Numbers of Thoughts on Promoting Standardization Management Work in Innovative and Efficient Manners

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Abstract. This essay introduces some existing problems in standardization management of research institute. The essay analyzes the key points of standardization management, discusses the thoughts on standardization process design. Meanwhile, this paper expounds methods of standardization management in many fields such as module division, template index, information release, quick motivation, human and standard connection and level upgrade. The research achievement of the essay has important guiding significance on standardization and technical base management.

1. Introduction
A standard is a normative document created by consensus and approved by recognized institutions for common use and reuse in order to obtain the best order within a certain scope[1]. Standardization work is a kind of basic technical work, which runs through the whole process of scientific research and production, and plays an important role in guiding technological research and development and scientific research and production practice.

Standardization management is a kind of long-term sustainable job, which provides long term research institute development with technical basis guarantee, has a stable impact on the long-term development of industries and types, and has strategic pertinence and promotion.

So far, the research institute has made some achievement on standardization management. However, some problems have also existed such as imperfect standardization management and operation system, inconspicuous standardization support system, unconscious standardization personnel and rare use of standardization type application.

Based on the current situation and urgent demand on standardization management, standardized work is supposed to improve in many aspects. On the existing basis, the research institute combines reality business, presents innovative method and effective impellent, strengthens process control, intensifies management details, consolidates relationship with relative business functions in order to play an important and positive role in scientific research and production.

2. Focuses on Standardization Work
According to comprehensive analysis of reality situation, focuses on standardization work can be extracted as the follows: Counting on the strategic construction of standardization development,
building an integrated standard system for design process, enhancing standard applications in some aspects such as type technology and technical skills, upgrading standard series (Productization, Informationization and measurement, etc.).

In the aspects of standardization level, exploring core technology or upgrading proven technical standards will upgrade division standard up to institutional, industrial or state and military standards so as to improve image and competitiveness.

3. Process Design of Standardization Management Work

Standardization management is a kind of systematic and basic job, which requires systematic and process design. Detailed process design refers to Image 1. Process design can be divided into 3 levels (Strategic level, Executive level and Applicable level)[2].

![Figure 1 Standardization Process Design](image1)

Standardization development strategy is the core of standardization management, and also guiding ideology for standardization management in the near future. On strategy formulation level, we are supposed to combine highly, deeply, meaningfully and thoughtfully mid-term and long term development plan and technical development plan with research tasks, professional skills and civil industry development, including standard tasks, development ideas, aims, implement approaches and assurance facilities[3].

Under the framework of development, we categorize work focus, draw up implement plan and decompose within the present year. Work focus will provide guide, thought and method with work implement, which will become an important approach to make development strategy clear.

Constructive standard system has become important steps for conducting standardization management work. We can integrate current circumstances and reality standards to sort out in order to provide continuous compilation and application with framework. In general, standard system is mainly based on design and process and supported by other standard system (Productization, Informationization and measurement, etc.), united together to form new standard system, categorize and sort out standard directory under the framework (Please see the Image 2).

Standard compilation should be processed under the framework of standard system and initiated by the competent authorities. In meantime, discipline deputy chief designers set to compile and relative departments are responsible for preview job. Review of compilation will be conducted by the research institute and finally the compilation will be approved by the standardization committee and then will be released.

Standard application is the base of entire process design and combines standards with detailed types to develop via informationization system to match and use position and standard directory of designers in order that relevant standards can be executed forcibly in types. Regular feedback for execution situation of standards will benefit for revising current standards.
4. Methods on Innovative Standardization Management Work Dividing Standard Compilation Tasks Relied on Modules

We will divide and manage different modules in accordance with different sources of tasks. At the same time, we start up standard compilation based on technical basis, productization, quality control, measurement, in-coming re-inspection and various kinds of guides. Specific personnel will be responsible and relevant subjects will be reviewed according to the subject modules plan.

4.1. Expediting Standard Compilation Counted on Templates

According to series of present unit products under service, we will select 1-2 unit products to start up standard compilation and organize experts of the research institute to evaluate, revise and refine. Drafted standard compilation will be determined after three rounds. The standard compilers and leaders in charge of unit products will take part in all the way during the progress of compilation. The thoughts of compilation will be confirmed in review and discussion, which provide the compilation of other unit products with clarity of thought in the future so as to save a plenty of time. After compilation review of one system is completed, members of standardization committee of research institute will conduct comprehensive review on series of standards. The compilation will be released on internet.

4.2. Promoting Standard Application Based on Informationization

The standard application will make most use of on-line release and set navigation for standard categories on the homepage of research institute. We can search information according to different modules and types and divide standards into different zones, and navigation bars and standards released will be shown separately. Meanwhile, we are also able to interlink positons of designers and standards date base. When every designer carries out design, relative professional standards supporting works will be displayed in the process zone in order for user-friendly design[4].

4.3. Pushing Forward Standard Compilation Driven by Quick Motivation

The standard is a work of experiencing inheritance, which needs designers with certain working experience and professional basis to compile. Rewards should be given promptly in the progress of compilation. At present, we have adopted seasonal or serial reward facilities for timely rewards and quick motivation. Standard rewards are composed based on division level, institute level, group or upper level. The main compilers of the key award standards, especially the main writers, should be mainly rewarded for the standards of the same series of standards as the model, and all relative departments should be motivated to carry out the standard preparation work in the form of research tasks group. The methods of grading and evaluation will mainly depend on difficulty and quality of standards. There are 5 review personnel, including deputy director in charge, leader of standardization supervisor, standardization supervisor and two relative professional personnel based on the principle (5 points is full score). The score will be counted on the average score.

Figure 2 Standard System
4.4. Convenient Design Use Based on the Method of Standard Work Package
Standard and information system can be perfectly matched by application (Please see Image 3). Designers are able to click every below work package after establishing work contents and required standards for relative position will be shown on the right side for selection.

![Figure 3 Diagram of Standard Work Package](image)

4.5. All Personnel Involvement throughout Comprehensive Communication
Most important element in standardization management is human, so we deserve to strengthen connection with relative people in the progress. Communication covers many aspects of standards compilation such as assumption, thought, task and plan. As a competent department of standard compilation, standard administrators are ought to acknowledge each items of standard compilation and specify the standards to the communicators on different levels and angles. Standard communication will end up till standard compiled enterprises and personnel clarify its task and assure its compilation concepts. Current standard compilation arranges in many layout ways such as technical task order, e-mail, phone, and conference layout. Compilers take part in every detail of examining so as to completely control all compiled standards.

4.6. Promoting Standardization Influence Aiming at High Standard
Third-class enterprises rely on product selling, and second-class enterprises depend on brand selling and first-class enterprises count on standard selling. Therefore, we shall sort out technical mapping and improve core technology and utilize proven technology to increase reputation and competitiveness. We apply for several tasks through many channels in order for participating and organizing important standard compilation work. Bonding intellectual property with standardization work will furnish compilation plannings and thoughts for altering important patents to standards.

5. Conclusion
Standardization management is a kind of work not easily taken seriously by people, but standardization management has become an obvious part of enterprise development. In the meantime, researching and exploring the thoughts and methods of innovative standardization management is crucial for improving standardization management level, pushing forward standardization management progress and promoting standardization influence[5].

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