Talent Acquisition and Management
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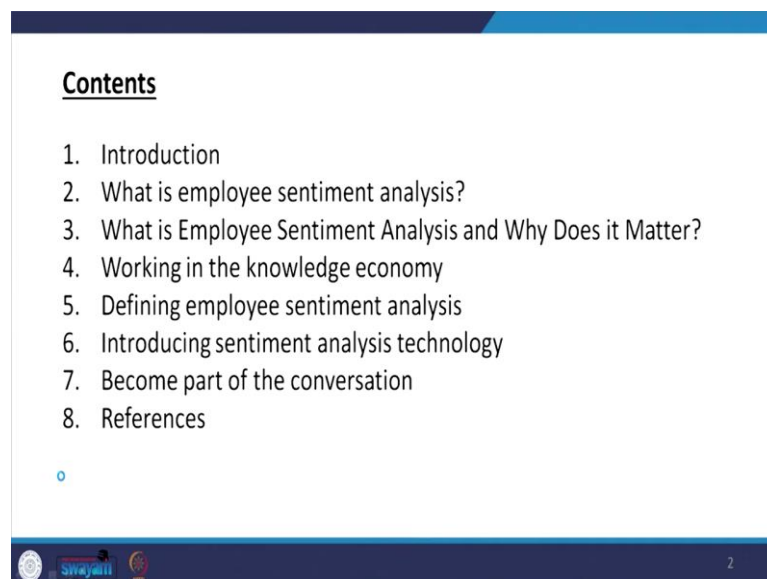**Indian Institute of Technology, Roorkee**

Lecture - 60
Feeling and Sentiment Analysis

Finally, today we will be discussing very, very important aspects because we have discussed talent, identifying talent, engaging talent, developing talent, and then deploying talent, assessing talent right. But what is important is this, their engagement. You screen the talent, but the talent is not engaged at the workplace, then definitely it will be zero – our all efforts will be zero.

So, to avoid this situation, we should know that however talented employees they are engaged, what are their sentiments, what they feel about the organization. And if we know timely, then definitely we can develop them, convert them, involve them, engage them, before time.

Before time is before they leave, before they leave the organization, and our employees turnover increases, it is better that we understand their feelings and sentiments. And this particular session is wonderful covers these aspects, and I am sure that you will also enjoy that is how we have to be the more effective in managing the talent by knowing their feelings and sentiments.
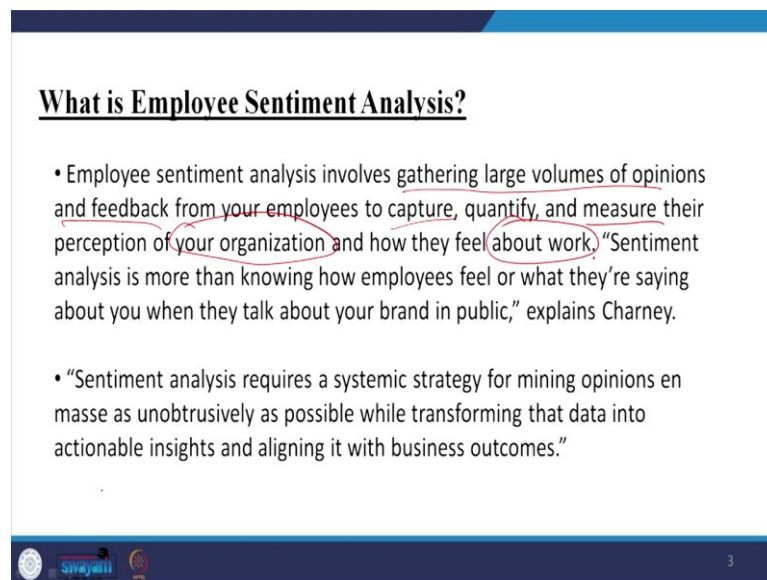
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So, introduction; what is the employee sentiment analysis? What is the employment sentiment analysis, and why does it matter? Working in the knowledge economy, defining employee sentiment analysis, introducing sentiment analysis technology, becoming part of the conversation, and references.

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So, what is the employee sentiment analysis? Employee sentiment analysis involves gathering large volumes of opinions and feedback from your employees to capture, quantify, and measure their perception of your organization. So, therefore, it is whenever we are talking about employee sentiment analysis, so, it is the gathering of their large volumes of opinions and feedback.

Whatever the opinions or feedback they are having, so that we will collecting from these employees and normally from all employees we have to collect their sentiment, but especially those who are the assets for you and very critical positions they are working, and the organization will suffer if their these employees leave the organization.

And such critical positions employee sentiment analysis at least of these employees is to be done if it is not possible to do for the all the employees. To capture, quantify, and measure their perception, so here we will talk about that is the, we if you remember, we have talked about the psychometric analysis. And in the psychometric analysis, we have to talk about the different scales so that is the capture is there.

Then the quantifying, because the, unless and until whatever the tacit knowledge is there, if it is not converted into the explicit knowledge, then it will difficult to measure. So, it is very, very important that is we are not only quantifying but also measuring that number. And their perception of the organization about our organization, and how they feel about the work; so, this particular about the organization and about the work these are very very important issues.
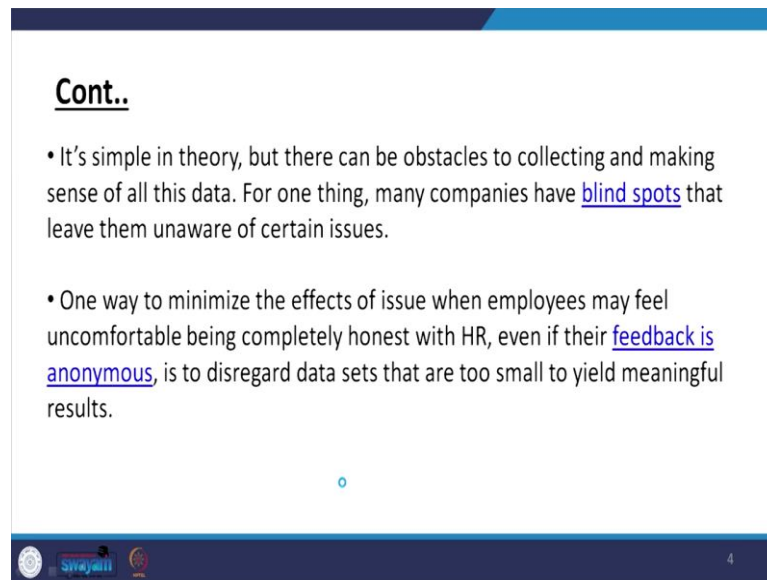
So, these perceptions are to be positive, and perceptions will be having the absorption, commitment, loyalty, dedication towards the organization towards the job right. So, sentiment analysis is more than knowing how employees feel or what they are saying about you when they talk about your brand in public, right. So, whenever we are talking about employee branding, we have talked about employee branding. So, what the people talk about right.

So, before that is it goes to the outside because employees' branding is communicating the outside. Before that, if we know that sentiments are positive right, go ahead, do the employee branding. But, if the sentiments are negative, they have certain grudges, like here you will find there will be certain points where they will not get the opportunity for promotion, they are not getting the increment, they are not getting the opportunity to grow an advancement.

So, what will they do the employee branding? They will not do any employee branding rather than criticizing the employer's negative branding. So, "sentiment analysis requires a systematic strategy for mining opinions en masse as unobtrusively as possible while transforming the data into the actionable insights and aligning it with the business outcomes." And therefore, it is the required actionable insight is required.

And then, when we are able to align it with our business outcomes, we will definitely be developing that employee sentiment analysis.

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It is simple in theory, but there can be obstacles to collecting and making sense of all this data. Now, you see the major criticism of this survey method is this that is the responded response whether he has understood and then he has responded, whether he has responded honestly, is it the true picture of his sentiments or whatever the that you are collecting.

So, for one thing, many companies have blind spots that leave them unaware of certain issues. So, in the organization culture, this is the requirement that is to have a totally transparent system. And there is communication between the employer and employee, and they both are having honesty, but practically there are certain blind spots. What are the blind spots?

Blind spots mean those spots which are not clear. And therefore, it is not transparent, and we do not know what is the other side is, so that makes us unaware of certain issues. One way to minimize the effects of issues when employees may feel uncomfortable, being completely honest with HR; that is also the one thing that is there.

Now, here the as an HR executive, you are supposed to develop that bonding and relationship and the association with the employees so that they are transparent with you. But the HR person, if he feels that is he is his empowered, and therefore if he is he wants to know the sentiments and then the exploit the employee if that perception is there, then HR will never come to know about the reality.
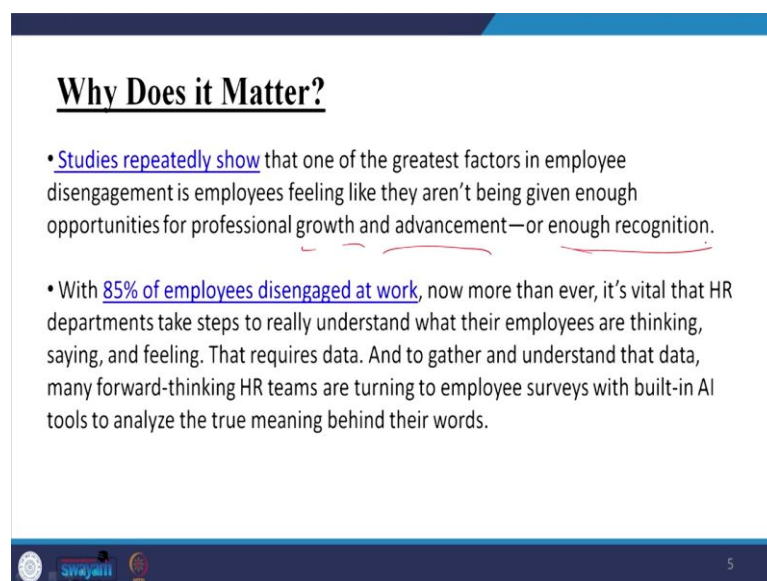
So, HR should be sensible enough and matured. If the HR person is himself is the immature person, then definitely in that case these all these efforts will not make any sense. So, the being completely honest with HR, even if their feedback is anonymous, even when we do the Research and then at the time we say the name is optional, the name is optional, right, but then there is the rest of the data.

So, many times the respondent fails that is from the rest of the data, and they will try to identify; however, we do not try to identify who is who because we are not concerned we are academicians. But in the industry, they feel scared. So, therefore, they are not very much transparent about disclosing their particular data. And if their feedback is anonymous, even there is no name right, it is to disregard data sets that are too small to yield meaningful results right.

So, therefore, either if the data set is huge right and enormous data responses are there, then definitely they will not be the concern that is who is the person and what is the reflection is there. But in the case the data size is small, a small unit is there, a department, a section then definitely it will not be difficult to find out even you are having the anonymous data that whose data is this.

So, to make meaningful results, what is required? You are required to be transparent.

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The studies separately show that one of the greatest factors in employee disengagement is employees feeling like they are not being given enough opportunities for professional growth and advancement or enough recognition. The employees are working for their personal growth, it is understood.

So, organizational goal and individual goals they are to be linked, but in the case when they are not enough opportunity for growth and advancement, even there is no recognition, and then, in that case, this study will say that is they will not have they are not being given enough opportunities right. So, what will the employees do? They will be disengaged, aloof. They may not resign, but they will not active participants.

The irony is this that is how the leader takes this particular situation. If the leader takes this particular situation as a normal condition, then the organization will not grow. But the HR is so sensitive and conscious that is those who are disengaged, and then he tries to identify that is why they are disengaged from the organization, and therefore, in that case, that is they will be looking for more advancement and recognition, providing them the opportunity.

Sensible HR will provide them the opportunity, talking about their growth opportunities, or there will be the advancement means that is job enrichment. With 85 percent of employees disengaged at work 85 percent, now more than ever, it is vital that HR departments take steps to really understand what their employees are thinking, saying, and feeling. This is a very higher percentage.

I feel that is the even more than one-third of your employees as soon as this number crosses, it should be less than that also it is not the any statistical [FL]. But, if it is even more than one-third of the employees, then there should be an alarming situation. And then we have to really understand that what is making them disengaged, the culture, the policies, decision-making styles, the leadership styles, the job nature, organizational prospects, their growth, they are the appreciation.
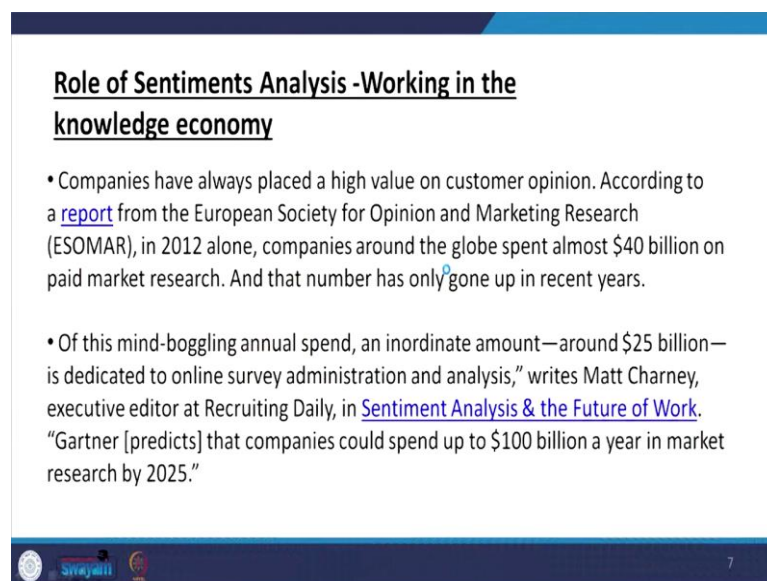
What is lacking, why such a high number of employees are disengaged. So, something is wrong with the organization; it is not with the employees only. That requires data, and to gather and understand the data, many forward-thinking HR teams right, they are turning to employees survey with built-in artificial intelligence tools to analyze the true meaning behind their words.

So, here you can also identify that whatever the responses they are giving, the data is there right, so then you have to identify with the help of the artificial intelligence that is the what is the true meaning behind their words. So, ever to the true feeling behind their words is this that is the organization is great, but we are nowhere. So, that artificial intelligence will tell that is a lack of recognition.

The employee is having the feeling of lack of recognition. And if there is a lack of recognition, their engagement will be low. Whether you call it employee sentiment analysis, opinion mining, or something else entirely, one thing is clear this approach is more than just a buzzword. It is not jargon.

It might just be the answer to the employee's engagement problem that is how to engage the employees. So, do not forget the three formulas – growth, advancement, and recognition. Role of sentiment analysis working in the knowledge economy: companies have always placed a high value on customer opinion.

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According to a report from the European Society for the Opinion and Marketing Research that is ESOMAR into 2012 alone, companies around the globe spend almost dollar 40 billion on the paid market research. And that number has only gone up in recent years.

So, therefore, in that case, that is what is important is that these steps of the survey are becoming very, very popular. And we have to find companies have to find out that is the what are the sentiments of employees.
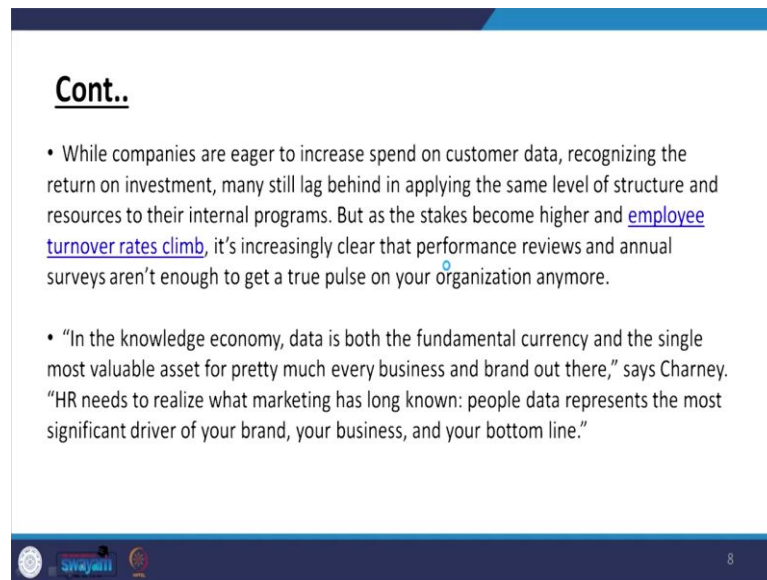
Of this mind-boggling annual spend, an inordinate amount of around dollar 25 billion is dedicated to online survey administration and analysis. What they write Matt Charney, is their executive editor at Recruiting Daily, in Sentiment Analysis and the Future of Work.

"The Gartner predicts that companies could spend up to dollar billion a year in market research by 2025." So, therefore, identifying the sentiment analysis of the employees is becoming very, very popular. While companies are eager to increase the spend on customer data, recognizing the return on investment naturally when you are storing the data, analyzing the data, collecting the data, so you are making a lot of investment – an investment of the time, investment of the cost right, investment on the emotions.

Recognizing the return on investment, many still lag behind in applying the same level of structure and resources to their internal programs. So, when you know that your employees are disengaged, they are not developing ownership for their work, what is required? It is a failure of internal programs. Whatever the practices you are doing, those practices are really not making any change.

So, you have to see your internal programs, and see the customers that are internal employees, and modify accordingly. But if you said it our programs are the best programs and employees are not engaged, then that is the (Refer Time: 16:46) size are closed.

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So, therefore, in that case, but as the stakes become higher and employee turnover rates climb. So, even if you close your eyes, it will not solve the problem, so that will be the employee turnover rates will be a climb; it is increasingly clear that performance reviews and annual surveys are not enough to get a true pulse on your organization anymore.

If you really want your organization to be competitive and survive for a long time, HR has to be very, very sensitive enough to develop this type of these surveys, feedback, opinion, identify, and see the internal programs, connect with them, and develop the connect – emotionally connect, sentimental connect between the employee and organization.
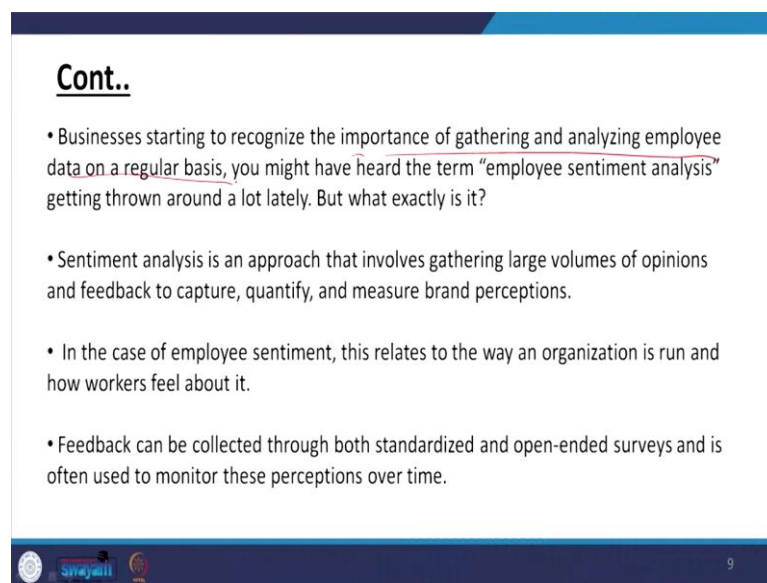
In the knowledge economy, data is both the fundamental currency and the single most valuable asset for pretty much every business and brand out there. So, what is the game? It's the whole game of your data, what your data is collected, and then you analyze, identify the results and then take the actions discussions.

HR needs to realize what marketing has long known: people data represents the most significant driver of your brand, right. So, therefore, employee branding is not by the product, but it is by the employees, your business, and your bottom line is there. So, what is the bottom line of your business? The bottom line of your business is your people.

Businesses are starting to recognize the importance of gathering and analyzing employee data on a regular basis, right; so, there has to be the importance of this culture, research culture. Dear friends, nowadays the analyst jobs are very much in demand, because of this type of the practices whether you are able to develop those practices or not on a regular basis.

You might you heard the term employee sentiment analysis getting thrown around a lot lately. But what exactly is it?

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Sentiment analysis an approach that involves gathering a large volume of opinions naturally from your employees and feedback to capture, quantify, and measure the brand perceptions the which I have already mentioned in the beginning. In the case of employee sentiment, this relates to the way an organization is run and how workers feel about it.

So, that feeling towards the organization right is to be collect and then analyze. Feedback can be collected through both standardized and open-ended surveys. You can use the Likert scale 1 to 7 point Likert scale to get the surveys, and then churn the data, and creating the information, and then writing the discussion, and convert it into knowledge, or you can have the interviews also.

So, many organizations stills are having that is exit interview practices. And they want to know that is why people are leaving, and then they understand their sentiments and then make the changes into the organizations. So, those successful organizations where HR is the backbone, and he is often used to monitor these perceptions over time.

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Surveying an only representative sample of employees would not tell you what the bulk of your workforce is thinking. So, therefore, what is important? A representative sample right that will not only be enough, even if the survey size is technically statistically valid. In order to gauge what the overwhelming sentiment of your workforce is, you need to hear from your workforce as a whole, and frequently, this is very important, as a whole, holistic approach is to be there. You cannot go by isolation.

So, if you want to go for the holistic approach, you have to see the employer, employee, organization, culture, practices, all departments sections right, machine, man-machine, material, money, method, minutes, all six M's are to be taken into consideration to have a holistic structure. To be sure whether the analysis is accurate or not the artificial intelligence will come in. So, we will take certain examples.

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SPS companies incorporation, a steel and pipe supplier, is using emerging technology to measure employee sentiments and get a better sense of how its employs really feel. So, feelings of employees, time to time, maybe during the festivals, maybe at the beginning of the years, maybe in the financial year, maybe after the appraisal, maybe the before appraisal feelings, before appraisal feelings after appraisal, so that is we can do.

Corey Kephart, vice president of HR at Kansas-based SPS, wants the company's 600-plus employees to express themselves in the service. Once the survey question prompted employees to write in as many words as possible, one survey question right.

So, all of your thoughts, what is that? "All of your thoughts, feelings, and emotions about the person to whom you report." Write your all thoughts, feelings, and emotions, and therefore, about the person to whom you about your boss and now, the see the analysis.

The more words that they can use and the more emotions that they can convey in words, the more powerful the more accurate the sentiment analysis is. So, what words they are using in expressing their thoughts, feelings, and emotions about their boss, right. And what the more powerful, the accurate the sentiments they are expressed by those words, that will create more accuracy as a sentiment analyst.

So, it just types an asset type; basically, you know performance appraisal is there. Performance appraisal is two pairs 360 degrees right and these essay types. So, this is an essay type; write about your boss, all thought, feelings, and emotions; write about your boss. So, that is sentiment analysis.

SPS is using the Ultimate Software UltiPro Perception tool, which assigns numerical values because what we said quantify and measure. So, values scores to assess whether a comment is positive, negative, or neutral. Previously, SPS used online and multiple-choice paper surveys as you in the past and to assess the employee sentiment. The surveys were followed by weeks of data analysis.

Sentiment analysis is a new technology for HR, is trying to capture feelings, and it is not limited to surveys in open-ended questions right. So, therefore, it is for capturing the feeling and not as in the only limited to the writing like essay writing which I have given an example it is not only restricted (Refer Time: 24:52) to that. So, you can have the quantitative data also and qualitative data also.

KeyCorp, a company that focuses on HR engagement technology, uses another approach, "tension analysis," to monitor internal emails; now you see that is when you

are writing the last 100 emails you have written, and 50 emails, 100 emails, and then your words of those emails that will be analyzed. So, your mindset will be clear that is what your mindset is.
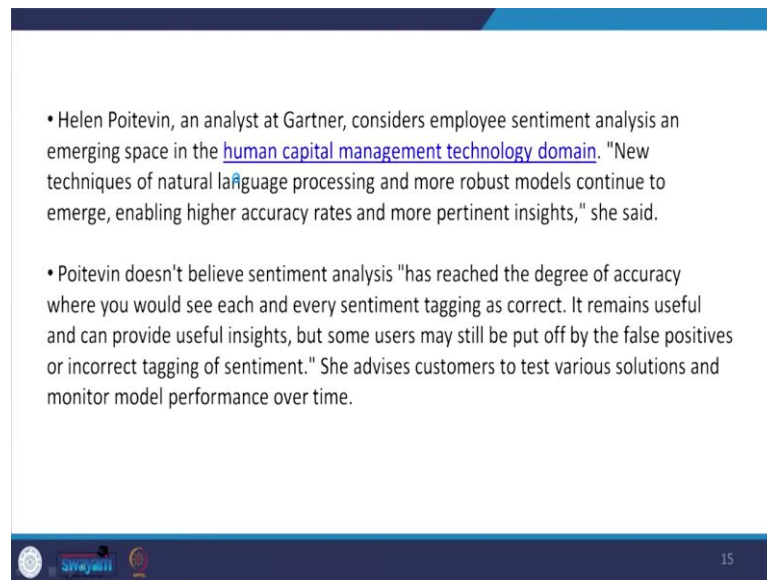
In most of the emails, you are arrogant, aggressive, blaming, complaining to the other party. So, your feelings will be understood. If your emails are having a sense of humor, your emails are very formal, so then there is no sentiment is there. So, that it may be the emails and chats to examine what is going on in the workplace, even in the social media, you will see.

In social media, you just see the last 50 comments by any particular personality, and I am sure as an HR expert you will be able to understand what mindset the person is going on, so that sentiment analysis by the emails written or the chats done, or the words used, or the expression of emotions. It may be able to flag a program.

So, what to do about this information? Design and develop a training program that if this is a feeling, for example, there is no feeling of the ownership, because you find in the all the mails, it is the blame is to the others. In the chatting, it has been seen that is the person is blaming others.

In the communication, in the meetings, his participation is very clear that he is not able to do because of others. So, then you can plan a flag program, how to develop the team building. For instance, if there is sexual misconduct in the department, the analysis may find normal patterns of engagement for the male population, but what may be a giant dip in female engagement is there.

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Helen Poitevin, an analyst at Gartner, considers employee sentiment analysis an emerging space in the human capital management technology domain. New techniques of natural language processing and more robust models continue to emerge, enabling higher accuracy rates and more pertinent inside is there.

In India also we can do this type of analysis through the research work, and especially the employee's sentiment analysis. Poitevin does not believe in sentiment analysis like in the DoMS; during the Research, we keep on doing all this type. In the Department of Management Studies IIT, Roorkee, we keep on doing this type of sentiment analysis, has reached the degree of accuracy where you would see each and every sentiment tagging are correct.

It remains useful and can provide useful insights. Again, in the previous session also I have talked about that is it is the insight is important because whatever the insight is, that will be reflected workplace. It will not continue for a long time to make an artificial presentation.

Whatever is inside there will reflect one day, but some users may still be put up by the false positives or incorrect tagging of sentiments. She advises customers to test various solutions and monitor model performance over time. So, you have to do again and understand if some tagging is coming, you have to judge it, you have to give a trial to see where that tagging is correct or not, and then you decide about what is to be done.

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These technologies fit under the broader category of emotion analytics, and this is tech that can glean employee morale and feel from verbal and nonverbal actions. Non-verbal technology includes video analysis. So, from the body language, from the interactions, from the person's facial expressions right, we can find out through this video that how much his sentiments are involved.

Emotions analytics can examine involuntary micro-expressions, which are invisible to the eye but may capture true reactions or feelings. So, sometimes certain emotions that may not be caught right by the eyes, you may not be able to catch them by eyes right, but may capture true reactions or the feeling is there with this examine is there.

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The perception tool's ability to sort results into the different compare-and-contrast measurements, as well as display it on a heat map and present it on a dashboard, has gotten good feedback from upper-level management.
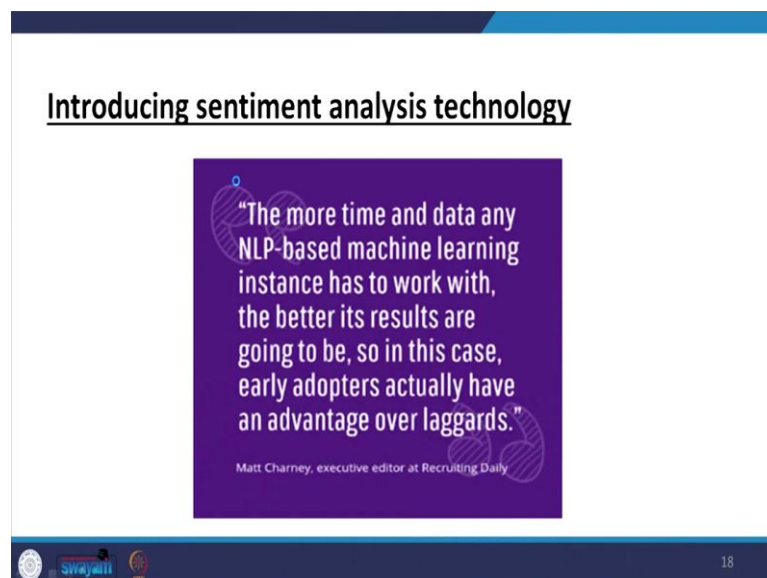
The speed and detail of the results mean that they can begin discussions quickly with managers, right. So, there will be the interactions, and they can give managers feedback "and pivot that into a conversation about the what they could do to develop and grow as a manager into the future."

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So, introducing the sentiment analysis technology more time in data any NLP-based machine learning instance has to work with, the better is results are going to be. So, in thi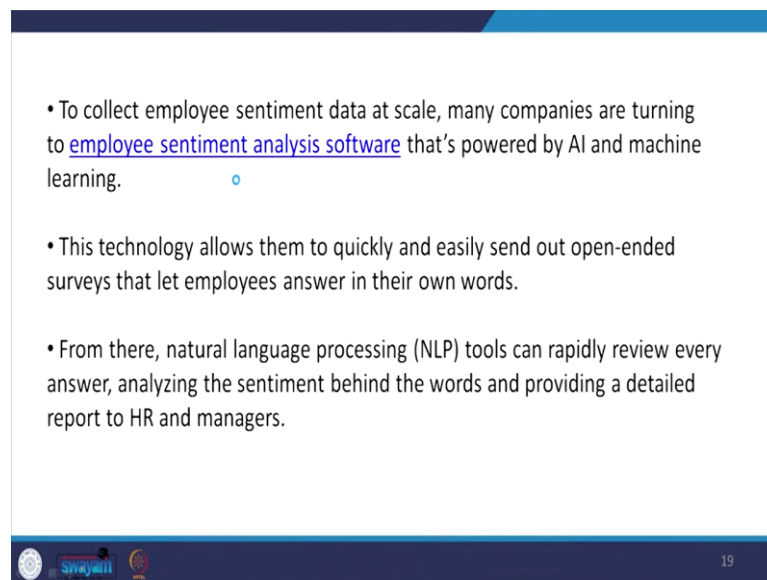s case, early adopters and actually have an advantage over the laggards are there, right. So, therefore, in that case, whenever when you learning programs are there and then learning instances to work with.

It will show how much they are involved engagement is there, and early adopters learners, so that shows that is they are keen they are involved they are engaged to learn. So, their learning is faster, and the focus is there; concentration is there. So, they are fast learners, that is all. So, therefore, they will be much ahead then the laggards.

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To collect employee sentiment data at scale, many companies are turning to employee sentiment analysis software that is powered by artificial intelligence and machine learning. This technology allows them to quickly and easily send out open-ended service that lets employees answer in their own words right.

So, therefore, there should be the Likert scale and responses, but there should be paragraphs also. From there, the natural language processing tools can rapidly review the answers, analyzing the sentiment behind the words, and providing a detailed report to HR and managers right. So, naturally so when they are writing right and they will when it will analyze the sentiments if we find a default report is thereby the HRs and managers. It is not a complete replacement for face-to-face communication.

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It may still struggle to interpret things like sarcasm right, sarcastic, the people are sarcastic, they will be the jargons, and qualified sentiments are there. So, therefore, in that case, this type of reflection with each other you can see. And complex mixed opinions which humans after often have are hard for it to the understanding, so, very difficult to understand the behavior. So, what is required? Become a part of the conversation.

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Far from replacing human rights insights, employee sentiments analysis software is designed to complement it. These tools take care of the more time-consuming aspects of data analysis while providing the HR teams with deeper insights that might otherwise have the missed. That means HR is never going to become obsolete – it is only going to get smarter.

So, always with the period of time and with the technological development, it becomes important that is you are going to use the technology in a smarter way. Now, I would like to take two-three examples of the statements, and then we can find out that is how much the involvement is there.
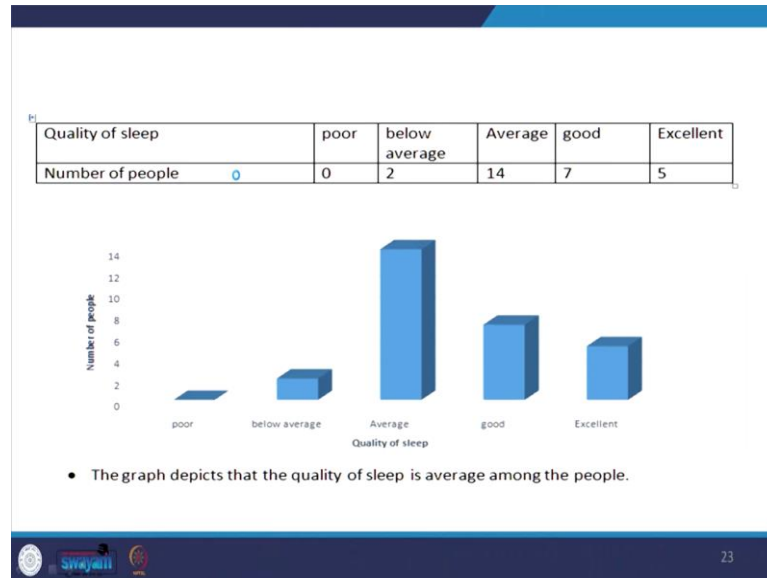
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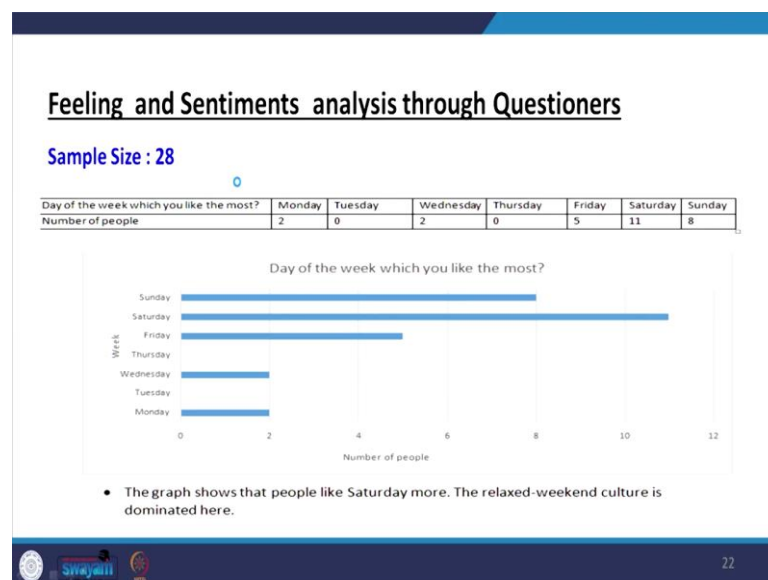
So, here you find days of the weekly which you like the most; Monday 2, Tuesday 0, Wednesday 2, Thursday 0, then Friday 5, Saturday 11, Sunday 8, number of people, these are the responses out of the 28. And here we see the graph shows that people like Saturday is more because there are 11 respondents.

They have shown the more the relaxed weekend culture is dominated here. And in normally most of the organizations, why because the that working at the workplace is becoming more stressful. So, when it is becoming more stressful, then on a Saturday's the person will definitely like to take a rest, and for him, it is not the Sunday, it is a Saturday because tomorrow is a holiday.

So, it means that he has stretched; he wants certain rest that is stressful. So, he wants to relax. Now, another question quality of sleep. So, below average – 2, average – 14, good – 7, excellent – 5 number of people.
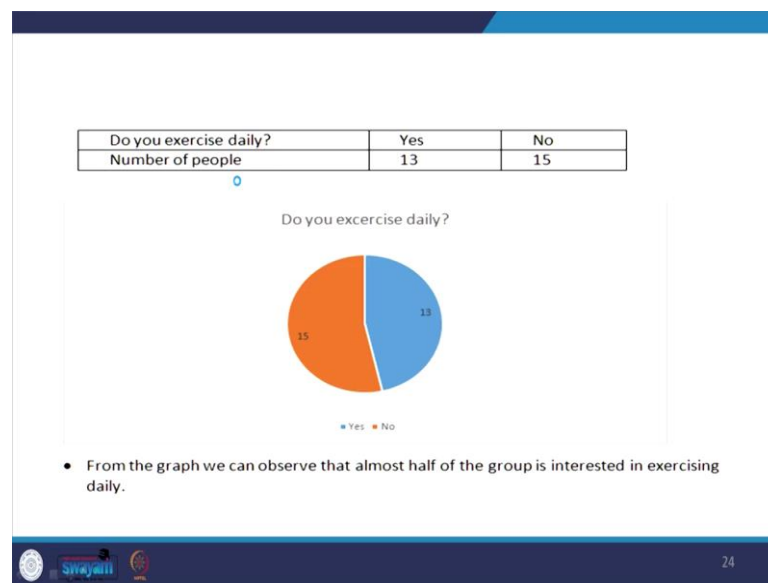
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Quality of sleep	poor	below average	Average	good	Excellent
Number of people	0	2	14	7	5

- The graph depicts that the quality of sleep is average among the people.

The graph depicts if the quality of sleep is average among the people. So, that average quality of sleep is 14. But excellent is 5. Now, they can be two interpretations either they are so much satisfied with their work. So, they are having an excellent quality of sleep right, or they might be they are not concerned with the work.
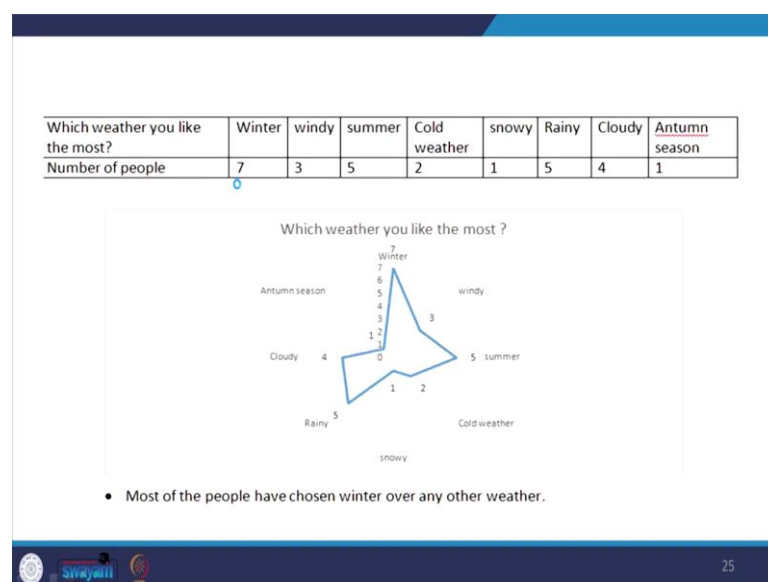
So, they have an excellent sleep, so that will be more answers will be required to support this. The next is the do you exercise daily? Yes and no.

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Do you exercise daily?	Yes	No
Number of people	13	15

Do you excercise daily?

- From the graph we can observe that almost half of the group is interested in exercising daily.

From the graph we can observe that almost half of the group is interested in exercising daily, which is nowadays you find it is to be more relaxing, more competent, more fitness that exercise is becoming important.

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Which weather you like the most?	Winter	windy	summer	Cold weather	snowy	Rainy	Cloudy	Antumn season
Number of people	7	3	5	2	1	5	4	1

Which weather you like the most ?

- Most of the people have chosen winter over any other weather.

Now, here the which weather you like the most? Winter, windy, summer, cold weather, snowy, rainy, cloudy, and autumn season, and here you find the winter. How can you make the data? So, therefore, I have chosen winter over any other weather they prefer to work in the winter. It shows that that is you can keep the high targets in the winter. You

can take the maximum productivity because people are enjoying the weather and they can do the job.
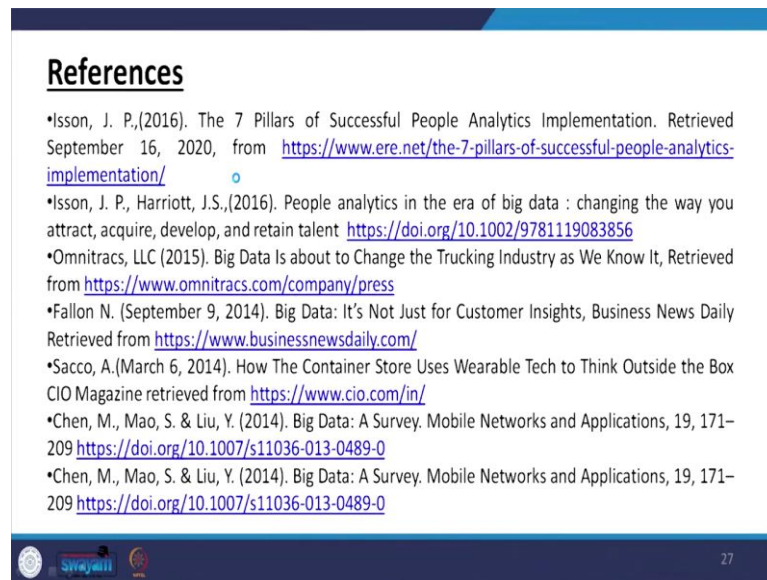
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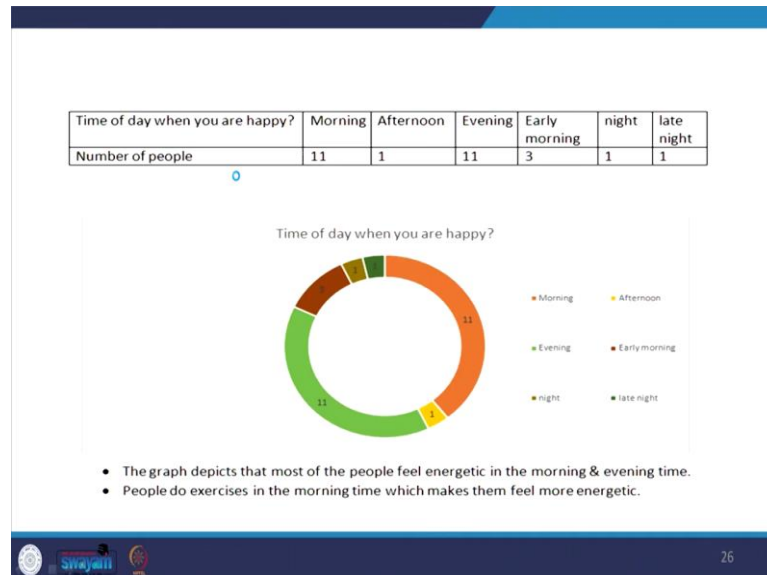
So, finally, we can say a time of the day when you are happy morning, afternoon, evening, early morning, night, and late-night right, these questions are for you also. So, you can find out. So, that is which is the best time for you to listen to this video and to enjoy this video. So, the number of people in is the morning is 11, afternoon 1, evening 11, early morning 3, night 1, and late night 1.

The graph depicts that most of the people feel energetic in the morning and evening time, right. People do exercises in the morning time which makes them feel more energetic. But as the day grows, their energy level goes down. But again if they take the rest the evening again, you will find that is their energy level is increasing.

So, these are the employee sentiment analysis and where you can do the qualitative analysis also and quantitative analysis, and you can identify that how you can do this particular job.

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These are the different references. And therefore, you can find out that is how to engage your employees more, and talented people are to be recognized and see that they are able to contribute. So, this is all about talent acquisition and management. As you know, that is we have taken these study material from the different places and references have been given.

Because there is nothing like a single textbook, there are the handbooks are there, there are the different articles are there, and then there are the edited books are there; so, which have been taken into consideration. I am sure that is you, as a talented employee, will be getting the benefit out of this particular subject and will be able to develop the more talented pool in your organization.

So, in the end, I will say [FL] shiv [FL] Meera [FL] Ganesh [FL] Chanakya [FL] shraddha [FL] Karna [FL] ram [FL] Kuber [FL].

Thank you very much.