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# CRM in the Energy Market: Customer Relationship Management in Commodity Industries Using the Example of an Energy Service Provider

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## 1 Relevance of Customer Relationship Management in the Energy Market

In recent years, the energy industry has undergone fundamental changes. Until liberalisation in 1998, the German energy market was divided into regional territorial monopolies. Every energy supply company (Energieversorgungsunternehmen, EVU) had statutory monopoly rights in historically developed regions. Customer orientation played a subordinate role, as consumers were bound to the suppliers' conditions. Switching energy suppliers was not possible for customers, meaning that concepts for customer acquisition, retention and recovery were not necessary for enterprises until the liberalisation of the electricity market.

The Directive (EU) on Common Rules for the Internal Market for Electricity and its transposition into national law through the amendment of the Energy Industry Act (Energiewirtschaftsgesetz, EnWG) changed the political, legal and thus the economic framework conditions. The 1998 amendment to the energy law resulted in the opening of the electricity market to competition. Henceforth, all customers were free to choose their electricity supplier. The removal of barriers to market entry led to an increasing number of new energy suppliers, while co-operations and mergers also changed the competitive landscape. The most recent example is the complex transaction between RWE and E.ON where RWE took over E.ON's generation

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business while E.ON is focused on grid, distribution and innovative business activities and purchases the retail brand innogy. In addition to regional energy service providers and the major groups E.ON, Vattenfall and EnBW, numerous new and non-industry players are entering the energy market (e.g. VW, Shell and Lidl). At the same time, several suppliers went bankrupt (e.g. TelDaFax in 2011, FlexStrom in 2013, BEV in 2019).

Adopted in 2010, the **energy transition** [*“Energiewende”*] redefines the rules of the energy industry: the phasing out of nuclear energy, the expansion of renewable energies and the promotion of energy efficiency, as well as the exiting of electricity generation from hard coal and lignite are causing all market players to adapt their market cultivation and expand their business models.

Summarising the above, intensified competitive activity, well-informed consumers and increased switching rates are factors that lead to increased customer losses, in particular among established energy providers with many existing customers. **Customer Relationship Management (CRM)** remains an important issue for energy service providers in order to maintain market share in the sales territory and secure the company’s long-term success. In addition to growth, the major challenge facing established energy service providers is to consolidate customer loyalty and retain customers willing to switch.

This chapter aims to reveal the capabilities of CRM within the energy industry. The next chapter, therefore, fundamentally characterises electricity and gas as commodities and outlines the current challenges the energy industry is facing on both the market and the customer side.

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## 2 Characterisation of the German Energy Market

### 2.1 Electricity and Gas as Commodities

In Germany, electricity is indispensable in everyday life and is available in almost every household and business. Besides its **omnipresence**, there are further characteristics of electricity and most of them also apply to natural gas (in short: gas):

- *Immateriality*: The product electricity or the supply of electricity itself is intangible, having no mass or volume (Schikarski, 2005, p. 8). In contrast, gas is a combustible natural gas extracted from underground deposits (Monopolkommission, 2011, p. 71). As both energy sources have no colour, surface finish, smell or taste, branding the products is complicated.<sup>1</sup> Accordingly, it is difficult for customers to perceive or judge the products distinctly (Busch

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<sup>1</sup>Natural gas is generally an odourless gas, but depending on its origin it may contain a considerable amount of strong-smelling organic sulphur compounds.

et al., 2009, p. 357). Furthermore, the provision of electricity or gas more closely resembles a service (as opposed to a delivery of goods).

- *Product homogeneity and interchangeability*: Electricity is a standardised, homogeneous product with standardised quality (e.g. 230 volts). Gas is not completely identical in its composition, as a distinction is made between the quality categories L (Low) and H (High) depending on its methane content (Monopolkommission, 2011, p. 72). Nevertheless, a differentiation from competitors by virtue of the core products electricity and gas is difficult, as both energy sources have an objectively low potential for differentiation (Laker, 2001, p. 101). Due to their indistinguishable characteristics, they belong to the category of **commodity services** “which are perceived by the customer as homogeneous and where no preference for a supplier based on performance characteristics exists” (Bruhn, 2010, p. 63). Consequently, marketing faces the challenge of designing product policy and communicative design features around the interchangeable product core (Dressler & Nickening, 2009, p. 335).
- *Indirect yielding of benefit*: Electricity and gas do not generate any customer benefit themselves. For the customer, the benefit/value of electricity arises only through the use of electrical appliances and of gas mainly in the heating of living and working spaces or as fuel for vehicles. The customer benefit is therefore only secondarily perceptible (indirect yielding of benefit) (Busch et al., 2009, p. 357; Schikarski, 2005, p. 8).
- *Grid-bound nature*: Electricity is distributed via power supply lines and gas via piping systems or pipelines to private households or industrial enterprises. Differentiations from the competition, e.g. in the form of diverse packaging, are not possible due to the grid-bound nature of the business (Laker, 2001, p. 101; Schikarski, 2005, p. 9; Monopolkommission, 2011, p. 76).
- *Low involvement*: The use of electricity and gas (products) is characterised by low customer involvement. “Electricity comes out of the socket” (Busch et al., 2009, p. 357) and is only given consideration in the event of a shortage, e.g. a power failure. Meanwhile, studies show that interest in energy is generally increasing: over half of German consumers are more intensively involved with the topic of energy than in the past and pay more attention to the origin of the electricity, e.g. when choosing an electricity supplier (Sander & Dörner, 2012).

Summarising the above means that electricity and gas supplies—similar to the banking and insurance sectors—have more the character of a membership-like relationship with a consistent service provision. The challenge is primarily to upgrade these low involvement products by appropriate measures from the marketing mix.

## 2.2 Current Challenges in the Energy Sector

More than virtually any other sector, the energy industry is characterised by a variety of changes on both the customer and the market side. In the following, the market side will be addressed first.

Particularly **strong market changes** are associated with the **energy transition** adopted in 2010 and the “Energy Efficiency Strategy 2050” adopted in 2019. In this context, the German government stipulated the following targets:

1. The emission of greenhouse gases is to be reduced by at least 80 percent by 2050 compared to 1990 (BMWi, 2012, p. 4.).
2. The Federal Government wants to shut down all nuclear power plants by 2022.
3. By 2050, primary energy consumption in Germany is to be halved in comparison to 2008 (BMWi, 2019).

The energy transition has implications for all players in the market: energy companies are planning to invest billions in the expansion of renewable energy over the next few years and to significantly expand the grid infrastructure. The topic of energy system transformation is also piquing great interest among the German population: 93 percent of consumers stated that the issue is very important to them. However, there is dissatisfaction with the way it is being implemented, because the expansion of renewable energies is taking too long or delays in policymaking are preventing progress (Graichen et al., 2019, p. 6.).

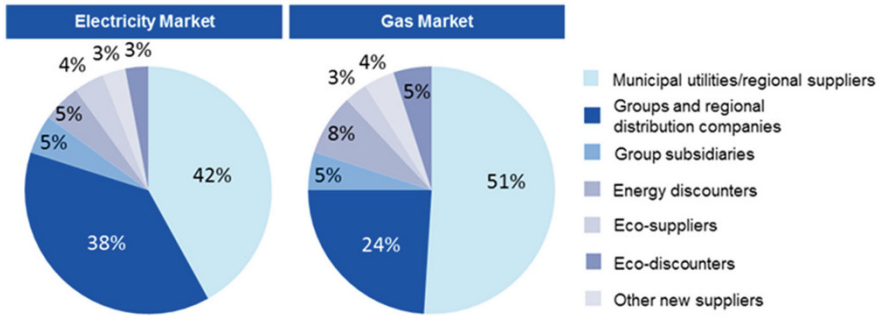
In addition to changing political and regulatory framework conditions, the energy market is distinguished by a **diversity of market participants**: around 1300 electricity and 1050 gas suppliers participate in the German energy market, more than in any other country in Europe (BDEW, 2020a, p. 14.). The major groups (E.ON, EnBW, Vattenfall and regional distribution companies) and their subsidiaries (e.g. eprimo, E WIE EINFACH and Yello Strom) are among the market participants, as are municipal utilities and regional energy suppliers (e.g. Stadtwerke München), supra-regional energy discounters (e.g. ExtraEnergie and Gas.de), pure green suppliers<sup>2</sup> (e.g. LichtBlick and Greenpeace Energy) and other new providers (e.g. lekker Energie and Shell Privatenergie). In both the electricity and the gas market, municipal utilities and groups have the largest market share with around 80 percent. New energy suppliers currently account for almost 20 percent (Fig. 1) (Kreutzer & Nordlight, 2020).

Especially in the last ten years, the number of energy suppliers has increased significantly. Besides the energy discounters, municipal utilities have mostly been newly founded as a result of the ongoing **remunicipalisation**<sup>3</sup> (Verivox & Kreutzer,

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<sup>2</sup> Among them are also eco-energy discounters (e.g. Grünwelt Energie). In addition, green electricity is now sold by many energy suppliers in all supplier segments.

<sup>3</sup> Remunicipalisation means the takeover by municipal companies (e.g. public utilities) of formerly private companies or of the supply tasks previously performed under private management.



**Fig. 1** Shares of energy suppliers in the electricity and gas markets (adapted from Kreutzer & Nordlight, 2020)

2012, 2013). In the electricity and gas markets, an increasing number of classic suppliers are active throughout Germany. In addition, large groups outside the industry are pushing into the energy market (e.g. Dt. Telekom in 2017, Deutsche Bahn in 2017, Volkswagen in 2019). Here, high brand awareness, customers in their millions and correspondingly frequent customer contacts are an asset. Furthermore, the market entry of suppliers with new business models (e.g. EnergieRevolve with its prepaid electricity solution) and foreign companies (e.g. GAZPROM) is becoming apparent.

Besides new suppliers entering the market, the trend towards **consolidation** is continuing: amalgamations, mergers, takeovers and cooperations aimed at expanding the energy services and electromobility segments and developing new business fields are increasing rapidly. Furthermore, insolvencies are boosting the **dynamics in the energy sector**: The illiquidity of the electricity supplier TelDaFax in 2011 was the largest insolvency in German economic history in terms of the number of creditors (approx. 750,000) (Flauser & Iwersen, 2013, p. 18.), followed in 2013 by FlexStrom, FlexGas, Dandelion, Optimal Green (approx. 500,000 consumers). At the beginning of 2019, Bayerischer Energieversorger (BEV) filed for bankruptcy (approx. 600,000 consumers had to find a new supplier) (Verivox, 2020). Fierce price competition, high distribution costs and low customer loyalty are frequent reasons for the insolvency of energy suppliers.

The **rising intensity of competition** is causing more and more energy companies to open up new sales territories and to offer supra-regional, Germany-wide products. In addition, companies are increasingly differentiating their offerings: new electricity and gas products such as smart metre electricity, regional electricity or football electricity are designed to appeal to more targeted customers (Verivox & Kreutzer, 2020b). Internet **comparison portals** (especially Check24 and Verivox) are the preferred means of marketing electricity and gas products. Some discount providers are using multi-brand strategies in order to take as many top positions as possible in

online portals.<sup>4</sup> The portals strongly influence market prices and are one of the most prominent sales channels.

Against the background of increased competition and the energy transition, energy companies are developing **new business fields**. Energy consulting, prosumer products and energy efficiency services are continuously expanding the portfolio of electricity and gas products on offer. E-mobility solutions range from automotive power products, shared electric mobility to electric car leasing (Verivox & Kreutzer, 2020b). Germany already has one of the most developed markets for energy services. In the future, the importance of the new business models will continue to grow, as they will play a central role in implementing the energy transition (BDEW, 2012b, p. 5.).

Considering this challenging market situation with volatile political and legal conditions and increasing competitive and earnings pressure, **professional CRM** is imperative, in particular for established energy service providers. For three-quarters of the energy suppliers, the topics of sales/marketing/customer care/CRM will become even more prominent in the future, and for 83 percent of the suppliers surveyed, the issue of “digitalisation” will strongly gain in importance (Ernst & Young & BDEW, 2019, p. 11.).

### 2.3 Changing Needs and Expectations of Energy Customers

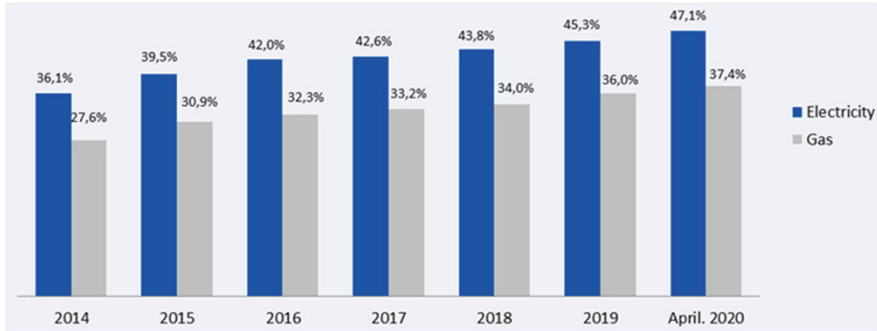
In addition to the market side, the customer side of the energy sector is also subject to far-reaching changes, as consumer attitudes, needs and expectations are increasingly transforming.

The topic of energy is gaining in importance for consumers in all spheres of life, whether in building a house, buying a car or purchasing entertainment electronics (Sander & Dörner, 2012, p. 22). Information is globally available on the Internet and price comparison websites provide quick and easy comparisons of providers and products. Using this transparency option improves the **customers’ knowledge of the market**, which is also enhanced by media reports (Zweigle, 2009, p. 309). Overall, customers are significantly more price-aware and readily prepared to switch energy suppliers (Reith, 2012).

For customers, switching suppliers is uncomplicated and can be carried out without any major effort. The amendment of the German Energy Industry Act (EnWG) in 2011 has particularly contributed to the **strengthening of customer rights**: in addition to the increased transparency of customer invoices, a maximum processing term of four weeks for consumer complaints, the establishment of a conciliation office for customers, the change of supplier must take place within three weeks (BDEW, 2012).

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<sup>4</sup>For example, the discounter ExtraEnergie has introduced three electricity brands (Extrastrom, Hitstrom, Priostrom) as well as three gas brands (Extragas, Hitgas, Priogas) in order to be listed multiple times.



**Fig. 2** Cumulative switching rate for electricity and gas in private households (adapted from BDEW, 2020a)

The customers' increasing willingness to switch is reflected in **rising switching rates**. By April 2020, almost half of all private households had switched their electricity supplier at least once (Fig. 2). The major **comparison portals** on the Internet serve as the **main source of information** on electricity and gas for customers willing to switch. The websites of energy suppliers are visited by one in three customers willing to switch suppliers. Recommendations from friends, family and acquaintances also play a key role in the energy market (Kreutzer & Nordlight, 2020, p. 69).

The main **reason for customers to terminate** a contract is to reduce their energy costs. Price rises of the current supplier or increased payments on account are key reasons for electricity and gas customers to consider **switching their energy supplier**. More and more customers, however, are expressing the wish to switch to an eco-supplier (Kreutzer & Nordlight, 2020, p. 22). Among the **motives for staying**, customers cite the good service and customer care, the familiarity and regionality of the energy provider and a sound green energy portfolio even before the price (Kreutzer & Nordlight, 2020, p. 31).

Interest in **eco-products** is growing among both electricity and gas customers. In the first half of 2020, two-thirds of those switching to green electricity opt for a green electricity tariff, 19 percentage points more than in 2019 (Verivox & Kreutzer, 2020a, p. 2, 44). **Price guarantees** remain important: in 2019, over 70 percent of those switching to green electricity chose an electricity contract with a 12-month price guarantee (Verivox & Kreutzer, 2020b, p. 181).

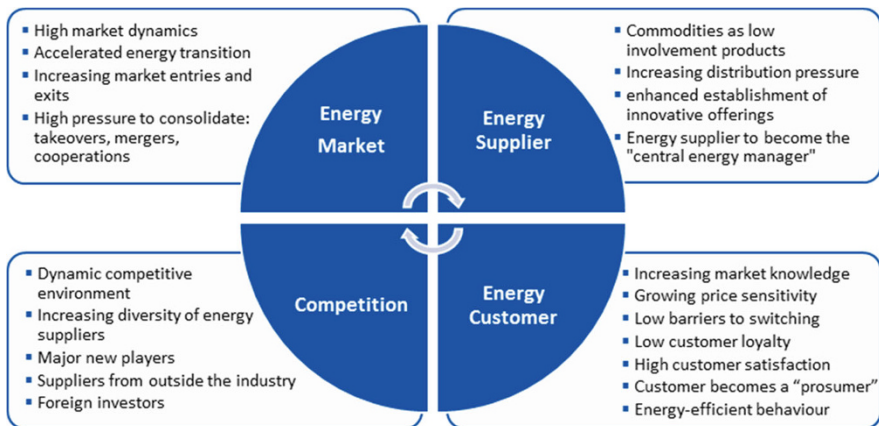
According to Kundenmonitor Deutschland 2020, energy customers are for the most part satisfied with their supplier. The electricity suppliers were able to achieve a score of 2.2 in the **customer satisfaction** survey. This places them in the mid-table of the industry comparison (Servicebarometer, 2020). Nevertheless, the energy market shows **lower customer loyalty** compared to other industries. According to the monitoring report of the Federal Network Agency, 4.75 million households switched their electricity supplier in 2018 (Bundesnetzagentur & Bundeskartellamt, 2020, p. 271).

Besides the increasing willingness to switch within the electricity and gas market, **customer expectations** of the energy provider regarding new products and services are also rising. Consumers are more concerned with the issue of energy than ever in the past, want to reduce their energy consumption and pay more attention to the origin of electricity when choosing an energy supplier. Sander and Dörner speak of a new energy customer called “**Homo energeticus**” (Sander & Dörner, 2012, p. 22). In the future energy system, customers will no longer act as mere energy consumers, but will also intervene retroactively in the energy management system, e.g. as a **decentralised energy producer**. In the future, half of the energy customers can imagine producing electricity for their own needs themselves and actively participating in shaping the energy supply system. The passive energy consumer is thus transforming into an active “**prosumer**” (Sander & Dörner, 2012, p. 21; Ernst & Young, 2013, p. 5).

Summarising the above, the majority of consumers expect far more than just electricity and gas from their energy supplier in future. In addition to innovative products for managing the energy budget or reducing their inhouse energy consumption, advice on all aspects of private energy management, energy suppliers should also offer products for regenerative power generation such as wind and solar power systems. From the customer’s point of view, the current energy supplier is to become the **central energy manager** (Sander & Dörner 2012, p. 26).

## 2.4 Conclusion

The current developments in the German energy industry on both the market and the customer side require energy companies to adapt more intensively (Fig. 3). The energy supplier’s consistent orientation towards customer needs within the



**Fig. 3** Current developments in the German energy market



framework of effective Customer Relationship Management can be the most promising strategy for securing long-term market success.

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### 3 The Customer Lifecycle in the Energy Market

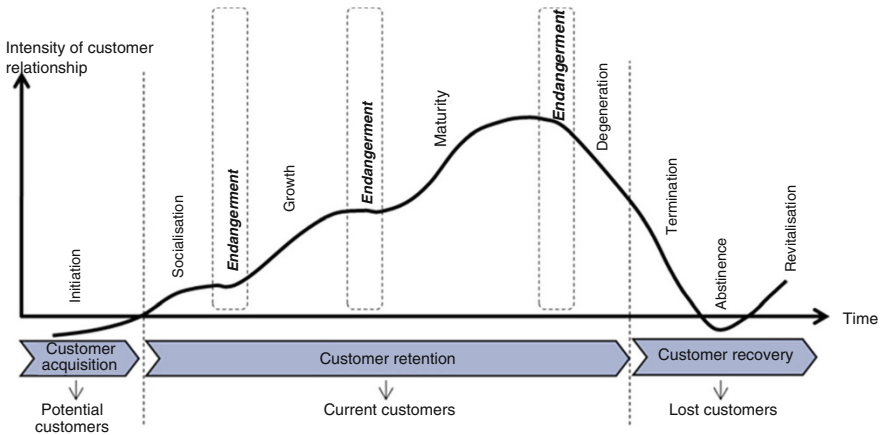
In marketing, the lifecycle concept is often applied in the form of the product lifecycle, according to which the temporal development of a product in the market is controlled in five ideal-typical stages (introduction, growth, maturity, saturation, decline) on the basis of economic variables (e.g. turnover). This concept can also be extended to the development of customer relationships and can be described as a customer relationship lifecycle (Bruhn, 2009a, p. 53 f.).

The relationship lifecycle can be divided into three central core phases (Garcia & Rennhak, 2006, p. 10; Georgi, 2008, p. 252; Bruhn, 2009a, p. 60, 2009b, p. 43 f.).

1. Customer acquisition
2. Customer retention/development
3. Customer recovery

The lifecycle of an electricity or gas customer does not substantially differ from the customer relationship patterns in other service industries. If it follows an ideal-typical pattern, the strength of the customer relationship in the **customer acquisition phase** is initially low (Bruhn, 2009a, p. 60). In the initiation phase, the consumer inquires about the offer and reacts to the company's communication measures. If the customer makes use of the company's services for the first time, the business relationship is established and the customer enters the socialisation phase (Stauss, 2006, p. 433). Since energy service providers in Germany have a general basic supply obligation for electricity and gas, customers can use the energy service immediately when moving in or out, for example without having to conclude a separate written contract.

If the customer can be satisfied with the product or service, its loyalty increases and the **customer retention phase** begins. During this phase, the intensity of the relationship increases continuously (Bruhn, 2009a, p. 60). If the customer extends the use of services to other products (cross buying: e.g. energy consulting), this describes the transition to the growth stage (Stauss, 2006, p. 433). In the maturity phase, the customer's potential is largely exhausted and the strength of the customer relationship is at its peak (Bruhn, 2009a, p. 63). If the customer's revenue contributions stagnate or decrease compared to the previous period, e.g. due to a switch to low-cost products, the relationship enters a degeneration phase. In this phase, but also during the entire duration of the relationship, the customer relationship is endangered (Stauss, 2006, p. 433). During the endangerment phases, the customer plays with the idea of no longer using the service due to various causes (e.g. service shortcomings and price increases) (Bruhn, 2009a, p. 63). In the energy sector, it is important to note that customers in the basic supply segment do not have a longer contract term and are therefore (especially due to increasing competitive



**Fig. 4** Phases of the customer lifecycle in the energy market (adapted from Stauss, 2006, p. 434)

measures) always endangered to churn. In contrast, customers with a special contract have actively opted for it and are usually bound to their energy service provider for a certain term of contract.

In contrast to the first two core phases, the **customer recovery phase** (regain management) is characterised by stagnating or even declining relationship intensity (Bruhn, 2009a, p. 60). In this phase, customer satisfaction, customer retention and customer value decrease either by leaps and bounds or continuously (Bruhn, 2009b, p. 43). The customer's notice to terminate leads to the final termination of the business relationship in the event of unsuccessful defence against or prevention of termination. As a result, the abstinence phase begins in which the customer no longer uses the company's services (Bruhn, 2009a, p. 63). Recovery measures make sense primarily for profitable customers who have churned (Bruhn, 2009b, p. 44). If a lost customer can be regained by the company during the revitalisation phase, a new customer relationship lifecycle begins (Stauss, 2006, p. 434).

Figure 4 reveals that **endangerment phases** may occur not only at the end of the customer relationship lifecycle, but throughout the entire duration of the customer relationship, i.e. whenever the customer may have cause for dissatisfaction or is considering terminating the business relationship for other reasons (Stauss, 2006, p. 434). Besides concrete dissatisfaction, this can be caused by price changes or simply by market and competitive stimuli. Against the background of the growing willingness to switch and the enhanced switching behaviour of customers, the energy service provider should pay particular attention to the endangerment phases.

From the company's point of view, the overall objective is to derive strategic and operational recommendations for marketing, sales and service. The tasks of a professional Customer Relationship Management of the energy service provider are described with reference to the relationship phases in the following chapter.

## 4 Customer Relationship Management Using the Example of an Energy Service Provider

Implementing and executing effective Customer Relationship Management, in addition to efficient cost management, is the promising strategy for an energy service provider to meet the increasing challenges in the market and to maintain its competitiveness.

Explanations of the term Customer Relationship Management are often limited to the technical IT component, by equating CRM with a CRM system. The technical aspect, however, is only one of several. In 2006, Hippner defined CRM as follows: “**Customer Relationship Management** is a customer-oriented corporate strategy that uses modern information and communication technologies to attempt to establish and consolidate profitable customer relationships in the long term through holistic and individual marketing, sales and service concepts” (Hippner, 2006, p. 18; Hippner et al., 2006, p. 198).

According to this definition, CRM represents a strategic, holistic approach to the management of customer relationships and thus a conceptual topic. The corresponding CRM software provides only the technological support (Dangelmaier et al., 2004, p. 5; Helmke et al., 2008, p. 7). The key success indicator of CRM is the profitability of the customer relationship, comprising not only the value and stability (customer satisfaction and loyalty) of the relationship itself, but also the company’s usage of resources over the entire customer lifecycle (Homburg & Sieben, 2008, p. 503).

### 4.1 Acquisition Management

The customer acquisition phase covers all company activities related to the establishment or initiation of the relationship between the company and the customer. The purpose of a company’s **management of customer prospects** (acquisition management) is therefore to attract the attention and interest of potential customers and persuade them to make an initial purchase (Stauss, 2006, p. 435). The aim is to profitably acquire new customers (Haas, 2006, p. 448).

In common with other companies, energy suppliers are faced with the choice of whether to acquire new customers via direct or indirect distribution channels. For traditional customer acquisition via **direct sales/distribution**, the energy supplier undertakes the marketing of its products autonomously. Concluding the electricity or gas contract directly with the supplier can be achieved via the supplier’s website, search engine marketing and optimisation (SEM and SEO), banner advertising, social media, door-to-door sales (with own field service), mailings (with or without personalisation), inbound and outbound telephone calls or in the supplier’s customer office (Fig. 5).

The importance of online distribution channels in the energy industry is constantly growing due to digitalisation. **Chatbots** are an increasingly used sales tool.






		Medium of Contract Conclusion				
		Internet 	Door-to-Door 	Mail 	Telephone 	Branch Store 
Direct		<ul style="list-style-type: none"> <li>Own website</li> <li>SEM and SEO</li> <li>Banner advertising</li> <li>Social media</li> <li>Chatbots</li> </ul>	<ul style="list-style-type: none"> <li>Door-to-door sales with own field service</li> <li>Exclusive distribution partner</li> </ul>	<ul style="list-style-type: none"> <li>Personal cover letter</li> <li>Direct mail</li> <li>Customer magazine</li> </ul>	<ul style="list-style-type: none"> <li>Telephone acquisition by inhouse call centre (inbound and outbound)</li> </ul>	<ul style="list-style-type: none"> <li>Own customer service branch stores</li> </ul>
	Indirect	<ul style="list-style-type: none"> <li>Comparison portals</li> <li>Affiliate networks</li> <li>Thematic portals (e.g. solar energy)</li> </ul>	<ul style="list-style-type: none"> <li>Door-to-door sales with external distribution agencies</li> <li>Promotional booths</li> </ul>	<ul style="list-style-type: none"> <li>Advertising mailings with order forms</li> </ul>	<ul style="list-style-type: none"> <li>Telephone acquisition by external call centre (outbound)</li> </ul>	<ul style="list-style-type: none"> <li>Cooperation with partners from outside the industry (e.g. retailing)</li> <li>Branch of a sales partner/distributor</li> </ul>

Fig. 5 Distribution channels in the energy market (adapted from Kreutzer & Nordlight, 2020)

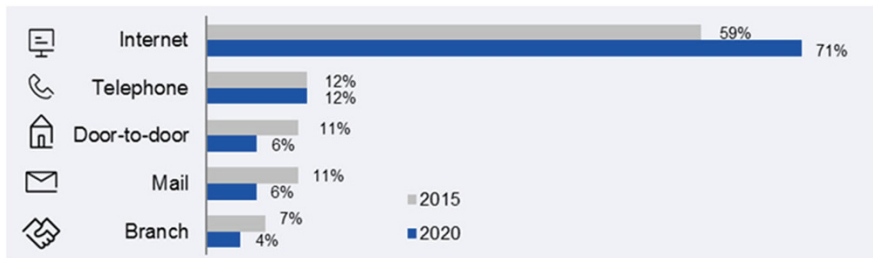


Fig. 6 Development of distribution channels in the energy market (adapted from Kreutzer & Nordlight, 2020)

They provide the customer with standard information on energy provider websites and can also respond to customer enquiries about new contracts.

In addition, acquisition opportunities are provided by **indirect distribution channels**, where economically and legally independent sales agents act as intermediaries between energy suppliers and customers. Gaining new customers is promoted through door-to-door business with external sales agencies, within the framework of partner programmes with chain stores (e.g. Lidl), sales representatives, housing associations, real estate agents or energy consulting offices, or through telephone acquisition in cooperation with external outbound call centres.

As regards customer acquisition, for the distribution channel **Internet**, cooperation with sales and service portals is of relevance. In 2020, for example comparison portals accounted for the largest share of switching in the electricity and gas markets. The Internet is the most important information and conclusion medium for customers willing to switch. In recent years, the online medium has seen enormous growth, accounting for 71 percent of contracts concluded, and is thus increasingly superseding the other distribution channels (Fig. 6) (Kreutzer & Nordlight, 2020, p. 12).

**Affiliate networks** or **thematic portals** (e.g. on eco-energy) can also support the acquisition of new customers on the Internet: the energy supplier places its link in the

online presence of a website operator (e.g. blog) and pays a commission if the set link leads to success.

**Concluding the contract by telephone** is used by twelve percent of the switching customers and has remained stable over the years. Telephone distribution is mostly carried out by external call centres and is considered an efficient distribution channel. The most challenging task here is to obtain from the customer a legally secure declaration of consent (opt-in).<sup>5</sup>

Direct distribution and personal contact via **door-to-door selling** has declined by six percent. Due to the high number of reports of unfair distribution methods, doorstep distribution is sometimes viewed sceptically. In this context, fines are increasing. For energy suppliers, however, the advantages lie in the fact that electricity and gas products can be presented directly and that, in addition to price, other factors such as quality and regionality can be included in the benefit argumentation (Verivox & Kreutzer, 2020b, p. 142).

Due to digitisation, the importance of the **mail** distribution channel is also declining. Concluding a postal contract is used by six percent of the customers and is often the result of previous advertising.

Personal advice, especially on new products requiring explanation (such as Smart Home), is best provided in **branch stores** and **customer centres**. Although currently only four percent of customers switching the supplier conclude a contract in person, municipal utilities and large energy suppliers are using and launching interactive shops as customer centres with a digital focus and to increase their local presence (Kreutzer & Nordlight, 2020).

**Distribution cooperations** between retailers or service providers and energy suppliers (e.g. Yello Strom/Postbank and Lichtblick/Deutsche Bahn) can also facilitate the gaining of new customers. In this context, the energy supplier benefits from the reach, the positive image and the strong, well-known brand of the cooperation partner (Verivox & Kreutzer, 2012).

Since **referrals by friends and acquaintances** represent an activation reason for switching suppliers, a customers-recruit-customers programme can be used for acquisition. In this way, satisfied private customers actively contribute to the energy service provider's new customer acquisition through positive advertising and recommendations. The successful referral of a current customer can be rewarded with a material or monetary bonus. The customers-recruit-customers programme is relatively cost-effective, as credits for customers are more favourable than commissions for distribution partners.

The willingness to recommend can also be exploited when implementing a **multiplier concept** for customer acquisition. In this case, prospects are not addressed individually, but rather entire institutions or persons with a high multiplier and recommendation potential are specifically addressed, acquiring in turn larger

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<sup>5</sup>Furthermore, with the introduction of the "Act on Fair Consumer Contracts" in 2021, a confirmation solution by the customer in text form shall be obligatory for contracts concluded by telephone.

groups of people for the energy supplier (e.g. associations and clubs) by actively recommending the energy products.

**Market partnerships** and corporate networks also feature prominently. The market partners comprise equipment manufacturers, architects or technical building planners. Of central importance—in particular in communication with energy customers—is the specialist trade. Due to regular personal contacts with customers (e.g. in connection with new installations and maintenance of equipment), it is an important sales intermediary for energy companies and constitutes a link between energy suppliers and customers. By involving market partners, energy service providers can make use of a neutral customer approach to acquire new customers or to improve their own image (BDEW, 2012a).

## 4.2 Customer Retention Management

**Customer Retention Management** aims to retain current customers and to consolidate and expand the relationship with them (Stauss, 2006, S. 435). In the energy sector, too, the classic standard instruments for customer retention are used such as loyalty products, customer magazines, newsletters, benefit schemes with cultural subscriptions and discounts, customers-recruit-customers programmes, birthday cards, as well as events and functions for private and business customers and much more.

Despite a variety of retention measures, established energy service providers have recently experienced higher customer churn rates than new contracts. Accordingly, the Churn Prevention Management plays a particularly important role in the context of endangerment phases. The business relationship of current customers is endangered in its relationship status, but not yet terminated. The aim of churn prevention is therefore to stabilise the endangered business relationships in order to prevent terminations and reduce the churn rate of customers (Michalski, 2006, p. 586).

A **Churn Prevention Management** fulfils primarily three tasks:

- Analysing specific framework conditions and identifying relevant early warning indicators
- Developing an early warning system
- Implementing prevention measures

When **determining relevant early warning indicators**, meaningful sector- or company-specific signals, indicating that a customer is highly likely to switch within a defined period of time, are to be identified first (Meyer, 2009, p. 242). In the energy industry, an imminent termination is not generally distinguished by a decrease in the use of services (declining electricity or gas consumption) (Schieder & Frye, 2008, p. 70).

Information on relevant early warning indicators is provided by the results of surveys of churned and new customers or through systematic data analyses of former

and current customers. Thus, for example announcements of a change, expressed directly or indirectly, or product enquiries in written, telephone or personal contact can be taken as the first indicators of an impending termination. Customer complaints can also be seen as an indicator of potential customer churn. Dissatisfied customers complaining to the energy supplier represent a higher risk of churn. In addition, changes in the customer's living conditions, such as moving house, changing jobs or marriage, can lead to the termination of a contract with the energy provider. In such drastic situations, people often review existing solutions to a much greater extent. As a result, the propensity to change increases.

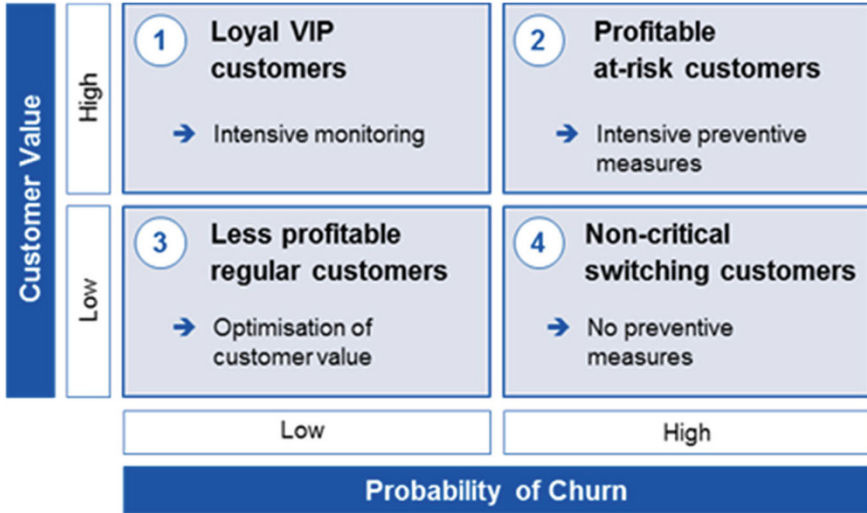
In addition, contractual benchmarks, such as the expiry of the initial contract period, the price guarantee or the period of notice, may encourage customer churn. The annual energy bill or a price adjustment communicated by the energy supplier can be taken as further reasons for termination in the energy market. Once the early warning indicators have been established, it is necessary to define setpoints above or below which the customer is classified as at risk of churn (Seidl, 2009, p. 12).

In a second step, the **development of an early warning system** is to be implemented. With the help of data mining methods, the early warning indicators in the dataset must be determined and the individual customer churn probability predicted. The aim of the early warning system is to identify customers at risk of switching. For the management of customer relationships, it follows that through the systematic surveillance of customer relationships with regard to the early warning indicators identified (active monitoring), churn trends can be recognised in advance and, at best, prevented (Bruhn, 2009a, p. 204; Stauss, 2006, p. 437; Seidl, 2009, p. 13).

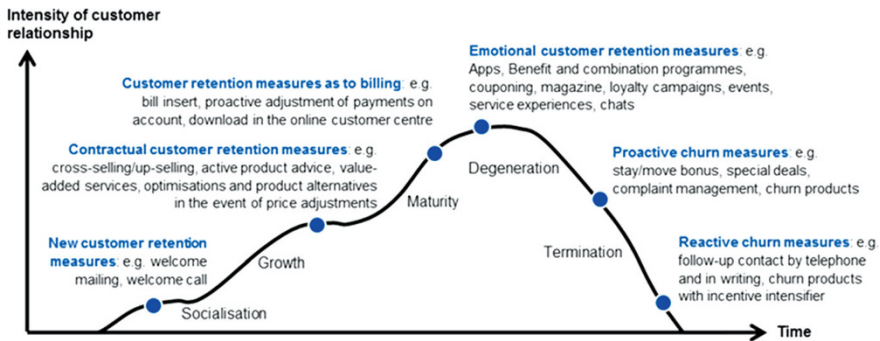
Finally, the third task of the energy service provider is to counteract the impending churn through **targeted customer retention and prevention measures** (Stauss, 2006, p. 204; Seidl, 2009, p. 13). To this end, private customers are first segmented according to customer value and the probability of churn in order to give priority in the churn prevention strategy to profitable customers who are willing to churn (Fig. 7).

It is obvious that the most successful customer retention and prevention measures are those addressing the most frequent reasons and occasions for termination. Figure 8 shows that a wide range of tools can be used to promote customer loyalty throughout the entire lifecycle. As part of new customer retention management, welcome mailings and calls serve to reduce the termination rate at the beginning of the lifecycle by reducing post-purchase dissonance, by checking and completing customer data and demand-oriented product advice.

New product and price offerings can prevent future terminations in the growth phase through cross-selling and up-selling campaigns (e.g. tying products electricity & gas, extension of price guarantees and value-added services). These **contractual customer retention measures** lead to the customer being tied (involuntary state of retention) through initial contract periods. Price increases are one of the most frequent motives for switching. Optimising them can contribute to reducing the churn rate: the price adjustment letter generates increased attention from the



**Fig. 7** Segmentation by customer value and probability of churn



**Fig. 8** Customer retention tools in the customer lifecycle

customer, thus providing the opportunity to offer further attractive products the customer can alternatively choose.

Against the backdrop of current market developments, energy service providers are building innovative fields of business to satisfy valuable customers and prevent them from terminating their contracts. Decentralised business models in particular, such as energy consulting, energy efficiency services, the sale of systems and technologies (e.g. heat pumps and photovoltaics), contracting models,<sup>6</sup> Smart

<sup>6</sup>Contracting means the consulting, planning, financing and operation of facilities within a contractually fixed period by a service company.



Home,<sup>7</sup> or energy management systems (e.g. Smart Metering<sup>8</sup>) can yield significant benefit for the customers and bind them to the energy company in the long term. Citizen participation models in cooperation with local financial service providers such as savings banks serve to finance renewable energy generation plants. In addition to a positive image effect, such offerings also contribute to customer retention, for example when customers are promised a higher interest rate than non-customers (Verivox & Kreutzer, 2013). At the same time, the above-mentioned facilities and technologies generate multifarious data which can provide the basis for further considerations.

As part of the annual billing, it can be reasonable to use a bill insert, which is adjusted depending on the current product and the amount of the bill (refund vs. additional payment). The bill insert can provide information on the breakdown of the electricity price to make customers aware that only barely a quarter of the price is formed on the market. Three-quarters of the electricity price, however, are not influenced by the energy supplier itself, as this larger share of the customer bill is determined by taxes, levies and regulated grid fees (BDEW, 2020b). On the Internet, an online customer centre enables data management, metre reading entry, bill download or the conclusion of contracts for additional or new special products, thus contributing to customer retention.

**Emotional customer retention measures** are used to build customer loyalty and bonding (voluntary state of retention) in the maturity phase. The greatest backlog demand in the energy market consists in rewarding customer loyalty. While switching bonuses are common for winning new customers, loyalty products and bonuses can also be used for long-standing customers to express the appropriate appreciation and motivate them to extend their existing customer relationship and to diminish their interest in third-party offerings. A popular tool for achieving loyalty is the bundling of several contracts: With its “Plus” programme, for example E.ON rewards contract bundling with a €60 discount per contract per year. At the energy supplier NATURSTROM, customers can use the car electricity tariff to combine household and charging electricity (Kreutzer & Nordlight, 2020, p. 140). Energy suppliers achieve innovative service experiences on their website through online-based information and explanatory videos. Chat solutions or voice control functions promote interactive customer communication.

If the customer is dissatisfied in the course of its customer relationship, if they express complaints or their intention to terminate the contract, the energy service provider can react by taking **proactive churn measures**. This could be an exclusive advantage offering (e.g. extra-long price guarantee), made to the valuable customer who is at risk of churning. The use of a loyalty bonus can be a supporting tool to retain the customer intending to terminate the contract. A professional complaint

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<sup>7</sup>Smart Home is used for the automated control of home functions such as heating, electrical appliances, multimedia equipment and security systems.

<sup>8</sup>Smart metres are electronic devices for measuring, monitoring and analysing one’s own consumption with the aim of reducing energy costs.

management system is also capable of turning dissatisfied customers endangered by churn back into satisfied, loyal customers.

Once the termination of an electricity and gas contract has been received, **reactive churn measures** help to avert the termination immediately and convince the customer to continue its customer relationship. Attractive churn products with appropriate incentive intensifiers (e.g. loyalty bonus and free kWh) in outbound or written communication can persuade the customer to revoke the pending termination and stay with the current energy supplier.

### 4.3 Recovery Management

Recovery management deals with the reacquisition of valuable lost customers who have explicitly cancelled the business relationship and left the company. In this phase of the customer relationship lifecycle, the aim is to reactivate the customer relationship already terminated (Stauss, 2006, p. 435 ff.; Bruhn, 2009a, p. 61 ff.; Bruhn & Michalski, 2008, p. 273). In this way, recovery management is applied where customer retention measures have so far been unsuccessful. Compared to the acquisition of new customers there are some distinctions, as former customers already know the company with its strengths and weaknesses. The aspects to be mentioned here include service experience, emotionalization and, in particular, communication.

The management of customer recovery at the energy supplier's side comprises the following four stages:

- Identification of lost customers
- Customised recovery analysis and classification
- Planning and implementing recovery measures
- Support of regained customers

The **identification of lost customers** is the first step in the win-back process. In the energy market, the loss of a customer is identifiable through the termination of a contractual relationship. This termination is either given by the customer itself or by the new energy provider on behalf of the customer. The identification out of the CRM system of those who have quit thus forms the basis for winning back customers. The selection process must take into account possible initial contract periods with the new energy supplier, the legal framework conditions, inter alia, in terms of data protection, and simply the fact that customer data may have become outdated.

In addition to the essential master data of the lost customers, further information about the customers switched must be gathered using a **customised recovery analysis**. The main focus is on determining the reasons for switching, which may be attributed to the customer itself, to the entrepreneurial conduct or to competitors' behaviour (Schöler, 2006, p. 612 ff.). The motives for terminating the contract can be determined by means of a customer exit survey or, alternatively, by using generally

accessible market research. Here, for example it is clear that customer churn is to a large extent initiated by the energy supplier itself, since company-related reasons for switching (poor price-performance ratio, price increases, lack of product features) are mentioned most frequently. Nevertheless, competition-induced reasons (e.g. visits by sales representatives or offers from competitors), as well as customer-related motives (e.g. relocation, price comparisons on the Internet, recommendations from friends and acquaintances) are important drivers for switching the supplier.

General market research also states that satisfaction with the energy provider does not alone create customer loyalty. Although most of the terminating private customers were (very) satisfied with their energy service provider, they nevertheless switched providers. Obviously, the loyalty of the satisfied customers to their energy supplier was only slightly pronounced. Competitor and customer-related reasons for switching may be an explanation why, despite general satisfaction, customers have churned. Moreover, variety seekers and hybrid customers are also encountered in the energy sector (Hannemann, 2001, p. 26 ff.). In general, it must be noted that switching a supplier cannot generally be attributed to one reason alone, but usually represents a combination of several causes.

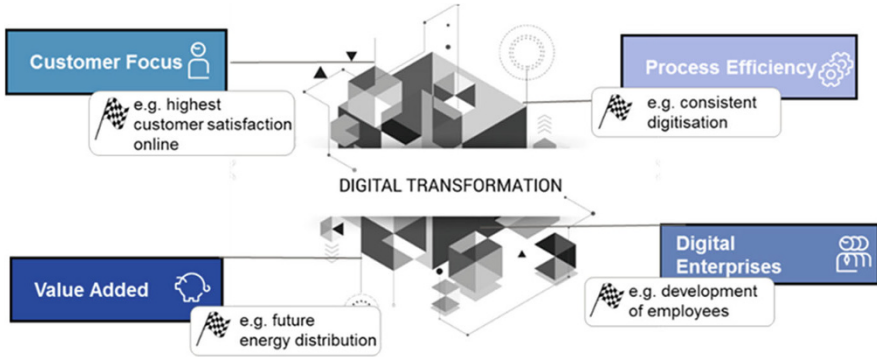
An important aspect of recovery management is the **probability of returning** to the former energy supplier. Many customers are open to a return provided the price performance ratio is attractive. Only few customers do not contemplate a return as a matter of principle.

Customer exit surveys and analyses are thus an important tool for every energy service provider to obtain information about former customers. The findings on individual reasons and occasions for switching gained through monitoring are incorporated into the design of the recovery measures. At the same time, the analyses provide a wealth of information that can be used for customer-oriented performance improvement and continuous quality improvement.

Customer value considerations to segment former customers into profitable and unprofitable ones constitute the next step in the recovery analysis. Using a scoring method, it makes sense to pre-select those customers who were valuable and can be won back to the company due to their general willingness to return.

In the third phase of the process, **planning and regular implementation of measures to win back customers** is carried out according to the strictest possible cost-benefit considerations. Initially, the contact channel is to be selected, preferably oriented towards the communication path the customer is accustomed to or prefers (Schöler, 2006, p. 617). Today, due to legal regulations (e.g. data protection and distance selling law), written communication with former customers is common practice.

The recovery stimulus plays an important role when designing the offer for reactivation. Basically, different schemes can be distinguished: financial incentives are usually provided in the form of return bonuses, credits or welcome gifts. A direct monetary incentive can be, for example, a price reduction, whereas indirect monetary incentives are usually additional services. Furthermore, intangible incentives can be used that have a performance-related (in the form of guarantees) or



**Fig. 9** Perspectives of digital transformation

communication-related (in the form of price comparisons, explanations, benefit argumentations) effect (Schöler, 2006, p. 618). The previous contractual relationship is relatively rarely referred to.

With the implementation of reacquisition measures, the recovery process is not yet complete. The phase of **reintegrating reactivated customers** marks the end of the customer recovery process, meaning that the reacquired customers must be integrated through the customer loyalty management or the responsible service unit. This will ensure that the promises made during the recovery process (e.g. payment of switching bonus) are kept and any previous shortcomings are eliminated (Schöler, 2006, p. 620).

#### 4.4 Digitalisation as an Enabler

The aforementioned approaches to Customer Relationship Management are subject to various changes due to digitalisation. These changes occur at all levels of value added in the energy market, starting with (self-)generation, through distribution on the basis of more flexible grids (e.g. for wind energy or charging stations) up to sales. Particular drivers are, inter alia, new digital technologies (artificial intelligence, cloud, mobile computing) or increased customer requirements for digital services, processes and performance.

To meet these challenges, the digital transformation ideally encompasses four perspectives (Fig. 9):

- Value added or Business model
- Customer focus / Customer centricity
- Process efficiency / Lean management
- Digital enterprises / Culture

Only the integrated consideration and networking of all perspectives will result in a competitive advantage or customer preference. Nevertheless, hardly more than 17% of energy suppliers have an implemented digital strategy (BDEW, 2016, p. 11).

As regards **value added**, the main objective is to generate customer utility through new or improved products and services aimed at securing a continuous contribution to earnings. In addition to the traditional commodity products, this can also include other (hardware) offerings such as SmartHome, services (e.g. insurances and analyses) or the development of new target groups.

The decisive criterion for **customer centricity** is aligning all processes and contact points towards the customer itself. Customer centricity begins, for example, with the involvement of the customer in product development or the establishment of an online service. It also implies largely superseding an “inside-out” view. Success is indicated by key figures, such as frequency of use, sales success, customer satisfaction or the usage frequency of processes or portals.

**Process efficiency**, in turn, focuses strongly on internal operations and procedures with the aim of developing an end-to-end view, e.g. based on customer journeys. Success benchmarks include, inter alia, process costs, throughput times, error rates or resource commitment. The effects achieved can impact on the customer as an increase in quality or through price advantages and must always be reconciled with the customer centricity.

The **digital enterprise** should describe what it needs, for instance, inside a public utility company, to be capable of surviving. In addition to the classic entrepreneurial virtues, the ability to change and innovate, compatibility with cooperation partners such as start-ups or the use of modern methods (Scrum, Kanban etc.) are among the key factors in an increasingly digital world. Not least, this includes the consequential development and enhancement of digital skills and resources among employees.

#### 4.4.1 Data as an Enabler of Transformation

In the energy market, the internal and external sources of data are diverse and growing rapidly. For example, intelligent electricity metres (smart metres) are gaining ground, allowing consumption data to be readout continuously. Where otherwise only an annual value was available, there is now quantity information for every quarter of an hour.

Internal corporate customer data continues to provide the basis for the use of data mining analysis methods to calculate, for example the probability of churn. In addition to identification data (e.g. name and form of address), contact data (e.g. address, telephone, e-mail), descriptive data (e.g. consumption, creditworthiness and method of payment), product and contract data (e.g. tariff designation, duration and end of contract), as well as data on contact and communication history (e.g. complaints, use of customer card and response to mailings) are available. External data, which can be obtained from marketing service providers (e.g. Schober and Deutsche Post), is suitable for supplementing the internal corporate customer data. With the aid of this data, the customer database can be upgraded, especially in terms of quality, to prevent churn. Internal customer data can, inter alia, be supplemented by microgeographic data containing information on household

structures, flat sizes, residential area classification and Internet affinity. In addition, online-based evaluations (e.g. the customer's search for information using Google queries) also provide important insights and are suitable for use as an indicator of switching.

In addition to the above-mentioned smart metres, there is also a rapidly growing market as regards sensor technology or Internet of Things (IoT) for both private and business customers (Lufthansa Industry Solutions, 2017). Typical examples are sensors for process states, environmental parameters, quantities or smart home applications, ranging from temperature monitoring, parking space utilisation to a filling level or aggregate status, generating thus a wide range of information apart from the relationship between customer and enterprise.

**Process mining** offers a completely different view of the data. Here, the focus is on the comparison of real-world actual processes with target models. Examples to be mentioned in this context are processes in the areas of order-to-cash (from revenue recognition to payment/receivables management), new customer acquisition or creation of contracts (PwC Deutschland, 2017). In other words, the data in question are those generated by the process itself. All steps, e.g. with regard to a customer contract (data changes, cancellations, releases, complaints etc.) are considered. In the end, analysis tools (e.g. Celonis) produce a graphic representation of the processes or process deviations or a compliance rate. Process mining can also be useful for the analysis of throughput times. Where do processes "accumulate"? At which process points can be optimised through automation or robotic process automation (RPA)? Solutions to this issue are visible, for instance, in written customer service, allowing AI-based recognition of customer enquiries and their corresponding routing or processing (Lufthansa Industry Solutions, 2017).

There are also initial activities in the energy sector to integrate **blockchains**. A trending topic here is electromobility, which, on the one hand, has a high demand for a nationwide charging infrastructure and, on the other hand, has many different operators. At the same time, transactions between charging stations and customers via Smart Contracts are conceivable. Other examples are the development and operation of a neighbourhood electricity grid or peer-to-peer trading, as well as the purchase of electricity from a residential quarter. The use of blockchains in the certification of green electricity, in contracting or for payments by the customer (C2B) is also an obvious option (BDEW, 2017, pp. 34–39).

#### 4.4.2 Inferences for Market Cultivation

On the basis of data analytics, it is already possible to derive sophisticated customer segmentation and persona concepts. For a few years now, the development of a digital and data strategy has provided opportunities to further differentiate oneself in the commodity market.

As described above, smart metres likewise enable a detailed evaluation of consumption behaviour. Through appropriate products or pricing, customers can be motivated to change their electricity consumption in such a way that the offtake is made at a time when generation is cost-effective. This can be either a price signal from the energy supplier for night-time consumption or the self-generation of

energy, using a PV system during the daytime, for example. Offerings such as regional electricity marketplaces or energy efficiency measures are tailored to meet these ambitions.

Especially for data-based marketing, in addition to the concrete promise of performance, the individual approach to the customer—taking into account a customer value calculation based on data analytics—has become a success factor. Data-based marketing ultimately leads to modelling and predicting customer and market reactions.

Building on these findings from data-based marketing, further tailor-made offerings to customers—such as a “Happy Weekend” product with reduced prices at the weekend—are conceivable to satisfy individual needs. Further research is required to answer the question of whether the customer’s (basic) needs and attitudes motivate a sustainable change in consumption behaviour or whether more “convenient” models, such as the flat rates familiar from other industries, will prevail in the long term (DIGITALE WELT, 2018).

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## 5 Conclusions

In recent years, in the energy market, too, Customer Relationship Management, aimed at systematically establishing and expanding long-term and profitable business relationships, has become increasingly important. In particular against the background of high costs for acquiring new customers and declining customer loyalty associated with rising churn rates and intensified competitor activities, it is becoming increasingly imperative for energy suppliers to intensively address the issues of customer retention, early recognition and prevention of customer churn, as well as of recovering lost customers.

This chapter gives an insight into different approaches to customer management in the energy sector. In this context, it is of importance that the presented instruments and concepts are not perceived as single, independent thematic complexes or exclusively as an IT topic.

For the energy market, a further increase in switching rates is expected in the coming years. The appearance of other market participants from outside the industry is most likely. As a result, competition for customers willing to switch will strengthen even more in the future. Last but not least, the energy transition and the associated development of innovations, as well as the optimisation of existing business models pose great challenges for energy service providers. Consequently, the issue of CRM will continue to play an important role in the future as part of integrated acquisition, customer retention and recovery processes. Highly competitive energy markets such as the UK or Scandinavia show that companies focusing on effective Customer Relationship Management processes can grow successfully.

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