**Lecture 28: AI in Sustaining Green HRM**

Hello learners, welcome back to the course on AI in Human Resource Management. Today, we move to the 9th module, where we look into the emerging trends in AI in HRM. So, basically, we will start with AI in sustaining green HRM. I am Dr. Abraham Cyril Issac. I am an Assistant Professor at the School of Business, Indian Institute of Technology, Guwahati.

As I mentioned in my introduction video for this course itself, This particular course will be more practically oriented. So, as we see, AI is evolving. It is developing day by day in terms of different domains in human resource management, not only HRM but across all fields. It's emerging, but specific to human resource management, if you ask me. It is going to leave a lasting impression. So, we are just following the trend. And this particular lecture, and this module in general, will look into the practical orientation of AI. So, I'll try to look into some real-time case studies and scenarios that are already using AI. With respect to Green HRM.

Now let's look into this in greater detail. When you talk about Green HRM again, I'll just start with the basics of AI because somebody might have joined with this particular module. We'll see that Green HRM has certain inherent advantages with the use of technology. When technology is not there, we cannot actually emphasize on green HRM to a certain extent because technology enables the same core principles or at least enhances or embellishes or reinforces the same core principles which green HRM has or green HRM is trying to put forth. So let's look into that in greater detail.

Let's first understand very quickly what we have already seen, what is AI very quickly and what is specific to Green HRM. So every single module, if you ask me, I start with the definition, but each of this definition is very specific, specific to the topic under discussion and this time it is Green HRM. So when you look into AI, we know that it's a powerful tool that reshapes management and organizational practices through innovation technology. And needless to say that AI has revolutionized the work process and decision-making using technologies like genetic algorithms, something like neural networks, data mining and sentiment analysis. We have already seen an interactive voice recognition also to a certain extent we have touched upon. But when you're looking into AI... It enhances decision-making and cost-effectiveness by providing real-time data-driven insights, which was the core of the discussion in the previous few modules. When you look into AI classification, let's understand the existence and the persistence of AI in field of social sciences and technology separately. When you look into social sciences, we have something called as Artificial Narrow Intelligence, ANI. We have something called as Artificial General Intelligence, AGI.

And we have Artificial Super Intelligence, which is ASI. Whereas technology, something which we have already seen, specific to machine learning technology and we look into the perception technologies. But when you look into social sciences, and this is what interests us today, because we will touch upon the green HRM in a more effective manner. Let's look into that. When you look into this ANI, AGI and ASI, artificial narrow intelligence focuses on specific tasks like voice recognition or let's say self-driving cars.

So something like Siri or something like Alexa. will be, or Google now, will be certain examples of types of AI specific to artificial narrow intelligence, or also known as ANI. When you talk about AGI, artificial general intelligence... It offers multiple solutions for complex problems using sensory data and helps decision making. So, when you are looking into more of the general intelligence, it is again coming handy because it is using the sensory data and it is indeed helping in the decision making. Then we have the artificial super intelligence which represents the Intellect surpassing human capabilities, maybe in areas like creativity, in areas like wisdom, which is beyond the capacity of the human beings. This is what artificial super intelligence is. This is the primary

understanding of, you know, the types of AI with respect to the social sciences. When you are looking into the technological aspects which we have touched upon, especially the machine learning technology, it mimics human intelligence for tasks like, let's say, research, speech recognition, lie detection, image recognition, etc.

When you look into perception technologies, on the other hand, you have something like computer vision technology. Computer vision handles tasks like facial recognition, while NLP, or natural language processing, enables interactions between humans and machines. So all your virtual assistants play a role there. This is AI in terms of technological aspects. Now let's look into the crux of today's discussion.

First, let's understand what green human resource management is. For specialists in HRM, they will have a clear idea of what GHRM is all about. But for technology enthusiasts unfamiliar with HR jargon, I'd like to introduce green HRM first. Green HRM integrates HRM practices with environmental management focusing on reducing pollution through organized policies. Now, when discussing these organized policies, due to rising external pressures for a pollution-free environment, organizations are compelled to adopt green human resource management practices. As customers and potential employees grow more concerned about sustainability, companies must develop green policies to attract environmentally conscious talent. To achieve a lasting competitive edge, organizations need to capitalize on employee talent, which is retained through effective HRM. Consequently, what we understand is that Green HRM has garnered significant attention from scholars, researchers, and to a certain extent, from policymakers as well. So, implementing Green HRM practices and policies helps organizations lower carbon emissions. It helps organizations reduce paper usage and cut down on waste in the manufacturing process. So, GHRM or Green HRM combines traditional HRM functions with strategic measures aimed at sustaining a green and eco-friendly environment. This is the crux of the whole discussion here.

So, Green HRM practices are built around key pillars. Enhancing green abilities is one. Then, you have specifically motivating them to adopt these green practices. So, basically, you have something like effective training or intervention activities and creating

opportunities. So, basically, these are the three key pillars on which the entire structure of green human resource management rests.

So, these practices encompass major HRM activities. It can include recruitment, selection, training, and development. Performance management, compensation, talent management, and talent retention, all aligned with the green objective. So, this is, in crux, what is known as green human resource management. Now, let's look into the determinants of green human resource management. This is interesting because you cannot have anything successfully orchestrated in your organization without the top management support. So basically, the leadership of an organization plays a critical role in initiating and supporting the implementation of green HRM practices. So top management's commitment to environmental goals and sustainability is vital for fostering a green culture and adopting practices, be it green recruitment, be it training, be it performance management, etc. So this is what underscores the significance of the top management support. Then we have the environmental orientation. Talk about environmental orientation. The organization's overall orientation towards environment, environmental management and sustainability significantly impacts his willingness to adopt GHRM. So this is vital. Green HRM is there in one hand.

On the other hand, you have willingness to adopt GHRM. So basically... Firms that prioritize environmental preservation are more likely to integrate GHRM into their operations. Similarly, if you look into green employment empowerment, it involves empowering employees to participate in green initiatives and allowing them to influence environmental practices. So this is what we understand by green employment empowerment. So when you talk about green employee empowerment, when employees are encouraged to actively contribute to environmental goals, organizations can better adopt to green practices. We also discuss customer and stakeholder pressure. And this is also vital because when you talk about green human resource management, it should not be catering to the whims and fancies of a chosen few. It has to be in concurrence with the entire stakeholders. So external pressures from customers, from suppliers and other stakeholders regarding environmental responsibility can push organization toward GHRM adoption.

So stakeholder expectations play a vital role in motivating companies to adopt environmentally friendly HR practices. We also have to understand that when you're talking about determinants of GHRM, the significant factor is organizational culture. we had a small discussion within our course itself regarding culture. But in the organizational behavior course, again, the NPTEL platform, we have, you know, discussed elaborately on the culture. So when you look into organization culture, specifically a culture that supports environmental sustainability with respect to GHRM, will encourage green practices within human resource management and there is no doubt about it.

So an organization's Internal values and norms regarding the environment facilitate the adoption of GHRM practices. We also have to have supportive climate and culture. A workplace climate that encourages environmental initiatives and typically green behaviors among employees is critical. So organizations with a supportive climate that nurtures green values and initiatives is better able to implement GHRM altogether. Finally, you have green human and relational capital as a determinant of GHRM. Let's understand what this green human and relational capital is. When you talk about green human and relational capital, let's understand it as employees' knowledge, their skills, abilities, and attitudes—not to forget those—toward environmental sustainability are vital. So organizations with a workforce that values green practices are more likely to implement GHRM, and this is common sense. The company's relationships with external stakeholders—be it customers, suppliers, or partners—concerning environmental management also play a critical role in driving GHRM. Now, let's look into the adoption of AI and green practices in organizations. When you look into this adoption, let's understand it through some data. A survey showed that over 54% of companies have integrated green management practices into their operations. 74% of organizations use digital tools for meetings, reducing the need for travel. So this is basically what I tried to emphasize in the beginning itself. The moment you bring in technology, it goes in sync or shoulder to shoulder with green HRM practices because that is what GHRM professes. 76% of companies promote paperless documentation, minimizing waste.

Again, they are going hand in hand. 60% have implemented employee fitness and wellness programs as part of their green initiatives. And 80% of the businesses have

adopted artificial intelligence (AI) for various organizational activities. So what we typically understand is that AI tools simplify the adoption of green HRM services, making them more efficient. So when you look into companies like, let's say, ITC, Lufthansa, Hayat, Nokia, or Gensol Consultants, or ID8 Media Solutions, they all have embraced AI technologies to support GHRM and promote environmentally friendly practices. Now let's look into the critical aspect of today's discussion, which is the role of AI in adopting green human resource management practices. When you look into the role of AI specifically, we have seen that artificial intelligence is all about developing green ability, motivating green employees, and facilitating them green opportunities, which we have typically seen.

So when you are typically looking into the role of AI in adopting green HRM practices, the first and foremost one would be streamlining recruitment and selection, which happens to be one of the most critical, in fact, the foremost domain within human resource management. So what we have touched upon in previous modules is that AI simplifies the recruitment process by automating tasks like, let's say, resume scanning and candidate selection, etc. For better understanding, I'll take an example. Let's say PepsiCo uses AI software to automatically scan CVs and shortlist candidates, eliminating the need for extensive in-person interviews. That saves a lot of time, cost, and labor investments otherwise required for recruitment and selection.

You have your support and enhancement in training and development. So let's look into AI tools, maybe something like Google Classroom or Google Meet. They are used for virtual learning or virtual training, promoting AI. green practices by reducing resource consumption and travel. When you are looking into performance management and appraisal, we have certain aspects where AI helps track employees' performance in real time. And this is vital because it provides feedback for green behaviors and eco-friendly initiatives. So, AI-based performance appraisal systems typically evaluate performance How employees contribute to environmental goals, helping align their efforts with sustainability targets. Then we have support in employee motivation. How does it do that? AI-driven analytics helps organizations reward employees who follow the green practices. So these systems also encourage employees to adopt sustainable behaviors by

monitoring and rewarding eco-friendly actions. And when we look into the role of AI in adopting green HRM practices, we also acknowledge that Facilitating employee empowerment and involvement as a significant role. You know, when you when you talk about employee empowerment specifically, we have typical aspects of AI applications.

It could be something like chat boards or virtual assistants. We'll have a detailed discussion about chat boards in this lecture. So, chat boards or something like virtual assistants. Ask Dexter could be an example of that. Assist employees by addressing queries and grievances efficiently, allowing more focus on green initiatives.

When looking into the role of AI in adopting green HRM practices, we must also understand the possibility of promoting a green corporate culture. We have discussed culture in general, but when talking about promoting a green corporate culture by integrating AI into everyday HR practices, organizations foster a green corporate culture that encourages sustainability and environmental consciousness across all departments. We also have certain positions regarding improving operational efficiency, which is vital because AI technologies optimize processes like manufacturing, supply chain management, and resource allocation. Many organizations face resource crunches, and resource allocation is vital to reduce waste, save energy, and prevent environmental damage. We also have the typical involvement of AI in the automation of HR functions. When looking into HR tasks such as attendance tracking, performance reviews, and employee engagement tasks, GHRM services are easier to implement regarding the different resource allocations required. Now, let's look into AI technologies for adopting GHRM practices. The first one is virtual training, and we'll take the example of Samsung.

It provides virtual internships for new recruits, offering eco-friendly training through online platforms. You also have the job intelligence maestro. DBS is a pioneer in that. It reduces time specifically to assess candidates, assuming from what I understand, from 30 minutes to 8 minutes, making recruitment more efficient. For automation, specifically with respect to EPFO, we have seen the introduction of an automatic claim settlement system.

That reduces processing time to specifically a few days. Then we have the most important distance assistant. When you look into the distance assistant, it uses ML (machine learning) and augmented reality to help workers maintain social distancing. And social distancing is again a reminiscence of what we have seen with respect to our experience in COVID-19. Then we also have, you know, an understanding with respect to LTI's safe radius. Larsen and Toubro Infotech, they are the key organizations with respect to that. It ensures employee health and safety as they return to work by monitoring physical distance. Then we have the most, you know, common or popular chat about NENA. Sun Life ASC India has that AI chatbot that answers employees' queries with a higher user satisfaction rate, and it's almost 74%. So you can see the effectiveness of the chatbot.

You also have digital HRM systems. The Telangana State Police makes use of that when it comes to recruitment, time management, attendance, performance evaluations and many other HR functions typically. We also have the e-pass system which the Indian Western Railway uses, which is all about a paperless version of employee privilege passes contributing to greener HR practices. We have Creating Talent Cloud, mainly the matrimony.com. You can see that it uses real-time data to select experienced employees and improve the productivity. We also have the Talent Acquisition by Microsoft Teams, which uses that, which enables Talent Experience Management, TEM, for small and large enterprises to improve collaboration and communication altogether. Again, when you look into similar examples, we have some HR tools like, let's say, Microsoft Viva. It enhances employee experience by integrating communication, knowledge, learning, and generally the resource management. Now, before concluding, let's look into some of the typical case studies, which I mentioned that we in this course try to give you more of a pragmatic and practical oriented view with respect to the ever-evolving AI. So, let's look into this case study of Infosys AI adoption in sustaining green HRM. When you look into the overview, Infosys, as most of you would know definitely, is a global leader in technology service and consulting. It has made significant strides in integrating artificial intelligence AI to enhance green human resource management GHRM practices. So the company's commitment to to sustainability and efficiency is reflected in its use of AI

technologies, particularly in reducing energy consumption and promoting eco-friendly practices within the organization.

When you look into the specific AI adoption in Green HRM with respect to the company, let's start with the ERP and smart meters. Infosys implemented an advanced enterprise resource planning (ERP) system alongside the AI-driven smart meters. These technologies, for your information, allow the company to monitor and optimize its energy usage in real time. By leveraging data analytics, Infosys can identify areas of inefficiency and make necessary adjustments to minimize energy waste. The outcome was that Infosys reduced its energy consumption by almost 85%, marking a significant milestone in its sustainability efforts. The integration of AI in managing energy usage not only reduced operational costs but also supported the company's commitment to environmental sustainability. When you look into digital HRM practices, Infosys also implemented AI technologies to support its digital HRM functions, contributing to a greener HR process. Through AI-driven systems, the company has automated various HR activities, be it employee attendance tracking or the remote recruitment process.

When looking into AI-related employee attendance tracking, it involves moving to digital attendance systems, which reduces paper use, and AI software assists in scanning resumes and conducting interviews virtually, as we have seen previously, reducing the need for travel and thus minimizing carbon footprints. We look into the key benefits of AI at Infosys. We see that the first and foremost one is, inconspicuously, energy efficiency. The AI-enabled smart meters helped in real-time monitoring and reducing energy consumption. We have reduced paper usage. So, when you are looking into digital HR tools replacing traditional paper-based systems, it promotes paperless operations across the HRM functions. We have minimized travel. When you are looking into the virtual recruitment processes, reduces the need for in-person interviews, cutting down on travel related emissions and costs also. When you are looking into operational efficiency, it is increased operational efficiency. AI help automate repetitive HR tasks leading to greater efficiency and reduced human intervention altogether.

So this is what we generally see with respect to key benefits of AI at Infosys. To conclude, Infosys adoption of AI in sustaining green HRM practices demonstrates how

technology can drive sustainability efforts in large organizations. So by optimizing the energy use, by reducing the paper waste and minimizing the need for physical travel, Infosys set a benchmark for integrating AI into environmentally conscious HR practices. So the case highlights the potential for AI to contribute to long-term sustainability while also improving operational efficiency.

Now let's look into another case study, a case study of PepsiCo. Again, when you look into this particular case study, you have to understand the background. PepsiCo is one of the world's largest food and beverage companies that has adopted artificial intelligence to support the green human resource management practices. So by leveraging this AI technology, PepsiCo has streamlined the recruitment process, reducing its environmental footprint and improving the overall efficiency. So we are looking into AI adoption, how it has used AI in enhancing the green HRM practices. The first and foremost one is AI in recruitment. PepsiCo implemented AI software to revolutionize its recruitment process. So specifically, you know, it makes it more sustainable without doubt. AI system automates the scanning of resume from various job portals and matches candidates based on the company's job requirements. So this system eliminates the need for physical paperwork and drastically reduces the time and resources spent on recruitment.

So we also need to consider it with respect to the remote interviews that are possible because of that. PepsiCo's AI system allows for virtual interviews, reducing the need for recruiters and candidates to typically travel, thus minimizing the company's carbon emissions associated with the travel. Then we have aspect of screening. The efficiency in screening. So basically, AI reduces manual effort by automating filtering the most suitable candidates, cutting down the time spent on reviewing applications by 60 percent almost. So the outcome is that AI driven recruitment process at PepsiCo. not only enhanced efficiency, but also significantly contributed to the company's green initiatives by reducing travel and paper consumption. So a point which I try to emphasize again, that as you bring in technology, it is in line or it is in sync with the principles of green HRM because they go hand in hand. And AI being a technology initiative, it is definitely a complementary aspect towards the green HRM practices within the organization, within the human resource management domain altogether.

Let's look into the green efficiency and AI integration part. We understand that paperless documentation is wonderful, but when you try to see it from the angle of AI, by automating recruitment, PepsiCo eliminated the need for physical documentation, contributing to the paperless policy. So with all resuming job descriptions and interviews conducted digitally, the company minimizes reliance on paper, aligning with its sustainability goals. So it also has certain time and resource savings associated with that. The use of AI in recruitment saved substantial human resources and cut down the time to hire new employees.

So the efficiency allowed PepsiCo to focus more on strategic HR initiatives, including employee development, green training programs, etc. When you look into the case study, particularly of PepsiCo, what were the key benefits of AI adoption? Very quickly, we'll see that reduced travel-related carbon footprint, which we have already communicated; virtual interviews replace the need for cross-country travel, cutting down emissions. We also have paperless HR processes. The digitalization of recruitment and selection helped eliminate paper waste, supporting PepsiCo's commitment to environmental sustainability.

We have increased recruitment efficiency. Which is all about AI reducing manual work by automating resume screening and candidate selection, saving time and resources. And finally, we have enhanced employee experience. So AI technologies typically provide a seamless recruitment experience, aligning with PepsiCo's focus on innovation and sustainability. To conclude, PepsiCo's adoption of AI in its recruitment process, it typically illustrates how AI can support GHR. This is the crux of what we take away from this particular case study by promoting eco-friendly and efficient HRM practices. So by using AI to automate and digitize recruitment, PepsiCo has reduced its environmental impact, enhanced operational efficiency, and contributed to its broader sustainability goals. So the integration of AI in PepsiCo's HR function serves as a model for other organizations seeking to incorporate green practices into their HR processes.

Now we look into the most interesting chatbot, Nina. Nina is a virtual assistant, fully developed in-house, utilizing natural language processing and artificial intelligence technology. Nina, the chatbot, has greatly benefited both employees and support teams by handling frequently asked questions. that were previously part of the team's routine tasks.

So by taking over these queries, Nina has freed up a substantial amount of time for the support teams, allowing them to focus on continuous improvement and concentrate on achieving the strategic business objectives. So basically, when you look into Nina, the chatbot, let's have a typical example of this in terms of how we see it as an interface. The instructions could be given like: open the mobile app, type or ask for your query. So let's say, let's take an example, case in point: John is asking, 'Where is my nearest cash point?' So Nina comes out with a response: 'Here are the nearest cash machines.'

So basically, you will get a clear idea of what John's account is all about. You know, what are the different types of accounts? What are the balances? There are any shortage with respect to credit card, the mortgage, home insurance, car insurance, any payment dues. All these aspects are integrated to it. And when John is asking a typical question like where are the cash machines, it gives a clear cut idea about the different cash machines and the distance. towards that. So typically it is all about the location sharing. So another prompt could be that tell me how much I spent last month. You know, a quick calculation. £9.55, £92 last month. So this is what it comes out to with respect to your calculation. You can have detailed analysis of what you spent, where you spent, etc. Then you also can give another prompt like just show me the transactions over £50. So something which is relevant, you have to just filter it out.

Here are the transactions. So Nina comes out with a response listing all those essential transactions. Another prompt could be, 'I need to pay my visa bill.' 'Which bill would you like to pay?' is the response from Nina. 'So, my visa bill. How much would you like to pay?' Let's say you say the amount. It's like a typical virtual assistant. 'I'll pay £180.75 from your current account.' 'Okay, that's a confirmation.' You give the confirmation, and the payment is done. Again, another significant aspect could be some utility bills. 'Pay the outstanding balance on my electricity bill from my savings account on Friday.' So you are scheduling a payment. So Nina responds, 'I will pay £150 from your savings account on Friday.' So this is certain scheduling that's going ahead.

You give it the green signal and all right, it's set up. So these are some of the typical aspects of, you know, communication. that is emerging. Now, living in a world of, you know, the Google Assistant, Siri, or let's say, all sorts of, Alexa, all sorts of such virtual

assistants, we are akin to all these aspects. So, when you are looking into the significant discussion of today, which is AI in green HRM, as I would like to conclude again by re-emphasizing the point, if you look into, if you look into all the points of all the principles and best practices of green HRM, they are certainly based on or the fundamental block is reinforced by technology. You look into paperless transactions, you look into reducing the energy usage, all these can be obtained or can be achieved through By technology. So when you are looking into a technology like AI specifically, trust me when I am saying this, it is certainly going to enhance your understanding with respect to the entire execution of green HRM. So if you want to, let's say, establish a green company, a company which adopts and it is certainly following all the green HRM practices, technology will be the best serve or technology will be the best facilitator.

And in that case, AI would be the best facilitator. So this is the connection. This is the relationship between AI and specifically green HRM. I am pretty sure that you could get this, especially with some real-time case studies, how they have made use of AI in those green HRM practices and how they have benefited out of these green HRM practices. So ladies and gentlemen, please take a note. When you are looking into a technology like AI in HRM or green HRM specifically, it will definitely complement GHRM or green HRM practices. With more details, we'll cover them in the next class. Till then, take care. Bye-bye.