Abstract: To resolve the problems during the development process of the logistics information platform, the long development cycle, slow renewal of knowledge, insufficiency of knowledge sharing and knowledge reuse, shortage of humanization, personalization features and so on, an improved method of information platform development is proposed. From the perspective of knowledge management, the development framework model, system architecture model and implementation process model are built, and then the effective integration between knowledge management and logistics information platform development is achieved. 

Keywords: Logistics information platform, knowledge management, Knowledge

Generally speaking, the logistics information platform is a general information exchange platform, which collects, classifies, screens, stores, analyzes, evaluates and feedbacks, releases, manages and controls information regarding the supply and demand, operation, process and management of regional logistics, using a modern information technology such as computer, network and communication.

The construction of logistics information platform to realize fully sharing and exchange of information is not only the core and key of current logistics informatization, but also the objective demand of the development of logistics enterprise informatization.

1 Introduction

The logistics information platform is a complex system, whose widely used method of development is the structured life-cycle method. Regarding the development of logistics information platform as a life cycle, with the principle of the supremacy of users, the structured life-cycle method analyzes and designs a system top-down, in structured and modular manner.

1.1 General process

The structured life-cycle method divides the development of logistics information platform into 5 stages,
which respectively are system planning, system analysis, system design and system implementation, system maintenance.

1.2 Benefits
The use of a structured life-cycle for the development of logistics information platform emphasizes the integrity and the overall situation, avoiding the confusion in the development process. The benefits are as follows:
(1) Use of systemic viewpoint and method, "top-down" analysis and design and "bottom-up" implementation
(2) Specification of the needs of users, emphasis of the validation and verification of the phased results
(3) Clarity of the development process, carried out strictly in accordance with the phase
(4) Canonical and standard work document
(5) Separation of the logic design and physical design
(6) Use of the systemic decomposition and integration technology, simplifying the complicated system, applicable to the development of the large-scale logistics information platform

1.3 Shortcomings
There are still some shortcomings in the use of a structured life-cycle for the development of logistics information platform.
(1) Long-cycle development and lack of a certain degree of flexibility
(2) There are no accumulation and development of the experiences and data in the project management. The lack of proper records of the experiences in the project management and exploitation and monitoring data is helpless for the reuse and the development of these experiences and knowledge on other projects.
(3) It is far from enough for the sharing and reuse of non-explicit knowledge, which cannot exist in the form of document. For example, the environment of software architecture designs, the design concepts, the methods of amendments and improvements of architecture. Because the process knowledge of these activities is not recorded, it is obviously not enough if only by virtue of the exchange and reuse of the final design results.
(4) Insufficiency of the communication and sharing in the developers and lack of the platform and mechanism for the communication
(5) Face with the rapidly changing information technology, rapid learning and response capacities often appear insufficient. As the logistics Information Platform technology is developing quickly, the problem of how to build a sharing, reuse and updating knowledge mechanism is addressed to each software development process. Due to the difficulties in the record and dissemination of the non-explicit development experience and knowledge, the above-mentioned conflicts cause more prominent. How to solve these problems? Knowledge management gives us a quite good solution.

2. Knowledge management
The knowledge management is the acquisition of knowledge and ability form an entity organization or a virtual organization, is a kind of strengthening management from the useful information, which means an innovation cycle based on the sharing of recognition, acquisition, analysis, storage, transmission and sharing of the knowledge. From the course of the cycle, the thinking and the behavior of the members are changed and establish a knowledge-sharing and innovation inner environment, in order to guarantee the organization develop rapidly and sustainably, and finally realize the objective.
The main content of knowledge management is to manage the knowledge, which includes acquisition, learning, exchanges, analysis, utilization, innovation, etc. The process of knowledge management is like this:
Applying knowledge management in the development of logistics information platform can effectively solve these problems faced in the development of logistics information platform, especially for the development and use of recessive knowledge, knowledge updating, etc, and thus make the logistics information platform activities smoothly and efficiently develop.

3. Development models of Logistics information platform based knowledge management

Logistics information platform based knowledge management refers to using the method and technology of knowledge management to support the software development process of logistics information platform, thus improving the efficiency of development, strengthening the innovation ability and the rapid response ability, and improving the skills and qualities of individual, team and organization.

3.1 Development Framework Model of Logistics information platform based knowledge management

Development framework model of logistics information platform based knowledge management includes four parts, target, process, resources and technology. Through the whole development process is the knowledge management, starting from knowledge acquisition, to analyze obtained knowledge, and then forming knowledge units, then sharing the analyzed knowledge units in organization. Organization members in the process of sharing play subjective initiative and innovate knowledge, and then absorb and analyze the innovative knowledge. This creates a virtuous cycle of knowledge management, and the cycle will become the powerful support of system development to constantly adjust and improve the operation procedure, accelerate innovation cycles, and thus enhance the comprehensive ability, so the system will better and faster realize the target of logistics information platform’s development.
3.2 System Architecture Model of Logistics information platform based knowledge management

System Architecture Model of Logistics information platform based knowledge management partitions four levels, respectively for users layer, application layer, logic layer and data layer. This model contains all of the participants which participate in the operation of logistics information platform, respectively, logistics service supplier, logistics service demander and logistics services auxiliary. So all participants are included in the scope of knowledge management, from the comprehensive view to consider the development of logistics information platform.
3.3 The implementation process model of the logistics information platform based on knowledge management

The key to the implementation process model is how to exploit and share the different kinds of knowledge from the logistics information platform, synthetically and reasonably, being able to share the implementation procedure and the development experience in the course of the implementation process, innovating on this basis, in order to optimize the different kinds of knowledge and make the logistics information platform have an optimal tendency.
Fig 5 Implementation process model of Logistics information platform based on knowledge management

4 Conclusion

The existing problems and challenges of the implementation process are reviewed in the point of view of knowledge management, proposing the development method based on the knowledge management, constructing the knowledge management process model, the logistics information platform framework model, the system architecture model, the implementation model, etc. The development of logistics information platform based on the knowledge management is a new development method. It can be reused as software directly and effectively, combining the different factors such as human, environment, resources, time, etc., carrying out the knowledge cycle in the software process to support the collaborative development with high efficiency, high quality and low cost, improving the innovation ability and fast response ability.

References
