

A Study on Developing the Role of Human Resource Information Systems for Good Leadership

Harini Methuku¹, Hatim Ramadan²

¹Department of Administrative and Financial Services, Oman College of Management and Technology, Barka, Sultanate of Oman;

²Business Department, Higher College of Technology, Muscat, Sultanate of Oman.

Email: pappi127@gmail.com, hatim93@hotmail.com

Received May 22nd, 2013; revised June 22nd, 2013; accepted July 22nd, 2013

Copyright © 2013 Harini Methuku, Hatim Ramadan. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

The research is a human and context oriented study in the field of information systems (IS), human resource information systems (HRIS), leadership, human resource management (HRM) and tacit knowledge are focused in the study. HRIS and leadership are two main concepts of the research, whereas HRM provides an application area and managerial activities of leadership for HRIS. Tacit knowledge is used to describe and interpret actions that make leadership activities, sensitive and successful. The theoretical framework consists of when thinking and acting in the current way, what kind of information systems it produces, and when thinking and acting in another way, what kind of information systems it creates. The framework has its base on thinking and acting in a conventional, routine and stereotyped way, which hinders the process of observing, finding out, applying and using alternative thoughts and actions although they might provide useful and innovative solutions or activities for IS design. The main idea is to understand, interpret and to describe the phenomenon of the activities of good leadership and the phenomenon of the role of HRIS in the case organizations.

Keywords: Human Resource Information Systems; Human Resource Management; Leadership; Tacit Knowledge

1. Introduction

Human resource information systems (HRIS) and the activities of good leadership from the basic phenomenon are being considered for the research area. The study contributes description of developing the role of HRIS to the activities of good leadership and the study is significant because the research of HRIS is in its early stage and it needs to be highlighted for wider studies, in practice the use and the exploitation of HRIS should be considered from alternative perspectives and thus the research context is unconventionally compared with the application area wherein HRIS have been designed and implemented. HRIS are designed for the activities of human resource management (HRM) and the application area is the activities of good leadership. The reason for the choice of the application area is to observe and find out details and aspects of the role and the use of HRIS.

2. Methodology of Study

The human- and context-oriented study in the informa-

tion systems (IS) discipline is the thread of the study. The human-orientation means that rather than focusing on a human resource (HR) information system as a system, the study is on the role of the system in concrete human activities of leadership. Thus, the activities of the leaders form the research context. This study, however, focuses on developing human-oriented and sensitive IS utilizing the meaning of the role of IS in the organization. The study is conceptual research where extensive study is made in the context of information and communication technology (ICT). The focus is on the leaders' good activities. In the organizational context an information system is part of the reality where different activities occur. The use of an information system from the user's point of view does not work in itself, rather it provides the user with a beneficial tool to work. Based on the previous conception, from the contextual point of view the main questions addressed are:

- what HRIS mean for the good leaders and;
- what is the role of HRIS when the leaders are executing their leadership activities.

2.1. Objectives

- To understand how the good leaders execute their leadership;
- To understand the role of HRIS in their leadership activities;
- To discuss the role and the development of HRIS in the sensitive and human- oriented application area.

2.2. Problem Statement

- To find out the HR information system as a system is not developed directly but a description of the development construct is created to give a picture of what kind of issues should be taken into account when the HR information system is developed to benefit the activities of good leadership as well as the whole organization.
- To attain the objective, the empirical study focuses on the activities of good leadership first and then on examining the role of HRIS in those activities.

2.3. Scope & Purpose of Study

- The purpose is to give a theoretical overview to understand the research context. In addition, due to the human research context, leadership is examined from an individual perspective rather than from a strategic, procedural or as a business viewpoint. HRIS are regarded as organizational IS and they are designed for and reflected by the activities of HRM. Therefore, the concept of HRM is included in the research.
- Tacit knowledge is utilized to understand, interpret and to describe the humanity, sensitivity and the individuality of the activities of good leadership at the empirical level. They have a significant role when examining the leadership activities and developing the role of HRIS in the research context.

The purpose is to see the current state of HRIS and the role of HRIS in the case organizations. It has been significant to find out:

- how and on what occasions the leaders use HRIS,
- what their opinions of HRIS are and how they would develop HRIS to support their leadership activities.

3. Literature

HRM is defined by using lists of different tasks associated with employees like: recruiting, training, promoting, record keeping and meeting various legal requirements. HRM is also defined as monitoring, facilitating and setting up processes that select, assess, and assign people to appropriate roles in an organization [1-3]. HRIS, earlier personnel systems, were mostly designed and implemented for those activities of HRM. Therefore, the concept of HRM is included to see how the role of HRIS could be

developed and diversified for the activities of good leadership.

Various definitions of HRIS are available in the literature. First, the definition by [4] offered: “The modern Human Resource Information System may be defined as a computer-based method for collecting, storing, maintaining, retrieving, and validating certain data needed by an organization about its employees, applicants, and former employees.” Secondly, [5] define that “a human resource information system is a system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information about an organization’s human resources”.

[6] have also used this definition. [7] definition of HRIS, according to which human resource information system is “the composite of data bases, computer applications, and hardware and software that are used to collect/record, store, manage, deliver, present, and manipulate data for Human Resources”. Walker (1982) and used by [8]. It states that “a Human Resource Information System is a systematic procedure for collecting, storing, maintaining, retrieving, and validating data needed by an organization about its human resources, personnel activities, and organization unit characteristics”.

HRIS is introduced from six viewpoints to create a thorough and diverse picture of the subject. The viewpoints are:

- 1) History and background,
- 2) HRIS and data,
- 3) Effects of HRIS on organizations,
- 4) HR and IS professionals and HRIS design,
- 5) Use and exploitation of HRIS, and
- 6) HRIS and management work.

3.1. History and Background

The history of HRIS begins from payroll systems in the late 1950s and continues into the 1960s when the first automated employee data was used Kavanagh *et al.* [9] presents how a “true” personnel system was defined in the late 1960s: A “true” personnel system (a system that is not just appended to payroll) has the following characteristics:

1) It is used to solve personnel’s needs, not just payroll’s. That is the system is developed primarily for the Personnel Department’s use, to solve personnel—not financial-problems.

2) It is multifunctional and in that it handles or addresses user needs in more than one personnel area. In other words, it is not limited to one function such as benefits, or employment, or wage and salary administration.

3) It utilizes the five basic concepts underlying human resource systems (These concepts are expanded upon in A. J. Walker HRIS Development—A Project Team

Guide to Developing an Effective Personnel Information System. New York: Van Nostrand Reinhold):

- a) a database with definitions specified for data elements,
- b) a method of data update and entry,
- c) ad-hoc retrieval techniques,
- d) a human resource information centre to assist with administration,
- e) a data quality focus.

These concepts bring methodology to the development and operation of personnel systems. As objectives, they provide an approach and structure for the work, and they necessarily involve procedures, users, and systems professionals.” Thus, the first personnel systems were made to store a tremendous amount of data for record keeping and reporting associated with personnel administration.

In the 1990s there existed various expectations of how HRIS should have affected an organization’s HR activities and business planning. Studies about advantages of using HRIS and about users of HRIS were performed. An organization was considered efficient if it had technology and IS to support HR activities. Also, effectiveness of HRIS on work and development of HR departments and HR professionals were under discussion. [10-17].

In the new millennium electronic services such as e-learning, e-commerce and e-business became possible and common because of the invention of World-Wide-Web (WWW). Along with the development of HRIS the concept of electronic HRM (e-HRM) has also been launched as an internet invention and implementation of HRIS. Because of the different technical devices and realizations, there are terms which may have similar meanings to e-HRM, such as electronic HR (e-HR), virtual HR(M), HR internet, web-based HR, computer-based human resource information systems (CHRIS) and HR portals. Still, according to the literature, various articles and web sites, e-HRM is the most commonly-used term.

The research community of e-HRM is in its early beginning. Therefore, there is not an explicit definition of e-HRM but following the available initial definition - e-HRM is “a way of implementing HR strategies, policies, and practices in organizations through a conscious and directed support of and/or with the full use of web-technology-based channels”, by [18] “the, as a rule, spatial segregated, both technically networked and supported, shared and organized performing of HRM tasks through at least two actors”.

The commonly used interpretation is that the purpose of HRIS is to store, manipulate and provide data on employees. In addition, HRIS have been designed to accomplish most of the routine HR tasks that help to maintain necessary HR knowledge in databases. The data is

important

- 1) for management and,
- 2) to keep the HRM effective and in real-time order.

Thus, HRIS are mostly constructed for knowledge management (KM) of HRM. The reason for that is the desire to control basic data of personnel, which creates better challenges to a profitable and effective organization. Mainly HRIS have been designed to store, manipulate and provide data of employees for the organizational use names, addresses, phone numbers, education, training, career development and documents of the personal development discussion are typical employee data in HRIS. Therefore, at least following questions should be asked when designing, implementing and maintaining HRIS according to:

- Who can have access to the system?
- What kind of data is available to different users?
- How are the system and data protected?
- What kind of security system has been implemented?
- What legal and ethical issues should be considered in data specifications?

3.2. What Organizational Qualities Make an Organization Use HRIS?

The number of employees is the first issue. In a large organization usually both individual and organizational knowledge of HR functions are computerized. Secondly, using HRIS generates needs to add new useful modules to the system.

The essential purpose of HRIS has been to store, manipulate and to provide data on employees. Some questions can be presented when the core meaning of HRIS is evaluated:

- What tasks is the system for?
- What do managers expect of HRIS?
- Does the HR information system support strategic initiatives?
- Does it provide information—not just raw data—to support decisions?
- How does the HR information system serve corporate needs and expectations?

3.3. HRIS and Management Work

As emphasized several times before, originally HRIS have been planned for managerial and HR work. Their use has caused uncertainty about the division of labor between managers and HR staff. Managers have been responsible for employee data and thus they may have drawn a conclusion that it has been on their shoulders to update administrative information. Several view points of HRIS are explained in **Table 1** and the questions when considering HRIS design are:

- How does the HR information system help manage

Table 1. The viewpoints of HRIS.

Viewpoint	Central issues of the viewpoint
History & background	<ul style="list-style-type: none"> - development begins from payroll systems - first personnel systems - HRIS were made to store data for record keeping and reporting associated with personnel administration - development of HR activities generated the design, development and implementation of various computer-based HRIS
HRIS & data	<ul style="list-style-type: none"> - HRIS maintain HR knowledge in databases, <i>i.e.</i> knowledge management of HRM - data consists of employees' basic information, <i>i.e.</i> employees' contact information, information of education and training, career development, memos of development discussions - data is important for management and to maintaining effective HRM
Effects of HRIS on Organizations	<ul style="list-style-type: none"> - costs and benefits of hardware, software and HR expenses - utilization in legislation issues of personnel functions as well as demands and needs of administrative activities and reporting - locally and globally competitive advantage - similarities and differences of HRIS data in different countries - to train the whole organization to use HRIS - to inform about the use and reforming of HRIS - HRIS change HR and HRM activities
HR & IS professionals & HRIS design	<ul style="list-style-type: none"> - the need of effectiveness of HR processes and HRIS - HRIS projects are run by cross-functional teams - collaboration between management, employees, HR and IS professionals - to train HR professionals to use and design HRIS
Use & exploitation of HRIS	<ul style="list-style-type: none"> - effective use of stored employee data - validity and reliability of stored data - saves time and money - a greater enterprise role of HRM and HRIS - HRIS benefit big organizations in different HR activities - HRIS add new modules to the whole system - HRIS reveal hidden features of HRM
HRIS & management work	<ul style="list-style-type: none"> - HRIS are planned for managerial and HR work - uncertainty about the use of HRIS - managers responsibility of being in charge of the employee data - HR professionals control of HR data - managers may avoid using HRIS - encouraging IS experienced HR professionals - HR activities are strategic and business partners in an organization [19]

rial work?

- How can employees attend to their own profiles in the system?
- What is HR staff's responsibility in using the HR information system?

3.4. "HRIS Functions and Major Activities" [20]

1) **Strategic Integration**—Used to aid top management in making long term HR planning.

2) **Personnel Development**—Used to enhance worker's skills and abilities. Also includes quality of work life enhancements.

3) **Communication and Integration**—Inter-organizational communication support and coordination of disparate organizational activities including change.

4) **Records and Compliance**—Used to manage organizational information and ensure governmental compliance.

5) **Human Resource Analysis**—An ongoing means of gathering and diagnosing human resource needs.

6) **Knowledge Management**—Facilitates development and information retention of beneficial human resource practices.

7) **Forecasting and Planning**—Used in long range planning to assess future organizational HR needs.

8) **Organizational Vision**—Drives and integrates the HRIS factors to positive organizational outcomes.

Who is in charge of HRIS?

Should HR department be responsible for the structure, table maintenance, security systems and data itself because HRM is the application area where IT delivers productive and suitable tools to get the job done? Or should IT department be in charge of the structure, maintenance, security and data because it provides the needed technology and software? These questions should be discussed at the beginning of an acquisition process.

Leadership in the research context

Leadership is an extensive discipline. In the study the target is not to go through leadership in-depth because it is not the subject to be contributed to, but as a context and as an application area of HRIS. The emphasis of the

study is on the human-oriented viewpoint, *i.e.* what are the activities that occur when a leader leads an employee. Herein tacit knowledge is introduced as characteristics of the activities of leadership. Finally, it will be described how leadership and IS are discussed together.

Defining leadership

In the course of the leadership research the number of definitions has increased and they have been categorized in different ways. [21] states that 65 different classification systems have been developed for leadership during the last 50 years. The classification he empathizes comes from [22] who has categorized the definitions of leadership from the organizational viewpoint. According to the classification of Bass, leadership is defined

- as a focus of group process
- as a personality and its effect
- as an art of inducing compliance
- as an exercise of influence
- as an act of behavior
- as a form of persuasion
- as a power relation
- as an instrument of goal achievement
- as an effect of interaction
- as a differentiated role
- as an initiation of structure
- as a combination of elements.

Leadership versus management

A continuous debate about the differences between leadership and management has taken place in the course of decades. Some of the researchers state that leadership equates to management and others present that management and leadership are two different things [23]. There are also argumentations that leadership is part of management or vice versa [24,25] stresses that both leadership and management have similar parts in their processes, such as influence, working with people and effective goal accomplishment. They also have significant differences. Leadership was already known in the era of Aristotle whereas management was discovered at the beginning of the 20th century to reduce chaos and to increase efficiency in an organization. According to the description [26] of the differences between leadership and management are given in **Table 2**: “The overriding function of management is to provide order and consistency to organization, whereas the primary function of leadership is to produce change and movement”.

Table 2. Functions of management versus leadership.

Management	Leadership
Planning/Budgeting	Motivating and Inspiring
Organizing/Staffing	Establishing Direction
Controlling/Problem Solving	Aligning People

[27], as most scholars of management and leadership today, states that management and leadership involve similar issues. The important and complex question is how to integrate the two processes. Yukl claims that debate about ideal definitions does not produce any answers, but exploring empirically what to include in the domain of essential leadership processes does.

Characterizing the activities of good leadership by an emphasis on tacit knowledge

In human activities, for instance in leadership, some people seem to have something or they seem to do something or know something that makes their acts special. Continuously they perform their work well and wrote about skills or knowledge that people have but that they are not conscious of and called the phenomenon tacit knowledge. [28], for their part, underlined the importance of tacit knowledge in creating knowledge in organizations. In the [29] as well as [30-32] were interested in people who managed to communicate with other people extremely well. They called this invention emotional intelligence.

Putting an emphasis on tacit knowledge and the characteristics of good leadership changes the study from the factual and predefined research to research where the skills to understand, create and to lead relationship and communication between a leader and an employee are in a more essential position than the factual knowledge. According to the research tacit knowledge seem to have a strong effect on the leaders’ good activities. Tacit knowledge consist of information and knowledge which are invisible but can be apparent if they are identified. In general, it can be interpreted that tacit knowledge affect leaders’ behavior constantly but are not taken into consideration when, for example, IS are designed and implemented for human activities in the organizations.

3.5. Next Tacit Knowledge Described with and Reflected on Leadership

The following presentations can also be viewed so that if an IS for leadership is designed, how tacit knowledge could be taken into consideration and utilize as a mine of human and sensitive information.

Tacit knowledge—[33] highlighted the well-known expression, which he regards as a starting point of his studies of tacit knowledge: “We can know more than we can tell”. Rather than immediately defining the concept of tacit knowledge with straight formulated sentences, explained it and simultaneously defined it with conceptions of four aspects of tacit knowing, which are described below in **Table 3**.

In this study tacit knowledge is used to characterize the activities of good leadership. [34] introduce how tacit knowledge could be codified as an IS. They present an

Table 3. Aspects of tacit knowing.

Aspect of tacit knowing	Description
Functional structure	<i>"We know the first term only by relying on our awareness of it for attending to the second. ... We are attending from these elementary movements to the achievement of their joint purpose and hence are usually unable to specify these elementary acts."</i>
Phenomenal aspect	<i>"We may say, in general, that we are aware of the proximal term of an act of tacit knowing in the appearance of its distal term; we are aware of that from which we are attending to another thing, in the appearance of that thing."</i>
Semantic aspect	<i>"We are attending to the meaning of its (tool) impact on our hands in terms of its effect on the things to which we are applying it."</i>
Ontological aspect	<i>"Since tacit knowing establishes a meaningful relation between two terms, we may identify it with the understanding of the comprehensive entity which these two terms jointly constitute. Thus the proximal term represents the particulars of this entity, and we can say, accordingly, that we comprehend the entity by relying on our awareness of its particulars for attending to their joint meaning."</i>

approach which aims to graphically represent articulable tacit knowledge. They divide the approach into two fundamentally different approaches to provide a visual perspective as to what tacit knowledge constitutes. The approaches are:

- 1) "an initial approach using formal concept analysis as a means of visualizing tacit knowledge differences in questionnaire respondent",
- 2) a qualitative approach which "aims better to define both textually and then graphically what we may actually consider to comprise tacit knowledge".

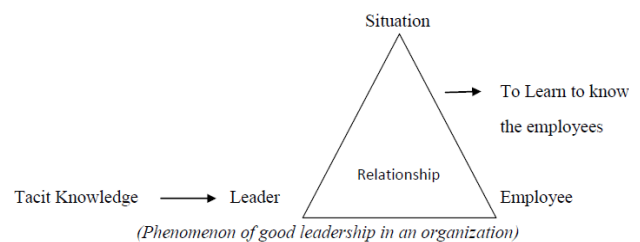
3.6. Information Systems and Information Technology in the Leadership Research

In this study main focus of the research work is on the role of HRIS for the activities of good leadership. There are studies that concentrate on ICT in leadership. As stated earlier, with the development of WWW several electronically designed information systems have been implemented, such as e-learning and e-business. Electronic leadership (e-leadership) however, has not yet been studied sufficiently. Some good viewpoints are presented on how IT affects leadership or leaders, how leaders are disposed towards technology, what studies have already been made as well as on the importance of executing more research in e-leadership [35,36].

In addition, some leadership researchers have realized how to develop leadership studies in today's complex knowledge economy. They have started to use computational modelling, in other words, simulating the work of leaders and the leadership process. [37] gives an overview of modelling techniques and what kind of computational models exist for leadership. He emphasizes that software programs give new possibilities to see different sides of leadership and to link them together. They may also bring out issues that have not earlier been noticed. He speaks for a new discipline where software is used to produce new theory for leadership.

[38] have published a wide article about leadership and e-leadership. With the framework based on Adaptive

Structuration Theory (AST) they studied how Advanced Information Technology (AIT) could influence on leadership and was influenced by leadership. They also examined leadership widely to provide recommendations for developing a research agenda on e-leadership. [39,40] article define AIT. They defined it "as tools, techniques, and knowledge that enable multiparty participation in organizational and inter-organizational activities through sophisticated collection, processing, management, retrieval, transmission, and display of data and knowledge".



On the one hand, it is argued that when AIT is used in economy, it creates a new context for leadership because it influences real-time information availability, greater knowledge sharing with stakeholders and the use of this information and knowledge to build "customized" relationships. On the other hand, AIT is implemented with the expectation of business and personal benefits including increased efficiency, productivity and profitability, but concrete indicators, especially financially measured indicators, have not yet emerged. The same expectations and problems also relate to HRIS.

Avolio *et al.* chose the term e-leadership to examine a new context of leadership. They define e-leadership "as social influence process mediated by AIT to produce a change in attitudes, feelings, thinking, behavior, and/or performance with individuals, groups, and/or organizations". They argue that e-leadership can occur at many levels of organizations as well as on one-to-one and one-to-many interactions within and across large units and organizations. In Avolio's *et al.* opinion, AIT will create

a new context where leadership can be exercised.

As a conclusion Avolio *et al.* introduced a question: "How does the organizational context, including the specifications of levels of analysis, affect how we conceptualize, define and measure e-leadership?". As a summary, it would be beneficial for both IS and leadership disciplines to invest more energy in studying the disciplines together. However, it is good to remember that when IT and IS are applied to sensitive human activities such as leadership, the speed of data processing (effectiveness) or the amount of data are not the relevant issues but the depth and the intelligence of knowledge.

The common way of thinking about the design and the development of IS and IT makes both designers and users stick rigidly to the existence of coherent knowledge rather than find its diversity. In human activities, relativity of knowledge in different situations as well as relations of knowledge in relationships and interactions should be taken into account rather than purely factual knowledge. The IS researchers may also confront similar challenges when making studies in the sensitive human contexts. Nevertheless, it is encouraging that if people are willing to develop both the systems and the human activities together, new innovations will be created.

The study is focused on the empirical research of HRIS and on developing HRIS for the activities of leadership, not only for those of HRM, to support and serve the activities of good leadership in which tacit knowledge and EI play a significant role. In general, HRIS are designed to support the activities of HRM and therefore the features of HRM have strong effects on HRIS and their development. HRM is regarded as an activity to manage the human resources of an organization. It is more an administrative function to take care of HR as a whole than a direct managerial function between a manager and an employee.

When comparing the definitions of HRM and HRIS, based on the empirical study, some activities of HRM are considered to be part of the activities of leadership, such as recruiting, motivation and career development. Thus the focus is to see how HRIS design could be developed in the leadership context. HRIS already contain information which is important in leadership work but they lack relevant information which supports the human activities (tacit knowing) concerning the relationship between the leaders and the employees.

The purpose has been to find how tacit knowledge have been utilized to highlight the human activities in leadership which form the development area of HRIS. Hence, before examining the role of HRIS, the leadership activities have been described. Leadership, together with tacit knowledge, consists of multidimensional activities, which challenge the development work of HRIS and the development work of IS in general. HRIS in their lead-

ership following beliefs and values are summarized:

The good leader believes in

- humility because then the preconditions for the success are better
- credibility which supports success
- honest, objective and human leadership
- normal and simple working which produces results
- his/her own way to lead employees.

The good leader believes that

- knowing what to do motivates employees
- leadership is the most important activity in the organization
- employees do almost anything when they are treated fairly
- good leadership can be taught
- it is easy for employees to come and discuss when they know each other well
- different tools can help leaders and managers to develop their job
- it is motivating if employees look happy and they smile
- if the superior-employee relationship works on honest principles, the superior
- acts equally
- work experiences in previous working places and in youth have taught
- working.

The good leader values

- what a unit or a person is doing and how well the work is done
- direction they have taken
- discussions and talks with employees
- honest, straightforward and objective interaction
- customers and how to make business with them
- team work and all the abilities it gives to the team members
- employees' work and their achievements
- company's values which lead to high quality of work
- communication in leadership
- employees' will to develop their work
- employees being happy and working successfully
- collegial collaboration and exchange of thoughts
- collaboration between different superiors.

A good leader is also a person who emphasizes that it is important:

- an eager conversationalist and an interactive team worker
- an honest and fair communicator with clear goals and tasks and with sensitive employee knowledge
- an informal, caring, understanding and work supporting listener
- a motivation-oriented leader with direct actions and mutual understanding
- an emphatic leader emphasizing relaxed atmosphere

and well-being

- to understand the whole organization, to learn and to spar
- to be individually oneself and to get work done
- to know and to accept others, to be present and to be accepted among others
- to have a positive attitude and to give rewarding feedback.

3.7. Development Ideas of Human Resource Information Systems

An important feature of HRIS should be to give a transparent image of HR in an organization. People must know what each of them has to do and where the company is heading to. The system should give a vision of the wholeness, *i.e.* what deeds are reasonable and what is best for personnel so that working proceeds fast and efficiently with as small amount of energy as possible. The employees should be able to write in the system about their own project and work experiences, how they have succeeded and what they would like to do next, in real time and truthfully. This kind of information would be good for planning and for discussions. However, the leaders wonder if the employees write honestly and how the data can be used.

The leaders also ideate targets for development of the content of HRIS. Some of the development ideas the leaders presented already exist in HRIS and others can be considered interesting. Partly the ideas were quite strong but not surprising when taking into account the descriptions of their activities in leadership. Here is the list that includes what the leaders suggest the HRIS should give answers to and show:

- which of the employees are active performers
- to whom it is easy to give assignments
 - work will get started
- reliability
 - trustworthy employees
- how an employee is able to do different things
 - interaction skills
- risk of conflicts
- ability to be responsible for work
 - affects work schedules
 - affects rapidity or slowness of working
- stress tolerance
- skill to be stretchy
 - emergency tasks
 - longer working days
- number one player
- employee's potential
 - what s/he is capable of
- employee's values
- how the employee works
- employee's personality

- skill to take responsibility
- what direction an employee wants to develop to
- employee's working styles
- employee's work history
- employee's know-how
- employee's line managers
 - knowledge helps when a change of a task is under discussion
- in which project an employee is working
 - for how long s/he is occupied
 - what is the employee's share of the project.

The listed characteristics could be used in resource planning and making timetables for various stages. They could also be useful for a new leader when s/he learns to know his/her employees.

4. Findings & Observations

- To succeed in creating well-working teams
- To make employees work effectively
- To solve problematic situations

In this connection it is observed that

- The leaders approach their work with enthusiasm
- The leaders focus on developing the employees' abilities to create the wholeness that works well and where the work will be done
- The leaders' goal is to learn to know the employees and to expand their own knowing of the employees in an appreciative way
- The leaders do not underline or highlight problems although they know problems exist.

4.1. Conclusions

According to the study it can be interpreted that HRIS are a challenge for the organization. Various investments are made concerning the existence of HRIS in organizations still, the benefits are contradictory. The empirical findings show that although HRIS are brought for everyone to use, their use centres around HR managerial activities mostly. The leaders are not eager to spend their time on a system which does not give anything to them, since they already know the content. In fact, the system lacks information which could be useful for them as leaders and can manage their leadership activities without HRIS. Yet, there are several communal IS which benefit users in various ways. Theoretically, IS researchers are interested in studying the use and usability of HRIS. These are the common ways to study IS. Some HR researchers have created the concept of e-HRM, which focuses more on the employees' use of the system than that of HR staff.

The activities of leadership are seen as actions which produce information for the system, not only employee data but also other information which could be useful

when utilizing the system in leadership as a whole. In addition, when the activities are regarded as well, the information about the activities can be considered well-working and successful for the organization to use. Therefore, the study has focused on the activities of good leadership to highlight different viewpoints and possibilities to create new human features of HRIS design work in practice. HRIS are designed to support managerial HR functions, the use of HRIS is almost a burden to the good leaders. Technically HRIS include relevant knowledge of employees for HRM, which also has links to other systems in the organization. Information of HRIS does not serve the activities of good leadership and not always the leaders' HR work legislation and moral issues restrict storing data, which has to be taken into account when the good leaders execute their leadership, innovative development ideas emerged in the course of the interviews. Advanced and expansive HRIS can be developed for leadership when the context is investigated well and the system is designed considering the activities involved. It is a challenge to design sensitive and human-oriented IS in general.

4.2. Future Study Suggestions

When considering future studies of leadership and HRIS, emphasis should be placed on understanding the wholeness where people work together knowing how the whole system works. It means successful mutual communication, collaboration and interaction between different parties, which the leaders have underlined. In practice these issues are vital if an organization wants to be successful, effective and to get profit. In addition, questions such as which systems can be considered as HRIS or who are and who should be the users of HRIS are still waiting to be studied.

REFERENCES

- [1] G. Townley, "Reframing Human Resource Management: Power, Ethics and the Subject at Work," Sage Publication Ltd., London, 1994.
- [2] J. C. Hubbard, K. Forcht and D. S. Thomas, "Human Resource Information Systems: An Overview of Current Ethical and Legal Issues," *Journal of Business Ethics*, Vol. 17, No. 12, 1998, pp. 1319-1323. [doi:10.1023/A:1005735506589](https://doi.org/10.1023/A:1005735506589)
- [3] A. S. Targowski and S. P. Deshpande, "The Utility and Selection of an HRIS," *Advances in Competitiveness Research*, Vol. 9, No. 1, 2001, pp. 42-56.
- [4] A. J. Walker, "HRIS Development: A Project Team Guide to Building an Effective Personnel Information System," Van Nostrand Reinhold, New York, 1982.
- [5] M. J. Kavanagh, H. G. Gueutal and S. I. Tannenbaum, "Human Resource Information Systems: Development and Applications," PWS-KENT Publishing Company, Boston, 1990.
- [6] V. Y. Haines and A. Petit, "Conditions for Successful Human Resource Information Systems," *Human Resource Management*, Vol. 36, No. 2, 1997, pp. 261-275. [doi:10.1002/\(SICI\)1099-050X\(199722\)36:2<261::AID-HRM7>3.0.CO;2-V](https://doi.org/10.1002/(SICI)1099-050X(199722)36:2<261::AID-HRM7>3.0.CO;2-V)
- [7] R. Broderick and J. W. Boudreau, "Human Resource Management, Information Technology, and the Competitive Edge," *Academy of Management Executive*, Vol. 6, No. 2, 1992, pp. 7-17.
- [8] K. A. Kovach and C. E. Cathcart Jr., "Human Resource Information Systems (HRIS): Providing Business with Rapid Data Access, Information Exchange and Strategic Advantage," *Public Personnel Management*, Vol. 28, No. 2, 1999, pp. 275-282.
- [9] A. J. Walker, "Handbook of Human Resource Information Systems: Reshaping the Human Resource Function with Technology," McGraw-Hill Inc., New York, 1993.
- [10] R. F. Broderick and J. W. Boudreau, "Human Resource Information Systems for Competitive Advantage: Interviews with Ten Leaders," CAHRS Working Paper Series, Cornell University, Cornell, 1991.
- [11] E. E. Kossek, W. Young, D. C. Gash and V. Nichol, "Waiting for Innovation in the Human Resources Department: Godot Implements a Human Resource Information System," 1994.
- [12] D. M. Atwater, "Workforce Forecasting, HR," *Human Resource Planning*, Vol. 18, No. 4, 1995, pp. 50-53.
- [13] G. M. Groe, W. Pyle and J. J. Jamrog, "Information Technology and HR," *Human Resource Planning*, Vol. 19, No. 1, 1996, pp. 56-61.
- [14] A. M. Townsend and A. R. Hendrickson, "Recasting HRIS as an Information Resource," *HR Magazine*, Vol. 41, No. 2, 1996, pp. 91-94.
- [15] H. Axel, "Human Resources and the Role of IT," *Human Resource Management International Digest*, Vol. 6, No. 6, 1998, pp. 30-32.
- [16] J. A. Rodger, P. C. Pendharkar, D. J. Paper and P. Molnar, "Reengineering the Human Resource Information System at Gamma," *Facilities*, Vol. 16, No. 12-13, 1998, pp. 361-365. [doi:10.1108/02632779810235681](https://doi.org/10.1108/02632779810235681)
- [17] L. K. Stroh, S. Grasshoff, A. Rudé and N. Carter, "Inter-graded HR Systems Help Develop Global Leaders," *HR Magazine*, Vol. 43, No. 5, 1998, pp. 13-17.
- [18] H. Ruël, T. Bondarouk and J. K. Looise, "E-HRM: Innovation or Irritation. An Explorative Empirical Study in Five Large Companies on Web-Based HRM," *Management Revue*, Vol. 15, No. 3, 2004, pp. 364-380.
- [19] K. A. Kovach, A. A. Hughes, P. Fagan and P. G. Maggitti, "Administrative and Strategic Advantage of HRIS," *Employment Relations Today*, Vol. 29, No. 2, 2002, pp. 43-47. [doi:10.1002/ert.10039](https://doi.org/10.1002/ert.10039)
- [20] M. Mayfield, J. Mayfield and S. Lunce, "Human Resource Information Systems: A Review and Model Development," *Advances in Competitiveness Research*, Vol. 11, No. 1, 2003, pp. 139-151.
- [21] P. G. Northouse, "Leadership Theory and Practice," 3rd

- Edition, Sage Publications, Inc., Thousand Oaks, 2004.
- [22] B. M. Bass, "Bass & Stogdill's Handbook of Leadership: Theory, Research and Managerial Applications," 3rd Edition, The Free Press, New York, 1990.
- [23] W. Bennis and B. Nanus, "Leaders: The Strategies for Taking Charge," Harper & Row, Publishers, New York, 1985.
- [24] G. A. Yukl, "Leadership in Organizations," 2nd Edition, Prentice Hall, Englewood Cliffs, 1989a.
- [25] G. Yukl, "Managerial Leadership: A Review of Theory and Research," *Journal of Management*, Vol. 15, No. 2, 1989, pp. 251-289. [doi:10.1177/014920638901500207](https://doi.org/10.1177/014920638901500207)
- [26] J. P. Kotter, "A Force for Change: How Leadership Differs From Management," Free Press, New York, 1990.
- [27] G. A. Yukl, "Leadership in Organizations," 6th Edition, Prentice Hall, Englewood Cliffs, 2006.
- [28] I. Nonaka and H. Takeuchi, "The Knowledge-Creating Company," Oxford University Press, Oxford, 1995.
- [29] D. Goleman, "Working with Emotional Intelligence," Bantam Books, New York, 1998.
- [30] J. D. Mayer and P. Salovey, "What Is Emotional Intelligence? In: P. Salovey and D. Sluyter, Eds., *Emotional Development and Emotional Intelligence: Educational Implications*, Basic Books, New York, 1997, pp. 3-31.
- [31] J. D. Mayer, P. Salovey and D. Caruso, "Models of Emotional Intelligence," In: R. Sternberg, Ed., *Handbook of Intelligence*, Cambridge University Press, Cambridge, 2000, pp. 396-420. [doi:10.1017/CBO9780511807947.019](https://doi.org/10.1017/CBO9780511807947.019)
- [32] J. D. Mayer, P. Salovey and D. R. Caruso, "Emotional Intelligence: Theory, Findings, and Implications," *Psychological Inquiry*, Vol. 15, No. 3, 2004, pp. 197-215. [doi:10.1207/s15327965pli1503_02](https://doi.org/10.1207/s15327965pli1503_02)
- [33] M. Polanyi, "The Tacit Dimension," Peter Smith, Gloucester, 1966.
- [34] P. A. Busch and D. Richards, "Graphically Defining Articulate Tacit Knowledge," In: P. Eades and J. Jin, Eds., *Proceedings of Selected Papers from Pan-Sydney Area Workshop on Visual Information Processing (VIP2000) in CRPIT*, Sydney, 2001, pp. 51-60.
- [35] B. J. Avolio, S. Kahai and G. E. Dodge, "E-Leadership: Implications for Theory, Research, and Practice," *The Leadership Quarterly*, Vol. 11, No. 4, 2000, pp. 615-668. [doi:10.1016/S1048-9843\(00\)00062-X](https://doi.org/10.1016/S1048-9843(00)00062-X)
- [36] G. R. Goethals, G. J. Sorenson and J. M. Burns, "Encyclopedia of Leadership," Vol. 1, Sage Publications, Thousand Oaks, 2004.
- [37] J. K. Hazy, "Computer Models of Leadership: Foundations for a New Discipline or Meaningless Diversion?" *The Leadership Quarterly*, Vol. 18, No. 4, 2007, pp. 391-410. [doi:10.1016/j.leaqua.2007.04.007](https://doi.org/10.1016/j.leaqua.2007.04.007)
- [38] D. Avison and S. Elliot, "Scoping the Discipline of Information Systems," In: J. King and K. Lyytinen, Eds., *Information Systems: The State of the Field*, John Wiley and Sons, Ltd, Chichester, 2006, pp. 3-18.
- [39] G. DeSanctis, "Human Resource Information Systems: A Current Assessment," *MIS Quarterly*, Vol. 10, No. 1, 1986, pp. 15-27. [doi:10.2307/248875](https://doi.org/10.2307/248875)
- [40] G. DeSanctis and M. S. Poole, "Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory," *Organization Science*, Vol. 5, No. 2, 1994, pp. 121-147. [doi:10.1287/orsc.5.2.121](https://doi.org/10.1287/orsc.5.2.121)