

Energy & Utility Practice

Enhancing the Utility Customer Experience: A Digital Framework

To deliver a mature digital customer experience, energy and utility companies need a strategic roadmap and strong platform that keeps customers loyal, happy and engaged. Here's how to get started.

Executive Summary

Following widespread industry deregulation, the utilities business has become increasingly competitive. As the regulatory environment pushes this industry toward greater transparency, increased efficiency and the adoption of smart grid technologies, many players are attempting to strike a balance between profitability and customer experience transformation.

As balance sheet pressures rise from both cost and revenue perspectives, utilities are pursuing alternative strategies to improve their bottom lines. One means of doing so is to identify and control customer churn

and more efficiently manage new means of market expansion. This could be by improving operational efficiency or by bringing in new customers within the same geography – or a mix of both. Building a modern digital ecosystem is critical to attracting new customers and expanding the overall customer base.

A digital ecosystem is an interdependent group of enterprises, people and/or things that share standardized digital platforms for a mutually beneficial purpose – such as commercial gain, innovation or other common interests. Digital ecosystems enable participants to

interact with customers, partners, adjacent industries – even the competition. Several players across industries have taken the initiative to create “best-in-class” customer experience transformation frameworks drawing from each other’s experiences. Customer journeys are being designed to keep the end user at the center.

Thus far, most utility players haven’t fully captured the benefits of a digital ecosystem to engage their customers’ interactions. One way for them to move forward is to join hands with leading digital services providers with experience helping consumer-facing companies across industries deliver hyperpersonalized, omnichannel digital

experiences that anticipate customer needs and desires for superior cost savings and empowerment.

This white paper offers a viable, unique framework that addresses the needs of both utilities and their end users. The framework helps utility players assess their customer experience maturity; it also offers guidance on how to set up a strategic roadmap to become a mature digital customer experience provider. Additionally, the paper provides insights on user experience management from multiple perspectives – customer, utility and third-party intermediary – and identifies critical drivers for a successful digital ecosystem.



Understanding the utility customer lifecycle and its various touchpoints

By a rough estimate, in the utility retail space the average customer acquisition cost is high, retention cost is low (perhaps a third as much), while the opportunity costs of customer loss can range very high (at least several times the acquisition cost). This highlights the importance of ensuring customer stickiness. As markets get more and more deregulated, customers will get more demanding. In addition, research shows that customer service is a critical factor driving customer loyalty to a brand – and this holds true in the utilities industry as it does for every other field.

Among the many benchmarks across industries for best-in-class digital customer experience, mobility ranks high. In the banking industry, for example, mobile banking has transformed the customer experience, with many users absolutely loving the use of smartphones to carry out critical banking activities on the go. Retail, airlines and many other industries are now meeting customers at the channels of their choice. Utilities must also adapt to ensure a seamless digital customer experience within their business processes in a cost-effective manner yielding maximum end-user impact.

What players need to realize is that though the idea of going digital sounds very appealing, achieving it presents a plethora of options. Merely buying attractive off-the-shelf products without a clear and personalized strategy can spell doom.

Hence, utilities must move forward strategically to build an economically feasible digital customer experience. A key strategic element is to focus on solutions that provide significant value in resolving customers' pain points.

To offer truly customer-centric service, utility providers must track key customer preferences such as channel of communication and mode of payment. They also need a single view of all customers across all channels in their system to ensure consistency and to provide customers choices and flexibility. Only once a utility has thoroughly analyzed customer journeys, segmentation and personalized communication can it effectively create and frame a digital customer experience strategy.

As a foundation, utility players must understand the complete customer lifecycle with its associated touchpoints. It is useful to break down the lifecycle into the following sequence:

- Preenrollment stage.
- Enrollment stage.
- Post-enrollment stage.
- After-sales service.

Only once a utility has thoroughly analyzed customer journeys, segmentation and personalized communication can it effectively create and frame a digital customer experience strategy.

Figure 1 displays the utility customer experience landscape, showing the key customer journeys and associated touchpoints throughout the four stages. An effective customer experience management (CXM) digital strategy will not attempt to address individual touchpoints but instead focus on a holistic picture of the entire landscape. The goal is to make sure the utility player can meet customers’ needs and resolve their queries at their communication channel of choice – delighting them with a simple but thorough process. For example, utility players often tend to focus on individual customer touchpoints, such as the payment of the

bill, and not look holistically at the utility customer’s journey, which in this case is Consume & Pay (see Figure 1). If the attention paid to the touchpoint includes rethinking and redesigning the customer experience, that could create inconsistencies for consumers in what they expect from their utility providers. This in turn might cause them to lose faith in their provider. In our opinion, utility providers are always better off rethinking the customer journey as a whole, for a true customer experience transformation, rather than focusing on transforming individual touchpoints.

Stages, journeys and touchpoints of digital customer experience

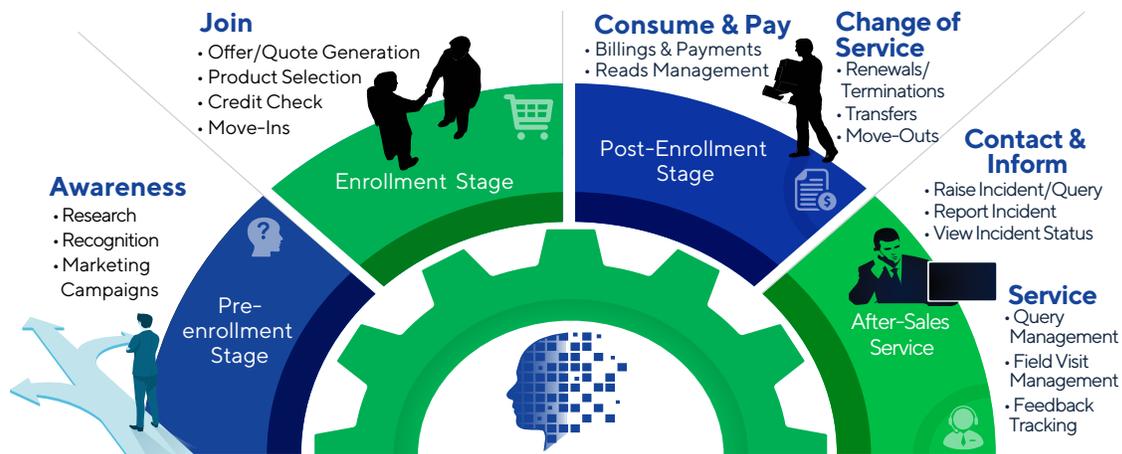


Figure 1

A framework for defining superior customer experience

Figure 2 (next page) presents a framework that allows utility players to assess their digital-customer-experience maturity.

Omnichannel customer experience

Omnichannel is the quintessential element of customer service throughout many industries, including utilities. With the advent of new technologies in the space of IoT, big data and changing business models accompanied by the

gradual shift in customer needs, it has become imperative for utilities to align with changing industry dynamics. Nowadays, customers want to interact with their utility via multiple channels and want more control over how they are contacted. Thus, it is crucial for utilities to offer omnichannel customer service delivery.

The essential elements for delivering a consistently satisfying omnichannel customer experience are depicted in Figure 3 (next page), from four different perspectives.

Elements of exceptional digital customer experience

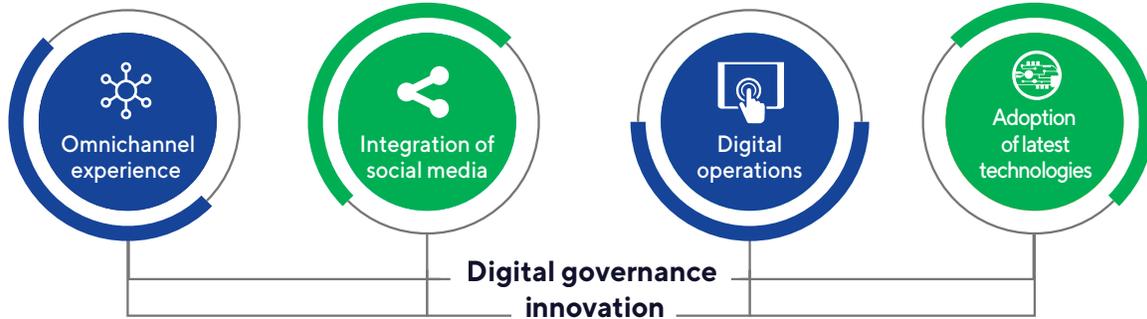


Figure 2

By understanding the needs of each stakeholder in the customer service ecosystem, a utility can bring all stakeholders together and develop an omnichannel strategy that proactively identifies and meets customer needs holistically. By doing this, a utility will both capitalize on an opportunity to differentiate itself in an increasingly competitive market and also foster positive change for the industry as a whole.

To begin, utilities must tackle the essential task for providing omnichannel customer experience – integrating all customer-facing channels that

operate in silos. This is crucial both to provide a seamless customer experience and also to yield value for internal stakeholders.

Utilities also should focus on internal capabilities, the transactional environment and the practices in place to alleviate the affiliated risks to achieve the overall strategic objectives of the organization.

(To better understand how a utility can transform and overhaul its operations, please read “[Regional Utility Reboots Customer Satisfaction by Reshaping the Digital Customer Experience.](#)”)

The multiple drivers & benefits of omnichannel digital customer experience



Figure 3

The technological anatomy of consistent omnichannel delivery

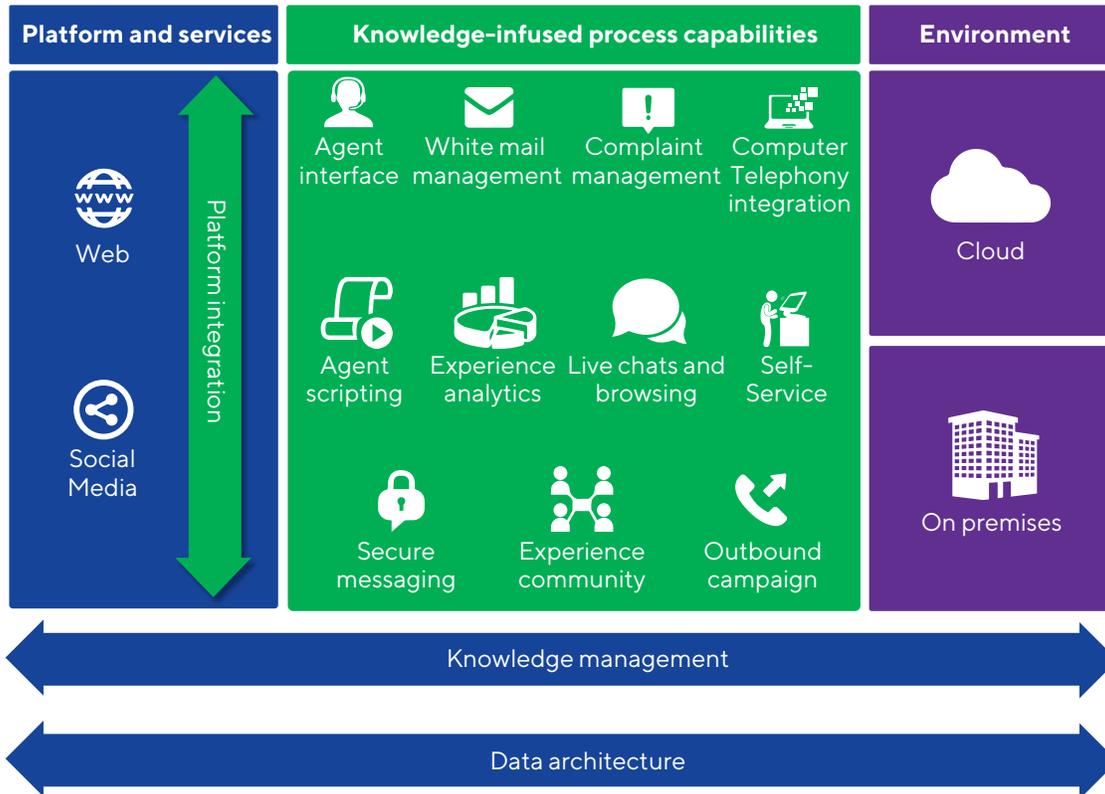


Figure 4

To implement an omnichannel strategy, the organization should first understand customer expectations across digital channels. It should focus on identifying those channels that are most useful to its current customers and which may be valuable to prospective customers. Organizations must ensure that all channels have a consistent integration with support systems across the business landscape, thus enabling a seamless end-user experience. In addition, the organization should evaluate the need for cloud and on-premises solutions that may be crucial to realize the full extent of operational benefits.

Integration of social media

The ever-increasing scope of social media penetration worldwide² provides an opportunity to utilities to leverage its power to engage customers and provide a better customer experience. The current situation suggests the old adage, “love it or hate it, you cannot ignore it.” Utilities must adopt a comprehensive, customized and flexible social media integration strategy to facilitate a smooth digital customer experience.

Elements of a social media strategy

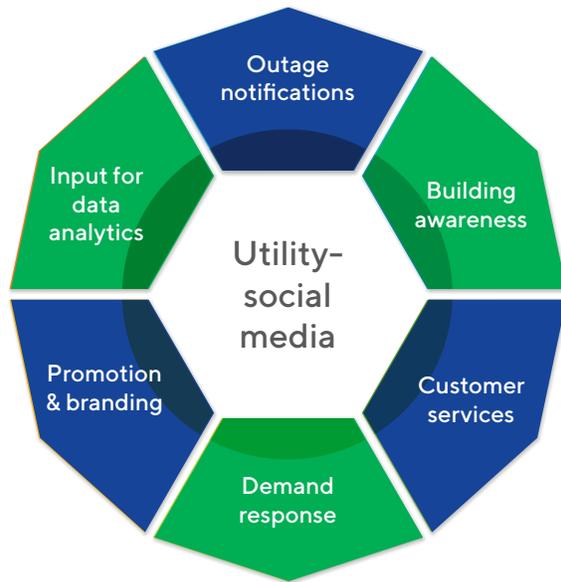


Figure 5

For utilities, a comprehensive social media strategy plan comprises the elements laid out in Figure 5.

For a more detailed understanding of building a comprehensive social media strategy, please read [“Social Media for Utilities: Developing a Satisfying Customer Experience.”](#) That white paper provides a detailed social media listening framework and offers inputs for some basic analytics-driven outputs that can be extracted using social media.

Digital operations

In a digital world, decision-making at every operational step is backed by data. Utilities managers rely heavily on numbers when planning everything from smart meter implementations to software upgrades of smart assets to providing usage-based tariffs. Digitization has introduced new dimensions of reporting on and analyzing data on which to base decisions. Data has fundamentally changed the way decision-making is approached, and utilities cannot afford to lag.

Digital operations in utilities requires a new type of day-to-day operations in which the technology products used at various stages of the overall process are not only self-learning but also able to analyze and reproduce insights. For example, smart meter users need the meter to suggest the times of day when it would be cheapest to use an electric appliance. To lead with the best technology, utilities will need to look beyond traditional IT solutions. Products developed with built-in analytics can help utilities learn how to do things better.

Traditional blanket solution products often fall short in terms of providing personalized insights to the customer. Going forward, utility players will be better off with customized solutions. This means solutions must be able to adapt to individual relevant business processes, as well as define an evolutionary customer experience (e.g., including machine learning and IoT, in key areas that not only significantly augment the end-user experience but also boost operational efficiency).

In the utilities sector, changes shaped by operations digitization can be seen in the following key areas:

- Asset management.
- Daily operations.
- Upstream and downstream operations.
- Product innovation and development.

Utilities need to ensure that they build a detailed understanding of the entire landscape of solutions covering these areas.

The core of digital strategies will always remain customer-centric (i.e., ensuring customers stay connected by understanding their individual voices and by offering customer-ready products and services). By using very similar principles, utilities can build a comprehensive “core operations” digital strategy that advances their customer experience objectives. Sensors, data integration platforms, communications equipment, etc. can form the technology backbone of such a digital operation (see Figures 6 and 7, next page).

Illustrative use case: A connected framework for a water company

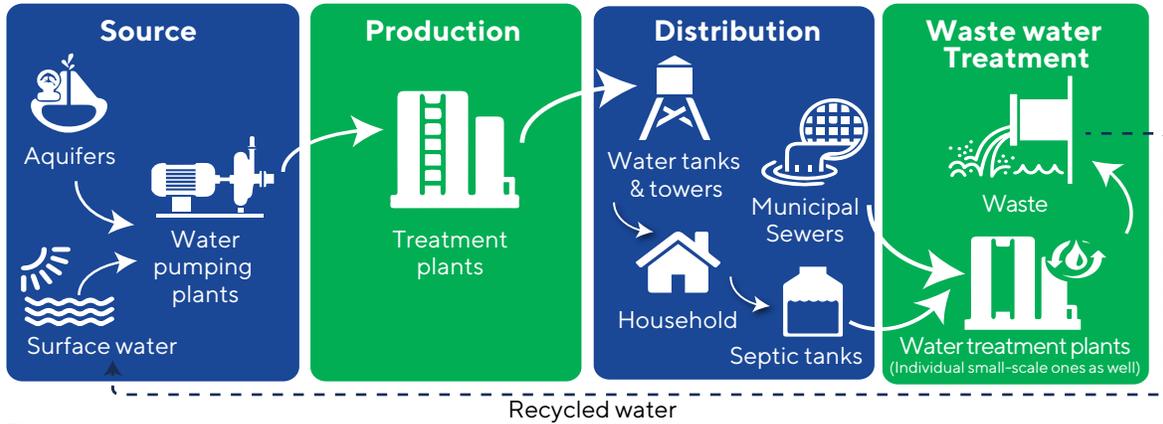


Figure 6

Figure 6 illustrates an end-to-end water company operations landscape, but the same principles hold true for all utility companies as all of their operations can broadly be classified into four stages, namely source (gathering and processing), production, distribution and transmission, and post-treatment. There is scope for using digital to enhance operations at every stage of your company's operations.

Figure 7 defines the process to best capture data across various stages of operations. Digital operations for a utility player can basically be

summed up as connected assets, people and processes. Some of its benefits are that it will ensure process efficiency, waste elimination, reliability/flexibility in business processes and operational competitive advantage. These qualities in turn will lead to revenue growth, innovative products and enhanced customer intimacy. Digital data capture should happen across the value chain, guided by a digital factory engine that will act as an independent group while analyzing, executing and optimizing the data. To ensure objective data analysis, data handling should not be done by individual departments.

Digital operations: A functional/activity level view

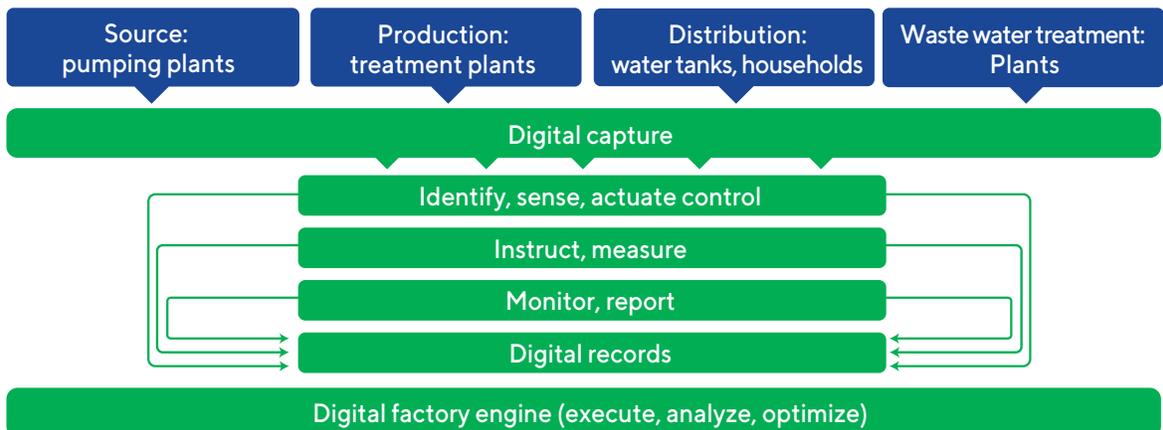


Figure 7

As mentioned earlier, as decision-making in the utility business gets more and more data-backed, digital operations will increase its footprint across players. All players are keen to capture critical performance indicators at every stage of the value chain. An effective IoT strategy implementation will have to include space for outside-the-box thinking to capture information from strategic areas to best ensure a smooth operation that is able to continually evolve and remove redundancies as more data inputs come in.

Utilities must respond rapidly to the pressures created by the trends in Figure 8 that are changing the utility business landscape. Let's consider the boom in the electric vehicle (EV) market. The growing number of electric vehicles provides a great opportunity to the utility companies to make the electric grid more flexible to demand and supply. If the utilities fail to prepare for such a growth in EV, it could leave them "flat-footed" when the new load associated with EVs materializes.

Adoption of the latest technologies

The utility industry has historically been viewed as conservative and slow to adopt leading technologies and solutions. However, this is rapidly changing. Today, we see utility companies adopting highly capable smart grid solutions, leveraging innovative customer-facing solutions built on Internet of Things (IoT) constructs and experimenting with data analytics capabilities at the network's edge.

Figure 8 highlights industry trends that make it imperative for utility companies to adopt and align with the latest technologies.

Digital governance: horizontal

The utility industry is undergoing a paradigm shift. While this is providing a multitude of opportunities to incorporate fundamental changes, it is also significantly increasing risks at all levels of the business. As stated before, new opportunities to reinvent business models and transform customer interactions are on the rise. Hence it becomes necessary for utility players to embrace a governance model that focuses on establishing clear accountability at all stages for digital strategy, policy and standards.

Industry trends on the bleeding edge

 <p>New age energy consumer</p>	<ul style="list-style-type: none"> • Flexibility to change suppliers due to market deregulation. • Customer experience driven by other entities like Amazon, Uber, etc. 	<ul style="list-style-type: none"> • Adoption of digital platform (mobile, social, etc.). • DER enabling shift from consumers to prosumers.
 <p>New energy marketplace</p>	<ul style="list-style-type: none"> • Proliferation of prosumers in the utility market. • Demand for micromarkets is rising. 	<ul style="list-style-type: none"> • Sharing of assets owned and operated by utility. • New reliability and quality compliance requirements.
 <p>Energy consumerization</p>	<ul style="list-style-type: none"> • Products and offerings by new market entrants like Google Nest and Tesla's Powerwall. 	<ul style="list-style-type: none"> • Distributed energy resources (rooftop solar panels, small wind turbines, etc.).
 <p>Asset-intensive model</p>	<ul style="list-style-type: none"> • Focus on asset lifecycle and value. • Adopt IT-OT integration models. 	<ul style="list-style-type: none"> • Leverage analytics to enhance asset life. • Deal with cyber-threat risks.
 <p>Emergence of Smart workforce</p>	<ul style="list-style-type: none"> • Improve situational awareness. • Develop better asset diagnostics capabilities. 	<ul style="list-style-type: none"> • Increase collaboration and coordination among field teams.

Figure 8

In delivering a superior customer experience, digital governance is a crucial discipline. It can aid in effective management and control of digital assets such as social media, mobile, cloud, analytics, IoT, etc. and help the customer experience team to prioritize improvements. With a proper governance model in place, utilities can better coordinate and align digital initiatives with business strategies and objectives. This can reduce unacceptable business

risks and at the same time provide measures to tackle unexpected issues that may arise with digital deployments.⁴

Figure 9 lays out the components of an effective governance model that will help to ensure digital initiatives succeed by advancing the strategic goals of the organization.

The key components of digital governance



Figure 9

Centralized governance recognizes that the fast pace of digital requires a separate steering team along with an independent execution team. Decentralized governance recognizes that digital must be completely integrated into the organization’s existing structures and processes.



I Effective governance approach: There are two approaches to digital governance: centralized and decentralized. Centralized governance recognizes that the fast pace of digital requires a separate steering team along with an independent execution team. Decentralized governance recognizes that digital must be completely integrated into the organization's existing structures and processes. Both approaches are effective and have merit; selecting the approach that makes most sense for a given organization depends on the history, strategy and capabilities of that company.

I Governance committees: Utilities need governance committees that have clearly defined responsibilities and accountability in managing digital presence. Key decision-makers, or executors of predefined initiatives, must be clearly demarcated by the governance committee. For example, a steering committee can prioritize initiatives that needs to be incorporated in an organization's digital landscape while the execution team may take responsibility for their implementation.

I Transparent processes and policies: The governance model will work only if the team clearly grasps how it works and why certain policies and processes have been put in place. Each and every policy and process must be explained by the relevant group (i.e., the CX team and the strategy team) as to their intents and desired outcomes.

I Effective stakeholder communication platform: One of the most important components of a successful customer experience is that every stakeholder in the company has a role to play in delivering a flawless customer experience. The organization should adopt practices that involve coordination, collaboration and education between the various stakeholders and business units involved, to nurture and improve effective customer experiences.

For the digital governance model to work effectively, the team should comprise the right mix of personnel with varied skill sets, and it must be empowered to make the right decisions at the right time. Moreover, it should focus on delivering value to the end user and should be assessed against predefined KPIs, such as cost to serve, process efficiency, customer conversion time, etc.

Innovation: Horizontal

Innovation and customer experience are two sides of the same coin in customer experience design. Service providers like Amazon, Netflix, Google, Uber and many others present information to customers that has been tailored and curated just for them. This enhances customer engagement and experience while also optimizing the utilities' spend.

It is imperative for utility providers to focus on continuous innovation. This will not only help them to originate ideas but also enable them to optimize internal processes – which will result in increased

What utilities customers want?

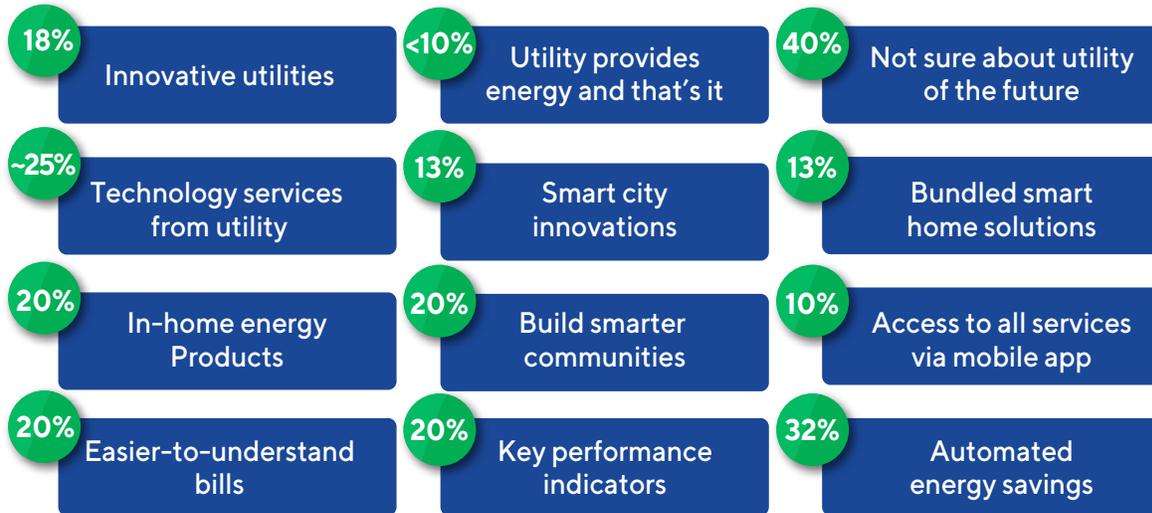


Figure 10

business value for themselves and their customers. Utility customers' expectations are now being influenced by the likes of Amazon, Walmart, etc., companies that are forever redefining the benchmark for superior customer experience. It is natural, therefore, for customers to expect similar user experiences from their utility providers.⁵

Understanding what customers want (see Figure 10) will help utilities to continuously identify ever-changing market needs while prioritizing innovation in "as-is" processes and systems to deliver better customer experience.

For example, innovative approaches such as the use of visual analytics in transmission and distribution functions may help stakeholders make better decisions in planning initiatives that will have positive impact on the customer experience.

However, to ideate innovative practices and assess their applicability and value proposition, there must be a definite approach through which the organization can benefit. Figure 11, next page, offers a closed-loop approach that can help realize value through innovation.

To deliver a superior customer experience via continuous innovation, the utility companies should first understand the source of dissatisfaction of their customer segments. By bringing together insights from customers as well as customer-facing staff, utilities can understand which current processes and touchpoints are burdensome to customers and staff. Utilities can then align and commit themselves to a customer-centric and digital-first culture where everyone works toward the same goals. The alignment should be based on the gaps identified in the as-is state.

A focus on continuous innovation

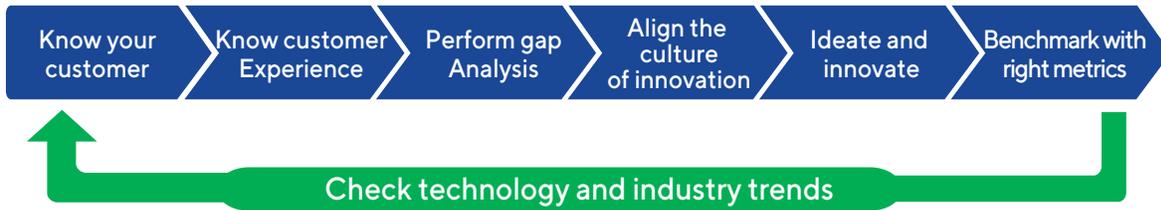


Figure 11

Further, with an innovation-driven culture in place the innovative processes and technologies can be implemented and then assessed for their impact on metrics like a customer satisfaction index, net promoter score, etc. This will help utilities gauge the effectiveness of the implemented innovations.

As technology is changing faster than organizations can adapt to all of it, it's imperative for utilities to prioritize on those trends that make sense to their business landscape. This will ensure that the utility won't burn its revenue just to be ahead in the race of innovation.

Looking Forward

As in all other industries, the utility business landscape will perpetually keep changing. Stakeholders across the spectrum will need to continuously stay ahead of the curve to survive. Digital has not only transformed operational processes but also disrupted the very nature of the utility customer, many of whom have even moved on from being captive buyers to acting as sources of energy production. This curve will advance:

An average customer is now more aware of the possibilities and wants to keep a real-time tab on the management of their energy consumption.

Going forward, these empowered customers will inspire new business models. As consumers turn into prosumers, utility providers will need to ensure they are able to leverage their existing business processes to swiftly accommodate them. A well-defined digital roadmap will lay the foundation for quick adaptability to changing scenarios.

This means creating a strategy with the customer at the center, regardless of the technological and process changes required, because it will arm utilities with the flexibility to adapt to a moving target and keep pace with ever-changing customer demands. Providers will need to pay careful attention to prosumer feedback. This starts with a well-designed social media integration strategy that analyzes customer sentiment and informs action that continuously improves how customers are digitally served and fulfilled at every touchpoint and across all channels.

Endnotes

- ¹ According to a survey conducted by E Source, an independent organisation that provides research and advisory services to utilities and large energy users, 75% of the utility customers interact with their utility using more than one channel. Over half of this figure (56%) believe it's important to have control over how they are contacted; <http://pages.esource.com/Download-Omnichannel-E-Book-CX.html>.
- ² Statista, a leading statistics organization, estimates that by 2019 there will be around 2.77 billion social media users worldwide, up from 2.46 billion in 2017; <https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/>.
- ³ According to 2021 Bloomberg New Energy Finance (BNEF) forecasts, U.S. electric vehicle sales could reach 800,000 annually. Meanwhile the Edison Electric Institute, a utility trade group, estimates that by 2025 the number of zero emission vehicles on U.S. roads could reach 7 million; <https://www.utilitydive.com/news/why-utilities-need-to-respond-now-to-the-ev-boom/506761>.
- ⁴ According to an Ernst & Young report, "Why digital governance matters," as digital becomes pervasive, several specific pressures such as new regulatory requirements, growing cyber risks and perceived digital weakness, are pushing governance up the corporate agenda; [http://www.ey.com/Publication/vwLUAssets/EY-why-digital-governance-matters/\\$FILE/EY-why-digital-governance-matters.pdf](http://www.ey.com/Publication/vwLUAssets/EY-why-digital-governance-matters/$FILE/EY-why-digital-governance-matters.pdf).
- ⁵ According to a study conducted by Smart Energy IP, customers want increased automation, savings and simplicity, the types of offerings now common across retail sectors. But more importantly, they don't currently view electric utilities as innovative; <https://www.utilitydive.com/news/survey-says-customers-want-innovation-how-can-utilities-deliver/429537/>.

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- ¹ www.hughes.in/Brochures/Utility_H44672_110310_HR.pdf.

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