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cx market intelligence

CX in the Travel & Hospitality Industry

Customer Data & Analytics, Customer Relationship Management, Contact Center, Personalization & Optimization, Customer Data Platforms, Employee Experience, and Customer Insights & Feedback: Market Analysis and Forecasts

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Section 1
Executive Summary

1.1 Introduction

While all industry sectors have needed to pivot and flex to address the global pandemic, few other industries have had to reinvent their processes and solutions the way the travel & hospitality market has needed to. Constantly evolving restrictions and regulations have made any sort of market recovery in this sector lumpy, at best. The travel & hospitality sector has always needed to walk the line between internal operational and cost efficiencies and personal attention to the guest or traveler. The global COVID-19 pandemic caused many travel & hospitality companies to reassess their priorities and current technology status, focusing on those that will result in even greater efficiencies as they navigate the upcoming recovery, and provide a smooth, friction-free, and positive CX for those traveling.

The customer journey of a traveler can be complicated and leverages many disparate technologies. The process of researching a trip via the wide variety of channels and third-party providers, booking, paying, moving through a transportation hub, and arriving at a destination of choice has a lot of opportunities to rise to the occasion to provide outstanding CX or fall short of expectations. Each touchpoint in that journey is an opportunity to build brand loyalty, trust, and positive emotion. This is both a challenge and an opportunity for implementing CX technologies and services.

This Dash Research report focuses on the software platforms, applications, and services that are offered to travel & hospitality companies to help them achieve excellent CX that leaves travelers feeling safe, satisfied, and eager for a return trip via all the companies that eased their journey. While the industry will take some time to fully rebound, an exploration of CX in this sector demonstrates that it is a market primed to reap the benefits of implementing CX technologies.

1.2 Market drivers

The travel & hospitality CX market is driven by a variety of factors, with an internal need for revenue and profitability increases, and an external need for a smooth and pleasant experience. The market is in a period of transformation, and some of the historic inefficiencies, outdated technology, and low levels of customer service have been even more painfully exposed during the pandemic. However, this leads to opportunity for CX vendors, with several factors indicating cause for optimism as the industry rebounds.

Some of the key drivers pushing the adoption of CX software and services in this market include:

- Demand for omnichannel interactions and self-service
- Changes in the nature of the travel experience and desire for personalization
- Acceleration of contactless and convenience technologies
- Increased communication needs

1.3 Market barriers

The overall travel market is currently constrained by many factors not completely in the industry's control. These include vaccination rates, changing regulations, budget constraints, and the inability to know when the industry will truly stabilize. The trickle-down effect to CX software and services points to a challenging environment.

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The key market barriers that are hindering the growth of CX software and services include the following:

- Market uncertainty and budget constraints
- Fragmented and sometimes outdated technology stacks
- Labor shortages and employee burnout
- Consumer concern over health and safety issues

1.4 Market forecast highlights

The CX/customer engagement (CE) market in travel & hospitality will be facing headwinds for quite some time. Dash Research projects that the global market for CX/CE software and services will reach $4.3 billion by 2026, reflecting a 2019-2026 compound annual growth rate (CAGR) of -2.6%. While Dash Research projects year-over-year growth in each year of the 2020-2026 forecast period, it will not be enough to overcome the 35% decline in market size between 2019 and 2020. North America accounts for the largest slice of the forecast, and will generate $2.1 billion in 2026 revenue, showing a negligible CAGR decline (-0.1%) over the forecast period. Across all regions, customer data & analytics ($1.0 billion) and customer relationship management (CRM) ($964 million) will generate the most revenue in the final year of the forecast.

1.5 Dash Research insights

- Providing strong CX can be supported by many technologies and solutions, but this sector must overlay human touch and empathy as nervous travelers return. The industry is starting to break in favor of the customer, implementing technologies and services that allow for a bit of virtual hand holding and demonstrations of compassion as travelers return.
- Vendors of CX technologies will need to be patient as companies are distracted by the large market challenges at hand. Although budgets have been stagnant or declining, the pandemic has given travel & hospitality companies an opportunity to reassess their technology stacks and put plans in place for technology updates, including those involving CX. Many are currently in an information gathering and planning stage. Interest is high, but spending is still low.
- There is currently a disconnect between what consumers expect and what some travel & hospitality companies are capable of delivering due to market and labor shortage constraints.
- Communication is critical, but it needs to be relevant and timely. Matching the appropriate communications to the appropriate time in the customer journey, as well as offering an opportunity to provide feedback, will be important activities as the industry ramps back up.
- The industry is ripe for personalization solutions. Consumers want more tailored options and travel & hospitality companies can use personalization to deepen and expand purchasing behaviors.
- Improving employee experience (EX) will need to be a focus area. Strong EX results in strong CX across all industry segments, but perhaps with not such an obvious causal relationship as in the travel & hospitality industry.

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Section 2
Market Overview

2.1 Introduction

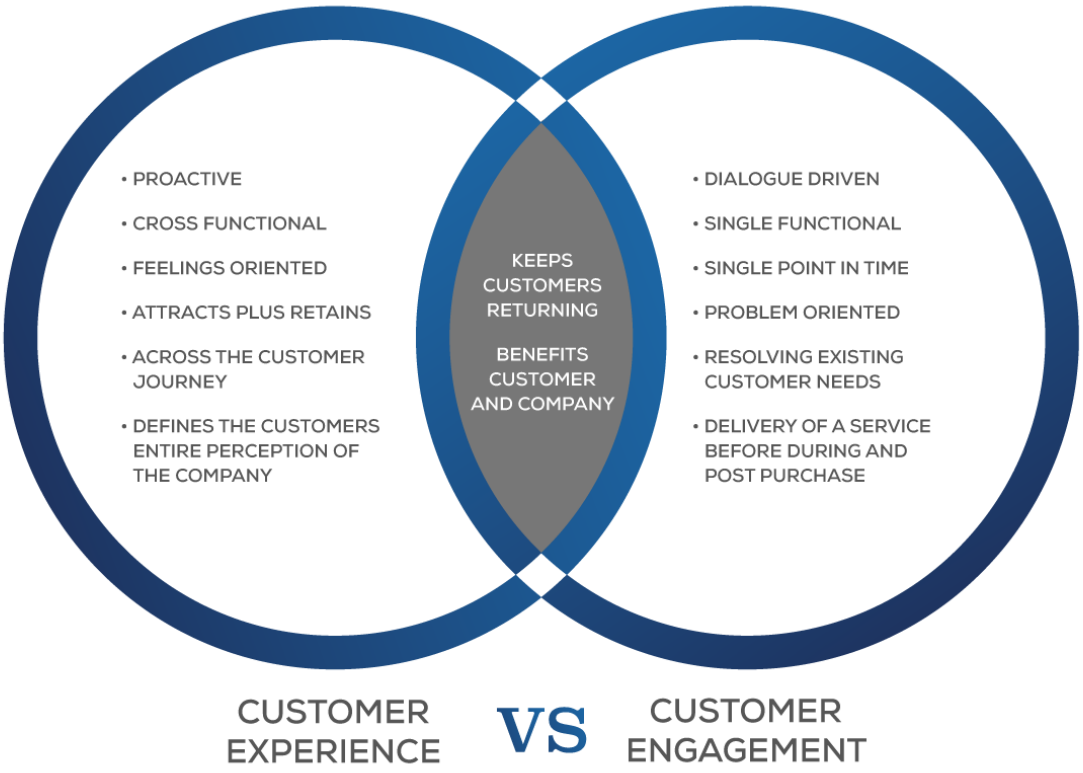
CX is often defined as the sum total of a customer's interactions with a product, brand, or service, encompassing all touchpoints pre, during, and post transaction. While providing good CX is important to every business and organization, as few customers will continue a relationship if they are treated poorly, the oftentimes personal, time-sensitive, and urgent nature of interactions between a traveler or guest and the companies providing products and services to this sector makes implementing a strong CX strategy of critical importance. However, even pre-COVID-19, those in this sector were at different levels of CX maturity within their organizations, with varying degrees of interest, investment, internal structures and processes, and technical capabilities.

A key element of providing CX is CE, which can be defined as the interaction between an external consumer/customer and an organization through various online or offline channels. Typically, platforms and applications that support CE functions will include features such as web chat, social media management, marketing personalization, and feedback mechanisms. This can be contrasted with CX platforms and software, which are designed to monitor and enhance the overall experience customers have while interacting with companies, which can include customer data platforms (CDPs), CRM platforms, self-service support, help desk functions, and conversational support across multiple channels. Many vendors will provide platforms and applications that span the entire spectrum of both CX and CE functions, while others may pick and choose different features and elements that are included in their software offering. Both are critical to travel & hospitality companies implementing CX strategies aimed at acquiring, maintaining, and deepening customer relationships.

Figure 2.1 illustrates the difference in functions, purposes, and goals generally found in CX and CE platforms and applications.

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Figure 2.1 Customer Experience versus Customer Engagement



Source: Dash Research

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The ability to provide positive experiences for customers along digital and in-person touchpoints over the entire customer journey, from research and booking, to check-in and boarding, to hotel departure, etc., has always been a challenging task in this market. Additionally, the disruptive and unprecedented fallout from COVID-19 has heightened the awareness that customer brand loyalty may be based on different factors than previously focused on and is causing companies to reassess technologies and processes. However, companies in this segment, particularly the large global chains with deeper pockets, have been researching, buying, and implementing CX technologies that demonstrate increased revenue and a better CX even before the industry shift.

Travel & hospitality providers can take several actions to provide improved CX, leveraging all functional areas of CX software and services. Customer data & analytics and the use of CDPs to consolidate, organize, and clean vast amounts of data from a variety of sources assists in the quest to have one holistic view of a customer, which is especially important in this sector when global hospitality companies have multiple brands through which a single customer might travel. Analytics of customer behaviors, preferences, and purchasing decisions can be used for customer segmentation, journey optimization, and enhanced digital experiences. The personalization desired by travelers and guests would not be possible without this investment in data management and analysis. Personalization can lead to increased satisfaction, brand loyalty, and those moments of delight during a travel experience that a customer will share in a positive way. Volume fluctuations and staffing shortages are resulting in contact centers leaning into automation, conversational interactive voice response (IVR), messaging, and bots to provide more efficient and

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potentially fewer frustrating interactions. The implementation of feedback systems to receive and resolve issues in real time is another way companies are removing friction and potentially turning around negative interactions along the course of the customer journey.

This report examines the current and future market issues, market drivers and barriers, and case studies for CX/CE within the travel & hospitality industry. Dash Research has also calculated the current and future market potential for CX/CE software and services within this segment, taking 2019 as the base year, and forecasting revenue growth through 2026. The COVID-19 pandemic overshadows the entire industry, so this report addresses its effects and how the industry is responding.

2.2 Market drivers

The travel & hospitality market, at its core, has been about the personal touch of the experience. Historically, the travel & hospitality industry has not been known as a true technology innovator, but with the expansive use of mobile devices and reliance on the web, the industry has needed to focus on providing engaging digital experiences and user friendly mobile apps, and implementing artificial intelligence (AI) technologies across its technology stack. However, the complete shutdown of travel that occurred in the early days of the pandemic and the ensuing erratic market conditions have left companies scrambling to prioritize operational issues and technology investments.

There are bright spots for CX providers selling to this market. Omnichannel engagement was solidly in progress pre-pandemic, but the implementation has accelerated as travelers started to return to travel. Each functional technology segment of the CX market can offer cost savings to those businesses in the travel & hospitality market that implement them as the industry struggles with labor issues. These technologies also offer opportunities to segment, personalize, and sell to travelers before, during, and after their journey. Additionally, CX technology can help soothe a rattled population of passengers and guests who are eager to return to travel, but nervous about potential problems they may face during the journey.

The key market drivers spurring the purchase of CX software platforms, applications, and ancillary services in the travel & hospitality market include the following:

- Demand for omnichannel interactions and self-service along the various touchpoints
- Changes in the nature of the travel experience and a desire for personalization
- Acceleration of contactless and convenience technologies
- Increased communication needs

2.2.1 Demand for omnichannel interactions and self-service

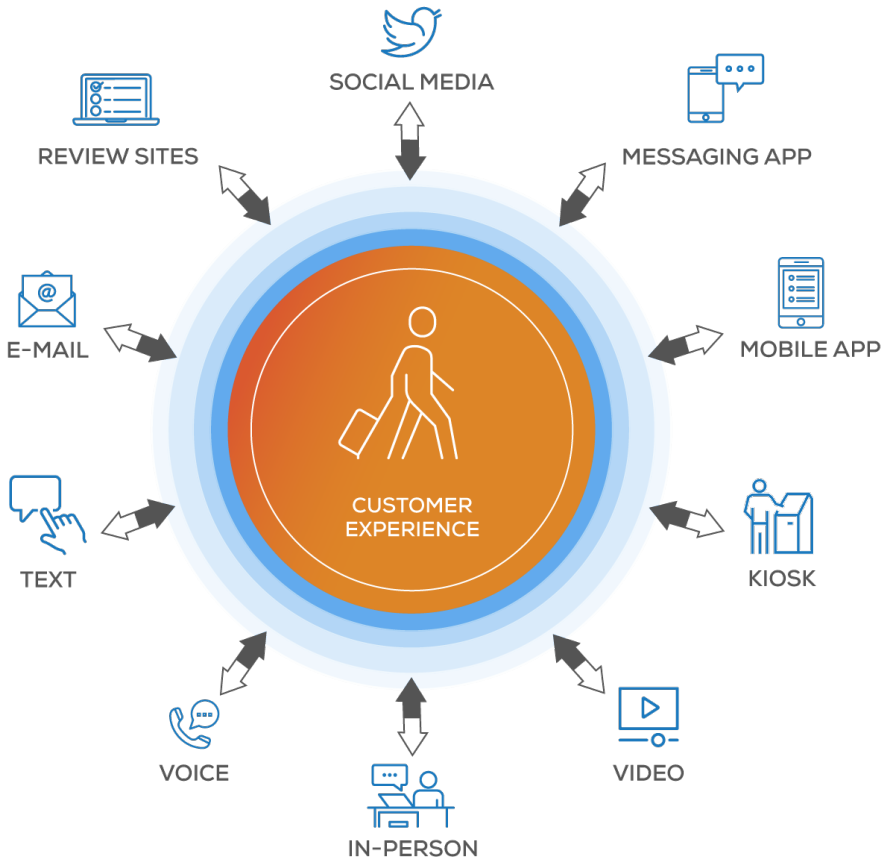
The nature of travel itself is, of course, being in movement and there is an increasing amount of CX-related traffic on mobile apps and devices. Travelers could encounter friction along many different touchpoints and in many different locations. Travel & hospitality companies need to be adept at offering omnichannel solutions and at making the movement between channels seamless. A customer service voice call might be disconnected while walking through an airport and the traveler needs to turn to messaging. An incoming hotel guest may want further information on their room, need to make a reservation at a restaurant, or request an amenity upon arrival. A website, a mobile app, messaging, social media, or a voice channel could all be used at certain points. Customers have also come to expect to have the ability to provide feedback via a variety of channels.

Offering omnichannel is no longer a nice to have, but is evolving into a need to have, and new and innovative types of channels are being introduced at a fast pace. As an example, a QR code-powered virtual Agent on Demand service is being rolled out by United Airlines to provide their passengers with contactless help and in-the-moment service at select airports. The new agent on-demand program enables

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travelers to skip the line at the information desk by either scanning one of the QR codes displayed on United Airlines' signage throughout the participating airports or accessing a self-service kiosk located in United's gate areas to be connected with a live customer service representative. Passengers have the option to chat with the airline representatives via call, text, or video.

Figure 2.2 Omnichannel Interactions Along the Customer Travel Journey



Source: Dash Research

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Some of these systems were already in place, or companies had plans for implementation. However, during the height of the pandemic, many in the travel & hospitality market were just treading water; trying to flex with each changing circumstance and maintain a revenue stream. With a bit more stability, companies are looking toward investing in or deepening offers for omnichannel and self-service. Self-service in travel & hospitality is a focus area to both assuage staffing shortages and operational issues, and to allow travelers and guests to manage parts of their own journey. Additionally, many travelers now want less, not more human contact, such as during hotel check-ins and check outs. A recent survey by Skift/Oracle found that 35% of travelers hope to see self-check-in at hotels. A traveler's desire for self-service, while perhaps spurred by the pandemic, will not be going away, especially for the more mundane tasks and questions.

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It has been a challenge in the industry to handle large spikes in the volume of support requests during staffing shortages and properly staff during the quieter periods. The offering of self-service provided operational efficiencies for this ebb and flow and keeps the customer moving along in their journey for resolution. Customers do not want to have to repeat their basic information, re-explain, or wait long periods of time for resolution. Conversational bots and virtual assistants can help automate tasks and pre-gather basic information, such as name, location, and itinerary number, allowing for higher agent productivity. They have been described as a cost-effective investment by those in the industry and can quickly solve many basic problems around the clock.

2.2.2 Changes in the nature of the travel experience and desire for personalization

There has always been a wide variety of travel personas that companies attempt to target. The rise in the different types of experiences desired during the pandemic, in combination with the evolving travel personas, will spur adoption of many CX technologies as the industry tries to regain lost ground.

The pandemic has caused many to reassess the type of travel that feels safe and "worth it." Traveling domestically and luxury travel are two current travel trends. Luxury lounges are reopening in airports around the world. The notion of "revenge travel" with people taking fewer, but bigger and more extravagant trips has been occurring. People are willing to pay for add-ons, which lends itself well to travel & hospitality companies investing in personalization & optimization technologies. A recent American Express travel survey, the *Global Travel Trends Report* noted that people have a different idea about what constitutes luxury travel, with 81% of those surveyed reporting personalized experiences as being the most desired luxury amenity; 79% described privacy as a top luxury amenity.

Travel & hospitality companies have always tried to target these high-value luxury travelers, but the need to feel pampered and taken care of has been pushed a bit downstream in the traveler value chain. Travelers want to feel taken care no matter what they have spent on their airline ticket or hotel room and companies that need to execute on this will be looking for lower-cost ways to target, engage, and maintain a positive CX among all customer profiles. An example of this is American Airlines offering a new airport service, Five Star Essentials (a basic package for $150), which is open to economy passengers. This service offers an airport greeting and priority check-in, with additional assistance in selecting seats and baggage handling. Participants are also guided through priority security and receive assistance with making sure their belongings stay together and are guided to their gate. While this type of handholding may seem overkill for certain travelers, the past year has caused people to have a lot of anticipatory stress about their travel journey and this hesitancy might take some time to overcome.

Even pre-pandemic, travelers were warm to personalization across their experience, from receiving an on-target destination recommendation to having a certain type of pillow on their bed at a hotel. This desire has heightened and is combined with the increased use of supporting AI to weed through the volumes of data on which to base personalization, making the coming years ripe for implementing CX technologies, such CDPs, personalization & optimization solutions, and customer data & analytics products.

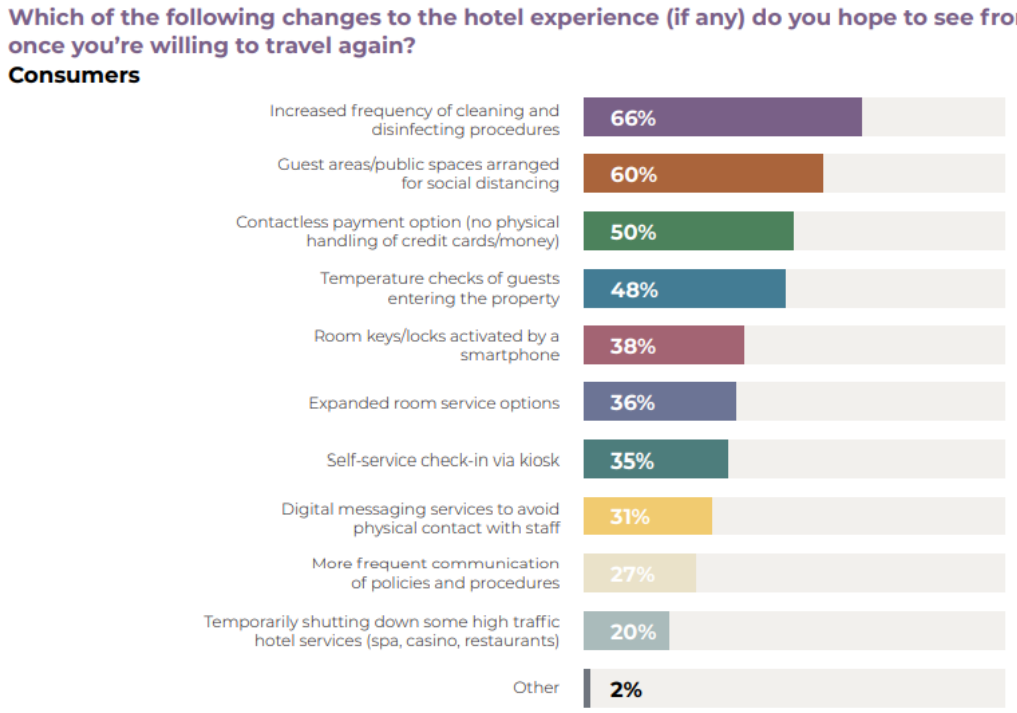
2.2.3 Acceleration of contactless and convenience technologies

The implementation of contactless technologies was already in the works before COVID-19, but the pandemic greatly accelerated the rollout. Travelers want less face-to-face contact and more social distancing, yet still want similar levels of service. Travel can be stressful even during normal times, but traveling during a global pandemic certainly ramps the stress level up multiple notches. Travelers want frictionless, easy experiences and there is an explosion of these types of CX-supporting technologies all along the travel journey. The challenge for those in the industry will be to balance it with the human, personalized touch that travelers have come to expect. Hotels are implementing a range of tools and

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services that provide the no-contact experience travelers currently desire, while also having staff on hand to solve more complicated issues. Cleaning and contact-free solutions are top of mind for returning travelers, as demonstrated by research performed by Skift/Oracle. Investments are being made in digital key technology, mobile apps, and messaging to help guests keep in communication, but perhaps not in direct contact.

Figure 2.3 Hotel Guests Want the Reassurance of Contactless Technologies and the Ease of Convenience



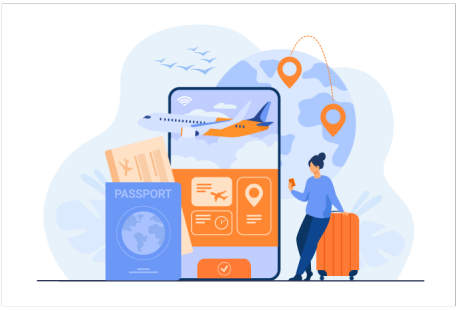
Source: Skift/Oracle

Technologies like biometrics, passenger tracking, and virtual line technologies are allowing people to move through travel hubs in a more streamlined and contact-free way. As an example, Emirates, a United Arab Emirates (UAE) carrier, introduced a biometric pathway at Dubai International Airport that allows travelers to pass through the airport without having to show documents. The US Customs and Border Protection (CBP) is partnering with the cruise industry to implement facial biometrics at select seaports to be used during the arrival process.

Airports are implementing technologies to allow passengers to not only feel safer via social distancing, but to also remove some of the frustration that can occur during long wait times. Virtual line technologies and passenger tracking systems are being implemented in airports and other travel hubs, allowing travelers to have a more socially distanced and pleasant experience. This will be especially important as international travelers are faced with increased documentation requirements and procedures due to the pandemic, particularly when moving through customs and immigration. Additionally, airports are looking at ways to improve the passenger experience and free up time to enjoy the growing list of amenities many airports offer.

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Figure 2.4 Contactless and Convenience Technologies Along a Travel Journey



AIRLINES AND TRAVEL HUBS

- Virtual line technologies
- Biometrics and facial recognition
- Passenger tracking system
- Fast drop bag stations and bag concierge services
- Document and digital health pass technologies
- In-seat food and drink ordering or pre-ordering
- Contactless payment
- Messaging services
- Mobile apps



HOTELS

- Voice-activated room controls
- Digital keys
- Contactless check-in/out via mobile
- Virtual concierge
- Kiosks
- Robots
- Contactless payment
- Messaging services
- Mobile apps

Source: Dash Research

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2.2.4 Increased communication needs

More than ever before, travelers are in need of reassurance and information during their journey. Likewise, companies in the industry need to keep their customers and guests informed of ever-changing travel conditions, hygiene and social distancing practices, and travel restrictions. To complicate matters, a customer journey during travel can be a disparate and non-linear meandering process through digital, voice, and in-person touchpoints. CX technologies are a solution to this problem, providing ways to engage via CRM, personalization & optimization solutions, contact center technologies, and feedback platforms.

According to Medallia Zingle research, 36% of American travelers say that when they have questions for a hotel, they expect a response within 5 minutes or less. Airlines and hotels are leaning into messaging systems and mobile apps both for outbound communications and inbound requests and questions. These systems allow guests to be heard, while also providing operational efficiencies so that contact center employees, airport staff, and hotel employees can focus on larger issues. Companies also want to be able to get a view into how a customer journey is progressing by offering feedback opportunities, not just at the end of a visit, but during it, so that if issues are raised, they can be addressed quickly. Feedback loops

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need to be fast to ensure a positive experience. Did a guest enjoy their mid-day swim? Were there enough towels? How was breakfast service? These small and timely check-ins add up to a smoother experience, as long as they are not obtrusive and interruptive to the experience. Keeping track of these interactions and inquiries lays the groundwork for a more personalized experience during a traveler's next flight or hotel stay.

This type of intense virtual hand holding and check-ins may not be entirely necessary once travel regains some stability and consumers' fears of the unknown during pandemic travel are alleviated. However, the lessons learned during this period on successful communication types, channels, and frequency will continue to be leveraged in the years ahead as travel companies move past operational survival mode and deepen their focus on loyalty and brand experience.

2.3 Market barriers

The travel & hospitality segment has always been at the mercy of many external forces. Weather, labor strikes, and acts of terrorism have all caused short- and longer-term fluctuations in the market. However, a multi-year global pandemic is unprecedented and will have far-reaching negative implications for this sector.

The key market barriers tempering the growth of CX software and services include the following:

- Market uncertainty and budget constraints
- Fragmented and sometimes outdated technology stacks
- Labor shortages and employee burnout
- Consumer concern over health and safety concerns

2.3.1 Market uncertainty and budget constraints

While other market segments have pivoted during the pandemic, instituting different business models, and putting technology and solutions in place and moving forward, in travel & hospitality, there are factors that make this type of reinvention simply impossible. People will always have to get from point A to point B and back again, while wanting a positive experience during points in between. A challenging factor for those in the market is the complete unpredictability of any sort of recovery. It has been wildly "lumpy" at best. One day, the US opens its borders. The next, China is shutting down. Will travelers hunker down if there are large outbreaks during the winter? Will countries once again close borders? These uncertainties make it extremely difficult to plan for technology spending.

These are hard times for those in the travel & hospitality market regardless of the cheery stories coming out about tropical paradises opening up and leisure travel starting to come back. Many industry stalwarts have had to raise money, eliminate staff, downsize operations, and postpone investment. While business travel is starting to return, the use of Zoom and Teams may result in certain segments of business travel never coming back.

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Figure 2.5 The Global Tourism Industry Is Still Hampered by the Pandemic



Source: Financial Times/ForwardKeys; Sojern; UNWTO

For those selling CX solutions to this segment, patience will be required. Companies interviewed for this report reported increased interest and focus on CX technologies and services, but not necessarily increased spending. As an example, according to Hospitality Technology's *2021 Lodging Technology* study, hotel IT spending plans for 2021 showed tight budgets, with 40% of budgets decreasing YoY, 30% experiencing no change, and 30% increasing. In terms of the budget distribution, 68% is going to maintaining existing solutions and 24% to rolling out new implementations. Many prospects had just been at the start of their CX journey when COVID-19 hit. Companies are still simply treading water, focusing on operations and making plans for the future.

There is cause for optimism about the future growth prospects for CX/CE technologies, but the current and short-term outlook is not strong. Some marketing budgets are stagnant or decreasing. During this time of volatility, a keen focus will be on operational efficiencies as the industry attempts to scale back up. There is a holding pattern mentality combined with quick investments to address the most painful and/or potential revenue loss affecting customer friction points.

2.3.2 Fragmented and sometimes outdated technology stack

The travel & hospitality market has a challenging technology stack. At best, technologies leveraged in this market are often a cluster of siloed, disparate systems and the marketing technology sector is quite fragmented. In a 2021 Adobe/Econsultancy report, *2021 Digital Trends: Travel & Hospitality in Focus*, almost three-quarters of travel & hospitality companies (73%) either agree or strongly agree that they have a fragmented approach to marketing and CX technology, leaving teams to operate in silos. Only 17% described their companies as "very advanced" in CX.

Most companies in this segment have dozens of pieces of software, sometimes in place for long periods of time. Those offering CX solutions are not able to come in and do a quick solution swap out. The migration process of these legacy systems can be slow and complicated.

In a way, the complicated technology stack in this segment mirrors another difficult piece in the CX puzzle. The customer journey itself is disjointed and complicated with a variety of third-party players in the mix. There are very few one-size-fits-all solutions to solve this problem, and this makes it difficult to supplant

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existing technology quickly.

2.3.3 Labor shortages and employee burnout make operational issues difficult to address

According to the World Travel and Tourism Council (WTTC), at the height of the pandemic in the spring of 2020, 1 million travel and tourism jobs were being lost every day around the world. The slowdown in the industry, in addition to many employees deciding to leave their travel & hospitality jobs of their own accord, caused a monumental service issue across all parts of the travel & hospitality industry. Understaffing of airline, rental car agency, and hotel staff is commonplace and there is no doubt that it is greatly impacting the CX, as well as causing companies to make difficult decisions on spending priorities.

Now in 4Q 2021, while hospitality wages have started to see an upward trend, the mass return has not occurred. Even more concerning is the state of mind of those who stuck with the industry. According to a November 2021 Medallia Zingle survey, 38% of hospitality workers are contemplating leaving the travel industry within the next two month and 59% report that their companies have been working with fewer staff now than they did before the pandemic. Not surprisingly, 24% of employees say their EX has gotten worse and they feel less engaged.

The lack of staffing and burnout within the industry causes further challenges for travel & hospitality companies already facing difficult market conditions. The operational issues that so desperately need to be addressed will remain a pain point until the labor issue improves. CX practitioners want a guest walking away from a travel experience with a positive view of their journey and the brand with which they interacted. The operational issues that these staffing issues are causing can make that a hard goal. Strong CX flourishes when customer expectations are not just met, but exceeded. CX technology and solutions can be an answer to the pain points travelers might be experiencing during these labor conditions. However, even when CX solutions are implemented, they are only successful if the needed actions are taken quickly, and specifically in travel & hospitality, in a personal and empathic manner. The current labor and EX issues, in addition to budget constraints, will continue to be barriers.

2.3.4 Consumer concerns over health and safety issues

The pandemic caused a shift in travelers' mindsets. People are worried about both their physical and mental health and would like to see travel companies take that into account. A recent survey from Collinson demonstrated that 81% of respondents feel the pandemic has heightened their concerns about the impact the journey might have on their physical wellbeing. Additionally, more than two-thirds (67%) of global travelers think that travel post-pandemic will be more stressful in the current climate. The extra layer of worry about vaccination, testing, and quarantine requirements or the thought of potentially getting ill during a trip will cause many groups to reconsider travel altogether. Travelers feel vulnerable in a way that they have not ever felt before.

Companies need to make investments in solutions that will make travelers feel physically safer. These were likely not in their long-range plan at all—hotel room and airplane cabin disinfection, cleaning robots, signage, document management systems—and are all taking a slice of the technology investment pie. The uncertainty of pandemic travel has also caused travelers to demand flexibility in their booking and liberal cancellation policies for flights, rooms, and rentals. Companies need to offer these policies, and while it may engender a long-term feeling of positivity and loyalty toward a travel brand, in the short term, companies are taking a hit. Southwest Airlines, in describing its revenue decline during quarterly results in October 2021, reported that the loss came from flight cancellations, customer refunds, and goodwill gestures. The focus on safety and flexibility is needed during this short-term period, but it is one more factor that will cause a sluggish investment in CX technology.

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2.4 Current issues

Travel & hospitality companies are still in and out of crisis mode and contending with a variety of "must-fix" priorities. In addition to those fire drills, there are customer trends that will need to be further explored once operational issues are stabilized. Travel & hospitality companies will need to contend with several issues over the next 12 to 18 months, as listed below:

- **Hygiene and safety focus not going away:** The concern over cleanliness is here to stay. According to a recent Hospitality Technology survey, 71% of travelers surveyed said a hotel giving confirmation of when the room was last cleaned was of moderate to extreme importance when choosing a hotel. Two years ago, this would not have been top of mind. Hotels, airlines, transportation hubs, and other travel points have all quickly implemented technologies and services to help address this issue. Marriott has developed a Global Cleanliness Council that develops standards around hospital-grade sanitation. Remote check-ins for flights and rooms, virtual lines in airports, and even robots delivering towels in hotels are all being implemented. All of these initiatives will help assuage traveler concerns and help get people back into rooms and on planes, but they do take budget away from other parts of the CX technology stack.
- **Complexity of the customer journey and touchpoint variety:** A customer journey during travel is disjointed, complex, and has the additional issue of many third-party providers mixed in. In booking alone, the use of different outlets proves to be a challenge for companies wishing to map out a customer journey. All along the travel journey process, multiple technologies are in play, including websites, mobile apps, push notifications, digital signage, face-to-face interactions, contact center technologies, and review sites. When companies investigate CX solutions, they will need platforms that can help tie in these disparate pieces so that CX practitioners can better identify points of success and friction, and take timely action.
- **Optimizing contact centers and omnichannel experiences:** The large spikes in the volume of support requests during staffing shortages and the issue of staffing during quieter periods have been particular pain points for those providing contact center services. Unfortunately, travelers making flight and hotel reservations or making inquiries have borne the brunt of this. Additionally, travelers are demanding reliable and friction-free omnichannel experiences and, more importantly, seamless movement between channels. There are multiple areas to improve on:
  - **Address long hold times:** Leveraging IVR and chatbots are two ways to help this issue. It allows customers to keep moving through the process, giving them the feeling they are "getting somewhere" in the process. This also allows agents to deal with more complicated issues or higher-value interactions.
  - **Increase opportunities for self-service:** Travelers want the option of self-service so they do not have to wait for an agent to answer what might be a basic question. Using self-service for lower-complexity tasks is also a good way to smooth out contact center volume spikes.
  - **Avoid asking customers to repeat information:** This is a particular pain point, especially for travelers who may be physically on the move with limited time available for repetitive information exchanges. Contact centers should have real-time access to a complete history of customer interactions across channels. Additionally, by using self-service, IVR, or chatbot technologies, basic information like name, location, and itinerary number can be automatically captured before a traveler reaches a live contact centner agent. The use of this type of technology will allow for less frustrating and less time-consuming experiences for travelers.
  - **Use sentiment and text analysis to ensure empathetic responses:** Those in the market say that the industry is, at long last, breaking toward the consumer, meaning companies are

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looking for more ways to show more empathy toward travelers as they return. Using sentiment and text analysis during touchpoints will be a good tool to drive positive CX.

- **Increased scrutiny on environmental issues and sustainability:** A trend is developing toward providing travel experiences that are environmentally friendly. This goes beyond re-using your towels or declining daily maid service. According to the World Tourism Organization, sustainable travel is defined as "taking a full view of [the] current and future economic, social and environmental impacts, addressing the needs of [the] visitors, the industry, the environment and host communities." Agro tourism and eco-tourism are of high interest to travelers. Travelers are also looking for individual brands to show a commitment to environmental responsibility. According to a recent American Express *Global Travel Trends Report*, 55% of respondents are interested in carbon-negative travel and 60% agree they want to book on airlines that have a carbon-neutral commitment. Google Flights has introduced a new feature that will show users what the carbon emissions of a prospective trip would be. Hotels have been looking at this issue for quite a while, but are now starting to go deeper. For instance, 23 Club Wyndham South Pacific resorts have rolled out a menu of sustainable initiatives, such as bamboo room keys, replacing plastic straws, and implementing energy-efficient lighting. This is an issue on the periphery of CX technologies, but because CX is the sum total of a customer's experience with a product, brand, or service, this growing "feel good" trend will need to be taken into account.
- **The necessity of staff training:** The current issue with EX in the travel & hospitality market will need swift and ongoing attention. A large part of this will need to focus on training, or retraining. Offerings, services, processes, and procedures have been in a state of flux. Many workers were furloughed or brought back part time, which makes training more challenging. A lot of people are in new to roles in the travel & hospitality industry and/or taking on a broader set of responsibilities. It is not just the front-line, face-to-face workers who will need training, but also contact center agents who are encountering increased volumes in interactions, often with stressed out and frustrated customers. Research from Medallia Zingle conducted in 2021 reported that 61% of workers said that their "roles are harder and less rewarding since the onset of the pandemic." In research from Harri (*2021 Hospitality Employee Experience Report*), hospitality workers listed career growth opportunities and direct access to tools and training resources as a contributing factor to their EX. Training will be a requisite not only to enhance operations, but to enhance workers' EX and sense of confidence. Happy, fulfilled, and empowered workers will directly link to a positive CX.

2.5 Future trends

The travel & hospitality industry is in a period of great flux with many companies keeping their heads down to deal with the most immediate issues. However, like any industry segment, trends in travel & hospitality have always been evolving (albeit not as quickly) and the supporting technologies to keep the segment up to date according to the latest customer preferences and operational standards have progressed along with it.

Future trends that will affect CX strategies and technology implementations include the following:

- **Use of augmented reality (AR)/virtual reality (VR)**: There are a variety of use cases for AR and VR in travel & hospitality, both internally and externally. There are examples of VR technology implemented during the pandemic as a technique to show potential visitors what a venue or attraction might look like in terms of health and safety measures before a visit. VR could also be used to show event planners what room setups might be like, or even do walkthroughs of an event center. Another way VR could be used is to get an in-depth preview of a hotel or cruise ship room. A traveler no longer needs to wonder what a partial ocean view means, they could do a virtual tour through the room and see for themselves. Travelers want easy travel with no surprises (other

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than good ones), and VR could help alleviate some of the uncertainty involved in booking a certain room type or experience. Internally, VR could be used for staff training.

- **Longer stays and remote work:** The move to remote or hybrid work has given travelers unprecedented freedom and flexibility. This has resulted in people booking longer duration trips or even temporarily relocating. This will result in travel brands needing to work this into their marketing and CX priorities moving forward, as this trend is not expected to go away. Workers will be untethered to an office location and hotels and long-term rentals will have longer-stay deals as well as "ease of work" features, such as fast and reliable Wi-Fi, increased desk space, or temporary office setups and quiet zones with minimal distractions.
- **Robots:** Robots have already been wandering the halls of hotels and airports, but in the future, use cases could increase, resulting in larger deployments. It is uncertain whether the labor shortage in this segment will be rectified in the coming years and the use of robots, while in the past was a bit gimmicky, might evolve into a second tier of "staff." Robots could be used for cleaning, concierge services, check-in and check-out, location assistance in an airport, entertainment, and deliveries.
- **More creative reward and loyalty programs:** CX is supported by technologies and processes that enable positive feelings and loyalty toward a brand. The concept of brand loyalty during the global pandemic was greatly disrupted by a few factors. One was the complete cessation of travel in the early days of COVID-19 and another was the need for safety and security during the return. Loyalty programs across the travel ecosystem, particularly for airlines and hotel chains, are feeling the pain of these factors. Points, miles, and hotel nights—all important factors in a loyalty program—are now less important. Travelers are looking at factors such as how hotel rooms are cleaned, how full an airplane cabin is, and opportunities for social distancing when they book a room or flight. Price and mileage/points usage, while still a factor, are now just one of many considerations. Personalization, safety and cleanliness, ease of planning, stellar customer service, and ease of interactions during touchpoints will be drivers for return bookings. The mindset shift away from accruals to fewer concrete factors will result in a revamp of customer loyalty programs. There will, of course, continue to be segments driven by "points in the bank," but companies will need to relook at reward programs, leaning in on factors such as personalization to reward loyal travelers and incite repeat purchases.

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Section 3
Case Studies

The following case studies illustrate how different CX technology types can be used to smooth out a variety of touchpoints during a customer journey, as well as improve operational efficiencies and increase revenue.

3.1 Great Wolf Lodge: Implementing messaging technology and a virtual concierge

A critical element in providing outstanding CX is having the ability to provide real-time customer engagement. Great Wolf Lodge Resort, which opened its first location in 1997, specializes in providing a unique indoor water park and lodging experience. The company was looking for a way to better manage lines in the lobby, as well as the types of repetitive calls for further information on amenities that staff was receiving. Great Wolf trialed two-way messaging technologies to provide some automation to responses to frequently asked questions (FAQs) and to send out other types of communications during a guest's stay.

Great Wolf moved forward with implementing Medallia Zingle across all of its properties. In addition to the messaging capability, Great Wolf also rolled out Willow, a virtual concierge functionality that Zingle powers. Willow is a way for guests to find out what is happening at the lodge, answer questions, request service, or have a contactless and quick checkout.

Great Wolf found the technology to be an important tool to allow customers to communicate in a contact-free manner and to allow the resort to share information before the guest is on property (i.e., sharing social distancing rules and COVID-19 protocols) and along each part of their stay. Additionally, the technology was used to send out a mid-stay survey to see how the visit was going. Great Wolf could then use the remainder of the stay to solve any large or small issues the guest was having. The ability to share two-way information also helped improve operational efficiencies as guests notify the resort when they check out. Previously, the resort incented guest to do an early checkout by 9:30. With this new system, many guests messaged that they checked out before 9:30, allowing housekeeping to keep to a more aggressive room readiness goal during peak times. The early checkout program ceased, saving Great Wolf money. The technology was also used to reach out to guests with opportunities to leverage different amenities during their stay.

Implementation highlights include:

- 3.6% higher problem resolution rate for those guests that used Zingle during their stay
- Guests that interacted with Zingle spent an average of 20% more overall including their room and on-property amenities
  - 24% more spent in on-property amenities during their stay for things like food and beverage (27% increase)
  - 22% increase in activity spending
  - 33% increase in retail spending

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3.2 Carnival Cruise Line: Using feedback to improve quality of interaction

Carnival Cruise Line is one of the world's leading cruise lines, carrying 5.4 million passengers annually in a typical year. Its contact center handles 10 million calls a year, which breaks out to 7 million for service and 3 million for sales. Carnival wanted to get a better understanding of how the guest feedback it was receiving tracked to its customer base as a whole and to improve upon ways to measure guest satisfaction.

Carnival partnered with Verint, leveraging the Verint Interaction Experience solution. Verint's experience management offerings can capture experience data across channels, unify it across an organization, and provide analytics and reporting that can be turned into actionable insights. Carnival used the solution to create and launch a variety of surveys to gather a more holistic view of the CX with its contact center. These included post-call surveys, which measured customer satisfaction, agent performance, agent knowledge, and ease of interaction, as well as guest service and sales surveys for travel agents and direct agents.

Carnival was able to have a survey aligned with each agent skill, break down those skills by department and then map them to see areas where CX could be improved. The use of the feedback system demonstrated the company's suspicion that it had fairly strong contact center satisfaction, with more than 90% of agents scoring a 4 or 5 on a scale of 1 to 5. However, the company was able to take the insights from the other 10% and focus its coaching and training efforts more efficiently.

The use of the feedback management system resulted in:

- Improved first contact resolution for fewer repeat calls
- Achievement of a better than industry standard survey participation of 25% to 30%
- Validation of high CX ratings

3.3 Xanterra: Consolidating siloed data into customer profiles and personalized experiences

Xanterra Travel Collection owns and manages a wide variety of properties, including national park concessions, resorts and hotels, a boutique cruise line, and specialized adventure tour operators. Like many in the travel industry, Xanterra struggled with the number of different databases and sources the company had across its portfolio and brands. Xanterra had more than 100 data sources from varied property types, as well as data from transactional and management systems, and third parties.

Xanterra had the goal of creating a 360° profile for each customer and prospect, which was challenging due to the amount of data sources and the fact that customers often crossed brands and used multiple touchpoints. There was not one "golden record" and the data was housed individually in systems that did not talk to each other. In addition to the data consolidation, Xanterra wanted to leverage its data to identify personas and key segments, as well as map its guests journeys to provide better personalization and marketing opportunities. The company partnered with Redpoint Global, provider of the rgOne software platform, which consists of three pillars: intelligent orchestration, automated machine learning (AML), and customer data management (CDM). Redpoint engineered a data intake solution that leveraged Xanterra's existing IT infrastructure and handled all the cleaning, standardization, and enriching, with more than 300 third-party appended attributes. This process helped fill in the pieces of unknown or partial records and was also able to provide visibility across properties. Guests who visited a national park, took a cruise, or interacted with other brands in the portfolio could be identified and a more personalized engagement could be generated. If a cruise guest called a contact center, that person might know they also recently visited a concession area of a national park and could personalize the interaction with a question about how a visit went.

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Using this new data management technology allowed Xanterra to find seven different segments, create personas, and market across their portfolio categories. Automated, behavioral-based campaigns could be built with thoughtful and relevant personalization. The company was also able to map out each digital and analog guest touch for most of its brands, using information from call centers, emails, and front desk interactions, align that with the customer's emotional state, and use it as a basis for improvement.

Other highlights of the implementation include:

- Triple-digit performance improvements in marketing campaigns
- Personalization at scale
- $0.73 earning per email, compared to $0.08 for previous average campaigns
- 15 weeks from signing to having the first campaign active

3.4 Key Travel: Reliable and flexible call center technology to keep customers safe

Key Travel is a provider of services for specialist travel, focusing on the nonprofit sector. Its customers are humanitarian, faith, and academic organizations around the globe. Key Travel needed to find a reliable and flexible communication solution that could be used from anywhere, as the company and its clientele are located around the world. Many of its customers are in poverty-stricken or war-torn parts of the world where being able to make and receive communications is paramount. Customers needed to have the ability to contact Key Travel agents as needed to book travel or get assistance with issues if something goes wrong. Additionally, its travelers required it to be omnichannel.

The previous system Key had in place was run by a third-party managed service partner and its reliability was not always high. In additional, it was older technology, hard to maintain, and pricey to update. To enable new functionality was often a 6-month project. Key Travel chose to work with and implement Vonage's Contact Center product. Vonage offered a highly reliable solution and the ability to activate and deactivate modules as needed. Also, agents and customers were able to connect through phone, video, chat, and SMS. A Salesforce integration allowed agents to recognize customers regardless of the channel they were using and other tools, such IVR and callback functionality, helped to manage queries.

Call routing enabled the system to route the humanitarian worker to the agent with the correct expertise and one who could speak the language needed. This proved an important capability, as customers were urgently attempting to get travel arrangement home during the COVID-19 pandemic. The Vonage system allowed routing to agents quickly and they would already have the information in front of them, allowing people to get some of the last flights out from certain countries.

Other key benefits from the rollout include:

- AI-based insights from the Vonage platform helped identify operational inefficiencies; Key Travel formerly had more than 150 call plans in place, now it is fewer than 20 plans, simplifying its processes
- 100% reliability with zero downtime
- Key Travel transitioned more than 600 contact center agents around the world into at-home workers without missing one customer call using the Vonage cloud-based communication solution.

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3.5 KLM Dutch Airlines: Improved mobile experience by using customer feedback

KLM Dutch Airlines is the flagship air carrier of the Netherlands. The airline launched a mobile app for its customers that was met with underwhelming positive feedback. KLM used it as an opportunity to regroup and put a process in place for understanding what customers truly wanted from the app, as well as to feed information to the app developers to more quickly see what bugs were causing a negative experience so they could be rectified.

GetFeedback was brought in to gather Voice of the Customer (VoC) so the airline could learn from its app users in real time. Quantitative and qualitative feedback, in addition to customer demographics, helped form a more comprehensive view of the app CX. Using this data, the needs of higher-valued segments could be elevated, and KLM was able to identify customer priorities more clearly (booking multi-city flights, claiming airline miles after a flight, and providing native in-flight status updates). Whereas previous user-facing technical issues with the original app were not identified in a timely manner, this new app version was able to leverage insights from GetFeedback to quickly find patterns, trace issues, and put a fix in place. Customer satisfaction with the app increased and KLM customers are using the app daily to book a flight, check in, get a boarding pass, reserve seats, buy extra luggage, and keep informed about the latest flight status updates.

Data from the app rollout includes:

- 30 more seats sold per day
- 100,000 active daily users on the app
- App store rating moved from 2.8 at launch to 4.2

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Section 4
Market Forecasts

4.1 Forecast methodology

Dash Research's model for calculating the size of CX software and services spending is based on a multi-tiered approach, designed to accurately capture the current spending on the two key components of technology investment: the actual software platforms and applications used to monitor, measure, and engage with customers; the various services revenue that is offered in the form of consulting services; software installation, integration, customization, and maintenance services; and any ancillary business services, such as customer focus groups or market research.

The forecast model development is described in greater depth in the Sources and Methodology section below, but essentially, this forecast is based on a bottom-up assessment of current revenue, with specific growth rates applied based on industry growth, software growth rates, and functional areas' growth rates. The base year of the forecast is 2019, with a forecast period of 2020 to 2026.

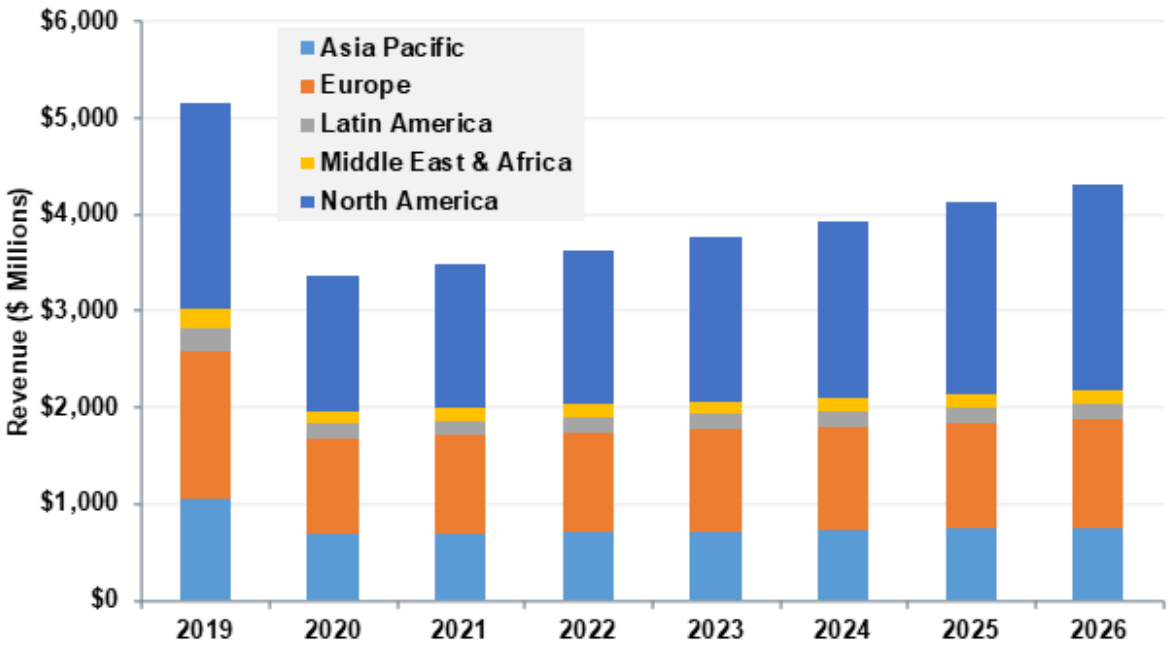
4.2 Travel & hospitality industry CX/CE software and services revenue by world region

The overall decline in travel spending and the market uncertainty around a return to normalcy will cause the market for CX/CE software and services to languish over the next few years. Despite reports of pent-up demand, global tourism is not expected to surpass pre-pandemic levels for several years. The US Travel Association has forecast that international travel would not return to 2019 levels of nearly 80 million visitors until 2024. This will, of course, trickle down to the CX/CE market. Dash Research takes a fairly conservative view of the prospects for CX spending in this segment and does not see total revenue returning to 2019 levels within the duration of the forecast period (2019 to 2026). Dash Research projects that the global market for travel & hospitality CX/CE software and services will reach $4.3 billion by 2026, reflecting a 2019 to 2026 CAGR of -2.6%.

Recovery in this market will be lumpy and uneven among different regions of the world. Some regions are moving toward a full reopening, while others are in and out of lockdown due to COVID-19. The US is starting to show signs of a faster recovery than originally anticipated, but other parts of the world are still struggling with fully reopening to travel. The market for CX/CE software and services is generally led by large, multinational corporations, which may be based in North America, Europe, or Asia Pacific, but often have customers around the world. However, given that most of the software and services firms are based in these three regions, much of the spending will be concentrated here as well. Dash Research forecasts that North America will lead in travel revenue for CX/CE software and services reaching $2.1 billion in 2026.

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Chart 4.1 Travel & Hospitality Industry CX/CE Software and Service Revenue by Region, World Markets: 2019-2026



Source: Dash Research

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4.3 Travel & hospitality industry CX/CE software and services revenue by segment

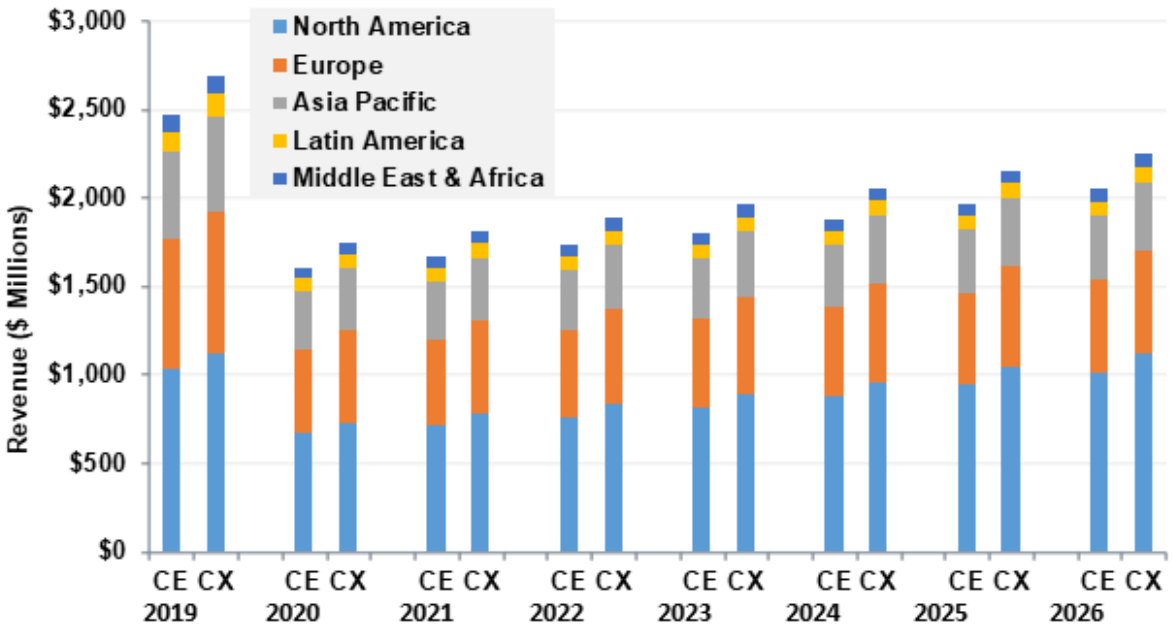
Segmenting the spending between CX and CE platforms, applications, and services can be tricky, given that the two functional areas are so closely interrelated. Dash Research defines CE as software and technologies that customers leverage to interact with a company and may include technologies to make communications and interactions more efficient, personalized, and relevant, thus strengthening the customer relationship. Meanwhile, CX technology includes software and technology that are used to help drive positive perceptions of the company over time, across all touchpoints, people, and technology.

It is challenging to provide a great CX without some degree of CE, particularly as the world has embraced a variety of engagement channels, such as text, social media, and mobile applications, as key pathways to engaging with travel & hospitality companies. Dash Research has segmented the market based on the functional aspects of each company's offering, with the goal of illustrating the slight, yet constant, advantage in spending enjoyed by CX products and services.

By 2026, revenue for CX software and services from the travel & hospitality segment will reach $2.3 billion, while CE will approximate $2.0 billion.

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Chart 4.2 Travel & Hospitality CX/CE Software and Services Revenue by Segment and Region, World Markets: 2019-2026



Source: Dash Research

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4.4 Travel & hospitality industry CX/CE software and services revenue by function

From a functional perspective, Dash Research has segmented the market into seven categories of products and services as follows:

- **Customer data & analytics:** Products and solutions that assist enterprises in collecting and analyzing customer information. This could include customer behaviors, preferences, and purchasing decisions. This data and analysis can be leveraged for customer segmentation, journey optimization, data models, enhanced digital experience, reporting, and personalized recommendations.
- **Customer relationship management (CRM):** CRM encompasses technologies used to house customer and potential customer interaction information. It is typically leveraged to assist sales, marketing, and service management. Can be on-premises or cloud based. CRM also includes customer journey mapping (CJM) solutions.
- **Contact center:** Technologies and supporting technologies to manage inbound and outbound customer communications through a variety of channels. This could include on-premises and in the cloud, as well as self-service and digital communications.
- **Personalization & optimization:** Technology solutions that enable effective, relevant, and efficient experiences with customers along their journey with the company or product. These technologies enable needs to be met in real time across multiple experience touchpoints. These

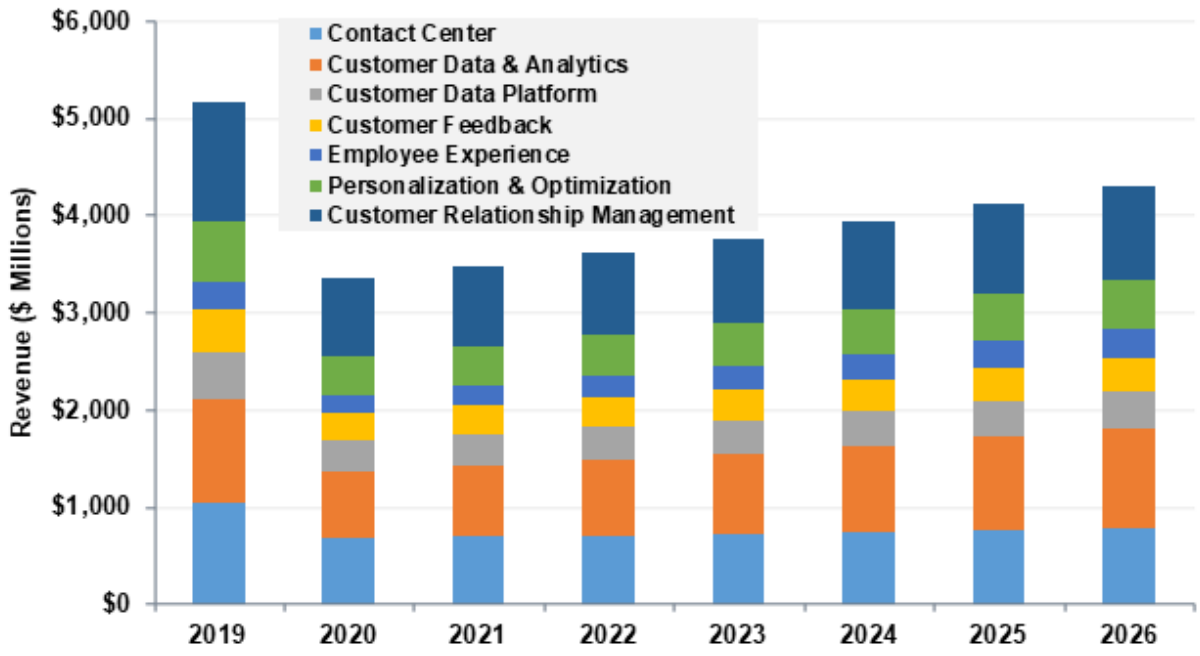
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solutions are often used in conjunction with data and analytics, and could include predictive technologies, A/B testing, and recommendations.

- **Customer data platform (CDP):** A collection of software that creates a persistent, unified 360° customer database that is accessible by other systems. Data is pulled from other sources, cleaned, and combined to create a single customer profile.
- **Customer insights & feedback:** Solutions that help identify and measure data points, such as customer satisfaction, happiness, and loyalty. Tools could include surveying, reviews, polls, social media, website feedback widgets, support or chatbot feedback, customer interviews, and email or customer contact forms.
- **Employee experience (EX):** EX is not about what companies do, it is about how companies make employees feel throughout that journey. The journey includes every touchpoint along the entire employee lifecycle, from interview to exit.

Across all regions, customer data & analytics ($1.0 billion) and CRM ($964 million) will generate the most CE/CX revenue in the final year of the forecast. The use of clean, relevant, and accurate data is critical to all aspects of providing a great CX. In the travel & hospitality sector, as in others, this data can be used to provide a more personalized engagement with a brand. Well managed data helps provide a single view of a customer, along with insights into what customers really want. Software and services revenue for CDPs is estimated at $380 million in 2026. The use of CRM systems allows travel & hospitality companies to get a 360° view of customers and their interactions, resulting in more personalization and less frustration during future interactions. This is true for both the customer and the agent/employee handling the interaction.

Chart 4.3 Travel & Hospitality Industry CX/CE Software and Services Revenue by Function, World Markets: 2019-2026



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Software and services revenue for contact center technologies will reach $785 million in 2026. Dash Research expects further innovation in the omnichannel approach as the need to communicate whenever and wherever is a must have in the travel sector.

Software and services for personalization & optimization revenue is estimated at $494 million in 2026, and customer insights & feedback at $346 million. The “how did we do?” written card at the end of a hotel stay is all but ancient history, except for some mom-and-pop operations, as technologies are now levied across multiple channels and locations. This is complicated by the fact that there are many third parties during a customer journey, making it hard to leverage traditional feedback mechanisms. Being able to receive feedback from a variety of channels in real time has taken on critical importance during the pandemic and travelers and companies will be wanting to maintain and improve upon that ability.

CX/CE revenue for EX software and services will come in at $307 million in 2026. A smaller piece of the pie, but the only segment with a positive CAGR (1.4%) during the forecast period of 2019 to 2026. Additionally, Dash Research believes this market may actually be larger than it appears, due to companies using customer-focused tools to handle some of these EX functions.

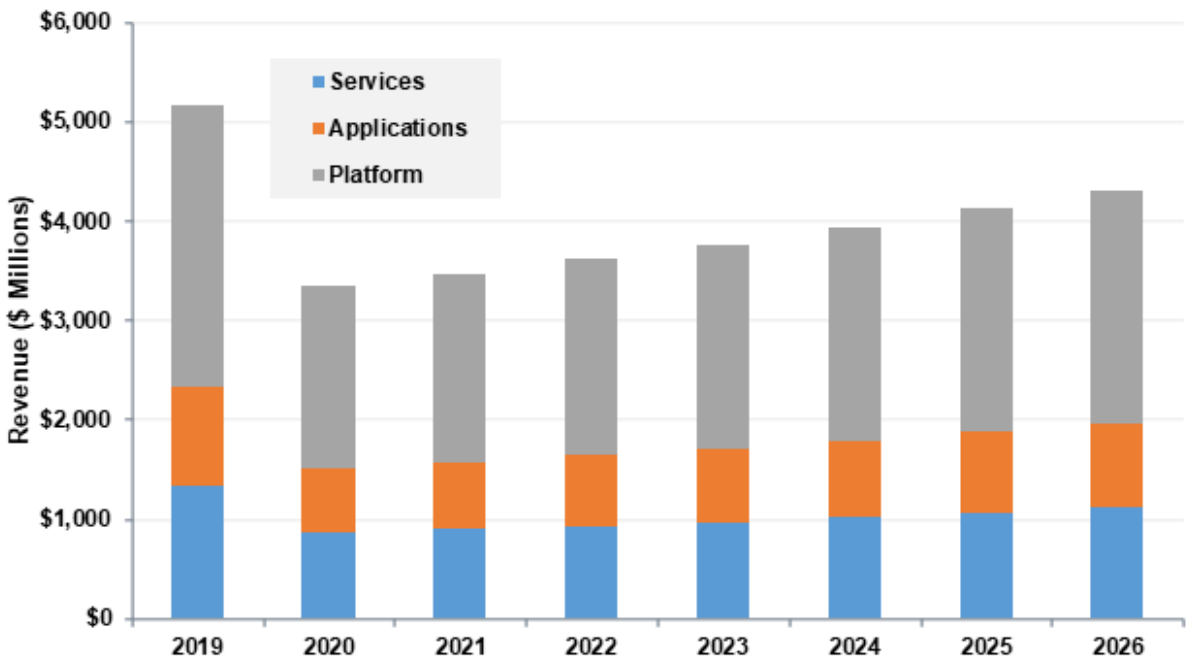
4.5 Travel & hospitality industry CX/CE software and services revenue by product offering

Dash Research projects that the majority of spending will be on CX/CE platforms, rather than on individual applications or services. The technology stack in travel & hospitality companies is fragmented and, at times, outdated. Companies will be looking for solutions to migrate, as much as possible, to integrated platforms. This will be challenging with the disparate systems currently in place, often siloed and not communicating with each other. Many will need to leverage services to help in this process. Large travel chains will be driving platform software growth. Smaller providers in the market will likely focus on single-function systems that can be connected via application programming interfaces (APIs) or other connectors.

CX/CE platform software will account for $2.3 billion in 2026 annual revenue, compared with $1.1 billion for services and $849 million for applications.

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Chart 4.4 Travel & Hospitality Industry CX/CE Software and Services Revenue by Product Offering, World Markets: 2019-2026



Source: Dash Research

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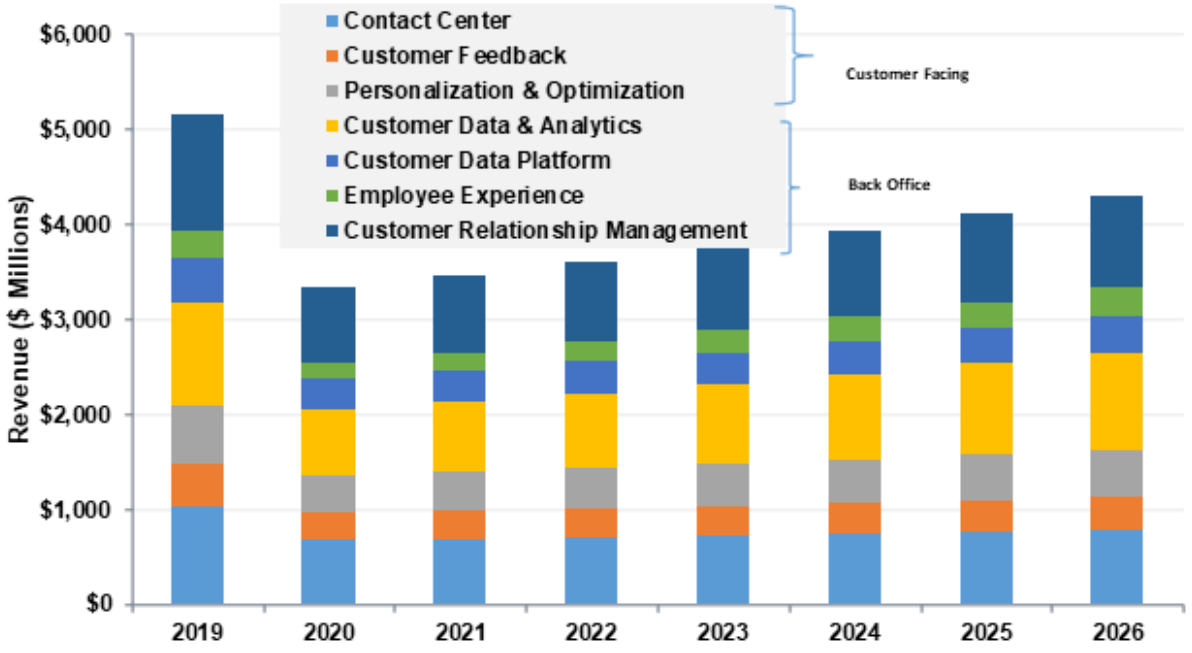
4.6 Travel & hospitality industry CX/CE software and services revenue, customer facing versus back office

Another way to segment the CX/CE market is to split it by customer-facing versus back-office applications and services. Backend investments serve as the foundation upon which customer-facing tools are based; without powerful and ongoing data capture, analysis, and segmentation technology, customer-facing applications will be less effective.

It should also be noted that many of the functions included in software platforms or applications may span the two categories of customer-facing or back-office functions. Segmenting the market in this manner illustrates the way many organizations may make their purchases, linking several functional applications together. Back-office functions will generate $2.7 billion in 2026 annual revenue, compared with $1.6 billion in 2026 annual revenue for customer-facing functions.

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Chart 4.5 Travel & Hospitality Industry CX/CE Industry Software and Services Revenue, Customer Facing versus Back Office, World Markets: 2019-2026



Source: Dash Research

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4.7 Recommendations

Dash Research offers the following recommendations for improving travel & hospitality CX:

- **Implement real-time feedback mechanisms to identify missteps along the way.** The post-visit check-in is no longer enough. Companies should be looking for feedback software that can provide insights that can be acted upon in an expeditious manner, allowing the traveler to feel they are important and being heard during the course of their entire brand interaction.
- **Deepen/broaden self-service options.** There are opportunities for this with contact center interactions, check-in and check-out activities, inquiries, and booking touchpoints.
- **Investigate the use of "preview" technologies.** While on the periphery of the CX ecosystem, technologies that allow consumers to preview a room, view, or experience can take away some of the uncertainty when booking a trip. Travelers do not want unpleasant surprises and companies should ensure that there is not a mismatch between expectation and reality.
- **Communication, communication, communication.** Customers need reassurance along the way on flight schedules, check-in times, itinerary changes, and any potential health and safety regulations. The negative feelings erupting in this segment have often stemmed from a lack of communication, particularly in terms of canceled flights. When companies are not on top of sending out important information via the channels travelers want, or do not give appropriate further instruction on next steps, they risk disgruntled customers who can amplify this negativity across social media and review sites. Airlines are starting to take note. Ryanair recently announced enhancements within its "Day of Travel" app that will provide live videos and webcasts

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during major disruptions and live updates on departure times and reroutings.

- **Dig deep to solve the EX issue.** There can be no truly outstanding CX without outstanding, or at least stable, EX. Many CX technologies can also be leveraged for EX, particularly those in the insights and feedback category.
- **Focus on education and planning support.** The industry is in the very beginning stages of a return and the future path to recovery is complicated by many unknown factors. Travel & hospitality companies have had to stall projects and freeze budgets. This will not last forever, especially as companies look for ways to save more money internally and provide customers with experiences that will keep them coming back. CX vendors will need patience in this interim period and could use this time to educate the market, provide planning support, and demonstrate solid use cases and return on investment (ROI) statistics.
- **Watch privacy issues.** Data security and privacy issues need to be kept top of mind, especially because laws can vary wildly from country to country. According to the United Nations Conference on Trade and Development (UNCTAD), 66% of countries have legislation around data protection and privacy. This is especially important in the hospitality segment with the increasing use of voice technologies and smart rooms.

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Section 5
Acronym and Abbreviation List

Application Programming Interface	API
Artificial Intelligence	AI
Augmented Reality	AR
Automated Machine Learning	AML
Compound Annual Growth Rate	CAGR
Customer Data Management	CDM
Customer Data Platform	CDP
Customer Engagement	CE
Customer Experience	CX
Customer Journey Mapping	CJM
Customer Relationship Management	CRM
Customs + Border Protection	CBP
Employee Experience	EX
European Union	EU
Identification	ID
Information Technology	IT
Interactive Voice Response	IVR
Machine Learning	ML
Quick Response	QR
Recreational Vehicle	RV
Transportation Security Administration	TSA
United Arab Emirates	UAE
United Nations Conference on Trade & Development	UNCTAD
Virtual Reality	VR
Voice of the Customer	VOC

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Workforce Optimization.....WFO

World Travel and Tourism Council.....WTTC

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Section 8
Appendix

8.1 Scope of study

This Dash Research report examines the market issues, drivers, and barriers for CX and CE software platforms, software applications, and services targeting the travel & hospitality industry. This industry includes CX/CE for online and offline travel booking, air/train/hotels, car rental services, recreational vehicle (RV)/campsite booking, and communication. Restaurants and other eating establishments are not included in this study.

8.2 Sources and methodology

Dash Research is an independent market research firm that provides industry participants and stakeholders with an objective, unbiased view of market dynamics and business opportunities within its coverage areas. The firm's industry analysts are dedicated to presenting clear and actionable analysis to support business planning initiatives and go-to-market strategies, utilizing rigorous market research methodologies and without regard for technology hype or special interests including Dash Research's own client relationships. Within its market analysis, Dash Research strives to offer conclusions and recommendations that reflect the most likely path of industry development, even when those views may be contrarian.

The basis of Dash Research's analysis is primary research collected from a variety of sources including industry interviews, vendor briefings, product demonstrations, and quantitative and qualitative market research focused on consumer and business end users. Industry analysts conduct interviews with representative groups of executives, technology practitioners, sales and marketing professionals, industry association personnel, government representatives, investors, consultants, and other industry stakeholders. Analysts are diligent in pursuing interviews with representatives from every part of the value chain in an effort to gain a comprehensive view of current market activity and future plans. Within the firm's surveys and focus groups, respondent samples are carefully selected to ensure that they provide the most accurate possible view of demand dynamics within consumer and business markets, utilizing balanced and representative samples where appropriate and careful screening and qualification criteria in cases where the research topic requires a more targeted group of respondents.

Dash Research's primary research is supplemented by the review and analysis of all secondary information available on the topic being studied, including company news and financial information, technology specifications, product attributes, government and economic data, industry reports and databases from third-party sources, case studies, and reference customers. As applicable, all secondary research sources are appropriately cited within the firm's publications.

All of Dash Research's reports and other publications are carefully reviewed and scrutinized by the firm's senior management team in an effort to ensure that research methodology is sound, all information provided is accurate, analyst assumptions are carefully documented, and conclusions are well-supported by facts. Dash Research is highly responsive to feedback from industry participants and, in the event errors in the firm's research are identified and verified, such errors are corrected promptly.

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8.3 Forecast methodology

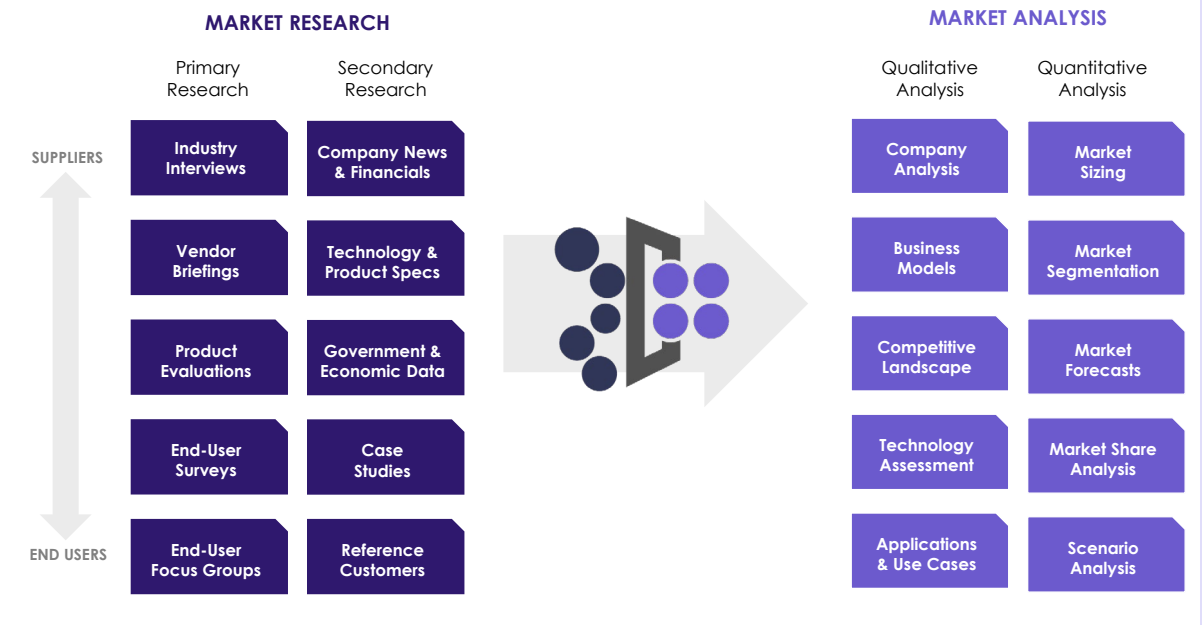
Dash Research has taken a multifaceted approach to developing its forecast model. A scan of the market was undertaken to identify a market ecosystem consisting of companies serving the travel & hospitality market, including small, medium, and large players, across seven key CX functional areas: contact center; personalization & optimization; customer feedback; customer data & analytics; customer relationship management (CRM); customer data platform (CDP); and employee experience (EX).

Using a combination of company-supplied data (annual reports, press releases, analyst conference calls) and public and subscription-based company databases, an assessment of each company's revenue was captured for the base year of 2019. Further assessments on the amount of revenue that was directly attributed to CX platforms, applications, or services were made, along with an assessment of the revenue level attributable to travel & hospitality customers, which were cross-checked against customer lists, press releases, and industry news reports.

To forecast the potential market value, industry growth rates from several sources were collected, analyzed, and applied as a baseline growth rate for the industry. Then, segment growth rates were calculated by implementing technology adoption growth curves for each region and functional area, taking into account the internal market dynamics and external economic factors that impact the travel & hospitality market.

The forecast is not without limitations; many of the functional areas overlap, and Dash Research's categorization relies not only on vendors' classification, but on an assessment of what the company's products and services actually allow a travel & hospitality company to accomplish. Further, while Dash Research has attempted to capture a wide-ranging and comprehensive ecosystem of companies, the definition of what constitutes CX software and services is highly variable. Dash Research has focused on companies that offer solutions that are clearly focused on CX, as opposed to marketing automation, sales automation, or other related applications.

Dash Research Methodology



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