Human Resources Management In Context

Lecture Title :-
HRM and Technological Change

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Learning Objectives

- Look into the impact of technological change on the HR process

- Critically examine how AI and automation are reshaping HR functions

- Discuss possible challenges of integrating technology in HRM

- Evaluate the use of technology in operational and strategic HR decision-making

Group discussion

How is technology changing Human Resource Management?

Technological Change in HRM

"Technological change in Human Resource Management refers to the integration and evolution of digital tools, systems, and innovations—such as artificial intelligence, data analytics, automation, and cloud-based platforms—that transform traditional HR functions and practices, enhancing both operational efficiency and strategic decision-making." (Parry and Strohmeier, 2014)

HR Technology Evolution

Pre 1970's -   Administrative Era (Paper files, manual payroll systems)

1970's -   Mainframe & Early Automation (Mainframe computers, early HRIS)

1980's -   Personal Computing & Modular Systems (Standalone software on PC)

2000's -   Web-Based & E-HRM Era (Internet enabled systems & web portals)

2010's -   Cloud Computing & Mobile HR (mobile apps and social media integration)

2020s -   AI, Automation & People Analytics (AI, machine learning, advanced analytics)

Emerging Trends – HR in the Era of Generative AI (Generative AI, blockchain credentials, virtual reality in L&D

Group discussion

Discuss and present key points on how technology affects the following?

- Recruitment

- Onboarding

- Performace Management

- Learning and Development

Impact of Technology on HRM

HRM Stage	Technological Impact	Key Tools
Recruitment	AI screening, ATS, video interviews, online job platforms	LinkedIn, HireVue, ATS systems
Onboarding	Digital portals, automated workflows, e-learning	BambooHR, SAP SuccessFactors
Performance Management	Real-time tracking, continuous feedback, performance analytics	Workday, 15Five, Betterworks
Learning & Development	Personalized learning, virtual training, online courses	Coursera, Udemy, VR modules

Group Exercise

Refer to the previous slide and discuss what are the advantages and challenges of technological input for the following processes:-

- Recruitment

- Onboarding

- Performace Management

- Learning and Development

Benefits and Challenges of Technological Input

HRM Stage	Benefits of Technology	Challenges of Technology
Recruitment	- Wider reach via job portals & social media - AI screening saves time - Data-driven decision-making	- Risk of algorithmic bias - Over-reliance on automation may overlook human traits - Candidate data privacy issues
Onboarding	- Automated workflows streamline documentation - Digital tools provide consistent experience - Virtual onboarding supports remote teams	- Lack of human connection - Technical issues can delay onboarding - Overwhelming digital overload for new hires

Benefits and Challenges of Technological Input

HRM Stage	Benefits of Technology	Challenges of Technology
Performance Management	- Real-time feedback systems - Data analytics for better evaluations - Goal tracking and alignment tools	- Over-monitoring may reduce trust - Metrics may ignore qualitative factors - System bias or misinterpretation of data
Learning & Development	- E-learning enables flexible, self-paced training - AI can personalize content - VR/AR enables immersive experiences	- Low engagement with digital content - Inequality in tech access - Needs constant content updating to stay relevant

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Ethical, Cultural, Legal, and Financial Complexities

Category	Complexities / Challenges	Examples / Implications
Ethical	- Bias in algorithms (age, gender, race) - Lack of transparency in AI decision-making - Employee surveillance and privacy concerns	- AI rejecting older candidates - Black-box models making hiring decisions without explainability - Monitoring tools tracking keystrokes or webcam use

Category	Complexities / Challenges	Examples / Implications
Cultural	- Resistance to digital change - Generational gaps in tech adoption - Lack of digital fluency across workforce	- Older employees struggle with self-service HR systems - Mismatch between corporate culture and tech-driven HR policies leads to disengagement

Category	Complexities / Challenges	Examples / Implications
Legal	- Compliance with global data protection laws (e.g., GDPR) - Risk of unlawful automated decision -making - Lack of legal clarity for emerging tech	- HR chatbots collect employee data without clear consent - EU staff demand human review of AI-led recruitment decisions, invoking GDPR Article 22

Category	Complexities / Challenges	Examples / Implications
Financial	- High cost of tech implementation - Unclear ROI on HR tech tools - Subscription fatigue from multiple platforms	- Organization invests in AI HR software but sees minimal productivity gains - Budget strained by overlapping tools with redundant functions

Group discussion

Is technology in HR an efficiency

tool or a strategic transformation driver?

Strategic VS Operational use of Technology in HRM

Strategic VS Operational use of Technology in HRM

Aspect	Strategic HR Tech Use	Operational HR Tech Use
Purpose	Long-term planning & alignment with business strategy	Day-to-day task execution and HR process efficiency
Focus	Future-oriented: talent strategy, workforce planning, analytics	Present-focused: payroll, leave management, record-keeping
Decision Level	Executive/Leadership level decisions	HR administrator and manager-level tasks
Examples	- Predictive analytics for turnover- Succession planning tools- Workforce modeling software	- HRIS for storing employee records- ATS for managing applicants- LMS for delivering compliance training
Value Delivered	Competitive advantage, agility, risk management	Efficiency, accuracy, compliance
Integration with Business	Strong integration with business goals and KPIs	Supports internal HR functions, less visibility at the C-suite
Time Horizon	Medium to long-term	Immediate to short-term

Examples of Strategic Use of Technology in HRM

HR Function	Strategic Use of Technology	Strategic Impact
Talent Acquisition	- Data-driven sourcing- Employer branding via digital platforms	Attracts high-quality candidates aligned with future skill needs
Workforce Planning	- Forecasting skill shortages- Scenario planning for workforce changes	Supports proactive staffing aligned with growth and market shifts
Performance Management	- Continuous feedback systems- Goal alignment tools	Aligns individual goals with strategic priorities; identifies high-potential talent
Learning & Development	- Personalized learning paths- Upskilling for digital transformation	Builds future-ready workforce; supports career pathing

Examples of Strategic Use of Technology in HRM

HR Function	Strategic Use of Technology	Strategic Impact
Succession Planning	- Identification of future leaders- Internal talent mobility	Ensures leadership pipeline readiness and business continuity
Employee Engagement	- Real-time sentiment tracking- Predictive engagement analysis	Enhances retention; provides early warning for attrition
Diversity & Inclusion	- Bias detection in hiring- Analytics for equity in pay and promotion	Supports inclusive culture and compliance with ESG/CSR goals
HR Strategy & Reporting	- Strategic KPIs & benchmarking- Data-informed board reporting	Informs executive decisions; links HR outcomes to organizational performance

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