

# **Linear and Non-Linear Systems within the HRM Framework: An Indonesian Study**

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## **ABSTRACT**

The research context is Indonesia. The paper reports on Company A, a holding company of a group of companies. A conceptual-framework representing the evolved stages of Personnel Administration, Human Resource Management, and Strategic Human Resource Management was used to investigate current-practices. A focus was on transition, enablers and barriers. Transition was found and importantly, the data behaved more like a non-linear system, than the linear characteristic which usually associated with well-integrated HRM systems and processes. At the same time, there were some stable, linear elements in the data. This suggests a model for SHRM that incorporates both linear and non-linear designs. Complex adaptive systems methodology is proposed as a framework that would encourage adaptability but still allow 'islands of order'.

*Keywords: PA, HRM, SHRM, transition, linear, non-linear*

## **BACKGROUND**

“There is little question that the human resource management is undergoing profound change as the 20<sup>th</sup> century draws to a close. What are the forces for change? Where are human resource management and the human resource functions going? What are the obstacles to getting there?” (Beer, 1997: 49). Lundy (1994) reflects many writers on human resource management, such as Buyens & De Vos (2001), Boxall and Purcell (2000), and Tracey and Nathan (2002), who say that there are increasing pressures on businesses to be competitive and these, in turn, require human resource management to take on a strategic significance. Lundy goes on to echo sentiments of other human resource management theorists, such as Mohrman and Lawler (1997) and Kamoche (1994), when she comments that the administrative function represented by personnel management is in decline in favour of strategic human resource management. Boxall and Purcell (2000) expand on this theme, suggesting that strategic human resource management is critical to organisational effectiveness.

In addition, other writers on human resource management also convey the supporting arguments of the importance of strategic human resource management in different ways and perspectives. Truss and Gratton (1994) argue that organisations at all levels, in both public and private sectors are increasingly turning to strategic human resource management techniques to pave the way for change, bringing personnel departments to the forefront of organisational transformation and survival as never before. Meanwhile, Boxall and Purcell (2000) claim that strategic human resource management implies a

concern with the ways in which human resource management is critical to organisational effectiveness. Furthermore, Truss and Gratton (1994) argue that strategic human resource management provides a link between human resource management and strategic goals/objectives. This is in order to improve business performance and to develop organisational cultures that foster innovation and flexibility to face a newly defined and highly competitive market place.

## CONCEPTUAL FRAMEWORK

**TABLE 1. Definition of PA, HRM, SHRM, and Transition Period**

<b><i>PA</i></b>	<b><i>HRM</i></b>	<b><i>SHRM</i></b>	<b><i>TRANSITION PERIOD</i></b>
In this study, Personnel Administration is defined as the administered basic activities such as recruitment, record keeping (attendance, leave, and sickness records), training in company rules and salary computation (Whiteley et al., 2000). It reflects short-term view and task oriented.	In this study, Human Resource Management is defined as an integration of human resources into strategic management and the emphasis is on a full and positive utilisation of these resources (Guest, 1987). It reflects medium-term view, job related and functional focus.	For the purpose of this study, Strategic Human Resources Management means human resources that are fully integrated with the strategy and the strategic needs of the firm, coheres both across policy areas and across hierarchies (Guest, 1989). It reflects long-term view, integrative and developmental focus.	A transitional period that leads from Personnel Administration to Human Resource Management, and from Human Resource Management to Strategic Human Resource Management (Whiteley et al., 2000).

## THE STUDY

### *Context*

Company A is a Holding Company of twenty-six Branch Offices and sixteen Subsidiaries. The business scope of the Company is highly diverse, including Agro-Industry, Pharmacy and Medical Equipment, Trading, and Property. The interviews were conducted at the HR Division.

### *Approach*

The constructivist paradigm was adopted.

*“The constructivist paradigm assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and subject create understandings), and a naturalistic (in the natural world) set of methodological procedure. Findings are usually presented in term of the criteria of grounded theory.”* (Denzin and Lincoln, 1994:13-14)

The Grounded Theory as describes by Whiteley (2000a) was used.

*“Grounded Theory (Glaser and Strauss, 1967) is a field research method that seeks to discover respondents’ versions of social phenomena through the act of emergence. It can use quantitative or qualitative data but concepts and theories that emerge are not arrived at by statistical methods. Basically data analysis in grounded theory is qualitative. For example, an examination of timesheets could show a severe level of lateness in a department. This quantitative data need to be interpreted by the people involved. They need to give the researcher their ‘theories’ about what is happening. These theories are qualitative in nature*

*and they need to be analysed qualitatively. The antithesis of grounded theory is any approach that forces data to meet predetermined concepts or theoretical models.” (Whiteley, 2000a: 9)*

This study is using the generative aspects of grounded theory (Glaser and Strauss, 1967) both purposive theoretical sampling and content analysis.

### ***Research Design***

“The purpose of the research design is the logical sequence that connects field data to a study’s initial research questions and ultimately to its conclusions” (Whiteley, 2002: 9, lecture note).

The research design had three tiers. The first tier was literature study followed by the formation of research question. Then the preliminary fieldwork conducted and the results were analysed to confirm the research question. The second tier was data collection; both primary data (interviews) and secondary data (HR documents) were collected. The interview data were transcribed and analysed by using content analysis. Meanwhile, the analysis was also conducted for the HR documents. These lead to the third tier, which were findings followed by discussion using theoretical sensitivity.

### ***Data Collection Method***

Data were collected by using semi-structured interview. The semi-structured interview (King, 1994) was chosen since it enabled the researcher to ask open-ended specified questions which allow the researcher more freedom to explore and probe the issue (May, 1997). It gave respondents the opportunity to tell their stories based on their own experiences since this study follow the tradition of ‘giving voice’ to respondent (Charmaz, 2000). Eleven interviews were conducted and recorded. The interviewees comprised of HR Director, HR Division Head, HR Manager, Line Manager, HR Supervisors, and HR staff.

### ***Data Analysis***

“Content analysis is the process of identifying, coding, and categorising the primary patterns in the data. This means analysing the content of interviews and observations” (Patton, 1990: 381). Content analysis following Grounded Theory protocols was used. The process is described in table 2.

**TABLE 2. Analysis Process**  
(Model Adopted from Whiteley 2004: 38)

Utterance to codes to categories
Categories to concepts
Constant Comparison
Constant questioning

The data were coded using the open-coding process consistent with the grounded theory approach (Strauss and Corbin, 1990). The coding was conducted with no predetermined codes and allowed the preliminary codes to emerge from the data (Glaser, 1992). The codes were then reconsidered so that the categories were compared and integrated in a way that reflects theoretical sensitivity in developing the concepts. Thus, the coding process goes through four steps: code, categorise, apply constant comparison and constant questioning, and conceptualise the idea.

## FINDINGS AND THE DISCUSSION OF THE FINDINGS

**TABLE 3. Summary of the Characteristics of Elements in Company A**

X = Activity , XT= Transition

<i>Elements</i>			
<i>PA</i>		<i>HRM</i>	
1. Grading System Administration	XT	1. Organisation Design	XT
2. Compensation System Administration:	X	2. Human Resource Planning	XT
- Payment Procedure	X	3. Recruitment Method and Selection process	X
- Retirement Payment	X	4. Orientation and Probation Design	X
- Overtime Payment	X	- On the Job Training	X
- Payment Deductions	X	5. Compensation System:	X
- Payment of Bonus, Benefits, and Incentives	X	- Salary Determination, Increase Review & Comparison	X
- Payment of Insurance, Pension, Tax	X	- WPS design: Benefit and Bonus	X
3. Training Administration	X	6. Performance Management	XT
- In house Training	X	7. Training Provision	XT
4. Basic Use of IT and Data	X	8. Career Progression	XT
5. Other Personnel Procedures and Roles	X	9. Procedural Communication	X
- Medical Administration	X	10. Motivation	X
- Attendance & Discipline	X	11. Developing IT	X
		12. Industrial Relations	X
<i>SHRM</i>			
1. Organisation Development: Future Planning	X	7. Strategic Compensation Decision:	X
2. Competency Assessment	X	- Performance Merit	X
3. Business Strategy Link with HR strategy	X	8. Preparing Future Leaders:	X
4. Recruitment Strategy	X	- Career for GM	X
5. Strategic Training and Development	X	9. Strategic Communication	X
6. Strategic Performance Management	X	10. Motivation	X

Table 3 presents the summary of the characteristics of elements in Company A. It shows that PA has two characteristics. First, is Foundational Administration Activities. These activities are static, no expectation of transition, and mainly deal with basic administration functions. They are performed in the Company as supporting functions (see mark X in table 3). Examples of these activities are Compensation System Administration, Training Administration, Basic Use of IT and Data, and Other Personnel Procedures and Roles. These activities have short-term view, task oriented and reactive.

Secondly, is PA element that in Company and the literature has progressed toward HRM. In other words this element is in a transition period and it is moving from PA to HRM (see mark XT in table 3). An example of this element is Grading System Administration.

Moreover, table 3 shows that HRM also has two characteristics. First, is Foundational HRM Activities. These activities are static and there is no expectation of transition (see mark X in table 3). Examples of these activities are Recruitment Methods and Selection Process, Orientation and Probation Design, Compensation System: Salary Determination, Increase Review, and Comparison, and Industrial Relations. These activities have medium-term view, job related and functional focus.

Secondly, is HRM activities that in Company and the literature have progressed toward SHRM. In other words these activities are in a transition period and they are moving from HRM toward SHRM (see mark XT in table 3). Examples of these activities are Organisation Design, Human Resource Planning, Performance Management, Training Provision, and Career Progression.

Table 3 also shows that SHRM has one characteristic: Foundational SHRM Activities. These activities are Organisation Development: Future Planning, Competency Assessment, Business Strategy Link with HR Strategy, Recruitment Strategy, Strategic Training and Development, Strategic Performance Management, Strategic Compensation Decision, Preparing Future Leaders, Strategic Communication, and Motivation. These activities have long-term view, integrated and developmental focus.

There is a sense of movement on the elements marked with XT. This came as activities were moving across boundaries, for instance PA activities began to transform into HRM, and HRM activities began to transform into SHRM. We called these as the concept of transition. Furthermore, the data show a combination of Linear and Non-Linear relationships but the sense is of adaptation. The linear relationship is found in the PA domain while the non-linear relationship, which is characterised by complex adaptive system (CAS), is found in the HRM and SHRM domains. The following is the detailed of the elements movement toward transition, the linear model, and the modified version of complex adaptive system.

#### ***The Elements Movement Towards Transition***

The elements that are in a transition period, from PA toward HRM, and from HRM toward SHRM were identified as shown in table 4.

**Table 4. Elements Movement Towards Transition in Company A**

<i>PA in transition towards HRM</i>	<i>HRM in transition towards SHRM</i>
Grading System Administration	Organisation Design
	Human Resource Planning
	Performance Management
	Training Provision
	Career Progression

**The Element in Transition from PA toward HRM**

**Grading System Administration**

The Grading System Administration element is categorised as PA practice since it classified the employees into a hierarchical system. But it is not straightforward PA since the application is more complex than that. The grading reflects a status symbol which is embedded in each level, and it is used to determine the salary, bonus, facilities, benefits, allowances, training and development, and career of the employees. For example, lower level employees get different bonus percentage (of the salary) from higher-level employees. They can not get the same facilities, benefits and allowances as what the higher level of employees get. Moreover, lower level employees can not participate in training and development which are only available for higher level employees, and they also can not be promoted to certain level of jobs. The reason is the qualifications of higher level and lower levels employees are different. Therefore, the Grading System Administration is categorised as the element which is in the transition from PA toward HRM.

**The Elements in Transition from HRM toward SHRM**

The elements in Transition from HRM toward SHRM are Organisation Design, Human Resource Planning, Performance Management, Training Provision, and Career Progression (see table 4). This paper only describes the transition of Organisation Design and Human Resource Planning elements.

**Organisation Design and Human Resource Planning**

Organisation Design is categorised as HRM practice because the Company tries to manage the organisation more comprehensively by conducting position analyses to adjust the organisation structure, formulating human resource needs and developing job descriptions. Since it begins with the structure rather than the Company’s strategy directions, it is categorised as HRM.

The Human Resource Planning element is also categorised as HRM practice since it is constructed based on job analysis and focused on the quantity and quality of the human resources which are

needed by the Company. However, the Organisation Design and Human Resource Planning activities are conducted to prepare the implementation of competency based human resources management and to support the Organisation Development: Future Planning. The Organisation Development: Future Planning itself is categorised as SHRM practice as it will change the role of the Holding Company from operational to investment holding. Therefore, Organisation Design and Human Resource Planning elements are categorised as the elements which are in the transition from HRM toward SHRM.

**The Linear Model**

Lewin and Regine (2003) discuss the kinds of relationships in the core of management practice, which are linear and non-linear. They explain that in a linear world, things may exist independently of each other, and when they interact, they do so in simple, predictable ways. The data of the PA functional activities in Company A follow the linear relationships.

**The Linear Model in the PA Domain**

**FIGURE 1. PA Process in Company A**

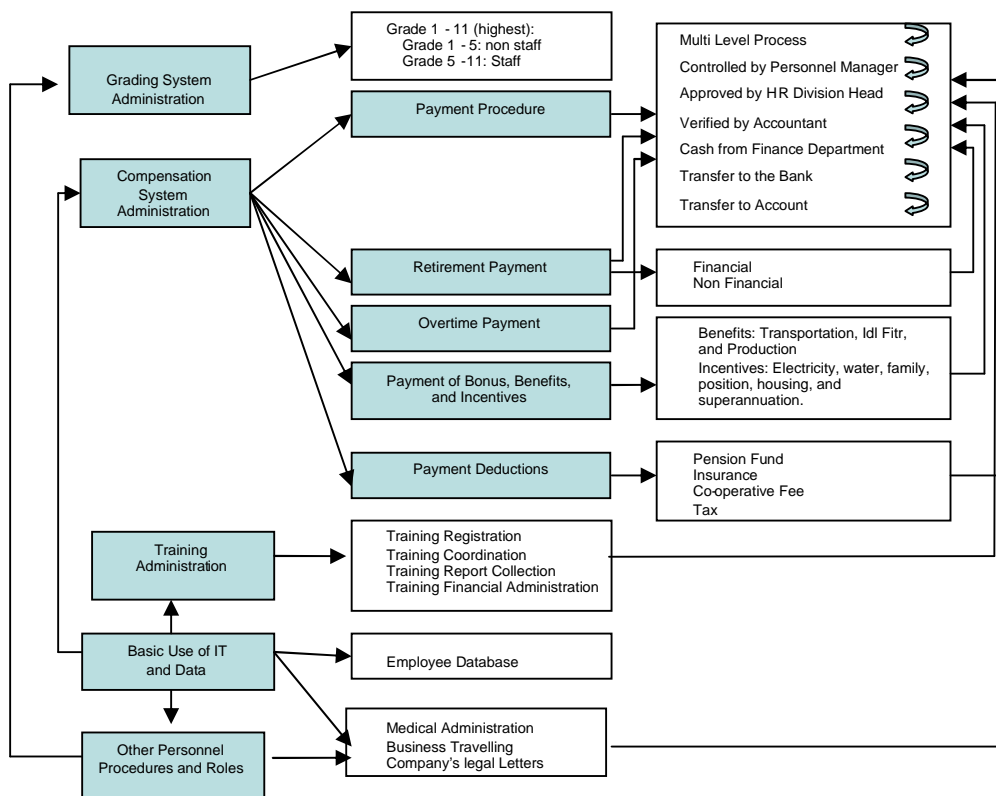




Figure 1 shows that the Compensation System Administration element, which includes the retirement payment, overtime payment, payment of bonus, benefits, and incentives, and payment deductions, follows a payment procedure that involves a multi level process. The process requires that each payment request must be checked by the Personnel Manager to get approval from the HR Division Head before it goes to the Finance Department. Verification is also done by the Accountant before it is paid by the Finance Department. The payment is done by transferring the money to the respective account. The payment that occurs in the other elements, such as: training, medical and business travelling follow the same payment process.

Since all elements utilise the IT and Data in conducting their activities, the IT and Data element is connected to other elements such as to grading system administration, compensation system administration, training administration and other personnel procedures and roles elements. Therefore, it can be said that PA practice in Company A follows a linear model since the links among the elements in PA domain show linearity. It follows Lewin and Regine (2003) concept of linear relationship where the elements in PA domain work independently of each other, and they interact in simple, predictable ways.

### ***The Modified Version of Complex Adaptive System***

The complex adaptive system is described by Stacey (1996) as:

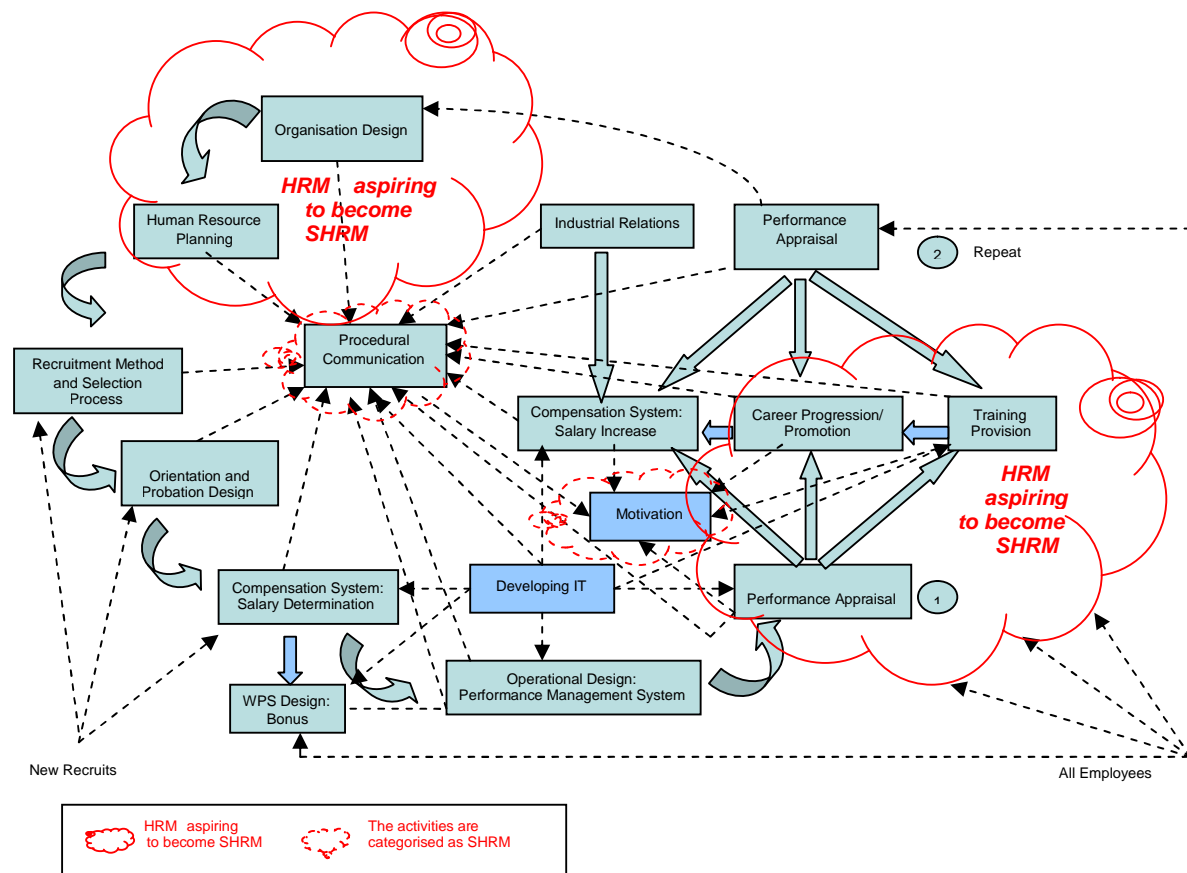
*“At its simplest, an adaptive non linear feedback system is a network consisting of a large number of agents, each of those behaviour is determined by a shared schema consisting of a few rules that are fixed overtime and that apply to all agents without exception....even the simplest adaptive system has some purpose, namely, to perform some task. It follows that....agents in all adaptive systems adjust their behaviour in light of its consequences for their purpose.” (Stacey 1996: 72)*

Based on Stacey’s concept on the complex adaptive system, the HRM and SHRM practices conducted in Company A can be considered as a modified version of complex adaptive systems. The “agents” in Stacey’s concept can be interpreted as the elements in the HRM and SHRM domains. Stacey’s concept of “schema” is interpreted into the HRM strategy and policy. What Stacey refers as “rules” is interpreted as the HR rules and procedures. Stacey says that “the rules are fixed overtime and that apply to all agents without exception”. In the HRM practice some of the HR rules and procedures are revised periodically and those rules and procedures are applied to all elements in the HRM system.

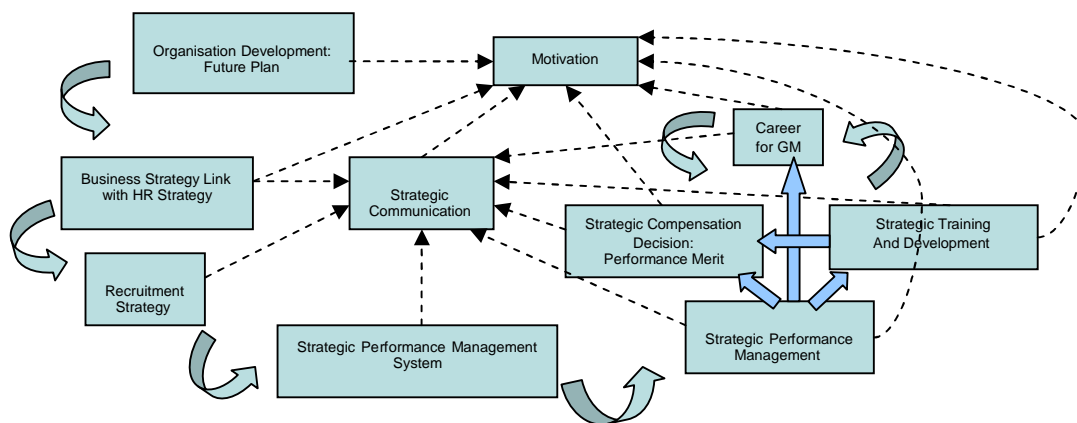
The complex adaptive system has some purpose “to perform some tasks”, so do the HRM and SHRM practices since they are conducted to achieve its purposes, aims, and objectives.

Stacey also mentions about “an adaptive non-linear feedback system”. A deep look at figure 2 showed an interconnectedness that took linear elements and related them across a spectrum of activities in an integrative way. The spectrum ranged from HRM to SHRM. Building the integrative connectivity, a sense of adaptation grew. For instance figure 2 shows that Procedural Communication needed to adapt to the different discourses and protocols required by, for example, Performance Appraisal, Training, Compensation and other elements. The concept of Procedural Communication shapes and in turn was shaped by the procedures and discourses of the various functions. This is resonant with CAS in the sense that elements in modified version of complex adaptive systems adjust their behaviour in light of its consequences for their purpose.

**FIGURE 2. HRM Practice in Company A**



**FIGURE 3. SHRM Practice in Company A**



A deep look at figure 3 also showed interconnectedness that took linear elements and related them across a spectrum of activities in an integrative way. Building the integrative connectivity, a sense of adaptation grew. For instance figure 3 shows that Strategic Communication needed to adapt to the different discourses and protocols required by, for example, Organisation Development: Future Plan, Strategic Performance Management, Strategic Training and Development, Strategic Compensation Decision and other elements. The concept of Strategic Communication shapes and in turn was shaped by the procedures and discourses of the various functions. This is resonant with CAS in the sense that elements in modified version of complex adaptive systems adjust their behaviour in light of its consequences for their purpose.

### ***Conclusion***

Since the research was conducted in developing country, it was expected that the finding will support the static, simplistic, and linear HR practices. But the reality is there are movements. The linear approach is only match with PA practices but not with the HRM and SHRM practices. Theories of linear HRM show traditional approach. This is in contrast to CAS idea in HRM and SHRM practices. Many theories take linear approach which is predictable, stable, and controlled. Meanwhile CAS characterised by flexible, innovative, creative, adaptable, and dismantle the system if necessary.

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