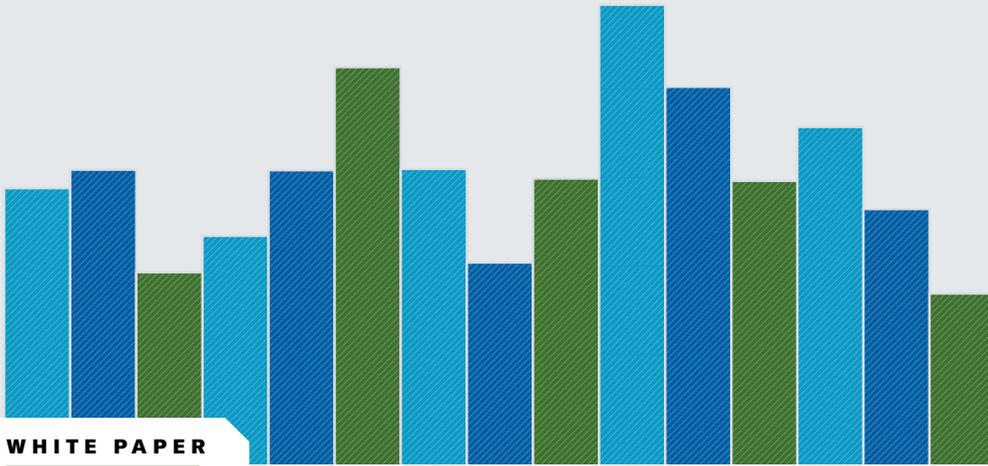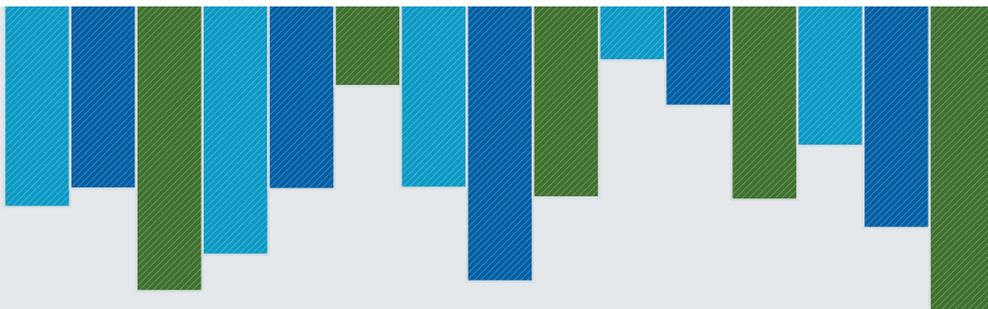Harvard
Business
Review

Measuring the Business Value of Exceptional End-to-End Customer Experience

Customer-Centricity at Red Hat

Every Red Hatter shares the same goal: to make doing business with us easier, more seamless, and less stressful—especially now, when we are all under more stress than usual.

The success of our customers is foundational to Red Hat and our open source model. We have to prove ourselves to our customers every day; otherwise, they can leave us but still use the technology if they want. It's the purest business model.

Customers need a partnership so they can move past the day-to-day problems they face and grow their capabilities. We're not just here to respond to their questions, but to ask our customers the questions they wouldn't think of asking for themselves. Our customers come back because of our proactive engagements and the collaborative approach of our entire customer account team (support, customer success, sales, services).

An exceptional customer experience is one that is easy, timely, and personalized. Companies that reduce friction for customers are poised for great customer satisfaction and long-term loyalty. Timely experiences mean making services and offerings available on demand, so when customers need something, they know where and how to get it. Lastly, it's vital to make experiences personalized, so customers feel understood and valued.

A truly customer-centric company puts customers at the center of every decision. At Red Hat, that also means prioritizing our partners who also work closely with our customers.

In many ways, this is about empathy. We have to put ourselves in our customers' place: We should be curious about their business in order to understand and consider their challenges, and think about how they're using our solutions from a portfolio perspective, instead of as disparate, single products.

We must always keep in mind that their top priority is to solve a problem or overcome a challenge so their organization can be more successful. Their goals should be our goals.

"Customer experience" is singular for a reason. Every engagement we have with customers shapes their perception of and experience with Red Hat—whether they're talking to sales, services, support, or any combination of these (and other) teams. Greater consistency, empathy, and clarity across our organization allows us to give customers the positive experience they expect while ensuring valuable engagements that address their business challenges at every step of their journey. As an enterprise software company with an open source development model, collaboration is key to our success. To our customer, we are all Red Hat.

Marco Bill-Peter
Senior Vice President of Customer Experience and Operations
Red Hat

Measuring the Business Value of Exceptional End-to-End Customer Experience

When it comes to the customer, there has been a radical change in thinking. Customer service used to be considered a cost center, a part of the business that lost money. But today customer experience (CX) packs a more powerful punch when it comes to organizational success because it's integral to differentiating a brand, generating revenues, and fostering customer loyalty.

What makes exceptional CX such a weapon is that it can be direct, such as facilitating automatic transfers so a customer can make rent payments, or it can arm workers with more tools to provide it, like giving frontline employees more customer information to help patrons get what they want faster or more effectively. Companies providing an exceptional CX may also highlight products or services that are likely to be of interest specifically to customers, or anticipate their customers' problems, like incurring overage fees, and reduce the friction that slows completion of a task. Simply put, personalization must be front and center, no matter the organization or the industry it's in.

"If a customer expects some personalization for a cup of coffee at Starbucks that costs $3, then it would only make sense that they would expect an even higher degree of customization for a purchase of an automobile costing $30,000," says Jim Lyski, chief marketing officer at CarMax.

For organizations, this emphasis on personalization and improving CX means studying the customer more closely. "It's about knowing your customer across multiple product lines and geographies," says Brian Timmeny, former chief information officer (CIO)/chief technology officer (CTO) of engineering, architecture, quality, next generation applications at Citigroup Inc./Grupo Financiero Banamex.

Companies, however, often lack a clear vision of exactly how to personalize and provide an outstanding CX. So, the goal for them isn't just defining

HIGHLIGHTS

Personalization must be front and center, no matter the organization or the industry it's in.

Sharing of information about customers more widely, but securely, throughout the organization is paramount.

Companies are under pressure to break down silos of data to get a **360-degree view of the customer and integrate real-time data** to understand what the customer would like at that particular moment in time.

> Exceptional CX extends post-purchase, and companies have to continue to communicate with their customers in a helpful way or face rejection if their messaging is egocentric.

outstanding CX, but also evaluating it in some way that makes it clear how an improvement in CX directly translates into sales revenues, customer loyalty, and brand differentiation. That process often means thinking about how best to measure CX and incorporate new technologies, such as event-driven engagement, real-time data, artificial intelligence (AI) and machine learning, and cloud computing.

CX quantification, however, has sometimes been elusive. Net Promoter Scores (NPS), which are based on whether or not a customer would recommend a company to a friend, has been used to quantify CX but is flawed. The score reflects a customer's overall sentiment, but NPS can't distinguish between different aspects of CX. For example, a mediocre NPS can't explain if the company came up short during the sales process or after purchase. Companies are now trying additional metrics in an attempt to quantify CX more granularly by measuring the business value of exceptional end-to-end customer experience.

This paper explores just how using data to understand and anticipate customers' needs now syncs to a stellar CX. It further explores how data analytics, AI, and machine learning are integral to this effort. Finally, because CX encompasses the entire end-to-end customer journey, the paper examines the challenges involved in personalizing, optimizing, and quantifying it.

New Expectations Change the CX Paradigm

Over the past decade, customers' expectations for CX have changed. Technological innovation has made it possible to incorporate near-real-time information into companies' interactions with each and every customer. Used correctly, this type of information can reduce friction, helping customers get what they want much more easily and delighting them along the way.

Amazon recognized the benefit of eliminating friction with its original premise that shopping online was easier than going to a retailer, says Bryson Koehler, CTO at Equifax, a personal credit company. Over the years, Amazon continued to introduce new CX features designed to reduce friction and changed the paradigm for all other companies, Koehler explains.

Today Amazon has an easy-to-navigate website, a listing of customers' past purchases, product reviews and recommendations, free shipping, precise delivery dates, an assistant named Alexa that announces a package's arrival, and a free and easy return policy. Customers now expect this type of personalization regardless of product, service, or industry.

"We're a century-old company, but customers compare us to their last best customer experience, which can mean an interaction with Amazon or Spotify," says Ken Solon, chief information officer and head of digital at Lincoln Financial Group.

More personalized service doesn't end with the purchase, either. Exceptional CX extends post-purchase, and companies have to continue to communicate with their customers in a helpful way or face rejection if their messaging is egocentric. "It's frustrating for customers to hear sales pitches after months or even years and their real needs are still not understood," says Andreas Leitner, senior director, datacenter services, at Infineon Technologies IT-Services GmbH, a German semiconductor company. Customer care is critical, he says, and companies should be trying to understand their customers' developing needs after a sale. Also, companies should constantly improve their offerings and communicate those improvements to their patrons, he added.

But there is an adjunct to this personalization mandate, namely that organizations need to always study each customer interaction so they can learn customer needs, reduce friction, and identify ways to optimize the customer's journey. "Each company is on their own analytic journey," says Satish Alapati, formerly vice president and chief information officer for AT&T Corp.'s customer experience unit. "It's possible to dump a lot of data into analytic platforms, but companies need the discipline to focus on a single customer's journey and gain insight into their CX."

At the heart of personalization and CX is data. Companies are under pressure to break down silos of data to get a 360-degree view of the customer and integrate real-time data to understand what the customer would like at that particular moment in time. New technologies, from data analytics to AI and machine learning, are facilitating this effort to know the customer inside and out.

Still, getting rid of data silos, of course, is a task easier said than done. While sharing information is often critical to good

> "The idea is to help customers accomplish what they are trying to achieve in as few steps and with as little friction as possible," says Bryson Koehler, CTO at Equifax.

CX, data silos can often be found in large companies that have acquired different information systems over the years. The problem, of course, is that these systems were designed for a single product, service, or business line, making it difficult to share information across an organization.

Solon says this issue has been encountered by Lincoln Financial Group. "We're a company that has grown through multiple mergers and acquisitions. That means lots of technologies and complexities," he asserts, explaining that different information systems are used throughout the organization that don't all speak with one another. Consequently, if a customer changes their address, that data may need to be entered into several systems, leading Lincoln Financial Group to use bots and enterprise content management systems to transfer data between the systems to reduce errors and easily make necessary changes. Perhaps more important, being able to transfer data between systems allows the company to better integrate its business so that the company's sales organization and the customers themselves can more easily tap into different products and business lines. Traditionally, customer information had been organized along business lines, like life insurance or annuities.

The problems created by legacy systems are well known and have plagued companies in a variety of industries from banking to insurance to telecom. Increasingly, technologists have been aware of the cost of integration when they evaluate new systems. "The mix of legacy and emerging technologies needs to be done very intentionally," says Alapati. If it isn't, organizations can find themselves perpetually focused on digital transformation and not better CX, he says.

Another technical change has been the ability for a business to anticipate customer needs in real time. Having the right data and the ability to take action in real time makes an offer or recommendation compelling and relevant for a customer.

"The idea is to help customers accomplish what they are trying to achieve in as few steps and with as little friction as possible," says Koehler, CTO, who has been overhauling Equifax's IT after its data breach in 2017. The company is now focusing on ensuring that customer data is secure and continuously improving the customer experience. "People's time is their most valuable asset," he adds.

Some companies have had to contend with regulatory restrictions. Equifax has had to use decisioning technologies that make outcomes explainable when it uses AI and machine learning to determine who qualifies for certain financial products, says Koehler. These algorithms now provide reason codes that are attached to any decision, so customers can understand how a particular decision was reached and companies can better comply with financial regulations.

End-to-End Data Visibility

Sharing information about customers more widely, but securely, throughout the organization is paramount. Important data points cannot be trapped in a single department. The best customer relationship management systems are actually designed to make it easy for employees to access and utilize customer data. Making data seamless can make the organization as a whole more productive, while automation can eliminate tasks that had previously been done manually.

As technology is used more and more to achieve outstanding CX and facilitate information sharing, however, other risks have arrived. One risk, given the use and movement of data, is security in general and cyber attacks in particular. So, ensuring that customer data is safe and secure has become a CX priority. Having suffered from a cyber attack, Equifax is now creating a customer-driven platform that will include security as a big part of its automated solution. The company's engineering team also has tried to create transparency within the organization by sharing best and worst practices when it comes to the use of customer data so that the entire organization can learn from the breach.

The attempt at more end-to-end visibility of data in pursuit of better CX has created a different kind of risk, namely whether approaches to more-personalized interaction with customers are, indeed, working. Quantifying CX, especially when it comes to personalization, is difficult. NPS is frequently used to evaluate CX. The metric consists of a single question—namely, on a scale of zero to 10, how likely are you to recommend our company? It is sometimes asked by a cashier or via an email, phone call, or pop-up window on a website. Respondents who rate the company a nine or 10 are promoters, meaning it is assumed that they will say positive things about the company. Respondents who rate the company a seven or eight are considered passive, while respondents answering between zero and six are considered detractors, meaning it is assumed that they are likely to say

> **"We're big believers in Net Promoter Scores. If a customer recommends the company, the company is meeting or exceeding customer expectations," says Jim Lyski, chief marketing officer at CarMax.**

negative things about the company. The metric was initially published in *Harvard Business Review* in December 2003 and has grown in prominence since then. The metric is widely used by many large corporations as a simple way to evaluate consumer sentiment.

"We're big believers in Net Promoter Scores. If a customer recommends the company, the company is meeting or exceeding customer expectations," says CarMax's Lyski. Nevertheless, both he and Shamim Mohammad, CarMax's senior vice president and chief information and technology officer, note that NPS scores are not granular enough to identify critical points of a customer experience, such as the effort it takes to get to the next stage of a transaction. For that level of detail, more granular metrics are needed.

Not surprisingly, skepticism about the metric has increased. *Harvard Business Review* in its October 2019 issue published an article, "Where Net Promoter Scores Go Wrong," an article highlighting the fact that the score is very broad and can fail to explain what specifically a customer liked or disliked about their experience. The article likens NPS to a compass rather than a topographical map and notes that many companies often struggle to understand the scores and align them with their own customer data.

NPS is flawed in other ways, too. For example, the article points out, someone can be both a promoter and a detractor of the same company, depending on who they are speaking with—say, a friend or an elderly parent. Customers who would promote some of a company's products may criticize its other products. *The Wall Street Journal* has also pointed out that academic studies have shown that Net Promoter Scores don't predict customer behavior or explain it.

In short, many experts agree that the industry needs better ways to capture CX. "NPS is a very broad measure," says AT&T's Alapati, adding, "It's not the be-all and end-all, and the company needs to intentionally develop, instrument, and track metrics that better reflect how customers interact with the company."

It may be worthwhile to take a more direct, quantifiable approach by asking customers how CX can be improved. One method for gathering such assessments is via digital surveys that can tap into the minds of hundreds or even thousands of customers. What makes this approach so crucial is that the insights organizations receive from customers about their experiences are often very surprising, says

Dr. Hank Capps, chief information and digital officer at Wellstar Health Systems.

Capps, while practicing medicine full time, learned a valuable lesson. The practice had always made sure to accommodate any patient who wanted to be seen, he explains, but ultimately that policy led to long waits. On a particularly busy day, he asked a patient if they would prefer to wait for more than an hour or come back the next day. To his surprise, the patient happily chose to return the next day.

Since then, Capps has used mechanisms like digital survey tools to collect patient preferences more directly. When he was working as the chief digital health and engagement officer at Novant Health, Capps tried to improve the waiting room experience, and a digital survey revealed that the thing respondents wanted most was Wi-Fi. Particularly surprising to the team about this finding was the fact that all of Novant's waiting rooms already had Wi-Fi, making the team realize that signs in those rooms asked people not to use their cell phones. The signs were replaced with ones highlighting the fact that these waiting rooms did have Wi-Fi and patients were more than welcome to use the Wi-Fi while waiting for their appointment.

"We often receive different insight than we expect," Capps says, adding that it is often vital to ask customers questions and find the common thread in their answers. "You really need to ask people what they want and ensure you deliver upon it."

Engaging a Customer Means Knowing Their Data

Before companies can quantify CX, however, they need to know what their customers want in an experience. Data analytics, AI, and machine learning help companies make sense of customer data, whether it's from the internet, social media, or credit agencies, among other sources, and use that information to personalize and improve CX.

CarMax uses a variety of data to customize its online experience and to highlight what cars customers are most interested in. The company uses AI and machine learning to spot individual customer preferences to create a tailored experience. "We use data on customers' historical journey to our site," says Mohammad. By using artificial intelligence, machine learning, and data analytics, CarMax collects lots

of pieces of data, analyzes them, and then creates a direct customer response. Searches on Google or Facebook, for example, can point to vehicles that have piqued a certain customer's interest. The company also looks at whether that person has ever bought or sold a car or had one appraised.

"We typically have over 50,000 cars," says Mohammad about CarMax's available inventory. "We use this data to help narrow down the selection, so the customer can find what they are looking for almost immediately." He adds that as customers use the website, CarMax customizes the experience even more.

Customers can customize their digital experience based on their geographic location as well as content they previously consumed. So, if someone looked at pickup trucks the last time they visited CarMax's website, the company can make sure the consumer sees pickup trucks during their next visit. The company also offers the ability to set alerts for certain types of cars.

Looking carefully at customer behavior can also help a company anticipate customer needs. For example, customers may be unaware that certain products or services are better suited to their needs. AT&T uses AI and machine learning to predict customers' needs, which, among other things, can mean offering new data plans before customers incur overage fees, says Alapati.

"Customer empathy is really at the core of what is needed to make customer experiences better," he says. "By understanding how customers use products and services, it is possible to tailor interactions to individual customers and make each interaction relevant."

Similarly, for Timmeny, the former Citigroup IT executive, the goal is to help customers utilize their products in the best way possible. So, for example, if a customer in Mexico is paying rent online manually every month, the financial services firm's goal is to offer that customer a global account where the customer can automate transfers and set up a recurring rent payment.

"A customer may not know this option is possible," he says, adding that it's critical for companies to use AI and machine learning to pick up on these types of patterns and redirect customers to more advantageous services where their interactions with the company are recurring, automatic, and frictionless.

Using Technology to Complete Customer Objectives

Getting customer feedback and showing it will be acted upon is important for organizations as they attempt to reduce friction between what customers want and their ability to get it.

"Customers tend to take the easiest path," says Timmeny. For example, if customers easily transfer money on their

> Getting customer feedback and showing it will be acted upon is important for organizations as they attempt to reduce friction between what customers want and their ability to get it.

phone but are stymied on the website (frequently abandoning a transfer before the transaction is complete), companies should know that it is a pain point. AI and machine learning can be used not only to alert the company to the problem, but also detect whether it's part of a larger pattern. Companies can then adapt their business so that their CX is seamless across all channels.

Personalization needs to feel seamless. Advertising a promotion when a customer is trying to solve a problem, for example, could frustrate customers. Companies need to help customers achieve their objectives easily without adding any interference. The antithesis of this goal would be customers calling for help and having to waste listening to an automated program that doesn't address their needs.

In fact, if companies make it harder, not easier, for customers to get what they want, it can damage the customer relationship and hurt the company in the long term, says Infineon's Leitner. Technological attempts at personalization on websites, like pop-up windows or chat bots, can backfire on organizations if they are poorly designed or are used in place of well-conceived content that helps customers understand the product or service.

Preferred Modes of Communication

Understanding a customer's preferred mode of communication is also critical. Covid-19 has changed the world, often making digital channels the best way to reach customers.

Lincoln Financial Group, for instance, uses AI and machine learning to look at its customers' interactions with the company to determine whether they're more likely to pick up the phone or log in to a website or app. That information makes it easier for the company to determine the best way to communicate with each and every customer.

> "Sometimes systems are not designed for internal users, and as a result, these systems can be difficult for employees to fully embrace and leverage. That, in turn, makes it challenging for employees to provide a good CX," says Shamim Mohammad, senior vice president and chief information and technology officer at CarMax.

"We try to meet them where they want to be met, whether that's digital, web, mobile, or even the mail," says Lincoln Financial Group's Solon, adding that modes of communication may not be a zero-sum game and should involve multiple channels. Sometimes, he says, customers want the option of communicating digitally and with a person, too, depending on their specific need.

One area that Lincoln Financial Group uses multiple forms of communication with customers is for its retirement products. The company's high-tech, high-touch model uses digital nudges to encourage customers to save more for retirement, but it also provides access to retirement consultants if employees have further questions about their retirement savings plans. For its insurance products on its website, customers can query a chat bot called Ask Abe, which combines natural language capabilities and machine learning to listen and respond to customer requests. Customers can also contact a call center or reach out to an insurance agent or a financial professional.

The key, says Timmeny, is really knowing your customers and being able to identify preferences that make it easier to engage with them. A Millennial may only want to receive a text, while older customers may want alternative forms of communication. Understanding these preferences is key.

Delivering a Consistent CX

To deliver a consistent CX to customers, data must be shared in a seamless manner throughout the organization. That goal can be difficult to achieve because many times information exists in silos and is not shared within departments. These technologies make it easier to share information between groups, enabling one part of the organization to pick up where another part leaves off so that the CX feels cohesive throughout a customer's entire journey.

CarMax's website, for example, enables customers to seek approval for financing. This capability is available to everyone interacting with the customer, whether they are in the call center or on the sales floor. "Our associates have real-time access to what's been done and the next best options," says Mohammad. This direct access could involve seeing the car a customer searched for on the website as well as a similar model that may be available on a showroom floor. In fact, CarMax's internal system is designed to be easy to use for employees so that they are not frustrated and can easily help customers.

"We build our systems with users in mind, to optimize the experience for both associates and customers," Mohammad says. "Sometimes systems are not designed for internal users, and as a result, these systems can be difficult for employees to fully embrace and leverage. But we are constantly striving to create a center of excellence for the user experience."

During the pandemic, many companies have had to share information seamlessly across their organizations, says Wellstar's Capps. CX in the health care industry, for example, is increasingly virtual—in-person doctor visits have given way to exams over Zoom, curbside tests, and remote monitoring via a new array of devices. "A health care provider may be assimilating information while never being in front of the patient for the entire exchange," adds Capps. He believes some of these changes are likely to be permanent.

Finding Ways to Measure CX

Given some of the underlying problems with Net Promoter Scores, some companies are looking for alternative metrics to measure CX. **FIGURE 1** One way that companies have sought to measure customer experience is by looking closely at narrower metrics to see how successful customers are at completing a particular task. That approach means asking questions, such as: What level of friction did they face? How many interactions did it take to accomplish that task? Did a customer have to make repeated calls or log in multiple times? Were human interactions courteous? "Without this next set of insights, it's very difficult to act to improve CX," says Alapati.

Looking at how customers engage with and use products is critical for this next level of insight. For Timmeny, this means using streamlined data so that AI and machine learning can detect and measure pain points such as frequency of abandoned transactions, number of calls to customer service, or percentage of customers performing tasks manually rather than automatically. Timmeny says that for banking, a good CX often means that customer interactions are recurring

and repetitive and require minimal effort from customers. "A call to customer service is really a failure on our end," he says, explaining that a customer call means that all digital channels—web, mobile, ATM—have failed.

Another important metric that reflects a good CX is customer retention. Acquiring new customers and measuring the endurance or persistence of that relationship is a critical indicator of customer experience, Solon asserts. For companies like Lincoln Financial Group that sell products

designed to serve customers over a lifetime, the goal is for the relationship to last for decades, he notes. But retention is more than longevity or what percentage of customers are retained. Take life insurance as an example. Customers usually buy life insurance once and then the transaction is done. The goal then becomes not only retaining the customer but also increasing and then measuring customer engagement—measuring, for instance, if a customer has updated their life insurance policy when their life circumstances have changed, perhaps if they

FIGURE 1

The Quest to Quantify Customer Experience Continues

Organizations have their own methods, but executives ponder others.

Name	Industry	What is CX?	How do you measure CX?	Where is CX quantification going?
Andreas Leitner Senior Director of Datacenter Services, Infineon Technologies IT-Services GmbH	TECHNOLOGY	Building a relationship	Asking open-ended questions	Increasing focus on high-quality interactions
Shamim Mohammad Senior Vice President and Chief Information and Technology Officer, CarMax	AUTOMOTIVE RETAIL	Convenience and seamless, personalized experiences	Net Promoter Score	Measuring customer confidence and trust
Bryson Koehler CTO, Equifax	FINANCIAL SERVICES	Putting the customer first	Number of customers co-developing	Measuring customer ability to self-service
Satish Alapati Former Vice President and Chief Information Officer, Customer Experience Unit, AT&T	TELECOMMUNICATIONS	Empathy for the customer	Tracking task accomplishment, product usage, and customer delight	Measuring social media traction
Ken Solon Chief Information Officer and Head of Digital, Lincoln Financial Group	FINANCIAL SERVICES	Proactivity	Measuring digital tool adoption, such as registered users and customer interactions	Iteratively tracking customers' ability to start and finish a task
Jim Lyski Chief Marketing Officer, CarMax	AUTOMOTIVE RETAIL	Delivering the pleasant surprise of exceeding customer's unique expectations	Net Promoter Score	Measuring transaction speed against a set goal
Dr. Hank Capps Chief Information and Digital Officer, Wellstar Health Systems	HEALTH CARE	Community voice	Digital surveys	Incorporating customer feedback
Brian Timmeny Former CIO/CTO, engineering, architecture, quality, next generation applications, Citigroup Inc./Grupo Financiero Banamex	FINANCIAL SERVICES	Digital customer engagement	Measuring how customers use digital products and services	Greater personalization

Every company now has to think about how to provide a stellar CX that makes use of new capabilities, like AI, real-time data, and cloud technologies, to provide a personal experience for each and every customer.

had another child or are now working in a much more lucrative job. Promoting and measuring these types of interactions then becomes critical, as does understanding how these metrics, in turn, translate into customer retention.

A third measure is reciprocity, which evaluates CX by looking at what both parties are contributing to the relationship. Companies should always be improving their services and giving their customers more as time goes on, the reasoning behind reciprocity goes. Ideally, there should be a reciprocal value exchange with both sides increasingly giving more over time, says Koehler. "We're in the data business," he says of Equifax. "Customers bring us data and we combine it with our assets [data]. How much data they are bringing in and how much data they are consuming are critical metrics. We want to see customer data usage continuously increasing."

Then there's an evaluative tool that Capps simply describes as "community voice." The idea here is less about quantifying in the form of statistics and more about aggregating thousands of customer responses about what they want their experience to look like and finding common threads. In other words, the approach involves an open-ended question or an invitation to better understand customers' experiences from their own perspective. "We love comments that point to key components of the business," Capps says, adding that these comments can be used to meaningfully improve CX.

Conclusion

The effort to quantify CX is critically important and will only become more so. During the pandemic, interactions that were once in person became, by necessity, digital, with organizations accelerating technical transformations enterprise-wide. Given the added efficiencies, a digital CX is unlikely to fade away, even after the pandemic is over. Every company now has to think about how to provide a stellar CX that makes use of new capabilities, like AI, real-time data, and cloud technologies, to provide a personal experience for each and every customer. Companies also need to think creatively about metrics when it comes to measuring and evaluating their CX, as well as how they can provide insights about how organizations can optimize and innovate the customer experience.

The mandate for more personalization demands a more efficient use of customer data. There's also a more acute need for metrics that measure the effectiveness of every customer interaction from the beginning to end of the customer journey and at all points along the way. NPS is no longer satisfactory in this role. Organizations that want to unlock the true value of their personalization efforts must explore new metrics and methods for quantifying customer satisfaction.

In the end, evaluating CX may require using more than one numerical measure or, as Capps talks about, finding common threads in customer answers to thoughtful questions. In any event, the quest for exceptional CX doesn't just end with a more personalized experience for the customer or a continuous dialogue to nurture brand loyalty. The journey to improve CX continues. By continuously quantifying the quality of each interaction, an organization can strive for higher CX scores and, with it, the ability to keep growing revenues and bolstering customer loyalty.

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ANALYTIC SERVICES