Study on Construction of Standardized Enterprise Information Management System

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Abstract

The purpose of the study on construction of standardized enterprise information management system is to standardize enterprise information construction, establish a standardized information management system, standardize the entire process of enterprise information planning, implementation and improvement, thus improving the implementation success rate of enterprise information. This paper firstly put forward the concept of the enterprise information management system, then narrates the contents of the information system, and finally proposes the standard architecture of the information management system and builds the enterprise information management system on such basis.

Keywords: Enterprise, information management, system

Information construction is the inevitable means of enterprise to enhance its core competitiveness and survive in the intense market competition; therefore, enterprises' investment proportion for the information is on the increase. However since enterprise information covers extensive contents and gets involved in huge difficulty, the overall information construction result is not ideal. By reference to the architecture of ISO9000 quality management system, authors of the paper establish a standardized information management system. Enterprises can follow such system to launch a standardized and orderly information construction.

I. Concept of Enterprise Inforatization Management System

In accordance with the definition of ISO9000 for the system and the management system, the enterprise's information management system can be understood as follows: It is a standardized management system driven by the information construction policy and objective, with the every process and stage of enterprise information construction as the control object and the improvement of information project (mainly the establishment and operation of the information system) implementation success rate as the purpose. From the perspective of the management system, enterprise information management system is an organic integrity composed of a group of correlative or interactive factors related to enterprise information, such as organization structure, responsibility, procedure, system, standard, file, activity, resource, culture process and problem. The information management system establishes a complete set of operating procedures for guiding, controlling and managing standardized enterprise information construction. Similar to other standardization management systems, the information management system guarantees the smooth information construction work by controlling every process.

II. Contents of Information Management System

By referring to the ISO9000 quality management system, the information management system is divided into four parts in this paper, namely, management responsibility, resource management, implementation of information system, and measurement and improvement (see Fig.1 as follows).

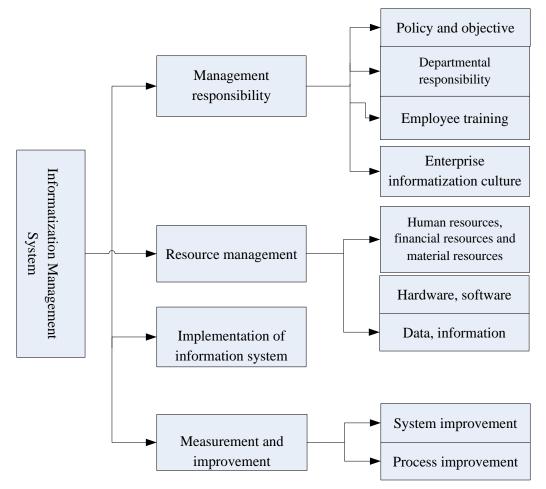


Fig. 1 Information Management System

"Management responsibility" specifies the activity that should be undertaken and implemented by company's decision-makers, including setting up the policy and objective of information construction, defining the responsibility of various departments, focusing on employee training, establishing enterprise information culture, and presiding over management review and design system planning, etc.

"Resource management" process is actually a process to rationally use the resources needed by the information construction. The resource mentioned herein includes human resource, capital, hardware, software, operating environment, data and information.

"Implementation of information system" focuses on realizing the management of the whole process from information planning to system operation and maintenance.

"Measurement and improvement" involves in system improvement and process improvement. The system operation control, system effectiveness, appropriateness and performance evaluation are mainly realized by the "internal review". The information performance evaluation can push enterprise to adopt correct methods and rational basis to launch an initiative evaluation on information performance or pay more attention to the value generated from information, help enterprise to establish a series of emergency preparedness, response measures, corrective measures and preventative measures, so as to provide a continuous and effective safeguard for information implementation process improvement and information construction.

III. Standard Architecture of Information Management System

The basic application thinking of the information management system is as follow: Establish a standardized and generalized management system standard, and then follow the respective demand of various enterprises to establish and run their respective information management system according to the PDCA process and under the standard guidance so that all enterprise information work can be accomplished under the guidance and control of the system, and then achieve the purpose of the standardized and orderly information construction. This paper establishes the general information management system standard, as shown in Fig.2.

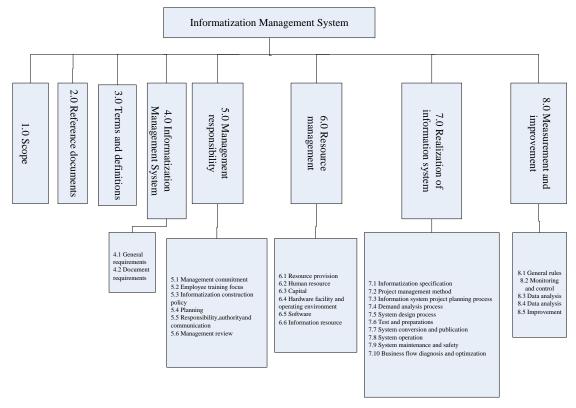


Fig. 2: General Composition of Information Management System Standard

The former three parts of the standard focus on making description and specification for the fundamental problems of the standard.

The 4th part of the standard is to describe how to establish, implement and maintain an information management system, and make provisions for the control of relevant files.

The 5th part of the standard is to describe the relationship between all enterprise employees and the information, establish the responsibility, authority and internal communication procedures of the personnel of various departments, and describe the contents related to the planning process of the information management system.

The 6^{th} part of the standard is to establish the method to acquire, use and manage the resources needed by the enterprise information.

The 7th part of the standard is to make guidance and constraints for the establishment and implementation process of the information system from ten aspects.

The 8th part of the standard is to make measurement and monitoring for the system performance and the information construction benefits.

IV. Architecture of Enterprise Information Management System

(1) Thinking unified and high attention from enterprise leaders

To smoothly implement enterprise information management, it is needed above all to change ideas, especially the cognition of enterprise leaders for enterprise information management. The enterprise information management can get success only when enterprise leaders pay high attention and make quick decision. Since the internal personnel transfer, organization regrouping, management mode change and business flow innovation may be obstructed by the traditional sense, the desirable reform can not be realized if enterprise leaders do not pay high attention or extend extensive support.

(2) Improve all management mechanisms

Standardization and normalization are the basis of enterprise information; whereas the fundamental management completeness is the key to the stable operation of the information management. The fundamental management work can impact the information operation to a great extent and bring the enterprise with two opposite results; therefore it is desirous to establish a perfect enterprise management system and adopt a uniform measuring and statistical criterion. Since the computer system is the forced implementation programs, it is preferred to establish the timely note settlement system and make daily settlement so as to guarantee the timeliness of information data; moreover it is needed to establish a more strict review system so as to guarantee the accuracy and standardization of original data and reduce the data error, only by which can the correct information be fed back to enterprise leaders, and thus the leaders can make scientific decisions.

(3) Enhance consciousness of employees for information

Enterprise information management is a highly comprehensive system; it involves in all business fields in the enterprise; therefore the smooth implementation of management information needs the joint participation of all employees in various positions; sonly by which can a scientific, practical and optimal strategic plan appropriate to the enterprise development demand be worked out. Moreover, there are many flow users and terminal users in the information management process; since the working staff in charge of every flow and all users are mostly familiar with the system program, the system result may decide their interests directly, so they are capable of providing the targeted proposals; therefore it is a must to enhance the consciousness of all employees; thus the enterprise information management can run or be operated on a steady and health track.

It is a complicated system project for an enterprise to implement the information management; the enterprise information construction can get success only if a systematic, comprehensive and effective control is adopted. This paper presents only the preliminary research results of the authors for information management system; it raises a new control method and thinking and it is informative for the standardization and control of enterprise information construction.

References

Zhou Lei, Gai Weidong On Significance of Enterprise Information Management [J] Economic Research Guide 2010(36): 34-35

- Liu Jianming Enterprise Standardization Management and Information Construction [J] Electromechanical Technology 2012(4): 161-162
- Fan Yushun Connotation and Implementation Paths of Enterprise Information's Overall Solution [J] Computer Integrated Making System 2004, 10(5):481-486.
- Luo Guoying, Lin Xiuqin Course of Study for Quality Management System [M] Beijing China Economics Publishing House 2000