HR Analytics
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Week: 2
Lec 10: Data Visualization Power BI – 3

Dear participant, welcome to Power BI third data visualization session. In this session, we will learn how to develop the formulas and do the calculation in the Power BI. In first two sessions of the Power BI, we have discussed how to identify the key variable in which you have an interest and then make the graph related to it, right. You have to make some calculations in the Power BI, how to do those calculations that we will understand in this session. So, to understand this calculation part, we will discuss the attrition analysis, right, how many people have left the organization and how many people are still working with the organization after one year of their joining. So, as you already know, we are discussing this recruitment data.

So, in this data we have created dummy data for the attrition also. So, after one year how many people are still there and how many people have left the organization. We will learn in this session. So, let us start the practical on Power BI software.

So, dear participants, this is the excel sheet that we were discussing in last two sessions also. So, in this session also we will discuss the same. So, here that attrition one column that I have created yes, so once I clicked on this, so two options are coming yes or no. So, yes indicates that employee have left the organization, no indicates that employee is still working with the organization. So, by clicking on this simply we can count how many people are working and how many people have left the organization, right.

So if I say yes, it means employee have left the organization. So now we can see how many people, 168 person have left the organization, right, out of, right, 516, right, that was the number. So if I will put no also, so then you can count it how much it is. So it comes If I will increase to it, so just let me recount it. So, if I will go, so this number is, So out of 516, 168 people have left.

So this is the data that we got through the Excel. Now let us do the same exercise in the Power BI. So how we will do this in the Power BI? So let me open. So next to Power BI that is what I am opening. So from the Excel we have counted how many people, so total

number   of   persons   are   there   156.

and 168 people have left. So this analysis that we have to do in the Power BI. So first thing that you already know this is the screen. We will click on this get data, click on excel because we have excel data. So I have clicked on this new Power BI file.

So now it is loading. So here you can see that sheet 1 has come. I have selected and clicked on load. So   it is loaded also. So now it is coming apply changes.

So once it is loaded I will click on this apply. So now you can see the sheet 1 is visible here. I will click on this expand all. So then all variables will be applicable, will be visible to here. So now first thing that we will do, first we will count it how many employees   are   there.

So this thing that I had already done in the first session, but again we will do it, so head count, right? So how many employees are there? So we will write, we will click on new majors, head count equal to distinct count, right? I hope you remember. So distinct count we had taken the serial number. So we selected it, distinct count, seat 1, serial number, right? And close the bracket, just click on this. Just after closing the bracket press the enter so you will get this head count right. So head count that is what we got it.

So now we can use this card right and put it into the head count. So total number of the employee have joined the organization that is the 516. Now we want to know how many people have left the organization, right? So again we will click on new majors, right? This formula is little bit complex, so please pay attention here. So major is coming, so at the type of major we will write exit, right? So exit, so how many people have left? So we will have written exit. Right and then equal to then calculate right calculate and after so we   have   already   created   the   head   count   so   calculate   head   count   right.

Now that attrition sheet is there from that sheet we want to know how many people have left. So I have just press this comma just to separate it then attrition, right? Sheet attrition equal to inverted comma yes, right? Yes, inverted comma close, close the bracket. So this is the formula that we have created. So what we have done in order to calculate the exits, so we have selected the calculate, headcount comma attrition equal to yes. Yes indicate that   people   have   left   the   organization.

Now we will press the enter. So now you can see this exit has come. Exit has come in the data. So now exit has come. So now we want to know how many people have left.

So just we will create this card. Card has come and now exits that we can put into it,

right? So 168 people have left the organization. So, if we want to know how, what is the percentage of the people that have left the organization? What is the percentage of the people that have left the organization? That is what we want to know. So, again we will go to the new majors. New major, so attrition per cent is equal to exits divided by headcount the way we do in an Excel slash headcount close the bracket right.

So exit will be divided by head count if you wanted percentage so you multiply here only multiply by 100 just press the enter, and now you can get the percentage. So what is the percentage? 32.56 percentage is there, right. So now you have calculated the headcount percentage. Now you want to do the analysis by source of inter-application, right.

So for that what you can do, how many people have left, so source of application, so this A chart that you will do it so exits will come in Y and source of application will come into the X. Now you will get it the number and go to this visualization below format visuals and just on the data. Now you can see maximum people who have left the organization they were they were coming through the Indeed. right? And minimum people have left 15 that they were coming through the naukri.

com. So, now you can understand this thing, right? What is the source of application and how many people have left it, right? So, one column that you have already done it, right? So, now let me take this next sheet so by source of application that is what we have understood how many people have left and the percentage that is there how many people have left the organization and how many are there both information is there and source of application is there let us assume now we want to know what is the status as per the gender right so gender So, exits that I have put, I have selected the graph and then I have taken this exits and put it into the Y and gender wise. So, gender wise, yes. So, now you can see this data is there, gender wise. So, almost in both genders, same number of people have left. So, just let me write data levels.

now you can see 85 females have left and 83 males have left the organization. Same thing that you can do with department wise also, city wise also, education wise also. So let me make, let me make these graphs quickly. So I hope you would have understood how to calculate the attrition. Now I am doing this analysis department wise, city wise, education wise, So, if I want to understand city wise, right, so I have selected the graph again, one second let me click here, city wise, so exits in y, right, city in x, so now this is the data from the city wise, right.

Let me visualize, put the numbers also, so data levels are there, right. So, maximum people have left from the Chennai, minimum have left from the Bangalore. So, next time

if you are making the recruitment plan, then you can think about this Chennai, fit issues are there, what is the region, why they are leaving, you can think about it and then you can do the analysis related to it. Same thing that you can do for department wise, right.

So, let me select another graph. and department wise so exits that I have put into the Y and departments that I have put into the X. So you can see maximum people have left from the operations here right. So you can increase the size of this graph so that it will be visible right. So maximum people have left they are from the operations. In department if I want to know from which city people have left the maximum.

So marketing, so now you can see marketing, male have left more. Let me check for finance, male have left more. In operations you can see female have left more. So this is a interactive in nature. So once you have created this graph then ask the questions to yourself and get the answer from here.

So, that is what you can see. So, let me create one more graph which is left. Gender I have created education wise. Education wise it is remaining. So, let me give a number to it quickly and then I will move to the data levels on.

So, data levels are on. So, now you can see this exits. Now, let me make it education wise. So, let me select another graph. So, education wise, so I will put education into the x and exits into the y and let me give the level also.

Yes, levels are on. So now you can see maximum people have left, you can say almost PG and UG have left the, who have left the organizations, PG and UG they are the same and minimum PSD. So now you can say if you have to hire, if you want to reduce the attrition rate then you can hire more PSDs. So that is how you can analyze the data, right? Now you can have the story. So entire story that you can say like 516 people have joined the organization, 168 people have left the organization within a year, right.

Attrition rate is 32.56, right and various source. So in a source of application highest attrition is there in the indeed and newspaper followed by newspaper. right and then you can say exit by the genders so by gender that you can see almost same number of similar number of people have left the organization by city you can see Chennai is having the highest exit by departments that you can say so operations people are having the highest and then exit by education that is what you can see. Now in a if you want to know in a exit female candidate right. So, here you can see in PG maximum number of female have left the organization right.

In PSD you can see male are the maximum. So, that is how you can select and then you

can get the answer of other questions also which are coming in your mind. So, once you will see the graph of these all all graphs then some other questions may come in in your mind. So, what you can do just you click on one of the parameter if you are interested city wise analysis just check city wise if you are interested in a department wise just click on department if you are interested. By education wise particular education impact that you want to see is there any relation that you want to understand. So you can check right if you want to see the gender wise so you can click on gender.

So these are the questions as a manager after making this graphs that you need to make and then you need to understand the pattern. So, I hope you would have understood this attrition analysis. Dear participants, in third session we have calculated the exits. So, in a excel I had explained this option is there yes or no, then how you can count make a head count then you can calculate this attrition rate this exits and you can calculate the percentage and after that you can understand this analysis you can do the analysis in depth analysis department wise experience wise. right and then you can make certain type of graphs and you can interact with these graphs, you can ask these questions.

So what is my suggestion is in this Power BI in an excel also you will see some of the calculations and some of the graphs. So what is my suggestion is here once you have this data with you any data whether it is related to recruitment, whether it is related to performance, whether it is related to training and development So, have a understanding of that data. So, how you will have this understanding? So, what type of questions that are being asked at your workplace? And then see whether you have collected the data related to those questions or not. and then develop your matrix. How to develop the matrix? Some of the important matrix related to the each functions that you will see from the   next   week   onwards.

My request to the all participants, please create the dummy data related to these all functions and do a practice on Power BI and Excel. And in the last week of this program, you will have a session on Tableau right and then you can do a practice on Tableau. So now from second week onwards I would request all participants to download the Power BI and use pivot table as much as you can. So I hope you would have learned how to use this a Power BI in order to do the analysis. Thank you.