



No going back

**Five disruptive trends reshaping
the utilities sector**

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Introduction

The pace of change is quickening across the utilities sector, driven by new technology and changes in regulation. The impact of new technology is being felt throughout the sector and is far-reaching.

It is empowering customers and reshaping their expectations of what constitutes good or acceptable service. From price comparison sites to the rollout of smart meters, the customer has never had more information, and that knowledge will change the relationships between suppliers and buyers.

Technology is also allowing suppliers to engage more effectively with customers through the use of apps, the web, and social media. Meanwhile, challengers are bringing new business models and often a clearly defined sense of brand identity into the market.

All of this is hugely disruptive to market norms but it's certainly not unique. Over the past twenty years, a diverse range of sectors – from banking and telecoms, through to travel and publishing – have grappled with similar disruptive change.

New business models

The broad lesson of other sectors is that new technology creates opportunities to open up new markets and drive higher revenues. But companies

adapting to the disrupted marketplace will need fresh business models, and perhaps corporate structures, to embrace new tools and partnerships available. A recent study by KPMG in the US illustrated how utilities can now offer a broader range of services to their customers and benefit from new partnerships as a result of new technology.¹

Failing to keep up with the pace of technological change can have a fatal, or at least highly damaging, impact and even the largest of companies can fall victim to rapid market shifts. AOL, which once had the muscle to acquire Time Warner, is no longer a major internet player. Kodak collapsed having not made the right call on digital photography. Nokia and Blackberry fell behind when Apple redefined the smartphone market.

/// Failing to keep up with the pace of technological change can have a fatal or damaging impact ///

In this report we'll be looking at five key trends where technology is disrupting businesses across the utility sector (gas, power and water) and in the wider economy:



In the age of the empowered consumer, we examine the link between **customer experience and improved performance**.



As technology brings down barriers to entry, we look at the **growth of challengers** in disrupted markets and what they offer customers.



Asset-light models are at the heart of the so-called collaborative economy. We'll show how the same principles can be applied to other, more traditional industries.



As analysis techniques grow ever more sophisticated, we consider the opportunities to use data to underpin **dynamic, responsive pricing models**.



And we examine **sector convergence** – the blurring of the distinction between previously unrelated sectors, often enabled by technology – as an unstoppable trend, drawing in competitors from other sectors but also opening pathways to fruitful partnerships.

¹ KPMG – The Changing Landscape of Disruptive Technologies

Customer trust and experience



Ten or fifteen years ago, a CEO hailing impressive annual results would probably cite the quality of the product along with keen pricing as the key factors underpinning success. Today that same executive is more likely to focus on the company's commitment to customer experience.

Customer experience drivers

The emergence of customer experience as the primary competitive battlefield is driven by digital technology. Armed with smartphone, tablet, laptop and PC, today's consumer is used to transacting at any time, and from anywhere. Expectations of service have never been higher. The retail customer wants a choice of delivery times or the option to pick up an item at the nearest store and omni-channel is the name of the game. The bank customer seeks a comparable level of functionality across mobile devices, PCs, ATMs and the branch. Most of us expect service on a 24/7 basis. Utilities businesses are not immune to the impact of the tech-empowered customer and they must respond.

But the growing importance of customer experience can't be attributed solely to the impact of new technology. Companies across a swathe of industrial sectors are finding it more difficult to compete simply on the basis of the quality of a product or its price. Today's customers expect high quality regardless of the supplier. Equally, in markets where customers can compare prices simply by tapping on a smartphone app, price differentials are being eroded.

There is a lot to play for. Customer acquisition and retention is expensive. Businesses that create a positive customer experience can build the loyalty and trust that lead to customer relationships characterised by improved retention rates, reduced price sensitivity, and increased susceptibility to buying more. With the research agency IDC predicting that by 2018 20 percent of energy customers will purchase new energy-related products and services from utilities and their affiliates, utilities need to improve the level of trust their customers place in them if they are to achieve these estimates².

This is not a question of marginal gains. KPMG Nunwood's Customer Experience Excellence Centre ranks UK companies performance in customer experience and companies within the top 100 achieved double the five-year revenue growth of the FTSE100 average. Those companies in the top 10 achieved more than £43 million revenue every year compared to those ranked 11-100. Customer experience feeds directly through to the bottom line³.

// *In the Customer Experience Excellence rankings companies in the top 10 achieved an additional £43 million revenues every year than companies position 11-100.* **//**

² IDC FutureScape – Worldwide Utilities 2016 Predictions

³ KPMG Nunwood – Customer Experience Excellence Centre 2015 UK Analysis

Customer trust and experience



Until relatively recently, the big six energy companies have benefited from customer inertia. As the recent report from the Competition and Markets Authority observed, up to 30% of gas and 40% of electricity customers have not switched suppliers in the last ten years⁴.

But the market is changing, not least in terms of consumer empowerment. Tariffs are still complex, but price comparison sites have made it easier for customers to choose between suppliers. And there are more suppliers to choose from – more than 40 in the domestic market. From “green” or “good” energy suppliers through to bulk players such as Utility Warehouse offering discount club bundles of power, gas and telecoms; new players entering the market are differentiating themselves through their business models and their customer service.

Consumer empowerment is set to take another step forward with the rollout of smart meters, which will give consumers detailed information about their actual energy consumption (as opposed to estimated readings) and the cost of that energy.

Meanwhile, consumers are generating their own power through solar panels and feeding it back into the grid. In the next few years, consumers will also be regulating their energy consumption around the “networked” home through Internet of Things technology.

All of this will only serve to heighten the expectations of business and domestic consumers. Inevitably, empowering technology will reshape the relationship between customers and suppliers. This is creating new options for customers, even if switching remains relatively low in absolute terms at present.

Up to 30% of gas and 40% of electricity customers have not switched suppliers in the last ten years



⁴ Competition and Markets Authority – Energy Market investigation

Customer trust and experience



The trust mountain

Currently, utilities generally score poorly on customer experience. When KPMG Nunwood compared customer experience performance across 272 brands in 2015, the majority were in the bottom 50 and the UK Customer Satisfaction Index (UKCSI) ranked the utility sector the lowest out of 13 industries in 2015⁵.

Ovo Energy are an independent supplier established in 2009 and now holding a 1.8% share of the domestic market. It was the only utility to rank in the KPMG Nunwood top 100 companies, and was also the only utility to appear in the UKCSI top 50 table last year.

KPMG Nunwood has consistently evidenced that, of all areas that constitute customer experience excellence, trust is key, and the first thing that companies must get right. Utilities still face a trust issue and the public perception persists that utilities raise retail prices quickly in response to upward movements in wholesale prices, and lower them very slowly when wholesale prices are falling. Suppliers have been criticised for poor customer service, with rising and inaccurate bills a bone of contention.

The experience of other sectors

Utilities are not alone in this deficit of customer trust. In the wake of the 2008 financial crisis, public confidence in the banking sector plummeted.

But what the financial crisis also revealed was a lack of engagement between banks and their customers. Despite investing billions in online banking and also offering multi-channel businesses embracing branches, ATMs, online/mobile and call centres, the big banks were seen as providing homogenised services that offered little in the way of differentiated customer experience. Challengers are still struggling to overcome customer inertia even with transparency and superior data analytics according to KPMG's annual report on Challenger Banking for 2016.⁶

Despite having invested in customer experience to restore public confidence following the 2008 crisis, the four largest high-street banks - responsible for three-quarters of UK current accounts - are absent from KPMG Nunwood's list of top 100 performers.

Case study

Santander: Focusing on customer experience

Santander, a relatively new entrant to the retail banking market, is a great example of how customer trust is wrapped into brand. The public face of their brand was encapsulated in the "Simple, Personal and Fair" value statement. In practical terms, Santander focused on solving customer problems urgently while also making sure that every customer complaint was responded to with a sincere apology. In addition, the bank introduced customer-focused products, such as the 123 account and more recently a financial management app.

The results are strong. As KPMG Nunwood reported in 2014, about a quarter of people who switched accounts in the previous year made the move to Santander. In the same year, the bank rose 34 places on the KPMG Nunwood Customer Experience table and in the following year climbed another 84 places.

⁵ Business Reporter – UKCSI report ranks utilities the lowest out of 13 industries

⁶ KPMG UK – A new landscape: Challenger banking annual results

Challengers

The early twenty-first century has emerged as the era of the challenger brand. There have always been challengers to the commercial status quo, of course, but one of the most striking features of the last few years has been new companies that are successfully competing for market share with incumbents whose positions might once have been considered unassailable.

In the case of sectors that were once characterised by state-ownership, deregulation has allowed new competitors to enter the market. But that hasn't meant customers are simply presented with "more of the same". Technology is lowering barriers to entry and creating new ways of doing business, and this in turn is creating the new generation of challenger brands to offer something distinct from their longer-established competitors.

Challenger drivers

The emergence of challenger brands in all sectors has to be seen in the context of a revolution in consumer empowerment. In the two decades since e-commerce became a reality via the first browsers, consumers have rapidly adopted each new wave of digital technology, from web-enabled PCs to smartphones and tablets.

This has created an appetite for digitally delivered services that make life easier.

One key advantage that challengers have is their ability to design both backend systems (to manage their businesses) and customer interfaces from scratch, without the compromises that stem from legacy IT. Equally important, they can design and tailor services for specific niches in the market. This gives them an agility – and an ability to respond to changes in customer expectations – that incumbent players often lack.



1 Deregulation creates space for new challengers.



2 New technology is allowing a generation of agile, customer-centric challengers across a broad range of sectors to enter new markets.



3 Challengers are increasing volatility in the utilities marketplace.

Challengers



The experience of other sectors

There is no single playbook for challenger brands entering mature markets dominated by well-established incumbents, but the common factors are clearly differentiated brands and agility.

For instance, in the banking services market we've seen the development of a broad range of business models. Whereas some challengers focus on a niche, others go head-to-head with their incumbent rivals. Those that offer full service may differentiate themselves in other ways – for instance by positioning themselves as an ethical bank in the manner of Triodos, which focuses investment on areas such as renewable energy or organic farming.

It's partly a matter of definition. A newcomer to the UK marketplace, Santander has positioned itself as a challenger, despite also having a parent with a global presence and the capability to offer a full range of banking services through a branch network.

Metro Bank and Virgin Money arguably have a greater claim to newcomer/challenger status, but again they have a high-street presence to compete directly with the big four retail banks. Meanwhile, M&S and Tesco use their retail networks to provide broad banking services, while relying on infrastructure provided by incumbents.

The alternative is to target a niche market. For example, Shawbrook and Aldermore banks focus on the business market.

Challenger banks have not only designed their products for niche markets but are also working with customer-facing IT systems that are built with the Facebook generation in mind (see case study).

It's a situation that is reflected in the utilities sector, where incumbent suppliers face a range of challenger models, including low cost players, ethical (green) players, supermarkets extending their brands while seeking a bigger share of the customer wallet and bundlers that bring together a range of services, including energy and telecoms under one bill.

/// The emergence of challenger brands in all sectors has to be seen in the context of a revolution in consumer empowerment ///

Case study

Atom Bank targets the digital generation

Launched this year, Atom Bank is digital-only targeted directly and exclusively at mobile users. Built on the Unity gaming platform, Atom is aiming to create a new kind of customer experience for a customer base that has grown up with the internet.

To some extent the characteristics of the customer interface are cosmetic in that users can choose their screen colours, select a personalised logo and even give the bank a name of their own choosing. But Atom plans to use voice and picture recognition to identify and authenticate customers. The bank also promises to use machine learning to optimise customer service.

Atom's range of services mirror those of a conventional bank, with current accounts, savings accounts and loans on offer. But the style and user interface couldn't be more different. In the manner of a challenger company, Atom has aimed to differentiate itself from established players by designing a consumer experience from scratch and tailoring it for the Facebook generation.

The asset-light model



Five years ago if you wanted to take a taxi across London, chances are you would have hailed a black cab. All that changed in 2012, when Uber launched in the UK. Many now prefer the convenience of summoning and paying for a car using the Uber phone app.

Founded in 2009, Uber has expanded from its base in San Francisco to become a global company and yet it owns relatively few assets and directly employs only a small number of staff. Instead its back-office IT systems control fleets of self-employed drivers who give rides to customers in their own vehicles. Uber has become the poster child not only for “collaborative” commerce but also for an asset-light approach to doing business.

Technology has allowed Uber to manage distributed assets that it doesn’t own, in the process making more efficient use of cars that already exist.

At first sight, the Uber model doesn’t have much in common with the asset-heavy realities of the utilities industry. From the ships and pipelines that import and bring gas ashore and the power stations that generate electricity through transmission grids to the meters in customers’ properties, the utilities sector is heavy on physical assets. Thus expansion whether by acquisition or by building new capacity needs significant capital expenditure. Players within the sector are looking at models that if not asset-light are “asset-lighter”.

The experience of other sectors

In many sectors, companies that have been traditionally capital intensive are seeing competition from asset-light rivals.

The hotels market is a case in point. Traditionally, large, medium sized and small chains invested heavily in their hotel portfolios. Meanwhile, low-priced end of the market, countless B&Bs and small hotels operated as standalone businesses.

The arrival of Airbnb has radically changed the marketplace. As with Uber, the company has built a global business by using a web and mobile app coupled with a scalable back-office system to aggregate about 1.5 million rooms and holiday homes across nearly 200 countries. The company owns no holiday accommodation, but has created a “hotel” brand without spending on property assets.

Collaborative commerce is also tapping into an emerging social trend that puts much less emphasis on ownership of assets by consumers. For instance, rather than owning a car, many city dwellers prefer to rent a vehicle when they need it through operators such as ZipCar.



Technology-driven asset-light models allow businesses to make better use of existing and underdeployed assets



Asset-heavy companies face challenges from asset-light competitors



Utilities have an opportunity to reduce capital and operational spending by using smaller, decentralised power generation assets

The asset-light model



The experience of other sectors (continued)

Arguably the collaborative economy represents something of a special case in that business models often centre around the aggregation of small, privately owned assets such as cars or holiday rooms. But asset-light principles can be applied in more traditional sectors. For instance, in the hotels industry, brands such as Hilton, Marriott, Hyatt and Starwood have in recent years focused on managing third-party hotel properties and franchising their brands rather than ownership. As such, they have been selling rather than buying hotels while also building their brands.

The emergence of asset-light businesses has also been a feature of the telecoms market, where mobile virtual network operators use infrastructure provided by the likes of O2, Three, EE and Vodafone.

Similar models are already in place in the energy supply market. For instance, Tesco and M&S have teamed up with big six partners to offer gas and power, without any need to buy infrastructure.

The asset-light model is also having an impact on power generation with more small solar, wind and biomass stations, wind and biomass power stations, owned by private individuals feeding energy into the grid. As the grid itself becomes smarter, distributed generation aggregating the output of small units, is set to become increasingly important.

Another utility sector parallel is the development of smart grids which allow more effective use of existing grid capacity thus making more of existing assets. In all of these examples what is clear is that the more decentralised and remotely managed an asset base becomes, the greater reliance there is on technology for an instant response to demand and to underpin a company's ability to service its customers.

The asset-light model



Case study

JustPark disrupts city centre parking market

Motorists taking their cars into the centre of major cities usually gravitate towards the large multi-storey blocks with spaces for thousands of cars. Although the multi-level model means that large numbers of vehicles can be accommodated at the heart of the city, these blocks are expensive to build and maintain. The alternative – one-level parking garages – waste more space, accommodate fewer vehicles and need the operators to buy or rent valuable city centre land.

In this respect, the traditional parking provider is an asset-heavy operator. In the UK that model has been turned on its head by JustPark.

With about 700,000 users and 150,000 spaces on offer, JustPark applies the asset-light principles of the sharing economy to the parking industry by deploying previously unused assets. The concept is simple: anyone with a space that can be used for parking – from a drive in front of a house to a patch of free land – can register with JustPark.

Motorists then use the app to locate the available parking slots that sit closer to their destination. Payment is made during the app-based booking process.

The system is underpinned by not only the app itself but also the scalable technology that allows JustPark to efficiently match motorists with parking suppliers in real time.

Although JustPark won't replace the big parking suppliers, what it can do is give motorists cheaper options and certainty about parking availability ahead of a journey. It is also bringing peripheral assets into play to take the strain off city centre infrastructure.

Big data and pricing

Few businesses are entirely comfortable competing on price alone but the hard truth is that even a company that carefully positions its brand in terms of more comprehensive value proposition faces scrutiny from consumers who compare vendors on Google or a comparison engine before making a purchase.

Witness the phenomenon of the RoBo shopper (research offline/buy online) who tries out products in a store before finding the cheapest supplier and ordering via an app or website. Once that consumer might have had to march around a dozen stores. Today the cheapest price is just a few keystrokes away.

But technology is also empowering vendors. In the utilities sector and beyond, businesses collect vast amounts of data on their customers. Collating and analysing this data helps develop responsive pricing strategies and service offerings that are directly tailored to individual consumers of clearly defined customer groups sharing similar consumption habits.

By using this data responsively, utilities can reward those who, say, use power or gas at certain times of the day and night when demand is lowest. Equally, by putting data in the hands of customers – for example via smart meters – power, gas and water businesses can also raise awareness of the financial implications of wasteful consumption.

Drivers

Businesses in all sectors are collecting increasing amounts of data on customers that can underpin dynamic and responsive pricing strategies.

The arrival of smart meters and Time of Use Tariffs (ToUTs) will generate lots of new data and in theory enable pricing to reflect the balance of supply and demand on the grid during any half-hour period.

Advances in predictive analytics mean that data collected on a customer today gives not only a snapshot of contemporary consumption but also a strong indication of future activity patterns.

Equally important, businesses are applying analytics to the wider market to understand their competitors.

The availability of data not only makes it possible to develop new pricing strategies but also renders it essential. As competition grows in the utilities sector, price will continue to be a key battleground but this battle won't be fought simply on the basis of cost per unit. In an industry that has a reputation for opaque and estimated billing, consumers will be looking for increased transparency, particularly a clearer connection between energy used and the cost as it appears on the bill.

The so-called Internet of Things (IoT) will certainly play a role in enabling value-added services. Smart meters and thermostats are (or will be) connectible to a wider range of household devices, such as fridges, heating systems and battery storage, which will allow the consumer to manage consumption. Utilities can play a part in delivering the "smart home" as part of their service packages.



Companies can collect more customer and market data to apply sophisticated analytics to drive new innovative and pricing strategies



Dynamic and personalised pricing has been piloted in a diverse range of sectors



Smart meters allow new price strategies in the utilities sector

Big data and pricing



The experience of other sectors

Data on customers, the wider market and the supply and demand equation is driving new pricing in a diverse range of sectors.

Online retailers have been among the first to adopt dynamic pricing, with offers to individual customers based on an analysis of their browsing. And software programmes such as Freshplum and LivePerson analyse behaviour and allow online retailers to make “special offers” to customers who look likely to leave a site without buying.

This can be controversial. For instance, Delta Airlines charged new customers who logged on to its site to book a flight much more than if they were identifiable as frequent flyers. Travel site Orbitz quoted higher prices to Mac users on the grounds that they were likely to be more affluent than PC owners. Perhaps unsurprisingly, Amazon has pioneered data-led dynamic pricing. By monitoring the prices charged by those selling through its marketplaces, it adjusts its own prices.

Time or demand-led pricing is also common. For instance, Uber’s system calculates demand against the availability of drivers and moves prices accordingly.

Data-led pricing might be invisible to the customer but equally it can be positioned as a transparent and positive benefit. For instance, insurance company Aviva is inviting customers to take advantage of a smartphone app designed to measure the driving ability of the user. Safe drivers are rewarded with cheaper car insurance.

// The availability of data not only make it possible to develop new pricing strategies, but renders it essential. //

Case study

Airbnb exploits dynamic pricing

Airbnb’s model has undoubtedly disrupted the hotel and holiday rental markets, connecting people, their properties and accommodation needs in a much more direct way than large hotel chains can.

Less well known is the pricing algorithm underpinning how charges are calculated. Those who register their property for rental with Airbnb can either set their own price, or allow Airbnb to calculate prices for them dynamically.

The algorithm takes into account many external factors including those that change quickly, as well as those that have an effect over time or are more predictable.

Factors such as supply (availability of accommodation) and demand (rate of occupancy) in the same area as each property are taken into account on a dynamic basis. Slower moving changes such as seasonality are also considered. “Customer service” is a contributing factor – the price a property can command is partly dictated by reviews of their experience by previous guests.

But it’s not a one-way street – property owners also have the ability to set parameters to encourage the kind of rental pattern they want to achieve. Options for those that want to rent as frequently as possible but are less price sensitive exist, as do options for those who prefer to preserve a premium price and rent less frequently.

Together this creates adaptive pricing which considers the local competition, the needs of guests and renters, as well as wider environmental factors on a real-time basis.

Convergence

Sector convergence has been one of the unstoppable trends of the twenty-first century and as the traditional lines of demarcation between once separate and distinct industries are broken down, the commercial landscape is being profoundly reshaped.

In sectors as diverse as banking, telecoms, the music industry and publishing, convergence is driving innovation while threatening the dominance of established players. Convergence is now a fact of life in the utilities sector and is already disrupting the market.

Convergence drivers

Convergence has been driven in no small part by the proliferation of digital devices, the mobile revolution and customer demand for tech-led innovation. And the pace of technological change is accelerating, fuelled by a burgeoning startup culture in tech hubs worldwide. Technology is not an end in itself and the entrepreneurs who populate hubs such as London's tech city are looking for sectors to disrupt by bringing new solutions to the marketplace.

The convergence trend has been a natural and inevitable product of the technology and communications revolution, coupled with demand from customers for better solutions.

Often technology companies are replacing more traditional providers, either in existing or emerging markets. For instance, in Africa, where only 41% of the population have bank accounts, telecoms companies and payments specialists are providing phone-based money transfer and basic banking⁷.

The opportunity to leverage existing marketing and customer service expertise has also been an important driver. This is prevalent in the retail sector. Witness the broadening range of services offered by companies such as M&S, Tesco and Sainsbury's. To a greater or lesser degree, these are customer service and marketing operations, operated in partnership with telecoms, financial services or energy companies.

But this points to a third key convergence driver. As we discussed earlier, sectors such as telecoms, banking and energy have been "asset heavy". Companies expanding within a given sector tend to do so on a buy or build model. Convergence has allowed businesses to expand into new sectors without matching the infrastructure investment of the incumbents. The asset-light principles discussed in an earlier section feed directly into the convergence trend.



Sector convergence is driven by rapid technological change and opportunities to extend brand strength across sectors



Disruption from sector convergence is demanding a response from incumbents



Partnerships offer a less radical approach to managing the relationship between digital technology and more traditional sectors

/// The pace of technological change is accelerating, fuelled by a burgeoning startup culture in tech hubs worldwide ///

⁷ World Bank Data - Global Findex 2014

Convergence



Convergence in other sectors

Convergence is driving innovation but it is also disruptive. Making the wrong call in response can be fatal.

Sector convergence is often born out of partnership – and the realisation that techniques and technologies developed in one sector can be applied to another.

A case in point is the partnership between drug and healthcare company Novartis and internet giant Google. In 2014, the two companies announced a joint venture that saw them developing technology, initially pioneered by a Google subsidiary, to create a smart contact lens with the aim of bringing it to market in 2016. It was a deal that harnessed the technological prowess of Google with Novartis' scale and positioning in the healthcare market.

The relationship between the digital technology companies and more traditional sectors can also be hugely disruptive or indeed fatal if executives make the wrong call or fail to adapt. Kodak famously passed on digital camera technology invented by an in-house engineer, maintaining its allegiance to film when other

camera makers – along with hardware companies – adopted digital technology. The result was, ultimately, bankruptcy.

A less radical approach than buying or building capability in new sectors could be to build successful partnerships with other organisations. By staking out a strategic position in the value chain in this way, more traditional companies may keep the threat of new sources of competition at bay.⁸

Of course, convergence is often market driven rather than technology driven. Supermarkets have moved into banking because they see opportunities to open up a new revenue stream. Lacking a track record in banking, they nonetheless enjoy a high degree of brand loyalty. Perhaps more important, retailers are bringing their skills in creating a customer-focused experience into banking.

The challenge facing executives is to correctly assess the impact of convergence and to make the right call on how and when to adapt to the realities of a changed marketplace.

// *The tie-up between Google and Nest illustrates some of the forces driving convergence* **//**

⁸ KPMG - Disrupting partners: the case for utilities to embrace new energy providers

Case study

npower and Google collaborate on smart thermostat

When Google bought Nest – a maker of smart thermostats and smoke alarms – for \$3.2 billion in 2014, it was an example of convergence between an internet company and a maker of smart hardware, creating an opportunity to offer networked services.

This year saw a further example of convergence with npower teaming up with Google/Nest. Npower exclusively (in the UK) offer customers a Nest smart thermostat bundled in with one of their tariff deals. The smart thermostat will allow remote management of heating coupled with machine learning to automate temperature regulation.

For npower, the deal is an opportunity to provide added-value services. Meanwhile, Google further embedded itself in the nascent Internet of Things market through which they can access a rich source of raw customer data - the company's lifeblood. Adding advertising to Nest screens could open up new revenue streams.

No going back



Business as usual isn't an option in the utilities sector.

A time for action

Business as usual isn't an option in the utilities sector. At all points of the value chain from generation and transmission through to distribution, new technologies are creating opportunities but also uncertainty about the shape and nature of the market in coming years.

Predicting the next wave of disruptive technology is always difficult, but what we do know is that by 2020 – if Government targets are to be met – the vast majority of households in the country will be making use of smart meters. That in itself is a step forward in terms of consumer/customer empowerment. The new technologies will not only give customers a better understanding of the relationship between the cost of energy and consumption but they will also generate vast amounts of data about consumption patterns. And if the smart technology is in turn connected to distributed generation and smart devices, then there is huge scope for providers to offer new and innovative services and pricing packages.

Other sectors have been through periods of similar technological change and the effects have often been dramatic. Technology has attracted new market entrants, turned business models on their heads and, in some cases, triggered changes that have seen the disappearance of existing players.

In our study of the impact of technology, we have identified five major themes that have a direct relevance to the utilities sector.

Customer experience and trust are becoming ever more important as drivers of financial growth

This is particularly true in the domestic supply market, where companies have little scope to differentiate on the quality of the product and where pricing transparency keeps pressure on margins. Customer experience – which starts with trust – is the key to customer loyalty.

Challenger brands are emerging and becoming an increasingly important feature of the market

As in other sectors, challengers have an opportunity to start from scratch in shaping a relationship with customers and they are not hampered by legacies in areas such as IT or customer service procedures. Challengers may compete on price, ethics (green energy), quality of service or a combination of these.

Asset-light business models will spring up

We're seeing this in the case of challenger brands as retailers such as M&S and Tesco use infrastructure rented from big six partners to deliver energy services. But asset light will also impact other sections of the market. Greater use of distributed-generation technology will allow suppliers to make effective use of assets owned by others.

Customer data will be used proactively

In a virtuous circle, the ability of utilities to collect more data from customers via smart meters, smart thermostats and the other Internet of Things devices will allow dynamic pricing models that reflect both supply and demand in networks but also the circumstances of consumers. In addition, predictive analytics will provide profiles of who consumers are and what their needs are likely to be in the future. This will allow energy companies to shape new services.

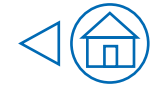
Sectors will continue to converge

Technology companies are increasingly looking at the utilities market and the first fruits of their interest can be seen in smart thermostats and energy-managing apps. This opens the door to partnerships. There will also be more brand extension from other sectors.

We should expect to see some or all of these trends to emerge across the utilities sector in the coming years.

There is no going back. Now is the time to consider how these trends will impact on your business and the wider market.

About KPMG Power & Utilities



KPMG's global network of member firms provides Audit, Tax and Advisory services to local, national, and multinational organisations. At KPMG, there are more than 158,000 people in member firms across 155 countries.

KPMG in the UK is one of the largest member firms of KPMG's global network. In the UK we have 588 Partners and 11,341 outstanding professionals working together to deliver value to our clients across our 22 offices.

KPMG's Global Power & Utilities practice is a network of professionals based in member firms around the world. KPMG's Global Energy and Natural Resources Sector is supported by 904 Partners, 12,310 Practitioners and 2,759 Admin staff globally.

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