

## **International Human Resource Management Practices from a Complex Adaptive Systems Perspective: An Exploratory Investigation**

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### **Abstract**

*This paper analyzes the Resource-Based View (RBV) approach to International Human Resource Management (IHRM) and presents an alternative integrative framework using Complex Adaptive Systems (CAS).*

**Keywords:** Resource-Based View, Complex Adaptive Systems, International Human Resource Management

### **Introduction**

We are truly living in times of exponential change. Rapid technology development is growing economies and changing the interface of business. Such turbulence increases the importance of a company's human resources, or its creative capital, in order to compete within this dynamic, unstable environment. Consequently, International Human Resource Management (IHRM) is becoming increasingly important as we move to a more knowledge-based and interactive global economy. However, IHRM research has been limited over the years and largely focused on a few issues because of cost and time constraints (Schuler, Budhwar, & Florkowski, 2002). Several areas need further attention, including the utilization of more theoretical perspectives to predict and explain relationships (Schuler, Budhwar, & Florkowski, 2002). The most widely used theory in HRM literature, the Resource-Based View (RBV), demonstrates how companies can use HRM to gain a strategic competitive advantage; thus, HRM practices are linked with each other and linked to a company's mission (Barney, 1991). This theoretical perspective has been extended to IHRM research, which has led to a more strategic view of IHRM.

The RBV-IHRM relationship has sparked controversy within academia concerning the multinational enterprise's (MNE) need to localize and differentiate practices, as well as simultaneously integrate best practices across the firm (Morris, Snell, & Wright, 2005).

It can be argued that this integration of best practices makes it easier for firms to imitate one another, and this essentially prevents the MNE from obtaining a sustainable competitive advantage through IHRM practices. Furthermore, the RBV assumes rationality within organizations, which is not always typical of human behavior (Truss, 2002). The purpose of this paper is to present an alternative, inorganic framework using a relatively new theory to HR literature called Complex Adaptive Systems (CAS) and apply it to IHRM (Truss, 2002).

### ***Evolution of IHRM***

First, it is necessary to briefly examine the evolution of the field in order to make a distinction between HRM, SHRM, and IHRM. A focus on the human side of management first began with Elton Mayo as a reaction against Frederick Taylor's Scientific Management. Taylor was an American engineer who emphasized detailed observation and measurement of work through time-and-motion studies to increase productivity. A major principle of his philosophy was to place responsibility for the organization of work on the manager (Morgan, 1998). Taylor believed that planning and doing were two separate functions that should be handled by two different classes of people. The Scientific Management craze swept the nation during the Industrial Revolution and the early twentieth century, and its dehumanization of workers ultimately gave rise to the human relations movement led by Elton Mayo. The Hawthorne studies began in the 1920s under the leadership of Elton Mayo as an investigation of the relations between work conditions and worker fatigue and boredom (Morgan, 1998). The studies are now associated with the identification of social needs in the workplace. The Hawthorne studies demonstrated that work activities are influenced as much by the nature of human beings as by formal design (Morgan, 1998). As a result, the human relations movement, which viewed the worker as the most important element in business, began in 1945 and continued through the 1960s (Ferris, Rosen, & Barnum, 1995).

Personnel Management (PM) emerged after World War II and continued until the 1970s. Since the 1970s, the PM side of the HRM function has been transformed from a purely administrative and reactive function to one that is critical and proactive within an organization as businesses began to view employees as assets versus expenses (Ferris, Rosen, & Barnum, 1995). HRM is defined as "the organizational science and practice that deals with the employment relationships, encompassing all decisions, actions, and issues concerning that relationship" (Ferris, Rosen, & Barnum, 1995). The HRM field consists of various practices and sub disciplines to manage the people within an organization, such as planning, selection, training and developing, appraisal, compensating, and labor relations. These practices translate into the different functional areas within HR.

The 1970s was essentially the birth of the strategic focus era. However, it wasn't until Devanna, Fombrun, and Tichy's 1984 book, *Strategic Human Resource Management*, that the HRM sub field of Strategic HRM (SHRM) was created (Wright, Dunford, & Snell, 2001). The SHRM framework explored the link between business strategy and HR; it presented the basic elements of mission and strategy, formal structure, and HRM as interrelated systems that are embedded in a turbulent environment (Devanna, Fombrun, & Tichy, 1984). Consequently, the different HR functional areas became integrated horizontally, as well as aligned vertically with the firm's overall strategy (Ferris, Rosen, & Barnum, 1995). Many organizations used this framework and formulated their HR practices in accordance with the firm's strategy. For example, if a firm's strategy was oriented around a single, vertically-integrated product, its selection criteria would be standardized and focused on recruiting for specific functional areas (Devanna, Fombrun, & Tichy, 1984). Thus, companies began to see human resources as a source of competitive advantage and HR as a strategic business partner.

More recently, there has also been an emphasis on another HRM sub field called International HRM (IHRM) (Schuler, Budhwar, & Florkowski, 2002). IHRM has been defined as "the world-wide management of human resources" (Schuler, Budhwar, & Florkowski, 2002). Its purpose is to enable MNEs to become globally successful by being: (1) competitive throughout the world; (2) efficient; (3) locally responsive; (4) flexible and adaptable within the shortest of time periods; and (5) capable of transferring knowledge and learning across their globally dispersed units (Schuler, Budhwar, & Florkowski, 2002). Many MNEs utilize the six functional areas of HRM in a strategic manner, but IHRM practices are also administered across a wide variety of nations, each with its own social, cultural, legal, economic, political, and historical characteristics (Schuler, Budhwar, & Florkowski, 2002).

### ***RBV and IHRM***

RBV theory, which originally emanated from economics, argues that firms consist of bundles of unique resources (Barney, 1991). If resources meet the four criteria of value, rarity, inimitability, and non-substitutability (VRIN), these resources can then constitute a source of sustained competitive advantage to the firm (Barney, 1991).

IHRM research from a RBV perspective focuses on the *workforce*, as well as *HR policies and practices* (Morris, Snell, & Wright, 2005). If IHRM research is examined from a RBV perspective with a focus on a company's human resources, or *workforce*, the competitive advantage for firms can hardly be disputed. A heterogeneous, global labor pool meets all four VRIN criteria. A human being's unique set of skills, knowledge, and experiences cannot be imitated or easily substituted, which makes a company's workforce valuable and rare (Morris, Snell, & Wright, 2005).

If IHRM research is examined from a RBV perspective with a focus on a company's *HR policies and practices*, the competitive advantage of IHRM is not necessarily present. For example, Lado and Wilson argue that a firm's HRM practices can ultimately serve as a source of sustained competitive advantage by utilizing a competency-based perspective in accordance with the RBV perspective of firm strategy (Lado & Wilson, 1994). However, Wright et al. (1994) counter Lado and Wilson's argument by asserting that HR practices are easily imitated and/or substituted; therefore, they cannot be a source of competitive advantage in accordance with the VRIN criteria of the RBV. Furthermore, when RBV is extended to IHRM practices, the heart of the dilemma is the issue of resource immobility, which underlies the tension between local responsiveness and global integration in MNEs (Morris, Snell, & Wright, 2005). Local responsiveness creates the differentiation and resource heterogeneity that is needed; however, global efficiency requires an integration of best practices across business units (Morris, Snell, & Wright, 2005). This integration of best practices can make it easier for firms to imitate competitors, with the result that practices are quickly diffused within an industry.

In contrast, some have argued that it is the IHRM practices that build the unique human capital. For example, Morris et al. (2005) suggest utilizing a combination of human, social, and organizational capital in a creative and integrative manner to create a source of competitive advantage. It is the ability to combine IHRM practices in a distinctive manner that develops the unique human capital that can be a source of competitive advantage for the firm. However, little research has been conducted to offer empirically supported integration recommendations for MNEs.

There is also an issue of organizational culture. From a RBV perspective, a company must tailor HRM practices to meet the mission and to support the company culture. A MNE could have a variety of internal cultures unique to local business units within an international setting. This could prove problematic when a MNE tries to integrate IHRM practices across the whole organization. The ability of firms to develop a competitive advantage through a unique set of integrated IHRM practices thus becomes questionable, as practices are adapted to each local business.

### **CAS Theory**

CAS Theory originated in physics and chemistry (Truss, 2002). It was first discovered when the phenomenon of self-organization, or the tendency for both complexity and organization to increase, was identified in dissipative structures, or structures capable of importing free energy and exporting high entropy waste (Truss, 2002). Under this theory, complex systems cannot remain in a state of equilibrium; predictability and control are theoretically impossible because such systems contain inherent nonlinearities; and intelligence is contained in the nodes, rather than centralized at the top (Truss, 2002). It is different from Open Systems theory primarily regarding the view of the external environment (Truss, 2002). Under Open Systems theory, the external environment and the system are viewed as separate entities; under CAS theory, they are viewed as intertwined and dependent.

An entity must meet four criteria in order to qualify as a complex adaptive system: (1) it must be comprised of many agents acting in tandem; (2) it must shuffle these agents continuously; (3) it is subject to the third law of thermodynamics, exhibiting entropy and winding down over time unless replenished with energy; and (4) it must show the capacity for pattern recognition and be capable of anticipation and learning (Truss, 2002). Thus, organizations can be examined as complex structures since firms meet the complexity criteria.

### **CAS and IHRM**

Kelly (1994) proposed a set of nine laws for growing complex systems. Seven of these are as follows (Colbert, 2004):

- **Distribute being:** Complex systems are distributed over a multitude of smaller units rather than assembled together as one unit.
- **Control from the bottom up:** Overall governance must arise from interdependent acts conducted locally and not from a central command.

- **Cultivate increasing returns:** An idea or a skill is strengthened and reinforced each time it is used (e.g. positive feedback). Anything that alters its environment to increase production of itself is participating in the process of increasing returns.
- **Grow by chunking:** Complexity is created by assembling it incrementally from simple modules that can operate independently and successfully.
- **Maximize the fringes:** A diverse system can adapt to the world in a thousand daily mini-revolutions. Consequently, a complex system is in a permanent state of turmoil, or “fringe.” In economic, ecological, evolutionary, and institutional models, promoting “fringe” speeds adaptation, increases resilience, and is almost always the source of innovations.
- **Honor errors:** Complex systems are characterized by innovation, and this process is indistinguishable from error. An adaptive system must create a supportive environment where errors are considered natural in the pursuit of innovation.
- **Pursue multiple goals:** Survival means becoming as diverse as the environment (i.e. internal requisite variety). Thus, an adaptive system must constantly create and pursue multiple goals in accordance with the turbulent environment to ensure survival.

These seven laws can be extended to IHRM practices using the framework illustrated in Figure 1. If IHRM is examined from a CAS approach, it solves the issue of resource immobility from a RBV approach. MNEs can have both the local responsiveness and the integration of best practices under the CAS approach. CAS also offers organizations flexibility. This is extremely important in today’s environment as competitive businesses frequently change strategic directions to meet ever-changing consumer wants and needs. Additionally, CAS offers organizations a way to successfully manage knowledge, which is increasingly important in our knowledge-based, global economy.

**Insert figure (1) about here**

MNEs should use the aforementioned complexity heuristics in order to create complex organizations, and they should utilize the corresponding HR principles to support the heuristics. The IHRM practices for the MNE will result from these guiding principles. In order to distribute the being, organizations should encourage cross-functional movement through their IHRM practices. This may translate into diversity and flexibility recruiting objectives, as well as rewarding employees with cross-functional experience and creating career maps for employees that include cross-functional work assignments.

MNEs should also decentralize in order to develop a closer relationship with consumers at the local level and to promote control from the bottom up. MNEs can foster better information communication channels by using this type of organization structure. An IHRM practice to support this principle might include rewarding all levels of employee participation in order to promote democracy throughout the organization. Complex firms should also cultivate increasing returns by creating positive reinforcement. A MNE could develop an informal employee recognition database as one method to support this principle. All employees could be granted access to such a database in order to support spontaneous, informal recognition at all levels within the organization.

In order to grow by chunking, MNEs should encourage local innovation and build the learning capacity within their organizations. A decentralized organization structure encourages information sharing, but firms could also create an electronic knowledge-sharing forum to promote learning. Employees can document their ideas and solutions to problems within such a database, and this would eliminate redundancy. MNEs should also embrace debate and experimentation in order to maximize the fringes. An IHRM practice to support this principle might include training employees on the importance of risk-taking as part of the orientation process and creating knowledge marketplaces (see Danone case) where employees can visually display their innovative solutions to problems. Managers might even consider designing a monetary bonus system that rewards innovative and cost-saving projects.

In order to honor errors, complex firms should encourage reflective practice. In order to encourage experimentation, managers should not punish failure; they should reward the greatest learning experiences perhaps through a formal recognition ceremony or an all-employee meeting. If employees are not afraid to fail, they will be much more willing to take risks.

Additionally, MNEs need to pursue multiple goals. Financial advisors promote the diversification of stock portfolios in order to hedge against risk. Likewise, Biologists teach that survival of the fittest is dependent upon internal requisite variety. Organisms need to develop an internal structure that is as complex as their environments in order to not only survive, but to evolve. MNEs need to adhere to these same principles: complexity and diversification. Firms can accomplish this by utilizing an HR metric system that measures the performance of their goals and ensures continual diversification.

### **Case Example of IHRM-CAS**

The French multinational enterprise, Groupe Danone, is an example of a complex organization. They implemented the Networking Attitude concept in 2002 with an effort to increase knowledge sharing across the company (Edmondson, Moinceon, Dessain, & Jensen, 2008). Danone's HR department facilitated knowledge "marketplaces" and "sharing networks," along with other tools, to help employees share best practices horizontally (Edmondson, Moinceon, Dessain, & Jensen, 2008). This was a very original concept, and it contradicted traditional hierarchical forms of knowledge sharing typical of similar organizations.

Danone essentially solved the problem of how to localize and differentiate practices, as well as simultaneously integrate best practices across the firm. They accomplished this by adhering to the CAS heuristics.

Key takeaways from the case include:

1. *Distribute being*: Danone encouraged knowledge sharing of best practices across functions through "marketplaces" and "networks."
2. *Control from the bottom up*: Danone decentralized in order to maintain a close relationship with local markets and to respond quickly to changes in environment.
3. *Cultivate increasing returns*: Danone rewarded individuals whose best practices received the most attention at the knowledge "marketplaces."
4. *Grow by chunking*: Danone encouraged local innovation by empowering the individual business units to make key decisions through their decentralized organization structure. They built learning capacity through their knowledge "marketplaces" and "sharing networks."
5. *Maximize the fringes*: Danone rewarded risk-taking and experimenting by acknowledging individuals whose best practices received the most attention at their knowledge "marketplaces."

### **Conclusions and Recommendations**

Researchers and practitioners should strongly consider a CAS approach to IHRM because it solves the dilemma of resource immobility from a RBV approach; it offers firms flexibility; and it offers organizations a way to manage knowledge. If practitioners wish to cultivate a complex organization, they can follow the integrative IHRM-CAS framework and use the Danone case as an example to guide the creation of their supporting IHRM practices. Researchers may conduct empirical research to support the proposed integrative framework.

H.G. Wells writes in *The Time Machine*, "There is no intelligence where there is no change and no need of change." In other words, innovation and brilliance flourish as a result of change and not complacency. Wells wrote about the fast pace of technological development and social change in this science-fiction novel. He would still find the topic relevant today. In order to survive and prosper, MNEs need to create an internal requisite variety that matches the complexity of their environments. They should embrace change as the only constant in today's world and simultaneously create complex structures capable of dealing with change through their IHRM practices.

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Figure 1: Integrative IHRM-CAS Framework

Complexity Heuristics	Distribute being	Control from the bottom up	Cultivate increasing returns	Grow chunking by	Maximize the fringes	Honor errors	Pursue multiple goals
HR Principles	Encourage cross-functional movement and sharing of best practices	Feed information to all levels and encourage democracy	Create positive reinforcement	Encourage local innovation and build learning capacity	Embrace debate and experiment	Encourage reflective practice	Tolerate multiple aims
HR Practice Examples	<p>Recruit individuals with diverse backgrounds</p> <p>Develop a learning plan for each employee that includes cross-functional work assignments</p> <p>Create temporary trial cross-functional assignments for employees</p>	Reward all levels of employee participation	Reward using an informal employee recognition database	<p>Plan an informal, decentralized organization structure that encourages discussion and learning</p> <p>Plan an electronic knowledge-sharing forum</p>	Train employees to experiment and create knowledge marketplaces (e.g. Danone)	Reward greatest learning experiences through formal recognition ceremony or all employee meeting	Appraise using developed HR metrics to ensure multiple aims