Development and Application of Electric Power Marketing Inspection Monitoring System Based on Information Age

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Abstract: With the continuous development of the electric power industry and the continuous improvement of service awareness in the industry, all aspects of the society need higher and higher quality service for electric power. To do a good job of marketing inspection and to give full play to the normal and professional supervision function of marketing inspection on the quality of marketing services are important measures to continuously improve service and management levels. In view of the problems of low efficiency, poor timeliness and many blind spots in the current marketing inspection work of electric power supply bureau, this paper designs an online inspection system for electric power marketing based on the actual situation of electric power supply bureau's power grid operation. By sorting out the monitoring indicators, the system construction makes full use of the basic data of independent marketing business systems to carry out all-round and multi-angle monitoring analysis, and realizes abnormal early warning, closed-loop rectification, large-screen display, etc., and realizes "seamless connection" between the basic data and the platform application, thus construct a new marketing inspection mode of warning in advance, monitoring in process and alarming afterward. Through practical application, it has achieved good results in improving the efficiency of electric power marketing inspection, marketing management and service quality, and effectively prevented marketing risks.

1. Introduction

Electric power marketing inspection is an important link in the marketing work. It can avoid relevant errors and business loopholes of enterprises in the marketing process, maintain the electricity order, protect the interests of the people in electricity consumption, and is also conducive to strengthening the internal management of enterprises and improving work efficiency. At present, the existing marketing monitoring resources are scattered, and the topic of marketing inspection does not cover the whole marketing business. The inspection business is mostly conducted after the event, resulting in large loopholes in operation and management, and serious negligence of enterprises, and great economic losses to enterprises. Therefore, the marketing inspection urgently needs to integrate the existing marketing monitoring resources, strengthen the management and control of the marketing inspection, establish a unified marketing inspection organization model and management system, create a unified business model and standardized business processes, build a centralized, unified, lean and efficient marketing inspection monitoring system, and comprehensively solve the problems of imperfect current inspection monitoring system, scattered monitoring resources, and inadequate process control of key nodes and indicators. This paper analyzes the current situation, design and application of electric power marketing inspection and monitoring system based on the practical experience of electric power supply companies in implementing the system.

2. Under the Influence of the Information Age, the Electric Power Industry Needs to Carry out Corresponding Reforms

(1) The management of the electric power industry is more transparent. With the deepening of the information age, the state pays more and more attention to the development and management of the electric power industry. The operation process of the electric power industry is more

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complicated, which increases the difficulty of electric power management. As the foundation of an industry's economic development, competition can effectively improve the production efficiency of enterprises, promote technological innovation of enterprises and provide power for social and economic development through market competition.

(2) Create good external environment for the development of the electric power industry. With the arrival of the information age, various communication technologies, electric power technologies and information technologies have been widely used in the electric power industry, providing corresponding technical support for the safe operation of the electric power industry, providing rich information resources for the informatization of the electric power system, and promoting the fairness and openness of the management of the electric power industry in terms of production, transmission and operation.

3. Structure of Electric Power Marketing Inspection and Monitoring System

3.1. System Structure.

(1) Enterprise-level shared data platform integrates the basic data of various business systems, including marketing MIS, metering automation system, 95598 call center system, etc. to form an enterprise-level shared data platform.

(2) Early warning monitoring management (business inspection) monitors the business process of each business link of marketing business and related application systems in real time, gives early warning according to the set threshold, automatically sends out early warning information to relevant personnel through short messages, business supervision forms and other means, and realizes the circulation status of the system tracking early warning short messages and business supervision forms, and avoids errors through timely correction. For errors caused by work negligence, rectification shall be implemented through the abnormal inspection and inspection rectification process.

(3) Thematic inspection provides multidimensional statistical inquiry of inspection data, provides necessary decision-making basis for managers, and ensures the stability and safety of the company's operating environment, including risk point inspection and data quality inspection. Risk point inspection is to carry out statistical monitoring of data and information with major risks in the operation of the enterprise. Data quality inspection is to check the integrity and accuracy of all data in all related application systems of marketing business for data quality.

(4) Thematic analysis is to analyze and drill key business data of electric power according to different conditions and dimensions to provide data basis for leaders to make decisions. The system provides rich graphic display modes which provides necessary basis for optimizing management, ensuring monitoring quality and improving customer service level.

(5) According to the indexes involved in the marketing work quality evaluation, the work quality evaluation carries out the corresponding proportion and weight setting for each index weight, and sets the overall weight according to each major business. Each sub-item needs to set the corresponding sub-item plus or minus weight. Realize quality evaluation, such as statistics and inquiry of business and index trends, ranking of electric power supply stations, comparative analysis, static alarm, dynamic early warning, trend analysis, business and index estimation according to different classifications.

(6) Comprehensive analysis of comprehensive monitoring of breach of contract stealing electricity: comprehensive application analysis of breach of contract stealing electricity is realized by combining metering automation and marketing data, potential users of breach of contract stealing electricity are analyzed and discovered in time, losses of electric power supply enterprises are reduced, and safety of electric power supply lines is guaranteed. It includes the effect analysis of inspection and monitoring: a comprehensive analysis of the distribution of marketing monitoring results and the situation of inspection and rectification.

3.2. Business Structure.

Marketing business provides customers with various services and completes various business processing through the division and cooperation of specific businesses in various fields. The marketing inspection and monitoring system is an application system based on the application of marketing business and realizing the functions of marketing and service management. Its service structure is shown in Figure 1.

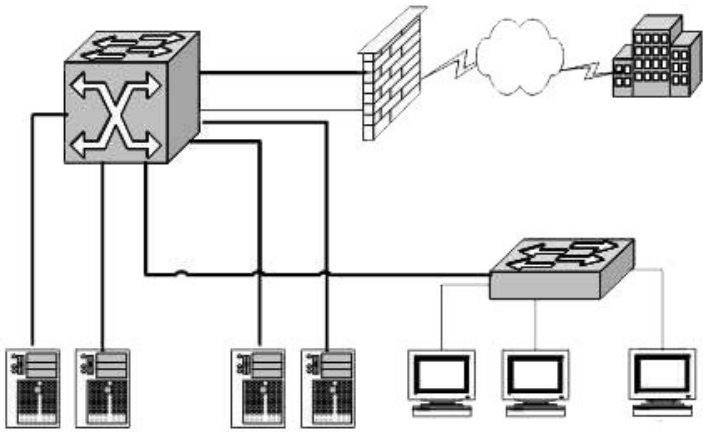

Figure 1. Marketing Inspection Monitoring Structure

The marketing inspection and monitoring service realizes the monitoring of various marketing services through the network provincial and municipal level monitoring centers, initiates inspection tasks for abnormal problems, and the marketing service departments at all levels are responsible for completing rectification tasks and forming closed-loop management. Provide thematic analysis function for each marketing business department, provide management analysis function for marketing management personnel, and publicize the company's marketing operation results and marketing informatization construction results. 1) Operation display. Through the presentation of the basic situation, electric power supply and demand, market development, business indicators, customer service and intelligent electricity consumption, etc., the company's marketing operation results and marketing informatization construction results are displayed. 2) Evaluation of inspection performance. By analyzing the completion of inspection business and inspection tasks, tracking the completion of monitoring indicators and the development of inspection work, understanding the effectiveness of monitoring work, summarizing and forming evaluation reports, providing decision-making basis for management, providing monitoring and inspection direction for monitoring layer, and promoting the optimization of monitoring indicators. 3) Topic analysis. According to the information attributes of customer development, contract management, electricity price, electricity price recovery, customer service, measurement collection, asset equipment and electric power market, and combined with abnormal information of monitoring and inspection, multidimensional analysis and in-depth mining are carried out to realize accurate positioning of inspection objects.

4. Application of Electric Power Marketing Inspection Monitoring System

4.1. Analysis and Processing of Marketing Inspection Tasks.

The task of electric power marketing inspection is mainly to find problems in electric power marketing through the system, supervise and urge the marketing department or relevant departments to carry out business processing and change the work process through inspection, and check the results of the inspection task. (1) Distribution of marketing inspection tasks. Through the marketing inspection task management system, managers can find the problems existing in the electric power

marketing business, formulate corresponding inspection tasks, and distribute the corresponding tasks to the relevant responsible units. (2) Forwarding electric power marketing inspection tasks. After the distribution of marketing inspection tasks, the relevant business departments shall analyze the tasks according to the actual situation of the inspection and carry out appropriate arrangement, assign these inspection tasks to the relevant responsible persons for inspection. After complete the forwarding of the inspection tasks, the inspectors shall fill in the relevant task inspection work orders and carry out specific processing on the relevant businesses. (3) Review of marketing inspection tasks. After completing the relevant inspection tasks, the marketing inspectors shall feed back the inspection results to the superior department, which shall check the relevant inspection results and distribute the inspection tasks again until the tasks are completed.

4.2. Process of Processing Work Orders for Electric Power Marketing Inspection.

The processing flow of the marketing inspection work order plays an important role in the electric power marketing inspection processing task and is an important link in the electric power marketing task inspection. It is mainly to process and analyze the important data in the inspection and make rectification. (1) Dispatch work orders for marketing inspection. (2) Process marketing inspection work orders. (3) Examine and approve work orders for electric power marketing inspection.

5. Conclusion

At present, the electric power marketing on-line inspection and monitoring system has been put into use in the electric power supply bureau, and has fully showed the good application effect of the system. The problem checking and rectification rate has been significantly improved. At the same time, it has effectively promoted lean marketing and integrated management, further improved the marketing management and customer service level of the electric power supply bureau, and greatly improved the core competitiveness of enterprises. Carry out centralized on-line inspection of marketing business, real-time and on-line monitoring and analysis of key marketing indicators, work quality and service quality, realize comprehensive prevention of marketing risks, controllable and controlled marketing work quality and continuous improvement of marketing management level, completely improve marketing operation capability, customer service capability and management control capability, and provide strong technical support for overall improvement of the company's operating efficiency and service image and construction of "big marketing" system.

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