MOT121A Leadership and Technology Management

Lecture 4:
Best Practices

Nikos Pahos, Ph.D.
04/10/2023

TUDelft

Course Schedule 2023-2024

|	TIME	Place	Topic	Chapters	Professor
1	Wednesday September 6, 2023	TPM-A 10.45 – 12.45	*The Changing Context of Work And the nature of innovation*	1,2	RV
2	Wednesday September 13, 2023	TPM-A 10.45 – 12.45	*Organizing and Strategizing for innovation*	3,4	RV
	Introduction week	**Introduction week**	**Introduction week**	**Introduction week**	
3	Wednesday September 27, 2023	TPM-A 10.45 – 12.45	*Projects, Teams and Open Innovation*	5,6	RV
4	Wednesday October 4, 2023	TPM-A 10.45 – 12.45	*Best Practices*	articles	NP
5	Wednesday October 11, 2023	TPM-A 10.45 – 12.45	*Leadership, Management and Power*	7	RV
6	Wednesday October 18, 2023	TPM-A 10.45 – 12.45	Explicit and implicit Digital Connectivity Future Developments	8,9,10	NP
7	Wednesday October 25, 2023	TPM-A 10.45 – 12.45	Recap and exam info. Presentations group assignments		RV, AS
EXAM	Tuesday November 7, 2023	Drebbelweg-Hall 1 13.30 – 16.30	Digital exam with essay questions	All materials	

Last time

Projects:

The R&D Process
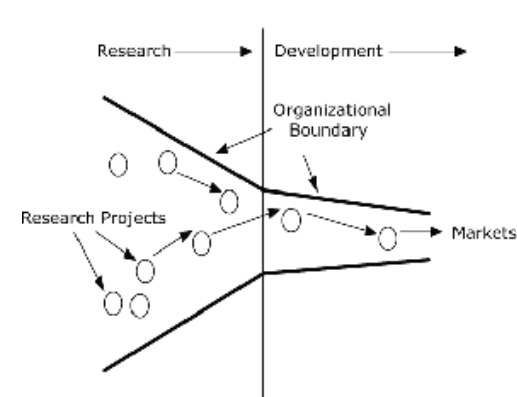
Open Innovation:
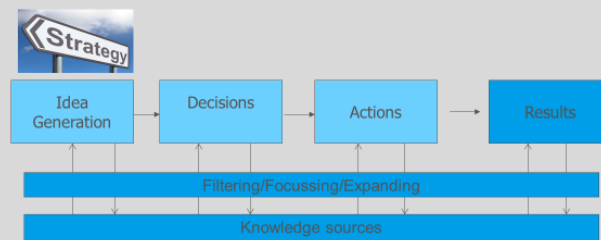

Closed Innovation
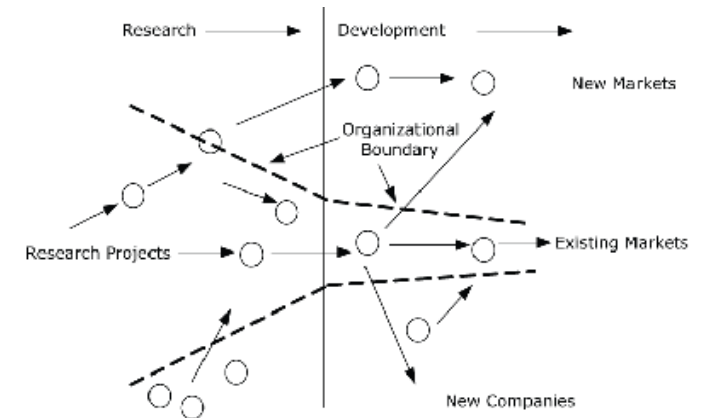
Open Innovation

Today's Learning Objectives

- Understand key elements for innovative organizations

- Identify best people management practices in high-tech companies

- Introduce mandatory reading material

RBV and Competitive Advantage

- **Resources** → All assets, organizational processes, firm attributes controlled by a firm that enable the firm to implement strategies that improve its efficiency and effectiveness (Barney, 2001)

- **VRIN/O** → Valuable, Rare, Inimitable, Non-substitutable/Organized

Valuable?	Rare?	Difficult to Imitate?	Supported by Organization?	Competitive Implications	Performance
No	—-	—-		Competitive Disadvantage	Below Normal
Yes	No	—-		Competitive Parity	Normal
Yes	Yes	No	Yes	Temporary Competitive Advantage	Above Normal
Yes	Yes	Yes		Sustained Competitive Advantage	Above Normal

Source: https://open.oregonstate.education/strategicmanagement/chapter/4-vrio-analysis/

Resources

- **Physical**: Buildings, equipment, tools, etc.

- **Financial**: Cash, budget commitments, etc.

- **Technological**: Computers, software, networks, etc.

- **Human**: Physical, intellectual, and emotional

- **Social**: Relationships, networks, trust, norms, reputation, etc.

- **Organizational**: Procedures, structures, know-how, etc.

Routines and Capabilities

- **Routines** → Particular ways of behaving, as a result of repetition and reinforcement

- What makes an organization different from another in how they carry out the same basic activity – **How company does it?**

- **Capabilities** → The capacity to deploy a combination of resources through collective organizational routines to achieve goals – **What a company does?** (e.g., inspiring leadership; agility and speed; customer focus; etc)

Capabilities in Innovation

Basic Ability	Contributing Routines
Recognizing	Searching the environment for technical and economic clues
Aligning	Ensuring a good fit between business strategy and proposed change
Acquiring	Being able to connect to external sources of knowledge, information
Generating	Having the ability to create some aspects of technology in-house
Choosing	Selecting a suitable response to the environmental triggers
Executing	Managing development projects for new products or processes
Implementing	Managing the introduction of change – technical and otherwise to ensure acceptance and effective use of innovation
Learning	Having the ability to evaluate and reflect upon the innovation process
Developing the organization	Embedding effective routines in place – in structures, processes, underlying behaviors, etc.

Dynamic Capabilities

- **Dynamic Capabilities** → A firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments (Teece et al., 1997, p. 516)

- **Dynamic** → Shifting character of the environment

- **Capabilities** → Adapting, integrating, and re-configuring internal and external organizational skills and resources

- **Sensing, Seizing, Reconfiguring**

Dynamic Capabilities at Apple

Sensing	Seizing	Transforming	Result
Existing "smart phones" retained an awkward interface	Create a multimedia phone with a large screen and an intuitive interface	Develop telephony capabilities; enter the regulated telephony market	One of the only companies making money with smart phones
Existing mp3 players were too "geeky"	Create an aesthetically appealing portable device with a simple interface	Expand into content distribution with the iTunes Music Store	Domination of the portable digital music player market

Core Competencies

- Resources and capabilities that comprise the strategic advantages of a business -**What the company does best?**

- McDonald's has standardization. It serves nine million pounds of French fries every day, and every one of them has precisely the same taste and texture

- Apple has style. The beauty of its devices and their interfaces gives them an edge over its many competitors

Hierarchical Classification

Core competencies (create identity and value)

Capabilities (doing resources through routines)

Routines (how we do things here)

Resources (having assets)

People

- Human capital meets the VRIN criteria?

- It refers to the skills and abilities of individuals or the stock of knowledge within an organization (Cabrera & Cabrera, 2005)

"Innovation has nothing to do with how many R&D dollars you have… it's not about money. It's about the people you have, how you're led, and how much you get it."

– Steve Jobs, interview with Fortune Magazine, 1981

3 Phases of Employment Management

- **Entry** → Manage the entry of new employees, planning, job design

- **Performance** → Manage employee performance, ensure that performance remains at the desired levels

- **Exit** → High turnover rates are not favorable

Source: Verburg et al., 2006
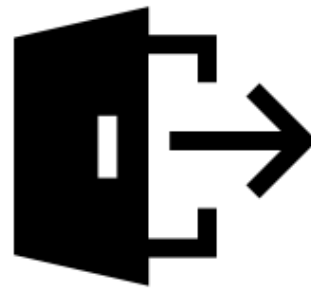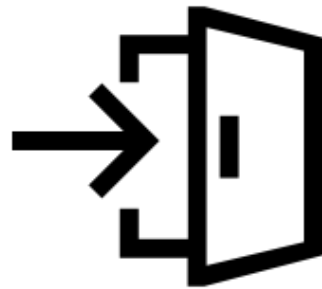
Best Practices or Best Fit?

- **Universalistic** perspective → **"Best practices" contribute to performance regardless of the strategic goals of the organization**

- **Contingent** perspective → Organizations need to adapt their strategies according to the business environment

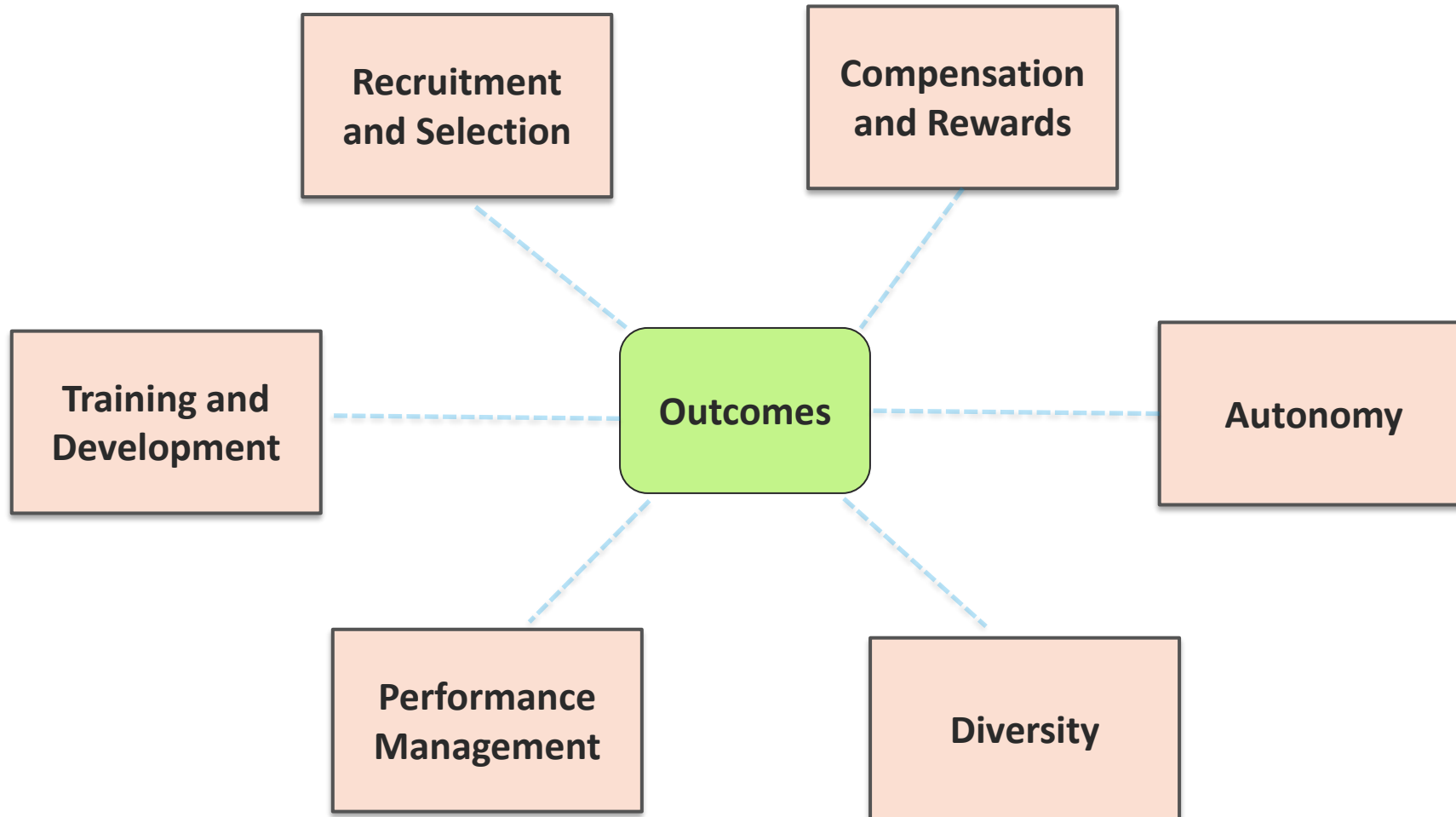- **Configurational** perspective → Bundles of practices can be used in corresponding organizational contexts

Source: Delery & Doty, 1996

Why Practices?

Source: Jiang et al., 2013
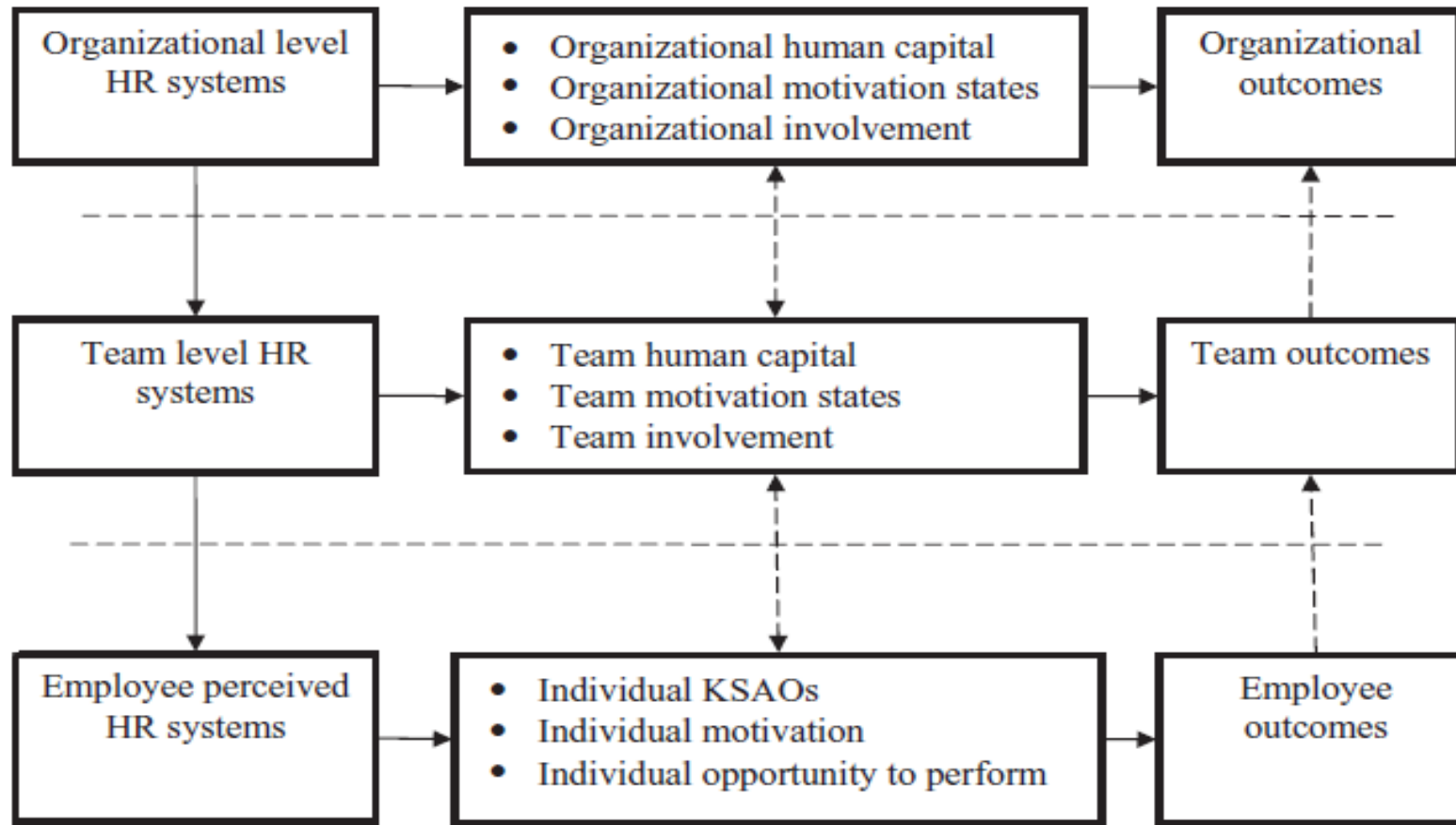
Best Practices

Operations Internship | Uber

Looking for an exciting opportunity to kick-start your career? Look no further than the Uber Operations Internship.

You will get the chance to work alongside Operations Managers and partner with teams across our Mobility or Delivery business on impactful projects that involve analyzing data sets, providing creative solutions and leaning into the execution. You will help support decision-making within your teams through your critical thinking, strategic analysis, and data-driven approach.

Join our diverse and inclusive environment, where your unique perspective is valued.

As an Operations intern at Uber you will...

#Learn

Learn the vast inner workings of Uber - you will have a direct impact on Riders, Drivers, Consumers, Couriers, Restaurants and/or the Marketplace and **a chance to reimagine** the way the world moves by focusing on **real-time, impactful projects**

#Solve

Solve key strategic problems through analytical frameworks and insights to advise the team on key decisions

#Experiment

Experiment with new products and efficiencies aiming to **improve** our operations, spanning: pricing, demand generation, segmentation, customer operations and much more

#Collaborate

Collaborate and engage with a number of functions across the business operations, finance, policy, communications, product, marketing, legal, and customer support

Our Internship Program

Impact

You will be working on **meaningful projects** that will have an **impact** on our users. You'll also get significant **exposure** and **ownership** over the projects you take on.

Growth

During your internship at Uber, you will **gain invaluable working experience,** learn more about different parts of the **Uber Business** and join a variety of **Skills Development** sessions.

Mentorship

You will have an extended support seastem and get to learn from your **assigned mentor** and from **experienced peers** who will guide you through your internship experience.

Community

Build a personal network with smart and curious interns as well as Uber Employees who share your passion for technology in an **international work environment.**

### As an Uber intern, you will be eligible to receive the following perks :

- Competitive monthly **internship allowance**

- **Monthly Uber Credits** for Rides and Eats purchases plus a discount

- **Wellness Support** in the form of coaching or counseling sessions

- **Company Laptop** for business use

- And to make your workdays even more delightful, there will be complimentary **food and snacks at the office**

Eligibility :

- **Enrolled in a Bachelor's or Master's degree program** for the full duration of the internship
- **Available to work full-time for 6 months** starting in February, April, July, September
- **Work authorization** in the Netherlands - No visa sponsorship is available for internships
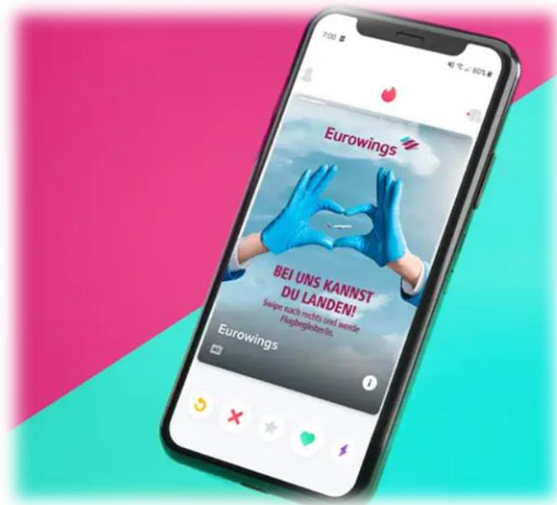
Recruitment and Selection
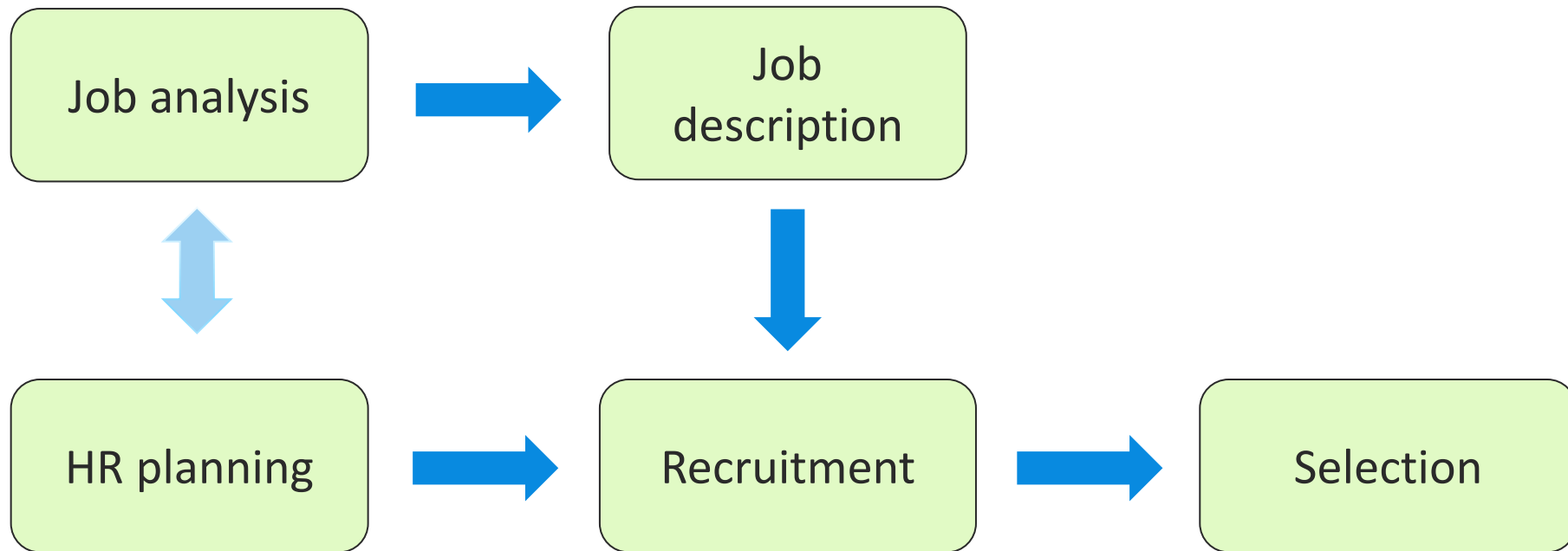
Recruitment

- Depends on job type, specialization and hierarchy

- **Internal** and **External** recruiting

- Internal recruiting is a common practice in promotions

- Company site, referrals, job boards, campus recruiting, etc.

- Inbound/Outbound recruiting

There are 10 mistakes in this ad.

If you beleive you're a great grafic deigner with an eye for details, Spot these mistakes, than sent us your feedback on the pelow address including your   CV & portfolio

joe@horizonfcb.net

IKEA — Building careers and a whole new media channel

BACKGROUND
In 2011 IKEA will open several new mega stores across Australia, including the largest in the Southern Hemisphere.

CHALLENGE
Find and recruit thousands of the 'right kind' of staff - ie. people who love home decorating as much as IKEA.

SOLUTION
Career instructions were printed and placed inside the famous IKEA flat packs. Customers literally delivered the DM to themselves, then could also share it with friends and family. Not only did it talk directly to those who love the brand, it created a whole new media channel - the flat packs themselves.

RESULTS
• $0 media spend
• $0 postage
• 4285 quality applications
• 280 careers assembled
• A new media channel established

CÄREER INSTRUCTIONS
1.
2.
3.
4.

ASSEMBLE YOUR FUTURE
Our new Sydney IKEA store opens this spring and we're looking for full and part-time retail staff. We need people in all areas, from check-out to childcare to the restaurant and stock replenishment. People who love home decorating. People like you.

Visit IKEA.com.au/jobs

Selection

- Once candidates are found, selection starts

- Interviews (behavioral, stress, competency-based, groups etc.)

- Tests (personality, IQ, skills assessment, etc.)

- Gamification strengthens employer branding

Out of the box questions

- Estimate the number of tennis balls that can fit into a plane

- How many haircuts do you think happen in America every year?

- Describe the color yellow to a blind person

- You have a grocery delivery service that delivers food within 24 hours. Estimate how many trucks you need to operate this service

High-Tech Recruiting and Selection

- Tech talent shortage

- Focus on employee referrals

- Emphasis on hard skills (e.g., coding exercises)

- Using a cross-functional team on all hiring requisitions

- Investment in employer brand and candidate experience

- Metrics (e.g., time to hire, acceptance rate)

Case study

Company A wants to hire a software engineer, located in Amsterdam. However, the recruiter informed the hiring manager that very few applications have been received for the role. What could have gone wrong?

Performance Management

- "Continuous process of identifying, measuring, and developing the performance of individuals and teams and aligning performance with the strategic goals of the organization" (Aguinis, 2009b, p. 2)

- Formal and Informal process

- Objective and Subjective measures

- Multiple evaluation sources (e.g., 360)
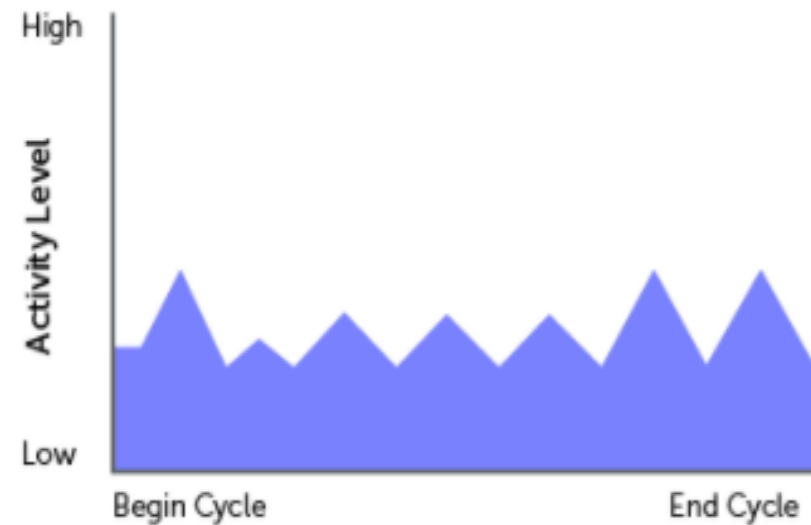
- Potential problems - biases?

Traditional Performance Management

High

Goals

Reviews Decisions

Activity Level

Low

Begin Cycle   End Cycle

- Focus on process not people
- Formal and event-driven
- Separate from work
- 3-5% impact on performance

Everyday Performance Management

High

Activity Level

Low

Begin Cycle   End Cycle

- Focus on people not process
- Informal and ongoing
- Integrated with work
- Up to 39% impact on performance

Source: Gartner, Inc. 2015

High-Tech PM

- How to measure performance of employees?

- Team-level outputs easier to measure

    e.g., a team of 50 engineers serves 900m users

- Agility → Flat structures, limited hierarchy, team reviews, autonomous teams

- KPIs and Metrics
    ➢ R&D cost/benefit
    ➢ Payback period: Initial investment/annual cash inflow
    ➢ Time to code review
    ➢ Employee satisfaction and turnover

Performance Management Examples

- Microsoft holds **bi-monthly performance reviews**. These check-ins are formal, structured conversations between managers and direct reports, in which they discuss goal progress and skill development

- Adobe develops ongoing conversations between managers and employees. Adobe has seen a 10% increase in the number of employees who say they receive ongoing feedback that helps their performance, and a 30% decrease in turnover rate

Source: https://www.inpartnershipwith.com/hr-is-your-growth-catalyst/

Training and Development

- Investment or cost?

- On-boarding, promotional, continuous
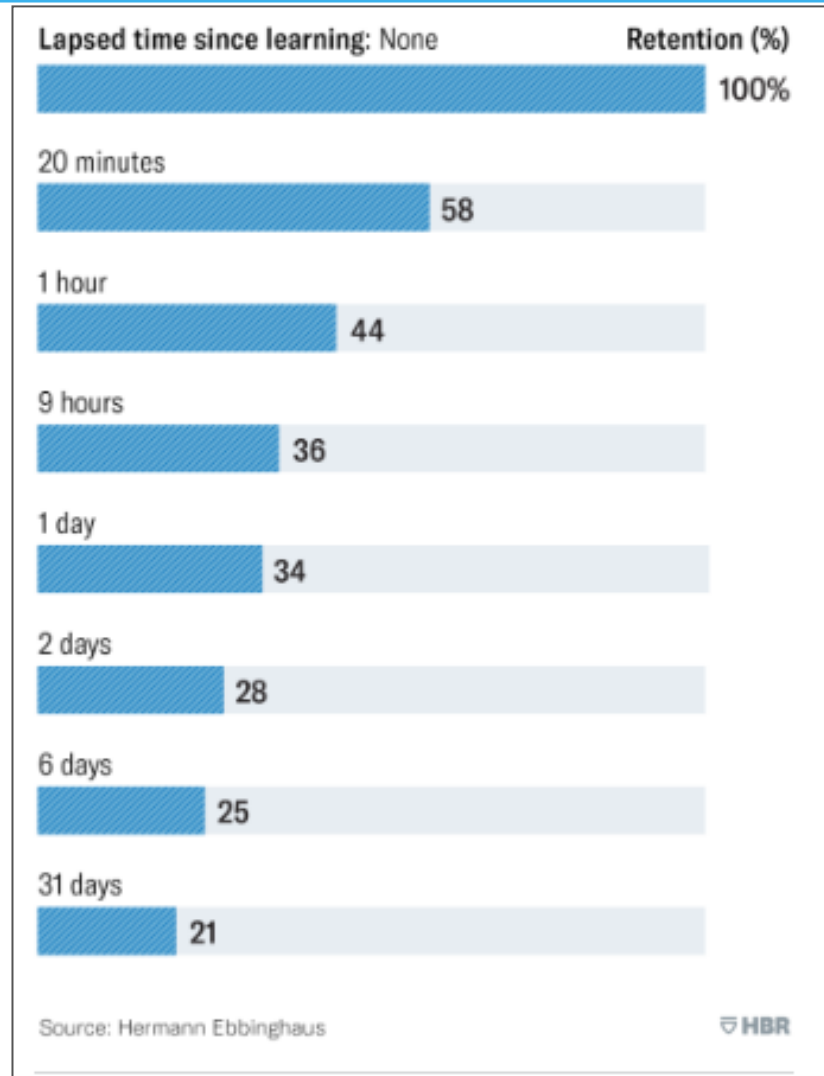
- Knowledge, skills, attitudes

On the job

Coaching

Mentoring

Job rotation

Employee relations

Internship

Off the job

Case studies

Simulations

Role playing

Lectures-seminars

Business games

The Forgetting Curve

Lapsed time since learning: None — Retention (%): 100%
20 minutes — 58
1 hour — 44
9 hours — 36
1 day — 34
2 days — 28
6 days — 25
31 days — 21

Source: Hermann Ebbinghaus — HBR

High-Tech Training

- Hard/Soft skills training – 'writing a code is not enough'

- Focus on speed, flexibility and collaboration

- Microlearning

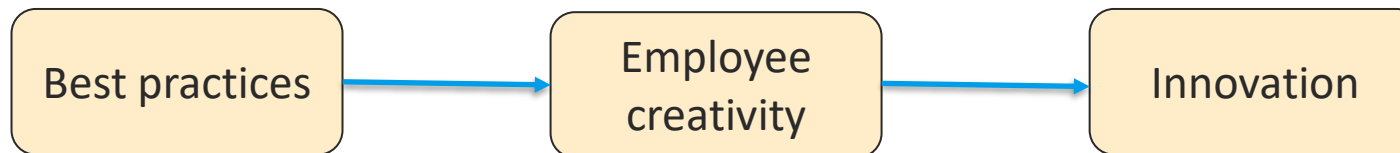- Metrics (e.g., user rate, dropout rate)
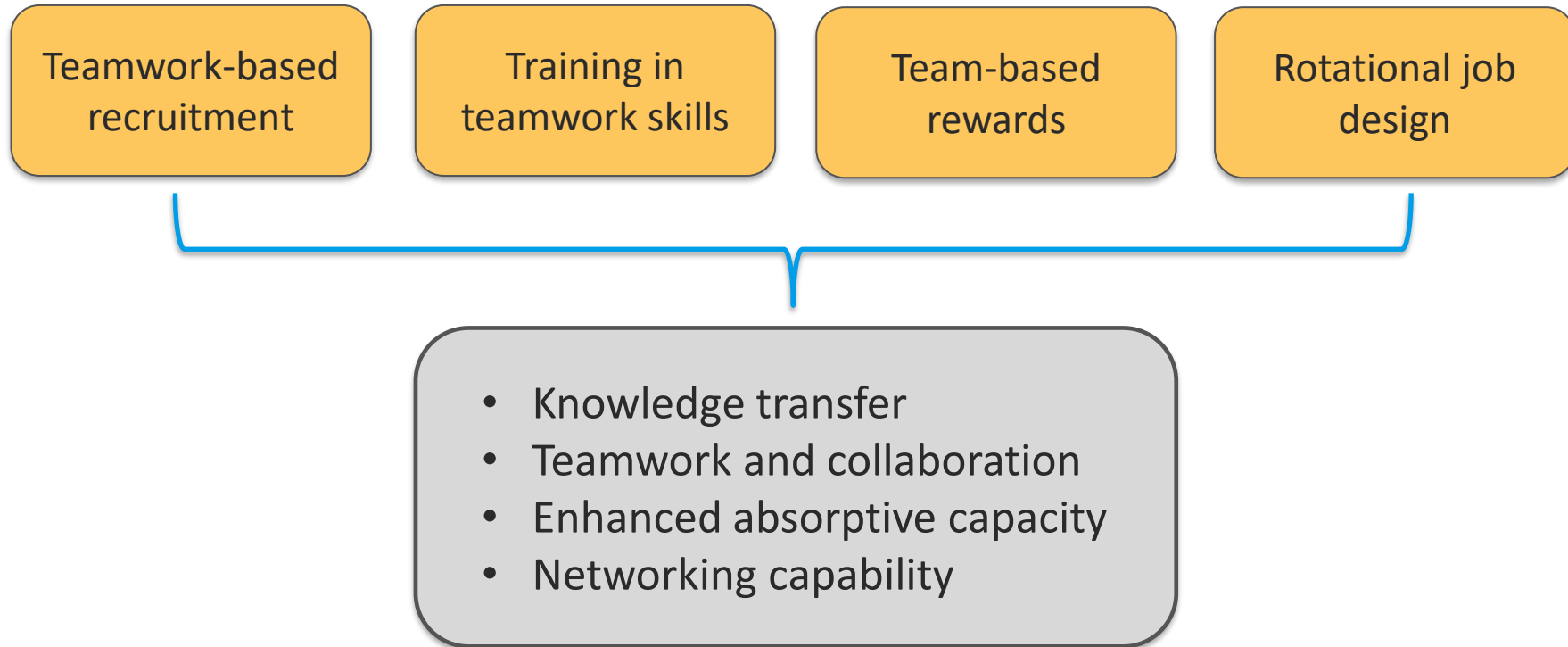
Compensation and Rewards

- Monetary and non-monetary rewards
- Employee stock options plan - equity
- Benefits

Financial (Malek et al., 2020)

- Recognition
- Social rewards
- Non-monetary benefits

Non-monetary

- E-compensation systems decrease costs, errors, and time (Dulebohn & Marler, 2005)
- Employee self-service systems (ESS)

The Link with Innovation

- Most studies focus on the effect of practices on technological and product (rather than process) innovation (Seek et al., 2016)

- Management practices that promote commitment are more likely to result in higher levels of innovative orientation (Verburg et al., 2007)

- Staffing, participation and performance appraisal predict technological innovation (Chen & Huang, 2008)

- Practices associate with innovation through employee creativity (Agarwal & Farndale, 2017)

Best practices → Employee creativity → Innovation

The Link With Open Innovation

Teamwork-based recruitment	Training in teamwork skills	Team-based rewards	Rotational job design

- Knowledge transfer
- Teamwork and collaboration
- Enhanced absorptive capacity
- Networking capability

Source: Hong et al., 2019
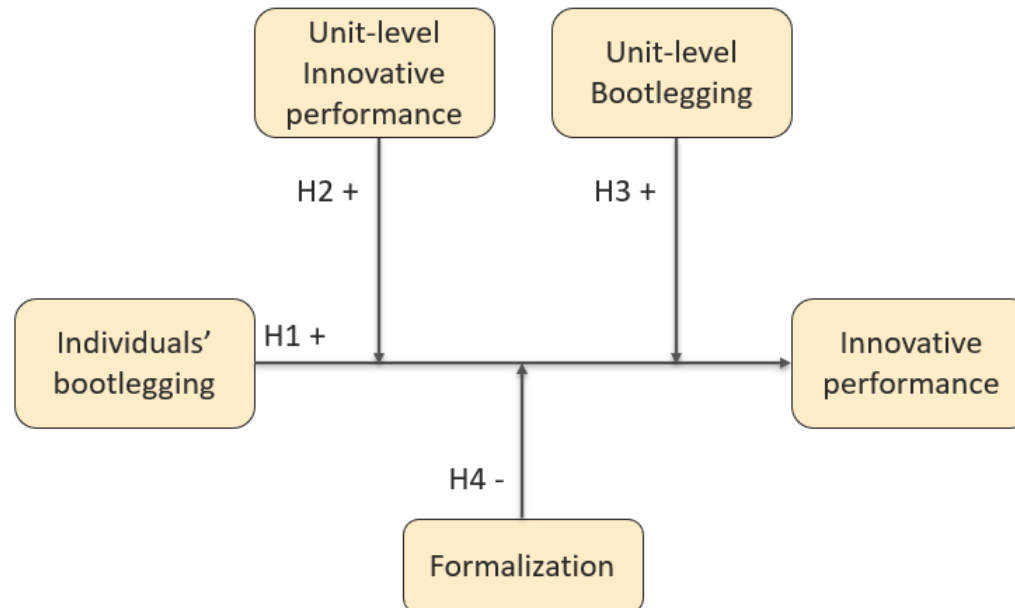
Autonomy

- Too much of a good thing?

- Balancing between flexibility and aligning with company objectives – best practices?

*"Autonomy without accountability may lead to R&D efforts becoming decoupled from the organization, whereas too little autonomy and strict accountability may tie R&D efforts too closely to the organization's past and current ways of working. **Therefore, organizations need to carefully assess the level and type of autonomy granted to R&D staff**" (Criscuolo et al., 2014, p. 1287).*
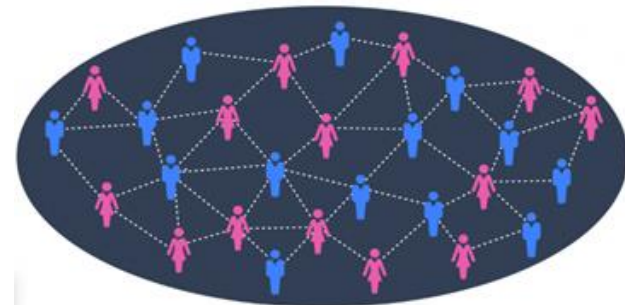
Article #1: Individuals and Innovation - Bootlegging

- An R&D activity in which motivated individuals **secretly** engage in **bottom-up**, nonprogrammed innovation efforts **not officially authorized** by management but which are for the benefit of the company

- Bootlegging is an illicit activity that is typically hidden from senior managers and that deviates from the normative behavior of allocating one's time exclusively to formal project engagements

Source: Criscuolo, P., Salter, A., & Wal, A. L. J. T. (2014). Going Underground: Bootlegging and Individual Innovative Performance. *Organization Science*, *25*(5), 1287-1305.

Article #1: Individuals and Innovation - Bootlegging

- **Context** → large, technology-intensive multinational company

- **Method** → 2-step approach: a) interviews with 25 senior members of the technical career ladder and 10 R&D managers, b) survey with 238 senior scientists and engineers on the technical career ladder

- **Hypotheses' testing** → H1 (also curvilinear effect was found), 2, 3, 4 supported

- **Conclusions** → The costs and benefits of bootlegging for innovation are contingent on the emphasis on the enforcement of organizational norms in the individual's work environment
  - ➢ The benefits of an individual's bootlegging efforts are enhanced in work units with high levels of innovative performance, and which include members who are also engaged in bootlegging
  - ➢ During periods of organizational change involving formalization of the R&D process, individuals who increase their bootlegging activities are less likely to innovate

Workforce Diversity

- **Information diversity perspective** → <u>Diverse groups should outperform homogeneous groups:</u>

  Diverse groups can leverage a variety of perspectives, experiences, and knowledge to generate more innovative and effective solutions

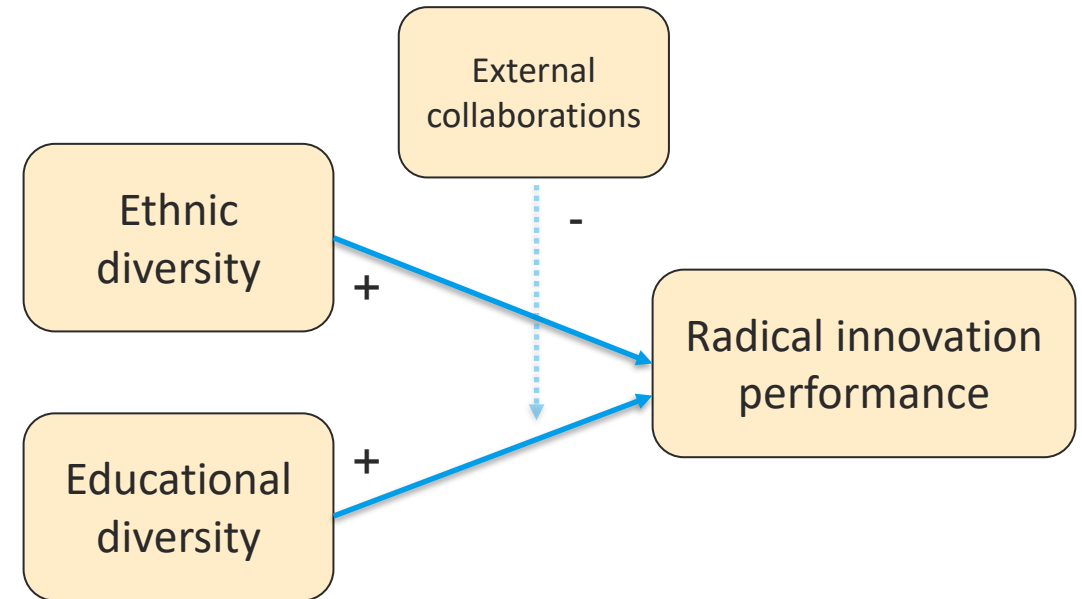- **Social categorization perspective** → <u>Homogenous groups outperform diverse ones</u>

  People naturally categorize themselves and others into social groups based on characteristics such as specialization, race, gender, age, etc.

Article #2: Diversity and Innovation

Practitioner Points

- Firms whose employees have more heterogeneous ethnic and disciplinary backgrounds are more innovative.

- Disciplinary background diversity can be substituted by an above-average intensity of collaborations with external partners. Ethnic diversity, however, can neither be replaced nor complemented by external sources.

- Disciplinary background diversity is conducive for both radical and incremental innovation, while ethnic diversity primarily facilitates radical innovation.

External collaborations

Ethnic diversity

+

-

Radical innovation performance

Educational diversity

+

Mohammadi, A., Broström, A. and Franzoni, C. (2017), Workforce Composition and Innovation: How Diversity in Employees' Ethnic and Educational Backgrounds Facilitates Firm-Level Innovativeness. Journal of Product Innovation Management, 34: 406-426.

Managing Workforce Diversity

- What is the link with innovation?

- What are the challenges for leadership?

- What are the challenges for the key management practices?
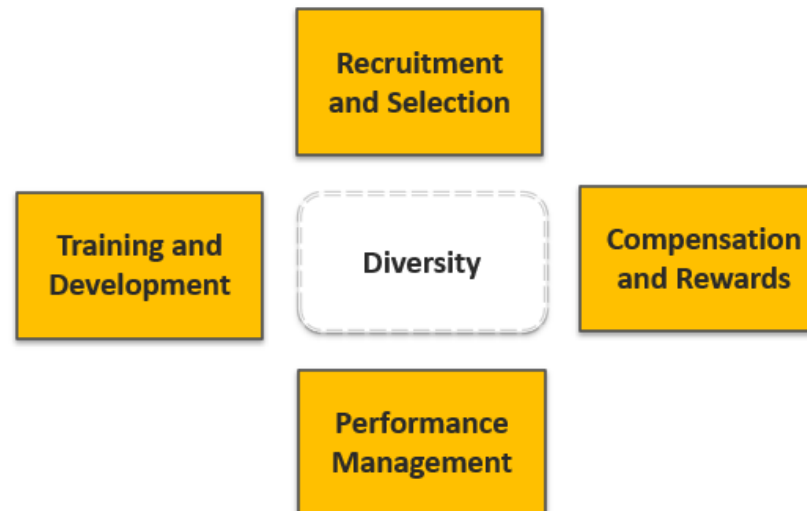
Agility

- A key dynamic capability, a firm's ability to enable sensing environmental changes and responding efficiently and effectively to them (Felipe et al., 2016)

- Agile and self-managed teams → Good for innovation?
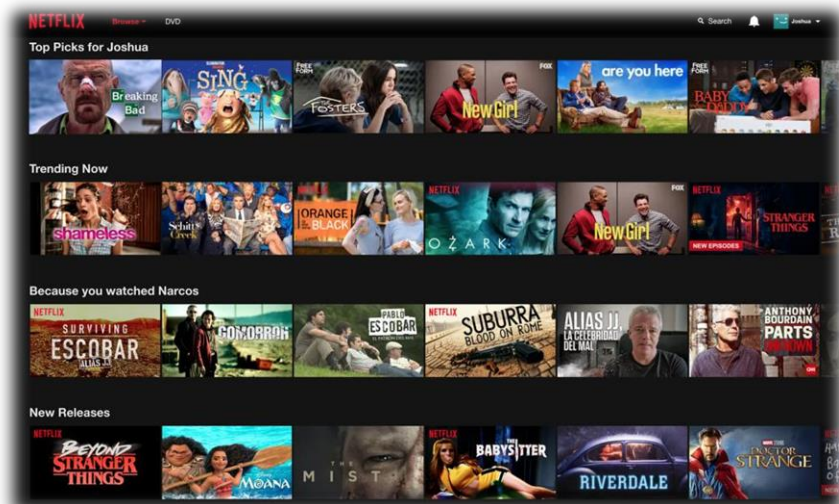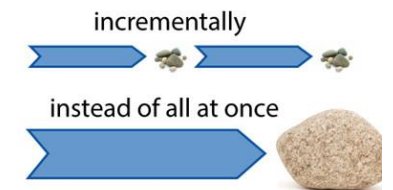
Article #3: Dark Side of Agile Teams and Leadership

Practitioner Points

- People working in self-managing teams, despite being empowered by autonomy, can often be constrained by accumulated peer pressure, leading to reduced team innovativeness.
- Team managers can help improve overall team performance when team members are subject to peer pressure through two key interventions: target optimization & frequent interaction.
- A focus on optimizing targets and outcomes is beneficial when peer pressure is high and has a potentially detrimental effect when peer pressure is low.
- Frequent interaction and guidance on behalf of the manager also demonstrates an overall positive effect, but the effect is strongest when peer pressure is low.

Method: Multi-level multi-source setting. 3 surveys with employees in a Fortune 500 firm where 248 team members, 126 internal team leaders, and 97 organizational leaders resulted to a unique database of **97 self-managing software development teams**
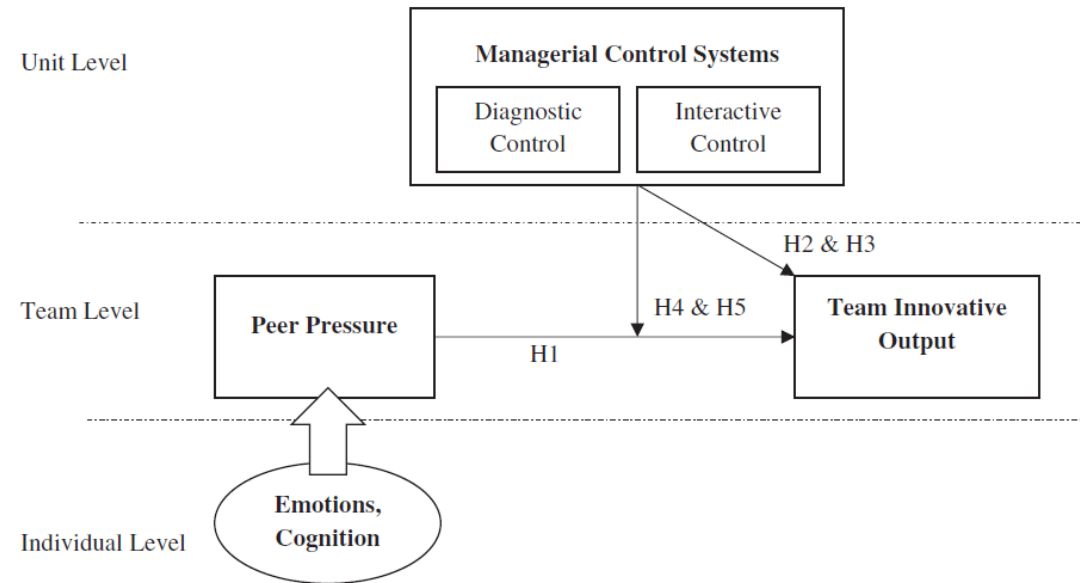
Hypothesis 1 *Team peer pressure will be negatively related to the innovative output of the team.*
Hypothesis 2 *Managerial diagnostic control is negatively related to innovative team output.*
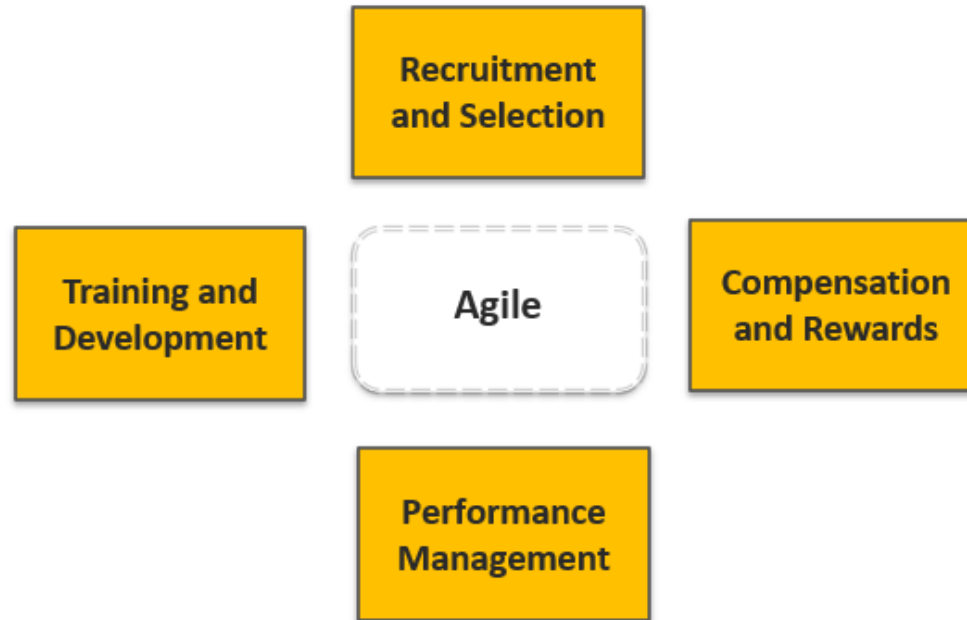Hypothesis 3 *Managerial Interactive control is positively related to innovative team output.*
Hypothesis 4 *Managerial diagnostic control weakens the negative effect of team peer pressure on innovative team output.*
Hypothesis 5 *Managerial interactive control weakens the negative effect of team peer pressure on innovative team output.*

Khanagha, S., Volberda, H. W., Alexiou, A., & Annosi, M. C. (2022). Mitigating the dark side of agile teams: Peer pressure, leaders' control, and the innovative output of agile teams. *Journal of Product Innovation Management*, *39*(3), 334-350.

Best -Agile- Practices?

- Look for individuals with agile values

Recruitment and Selection

- Training on agile methodologies

Training and Development

Agile

Compensation and Rewards

- Team-based rewards

Performance Management

- Continuous feedback and coaching

Open Question

- In what ways have best practices evolved in response to contemporary workforce trends, such as remote work, gig economy, and changing expectations of work-life balance?

Summary

- People capabilities – how to prepare for innovation

- Best practices and their link with innovation

- Read the 3 articles

END

For next week

Prepare for chapter 7

Check out Brightspace for assignments and papers

Do remember the mandatory **Group Assignment**

Thank you !

The MOT121A Course Team

TUDelft

References

Aguinis, H. (2009b). *Performance management* (2nd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Agarwal, P., & Farndale, E. (2017). *High-performance work systems and creativity implementation: the role of psychological capital and psychological safety. Human Resource Management Journal, 27(3), 440–458.*

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.

Cabrera, E. F., & Cabrera, A. (2005). *Fostering knowledge sharing through people management practices. The International Journal of Human Resource Management, 16(5), 720–735.*

Chen, C. J., & Huang, J. W. (2008). Strategic human resource practices and innovation performance – The mediating role of knowledge management capacity. *Journal of Business Research*, 62, 104–114.

Delery, J. E., & Doty, D. H. (1996). Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency, and Configurations. Performance Predictions. *Academy of Management Journal, 39(4), 802-835.*

Dulebohn, J. H., & Marler, J. H. (2005). e-Compensation: The potential to transform practice. In H. G. Gueutal, & D. L. Stone (Eds.), *The Brave New World of eHR: Human Resources Management in the Digital Age* (pp. 166–189). San Francisco: Jossey Bass.

Felipe, C. M., Roldán, J. L., & Leal-Rodríguez, A. L. (2016). An explanatory and predictive model for organizational agility. Journal of Business Research, 69(10), 4624-4631.

Hong, J. F. L., Zhao, X., & Snell, R. S. (2019.) Collaborative-based HRM practices and open innovation: a conceptual review. *The International Journal of Human Resource Management*, 30(1), 31-62.

Jiang, K. F., Takeuchi, R., & Lepak, D. P. (2013). Where do We Go From Here? New Perspectives on the Black Box in Strategic Human Resource Management Research. *Journal of Management Studies, 50(8), 1448-1480.*

Malek, S. L., Sarin, S., & Haon, C. (2020). Extrinsic Rewards, Intrinsic Motivation, and New Product Development Performance. *Journal of Product Innovation Management*, 37(6), 528-551.

Seeck, H., & Diehl, M.-R. (2016). A literature review on HRM and innovation – taking stock and future directions. *The International Journal of Human Resource Management*, 28(6), 913–944.

Teece, D. J., Pisano, G., & Shuen, A. (1997). *Dynamic capabilities and strategic management. Strategic Management Journal, 18(7), 509–533.*

Tidd, J., & Bessant, J. R. (2018). *Managing Innovation: Integrating Technological, Market and Organizational Change (6th Edition).* New York: Wiley.

Verburg, R. M., Den Hartog, D. N., & Koopman, P. L. (2007). Configurations of human resource management practices: A model and test of internal fit. *International Journal of Human Resource Management*, 18, 184–208.