

Optimization Design of Power Grid Business Management Mechanism Based on Customer-Centered Concept

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Abstract. From the perspective of the people as the center, China insists on deepening the reform of "management service" and continuously improving the business environment. Electric network companies must actively implement the policy requirements for improving the electricity environment, and must adhere to the concept of "customer-centered" development. Meet and lead the increasingly diversified customer needs of the new era. This paper summarizes the connotation of the power grid company with customers as the center, through the questionnaire analysis, summarizes the existing problems in power grid business management, and puts forward the key optimization plan based on the problem.

Introduction

China is committed to deepening the reform of the service delivery system, streamlining the number of government agencies, optimizing the responsibilities of government departments, and improving the business environment continuously. Grid enterprises should speed up the optimization of the management mechanism of power grid operations and actively implement the policy requirements for improving the power supply environment.

In the World Bank's Global Business Environmental Report 2018, China ranked 78th out of 190 economies, and "access to electricity" ranked 97th, especially in the process and time of power access. There is much room for growth in China's power grid companies. In the World Bank's Global Business Environmental Report 2019, China's ranking has risen to 46, of which "access to electricity" ranks 14th, an increase of 83 from the 2018 report. However, the ranking of "access to electricity" indicators is only the results of the evaluation of Shanghai and Beijing cities. It does not represent the overall average level of China. There is still great room for improvement in the quality of power service and access. Starting from the demand of customers, reducing the weak link of power supply service and continuously improving the quality of power supply are important ways to improve the business environment in China.

With the improvement of the income level of the residents, the changing environment of the energy market and the development of information technology, customer demand presents the characteristics of diversity. Customers demand higher quality of service, more diverse forms, more convenient processes, and more emphasis on interaction and service experience with the grid. The company must be real-time, accurate, and fully aware of the current needs of customers, mining potential needs, effective integration of internal and external resources to meet customer needs. Clean energy power plants, power companies, electric car owners, distributed energy users and other new customers have emerged. In terms of demand content, new types of demand content such as demand response, electricity substitution, distributed power generation and Internet access, electrical equipment generation, and energy efficiency services are constantly emerging. Customer needs more personalized, interactive, transparent, convenient, more emphasis on experience, initiative.

Faced with the new situation, it is particularly urgent for power grid companies to turn to customer-centered production management. At present, there is not much research on

customer-centered theory, mainly focusing on customer management relationship management and marketing strategies. Mayiqun combed the research status of customer relationship management at home and abroad with the research object of Shanghai Yijia Center, and designed the optimization plan of customer relationship management model of Shanghai Yijia Center[1]. Wulei designed the precise customer relationship management scheme of XBD Medical Devices from the perspective of CLM strategy[2]. Wenrungen analyzed the problems and shortcomings in customer relationship management and put forward the optimization plan of customer relationship[3]. Zhang Yong used the 7p theory to design a new service marketing strategy for Zhonglian Heavy Science and to build a perfect guarantee for Zhonglian Heavy Science service marketing[4]. Hetao put forward the improvement strategy of improving the service quality of large customers from the aspects of definition, culture construction, organization setting, service team building, and marketing management[5].

The Connotative Characteristics of Power Grid Company Taking Customer as the Center Present Situation of Construction

The Connotative Characteristics of Power Grid Company Taking Customer as the Center

According to the customer-centered understanding and the characteristics of the power industry and operation, the customer-centered connotation of the power grid company is summarized as follows: The development of the power grid company must be guided by the needs of the customers, and this kind of guidance runs through all business links of the power grid. Through faster, more accurate, and more efficient services to meet customer needs, continue to create value for customers, vigorously enhance customer experience and satisfaction, and implement the "people's power industry for the people" corporate purpose.

The specific features are reflected in the following four aspects:

(a) Meet customer diversity needs

Services begin with customer demand. First, there are differences in customer needs. Different types of customer needs are scattered in various information channels inside and outside the grid company. They need to be sensitive to customer multi-level and personalized needs through large data analysis. Second, customer demand runs through the whole process before, during and after the sale; Third, customer demand is dynamic, some of the requirements are beyond the customer's existing capabilities, or customers do not notice, is urgently need to excavate the demand; Fourth, customer interaction needs are increasing.

(b) Improve customer satisfaction

To provide high quality services, compression of power connection time, real-time diagnosis of grid operation status, provide more secure and reliable power supply; We should pay attention to the customer experience, provide reasonable whole process service for the customer, so that the customer can get a good experience in the process of being served; To provide a unified service platform to facilitate the active participation of customers to meet the needs of interaction; We need to establish a well-known social image, enhance customer reputation, and create a world-class energy Internet corporate brand.

(c) Creating value for the client

In addition to meeting customers' diversified needs, it is also necessary to create more value for customers, that is, to allow customers to obtain more benefits at a lower cost. The value created by power grid enterprises for customers includes the physical value of solving the problem of customer energy use, the economic value of making customers obtain more than expected income, and the social value of energy conservation and environmental protection. The higher the value for customers, the higher the customer loyalty to the grid company, the more stable and lasting the development of the grid company.

(d) Construct a customer-centered ecosystem

At present, the organizational structure and business process of the power grid company are still obvious. Customer centered management requirements for grid companies: in order to meet the needs of customers as a common goal, grid companies should exert their own special advantages, integrate internal and external resources, We will establish an energy service ecosystem in which customer centered demand is rapidly transmitted, operating in a coordinated and efficient manner, and benefits are mutually beneficial. We will improve the overall ability of power grid companies to use external resources to serve customers in a coordinated manner and reflect corporate social values.

Problems in Operation Management of Power Grid

Combined with on-site investigation and more than 60 customer survey questionnaires, it is found that the current customer service problems include long running time, quality of power supply to be improved, single service products, poor online service experience, and insufficient active service.

Table 1. Questions reflected by customers.

outstanding problems	Concrete performance
Long running time	More trips, more links and longer time for examination and approval
Power supply quality needs to be improved	Distribution network is weak, low voltage and frequent blackouts are still prominent in some areas
Single service product	Value-added services are less, and service products are lack of "package"
Poor online service experience	App is widely used online, with decentralized functions and inconvenient application.
Inadequate active service	The proportion of active repair and rush repair is not high, and the idea of waiting for customers to come to the door is widespread.

The problem of customer service reflects that the existing operation mechanism of power grid management still exists and the concept of customer centered is not suitable. According to the results of 120 questionnaires, the problems of the existing operation management mechanism of power grid are mainly reflected in horizontal disharmony, ineffective integration of information systems, and inflexible vertical control.

Optimum Design of Mechanism

In order to solve the above problems, it is necessary to optimize business operation mechanism and build a cooperative, coherent, flexible and efficient power grid business management mechanism to better meet customer needs.

(a) Strong front-end and large back-end cooperative operation mechanism

Strong front-end is an all-weather, all-business, all-process, all-coverage, intelligent, professional and active service team that can acutely perceive customer demand and energy demand under market conditions, pay close attention to the operation status of power grid in real time, and persevere in providing high-quality services. The big backstage is a team that supports the front-end activities and works in real time. The relationship between the two is close cooperation and common satisfaction of customer needs. Workflow mechanism takes customer needs as its origin and end point, and conducts efficiently from the front end to the back end.

Table 2. Front-end and back-end positioning.

Classification	Location	Responsibility	Optimizing Direction
front-end	flexible and autonomous business end, strong integration	nearest to customers, accurate understanding of the needs of rapid responsee	focusing on combination, fully mobilize the flexibility of business teams.
back-end	background Business-related Infrastructure	deeply refine in their respective areas, support the operation of the entire organizational system	focus on integration, maximize resource collaboration and reuse

Through the backstage specialized support, front-end integrated operation, optimization of business operation mechanism, professional ability of each specialty, on the basis of clear power and responsibility interface, eliminating the blind area of management and control, seamlessly and closely linking up, forming the co-frequency co-rotation of terminal integration, professional integration, front-end and back-end conduction linkage, related business triggering, rapid capacity iteration, and rapid collaborative operation pattern. High quality to meet the diverse needs of customers.

(b) Operation mechanism of background business

Information sharing mechanism: relying on platform, integrating service channels, realizing transparency of customer demand transmission and response process, facilitating all professions to carry out online diagnosis, triggering, processing, tracking, evaluation and other work in an all-round way.

Intervention and penetration mechanism: clarify business links, and strengthen the deep involvement and penetration relationship between customer-centered departments and specialties. Through professional forward support and delayed tracking, professional barriers are weakened, business links are seamlessly linked, and synergy is increased.

Relevant trigger mechanism: According to the management logic relationship between business and organization, through the establishment of linkage rules, trigger or emergency mechanism, once the trigger conditions are met, responsible business departments organize and implement in time to improve the cooperative combat capability.

Demand transmission and iteration mechanism: After receiving customer's demand, the front-end matches the demand to the back-end departments according to professional responsibilities and rights, and realizes the precise decomposition of work tasks. Horizontal departments respond quickly to customer needs in accordance with the business chain. According to the actual situation, fast iteration of each link is realized to meet the new requirements.

(c) Manpower reuse mechanism

Through training and upgrading, power supply personnel have many skills, and can establish human resource skills pool. When the task comes, first of all, the desk manager must go to deal with it. When need help, quickly and effectively find the right person from the skill pool.

Facing the demands of multi-dimensional service, we should focus on cultivating multi-dimensional talents and service personnel to support business operation smoothly. At present, the structural vacancy of personnel requires the establishment of human resource reuse mechanism and the full use of resources. Establishment of personnel/equipment/task related resource intelligent overall reuse scheduling procedures to enable intelligent allocation of resources.

On the one hand, human reuse includes building archives of human reuse capabilities. Accurate matching between people and positions can be achieved from the following dimensions: what kinds of skills, each working time, reuse and sharing. On the other hand, after matching, it enters the intelligent scheduling program, and arranges personnel/equipment/routine tasks/temporary tasks as a whole.

Specific intelligent deployment process design is as follows:

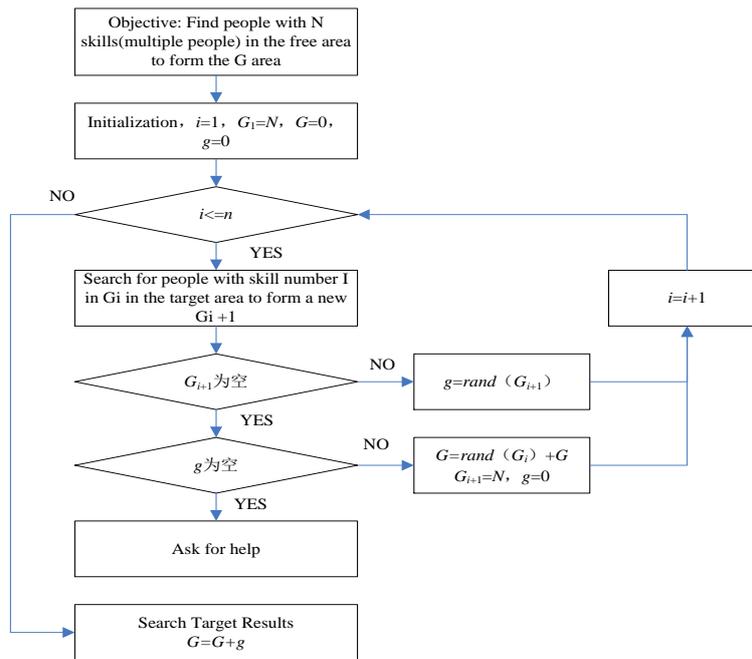


Figure 1. "Human Resource Reuse Mechanism" working mode.

Concluding Remarks

In the actual business operation process, the concept of customer-centered will run through all majors, clarify the service delivery standards and assessment standards in the upper and lower links, clarify the service responsibilities of various professional departments and levels, and improve the assessment mechanism of responsibility in the whole process of service; improve business processes, establish information sharing and feedback mechanism, and vigorously promote the close links of marketing, planning, materials, finance and other businesses. Connect, achieve business integration, linkage and cooperation, support rapid response to customer needs.

In the long run, we should take customer demand as the guide, integrate stakeholder factors, and build the operation order of enterprises by business process. Through business process, different functions are unified to form an open and ecological organizational structure. The ultimate goal is to support customer-oriented value creation activities.

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