Xebia

Whitepaper

Transforming Travel: The Path to Hyper-Personalisation

1. Introduction: Hyper personalisation in travel and hospitality

Travel sector market pulse

Despite the ongoing global economic downturn, travel has proved an exceptionally resilient sector so far in 2024. Bookings are booming post-COVID, and global airline seat capacity has flown ahead of 2019's levels, according to statements by industry analysts.

However, with this promising growth comes a concurrent rise in competition. This is primarily fueled by rapid changes in the sector, brought about in direct response to shifting consumer expectations. For example, airline pricing has evolved in the last decade, with traditional revenue management systems being gradually replaced by AI-fueled revenue management systems which confidently assess customers' willingness to pay, effectively navigate demand fluctuations and market volatility with assurance and equips travel companies with strong forecasting capabilities.

Most consumers now expect personalised experiences, and they're willing to switch brands and pay premiums to receive them. What's more, travel and hospitality consumers are particularly willing to spend more than consumers in other sectors, so the incentive to capture loyalty is especially high [source]. In response, the travel sector is vying to deliver the pinnacle of hyper-personalisation to gain and retain market share.

What is hyper-personalisation in travel, and why is it now essential?

Digital hyper-personalisation in the travel and hospitality sector covers boundless touch points and has varying nuances across each travel sub-sector. An airline could recommend hidden-gem destinations to an adventurous individual looking for their next trip. For example, knowing that the traveler has shown interest in historical sites and cultural experiences, the app suggests a unique itinerary to Kyoto, Japan, highlighting hidden temples, local festivals, and tea ceremonies that align with the passenger's interests. Additionally, it offers a limited-time discount on flights to Kyoto, incentivising the booking. An online travel agency could deliver a custom day-to-day itinerary to a curious holidaymaker who is unsure where to go. A hotel could use a guest's previous preferences to personalise their stay.

Across sectors outside travel and hospitality, consumers are increasingly wary of brands due to price inflation, poor customer service, and declining product quality. At the same time, online travel bookings are now the norm, and most consumers take online reviews into account before booking travel.

Adding these personalised touches across the end-to-end travel journey contributes incrementally to building consumer trust; personalisation can flip a negative experience into a positive one. Brands which consistently offer tailored discounts, perks, recommendations, or rewards are more likely to attract and retain consumers because impactful personalisation drives retention and organic growth. For instance, consider an airline that leverages its loyalty program to provide hyper-personalised experiences. Imagine a frequent flyer experiences a flight delay, causing significant inconvenience. The airline's app immediately recognises the disruption and proactively offers a complimentary lounge pass, a meal voucher for their favorite restaurant in the airport based on past dining preferences, and an automatic rebooking on the next available flight with a preferred seat. Additionally, the app sends a personalised apology note and adds extra loyalty points to the passenger's account as a goodwill gesture.

By addressing the issue promptly and personally, the airline not only mitigates the frustration caused by the delay but also turns the situation into a positive experience through thoughtful, individualised attention. This approach significantly enhances customer satisfaction, builds trust, and encourages loyalty, illustrating the powerful impact of hyper-personalisation in fostering retention and organic growth.

The path to hyper-personalisation

Generally, travel companies are at different stages of maturity in their personalisation strategies. We see brands move across the following segments:

Limited and generic: companies which cannot apply rich, personalised experiences to their offerings due to limited data maturity. Characteristics:

- Cannot deliver offers or recommendations to consumers based on real-time data.
- Hyper-personalised campaigns have yielded poor results due to lack of segmentation, inability to scale, and limited performance analytics.
- Cannot offer dynamic packaging due to a lack of real-time data management capabilities.
- Struggle to anticipate consumer needs and cannot react quickly by providing a personalised experience.

Mature and scaling: companies which are well known for providing high-quality, personalised travel experiences for their entire consumer bases. Characteristics:

- Have delivered hyper-personalised approaches across the end-to-end customer journey, providing unique experiences for individual consumers.
- Able to anticipate consumer needs and deliver personalised experiences in real-time to meet expectations in advance.
- Successfully and continually applying data-led insights to improve their hyper-personalisation strategy.
- Scaling their personalisation strategy to new business areas and markets.

Experimenting and learning: companies testing and scaling niche personalisation initiatives, measuring results, and incrementally improving. Characteristics:

- Can build and deploy "proof-of-concept" personalisation initiatives relatively quickly, due to good data platforms.
- Have delivered personalised experiences to consumer segments, but not yet delivering individually tailored experiences on a large scale.
- Can measure results of personalised tactics with accurate data and apply insights to their future initiatives.
- Have not yet fully deployed personalised approaches within major areas of the consumer experience such as bookings, loyalty platforms or dynamic packaging.

The main ingredient to effective personalisation is access to high-quality, usable consumer data. In the travel sector, this is challenging for several reasons:

- **Limited availability:** data platforms, models, and reports are often complex and inflexible to different business cases, which makes extracting useful consumer insights for real-time hyper-personalisation a near-impossible feat.
- **Lack of data literacy and awareness:** often, product and marketing teams don't have the skillsets to harness the full potential of consumer data for building better personalisation strategies.
- **Poor data management or quality assurance:** consumer data can live in dozens of places, such as booking platforms, CRMs, loyalty platforms, and with third parties. It's therefore easy to lose visibility and control over data quality.
- **Trust:** if business analytics don't provide an accurate view of things like consumer behaviour trends, it's not likely that teams will use it to evolve their personalisation strategy.

In this whitepaper, we cover how travel companies can improve their strategies at any stage on the path to hyper-personalisation. From data fundamentals to advancing generative AI capabilities, this whitepaper explores how the sector's data and technology leaders can use hyper-personalisation strategies to drive market-shifting results.

2. Data and AI maturity

Data democratisation empowers hyper-personalised experiences

Delivering successful hyper-personalisation initiatives with scale and significant impact requires a high level of data maturity. To become data-driven, an organisation must make data readily available and enable business users within the organisation to leverage it. We refer to this process as data democratisation. Data democratisation puts the right information into the right people's hands at the right time, empowering them to extract information, make decisions, and uncover opportunities directly.

Why data democratisation matters for travel companies at every stage of hyper-personalisation maturity:

- Enable all teams to deliver better, personalised travel experiences by arming them with high-quality, actionable consumer data.
- Minimise the risk of failed investments into proof-of-concepts and trial campaigns by bringing decision-makers accurate data to inform decisions.
- Remove bottlenecks and reduce the workload of data and technology teams by giving other teams self-service capabilities, giving them the freedom to work on high priority roadmaps.
- Improve consumer data security to prevent regulatory issues, by improving data management and governance processes.
- Improve understanding of the travel sector to drive new, impactful strategies by unlocking new data and improving analytics.
- Reduce overheads and improve employee retention by improving efficiencies and autonomy throughout the entire company.

What do you need to drive data democratisation?

Track 1. Organise
- Know where you are and want to go. Xebia's Data and AI Maturity scan assesses your current data maturity and provides practical recommendations for advancement.
- Establish your data strategy. With Xebia Data Strategy, we guide your organisation in balancing objectives, budget, and capabilities and translate your strategy into business solutions.

Track 2. Build
- Set up the technology to meet the demand. Our data platform offering provides the proper cloud infrastructure, platform, and a modern data stack to serve your current and future data demand.
- Introduce the analytics engineer. Add this new role to your data team to implement use cases, accelerate data and information availability and facilitate self-service analytics across the data supply chain.

Track 3. Train
- Find the right mix of people and skills. Effective execution of your strategy depends on having the right people on board. Our analytics engineers will train in-house talent in making data available to the organisation and leverage it for business purposes.
- Start leveling up your data literacy at scale. The Xebia Academy offers dedicated learning journeys for all business users to improve data literacy across your **organisation**.

Moving to AI maturity

Alongside a solid data foundation, AI maturity is essential for travel and hospitality companies aiming to drive hyper-personalised experiences. The rapid evolution of generative AI has left many companies struggling to keep up with competition and consumer expectations. That's why Xebia has built an AI maturity roadmap; to help companies assess and progress their AI strategies.

At Xebia, we believe AI maturity can be assessed across two axes – analytical maturity and business adoption. The analytical capability of an organisation is reflected by the level of three elements: data, people and technology. Many organisations have initiated the development of their analytical capabilities by investing in data lakes and recruiting data scientists. Organisations with a more mature analytical capability have their data easily accessible, so that the in-house teams of experts can produce and maintain models efficiently.

The second axis, business adoption, describes to what extent AI has been embedded in an organisation. It can be measured by three components: executive support, funding and implementation practices. For example, at more mature enterprises, AI innovation is sponsored by C-level board members, while the funding for smart products comes from business lines that are convinced of the business case and its return on investment (ROI). Mature companies typically take ownership of the AI implementation process by facilitating the required process redesign. In more immature organisations, AI competencies are typically isolated from the rest of the organisation and people still look for proof of value first.

Xebia's AI maturity roadmap is rich with actionable guidance.

Read our full whitepaper here, including insights from data leadership at KLM.

3. Hyper-personalisation use cases

Hyper-personalisation in context: three travel and hospitality use-cases explored

Throughout Q1 2024, we surveyed data, technology, product, and marketing leaders from the travel and hospitality sector. We asked our anonymous participants about their companies' data transformation roadmaps, and explored the hyper-personalisation use cases they are prioritising in 2024.

The results confirmed our perspective on this topic: overall, the sector is struggling to respond to demand for truly personal travel experiences, primarily because their data foundations are not suited to these use cases. Whilst the rapid advancements of generative AI in the last 18 months have opened new experiential possibilities such as intelligent itinerary planning or improved chatbots, there is a clear gap between what's possible and what's available to travel and hospitality consumers.

We have picked three key scenarios for hyper-personalised travel and explored how data transformation can pave the way to more relevant, convenient, enjoyable, and overall better consumer experiences.

Transforming booking experiences

Booking a trip – whether a flight, a train, a hotel or a combined package – can be dauntingly complex for travel consumers. Many travelers can relate to long hours of web sleuthing, with dozens of open browser tabs and a growing comparative list of options that all seem both acceptable and risky at once. The sheer volume of possibilities is one challenge, but the user experience offered by travel companies can also be fraught with friction and unnecessary complication, adding to the ire of consumers.

72% of our respondents found that either 'building a user-friendly, cross-platform experience' or 'using machine learning and artificial intelligence to create personalised features' was their biggest challenge in developing their booking engines. The remainder struggled with 'platform scalability to handle booking demand peaks without downtime or latency'.

Online bookings are standard in the travel and hospitality sector, but the quality of booking experiences varies significantly between companies. This is a critical problem for any company in today's hyper-competitive landscape. For example, if a consumer experiences issues such as errors, latency, or missing information whilst booking directly with an airline, it's easier than ever for them to book elsewhere.

There are several essential touch points throughout the booking journey where hyper-personalisation can drive improvements.

Making comparisons straightforward

When booking a hotel, there are several contextual factors which guide the decision. Anticipating these factors and optimising the booking experience around them helps consumers make bookings quickly. For example, a recommendation engine which uses collaborative filtering and content-based filtering can provide consumers with options for less common considerations such as storage needs, check-in times, or bathroom facilities. When these low-friction options are easily available to consumers, they become more likely to complete their booking and come back in the future.

Optimising for booking conversions

Abandoned bookings are a significant missed opportunity for travel and hospitality companies. Like any e-commerce model, engaging with the consumer to resolve their concerns or provide a better offer can save a booking – doing this at scale can skyrocket booking volumes.

Dynamic pricing strategies can drive improvements here. With a solid data foundation, travel companies can use real-time data from external partners, market trends, customer data and more to deliver personalised pricing offers. An effective dynamic pricing strategy uses behavioural data to increase consumer urgency, and personalised insights to drive interest. For example, a consumer planning to book a flight through an online travel agency may seek better deals elsewhere, until they are served a better offer from the OTA which includes a limited discount (urgency), and a personalised perk like free car rental (added interest).

A seamless post-booking experience

Better booking experiences promote repeat bookings, which enables a snowball effect of experiential improvements for repeat consumers. Rich consumer data, such as individual travel preferences and contextual booking details, builds detailed customer profiles which can be harnessed to improve future experiences. Combining this with a smooth digital experience across a mobile app, website, and other communication channels, will delight consumers and increase their overall loyalty. Artificial intelligence can take post-booking experiences to new heights, by using consumer data to suggest trip enhancements, deliver context-rich customer support, and craft unique touch points throughout the post-booking journey.
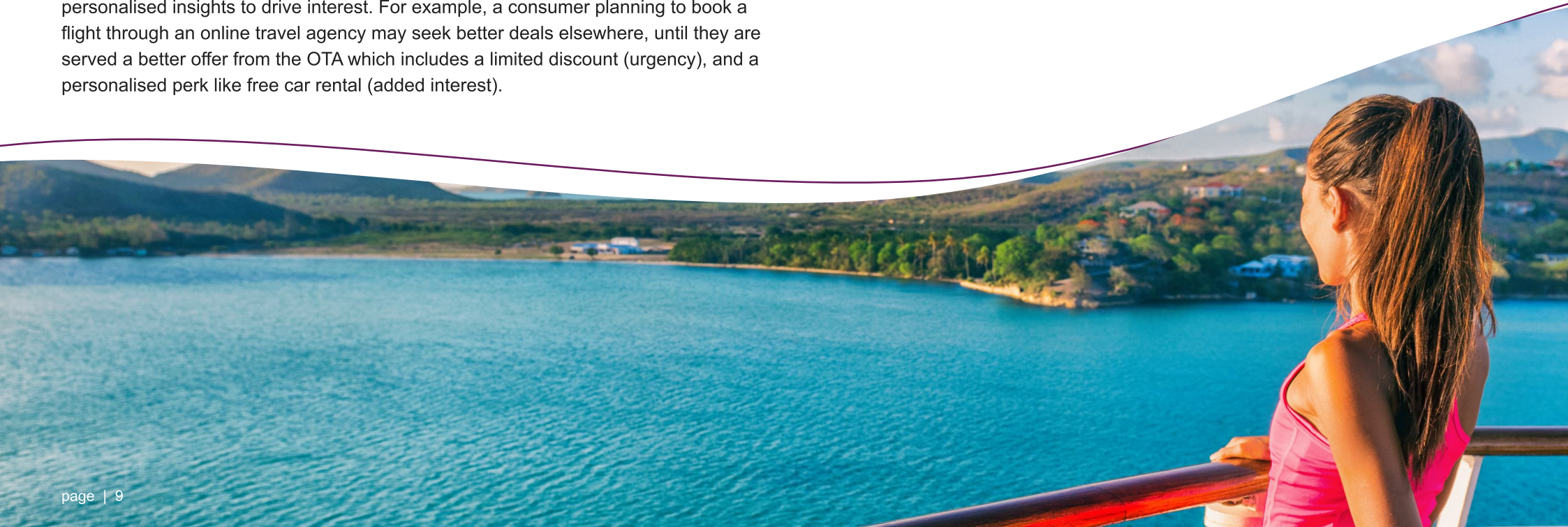
Delivering relevant recommendations

Recommendation engines deserve an in-depth discussion – which we have previously covered in detail with several travel data experts. Consumer technology giants like Amazon and Netflix have paved the way for hyper-personalised recommendations, which has fueled demand for such experiences in other sectors.

Travel consumers want exciting and safe recommendations from the companies they use to book experiences. They might want to be spontaneous and book a trip anywhere in Europe next week. Or they might be looking specifically seven nights in Spain at an all-inclusive hotel with an excursion on Wednesday. Either way, they want reliable and relevant guidance. Good recommendations can help all consumers book their perfect trip, which can significantly increase a company's booking volumes, and drive more loyalty from their consumers.

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However, most travel and hospitality companies don't have the data capabilities to build a recommendation engine that could technically rival a leader like Netflix. 2024's leading recommendation engines are powered by cutting-edge machine learning algorithms and bolstered by generative AI capabilities. 30% of our respondents said each of the following was their biggest challenge when building recommendation engines:

- Balancing choice and convenience: building algorithms to ensure recommendations don't overload the consumer and negatively impact experiences.
- Staying up to date: enabling real-time data analytics to ensure recommendations evolve along with changes across individual consumer behaviours.
- The cold start problem: collecting and analysing enough high-quality consumer data to drive accurate recommendations.

Several major data challenges prevent travel and hospitality companies from building successful recommendation engines. As a result, many are delivering generic recommendations or none. In either case, companies are missing out on additional revenue and improved customer satisfaction throughout the booking journey. In our recent webinar, 'The Future of Travel Recommendations', we covered the top data fundamentals needed to deliver recommendations which convert. In the on-demand webinar, hear insights from data experts at TUI, MIT and Xebia on how to build market-leading recommendation engines.

Watch the webinar here..

Creating a world-class loyalty platform

Traditional programs are often based on generic rewards driven by purchase frequency, without considering the wider array of customer behaviours that drive loyalty. Next-gen loyalty programs use advanced data analytics and AI to create hyper-personalised experiences crafted to individual customer preferences.

Data maturity prevents loyalty personalisation: 39% of our respondents said their biggest challenge is 'delivering relevant and dynamic rewards based on real-time consumer data'. 27% found that 'building an intuitive and personalised in-platform experience' was most difficult. 13% cited 'harnessing artificial intelligence to deliver relevant, personalised loyalty experiences', and the remaining 14% didn't have a loyalty platform.

All travel companies should consider loyalty as a major strategic priority. However, for many travel and hospitality companies, loyalty experiences stop at the occasional, broadly targeted promotion. Companies with a dedicated loyalty platform also struggle to deliver truly personalised offers, mostly because they cannot harness real-time data to inform reward programs. As a result, few loyalty programs in the travel sector are differentiated, which limits their full potential in retaining customers.

In our recent whitepaper, 'How to build a next-generation airline loyalty program', we defined seven data-driven factors which shape next-gen loyalty programs for airlines, which also apply to other travel and hospitality sectors.

[Read the full whitepaper here.](#)

4. The future of hyper-personalisation in travel

An ideal scenario

A young couple is keen to visit a new country while they both have some time off work. They love sunshine, ancient history, and fruity cocktails. Friends and family have offered a handful of recommendations, all of which are enticing. The sheer volume of possibilities has ground their decision-making to a halt. The clock is ticking – they need to book something fast.

Chatbot to the rescue

In our ideal scenario, the couple already has a brand in mind that they trust from previous trips. This brand – an airline – offers an outstanding online experience. Visiting their website, the couple is greeted by a generative AI chatbot, which simply asks them, 'Tell me about your ideal trip'. They explain their preferred dates and the sunny, culture-rich, and cocktail-fueled experience of their dreams, and press Enter.

Relevant - not endless - possibilities

The website offers several trip options based on their description. It has used the keywords provided and layered in preferences from the couple's previous trips and demographic data to curate possibilities suited to their needs. At this point, the couple can filter the results to add further preferences such as ratings, locations, and facilities. As they narrow down the options, the generative AI chatbot is there to provide richer details for each. Since it's connected to a rich database of travel information, it can talk with the couple about flight times, luggage options, the weather, and any other relevant topic. Furthermore, this airline's network of hotel and ancillary partners is connected to the booking experience, so the couple can easily build their trip. It offers several recommendations for each trip, enhanced by the chatbot's advice.

Real rewards

A particular destination stands out to the couple, and they read more about it online. One of the couple has accrued rewards from the airline's loyalty program. In this case, loyalty rewards are seamlessly accessible through the airline's website, and the chatbot pops up to share a discount code for their booking. Success! Armed with this perk and all the details they need, the couple has no issue with booking their flight and hotel right away.

Preparing for take-off

The hyper-personalised experience doesn't end at the point of booking. Once confirmed, the airline emails all booking information to the couple and provides tailored trip suggestions to enhance their holiday. It shares cocktail bars, museums, walking tours and historical landmarks which the couple add to their itinerary. In the airline's app, the couple can find all essential information about their trip and talk to customer support at any time if needed. They also acquire tailored loyalty rewards, such as discounts for local offers.

The day of departure arrives, and our happy couple flies away for the trip of their dreams! Thanks to the hyper-personal approach, even a freak storm and two missed walking tours during the trip (thanks to the cocktails) didn't stop the couple from booking with this airline again.

The path to hyper-personalisation

It's possible for any company with the right data foundations and personalisation strategy. First, companies must assess data fundamentals such as data literacy, analytics capabilities, and platform scalability, to establish which roadblocks are preventing hyper-personalisation. Then, by reviewing consumer data, they can establish the most useful and relevant use cases for hyper-personalisation and deploy proofs-of-concept to test results in the market. By iteratively measuring the impact of each personalised initiative against a robust data methodology, travel and hospitality companies can exceed today's consumer expectations and lead amidst the sector's rising demand.

Explore Xebia's travel and hospitality technology case studies

Survey methodology

We surveyed 65 UK-based travel companies over February-April 2024 to gather our results. We sampled a range of travel companies to gain insight into cross-sector hyper-personalisation priorities. Sub-sectors were split between hotels, airlines, online travel agencies, and a smaller proportion of rail operators, ticketing platforms, cruise lines, and destination or experience booking platforms.

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About Xebia

Xebia is an IT Consultancy and Software Development Company that has been creating digital leaders across the globe since 2001. With offices on every continent, we help the top 250 companies worldwide embrace innovation, adopt the latest technologies, and implement the most successful business models. To meet every digital demand, Xebia is organized into chapters. These are teams with tremendous knowledge and experience in Agile, DevOps, Data and AI, Cloud, Software Development, Security, Quality Assurance, Low Code, and Microsoft Solutions. In addition to high-quality consulting and state-of-the-art software, Xebia Academy offers the training that modern companies need to work better, smarter, and faster. Today, Xebia continues to expand through a buy and build strategy. We partner with leading IT companies to gain a greater foothold in the digital space.

Find more information on how Xebia is driving innovation at **xebia.com**.