Shu-Te University
College of Informatics
Graduate School of Information Management

Master
Finding Criteria for Choosing Human Resource Management System in North Viet Nam College of Agriculture and Rural Development

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Finding Criteria for Choosing Human Resource Management System in North Viet Nam College of Agriculture and Rural Development

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Abstract

The purpose of this thesis is to investigate the importance of human resources (HR) to organizations, the benefits of Human resource management system (HRMS) to organizations, and to help select a HRM system for an organization. Specifically, the objective of this study is to understand the strength and weakness of Human resource management (HRM) in North Viet Nam College of Agriculture and Rural Development (NVCARD) and then select a HRMS for this organization. The study not only provides an overview of HRM and describes its importance for organizations to gain their competitiveness, but also provides detailed criteria for selecting an HRM system. The study can help not only NVCARD but also any other organizations to choose a suitable HRMS.

Keywords: Human Resource Management Systems (HRMS), HRM
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Bui Danh Hieu
# Table of Contents

ABSTRACT ...................................................................................................................... I

ACKNOWLEDGEMENTS .................................................................................................. II

TABLE OF CONTENTS .................................................................................................. III

LIST OF TABLES ........................................................................................................ IV

LIST OF FIGURES ........................................................................................................ V

CHAPTER 1 INTRODUCTION ......................................................................................... 1

CHAPTER 2 LITERATURE REVIEW ............................................................................... 6

2.1 HUMAN RESOURCE MANAGEMENT ........................................................................ 6

2.2 HUMAN RESOURCE MANAGEMENT SYSTEM ....................................................... 10

2.3 BENEFITS OF HRMS TO ORGANIZATION ............................................................ 14

2.4 CURRENT TREND OF HRMS .................................................................................. 17

CHAPTER 3 RESEARCH METHODOLOGIES ............................................................... 19

3.1. INTRODUCTION OF EXISTING RESEARCH METHODS ...................................... 19

3.2 THE RESEARCH METHODS OF THE THESIS ......................................................... 20

3.2.1. CHOOSE THE RESEARCH POINT (AREA) ....................................................... 20

3.2.2. THE METHOD TO GET INFORMATION .......................................................... 20

3.3 THE METHOD TO ANALYZE AND TREATMENT INFORMATION .......................... 26

CHAPTER 4 ANALYSIS AND RESULTS ....................................................................... 27

4.1. CHARACTERISTICS OF NVCARD ....................................................................... 27

4.2. REQUIREMENT ANALYSIS AND CRITERIA OF THE HRMS FOR NVCARD ........ 30

4.3. SELECT A SUITABLE PERSONNEL MANAGEMENT SYSTEM ............................. 38

CHAPTER 5 CONCLUSION ............................................................................................ 44

REFERENCES ............................................................................................................... 47
List of Tables

Table 1. The Content........................................................................................................... 5
Table 2. Summary of strategic competition categories..................................................... 9
Table 3. The HRIS software’s capabilities ......................................................................... 13
Table 4. Advantages and disadvantages some Research Methodologies ...................... 19
Table 5. The Mission Training of NVCARD......................................................................... 23
Table 6. Schedule of Research Method in Thesis.............................................................. 25
Table 7. Analysis personnel............................................................................................... 29
Table 8. These systems are the main features................................................................... 40
List of Figures

Figure 1. The Organization Chart of the North Viet Nam College of Agriculture and Rural Development................................................................. 22

Figure 2. The development of human resource over the periods............................... 28

Figure 3. Evaluate Vendors: Product Information and applying criteria................. 35
Chapter 1 Introduction

Human resources management has played an important role in most companies and organizations because it implies whether companies and organizations have a modern scale and higher competitive abilities.

We are living in an area of changes where quick and effective responses are always required for the highly competitive market.

It is expected that the rate of change will increase much faster in the near future along with the development of new technologies. Therefore, companies need either to adapt to the changes or to change their processes and innovate as the market requires, in order to be highly competitive in the new market. Managers realized that the success of a business enterprise in a complex and changing environment depends on the efficient management of its Human Resources.

The competitive reality is that organizations have to develop capabilities to serve their customers better while differentiating the organization from its competitors” (Ulrich, 1999). Therefore, the maintenance and development of human capital is necessary to sustain an organization’s competitive position. In other words, the organization needs a human capital mix (e.g., knowledge, skills, and abilities) that can facilitate goal achievement year after year. Organizations that fail to take a proactive approach to developing and maintaining human capital will be less competitive.

Human Resources are fundamental part of the structure of every successful organization, therefore, the information received in this area needs to be continuously followed-up and correctly evaluated to make effective decisions.
However, because a large amount of information has to be handled in this area, managing the information in this area is becoming more difficult. Information stored in paper & files did not provide the holistic view to objectively evaluate the most important assets of the knowledge of an organization, human resources management information (HRMI). Moreover, the information technology, recently, has started playing an important role in storing and using information in every aspect of an organization (Grensing-pophal, 2008). Hence an information system needs to built to effectively communicate and work within the organizational human resources management information system (HRMIS).

Human resource information systems (HRIS) have played an important role in the day-to-day functions of human resources management (HRM) and payroll management. Although, by means of information technology, there is always new software created to meet the HRM requirements of organizations, we still face a problem that is how to select the best system for the organization’s need. With so many flexible HRIS options available, perhaps this is the time to consider organization’s needs, and to get one step ahead. In fact, something that was adequate 10 years ago may not be adequate now. So, company must figure out the problems with the current operation activities, especially with the HRM functions (hcamag.com, 2008). Buying a new human resources management system is both a daunting and risky proposition. Without understanding the trend of the market and specifying the overall requirement of the organization, costly failures may ensue.

Consequently, many organizations decide to seek help from consultants for
choosing a HRMS. A challenge is picking a right consultant for this job. This obviously slow down the decision making of HR practitioners in reaching higher levels of strategic involvement in setting and achieving the organization goals. In addition, it was considered that: 52% of organizations surveyed did not even have an HRMS; among them about one-fourth intended to purchase a system, although they didn’t know yet what packages they wanted to buy. And more than 90% of the systems currently operating were implemented within the past 10 years. Besides, mating organization needs with right system features can be very tricky, as a result, some organizations replaced systems only recently implemented. More over, system implementations can be extremely taxing and demand for maximum resourcefulness on the part of project leaders in dealing with budgets, existing institutional structures, internal turf disputes and external vendor relations. Estimates of the cost vary from $5,000 to $10 million (George Pearson, 2001).

North Viet Nam College of Agriculture and Rural Development (NVCARD) is always as important as other college in Viet Nam. NVCARD is a good place where people are able to do research and apply technology to create or innovate.

NVCARD will be difficult to survive in the long term and build up the competitiveness without the talented and Doctors, engineers, and teachers. That is, people there differentiate NVCARD from other colleges. Therefore, a HRM system is really needed for NVCARD.

In this study, we would like to understand the Human resource management and the HRM system in order to find out the criteria to apply a good system to an
organization, specifically NVCARD.

In this study we use exploratory research. Exploratory research is usually used when a problem has not been clearly defined. Exploratory research can help to determine the best research design, data collection method and selection of subjects.

Exploratory research often relies on secondary researches such as reviewing literature and data, in some case, qualitative approaches such as informal interviews with consumers, employees, management or competitors and some formal approaches through in-depth interviews, focus groups, projective methods, case studies or pilot studies.

On the Internet, research methods are allowed to be more interactive in nature. For example, RSS feeds efficiently supply researchers with rapidly updated information; some major search engine can email search results directly to researchers, such as Google Alert. Comprehensive search results are tracked over long periods of time by services; and Web sites can also attract worldwide feedback on any subject.

The results of exploratory research are not always useful for decision-making by themselves, but they could provide significant and deep understanding into a given situation. Although the results of exploratory research can give some indication as to "why", "how" and "when" something occurs, it cannot tell us "how often" or "how many".

In this thesis we first review some literature and then present the criteria of Application of a Human Resource Management System. The overview of the North Vietnam College of Agriculture and Rural Development is combined with the system
analysis of a HRM system to suggest a suitable system for the Colleges.

<table>
<thead>
<tr>
<th>Chapter’s headline</th>
<th>Contents</th>
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<tbody>
<tr>
<td>Introduction</td>
<td>Identify the problem and what the thesis want to do?</td>
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<tr>
<td></td>
<td>What benefits can be gained and what objectives and goals can be attained?</td>
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<tr>
<td>Literature review</td>
<td>What is HRM?</td>
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<td>What is HRMS and what benefits can be gained for organizations:</td>
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<td></td>
<td>Current trend of HRMS</td>
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<tr>
<td>Research Methodologies</td>
<td>What is Exploratory research and how is it performed?</td>
</tr>
<tr>
<td>Analysis and results</td>
<td>Analyze the NVCARD requirements and set up goals</td>
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<td>List the categories to apply the HRM system</td>
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<td>Propose the HRM system for the NVCARD</td>
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<tr>
<td>Conclusion</td>
<td>The solution for research problems</td>
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<td>The contribution of the study</td>
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Chapter 2 Literature Review

2.1 Human Resource Management

Since 1945, after Viet Nam is independent, Government has started to pay attention to HRM in organizations and companies.

“From the late 1970s to the early 1980s, a movement occurred while corporations’ personnel departments were renamed “human resources” departments. This movement acknowledged that employees are not only just parts plugged into positions, but they are important assets. It also marked an emerging recognition that organizations should change or stop the historical practice of considering employees as costs, rather than as vital sources of revenues and profits” (Liu et al., 2007).

The term “Human resources” is defined as the available talents and energies of people working for an organization as potential contributors to the creation and realization of mission, vision, strategy, and goals of the organization. They can make the best use of all types of resources within the organization. “Finance and technology can bring advantage but are no longer capable of sustaining this advantage”. “If the human resources are well functioning, employee productivity rises and customer service improves. The employee productivity rise but with lower cost, meanwhile, the customer service improves which raise the perceived value. Thus, human resources could enable the company to create more value” (Hill and Jones, 2004). “This is the result why it is vital to manage and develop human resources effectively in any organization” (Priti, 2004).
“HRM is viewed as a function of an organization that focuses on the activities of recruitment, management, and providing direction for the employee. Human Resource Management could absolutely also be performed by line managers by dealing with issues related to people, for instance, compensation, hiring, performance management, organization development, safety, wellness, benefits, employee motivation, communication, administration, and training”. As said by Werner & De Simone (2006), “HRM can be defined as the effective selection and utilization of employees to achieve the goals and strategies of the organization, and also the goals and needs of employees”.

In recent years, the work on the relationships between human resource management and organizational performance has been added as supplement by researches, which show that human resource management is also positively linked to the motivation and well being of employees. Add the source of the citation also show that the development of positive psychological contracts between employees and managers are strongly affected by the employees’ approval of the human resource management practices and the use of human resource management. Form exploiting workers, the use of HRM creates high levels of job satisfaction and motivation amongst workers. In addition, HRM also helps to explain the mechanism for the positive relationship between human resource management and organizational performance documented.

Four key areas of HRM are required, including: recruiting competencies, retaining competencies, reinforcing competencies, and replacing competencies. Recruiting competencies patterns change from mass recruitment of new graduates to recruitment on demand, and from orientation to specialists with general creativity. Reinforcing
competencies de-emphasize seniority while increasing the importance of performance and ability. Retaining competencies use training and development mechanism to upgrade skills and retain capable employees while adopting new job design to divide core employees into poor performers and contingent workers in order to retain core HR competencies. Finally, replacing competencies introduce employment flexibility and outplacement to replace lifetime employment.

Human resources can be considered a unique asset providing sustained competitive advantage for organizations. Importance of managing human resources has been confirm in the changes in the business environment with increasing globalization, changing demographics of the workforce, increased focus on profitability through growth, technological changes, intellectual capital and the never-ending changes that organizations are undergoing (Sandeep Krishnan & Manjari Singh, 2006).

Dowling and Schuler (1990) developed a model, which referred to the types of personnel policy appropriate to encourage behaviors necessary to achieve the objectives in the strategic competition. As stated by Dowling and Schuler, strategic competition can be divided into three categories: strategy to strengthen the quality, cost reduction strategies, and creative strategies.
Table 2. Summary of strategic competition categories

<table>
<thead>
<tr>
<th>Creative strategies and activities of HRM</th>
<th>Strategies to strengthen the quality and activities of HRM</th>
<th>Strategy and cost reduction activities and HRM</th>
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<tbody>
<tr>
<td>- For the active participation of workers</td>
<td>- For the active participation of workers</td>
<td>- For less participation by workers</td>
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<tr>
<td>- Analyze career shoal</td>
<td>- Analyze career shoal</td>
<td>- Analyze career depth</td>
</tr>
<tr>
<td>- Mobilizing external resources outside</td>
<td>- Mobilizing the resources</td>
<td>- The use of resources within</td>
</tr>
<tr>
<td>- Many opportunities for career development</td>
<td>- Less opportunity to develop career</td>
<td>- Less opportunity to develop career</td>
</tr>
<tr>
<td>- Apply the criteria of the process and results</td>
<td>- Apply the criteria on the results</td>
<td>- Apply the criteria of the process and results</td>
</tr>
<tr>
<td>- Apply the long-term criteria term is mainly</td>
<td>- Apply the criteria short term is mainly</td>
<td>- Apply the criteria short</td>
</tr>
<tr>
<td>- Apply the criteria of the object in the same group</td>
<td>- Apply the criteria of the object in the same group</td>
<td>- Limitations apply the policy of insurance laos</td>
</tr>
<tr>
<td>- Apply a policy of insurance laws</td>
<td>- Apply the criteria employed</td>
<td>- Less preferential policies</td>
</tr>
<tr>
<td>- Apply various preferential policies</td>
<td>- Apply some preferential policies</td>
<td>- Salary levels by</td>
</tr>
<tr>
<td>- Wages averaged</td>
<td>- Wages averaged</td>
<td>- Training less</td>
</tr>
<tr>
<td>- Training more Building relationships between managers and employees</td>
<td>- Training more Building relationships between managers and employees</td>
<td>- Construction of the relationship managers</td>
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<tr>
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<td>- The traditional labor</td>
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2.2 Human Resource Management system

The relationship between Information technology and HRM is that Technology can help employees to gain completely control over their training and benefits enrolments; Technology can help to give birth to a paperless employment office; Technology can streamline the HR department’s work; and technology can provide knowledge for decision support, etc (Cieri et al., 2005). In an organization Human resources are the most valuable asset, and Human Resources (HR) department can administer these resources through Human Resources System. In short, Human Resources System is designed so that all HR processes can be efficiently operated (Human Resources System, 2008).

Generally, a HRS contains many Software applications such as, HR planning applications, staffing applications, performance management applications, learning and career development applications, and salaries, material, equipment, and students management applications. Besides, some organizations rely on a more sophisticated system, called Human resource information system (HRIS), to support human resource activities. “The key reasons for developing such a system are to follow the trend of the globalization business, to create more flexible, non-traditional organization structures, to apply a new information technology”, as stated similarly in (Cieri et al., 2005).

A Human Resource Management System (HRMS), also called Human Resource Information System (HRIS), HR Technology or HR modules, refers to systems and processes at the intersection between human resource management (HRM) and information technology. HRMS combines HRM, as a discipline, and in particular basic
HR activities and processes with information technology together, whereas data processing systems gradually varied into standardized routines and packages of enterprise resource planning (ERP) system. Generally, an ERP system integrates information about different applications into one universal database.

However, a modern HRIS is different from older systems that were designed only for the compensation and benefits department to support HR functions. New database-related technology can track information of each employee, applicant, or position generated by the HR function, and, more importantly, can further integrate the information with other data for decision-making (Michael Bedell, 2008). An HR system can select employees through raising vacancy advertisements, calling for resumes, and facilitating interviews to hire employees with good qualification. It also can identify training needs and schedule optimum training of employees by ask them to join in conferences and seminars. Remuneration given to employees is also an important aspect that HR can administer through the Payroll module of the HR system. An HR system is the union of HR management and HR information systems. HR technology fulfills this union through HR modules. The use of a single database is the hallmark of a successful HR system application package (Human Resources System, 2008; Duff, 1989).

An organization might face some issues relevant to Human Resource. In terms of recruiting, retention, and cost control of benefits, some issues are described as follows:

1) difficulty of recruiting talented sales staff under high turnover of salespersons;
2) difficulty of querying from HR files to identify good candidates for job openings in the firm; (3) the need for having more administrative staff to maintain and update
employee and job salary history data while the paperwork supporting for HR function seems grow day by day; (4) the need for better data on the most relevant compensation packages for certain hard-to-find job description; (5) the need for better information system to assess the costs and benefits of products, early retirement plan or educational program reimbursements. These problems may affect the quality of the HR function. Most of these result largely from lacking access to information about employees, skill sets, job descriptions, turnover data, retention data, and benefits plan, from which managers can make queries and generate reports for external agencies (Ashbaugh & Rowen, 2002).

Besides maintaining the information of employees, positions, skills, applications and performance, a HR information system can be used to manage workforce characteristics. The objective of an effective HR strategy is to acquire, place, train, and develop employees to meet organizational needs. HR information systems help managerial decision-making by offering query and reporting tools (Ashbaugh and Rowen, 2002). HRIS can simplify processes such as performance appraisal. The software tracks core-competencies and provides tips on which employees need improving or coaching. It can also alert a supervisor to orient a department, which may need training or management attention, to accomplish the organization’s goals. Appraisal systems located at different places can work cooperatively and consistently across operations (Lori Bussler & Elaine Davis, 2002).

In fact, a HRIS has different capabilities which are packaged in databases for selling. A company can pick carefully required capabilities to implement or buy for its
own HRIS.

Summarize the table below.

Table 3. The HRIS software’s capabilities

<table>
<thead>
<tr>
<th>Functions provision of HRIS</th>
<th>HRIS serve tracks in the organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Management of all employee information.</td>
<td>- Attendance and HRM use</td>
</tr>
<tr>
<td>- Reporting and analysis of employee information.</td>
<td>- Pay raises and history</td>
</tr>
<tr>
<td>- Company-related documents such as employee handbooks, emergency evacuation procedures, and safety guidelines.</td>
<td>- Pay grades and positions held</td>
</tr>
<tr>
<td>- Benefits administration including enrollment, status changes, and personal information updating.</td>
<td>- Performance development plans</td>
</tr>
<tr>
<td>- Complete integration with payroll and other company financial software and accounting systems.</td>
<td>- Training received</td>
</tr>
<tr>
<td>- Applicant and resume management</td>
<td>- Disciplinary action received</td>
</tr>
<tr>
<td></td>
<td>- Personal employee information and occasionally</td>
</tr>
<tr>
<td></td>
<td>- Management and key employee succession plans</td>
</tr>
<tr>
<td></td>
<td>- High potential employee identification</td>
</tr>
<tr>
<td></td>
<td>- Applicant tracking, interviewing, and selection</td>
</tr>
</tbody>
</table>
2.3 Benefits of HRMS to organization

Applying a HRMS to an organization has many benefits such as updating, repairing, copying and looking up information. This shows the importance of HRMS in an organization.

From the study of Sandeep Krishnan & Manjari Singh, the concept from Miles and Snow (1984) implied that a strategic HRM is viewed as a HRMS that can help for the formulation and implementation of business strategies. The common benefits of HRMS cited in existing studies includes improving accuracy, enabling timely and quick access to information, and saving costs (Lederer, 1984; Tetz, 1973; Wille and Hammond, 1981). Ulrich (1997) suggested that a HR function should be ideally placed to help an organization for managing challenges. In addition, Kovach et al. (2002) listed several administrative and strategic advantages by using HRMS. Similarly, Beckers and Bsat (2002) indicated, more than five reasons why companies should apply HRMS. These reasons were that HRMS can:

(1) Increase competitiveness by improving HR operations;
(2) Produce a greater number and variety of HR-related reports;
(3) Shift the focus of HR from transaction processing to strategic HRM;
(4) Make employees be a part of HRMS;
(5) And reengineer the entire HR functions of a company.

Targowski & Deshpande (2001) also supported that companies should use HRMS because HRMS can give a lot of benefits, such as incremental leaps in efficiency and response time of various traditionally labor intensive human resource activities, better
knowledge management, and the ability of various business performance calculations. These benefits are described in detail as follows:

- Incremental leaps in efficiency and response time of various traditionally labor-intensive human resource activities: it implies not only the elimination of work duplication, but also streamlining various processes for more efficiency. As a result, less time will be spent on day-to-day administrative issues, and more time will be left for strategic decision making and planning. Besides, more chances could be obtained to develop and cut cost. Thus, HRMS has a direct help for the productivity and profitability of an organization.

- Better knowledge management: this leads a firm to has a better competitive advantage in the marketplace and a better stakeholders’ satisfaction.

- Applying a HRMS to various business performance calculations like return on training, turnover costs, and human-value added: this can impress the top management that applying a HRMS is critical to fulfill organizational strategic objectives.

Broderick and Boudreau (1992) examined how a HRMS can contribute to cost reductions, quality control, customer satisfaction, and innovation. Sadri and Chatterjee (2003) stated that once HRM functions are computerized, then faster decision making will be able to be carried out on the development, planning, and administration of HR because data will be much easier to store, update, classify, and analyze. In addition, they added that HRMS can strengthen an organization's characters (Ngai, 2006).

The ways that human resource information systems use to cut costs are by means of streamlining payroll, benefits enrollment, scheduling and other administrative tasks.
HRMS also boosts efficiency by eliminating paper-based manual processes and lowering work redundancy. Through real-time financial and acuity data, Managers can place right employees with right skills on right jobs and can head off potential budget overrun (Lee, 2006).

On the management side, HRMS provides detailed, up-to-date employee information. It tracks whether employees are qualified currently. It also tracks work and salary history, and check whether warnings have been issued to the employee. Via HRMS, Managers also can query quickly, about average rate of pay for employees, number of hours worked by outsourcing staff, turnover and absences, and generate custom-made reports such as the distribution of employees in different fields.

Colleen Bornhorst, a senior systems analyst, said: “It makes their job easier because they don't have to rely on HR”. Without implementing a HRMS a manager has to call human resources department to acquire the requested data, and the department then need to print the data and deliver it manually to the manager or send it through interoffice mail. "By the time the report made its way to the manager, it would be two weeks old sometimes”.

Based on HRMS, employees can use the self-serve system to view their work record and salary history and to update their personal information; and whether their immunizations and training and licensing requirements are up-to-date, or not, can also be checked and indicated. The training component allows employees to review and sign in programs, and to update their files so that management board can check if a requirement has been met. (Lee, 2006)
Organizations will prepare to undertake changes provided that they see a competitive advantage to doing so. However, many companies encounter problems when implementing new technologies, such as HRMS, due to the lack of sufficient capital and skills. Hence, these companies are unwilling to implement a HRMS unless they are convinced that many specific benefits will be brought to their organizations after implementation.

2.4 Current trend of HRMS

Because the quick development of WEB, LAN, WAN, Extranet, Intranet and Internet, some new trends of HRMS and systems are shaping such as trends of Web based e-HRM software, Non-web HRM software, and HRM software market.

Web based e-HRM software offers a browser ‘front end’. The browser for employees, Employee Self Service (ESS) for example, allows them to view personal data, training requirements, change benefits, request holidays or leave, access to selected personnel information via employee portals. The browser for managers, Manager Self Service (MSS) for example, can help managers with many fields. Such as:

- Recruitment,
- Performance measurement,
- Compensation planning,
- Automation of routine HRM administration,
- E-recruitment - automated tools streamlining the recruitment process,
- Retaining good employees and utilizing existing skills of the organization,
- E-learning,
- Web interfaces,

... 

The trends of Non-web HRM software continuing growth of: integration of HR software with Payroll software, integration with other HR associated modules, for example, Recruitment, Time and Attendance or Workforce Management, Absence Management, Talent Management, Training, ERP, scalability. HR software that was available for larger organizations, being redesigned to be suitable for Small and Medium Enterprises (SME). And HR software that was suitable for SME businesses increasing in its functionality in order to reducing HR costs by extending the use of technology, such as: e-recruitment, e-learning, the strategic role for the HR department, as it divests itself of routine HR administrative tasks.

The trend of HRM software market. Businesses extend their HR software functionality by adding modules, migration to web based HR software, and web enabling activities and processes. Organizations is looking at more economical HR software systems to avoid the implementation costs of larger international HR software, competition, especially in the mid-range HR software market, HR software market or vendor consolidation.
Chapter 3 Research Methodologies

3.1. Introduction of existing research methods

About Research Methodologies, we can state some famous methods, such as interviews, questionnaires, Internal Document analysis …One of these has its own advantages and disadvantages, we want to describes these method in very simply way.

Table 4. Advantages and disadvantages some Research Methodologies

<table>
<thead>
<tr>
<th>Order</th>
<th>Method</th>
<th>The content and scope of application</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Analysis of secondary</td>
<td>In order to have general knowledge</td>
<td>There is much information,</td>
<td>Information can not focus</td>
</tr>
<tr>
<td></td>
<td>materials</td>
<td>about research</td>
<td>synthesize</td>
<td>Information not updated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applying for initial research</td>
<td>Quickly gather information</td>
<td>Influenced by the views of the writer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Save time and costs</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Analyze</td>
<td>Applied after the initial research.</td>
<td>Updates</td>
<td>Take time, cost</td>
</tr>
<tr>
<td></td>
<td>primary documents</td>
<td>In order to have information about a specific problem</td>
<td>Having the right information required</td>
<td>and effort</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.2 The research methods of the thesis

3.2.1. Choose the Research Point (Area)

Research was implementing at the NVCARD, in Xuan Mai town, Chuong My District, Ha Noi city. The time longs from the August 2009 to July, 2010.

3.2.2. The method to get information.

The major method used in this thesis is Internal Document analysis and Interviews. Based in Internal Document, we can simply describe the human and organization structure and campus environment of NVCARD, and so that, we explains the reason to adopt interviews and Document analysis as the major research methods for the thesis.
In this thesis, Information getting is mainly by secondary way. We get them by many resources: Internal Documents, The list about Human Resource from departments, such as: The administration Department, Training Department, Finance and Accounting Department

+ The human and organization structure and campus environment of NVCARD

- The human:

Some Characteristics of the human resource of NVCARD will point out in chapter 4 (detail in 4.1)

- Organization structure

The structure of NVCARD is described in the diagram below:
Figure 1. The Organization Chart of the North Viet Nam College of Agriculture and Rural Development
Trades training now consists of NVCARD

- Collegiate:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Livestock</td>
<td>5</td>
<td>Agricultural Extension</td>
</tr>
<tr>
<td>2</td>
<td>Information Technology</td>
<td>6</td>
<td>Land Management</td>
</tr>
<tr>
<td>3</td>
<td>Veterinary Services</td>
<td>7</td>
<td>Business Administration</td>
</tr>
<tr>
<td>4</td>
<td>Accounting</td>
<td>8</td>
<td>Finance and banks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
<td>Cultivation</td>
</tr>
</tbody>
</table>

- Intermediate System:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Livestock veterinarian</td>
<td>6</td>
<td>General Agriculture</td>
</tr>
<tr>
<td>2</td>
<td>Accounting</td>
<td>7</td>
<td>Land Management</td>
</tr>
<tr>
<td>3</td>
<td>Agricultural Extension</td>
<td>8</td>
<td>Budget Finance</td>
</tr>
<tr>
<td>4</td>
<td>Trading</td>
<td>9</td>
<td>Informatics</td>
</tr>
<tr>
<td>5</td>
<td>Agricultural Economics</td>
<td>10</td>
<td>Cultivation</td>
</tr>
</tbody>
</table>

THE EMPLOYMENT TRAINING

Table 5. The Mission Training of NVCARD

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Livestock veterinarian</td>
<td>7</td>
<td>Agricultural Economics</td>
</tr>
<tr>
<td>2</td>
<td>Small businessman</td>
<td>8</td>
<td>General Agriculture</td>
</tr>
<tr>
<td>3</td>
<td>Administration Office</td>
<td>9</td>
<td>Soil Management</td>
</tr>
<tr>
<td>4</td>
<td>Flower and tree planting</td>
<td>10</td>
<td>Creatures scene</td>
</tr>
<tr>
<td>5</td>
<td>Accounting</td>
<td>11</td>
<td>Cultivation</td>
</tr>
</tbody>
</table>
The missions of the college are:

- Development of human resources
- Scientific research and scientific and technical transfer.
- International cooperation for agricultural and rural sector

In contribute of the industrialization, modernization and international cooperation.

Core Values:

- All for students we always love them.
- Improving the life standard and spiritual of teachers
- For the sake of community and social
- Always highly creative, dynamic, honest, professional staffs.
- Respecting differences.

The Principles:

- Ethics in Education
- Culture in behavior
- Students at the center
- Cooperation in the work
- Professional is Standard.
- Benefits must be harmonized

+ Explains why we adopt interviews or Document analysis as the major research methods for the thesis.
Applying for:

- That is the first time, this content is studied.
- I am a school teacher, so, it’s very comfortable to implement the interview.
- I easily get the inside information and internal documents.
- Content research relevant practical needs of the college, I know the issues to be studied, it help me should be easy to build the right questions sheet.

+ The schedule of the interview and Document analysis

The gathering of primary data and secondary data analysis conducted from June 2009 to December 2010, scheduled as follows:

Table 6. Schedule of Research Method in Thesis

<table>
<thead>
<tr>
<th>Order</th>
<th>Contents</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>08 - 09 - 10 - 11 - 12 - 01 - 02 - 03 -</td>
</tr>
<tr>
<td>A</td>
<td>Interviews</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personnel management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Research Internal documents</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Gather primary document and analyze, treatment</td>
<td></td>
</tr>
</tbody>
</table>
3.3 The method to analyze and treatment information

In the thesis, we use some suitable method for analyzing information, such as:

- Description Statistic
- Compare Method.
- SWOT Analysis.
Chapter 4 Analysis and Results

4.1. Characteristics of NVCARD

The North Vietnam College of Agriculture and Rural Development (NVCARD) was established on January 16th, 1961 is tasked with training professional nursing staff, branch manager for Farm-owned. To cater to the training facilities associated with practice, schools were allowed to move to Xuan Mai, and now, it is still located in Xuan Mai town.

Mission: Human resources development, research, technology transfer in the area of Agriculture and Rural Development.

Vision toward 2020: become a Viet Nam well recognized college in the area of Agriculture and Rural Development.

Currently the school has close relationships with many organizers through all provinces from the North Vietnam to the central area and The College is organizing classes for the farmers association and VACVINA (Trees Planting Association of Vietnam). Since its establishment until now the school has trained tens of thousand of staffs in the areas of:

- From 1961-1965: It trained above 8000 of Economic Management Staffs
- From 1966 - 1998: Over 30,000 economic and techniques managers have been trained, nearly 8,000 technical workers of agriculture educated.
- From 1999 - 2007: It trained More than 10,000 economic managers, the managerial state communes, wards, towns and techniques, nearly 6000 technical
workers in Agriculture field.

Figure 2. The development of human resource over the periods

NVCARD Provides training for various subjects: Accounting, Financial and banking, veterinary science, company management; computer science, biological technology, Rural development, Land Management, Animal husbandry, Community development…

NVCARD provides professional consultancy services and tailor made training on:

- Human resources development
- Community development
- Project preparation and management
- Participatory Project monitoring and evaluation
- Community led total sanitation
- Training of trainers (TOT)
- Management and development
- Business development/ Marketing
- Communication Skills
- Advocacy
- Organization management and development
+ Characteristics of human resources

To Analysis personnel of NVCARD, we used SWOT analysis method. We will can strengthen the Strengths, and Improve the exist Weaknesses, catch and use all Opportunities, besides them, avoid the Threats.

Table 7. Analysis personnel

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large of force staff</td>
<td>A lack of experience in the work</td>
</tr>
<tr>
<td>Young, so dynamic and ready to receive the new</td>
<td>Most have not been trained abroad</td>
</tr>
<tr>
<td>Positive and self-study</td>
<td>Not highly skilled in using technology</td>
</tr>
<tr>
<td>Interested in common goal</td>
<td>Very often working outside the school, so,</td>
</tr>
<tr>
<td>Desire to assert himself</td>
<td>it’s hard to manage them.</td>
</tr>
<tr>
<td>The school has advocated the development of high power.</td>
<td>Many people are not in the position which can decide all thing about their jobs</td>
</tr>
<tr>
<td>Respected colleague</td>
<td></td>
</tr>
</tbody>
</table>

29
4.2. Requirement analysis and Criteria of the HRMS for NVCARD

HR staffs need to discuss about the organization’s requirements and activities of HRM. The discussion includes these issues:

- Analyzing the organization’s situation: number of staff, annual revenue, HR’s needs for a new system.

- Review of the current operations of HR. Both weakness and strength must be analyzed in order to utilize the strength as well as adjust the weakness for the better systems.

- Financial analysis of the costs and benefits including the budget.

- Stakeholder analysis, including users, and support personnel for the project.
- Project charter including costs, tasks, deliverables, and schedule.

- System analysis is the most important work in this part. It includes the selection of system analysts, and HR specialists who will be responsible to analyze the system’s needs from the users and then discuss with vendors to find a suitable systems. First of all, the company needs to know what market-type system they want, which means the organization would buys system acquirement, necessary skills on an open market or an internal developed system (Miles & Snow, 1984). Going through the selecting process, department personnel frequently request for data-training, so IT or internal audit would be involved. HR manager and financial officers should join together in the process, as well as HR assistants, bookkeepers or any personnel who will use the system. (Grensing-pophal, 2008).

- After analyzing a system’s and an organization’s needs, a organization will rely on some criteria to evaluate whether a system is good or not. From literature review we present here some criteria to judge a good HRM system.

A good HRM system needs to satisfy all the requirements and Criteria below:

- Allow HR staff to get information about employees, former employees, and applicants for tracking and analyzing. Data necessary for employee management, knowledge development, career growth and development, and equal treatment are also provided. For many packages, employees’ data are organized around a central screen to provide an overview of the employees. Numerous sub-screens can be accessed through central employee details screens, which contain additional information on the employee.
A variety of reports is available with user-defined selection, sorting and filtering capabilities as well.

- Allow HR staff to do benefits updates and address changes, thus offering HR staff for more strategic functions. Managers can access the information they need to aim to legally, ethically, and effectively support the success of their reporting employees (About.com, 2008).

- Modify policies and practices to have a market orientation, which shows clearly itself in the following characteristics. (1) Employees are hired to meet specific organizational needs at whatever level in the hierarchy they exist; (2) Rewards are based on performance; (3) Reflecting output obtained by employees rather than position or organization and placing special emphasis on external equity (Ouchi, 1980). Moreover, the organization dismisses employees as labor demand varies (Miles and Snow, 1984). On the other hand, the compensation policies pay attention on internal consistency rather than external equity. Performance measures also have an internal focus, which implies that behavior and processes are more important than worker’s performance level.

- The system can work best for payroll processes: since every business has its unique needs, to find a perfect Human Resource & Payroll Software can be difficult. Besides, in the market, not many packages provide with full Payroll processes, so an effective and comprehensive HRM system is required to automatically compute PAYE & PRSI, Holiday Pay & Entitlement, Leave, Sick, and Personal Time, Disability, and much more.
- Ease of use (Morton E. & Margaret, 1988): the system can change flexibly with a new system so that anyone can it easily, no matter if they are trained or not. (David Brown, 2006).

- Whether the purchase price is within the budget. Many issues have to be considered are Multi-product discounts, limited user’s license, upgraded servers and workstations, annual software maintenance fees, project team training costs and consultation fees (Targowski & Deshpande, 2001).

- Database security: HRM systems can protect the privacy and security of employee information. It is said that "about accessibility, but privacy should be considered a limited access on a need-to-know basis. How can the HR organization handle this?" (HR Focus, 2006).

+ Comprehensiveness or number of personnel function facilitated such as training and development can be tracked, planned and scheduled for in-house and external training courses. Some activities, such as: log an employee's progress with the company, make notes of further training requirement, complete training plans and histories are kept for each employee.

Specifically, future training requirements, such as professional re-certification, can be scheduled as part of each employee's educational profile.

+ Ability to modify components of existing system

+ Availability of technical consultation during and after the implementation from vendors.

+ Understandability of documentation

33
+ Ease of interface with other systems

+ Ability to support various HR and compliance-related reporting needs, including Equal Employment Opportunity (EEO), Military/Veterans (VETS), Occupational Safety and Health Administration (OSHA), Consolidated Omnibus Budget Reconciliation Act (COBRA), and Wages and Filings (W-2 and 1099) (Shafiq Lokhandwala, 2008)

+ Tight integration and import/export to reduce redundancies and improve accuracy. It’s capable of easily exporting HR-related data to other software utilities such as Word, Excel, etc.

+ According to Targowski & Deshpande (2001), when choosing a vendor, in addition to the criteria above, vendors should be ranked based on factors like: functionality of software, technical infrastructure required, platform compatibility, and how the software meets various needs of the firm. As for vendors, Paul D. Hamerman suggested a lot of criteria for ranking HR system vendors as described in figure 3.
However, Arnold, Robert A. (1990) indicates that no vendor system can meet all of your requirements and for this reason, it is necessary to complete the following exercises to determine how closely and exactly a system can meet the requirements.

+ Identify all requirements not met currently

+ Of those currently not met, identify those the vendor plans to meet and the planned date of delivery

+ Of those not met, identify those planned currently to meet

---

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Product evaluated</th>
<th>Product version evaluated</th>
<th>Version release date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic Data Processing</td>
<td>Enterprise HR</td>
<td>5.0</td>
<td>March 2007</td>
</tr>
<tr>
<td>Ceridian</td>
<td>Ceridian HR/PR</td>
<td>1.4</td>
<td>May 2008</td>
</tr>
<tr>
<td>Lawson Software</td>
<td>Strategic Human Capital Management</td>
<td>9.0</td>
<td>March 2008</td>
</tr>
<tr>
<td>Oracle E-Business Suite</td>
<td>EBS HRMS</td>
<td>12.0</td>
<td>January 2007</td>
</tr>
<tr>
<td>Oracle PeopleSoft</td>
<td>PeopleSoft: HCM</td>
<td>9.0</td>
<td>December 2006</td>
</tr>
<tr>
<td>SAP</td>
<td>SAP ERP HCM</td>
<td>6.0</td>
<td>July 2007</td>
</tr>
<tr>
<td>Ultimate Software</td>
<td>UltiPro</td>
<td>10.0</td>
<td>July 2008</td>
</tr>
<tr>
<td>Workday</td>
<td>Human Capital Management</td>
<td>4.0</td>
<td>May 2008</td>
</tr>
</tbody>
</table>

**Vendor applying criteria**

- Product functionality includes HR core transactional capabilities at a minimum (i.e., personnel, benefits, payroll, compensation, compliance, and self-service).
- Product support and market presence for US-based companies (including payroll) as a minimum requirement.
- Customer focus primarily on companies with more than 1,000 employees and across most industry sectors.
- Minimum size of $50 million in annual revenues or 250 employees.
- Frequently mentioned or inquired upon by Forrester's clients.

Figure 3. Evaluate Vendors: Product Information and applying criteria

+ Of those currently not planned to meet, identify those which your organization requires

+ For those unplanned but required enhancements, determines the vendor’s commitment to provide them, their costs, and their delivery dates.

With the specific terms of the NVCARD, the human resource management system is used in:

- Can be applied in the fields of human resource management that:
  + Recruitment activities.

Thanks to the HRMS, we will choose the best systematically recruit.

We can see some advantages of this HRMS:

  - In this system, the relationship is not important but important thing is the capacity of the individual person.
  
  - Information becomes more important

So, require that: need to use thorough information on the mass media as well as Internet, makes finding a match position becomes easier and faster

Addition to that, we may have a large number of curriculum vitae (records) in short time

  + However, sometimes having a virtual curriculum vitae (file)
  
  + Without control may have information which dishonest
  
  + Difficult to prepare and inform employers than organize the interview with small scale

Applied to keep and strengthen human resources
- HR always want to be in the best working environment, which respects the knowledge and experience, are highly assess their ability, have the opportunity to devote to the organization as well as deserve compensation.

    Should give them the means and the best working conditions, such as office equipment with very convenient using way.

    By means of the application of information technology on the management of human resources, we will have many benefits:

    1. The Small structure of administration Management, just the few employees with computer systems.

    2. Organizational management, stored on computer system to increase safety, security higher.

    3. Consistent with the applications deployed on a large scale.

    4. Initial cost at least because of only implementation on the server.

    5. Easy to develop application result, all services must be deployed only on the server, so easy to maintain and develop the system.

    6. Not depend on the scope of application.

    7. Training programs using the less expensive one.

    8. Easy integration with other applications within a website.

    Although there are so many advantages, but the application software also requires certain requirements. They are:

    - Access to a optimized technology solutions

    - Enhance professionalism in management, risk reduction
- Use and maximize the efficient “intelligence”
- Optimized for an effective link between the parts, between the staffs
- Full, diverse and timely Reporting and analyze System.
- Easy to use, easy to grasp with the new staff
- Easy to apply with the different scale and different type of enterprises.
- Privacy by each department, each person responsible
- Promote advantage competitive in the market
- Cost savings, effective management

4.3. Select a suitable personnel management system

To according the demand that: An enterprise or business can increase its competitive advantage by organizing a system of human resource management in aggregate way, such as: building organizational chart clearly; with modern and accurate testing system; use workers efficiently and settlement policies rightly for the labor in time, job criteria are standardized, equity policy of bonus pay, human resource planning in order to ensure proper person has his suitable job.

There are plenty of human resource management systems trading in the market or are being applied in organizations. Each system has its own worth.

Professional: Feature - industrial Systems designed professionally according to the new administration model and the law’s regulations, consistent with all enterprise types which are now operating in Viet Nam.
- Open, flexible, easy to use System: Allows setting up of customized parameters of the system, defined the payroll factor, the formula calculates in payroll work, acupuncture work, employment, training ...

- The system of working record: suitable for all types of Record present, users can share in order to use dynamic or cycle to divide shift work with long time of the shift work as long as requirement, it also has other useful function such as: calculation of overtime work or confirmation working time ...so, it get help for the calculation of working record implement in absolutely accurate way.

- Recruitment Systems: users can set up recruitment process, the recruitment criteria ... which suitable with each position. This system can automatically filter the list candidates or list of employees in accordance with internal recruitment criteria. Management recruitment in all stages: requirements of recruitment, making plan, and implement.

- System Training: users defined themselves the elements, the formula for calculation the commitment time they can contribution after training, automatically calculate compensation contracts if the workers leave the work without enough service times, automatically create up list of staffs who need training on to meet business demand.

- Drafting decisions Systems: helping users to build a decisions system such as: salaries, allowances, bonuses, discipline ... by any particular format. User can also redesign the report form available from the system in accordance with user request.
- A decision support system: with remote report management system, users can access at anytime, anywhere will help leaders make decisions quickly and accurately through the remote system reports provided by software LV-HRP. Since then, helps businesses perform the task of personnel administration more professional.

- Data analysis Systems: only need 2 minutes to set up a sample of report with absolute accuracy metrics with self-reported number of "processing" is long-winded.

- Multi-language, switching languages with only a shortcut.

- Consolidate the data of company-level, multi-branch.

We can compare the main criteria of some popular HRMS software nowadays in the table follow. The (+) symbol implied the importance of features. Many more (+) symbol to show that criteria better in the comparison

Table 8. These systems are the main features

<table>
<thead>
<tr>
<th>Compared Criteria</th>
<th>SINNOVA HRMS</th>
<th>SMART HRM</th>
<th>XETA_HRM 3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to modify components of existing system</td>
<td>+ +</td>
<td>+ + +</td>
<td>+ + + +</td>
</tr>
<tr>
<td>Availability of technical consultation</td>
<td>+ + + +</td>
<td>+ +</td>
<td>+ +</td>
</tr>
<tr>
<td>Understandability of documentation</td>
<td>+ + +</td>
<td>+ + +</td>
<td>+ +</td>
</tr>
<tr>
<td>Ease of interface</td>
<td>+ +</td>
<td>+ + + +</td>
<td>+ +</td>
</tr>
<tr>
<td>Information about staff</td>
<td>+ + +</td>
<td>+ + + +</td>
<td>+ + + +</td>
</tr>
<tr>
<td>Social Insurance</td>
<td>+ + +</td>
<td>+ +</td>
<td>+ +</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>+ + +</td>
<td>+ +</td>
<td>+ +</td>
</tr>
</tbody>
</table>
Through the study of such factors as technology, the appropriate level of personnel and aspirations of workers, the cost suitable with the budget of the school, we boldly suggest to apply a software to HRM. This software is called SMART HRM, which some outstanding points, such as:

- Human Resource planning for each position in accordance with Strategy and the development orientation of the enterprise for each position.

- Recruitment Planning based on demands and planning targets of human resources criteria, implement the recruitment examination according to the process established.

- Personnel records system (curriculum vitae of all staffs) designed by the standard model including the full necessary information relating to each staff in company.

- Manage closely full information and promptly update any changes in personnel file by the process established in field of work-related: level, appointment and dismissal, the dynamic, position transfer, training process, wages and bonus, medical examination and treatment process, working process, relationships managing, policies management, titles and nobles management, stopping work, retirement, labor contracts, insurance policy ...
- Time Attendance System, Payroll with standard parameter settings to meet the different types of enterprises.

- Planning policy training for human resource development which can meet the needs and requirements of the business

- Develop personnel assessment function, to provide the sample criteria and tools for businesses to build the criteria to help enterprises in personnel assessment in order to maintain, development and build sustainability character in business.

- The reporting system is relatively sufficient to meet the needs of the enterprise, enabling help the businesses to easily report and make decisions quickly and accurately.

- The data is centrally managed to help HR managers can track and view the entire process involving personnel with accurate information, timely and update easily in all the time.

- Allows implementation decentralized to each button to ensure the security of information and data security for users.

- The system installed with hundreds of parameters can help to manage the option of using the program to meet the right purpose and in accordance with the particular enterprise.

- Integration with software easily, so can create a perfect management solution for enterprises; in addition can exchange data with other systems through the ability of Import and Export under the different file formats.

- Built with bilingual English and Vietnamese. Friendly graphical interface allows users to change the model selection interface (style) of interest to each user’s option.
- The system uses standard Unicode font which is very convenient for users.
- Building on the technology platform .NET, system management database SQL Server supports multiple items with stability, safety and security.
Chapter 5 Conclusion

Human resources play an important role in all organizations, the actual economic development as well as current competitive environment shows that the most valuable asset of a country not only is the available natural resources and the gold reserves in inventory, but also is the human resources. It is more meaningful in education institutions, because they develop human resources for the future. That is why this thesis has surveyed some criteria for choosing a Human Resource Management System. Especially, in the north Viet Nam college of agriculture and rural development, the principal requirements of the application system of human resource management today includes:

- Allow HR staff to get information about any activities that the HR department needs to track and analyze about employees, former employees, and applicants.
- Allow HRM staff to do benefits updates and address changes
- Modify policies and practices have a market orientation
- The system would work best for payroll process.
- Ease of use
- Affordable Purchase price
- Database security to protect the privacy and security of employee information

Comprehensiveness or number of personnel function facilitated such as training and development can be tracked, planned and scheduled for in-house and external training courses.

Ability to modify components of existing system
Availability of technical consultation during and after implementation is provided by the vendor.

- Ease of understanding documentation
- Ease of interface with other systems
- The HRMS should also have the ability to support various HR and compliance-related reporting needs, including Equal Employment Opportunity (EEO), Military/Veterans (VETS), Occupational Safety and Health Administration (OSHA), Consolidated Omnibus Budget Reconciliation Act (COBRA), and Wages and Filings
- Tight integration and import/export to reduce redundancies and improve accuracy.

A system of human resource management to ensure these requirements and may face the following difficulty:

- Access to optimized technology solutions
- Enhance professionalism in management
- Optimized for an effective link between the staffs
- Full, diverse and timely Reporting and analyze System.
- Easy to use, easy to grasp with the new staff
- Easy to apply with the different scale and different type of enterprises.
- Privacy by each department, each person responsible
- Promote advantage competitive in the market

After the research, we found that the human resource management and human resource management systems of the NVCARD with the following highlights:

Quantity:
Whole school has about 220 employees, one sixth of which is staff who serve for education and training.

Over 160 staffs are teachers

In terms of quality, most are university graduates, a few qualified elementary, secondary or college level.

Since most teachers are young (85% are aged under 35).

Most employees are female

With these Characteristics, we propose that NVCARD should use a SMART HRM.

The contribution of the study:

- So far, no study about applying information technology in human resource management systems in the NVCARD. Therefore, this study has important implications in the strategic development. Specifically, to the high integration and socialization of education, as well as the development and strong competition of the local university, the school is striving to become one of the key personnel training farm rural industrialization.

- Research carried out in a long time and no budget limitations, but points out the characteristics in human resource management systems in NVCARD as indicated by the information technology system suitable for application human resources management system.

- The data in the research is honest and has attracted the attention of many officials, teachers in schools. This is one important basis to change the perception of teachers as well as stimulate interest in new technology applications in schools.
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