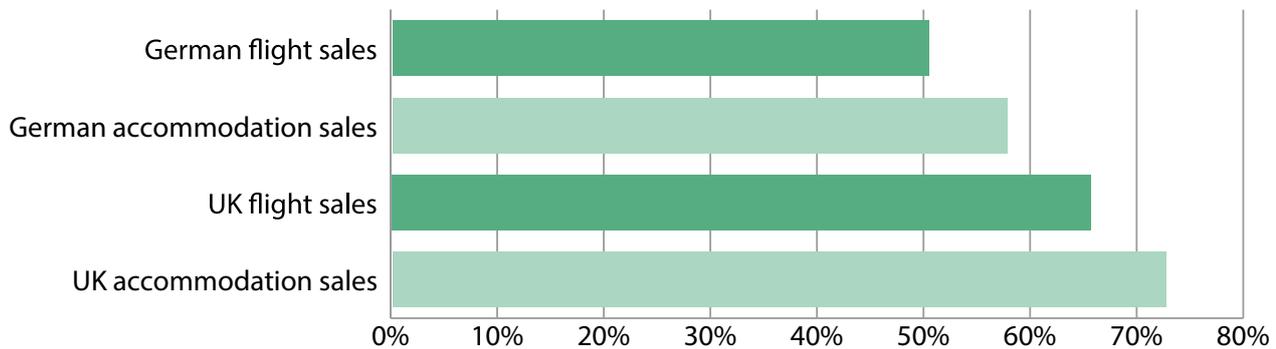
Figure 10: Digital Travel Bookings by Device Used in the UK and Germany



Source: EyeforTravel's UK Consumer Survey 2016; EyeforTravel's German Consumer Survey 2016

Critically though, there is also a disparity in the way users access travel among those who favor mobile usage. We found that for those consumers who purchased their last journey through mobile devices, they continued to favor browsers over apps in both markets overall. In the UK, two thirds of mobile device flight sales were through browsers and nearly three quarters of accommodation sales (see Figure 11). German consumers were more app friendly, although this came from a smaller pool of respondents overall (EyeforTravel's UK Consumer Survey 2016; EyeforTravel's German Consumer Survey 2016). It is also important to note that this shows smartphone and tablet bookings only and does not count the far larger share of desktop and laptop bookings, which occur on browsers.

Figure 11: Market Share of Browser Travel Bookings for Mobile Device (Smartphones and Tablets) in the UK and Germany



Source: EyeforTravel's UK Consumer Survey 2016; EyeforTravel's German Consumer Survey 2016

These figures largely concur with wider research. As can be seen in Section 1.5.1, Jumpshot also found that although the majority of traffic originates from mobile sources, the bookings were decidedly desktop-based. A 2016 study by comScore and Expedia Media Solutions found that when UK travel information was accessed through mobile, the majority was run through browsers, at 64% of minutes (Expedia Media Solutions, 2016), which is close to our booking figures for the UK (see Figure 11).

To further complicate this story, travel consumers are often cross-device in their travel purchase journey. Travel has a long tail, with consumers passively consuming travel content for long periods and then actively researching airlines and hotels for less than two weeks in the UK and Germany before they make a purchase (EyeforTravel's UK Consumer Survey 2016; EyeforTravel's German Consumer Survey 2016). This research is more complex and in-depth than for most consumer products, taking in a large number of searches and many sources. They then also have, on average, two to three months in the case of the UK, three to four weeks in Germany and three to six months in the US between booking their transportation and departing (EyeforTravel's UK Consumer Survey 2016; EyeforTravel's German Consumer Survey 2016; EyeforTravel, 2016a). They continue to think about their journey in this time, consuming media and planning activities to undertake during their vacation. It is therefore a process that is conducive to moving between devices, as there is not yet one app that can truly cover all of these areas comprehensively.

In our research we found that UK consumers use a different device from their main research device to book travel around 25% of the time (EyeforTravel's UK Consumer Survey 2016). Criteo found that during Q1 2016 in the US a third of travelers made cross-device bookings (Criteo, 2016). This cross-device behavior also favors browsers, particularly in more casual earlier phases.

The lesson for travel brands is that they can boost engagement with customers through their apps by creating an engaging experience and offering some strong content. However, it is advisable to have a strong web presence first to capture visitors as they browse the mobile web. A well-designed responsive website will be able to handle the majority of travel consumers who are looking and booking using desktops first, then mobile browsers and finally through apps. Furthermore, a browser site can redirect consumers to download the app if one is available. Travel brands should also design their app strategy with regards to their core markets, with a high degree of variation between device usage for travel booking in particular, but also app behaviors.

In the battle between native and hybrid apps, it seems that many of the biggest travel operators are opting for fully native apps in both the main operating systems of iOS and Android. Hybrid apps have been used by some larger organizations, though they tend to appeal to smaller players.

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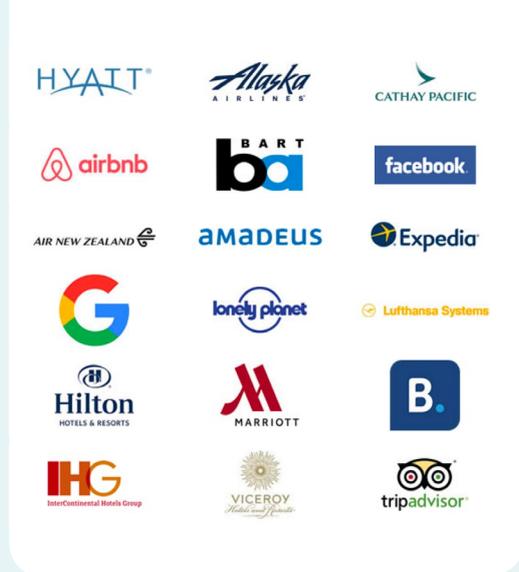
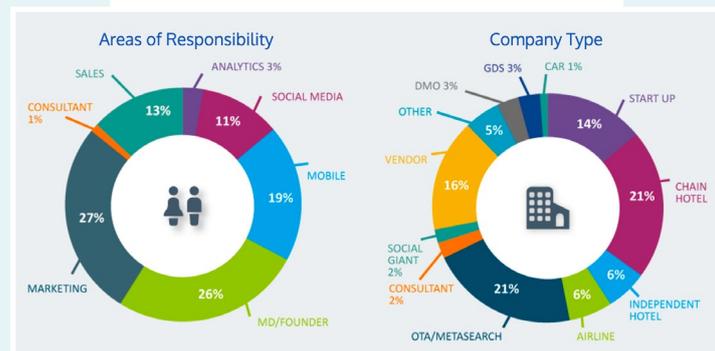
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METHODOLOGY

EyeforTravel conducted 14 focused, semi-structured and in-depth interviews between July and August 2016. These were conducted via email and phone to gather our case studies and comment throughout the paper.

EyeforTravel also conducted consumer and industry surveys to gather data for this research.

EyeforTravel conducted a UK consumer survey using an online panel obtained in conjunction with marketing research firm TapResearch. This survey was conducted between 1st of June 2016 and 18th June 2016. It was conducted entirely online. Overall 2,806 respondents began the survey and 2,268 completed the survey. There was a qualifying question where respondents who had not taken an international or a domestic vacation within the last 12 months were disqualified from further questions in order to have a group that could accurately answer travel-related questions.

The panel of respondents was designed to give a spread of UK residents that would be capable of representing the country in terms of age, gender, location, and income.

EyeforTravel conducted a German consumer survey using an online panel obtained in conjunction with marketing research firm TapResearch. This survey was conducted between 21st July 2016 and 31st July 2016. It was conducted entirely online. Overall 2,944 respondents began the survey and 2,193 completed the survey. There was a qualifying question where respondents who had not taken an international or a domestic vacation within the last 12 months were disqualified from further questions in order to have a group that could accurately answer travel-related questions.

The panel of respondents was designed to give a spread of UK residents that would be capable of representing the country in terms of age, gender, location, and income.

An industry survey – the EyeforTravel Marketing and Mobile Strategies to Engage the Connected Traveller, 2016 Survey – was conducted from 25th May 2016 to 17th July 2016. It gathered 183 respondents. It was targeted at individuals working in marketing and technology sectors within Europe from EyeforTravel's database of travel industry professionals. They self-identified as the following:

Hotel / Airline / Airport	26.1%
Travel Agent	8.4%
Tour Operator	10.1%
Intermediary – OTA, Metasearch	8.4%
Payments provider	1.7%
Technology or solution provider	20.2%
Railways/ Cruise / Ground transportation	4.2%
Other (please specify)	21.0%

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