

# High performance work practices, employee outcomes and organizational performance: A 2-1-2 multilevel mediation analysis

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## Background



- Behaviours of people take place within a social context
- A student's satisfaction with learning is influenced by interactions within the classroom, the department, the faculty and the university
- Research in management studies has witnessed an increasing development of both conceptual and methodological multilevel frameworks

## Background



- Despite advances in multilevel frameworks in management studies
  - ...Human Resource Management (HRM) research has lagged behind other disciplines in applying multilevel analytical methods and theories
- Up till now, the impact of HRM practices on employees is estimated mainly by single-level analytical methods

## Background



- ► This presentation focuses on a 2-1-2 multilevel mediation model or *bathtub model*
- This model is suitable for multilevel mediation analysis in which the predictor, mediator or outcome are estimated at different levels of analysis.
- A mediation model is one in which the underlying mechanism or process between two factors is explained by an intermediary factor



A study on the mediating role of employee outcomes in terms of the links between high-performance work practices (HPWP) and organizational performance.

Ogbonnaya, C. & Valizade, D. (2016). High performance work practices, employee outcomes and organizational performance: A 2-1-2 multilevel mediation analysis. *The International Journal of Human Resource Management* 

#### **About HPWP**



- A set of mutually supportive human resource management (HRM) practices designed to optimize employees' skills, knowledge and performance.
- Examples are: selective hiring, staff development and training, job design, flexible work arrangements, incentive pay, information sharing, workplace support

#### **About HPWP**



- ► Integrationist perspective
  - ✓ HRM practices are combined into bundles to maximize their mutually supportive properties and generate larger gains.
- ► Isolationist perspective
  - ✓ HRM practices have unique and independent properties
  - ✓ Organizations may focus on unique effects of individual HRM practices.

### Cross-level effects of HPWP



- ► Mutual gains perspective
  - ✓ Level 1: HPWP promote employees' job satisfaction, work engagement, commitment to the organization and well-being
  - ✓ Level 2: HPWP improve organizational performance, financial performance, productivity, and reduce staff turnover and absence rates
  - ✓ *Cross-level*: Employee outcomes have a significant mediating role in linking HPWP to organizational performance.

#### Cross-level effects of HPWP



- ► Conflicting outcomes perspective
  - ✓ HPWP impose greater work demands on employees, with little or no benefits for employee well-being
  - ✓ Level 1: HPWP increase the experience of work intensity, work-related pressure and stress
  - ✓ Level 2: HPWP compel employees to expend greater work effort to drive organizational performance.
  - ✓ *Cross-level*: HPWP influence organizational performance through employees' experience of work intensity, work-related pressure and stress

## Research objective



- The vast majority of studies show support for the *mutual gains perspective*
- ► HPWP relay consistent signals about management's desire to develop employees' skills
- Employees perceive these signals as a form of managerial 'goodwill' and in return exert their physical and cognitive energies at work.

## Research objective



- ► However, a serious methodological weakness in this research area is limited use of appropriate multilevel mediation methods and techniques
- Researchers have tended to use a single-level mediation approach, ignoring the possibility that HPWP and organizational performance may operate at a different analytical level from employee outcomes.
- Such studies do not account for interdependences among employees nested within the same organization, and therefore fail to handle sources of errors more rigorously.

## Research objective



- ► The cross-level prediction involve
  - HPWP and organizational performance are measured at the organizational level and employee outcomes at the individual level
  - ✓ **Hypothesis 1:** The positive relationship between HPWP and patient satisfaction is mediated by employees' job satisfaction and work engagement
  - ✓ **Hypothesis 2:** The negative relationship between HPWP and staff absenteeism is mediated by employees' job satisfaction and work engagement

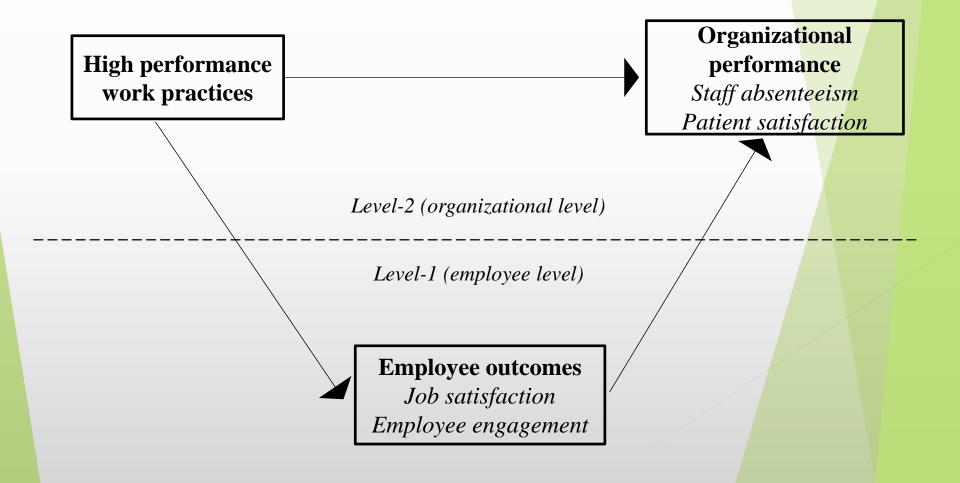


- ► A type of hierarchical mediation process
- Multilevel mediation analysis is more suitable for mediation models involving two or more hierarchical levels.
- The premise for multilevel mediation is that mediated effects are influenced by different mechanisms at Level-2 and Level-1



- ► A 2-1-2 mediation model involving two kinds of cross-level effects:
  - ✓ 2-1 portion, the effect of a Level-2 predictor on a
  - ✓ Level-1 mediator) and
  - ✓ 1-2 portion, the effect of a Level-1 mediator on a Level-2
- ► Both portions of the model are examined simultaneously following a one-stage procedure







## Advantages

- ✓ Separates measurement errors into relevant employee- and organizational-level components
- ✓ Ensures more accurate estimates of multivariate relationships.
- ✓ Tease out the micro- and macro-level effects of organizational practices
- ✓ Account for interdependences among employees nested within the same organization



## Disadvantages

- ✓ Computationally challenging
- ✓ Requires specialist software
- ✓ Requires large data (at least 20 data points at level 2)
- ✓ Model fit and parsimony are more difficult to achieve

## Sample



- The 2012 NHS Staff Survey
  - ✓ An annual surveys by the Care Quality Commission (CQC)
  - ✓ A total of 101,169 workers from 259 NHS Trusts in England participated in the survey
- Data for organisational performance were obtained from other sources
  - ✓ Staff absenteeism NHS staff records for sickness absence rates
  - ✓ Patient satisfaction 2012 National Patient Survey

#### Measures



- ► Eight HRM practices for HPWP
  - ✓ Staff training, performance appraisal, supportive management, team working, job design, job discretion, involvement in decisions, and communication
- ► Two employee outcomes
  - √ Job satisfaction and work engagement
- ► Two organizational performance outcomes
  - ✓ Patient satisfaction and Staff absenteeism

## **Findings**



- The mediated path from HPWP through job satisfaction to staff absenteeism is significant and negative
- The mediated path from HPWP through job satisfaction to patient satisfaction is significant and positive.

## **Findings**



- ► The mediated path from HPWP through work engagement to staff absenteeism is significant and negative
- ► The mediated path from HPWP through work engagement to patient satisfaction is positive but not statistically significant.

#### Discussion



- ► HRM research has lagged behind other disciplines in applying multilevel analytical methods and theories
- ► Acknowledging this methodological gap, a 2-1-2 mediation model was introduced
  - ✓ To examine simultaneously the direct impact of HPWP on employees' job satisfaction and work engagement,
  - ✓ and the role of these employee outcomes in explaining the links between HPWP and organizational performance.

#### Discussion



- ► The positive HPWP—satisfaction and HPWP—engagement relationships add value to the notion that HPWP have positive signalling effects
- ► HPWP relay consistent signals about management's desire to develop employees' skills
- Employees perceive these signals as a form of managerial 'goodwill' and in return exert their physical and cognitive energies at work.

#### Discussion



- ► Public health care context, the results demonstrate potency of HPWP beyond organizational settings (e.g. the manufacturing sector and financial institutions) where HPWP outcomes have conventionally been examined.
- The study shows the bathtub model may be applied to our understanding of HRM outcomes in hospital environments.



## Thank you...