HR Analytics

Prof. Santosh Rangnekar

Department of Human Resource Management

Indian Institute of Technology, Roorkee

Dr. Abhishek Singh, Assistant Professor

Department of Human Resource Management

Indian Institute of Management, Rohtak

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Dear participants, you would have learned how to use Power BI, Tableau and Excel for the data visualization in previous session. So, in this session, we will we will learn what type of data visualization that we can do related to the recruitment and selection. So, in first four sessions of the recruitment analytics and selection analytics of remaining four sessions, we have learned various concept, various variable, how we can collect the data related to that and analyze and find out the solution related to some of the problems that a manager face in day-to-day at the workplace. So, in order to visualize that data, whatever data, that variable, that concept that we have discussed, how we can visualize that data through these two visualization tools like Tableau, Power BI, Word, and Excel, how we can visualize. So, that is what we will see some of the graphs which has been prepared through Tableau, Power BI and Excel. So, we will see some of the graphs.

So, let us start. So, these are the content. So, two concepts. So, in this session, we will see some of the graph related to the recruitment and selection, right.

So, let us start with the first graph. So, this yield ratio that you must have seen. So, if you remember, I had asked you when I was teaching in when I was taking the session of recruitment and selection analytics in that I had asked you to prepare this graph. So, that is how you can present it. So, here you can see like total application.

So total application, here you can see total application is not, number of total application is not mentioned in the, in term of percentage that is there. So if you want, you can add the number also here along with the percentage. So for example, like in total application, in this recruitment process, you receive 1000 application, right? And then 71%, so you can say 710 application got selected. after the screening criteria and 32 percent cleared the

round 1, 13 percent cleared the round 2 offer generated. So, 13 percent cleared the round 2 and whoever has cleared the round 2 all participant received offer letter and how many people have received the accepted the letter that is the 11 percentage.

So, if you have prepared this yield ratio right for the recruitment and selection activity, now you can calculate the various ratios like job acceptance rate, what is the job acceptance rate, Yield ratio. And here if you have this data in front of you then you can make a decision if you for a next year if you have to hire 11 percent or 11 percentage like for example just 100 employees you need to hire then at least 1000 application you need to generate. So, that is how you can make some of the estimation about the data that you need to generate the next year and so here in term of the presentation you can make a presentation in this way. So, this is the just one way that I am telling to you. You can make a bar graph also, you can mention the initial total application round 1, round 2.

it is not important which type of graph that you are making here, that you have to decide which type of graph that you have to make it, so that the you have a better understanding about the data. So, here so this is the one of the way, this is the another way you can make a pie chart, you can make a a bar graph and you can make some other types of graph. But my suggestion is here before using any data visualization tool you must have an idea about which type of graph that you are going to make. If you do not have then you may struggle on x axis what you will write, on y axis what you will write. So, when you are preparing this excel sheet make a list of all those variables and visualize in your mind which type of graph that you can make it by using this data visualization tool.

So, once you open this tool, what you can do, you can see what are the options are available and according to the data which one is best suitable to your data, you can select that graph and you can make it on the basis of that. So, let us see some of the graphs that we are seeing related to the recruitment and selection. So, one of the graph that we have seen. Next we can see in term of male and female. So, this is that that is what you can see how many male have applied, how many males are selected, how many have cleared R1, how many have cleared R2 and offer generated .

Similarly, you can see in term of the female also, right. So, female also then now you can calculate the percentage, now you can calculate the ratio the moment you have this visualization in front of you. So, it is not necessary you have to use only this visualization, you can use any visualization, but you have to be very much clear if you are using and you are making any graph, what is there on x axis, what is there on y axis, clear representation should, presentation of the data should be there, right. So, it will help you to calculate the various types of the ratios and help you to understand the number better. So, right, so another type of graph, so if you, the total number of applications were there and in this you

can divide this total number of applications gender wise and then gender wise you can calculate the various types of the ratio.

Next ratio that you can see here HR initiative, so like competency results, so who are, so what what this competency related so technical skills and business skills so whatever pool is there so in that how many people are having various types of the technical skills so now you can see 94 percent 74 percent and 50 percent right high medium low and then you can give a name of the skills also right and then you can understand right so that is how you can visualize this is another way Next that you can see this tableau, through the tableau how you can make the dashboard. So, here you can see what are the data is there that you can just try to interpret what is the data. So, here you can see this period of stay versus department. So, department wise how many days people are staying. So, here you can see first thing that you can see average period of stay, right.

So, here female candidate is there and male candidate is there. right and here you can see average number of stays there. So, Latin, Asian, Black right according to the ethnicity you can see what is their average period of stay and department wise also you can see here like. what are the departments are there. So that is how you can visualize these data by using the Tableau.

So if you are using the Tableau and then you are preparing the dashboard, so such kind of dashboard that you can prepare. So how to make this dashboard through the Tableau? the practically I have already shown in the previous sessions, right. So, but here I am using the data related to the recruitment and selection and showing some of the visualization of the various visualization tools. So, this is, this is the dashboard that you can prepared by using the Tableau, right. So, here you can see joining status, right.

So, just you can see on time, recruitment, department, right and then you can see how many people have joined when middle management yes you can see and then here this side you can see departments are there late more than two months right, you can see 3 people have joined, late 1 to 7 days only 1 person has joined, 1 to 2 month 2 person have joined. So, the joining data is there department wise, when offer is given after that offer how after how many days people have joined the department and what is the number. So, that is what you can check it here, right. Next that you can see, so if you want to give some of the colours to these various department that also you can do. So, here you can see the office wise that earlier it was department wise, here you can see office wise or city wise.

So, in a city as well as this department also there right. So, in a department management person is there, technician is there, extra person, finance person right. So, the type of job that person is doing and then You can see here the visualization through the color and that

representation is here. So you can make this type of graph also in order to communicate the joining date and delay in the joining date. Now you can see related to the budget.

So, proposed versus actual. So, now you can see if you want to see whatever budget that was allocated to you, have you used the budget completely or you have used more than that. So, now you can see what are the locations are there. So, here you can see on x axis city names are there, on y axis that sum of total budget and actual budget is there. So this colour, colour you can see the sum of actual budget that is the red and blue that you can see sum of the proposed budget, right and then you can see this state wise, right that count of gender, state wise that is what you can see here and city wise that you can see here.

So that is how you can make these bar graphs more attractive by use by putting some colours into it, right. So but again I am repeating that if you have to make a good graph once you have prepared this excel sheet in excel sheet along with the variables you must have an idea what kind of graph that you are going to prepare next that you can see average salary by the department right so here various department names are there and then average salary also mentioned like average salary by date of joining so when this that somebody joined so what was the average salary of all joining employees, whoever is joining on x, y, z particular date. So, whoever x number of employees are joining then what is the average salary of those? Average cost per hire by the department. So, here you can see average cost per hire by the department. So, but in these graphs you can see some mistakes also there like here return title of the graph is average cost per hire, but by the department, but department   name   is   not   there,   right.

That is what you can see here. So, that is what I am recommending you whenever you are making this graph, you must have clarity what is x axis, what is y axis and what is coming on that. Then only you will be able to make some sense from these graphs otherwise not. And now you can see this average salary by the cities So various cities, what is the average salary, right? Difference in date of joining city-wise, right? So now you can see the difference in city-wise and joining source from where people are coming. So here you can see Naukri, LinkedIn, internal, null, any direct, right? So that is what you can see.

So that is how you can say if, so here you can count 60, 81, 90, 19. So 90, 100 and 104. So, 104 employee have joined. So, for their joining according to the source is presented here. So, maximum number of people have joined who got the reference from the or who got   the   institute   organization   received   the   application   through   Naukri.

So, that is what clearly presented here, 60 people have joined through the Naukri. So, the source of recruitment that you can see, so if you have to check the effectiveness of the source of recruitment. So, Naukri could be one of the effective recruitment right through

the Naukri because the maximum number of people are joining from there. Designation wise that you can see count how many people are joining. So, what is their designation on which position the people are joining.

So, here you can see maximum number people have joined on network engineer training. followed by network engineer and then followed by senior network engineer. And difference in date that is what you can see like what the date of joining was given to them and on which particular date that they have joined. So, after how many days, how many days they have joined. So, that is what you can see somebody join after 8 days, somebody join after 16 days, right, somebody joined after 41 days, 6 days, so that is what you can see that number of people who have joined and out of that how many people joined on time and how many people joined late and if they joined late then how many, after how many days they have joined.

So next dashboard that you can see here. So what are the titles that are mentioned on this? That is what you can see. So candidate per location, right? So if that recruitment activity is taking place in more than four or five cities so you can write the name of all those cities and as per the city in one particular city how many people have joined so that is what you can write candidate hires per month so in a particular month how many candidates have been have joined the organization right so that is what you can see here selection of month and preferred so such kind of dashboard that you can prepare through the excel also right and hiring status that you can see is presented through the pie chart, right and hiring status is presented through bar graph also. So, here you can see the hiring status is presented through pie chart and hiring status is presented through bar graph also right. So, that is why I am saying it is up to the manager which type of graph that suits to you and which of which type of graph that you believe is going to present the better data in your context.

So, you select that particular type of graph. It is not necessary, I have shown bar graph, so you will also make it the bar graph. It is not necessary, just I am giving you some of the examples so that you will be able to visualize which graph that you can use when you are having the Excel. So, when you are having the Excel, think about the variable and about the chart or graph that you are going to make, representation. So, here you can see another way of presenting year wise, in one particular year how many employee have joined on.

So, that is what you can see. So, this data says that clearly you can see in 2022 highest number of the employee have joined in the organization. So that is how prepare you can prepare the dashboard through even excel also. So this graph presents the region for separation. So why people are leaving the job. So this is presented through the pie chart.

So now you can see the total number of people absconded 259 right. So that you can see

the reason why they have left. So 8% asked to leave, right? And 5% because of the better opportunity.

3% passed away. 3% passed away. That is what you can see here. Total getting married because of the marriage. 8 people have left.

Higher education 58%. Total medical 110%. Total personal 206%. PIP 1. So that is how you can see the reason for the separation. So why people have left the job. So when people have left your organization, then what you can do? You can analyze, right, what is their reason, why they have left.

And if you want to make this pie chart, you can make it pie. Again I am saying all types of graph is open to you, how you want to make it, it is up to you. So one of the example that I have presented and discussed here that is the pie chart. Next, again through the tableau, through the tableau that you can see here, right, so through the tableau that you can see here, the same attrition analysis that you can see here, so how many people have region for the attrition, how, why they have left, so here you can see the region for separation, so these are all regions are presented and you can match the colour and then you can understand how many people have left. For example, for personal reason that you can say 205 people have left, right.

Similar way absconded that number that you can say 259, right. So, that is what you can see here why people have left the organization right and here you can see even location wise also right. So, here you can see location wise also. So, this this dashboard is prepared through the tableau. Now, you can see here gender gender wise right department wise achievements lab right.

So, that is how you can make various types of the line and bar graph here that is what you can see in order to analyze the, if somebody ask you, so what is the, what is the use of this representation? If somebody ask in which gender higher level of attrition is there? So, here you can, so by this bar graph clearly you can say that 1692 male have left the organization and only 1312 female candidate have left the organization. So, male people have left or more as compared to the female. So, you can say that in male higher attrition is there. Next graph talks about the sources of recruitment. So, what are the various sources of the recruitment? So, again you can see the all sources are mentioned and how many application we have received from the various sources.

So, for example, from career builder we have received the 23 application number of positions available in the organization. So, now according to the positions. how many positions are available. So once the x axis, you have written the all positions name.

On y axis, number of positions are there. So for example, IT support, eight people are required. So these are the vacant positions and number. So that is how you can present. And after this, the recruitment and selection is done. On the same slide, you can change the color and you can add how many positions are filled and how many are still.

vacant right. Here you can see the gender ratio right. So male and female, career builder and male that we receive, female candidate that we receive 16 and male we receive the 7 and total that you can calculate that is the 23 right. So that is the example that we have taken here and here you can see the total number of in pie chart that we can say how many males are there and how many females are there. So here you can see the female candidates are more 176. So if you will add these all bar graph and then you will get 176 and in the case of this blue colour, you will get 135 that is the male so male and female wise and source wise also you can present in this way marital status so how many are married and how many are divorced right separated single widow so based on that based on their marital status you can present in this way average compensation per recruitment source right so how much salary that we are paying as So, that as per the source so that is what if you want to calculate you can do that. So, diagnosis if you want to do the diagnosis where is the attrition is high in which case so source and then you can see how many people are there and   how   many   people   have   left.

average tenure per recruitment channel. So, that is from which source people are coming and joining and staying for longer period of time. So, that is what that is how you can. So, number of days or number of months, number of years that you can present it, right. So, here you can see number of days work and then if you want to put it in convert these days into the years or in the month that is what also you can do it. Average tenure gender wise, so gender wise, so male stays more in the organization or female stays more in the organization,   that   is   what   you   can   see.

Average tenure position wise, so this basically this is in depth we are doing the attrition analysis. So, position wise that we are understanding from which source more people are staying as per the position. Average tenure as per the marital status. Absenteeism from which source people are more absent, recruitment sources versus average salary and number of year that they have worked, forecast the turnover. So, then the moment you have calculated   their   average   source,   salary,   number   of   days   worked.

So, now based on this for the next year you can predict how many people may leave, right? Sources of hire and diversity of hire, right? So, from which sources? So, you can see here. Campus hiring, consultant, referral, job portal. So, this is also another way of representing the various sources of hire and diversity of hire. So, how many males are there, how many

females are there, how many city wise. So, if you remember this diversity, in the diversity case I had discussed the two type of diversity, deep diversity and surface diversity.

So, here you can see surface diversity data is there. in term right. So, sources of hire and diversity of hire that is what you can say and next important variable average time to fill. So, various job positions are there and how much time has been taken. So, if for example, if your average time is 30 days to fill. So, anything that is going beyond the 30, you can red flag it, because it is not supposed to be done, but it is happening.

So, various colours that you can use to represent or to highlight the issue, right. Here, data analysis, role, expectation, fulfilment, the source of hiring. So, people who are joining, so they have received the same role which they were expecting. So, that is what you can see here, how many people have received the same and how many of them have not received. So, here you can see ABC consultant, the blue colour, right, 58 percent people have received this, the same role which they were expecting to get it, right.

So, thank you. I hope you would have learned how to visualize the data related to recruitment and selection by using various recruitment and selection tools.