AN EVIDENCE-BASED REVIEW OF E-HRM AND STRATEGIC HRM

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Motivation and purpose
Research questions
Evidence-based methodology
Results
Synthesized conclusions
Future steps
Top U.S. Practitioner Initiatives in 2005

- Business process improvements: 42%
- Employee Self-Service: 32%
- Aligning employee goals: 22%
- Manager Self-Service: 23%
- Compensation management: 26%
- Enterprise portal for HR transactions: 25%
- Upgrade: 23%
- War for talent: 21%
- Sarbanes-Oxley: 15%
- Expanding HRIT with analytics: 11%

Source: CedarCrestone 2005-2006
Figure 5: Top Initiatives – How Respondents Spend Time and Budget

% of respondents

- Business process improvements and innovations: 79%
  Spending Time: 48%
  Spending Budget: 79%
- Talent management processes and associated automation: 58%
  Spending Time: 55%
- Business intelligence/workforce metrics: 49%
  Spending Time: 28%
- Employee and manager self service: 48%
  Spending Time: 43%
- HR systems strategy: 48%
  Spending Time: 24%
- Upgrade: 33%
  Spending Time: 33%
- Enterprise portal that supports HR-related information and transactions: 30%
  Spending Time: 25%
- Creating a competency model and/or implementing competency management: 29%
  Spending Time: 20%

Source: CedarCrestone 2009-2010
PRACTITIONER STATED INTENDED E-HRM OUTCOMES

- Cost Savings
  - Head count/centralization
  - Automation

- HR Service Delivery
  - Self-service
  - Best practices

- Strategic Business Partner
  - Support business
  - Talent management

E-HRM
E-HRM “THEORETICAL” LITERATURE: TALE OF TWO PERSPECTIVES

E-HRM

“IT’s transformational impact on HRM”

Snell, Stueber & Lepak (2002)
Lengnick-Hall & Moritz (2003)

Strategic HRM

“IT as a strategic tool to meet HR strategic objectives”

Broderick & Boudreau (1992)
Reddington & Martin (2006)
Ruel, Bondarouk and Van der Veld (2007)
THE DUALITY OF TECHNOLOGY

- Technological determinism
  - Independent variable
  - Exogenous change
  - Technology as triggering force

- Technology as an outcome
  - Dependent variable
  - Consequence of strategic choice
  - Technology as a tool

Orlikowski, 1992; Strohmeier, 2009
Evidence-based Questions

1) What e-HRM and strategic HRM relationships are present and supported across studies?

2) Does the evidence support a deterministic view in which technology triggers organizational change or does the evidence suggest a more influential role for social and organizational actors?

3) Under what conditions does eHRM lead to/ enhance strategic HRM and what mechanisms operate in this relationship?
Evidence-Based Methodology

- **Systematic Review of Evidence** (Rousseau, Manning & Denyer, 2008; Briner, Denyer & Rousseau, 2009)
  - A key methodology for locating, appraising, synthesizing, and reporting “best evidence” from multiple studies.
  - More structured, unbiased and practitioner focused than traditional literature review.
  - Better than evidence from one study.

- **4 Approaches**
  - Aggregation
  - Integration
  - Interpretation
  - Explanation

- **5 Categories of Evidence**
<table>
<thead>
<tr>
<th><strong>Goal</strong></th>
<th><strong>Aggregation</strong></th>
<th><strong>Integration</strong></th>
<th><strong>Interpretation</strong></th>
<th><strong>Explanation</strong></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• Combine effects to increase sample size and reduce bias</td>
<td>• Synthesis across different methods to answer specific questions.</td>
<td>• Create tentative theories of phenomena including patterns of social construction based on qualitative data</td>
<td>• Synthesis to create explanations. Generate theory</td>
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<td></td>
<td>• Predict intervention results via more exact estimate than any single study achieves</td>
<td>• To explore when interventions are more likely to be appropriate.</td>
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<tr>
<td><strong>Method</strong></td>
<td><strong>Quantitative combination of results of primary studies</strong></td>
<td><strong>Triangulation across multiple studies and methods; reviewer judgment</strong></td>
<td><strong>Compilation of descriptive data. Cross-study concepts are identified and translated into new categories</strong></td>
<td><strong>Discern patterns behind explanatory claims</strong></td>
</tr>
<tr>
<td><strong>Data</strong></td>
<td>• Favors randomized controlled studies</td>
<td>• Typically published studies</td>
<td>• Published studies with qualitative data on comparable subject matter.</td>
<td><strong>Multiple forms of evidence. Typically published studies.</strong></td>
</tr>
<tr>
<td></td>
<td>• Published and unpublished studies; data sets</td>
<td></td>
<td>• Incorporates primary researcher interpretations</td>
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</tbody>
</table>
5 Categories of Evidence

- Construct validity
- Internal validity
  - covariation,
  - cause precedes effect, and
  - no plausible alternative explanations (i.e., not a spurious relationship)
- Effect size
- External validity
- Contextualization—identifies the limits of a phenomenon or cause and effect relationship
Integration Systematic Review (Rousseau, Manning and Denyer, 2008)

- **Goal**
  - Synthesis across different methods

- **Method**
  - Triangulations across multiple studies

- **Data**
  - Typically published studies
E-HRM Construct

- Intended and actual HRM practices or services
  - A way of implementing HRM policies and practices (Ruel, Bondarouk & Looise, 2004)
- Representing collaborations between employees or organizations
  - Supports at least two individual or collective actors in shared performance of HR activities (Strohmeier, 2007)
- Delivered or enabled by internet/intranet-based information technology
  - Configurations of computer hardware, software and electronic networking capability (Marler & Fisher, 2010)
**Methodology: Sample Selection**

- All published articles on eHRM in last ten years (1999-2009)
- Searched primary business and psychology databases
  - ABI/Inform/Proquest, Business Source Premier and PsycArticles
  - Multiple search terms used (B2E and HRM, e-HR e-HRM, HRIS, self-service, virtual HRM, web-based HRM, HRM and Internet)
  - Scanned reference lists
- 77 published articles
  - Peer reviewed, included quantitative or qualitative data, addressed use of eHRM in organizations not for pedagogy
  - Limited initially to 2007-2009
- Final sample for this review - 20 articles
CLASSIFICATION OF SAMPLE ARTICLES

- Key Theoretical Perspectives
- Construct and Internal Validity
  - Define constructs
  - Establish basis of internal validity
  - Level of analysis
- Empirical approach
  - Covariation; cross-sectional
  - Causal-longitudinal or experimental
  - Descriptive; case study
**Key Theoretical Perspectives**

- **Strategic HRM Literature**
  - Stages (Lengnick-Hall, et al. 2009)
    - Contingency theory of SHRM
    - Strategic outcomes/ RBV
    - Intended vs. realized

- **Information Science Literature**
  - Technological determinism debate
    - Stages of HRIS and e-HRM
    - Structuration theory
  - Technology Acceptance Model (TAM)

- **Other**
THEORETICAL CLASSIFICATION RESULTS

- 20 percent use one main theory (HR or IS)
- 60 percent use multiple theories
  - 30% partly based on TAM
  - 30% explicitly or implicitly use determinism
  - 15% use contingency theory of SHRM
  - 5% use RBV
- 20 percent use no theory – largely descriptive
**Empirical Classification Results**

- **Empirical Approach**
  - 45% cross section
  - 30% case study
  - 20% experimental
  - 10% longitudinal

- **Internal validity**
  - Covariation
    - 70 percent of studies
  - Cause preceding effect
    - 30 percent
What e-HRM and strategic HRM relationships are present and supported across studies?

- 40 percent deal explicitly with the e-HRM Strategic HRM relationship
  - Macro level constructs
- Evidence not adequate to establish causality
  - All cross sectional or descriptive
Deterministic view or a more influential role for social and organizational actors?

- Multiple theories used suggest bias towards technological determinism
  - 5 survey-based studies in UK, Canada, Greece, and Netherlands support e-HRM to Strategic HRM relationship
    - Leads to perceptions of HRM as a strategic partner
  - 1 case study indicates no relationship
  - 1 case study indicates possible negative relationship
  - 1 survey-based study supports reverse direction (Strategic HRM to e-HRM)

- However, empirical design correlational or descriptive
Under what conditions does eHRM lead to/ enhance strategic HRM and what mechanisms operate in this relationship?

- Intended vs. actual outcomes
  - Complexities in system development
  - Experimental studies
  - Data privacy concerns
- Support for contextualization
  - 60 percent at micro level
  - 10 percent at macro level
- There are many contextual contingencies
SYNTHESIZED PRACTICAL CONCLUSIONS

1. Managers expect e-HRM to lead to strategic HRM
   - Although evidence largely supportive....

2. Evidence is also mixed on direction of relationship

3. No evidence on actual strategic outcomes
   - Superior performance?
   - Competitive advantage?
There are many contextual/moderating factors to consider:

- Stage of e-HRM diffusion (publish, auto, transform)
- Culture
- National institutional infrastructure
- Competitive environment/pressures
- HR customer expectations, perceived usefulness, and EOU
- Managerial pressure
- Organizational support/training
- Participation in development and implementation
Next Steps

- **Construct validity**
  - How to measure e-HRM and strategic HR
    - Strategic HR currently “perceptual”
    - Defining strategic outcomes

- **Need more evidence on internal validity**
  - Partner with business on whether expectation and reality are the same
    - Strategic outcome studies
    - Longitudinal research designs
    - More macro level multi-organizational or multi-unit research designs

- **Contextual evidence: moderators and mediators**
  - E.g., under what conditions is e-HRM strategic?
  - Through what process or mechanism?