Research on Scientific and Technology Service Mode based on “Internet + Inspection”

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Abstract. In order to improve the technical service capability of the inspection industry, the "Internet + inspection" technology service mode is proposed. Based on the analysis of the role of inspection industry in the development of national economy, studies the mechanism of inspection technology service mode and the relationship between the elements of service mode innovation mechanism. Design the technical scheme of "Internet + inspection" technology service mode, and compare the efficiency of "Internet + inspection" technology service mode and traditional technology service mode.

Keywords: Service mode; Scientific and technological services; “Internet + Inspection”.

1. Introduction

As an important format of high-tech service industry, productive service industry and science and technology service industry, the inspection and inspection industry play an important role in adjusting and optimizing the industrial structure and promoting economic upgrading and efficiency improvement. It is the fourth industry of the Chinese government. An important breakthrough in the revolution. Inspection and testing are an internationally recognized national quality infrastructure, providing important scientific and technological support for economic and social development. It is very important in promoting economic transformation and upgrading, promoting technological innovation and technological progress, ensuring and improving people's livelihood, and improving the international competitiveness of enterprises.

Under the combined influence of the rapid economic growth of the country and the international competitive pressure of products, China's inspection and testing industry has developed rapidly. In 2017, the total number of inspection and testing institutions nationwide was 36,327 (As shown in Fig 1), an increase of 9.30% year-on-year. The inspection and testing service industry achieved an annual operating income of 237.747 billion yuan, a year-on-year increase of 15.13%. The inspection and testing institutions issued 376 million inspection reports, an increase of 5.6%. Although China's testing and testing industry has broad prospects for development, the development of testing and testing industry faces the problem that the speed of testing and testing market expansion is less than that of testing and testing institutions, the number of annual reports of individual testing and testing institutions is falling, the level of technology is backward, and the service model is single.

Fig.1 Changes in the number of inspection institutions
2. Research on the Mechanism of Testing and Testing Technology Service Mode

At present, most of the testing and testing institutions in Reckoning Province have a public welfare trait, and generally carry out inspection and testing business in a one-way mode of government supervision. The service model is single, the technology level is backward, and the innovation ability is insufficient. Most of the "Internet +" technology is only In the application of task declaration, data uploading, certificate inquiry, etc., the application of "Internet +" technology in the inspection of task node information tracking, intelligent of test equipment, and technical communication is less. The work orientation of the inspection and inspection institution is to "make good and good service", to embody "service" in "checking", to insist on "checking" in "service", to combine customs and service work, in order to better exercise Inspection and inspection agency functions. “Check” is the basis for the development of the inspection and inspection industry, and it is also the biggest feature of the inspection and inspection industry that distinguishes other service industries.

Service is an intangible product supplied through a service model. The development level of service is divided into three parts: direct service, indirect service and integration service. Direct service refers to services that can be provided without other labor tools or with simple labor tools. The service providers have lower service capabilities and are limited in the types, quantity and quality of services, which are the primary level of service development. The indirect service phase is also the service productivity phase. The product stores the service consumed by the laborer. The production process of the product is a process of continuously transforming the service into a product. The product consumption is superior to the direct service by its stability and convenience. Another stage of development and progress. The stage of service product integration service refers to the process of consumers obtaining product service through the market equivalent transaction, but the process of professional labor service and specific product integration, which belongs to the highest level of service.

The service model is a mechanism that utilizes existing resources to address the demand problems in social reality and continuously provide service delivery according to certain service plans or service rules to meet social needs. Service model innovation refers to the activity of constructing a service model according to the social needs by using the components of the service model. The essence is to create a mechanism that can provide high-quality services continuously and efficiently. Service innovation mechanism is a process of continuously generating new types of services. When a service model provides services for multiple types of demands and can stimulate these demands to innovate services and expand the types and scope of service provision, such services Model is a service innovation mechanism. The motivation of service model innovation comes from the internal initiative factors of enterprises, and the passive factors from the external environment, which are mainly reflected in the strategic needs of long-term development of enterprises, the demand for profit growth, the pressure of social competition and the development needs of society.

Demand, technology and system are the elements that constitute the service model innovation mechanism. Demand is the problem and fundamental driving force to be solved by service model innovation. Technology and system are the core elements and components of service model innovation. Service model innovation is the result of the interaction of the various components of the service model. In reality, although demand is affected by the state of technology and institutions, as a driving factor for service model innovation, there is generally no obvious direct interaction with other elements. In many cases, it only affects technical and institutional elements in one direction. . The two elements of technology and system, in the economic field, are difficult to completely isolate them. Because of the driving and driven relationship between the two, technological progress constantly drives the development and improvement of the system.

The positive mechanism of service model innovation is to seek innovation due to its own factors, before the demand of real service, the forward-looking and creative of service model innovation, the reverse mechanism is the social reality demand to promote service mechanism innovation, the forward mechanism and the reverse mechanism will The service demand innovation model constitutes a closed loop system. The positive mechanism exists more in the service model innovation
process of mature and stable market environment, and the reverse mechanism is mostly the process of social self-adjustment.

3. “Internet + Inspection” Technology Service Mode Technical Solution

The popular "Internet +" technology refers to "Internet + traditional industries", but this is not a simple superposition of the two, but the use of the Internet platform to take advantage of information and communication technologies, allowing the Internet and traditional industries to deepen, organically integrate and create New development patterns. "Internet +" represents new productivity, promotes the continuous development and evolution of economic and social forms, thus providing a new direction for social change and providing a broad platform for human social change, development and innovation. In recent years, "Internet +" technology has transformed financial, service, medical, education and other industries to provide users and businesses with information-based environment and intelligent social services, and provide new growth points for the development of social economy. Promote the overall upgrading of China's social economy.

The "Internet +" sign is mainly reflected in the fact that the platform of "Internet +" technology is equal and open. Under the basic concept of equality and openness, Internet technology creates an equal and open space for the development of society. Internet technology makes communication between organizations and individuals more transparent and open, and it is easier for users to communicate, communicate and trade on an equal basis, eliminating the differences in status brought about by traditional ideas. "Internet +" technology is efficient and convenient. The development of Internet technology has changed the way of information transmission, changed the communication mode between people and society, promoted the rapid dissemination of information, and upgraded the public's access to and experience of information to achieve intuitive and convenient communication. "Internet +" technology is real-time and extensive. The traditional information transmission method often leads to the lag and failure of information, the popularity of Internet technology and the application of normalization, and the speed of information transmission, greatly expanding the information transmission path, so that the public can access the network information in various occasions and at various time periods.

"Internet +" and detection and inspection work in cooperation means that the inspection and inspection industry provide data resources for "Internet +" technology, while "Internet +" technology provides detection and inspection technology, data analysis and program optimization platform for inspection and inspection technology. "Internet +" technology provides scientific and technological support for the improvement and efficiency of the inspection and inspection industry. The demand of the inspection and inspection industry provides the driving force for the development of "Internet +" technology. The two mutually promote and mutually beneficial win-win relationship.

The "Internet +" technology testing and testing technology service platform is based on the testing organization, and the "Internet +" is the carrier to provide users with a platform for testing and testing technology services. The platform provides enterprises with technical consultation, data uploading, information inquiry, technical data downloading and other services, and can also push inspection and inspection industry information. According to the differences in the identity of the objects used by the platform, the users can be divided into three types: the applicant, the auditor and the implementer. The applicant is the application for the inspection and inspection service, and the assessment party is the technical data review, the inspection task release and the report issuer, and the implementer For the inspection and verification task technical solution formulation, inspection task execution and report preparation, the auditor and the implementer can be different functional departments of the same unit.

4. “Internet + Inspection” Technology Service Model Efficiency Study

The inspection and inspection industry's service targets are mainly product production enterprises. Product inspection and inspection requires enterprises to submit inspection and inspection
applications and technical materials, review enterprise and technical data, and then issue inspection tasks to determine inspection and inspection technical solutions, product inspection and inspection and raw data records. Write test inspection report, report review and other procedures, inspection and inspection business process as shown in Figure 1. In the traditional inspection and inspection service mode, all aspects of the inspection and inspection business process are completed by the reporting enterprise to the inspection and inspection agency. The inspection and inspection process and node information can only be consulted by telephone or on-site, and the human and material resources are consumed. Long and inefficient. Integrate "Internet +" technology into the whole process of inspection and inspection, use Internet site declaration when testing inspection and declaration, technical data submission, inspection and inspection task release, technical plan formulation, inspection node information report, inspection report preparation, inspection report In the process of checking and publishing, the combination of internal LAN and Internet is adopted to realize the organic integration of inspection and testing and “Internet +” technology.

5. Summary

The Internet technology is used to design the testing and inspection department as a service platform, which improves the quality and efficiency of testing and inspection services, shortens the product testing and inspection cycle, and promotes the sustainable and healthy development of the testing and inspection industry.

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