

Course Name: AI in Human Resource Management

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Lecture- 13

Lecture 12: SMART HRM

Hello learners, welcome to the course on AI in human resource management. We move to the last lecture of module 4 where we look into smart HRM. Now, it's an interesting topic because how did HRM become smart? This is what we are trying to unravel. We are trying to see the AI presence in making HRM smart.

I'm Dr. Abraham Cyril Issac. I'm an assistant professor at the School of Business, Indian Institute of Technology, Guwahati. Now, when you talk about smart HRM, Please understand that it uses Industry 4.0 technologies to manage HR and the next-generation workforce, which is why it is known as smart HRM. Now, let's understand smart HRM first, and we'll see the AI involvement in smart HRM.

We see that there is increased efficiency that has come in because of AI practices being adopted, AI tools being used in HRM. And these Industry 4.0 practices are making it smarter. Let's look into the smart element of HRM. When we talk about smart HRM, what we understand from smart HRM practices is that it leverages advanced technology to manage human resources more effectively and efficiently.

So, when you look into these Industry 4.0 technologies, be it AI, machine learning, IoT, chatbots, or big data analytics, they are used by HR managers to manage the next-generation workforce, which is why, as I mentioned, it is called smart HRM 4.0. This technology certainly improves performance across various HR functions, from workforce planning to employee off-boarding. It aids in building high-performing teams and managing workplace talent while also enhancing productivity and effectively handling a diverse workforce. What smart HRM 4.0 does is promote organization-wide

employee training and integrate HR functions to improve overall effectiveness. It also facilitates talent acquisition, functions like training and development, and retention.

For example, let's look into this. Smart HRM uses AI in recruitment, which reduces errors and enhances efficiency across processes like, let's say, branding, candidate attraction, and assessment. Maybe selection and onboarding. These are some of the vital aspects that make it smart HRM. Now, when you talk about smart HRM, let's understand from the emergence of smart HRM, the fourth industrial revolution, which we call Industry 4.0.

So let's look into this example. Let's say smart HRM typically uses AI in recruitment, which reduces errors and enhances efficiency across processes like, let's say, branding. It could have implications with respect to some of the typical HR functions like candidate attraction, assessment, or even selection and onboarding. So these are some of the typical aspects that actually enhance efficiency. Now let's understand smart HRM from its emergence.

When you look into smart HRM, the fourth industrial revolution, which is also Industry 4.0, is what marked the technological disruption and transformation of business. So Industry 4.0 typically focuses on enhancing efficiency. The business capabilities to stay competitive, reduce costs, and improve operational efficiency. What we understand is that it brings advanced technologies like, let's say, cyber-physical systems, AI, which I already mentioned, IoT, robotics, and even cloud computing and big data analytics altogether. So human resource management is also evolving with Industry 4.0.

As various HR functions are being automated and modernized. This is the underlying theme that I would like to present today. You know, when you talk about smart HRM, 4.0 emerged from this particular revolution. Using Industry 4.0 technologies to actually manage a multi-generational workforce effectively. So what we see is smart HRM 4.0 adopts these technologies to enhance HR decision-making, boost efficiency, and increase productivity in a certain tech-driven environment.

So, what is that technology? Makes it smart. Common technologies used in smart HRM are what we have already discussed. Let's go into detail. When you look into AI, artificial

intelligence, we have typical involvement in things like recruitment, performance management, and predictive analytics, as we have already seen.

Big data analytics certainly helps in people analytics and workforce planning. For the first time in this course, I'm mentioning cloud computing, which looks into remote access and scalability possibilities. We are looking into mobile technology, which enhances self-service portals and communication tools. It does not end there. We can have different other tools like LMS, learning management systems.

These look into online training modules and tracking progress for that matter. We have blockchain technology, which is all about credential verification and can help in payroll processing. We have virtual reality, VR, or AR, augmented reality, which helps us in typically improving training and onboarding. And finally, something which we have seen across the previous module: chatbots, which facilitate immediate responses to employee inquiries. Now, let's understand the common technology based on dynamic capabilities and smarter channels.

When we discuss dynamic capabilities, they extend the RBV, the most common resource-based view, referring to a firm's ability to integrate, build, and reconfigure competencies to address rapidly changing environments. So, these capabilities help organizations stay competitive by focusing on adaptability, leveraging resources, minimizing risks, fostering learning, and gaining a competitive edge. So, we have a host of capabilities that are coming in, and it inevitably helps the organizations to stay competitive in this world.

Now, when you look into the smart HRM context, certainly there are certain dynamic capabilities that allow the firm to adjust their HR practices to take advantage of new technologies effectively. Smart HRM fosters dynamic capabilities through 3 Key elements: building, integrating, and reconfiguring. So, let's look into these three elements specifically. When you look into building, building learning and knowledge sharing is a very interesting area, a very important area, and very close to my heart because it is one of my research areas also. Smart HRM actually encourages continuous learning and knowledge exchange.

Please note. Leveraging AI, leveraging social media, and even recruitment tools like chat boards for talent acquisition and real-time personalized training for that matter. So, building is all about building learning and knowledge sharing. You have the technology integration. Please understand, when you are talking about integration, it's all about the technology integration here.

By incorporating AI, big data, and cloud computing, Smart HRM streamlines processes, allowing actually HR departments, HR functional areas to make data-driven decisions that automate various HR functions. You have the HR practice reconfiguration. Smart HRM typically enables organizations to quickly adjust their HR strategies and processes in response to internal or external changes. So, please note, it enhances efficiency and adaptability through this technology or technological innovation.

Now, let's look into socio-technical theory and smart HRM. We have looked into the resource-based view. Now, we look into the socio-technical theory. When you look into this theory, it asserts that organizations typically perform best when both social elements, you know, social elements could be anything like people, the culture, or the relationships between individuals, and the technical elements, let's say tools, you know, technologies, processes, etc. These are aligned and optimized.

I repeat something like people, culture, relationships, which are the social elements, and the technical elements like tools, processes, and technologies. These are aligned and optimized. So, please note the link between socio-technical theory and smart HRM emphasizes integrating these social factors with technological advances in human resource management. So, by using socio-technical principles, organizations can no doubt improve smart HRM practices, boosting dynamic capabilities, employee engagement, and, without doubt, overall performance and experience. Now, successful smart HRM, you know, when we are discussing HRM or smart HRM for that matter, we should understand how this is going to be successful.

Successful smart HRM actually involves designing, if you ask me, technology tools with the human factor in mind, ensuring employee involvement is there in selecting and implementing HR technologies to meet their needs and even to improve their work

performance. There could be a possibility of strong management support also, like a key socio-technical factor. It can emerge. It is vital for smart HRM success, requiring leaders to promote a typical culture of change and innovation that aligns technology with organizational values. So, when you talk about socio-technical theory, it no doubt stresses the importance of employee input during organizational changes.

Engaging employees in feedback loops during smart HRM implementations, which, in turn, improves system acceptance and usage. So, please note this typical balanced approach ensures people and technology. They collaborate effectively to meet the different strategic goals. Now, let's look into the socio-technical factors influencing the use of smart HRM. We have different aspects like top management support.

Let's start from that. When we talk about top management support, please note organizational support or top management support is critical for any functional aspect to be successful. So, it involves providing the necessary focus and resources. Even time, that's also a critical resource nowadays, to implement this SHRM 4.0. So, when management, essentially the top management, recognizes that adopting advanced technology is a key business priority, they are more likely to allocate resources for its application.

So their attention and involvement will drive the effective use of SHRM 4.0. You also have HR readiness. When you talk about HR readiness, it refers to the department's ability to use SHRM 4.0, including the skills of HR professionals and the availability of technical and financial resources. You know, when implementing SHRM 4.0. HR teams, managers, and employees must possess the necessary competencies to utilize the technology effectively.

So the expertise and technical resources in HR directly influence how well this smart HRM 4.0 can be leveraged. We also have competitive pressure. What is this competitive pressure? It arises when organizations adopt SHRM 4.0 practices due to competitors doing the same. So initially, they are not very keen, but they cannot stay well in terms of the competition.

So they have to do the same. They have to imitate. They have to replicate. So research confirms that competitive pressure impacts the acceptance of HR technology. So SHRM 4.0 practices.

It helps HR managers analyze data, predict trends like employee attrition, and develop retention strategies, making it essential for companies to keep up with market demands. You also have certain aspects like perceived usefulness. When you talk about perceived usefulness, it is how much individuals believe the information technology or IT improves their performance. So SHRM 4.0 helps HR managers manage functions more effectively, improve recruitment processes, and predict employee performance and turnover. So when HR managers see the value of SHRM 4.0, they are more likely to adopt it.

You also have certain security and privacy aspects, you know, despite the benefits of SHRM 4.0 in talent management, recruitment, and even employee engagement, organizations may actually hesitate. This is due to concerns over data confidentiality, potential data loss, or even issues like privacy or errors, for that matter. So, these concerns arise from the use of Industry 4.0 technologies in HR processes. Security and privacy issues related to HR data remain significant barriers to adoption. You also have this technology readiness.

I don't know if you're aware of this. So, my intention is to underscore this technological readiness part. You know, when you are talking about technology readiness, it refers to an organization's HR-related IT infrastructure and expertise. High technology readiness means understanding existing IT issues and preparedness to implement new technologies smoothly.

So, when you talk about smart HRM, you also have to look into the implications. You have some critical implications, like improved organizational performance. By utilizing advanced technologies and data analytics, organizations can make more informed decisions regarding all functional aspects like talent management, workforce planning, and employee engagement strategies, etc. You have typical employee engagement and satisfaction that come from smart HRM tools, which include features like, as we have discussed, how we can enhance employee engagement.

These include self-service portals, feedback mechanisms, and personalized development plans, for that matter. We have some data-driven decision-making aspects whereby smart HRM can facilitate data-driven decision-making by providing HR professionals with access to real-time analytics and insights about workforce performance. You have the possibility of innovation facilitation as an implication. When you look into the integration of smart HRM practices, it supports innovation within the organization by promoting a culture that values continuous improvement and agility.

You have enhanced dynamic capabilities. You know, smart HRM, which we are discussing, contributes significantly to the development of dynamic capabilities within organizations. It fosters a culture of learning and knowledge sharing. You have the possibility of strategic alignment. When you talk about strategic alignment, which we have detailed, so I'm not going to take time here.

Smart HRM aligns human resource practices with broader business strategies. This particular alignment ensures that HR initiatives support organizational objectives. These objectives could include market expansion, product development, and enhancing overall business performance. That's it. Please note, we have some typical challenges.

We have challenges with respect to Integration of HR systems, you know, issues like improper integration can lead to data silos, inefficiencies, and errors. There are problems concerning data security and privacy. With the increasing reliance on digital tools for management, specifically managing sensitive employee information, data security and privacy are big concerns. Organizations must implement robust cybersecurity measures and comply with data protection regulations.

Failure to do so, let me remind you, can result in data breaches, legal penalties, and even loss of employee trust. We also have some resistance to change. Please note, things always have inertia. So there is always resistance to change. Implementing smart HRM often requires a cultural shift within the organization.

So employees may resist adopting new technologies due to fear of the unknown or sometimes pure discomfort. Now, when you look into smart HRM challenges, you also have ensuring critical employee engagement as one of the challenges. We understood it

as a function also. But please note, while smart HRM tools aim to enhance employee engagement, selecting the right platforms and ensuring active participation can also be challenging. So organizations must typically find ways to encourage employees to engage with these tools meaningfully to maximize their benefits.

Another significant challenge could be balancing automation with human interaction. Time and again, we try to underscore in this course that human interaction is minimized. But how do you balance it? You cannot totally eliminate it. The use of AI and automation in HR processes, please note, can streamline operations.

But may also lead to concerns regarding what we have seen as bias or transparency issues or maintaining a human touch in candidate interactions. So striking the right balance is a challenging task, and that is what I would like to underscore here. There are also concerns regarding compliance, and legal compliance remains a significant challenge as labor laws evolve rapidly, which I have already mentioned. When you talk about the challenges, please note there are some critical points. Training and development needs also.

When you look into implementing new technologies, it often necessitates upskilling HR personnel and employees alike. So organizations must actually invest in training programs and necessitate skills training to utilize SHRM tools specifically. Now, when we are at it, we should also understand and acknowledge the fact that Over and above these challenges, there is one critical challenge, which is resource constraint. We have looked into the resource-based view in the previous lecture, but please note that we are very much concerned when it comes to resources.

So, am I working in an organization that has the potential to deploy AI? In terms of the available resources, so many times, that's why most of my classes go with a rider that there are different tools that I'm introducing you to. But what is the essential or what is the actual need of your organization that will ensure which is the right tool? So again, please take care of your organization in terms of the resources. Maybe functional areas can come together and do some resource pooling.

And then, let's say, we have seen this in the previous module, you know, digital marketing. You know, some resource pooling is being done from the marketing department and also the IT department. So this will enhance the AI processing or AI integration of HRM. Unless and until the proper resource allocation is done, AI HRM will not be that effective. On that note, I'll end today's class.

We'll come up with something new and some new module in the next class. Till then, take care. Bye-bye.