

# ***Demand of the Management Information System of Party Affairs in Higher Vocational College***

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**Abstract:** With the development of informatization and network technology, all walks of life are transforming their business work from traditional manual processing to informatization and digital processing. However, most vocational colleges still use manual or semi-automated methods in their daily office work, and the efficiency and quality of daily office work are very low. This paper analyzes the needs of the main functional modules of the party affairs department of higher vocational colleges, such as the management of receiving and sending documents, the management of party affairs, the system management, and the conference management. It also introduces the users' requirements for the stability, security, reliability and non-functional requirements of the system.

## **1. The Background of Research**

With the development of computer technology, the use of network communication foundation and advanced network application platform to build a safe, reliable, open and efficient information network and office automation system to provide management departments with modern daily office conditions and rich comprehensive information services. The Party affairs work of the Party branch of higher vocational colleges is one of the priorities of the daily work of higher vocational colleges[1]. With the continuous growth of higher vocational colleges and their subordinate departments, the tasks of the party affairs management department are becoming more and more onerous. However, through the investigation of the party affairs office of higher vocational colleges, it is found that most of the vocational colleges are still manual or semi-automated in their daily office work, and the efficiency and quality of daily office work are very low[2].

In order to solve the problems of low efficiency, low quality and cumbersome communication encountered in the office process of the party affairs department of higher vocational colleges, it is necessary to develop a comprehensive management system suitable for party affairs office. Through the design and development of the system, the online office ability of the party affairs department of

higher vocational colleges can be realized, so as to improve the efficiency and quality of party affairs office.

## **2. Advantages of Party Affairs Management Information System Development**

### **2.1. Transformation of Official Document Management from Real to Virtual**

Information technology, software technology and network technology have transformed traditional paper-based document management into digital and electronic document management, from the early real management to the current virtual management[3]. Administrative office staffs only need to operate on the personal computer in accordance with the document management process and functional modules designed by the electronic document management system, and they can manage the document data easily and peerlessly, which saves space and manpower and material resources.

### **2.2. Optimize the Daily Office Process of Higher Vocational Colleges**

Vocational colleges will produce a large amount of official documents in the daily teaching, office and management process, especially the state-focused professional and technical vocational colleges, which produce a lot of official documents every day. If these official documents are managed manually or semi-automatically, the daily office efficiency of higher vocational colleges will gradually decrease. The sorting and storage of official documents, the sending and receiving, and approval of official documents will consume a lot of manpower and material resources. If these official documents are processed electronically and digitally, it will greatly improve the office efficiency of higher vocational colleges and simplify the daily office process.

### **2.3. Use effectively Official Document Resources and Discover Potential Value**

The official documents of higher vocational colleges undergo periodic changes, and a large number of historical official documents will be generated, including historical customer information official documents, historical sales information official documents, historical demand information official documents, etc., due to the huge amount of users and business involved in the industry, So these historical documents will be massive over time[4].

## **3. Demand Analysis of the Management Information System for Party Affairs**

Demand analysis of party affairs management information system in higher vocational colleges. System requirements analysis is the basis of software development, and its main task is to determine the business functions of the system.

### **3.1. Information System Construction Goals**

#### **3.1.1. Standardize the Work Process of Higher Vocational Colleges**

The daily work of the party branch of higher vocational colleges is still in manual and semi-automated management mode, there is no standardized work process, and some work is still handled by oral communication, which leads to the situation that the responsible person cannot be held accountable for the handling of some affairs[5]. The construction of the system can prevent this from happening.

### 3.1.2. Improve Management Level

The current efficiency and quality of the daily work of the general party branch of higher vocational colleges is very low, which has caused the overall management level of the party affairs department of higher vocational colleges to fail to keep up[6]. The management information system for party affairs in higher vocational colleges developed by using digital technology and network technology can realize the informatization and networkization of the daily work of the general party branch of higher vocational colleges, and can fundamentally improve the management level of the general party branch of higher vocational colleges .

### 3.1.3. Organizational Structure Analysis

After communicating with the staff and managers of the party branch of a higher vocational college, the organizational structure of the party branch of a higher vocational college was obtained, as shown in Figure 1. The party affairs department of higher vocational colleges consists of five main institutions: Organization Department, Propaganda Department, Office, Finance Department, and Personnel Department[7]. The office has two agencies, namely the Comprehensive Archives Office and the Planning and Development Department; the Personnel Department has a work dispatch center and retired employees; two sub-organizations of the management center.

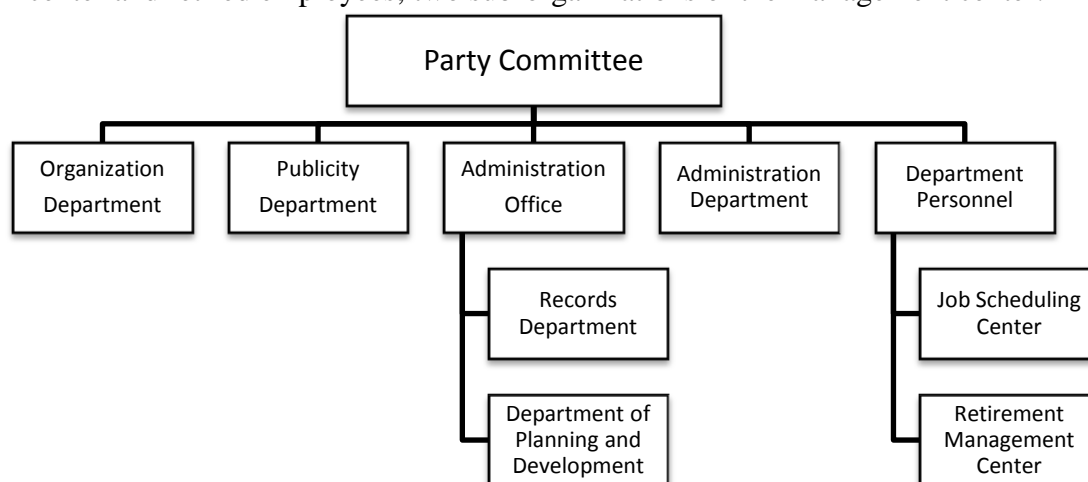


Figure 1. Organization structure of general party branch of higher vocational colleges

### 3.2. System user Analysis

On the basis of the organizational structure of the party branch in higher vocational colleges, the system role analysis of the party affairs work management information system in higher vocational colleges is carried out. System users derive four main role users: administrators, party staff, party committee leaders, and administrators[8]. Among them, the role of administrative staff derives two role users, internal administrative staff and external administrative staff; the role of party staff derives two role users, internal staff and external staff; and the administrator role derives two role users, system administrator and data administrator.

## 4. System Functional Requirements

The party affairs management information system of higher vocational colleges mainly completes the daily office, activities, conference management and other operations of

administrative institutions[9]. According to the business function requirements of the system, it mainly includes official document management, receipt management, publication management, approval flow management, and meeting Management, party affairs management, instant messaging management, data statistical analysis, system management and other functions. Establish a simple and convenient management information system for party affairs in higher vocational colleges by providing the above functions. The following will be introduced from two aspects: business process analysis and functional requirement analysis.

#### 4.1. Management of Official Documents

The official document management module mainly manages all kinds of official document information involved in party affairs in higher vocational colleges. The official document data management module mainly includes the official document data addition, the official document data editing, the official document data query and the official document data viewing work as shown in Figure 2.

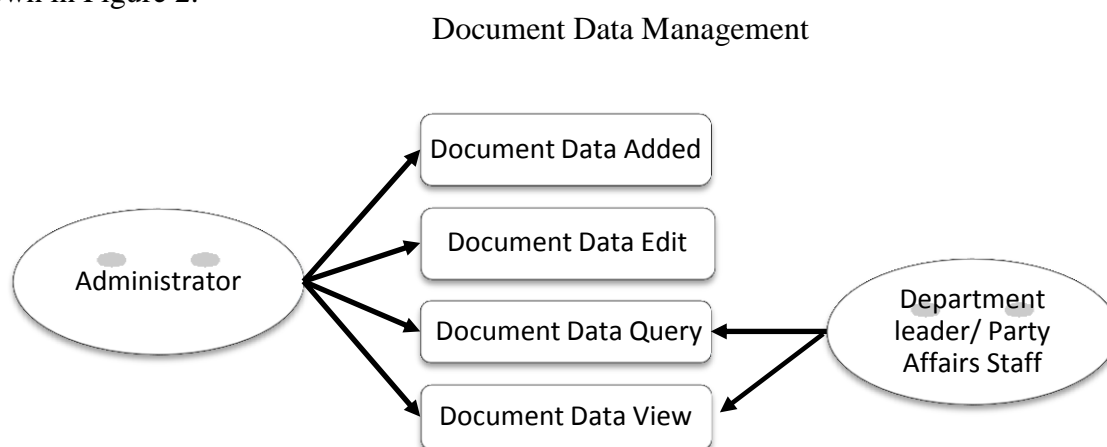


Figure 2. Use case description of document editing

#### 4.2. Management of Receipts

In the daily work process of the general party branch of a vocational college, it is often necessary to process the receipt of documents. The receipt refers to the documents and materials sent to the unit or department by the superiors or other units, such as official documents, letters, electronic publications, and so on.

After communicating and exchanging with the management staff of receipts, the management of receipts mainly includes the registration of receipts, the preparation of receipts, the review and approval of receipts, the archiving of receipts, the inquiry and review of receipts, and other components, which mainly involve the registration staff of receipts, the plan to handle receipts, etc. Personnel, department leaders, and other staff members, among which the registration staff is responsible for the registration of the correspondence; the staff to be handled is responsible for the preparation of the receipt and the filing of the receipt; the department leader is responsible for the review and approval of the receipt; other staff can inquire about the receipt And view work[10].

The use case specification of the received document query function in the received document management module is shown in Table 1. The table shows the participating roles required for receiving document query, the prerequisites of receiving document operation and the execution process involved, the result of operation execution and special requirements[11].

Table 1. The description of the use case of the received document query

Project	Contents
Function name Participating role Function description Prerequisites	Incoming document query System administrators or users who have the authority to operate this function the party affairs management information system of higher vocational colleges Have the operation authority to query the received information; There is a corresponding receipt information table in the system database; The receiving information query page can run
the event flow	After the user account and authority verification, enter the party affairs management information system of the higher vocational colleges normally; Enter the function page of receiving document information query; Enter a keyword to trigger the inquiry operation of received text information. Display the result of receiving information query.
Event result Special needs	The received information after the query. When there is an abnormality in the received document query, the reason for the abnormality needs to be displayed.

### 4.3. Publication Management

The daily internal and external issuance of documents is also one of the daily work of the party branch of a higher vocational college. The work of publishing refers to the official documents issued to the subordinate departments or other units in the name of the higher vocational colleges[12]. These documents can be some Notice announcements, personnel appointments and removals, rules and regulations, or legal provisions, etc.

After confirming the requirements with the staff of the party affairs department of the higher vocational colleges, the document management mainly includes drafting and publishing, document approval, document issuance, document filing, document query and review, etc., which mainly involves the document administrator, Department leaders and other staff and other roles, among which the post manager is responsible for the drafting of the post, the issuance of official documents and the filing of the post; the department leader is responsible for the approval of the post; other staff can query and view the post[13] as shown in Figure 3.

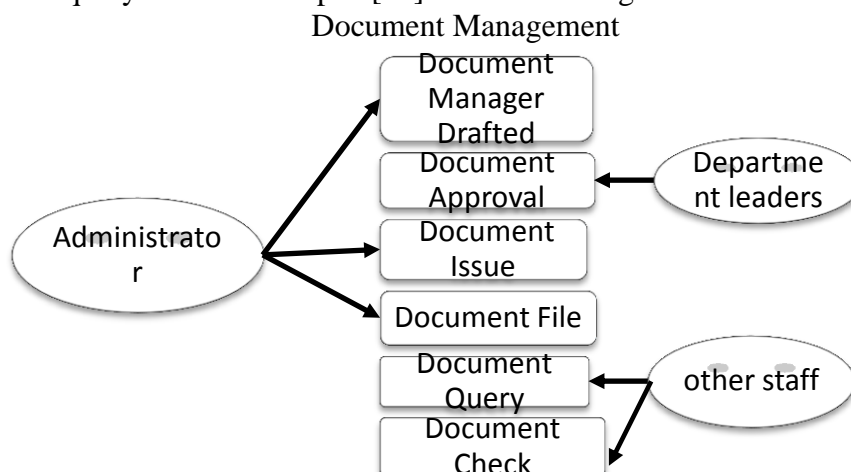


Figure 3. Functional use-case analysis of document management

### 4.4. Approval Flow Management

The approval flow management module mainly manages various approval process information involved in party affairs in higher vocational colleges. The approval flow management module

mainly includes new approval flow information, approval flow editing, approval flow query and approval flow viewing[14] as shown in Figure 4.

Approval Flow Management

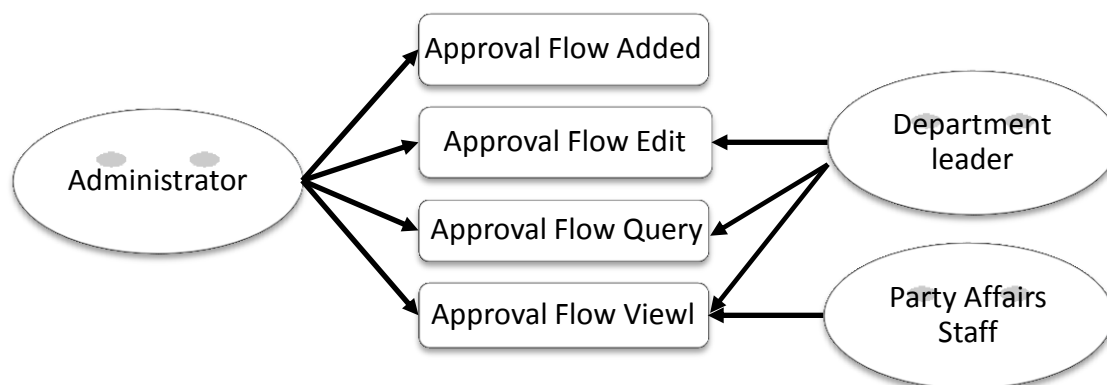


Figure 4. Functional use case diagram of approval flow management module

#### 4.5. Meeting Management

With the gradual increase in daily party affairs, the daily meetings of the party branch of higher vocational colleges are also increasing, such as safety management meetings, quality management meetings, contract review meetings, and other work meetings. A successful meeting can not only enhance the communication efficiency between meeting members, but also make scientific and effective work decisions. Therefore, meeting management is one of the functions of this system that needs to be focused on[15].

After communicating and exchanging with the meeting management staff, the meeting management mainly includes meeting arrangement management, meeting staff management, meeting room management and meeting log management, etc. It mainly involves meeting administrators, meeting leaders, department leaders and Participants and other roles. The use case description for conference staff editing is shown in Table 2.

Table 2. Description of use cases for conference staff editing

Project	Description
Function name	Conference personnel information editing
Participating role	System administrators or users who have the authority to operate this function
Functional description	Analysis of the modification function of conference personnel information involved in the party affairs management information system of higher vocational colleges
Prerequisites	Have the operation authority to edit conference personnel information; There is a corresponding conference personnel information table in the system database; The conference staff information editing page can operate normally
Event flow description	After user account and authorization verification, enter the party affairs management information system of higher vocational colleges normally; Enter the conference staff information editing function page, first query the user information to be modified by keywords; Proceed with users After the information is modified, save the modified result to the back-end database. The modified user information is consistent with the information in the conference personnel table in the database.
Event result	Refresh the conference personnel information list and display the modified conference personnel information.
Special requirements	When there is an abnormality in the data modification, the reason for the parameter abnormality needs to be displayed.

#### 4.6. Party Work Management

The general party branch of higher vocational colleges is faced with the handling of various party affairs every day, such as publicizing and implementing the party's line, guidelines, and policies, publicizing and implementing the resolutions of the Party Central Committee, higher-level party organizations and the branch; managing party members, Supervise, educate and organize party members to learn relevant theoretical knowledge and ideological and political work, etc. Therefore, party affairs management is the core functional requirement of this system.

Party affairs management mainly includes the main components of party member file management, party member education management, party affairs work management and organizational relationship management. The process of party affairs management mainly involves the three roles of party administrators, party committee leaders, and party members. The party administrators are mainly responsible for party member file management, organizational relationship management, and party member education management; party committee leaders are mainly responsible for party affairs management.

#### 4.7. Instant Messaging Management

UML use cases for instant messaging modules. After users log in to the system, they can send SMS, send emails and instant messaging settings for the instant messaging module. Party leaders can send SMS in batches, and employees can send emails in batches. The functions of sending text messages and sending emails both include the query of the address book as shown in Figure 5.

IM Management

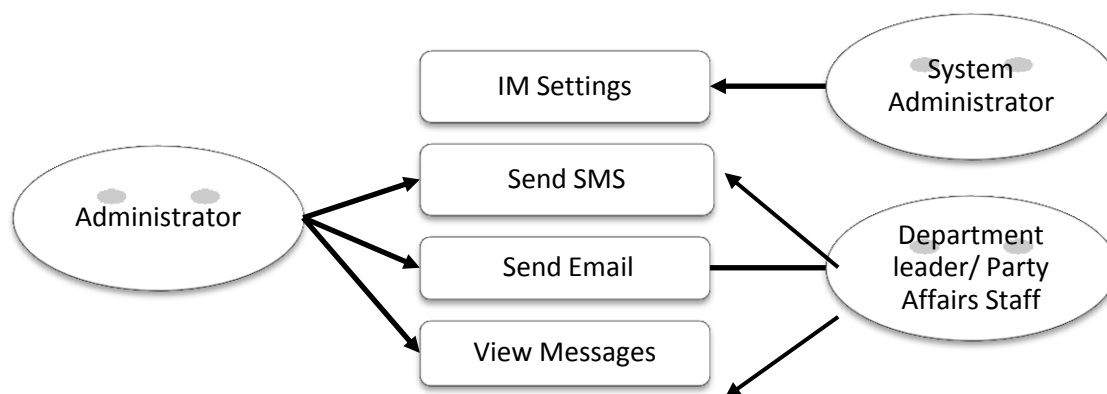


Figure 5. Use case diagram of im module

#### 4.8 Statistical Analysis of Data

The data statistical analysis module mainly includes four main components: official document statistical analysis, conference statistical analysis, party affairs statistical analysis and statistical report management. Administrative personnel are responsible for data statistical analysis, and party leaders mainly conduct statistical report management.

#### 4.9. System Management Module

System information management is an important and indispensable part of this system. It is responsible for system user management, operation authority management, parameter configuration



and data management. System user management is to manage user information during the use of the system; operation authority management can assign different permissions to different users, making work more hierarchical and standardized; and data security in a management information system is the most important. The work, system program damage or abnormality can be solved by restarting or tracking repair, but if the system data is damaged or lost, it may be irreversible. Therefore, the system also needs a system data management function to achieve system data security and Stability management to ensure the stable operation of the system.

## 5. Conclusion

In a word, through the analysis of the needs of the party affairs management information system of higher vocational colleges and the design and development of the information system, the online office ability of the party affairs departments of higher vocational colleges can be realized, and the current problems in the office work of the party affairs departments of higher vocational colleges can be solved. In order to improve the efficiency and quality of party affairs office, the problems of low efficiency, low quality and cumbersome communication were encountered.

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## Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

## Conflict of Interest

The author states that this article has no conflict of interest.

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