Customer Relationship Management
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Lecture - 11
Building Customer Relationships (Contd.)

Hello everybody, welcome to the NPTEL course on Customer Relationship Management. This is Doctor Swagoto Chatterjee from VGSOM IIT Kharagpur who is taking this course for you.

So, we are in Week-2 and this is Session-4 and I will be discussing about the various kinds of problems of or reasons why customers actually switch. And I have come up with an actual case data which we will be discussing in this particular class.

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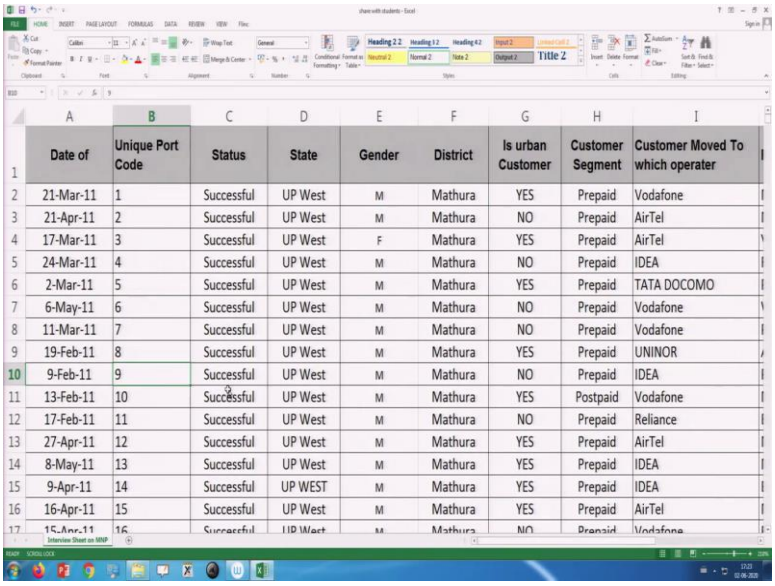

	Date of	Unique Port Code	Status	State	Gender	District	Is urban Customer	Customer Segment	Customer Moved To which operater
2	21-Mar-11	1	Successful	UP West	M	Mathura	YES	Prepaid	Vodafone
3	21-Apr-11	2	Successful	UP West	M	Mathura	NO	Prepaid	AirTel
4	17-Mar-11	3	Successful	UP West	F	Mathura	YES	Prepaid	AirTel
5	24-Mar-11	4	Successful	UP West	M	Mathura	NO	Prepaid	IDEA
6	2-Mar-11	5	Successful	UP West	M	Mathura	YES	Prepaid	TATA DOCOMO
7	6-May-11	6	Successful	UP West	M	Mathura	NO	Prepaid	Vodafone
8	11-Mar-11	7	Successful	UP West	M	Mathura	NO	Prepaid	Vodafone
9	19-Feb-11	8	Successful	UP West	M	Mathura	YES	Prepaid	UNINOR
10	9-Feb-11	9	Successful	UP West	M	Mathura	NO	Prepaid	IDEA
11	13-Feb-11	10	Successful	UP West	M	Mathura	YES	Postpaid	Vodafone
12	17-Feb-11	11	Successful	UP West	M	Mathura	NO	Prepaid	Reliance
13	27-Apr-11	12	Successful	UP West	M	Mathura	YES	Prepaid	AirTel
14	8-May-11	13	Successful	UP West	M	Mathura	YES	Prepaid	IDEA
15	9-Apr-11	14	Successful	UP WEST	M	Mathura	YES	Prepaid	IDEA
16	16-Apr-11	15	Successful	UP West	M	Mathura	YES	Prepaid	AirTel

So, the data that I have collected here in this particular class is ─ has been collected from a company which is, I would say, telecom company. And from a particular part of India this data has been collected. So, the dates have been given, there is some unique porting code which we have coded as let me just put it in a ─ [vocalized-noise] Yeah, so now, you can see probably

So, the unique port code the so the codes that you get in your when you try to do mobile number porting is something that is written here. And because of issues related to the, I

would say, privacy and etcetera we have changed the code numbers. And I have just written 1, 2, 3, 4, 5, 6 and the quoting status was successful or not porting status was successful or not are the state from which the data has been collected.

The gender of the people, the district whether they are urban customers or not urban customers. And the segment: whether they are prepaid or postpaid customers which provider they wanted to move and what are the reasons that they had for mobile number porting.

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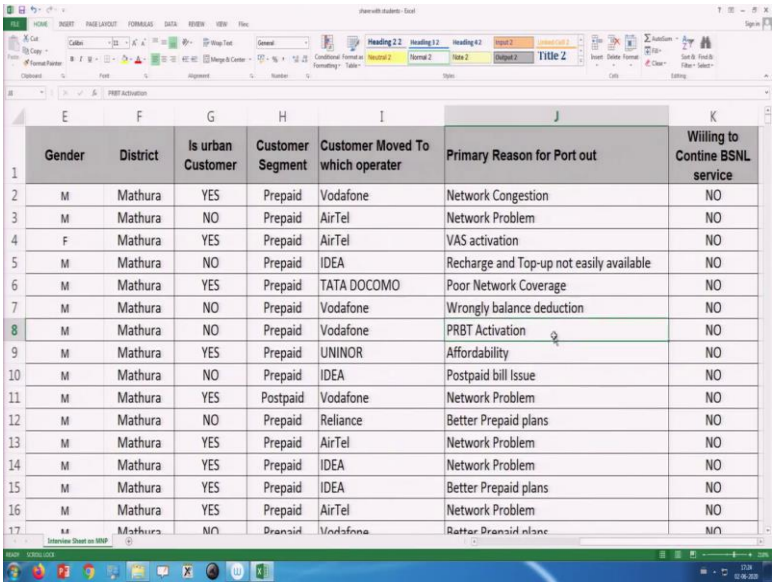

	E	F	G	H	I	J	K
1	Gender	District	Is urban Customer	Customer Segment	Customer Moved To which operater	Primary Reason for Port out	Willing to Contine BSNL service
2	M	Mathura	YES	Prepaid	Vodafone	Network Congestion	NO
3	M	Mathura	NO	Prepaid	AirTel	Network Problem	NO
4	F	Mathura	YES	Prepaid	AirTel	VAS activation	NO
5	M	Mathura	NO	Prepaid	IDEA	Recharge and Top-up not easily available	NO
6	M	Mathura	YES	Prepaid	TATA DOCOMO	Poor Network Coverage	NO
7	M	Mathura	NO	Prepaid	Vodafone	Wrongly balance deduction	NO
8	M	Mathura	NO	Prepaid	Vodafone	PRBT Activation	NO
9	M	Mathura	YES	Prepaid	UNINOR	Affordability	NO
10	M	Mathura	NO	Prepaid	IDEA	Postpaid bill Issue	NO
11	M	Mathura	YES	Postpaid	Vodafone	Network Problem	NO
12	M	Mathura	NO	Prepaid	Reliance	Better Prepaid plans	NO
13	M	Mathura	YES	Prepaid	AirTel	Network Problem	NO
14	M	Mathura	YES	Prepaid	IDEA	Network Problem	NO
15	M	Mathura	YES	Prepaid	IDEA	Better Prepaid plans	NO
16	M	Mathura	YES	Prepaid	AirTel	Network Problem	NO

And the last one is whether to, willing to continue with BSNL or not. So, the data has been collected from BSNL and this is the basic data that that we have got. The customer names have been hidden, the customer other details have been hidden so you will now what you will know that who this particular customer is, but basic reasons of why customer has switched can be generated from this kind of a data.

So, when we run customer relationship management and as I told there is a there has to be an exit interview in the last session I told. The exit interview's data which is as simple as this ─ which is nothing very big.

So, during the exit you just ask him two-three questions you have his gender his or her gender, you have the customers location, you sometimes also know in which service provider he has ported or not. But you might not know why this guy is trying to leave.

So, you have to ask in two three questions that why you are trying to leave? What are the,what are your perceptions about the price? What are your perceptions about your service quality? And etcetera. So, the moment you do that that will be enough to go ahead with.

So, in this particular session I will take a small probably 15 minutes/20 minutes session. In that we will do some analysis of this kind of a data to create certain input. Now you have to understand that this is very basic analysis. In actual statistical analysis when we try to do, we do much in-depth analysis; we do a very pretty big survey probably 10-15 questions. And we do sometimes structural equation modeling sometimes a casual relationship, sometimes experiments to see that what kind of things will work, what type of things will not work.

But, if you are a customer service manager or a customer relationship manager and it is not needed that you have to be very technically heavy. Sometimes it's also okay to have a broad-level data to have ─ to take decisions then and there. So, that is something which is important we will be doing that in this particular class.

So, how I will analyze the data? If you have this data set with you please open the data set and then go to insert and click on this pivot table. So, click on this pivot table.

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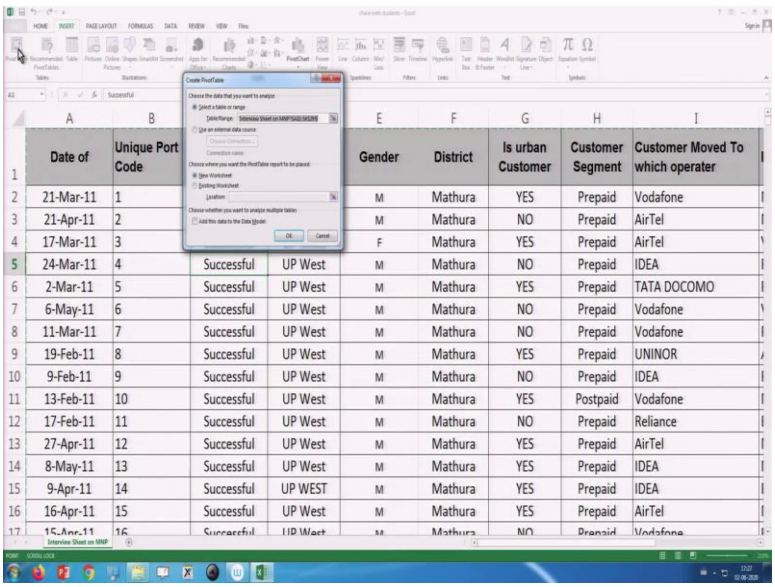

	A	B	C	D	E	F	G	H	I
1	Date of	Unique Port Code			Gender	District	Is urban Customer	Customer Segment	Customer Moved To which operater
2	21-Mar-11	1			M	Mathura	YES	Prepaid	Vodafone
3	21-Apr-11	2			M	Mathura	NO	Prepaid	AirTel
4	17-Mar-11	3			F	Mathura	YES	Prepaid	AirTel
5	24-Mar-11	4	Successful	UP West	M	Mathura	NO	Prepaid	IDEA
6	2-Mar-11	5	Successful	UP West	M	Mathura	YES	Prepaid	TATA DOCOMO
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12	17-Feb-11	11	Successful	UP West	M	Mathura	NO	Prepaid	Reliance
13	27-Apr-11	12	Successful	UP West	M	Mathura	YES	Prepaid	AirTel
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15	9-Apr-11	14	Successful	UP WEST	M	Mathura	YES	Prepaid	IDEA
16	16-Apr-11	15	Successful	UP West	M	Mathura	YES	Prepaid	AirTel

So, whenever you click on this pivot table this will select the whole sales the all sales together and you press OK.

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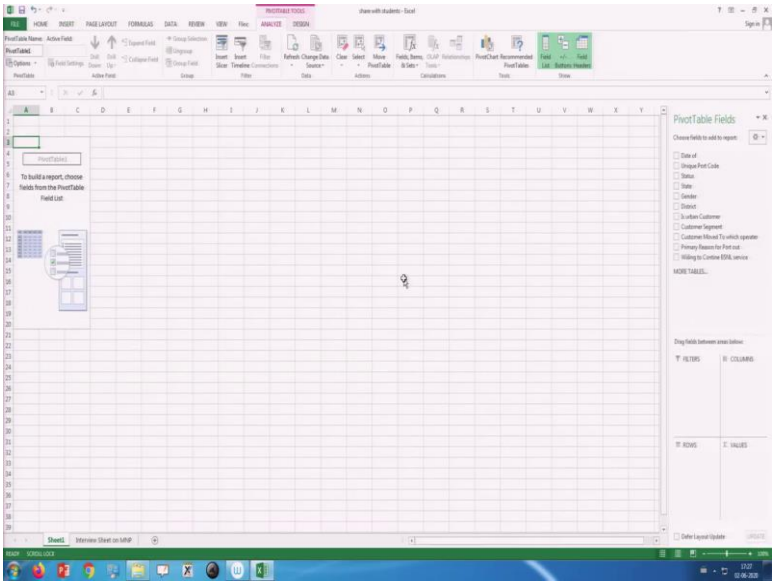

So, that will create a view like this. This is the pivot chart's view in which in the right side you will see that all the items all the table headers are there. And in the in the left side the basic charts and plots is something that you are going to create.

So, you I hope that many of you already know pivot chart. So, what I will do is, I will just drag this customer reasons for porting out in my rows.

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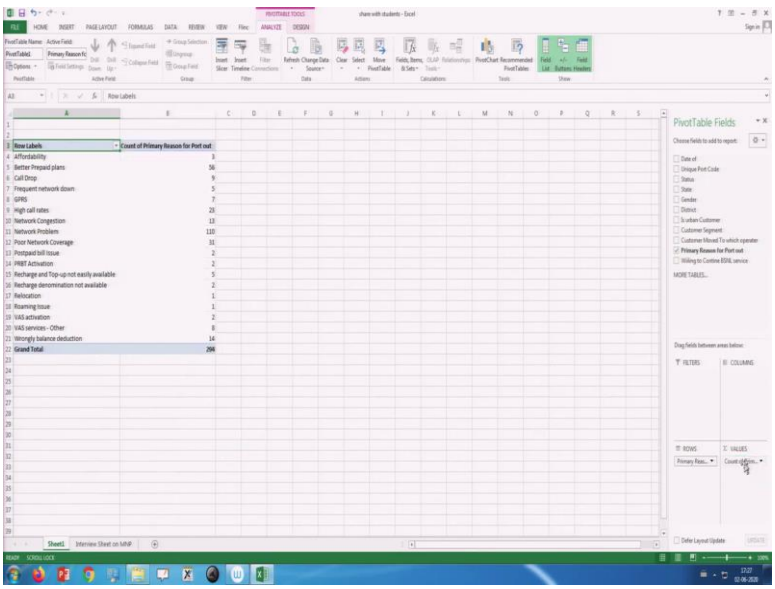

And this is for porting out in the values also. So, this gives me the counts what are the various this is why customers ported out.

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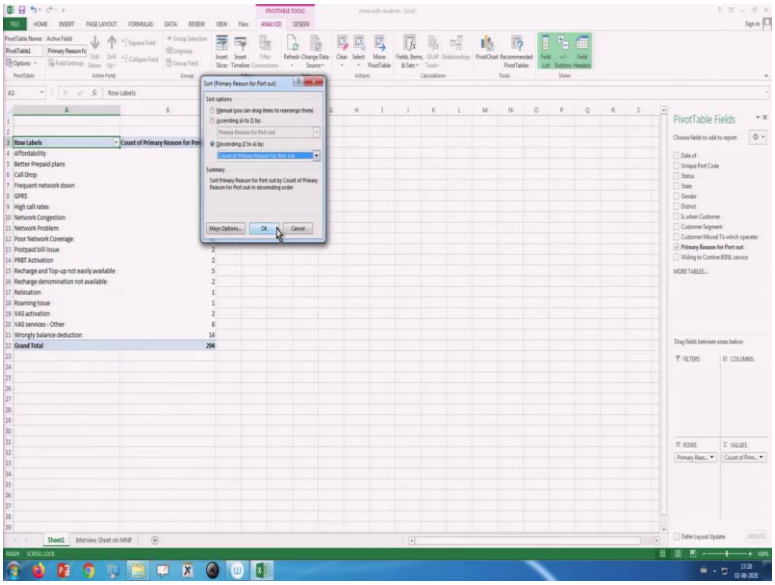

And what I will do is I will sort based on ─ sort in the descending order of count of primary reason for port out.

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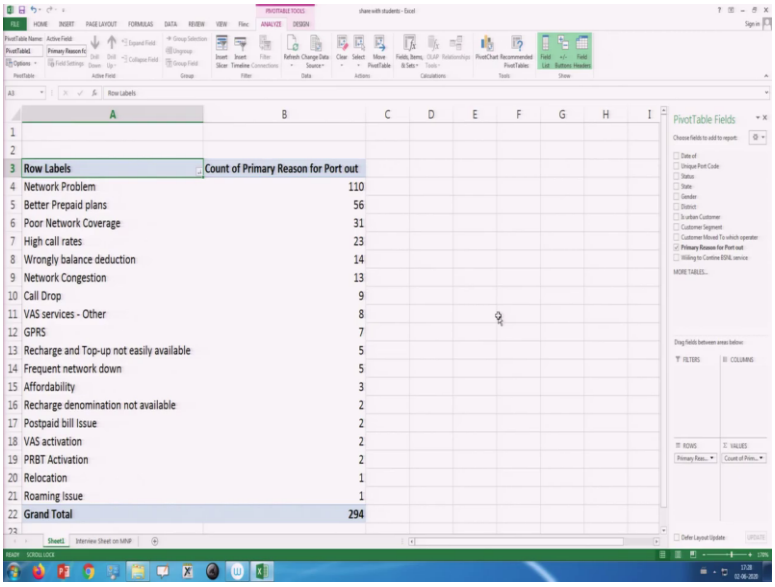

Row Labels	Count of Primary Reason for Port out
Network Problem	110
Better Prepaid plans	56
Poor Network Coverage	31
High call rates	23
Wrongly balance deduction	14
Network Congestion	13
Call Drop	9
VAS services - Other	8
GPRS	7
Recharge and Top-up not easily available	5
Frequent network down	5
Affordability	3
Recharge denomination not available	2
Postpaid bill Issue	2
VAS activation	2
PRBT Activation	2
Relocation	1
Roaming Issue	1
Grand Total	294

So, basically in this Axis I am creating a descending order. So, you will see that if I just focus on this one why people wanted to port out ─ the reasons of people being ported out. So, the most ─ the biggest reason is basically the network problem.

So, why BSNL will have a network problem? When BSNL will have a network problem? BSNL will have a network problem when? So how network problems can be solved? By putting more towers as simple as that. Why don't BSNL put more towers or any company is putting ─ not putting more towers in the locality from where this particular data has been generated?

Because this person felt that, he will not attribute the problem to his phone. If he has attributed the problem to his phone he would have bought a new phone, but he will not attribute the problem to his phone ─ he will attribute the problem to the service provider. And when he attributes the problem towards the service provider he thinks that this guy is ─ I am having network problem; that means, what?

That means, this particular guy is not putting enough tower in my area. Why he is not putting enough towers in my area? Because this particular company might think that this particular locality is not profit generating: or not valuable for them.

So, in and out as I told in the last class that the major thing that you will be, this is the major reason why you will be switching is that you will have a feeling that this particular service provider or the company doesn't care about you; network problem talks about that.

If the product was bad they would not have bought BSNL at all initially. They found BSNL to be suitable that is why they have bought and now they are switching because they feel that enough care has not been taken about them. So, that is something that we can see here.

And if I try to just see that what are the next problem. So, next problem is better prepaid plans ─ which is related to price. Poor network coverage; which network problem and poor network coverage should be similar so this number will be 141 in that case. High call rates is again related to price, wrong balance deduction this is the service issue, network congestion, this is again a network issue.

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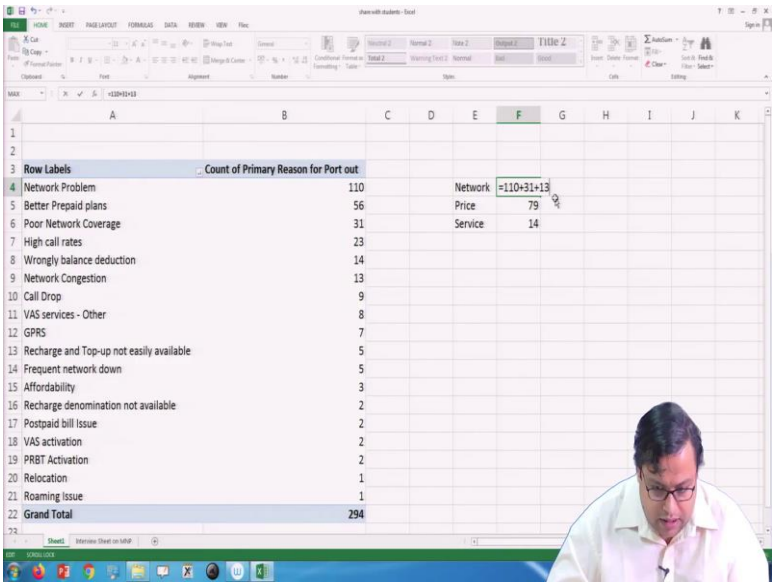

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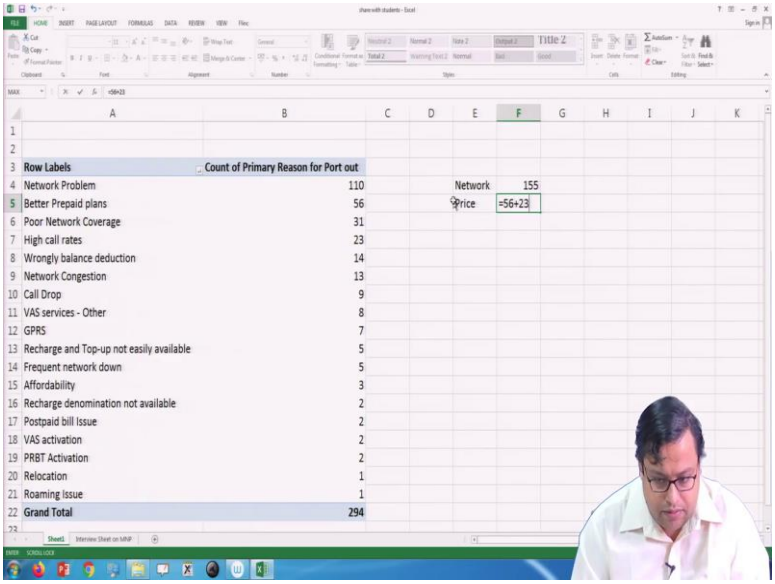

So, you can say if I just do a little bit of maths. So, network issue is as of now 110. So, so let us plus 31 plus 14: this is network issue as of now.

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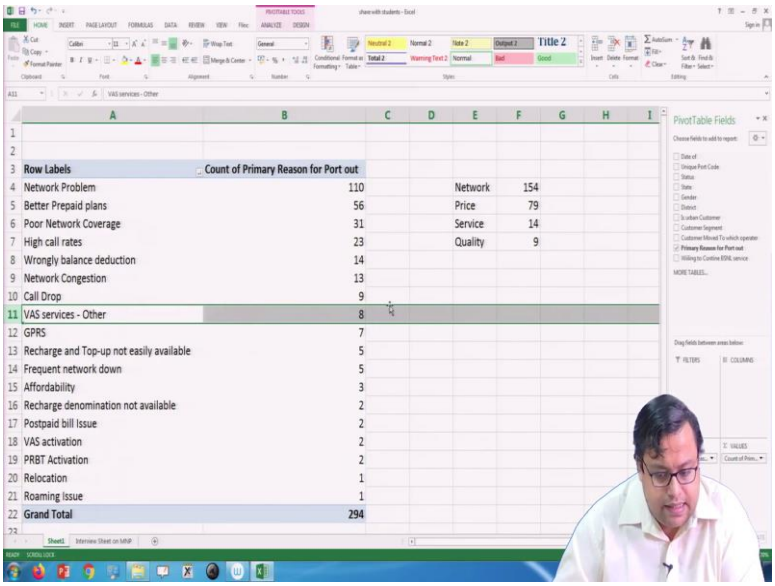

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Roaming Issue	1
Grand Total	294

Network	154
Price	79
Service	14
Quality	9

And then price, price is basically 56 plus 23 as of now. Then wrong balance deduction is a service issue. So service, service is as of now 14. The next is ─ then comes network congestion which we have already included here. So, so this should be 13, I would say, not 14 okay.

Then call drop call drop is still a quality issue. It is, it might be a network issue, but it is also a quality issue. So, I would say quality which is 9 and then VAS-Value Added Services is 8 which is a service issue so this becomes 22 now.

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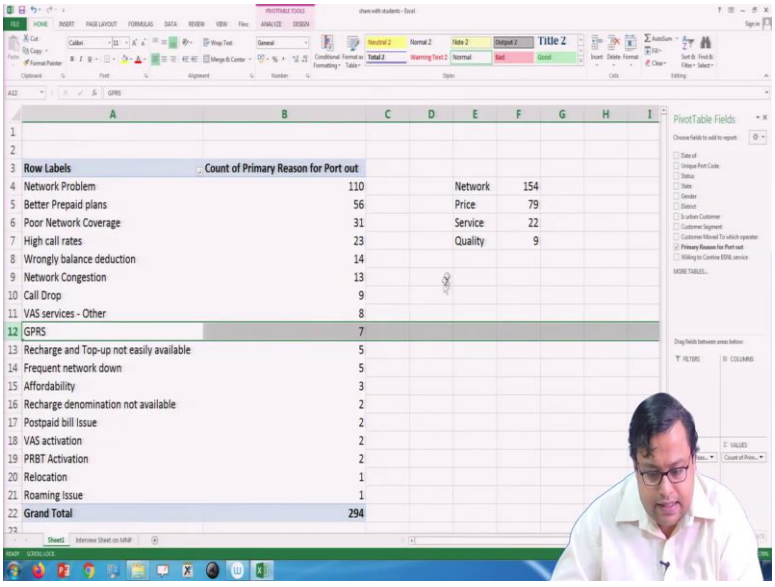

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VAS activation	2
PRBT Activation	2
Relocation	1
Roaming Issue	1
Grand Total	294

Network	154
Price	79
Service	22
Quality	9

Then GPRS is 7 which is again probably a service issue I don't know 29.

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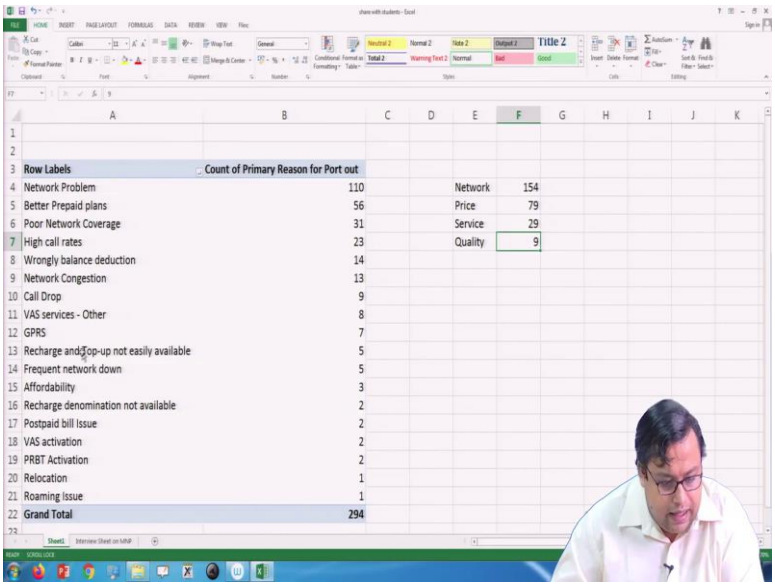

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Postpaid bill Issue	2
VAS activation	2
PRBT Activation	2
Relocation	1
Roaming Issue	1
Grand Total	294

Network	154
Price	79
Service	29
Quality	9

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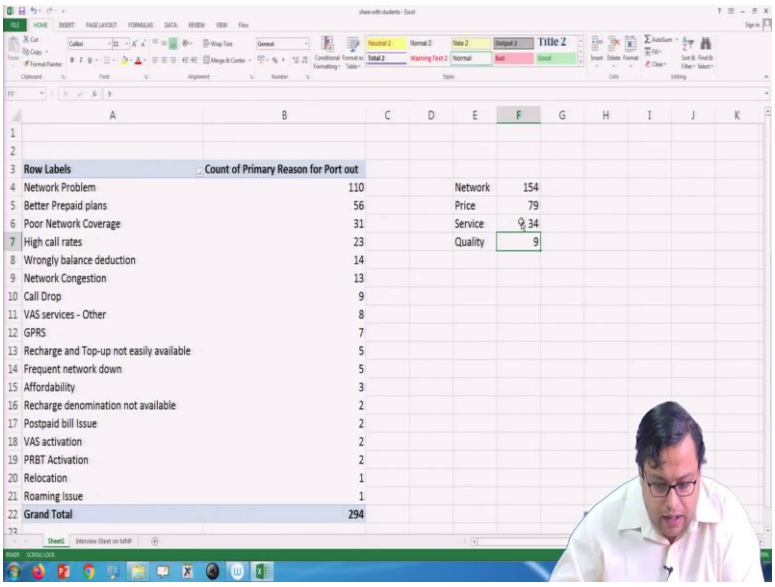

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Network Congestion	13
Call Drop	9
VAS services - Other	8
GPRS	7
Recharge and Top-up not easily available	5
Frequent network down	5
Affordability	3
Recharge denomination not available	2
Postpaid bill Issue	2
VAS activation	2
PRBT Activation	2
Relocation	1
Roaming Issue	1
Grand Total	294

Network	154
Price	79
Service	34
Quality	9

And recharge top up not easily available definitely a service issue - 34. And then, frequent network down, network down again so another 5, 159.

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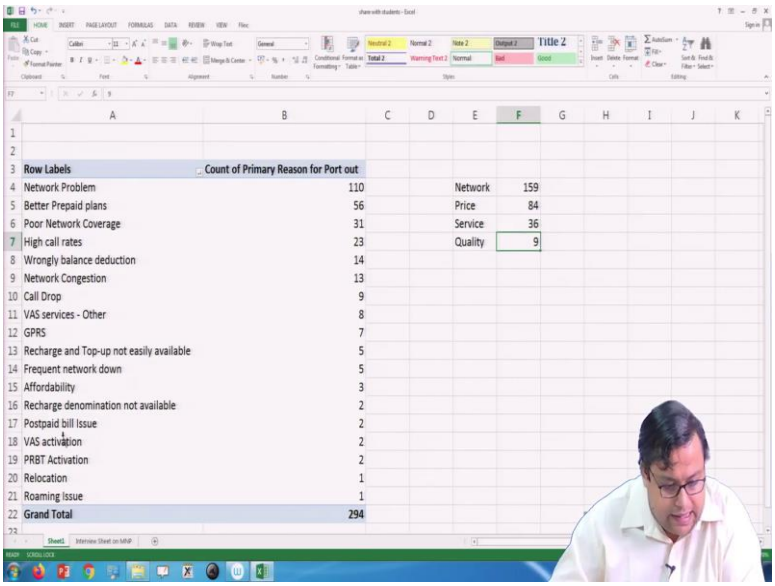

Then comes affordability another 3, so 82 this becomes recharge denomination not available certain denomination means smaller denomination is not available. So, that is probably a little bit related to price 84.

Postpaid bill issue is again a service so this is 36. And VAS activation VAS activation is also service 38.

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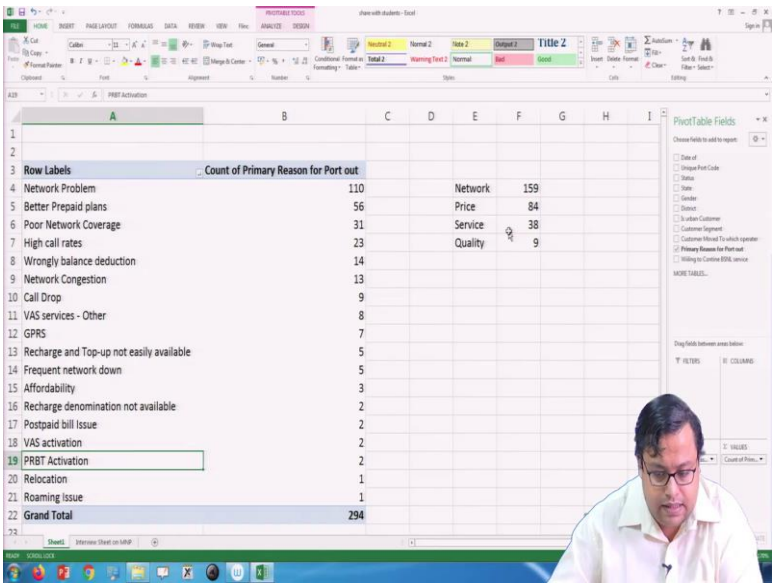

So, often times you activate the VAS on your own, value added service.

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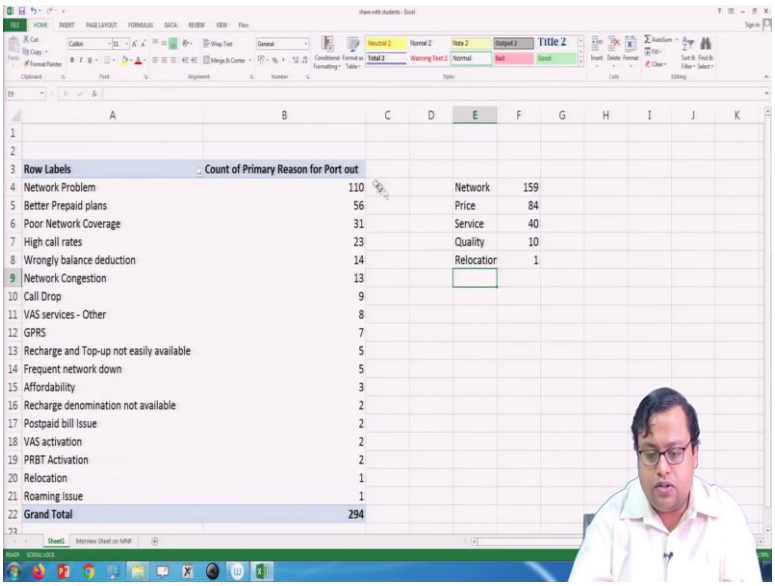

PRBT activation is again another 40. And relocation and roaming issue roaming is still probably a quality issue and relocation is only 1. So, moving out of market the one that I was talking about is only 1. So, this is what you get ultimately.

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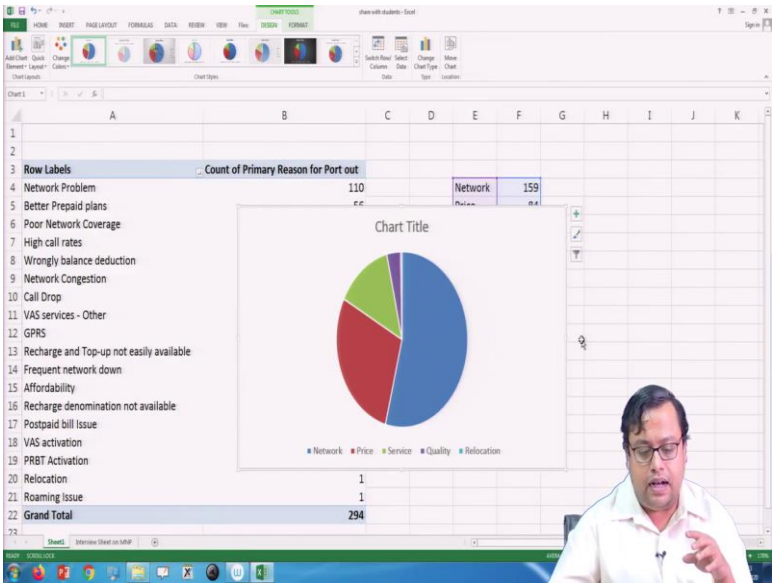

And if I just insert a pie chart, does this pie chart look similar to the one that we have created we have seen in that box? That one major chunk will go for the network issue which is related to you don't care.

And then some people go for the price issue and some people go for the service issue that whatever kind of service you are providing. So, this is what I tried to say that whatever you thought what the reasons major reasons were also there in this particular part of the world. So, the major reason is still that the services are not good.

Now, the next part I will see that whether this particular things vary depending on the nature of the customers or not. Let's see whether the thing that we told is how much that is generalizable.

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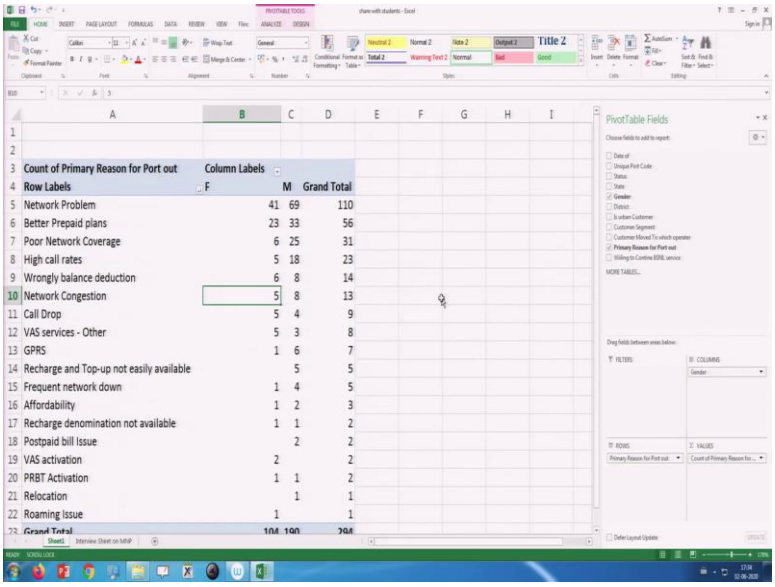

So, it will be generalizable only when ─ that is true for all types of customers. Let's put gender: so male and female I have created this data set the same data set based on male and female.

So, do you see that for female for male gender network coverage is probably 69 plus 25 plus majorly this 8? So, 33 plus 69 comes out to be 102 right? 69 plus 30 yes 99 plus so, 102.

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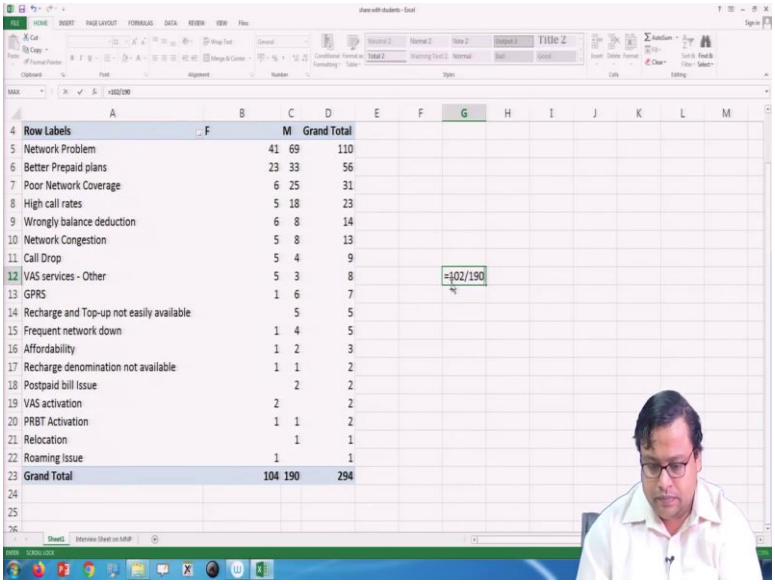

Row Labels	F	M	Grand Total
Network Problem	41	69	110
Better Prepaid plans	23	33	56
Poor Network Coverage	6	25	31
High call rates	5	18	23
Wrongly balance deduction	6	8	14
Network Congestion	5	8	13
Call Drop	5	4	9
VAS services - Other	5	3	8
GPRS	1	6	7
Recharge and Top-up not easily available		5	5
Frequent network down	1	4	5
Affordability	1	2	3
Recharge denomination not available	1	1	2
Postpaid bill Issue		2	2
VAS activation	2		2
PRBT Activation	1	1	2
Relocation		1	1
Roaming Issue	1		1
Grand Total	104	190	294

=102/190

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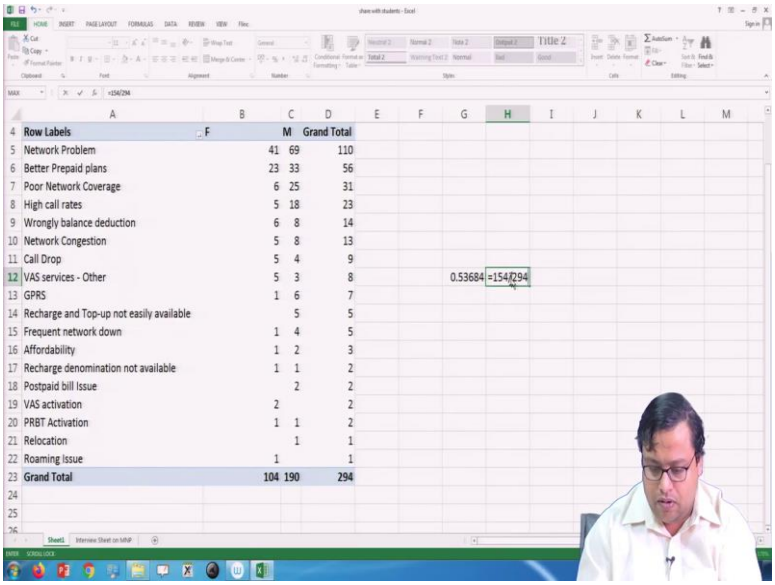

Row Labels	F	M	Grand Total
Network Problem	41	69	110
Better Prepaid plans	23	33	56
Poor Network Coverage	6	25	31
High call rates	5	18	23
Wrongly balance deduction	6	8	14
Network Congestion	5	8	13
Call Drop	5	4	9
VAS services - Other	5	3	8
GPRS	1	6	7
Recharge and Top-up not easily available		5	5
Frequent network down	1	4	5
Affordability	1	2	3
Recharge denomination not available	1	1	2
Postpaid bill Issue		2	2
VAS activation	2		2
PRBT Activation	1	1	2
Relocation		1	1
Roaming Issue	1		1
Grand Total	104	190	294

0.53684 =154/294

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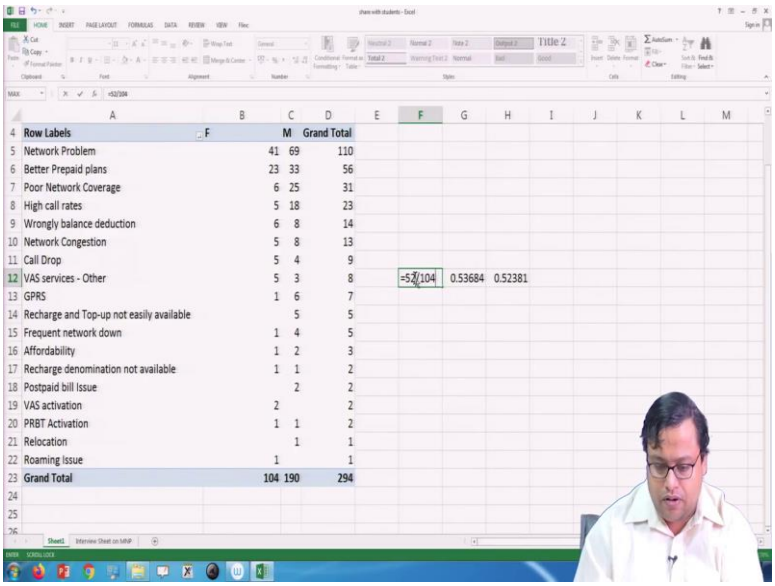

So, 102 out of 190 that comes up to around 53%. I think that is similar was the case for the total one. So, 110 plus 31 plus 13: if I leave the other one.

So, 141 and plus 13 154. So, 154 divided by 294 is still similar right? And for the female also 41 plus 6 plus 5 so 41 plus 11 which is 52, 52 divided by 104 is almost 50%. So, you will see the pattern is same.

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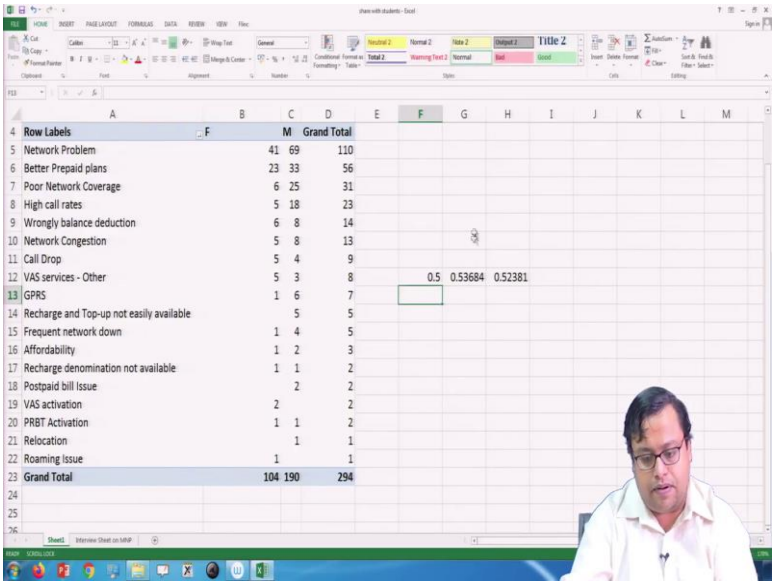

So, if we do a simple the Chi Squared test between the reasons and gender and not gender you might say find that there is no significant difference. So, that gives me an

idea that the reasons that we have found out which are the major possible reasons for which people switched is consistent over gender.

Gender has little impact on, gender might have some impact on the pricing part you can say that whether the price. So, we can so not caring is a major problem for both of the case. The next biggest reason that we found was the pricing right. So, we can check you can check that whether the price is also coming up to be the major reason for both male or female or not. So, that is how we try to check. Now gender I will leave.

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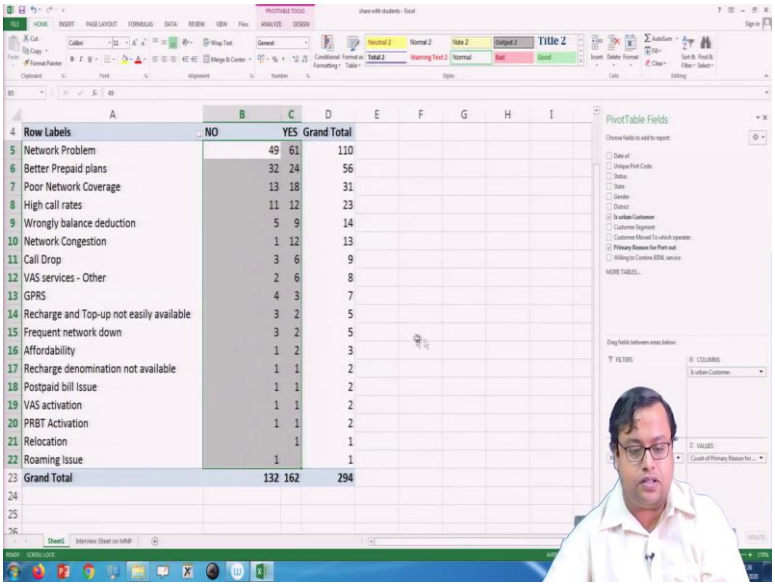

Row Labels	NO	YES	Grand Total
Network Problem	49	61	110
Better Prepaid plans	32	24	56
Poor Network Coverage	13	18	31
High call rates	11	12	23
Wrongly balance deduction	5	9	14
Network Congestion	1	12	13
Call Drop	3	6	9
VAS services - Other	2	6	8
GPRS	4	3	7
Recharge and Top-up not easily available	3	2	5
Frequent network down	3	2	5
Affordability	1	2	3
Recharge denomination not available	1	1	2
Postpaid bill Issue	1	1	2
VAS activation	1	1	2
PRBT Activation	1	1	2
Relocation		1	1
Roaming Issue	1		1
Grand Total	132	162	294

The next thing is let’s say, whether he is an urban customer or rural customer. So, that is also are the important factor. So, we can see that 132 customers are urban 162 customers are rural.

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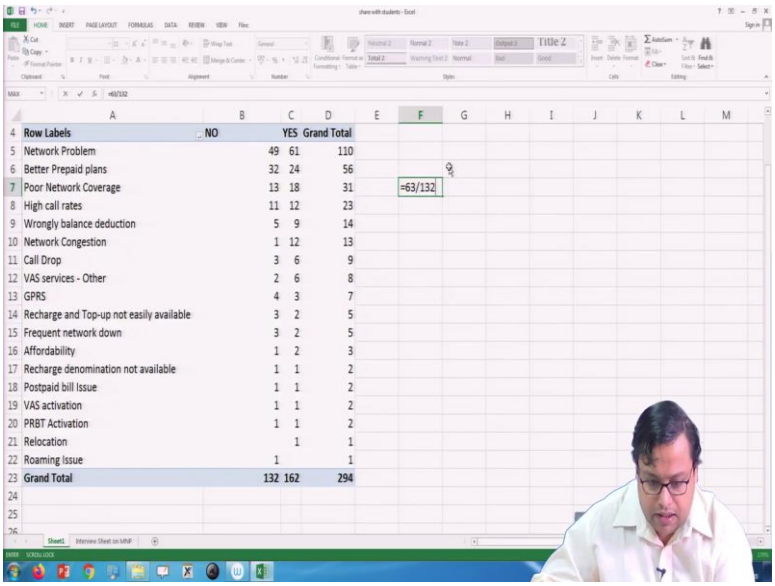

And in that case if I just see ─ see how much is 49 plus 13 plus 1 so 49 plus 14 which is 63 divided by 132.

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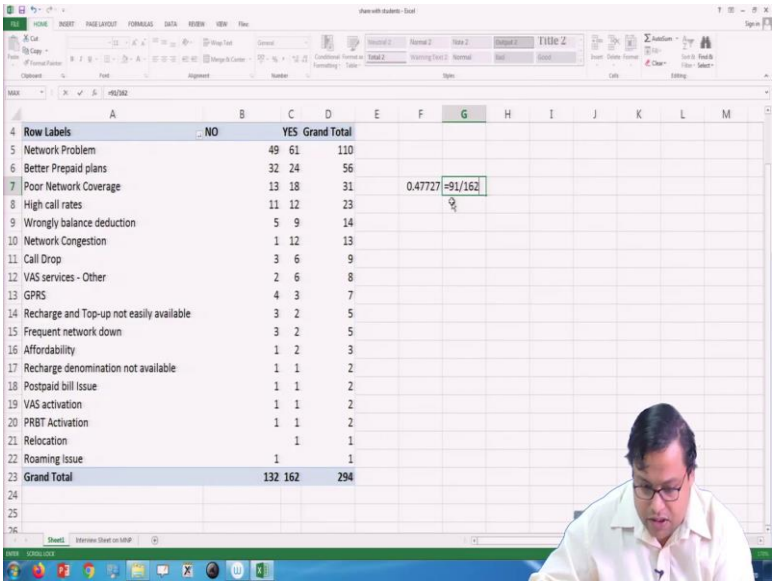

And in this case 61 plus 18 plus 12 so 30, 91 divided 162.

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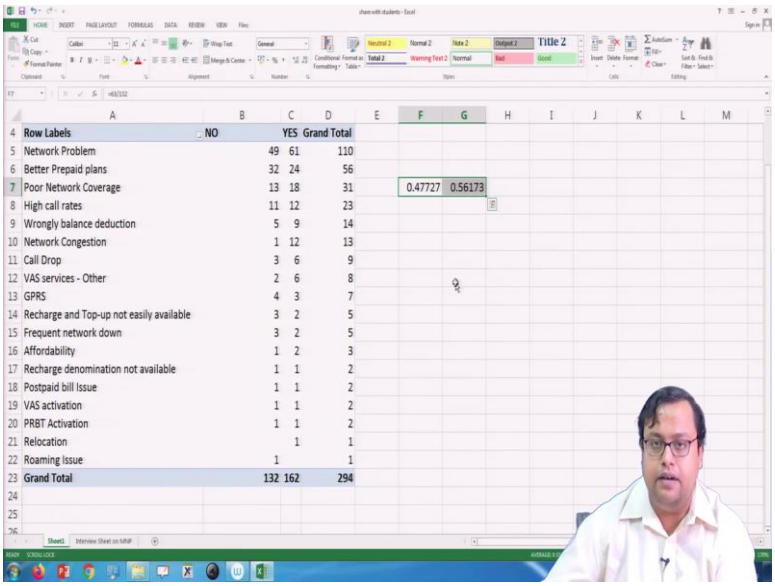

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Postpaid bill Issue	1	1	2
VAS activation	1	1	2
PRBT Activation	1	1	2
Relocation		1	1
Roaming Issue	1		1
Grand Total	132	162	294

0.47727 0.56173

Now these two maul numbers are pretty different. So, 47% and 56% probably if you run a Chi Squared test you might get a different result. Which trying to say, which I am by saying that I am trying to say that the reason that network problem will be will be the reason for moving out if you are an urban customer it is higher; that means, what if it is an urban customer it is their expectation that there will be not be network problem.

If even if it is an urban location even if being in an urban location you are facing network problem then that is not because the profitability issue, that is because the company is not taking care of you, they are not bothered about you then only you will face network problem in an urban zone, because, urban zones are generally more profitable than rural zones. So, that's why network problem is more major issue for people who are switching from BSNL to other service providers.

I am staying in Mathura's ─ Mathura district's urban area and probably not so much of problem for rural areas is still a problem 47% is doing that, but 47% and 56% if I take the proportion that is quite a bit of difference. So, if I, if we do T-test over proportions or if you do a Chi Squared test about all these things you might find out a significant difference between these two samples.

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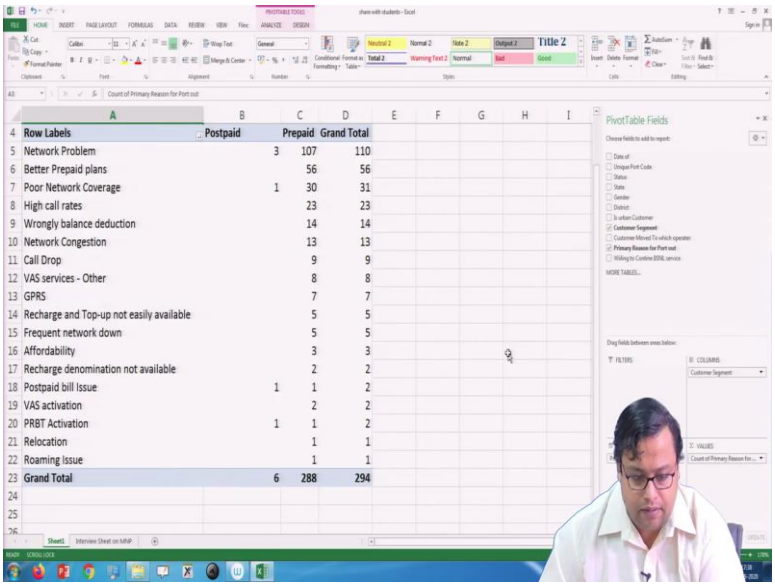

So, that is one thing, then what extra that we will get? Let's say, whether the prepaid or postpaid. So, customer segment I will try to see. So, we do not have postpaid customers mainly, so we cannot actually. So, there are only 6 postpaid customers and 288 prepaid customers. So, this is probably not that much comparable.

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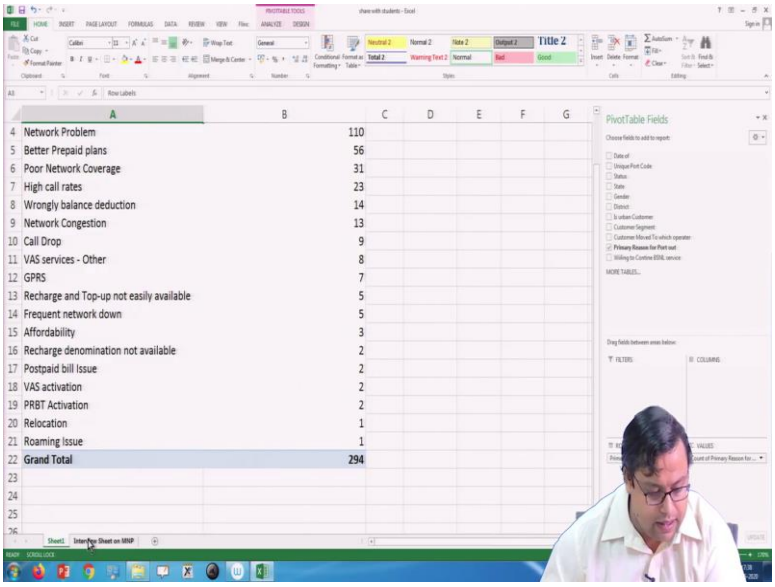

Anything else that becomes important let's, let me just check, okay. So, another important thing that becomes important here is that why they are trying to move? One is the moving one is the reasons for movement another is to which operator you are trying

to move. So, which operator you are trying to move if I try to do the same thing and then if I sort it up.

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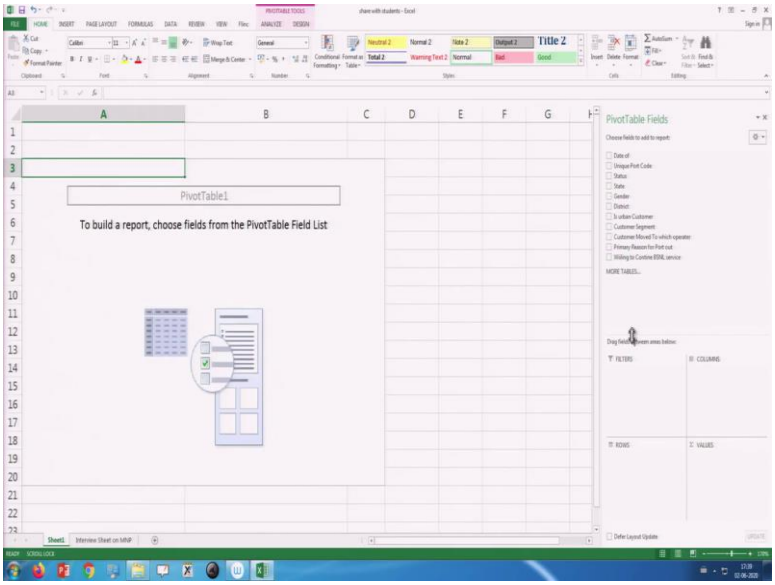

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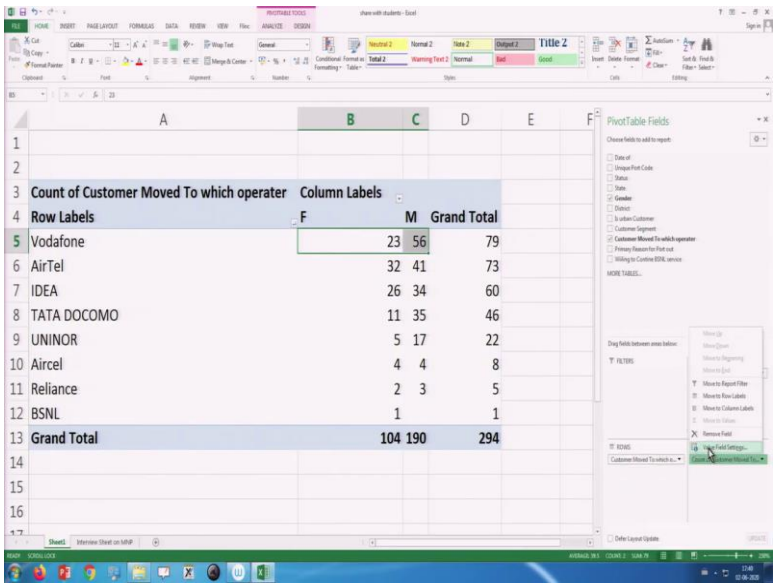

Count of Customer Moved To which operater	Column Labels		
Row Labels	F	M	Grand Total
Vodafone	23	56	79
AirTel	32	41	73
IDEA	26	34	60
TATA DOCOMO	11	35	46
UNINOR	5	17	22
Aircel	4	4	8
Reliance	2	3	5
BSNL	1		1
Grand Total	104	190	294

So, most are going to Vodafone, Airtel and then Idea and TATA DOCOMO. So, the idea that we I am trying to say here is that when customer switch ─ customer tries to find out that whatever you do not have which other company might have that. And you also will come to, come to get an idea that who are your major competitors in the market.

So obviously, Vodafone and Airtel are your major competitors because not only they have higher market share the switching also happens from BSNL to at that point of time ─ the data is of 2011 quite an old data. So, switching is also happening from BSNL to Vodafone and Airtel. So, which are pretty big numbers 79, 73, so these are the major players.

And does that change over gender? Does that change over gender? I think no so see 104, 23 and 190, 56 probably this percentage is not that different.

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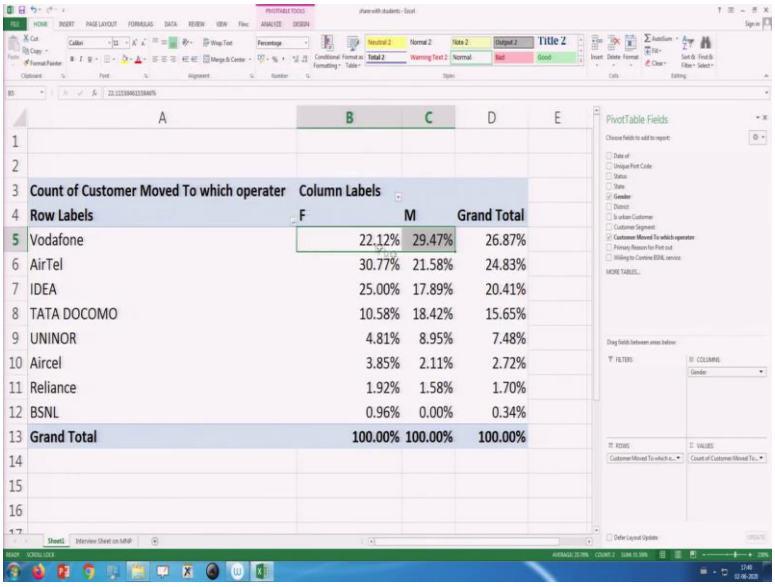

Count of Customer Moved To which operater	Column Labels		
Row Labels	F	M	Grand Total
Vodafone	22.12%	29.47%	26.87%
AirTel	30.77%	21.58%	24.83%
IDEA	25.00%	17.89%	20.41%
TATA DOCOMO	10.58%	18.42%	15.65%
UNINOR	4.81%	8.95%	7.48%
Aircel	3.85%	2.11%	2.72%
Reliance	1.92%	1.58%	1.70%
BSNL	0.96%	0.00%	0.34%
Grand Total	100.00%	100.00%	100.00%

So, why do not we put this in the percentage of the row total? So, no calculation percentage of column total percentage of column total. You will see that 30% people are going to Airtel female and 22% is going to Vodafone. While here 30% is coming to Vodafone and 22% is coming to Airtel.

So, that's a very important observation that females are going to Airtel majorly and males are going to and even Airtel and even Idea also and male are going to mainly Vodafone and then other things: question is why? Why that kind of a differences? Is it that they are given certain kind of offers which is related to gender?

Is it because certain reasons are more focused towards gender? Who is going to Vodafone? Whether there is a relationship between various reasons and various service

providers? You can check all of these things. Then, I would try to see that sorry, so, sorry just one minute.

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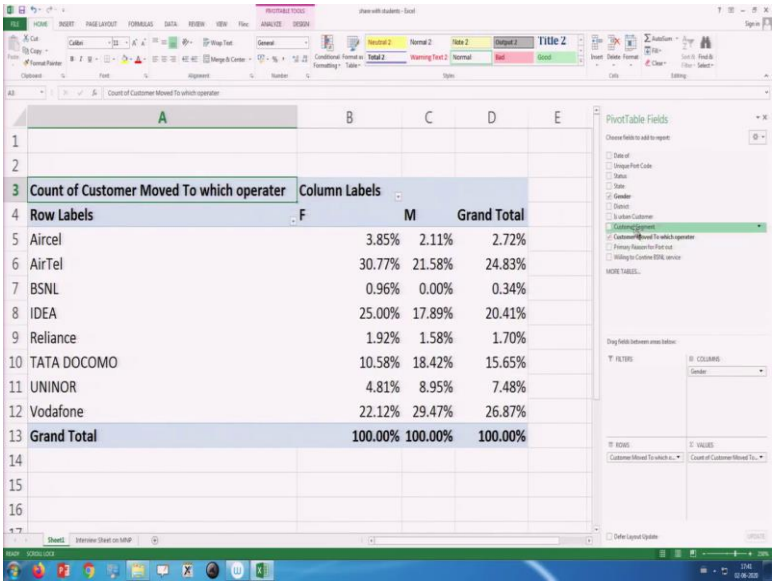

Count of Customer Moved To which operater	Column Labels		
Row Labels	F	M	Grand Total
Aircel	3.85%	2.11%	2.72%
AirTel	30.77%	21.58%	24.83%
BSNL	0.96%	0.00%	0.34%
IDEA	25.00%	17.89%	20.41%
Reliance	1.92%	1.58%	1.70%
TATA DOCOMO	10.58%	18.42%	15.65%
UNINOR	4.81%	8.95%	7.48%
Vodafone	22.12%	29.47%	26.87%
Grand Total	100.00%	100.00%	100.00%

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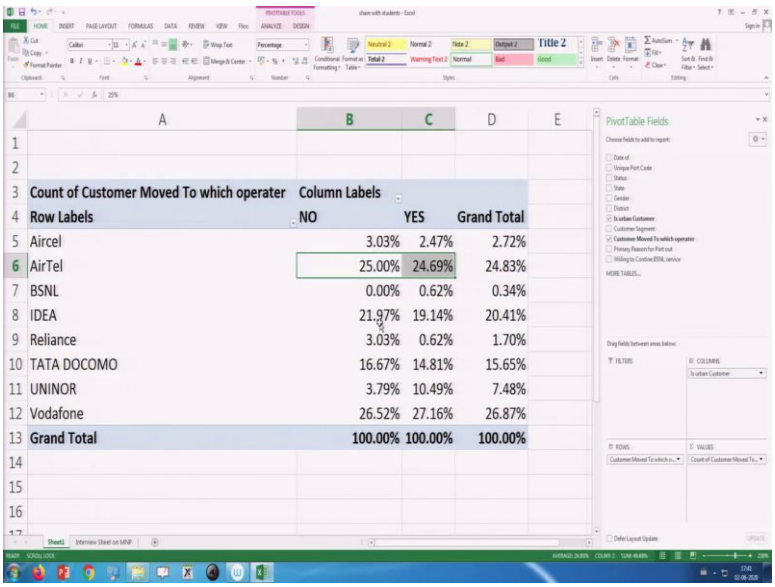

Count of Customer Moved To which operater	Column Labels		
Row Labels	NO	YES	Grand Total
Aircel	3.03%	2.47%	2.72%
AirTel	25.00%	24.69%	24.83%
BSNL	0.00%	0.62%	0.34%
IDEA	21.97%	19.14%	20.41%
Reliance	3.03%	0.62%	1.70%
TATA DOCOMO	16.67%	14.81%	15.65%
UNINOR	3.79%	10.49%	7.48%
Vodafone	26.52%	27.16%	26.87%
Grand Total	100.00%	100.00%	100.00%

Yeah, this is what we have. Then, I will say that whether urban customer rural customer also has the difference. I do not think the difference is there. So mostly, if you check that urban customers or rural customer whether this numbers are same. So, though gender wise there is a difference in urban rural wise there is not much difference.

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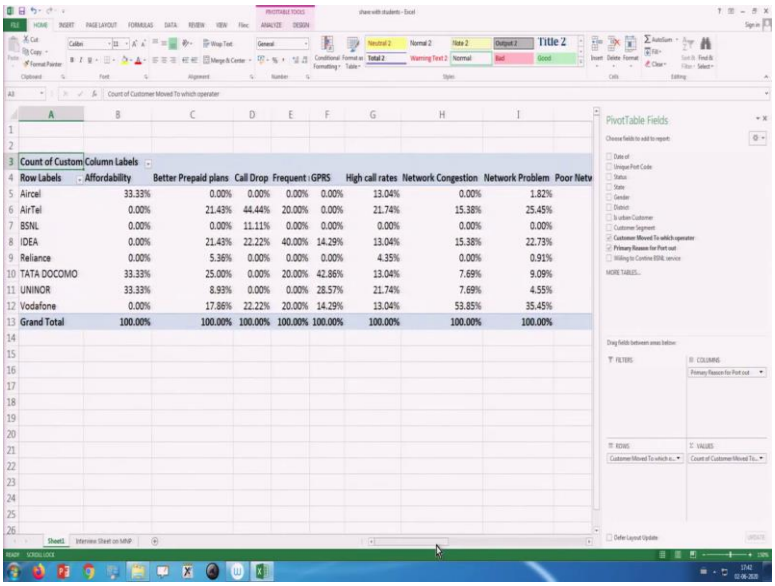

Count of Custom	Column Labels							
Row Labels	Affordability	Better Prepaid plans	Call Drop	Frequent GPRS	High call rates	Network Congestion	Network Problem	Poor Netw
Aircel	33.33%	0.00%	0.00%	0.00%	13.04%	0.00%	1.82%	
AirTel	0.00%	21.43%	44.44%	20.00%	0.00%	21.74%	15.38%	25.45%
BSNL	0.00%	0.00%	11.11%	0.00%	0.00%	0.00%	0.00%	0.00%
IDEA	0.00%	21.43%	22.22%	40.00%	14.29%	13.04%	15.38%	22.73%
Reliance	0.00%	5.36%	0.00%	0.00%	0.00%	4.35%	0.00%	0.91%
TATA DOCOMO	33.33%	25.00%	0.00%	20.00%	42.86%	13.04%	7.69%	9.09%
UNINOR	33.33%	8.93%	0.00%	0.00%	28.57%	21.74%	7.69%	4.55%
Vodafone	0.00%	17.86%	22.22%	20.00%	14.29%	13.04%	53.85%	35.45%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Now, the last one that I am going to see is that whether there is a difference in terms of the reasons why you are planning to port out. Now, this is a big table let me help you understand why ─ what this mean. So, just check the table carefully.

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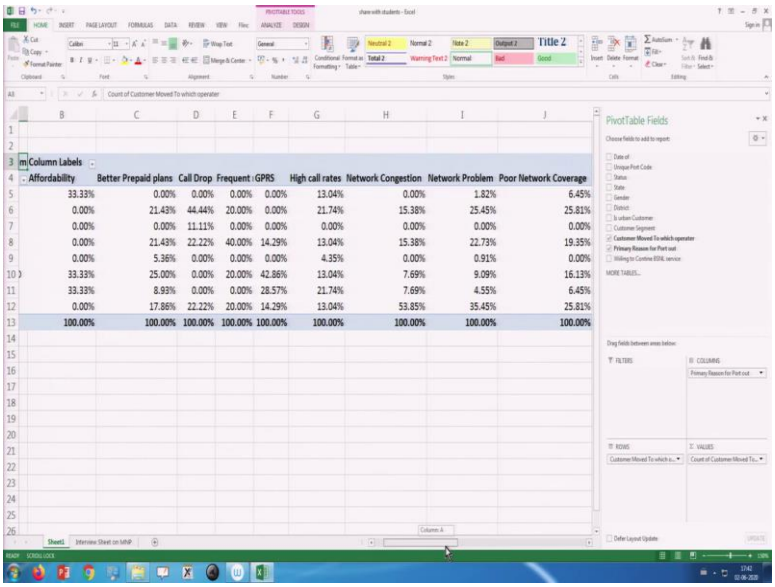

m	Column Labels							
Affordability	Better Prepaid plans	Call Drop	Frequent GPRS	High call rates	Network Congestion	Network Problem	Poor Network Coverage	
33.33%	0.00%	0.00%	0.00%	13.04%	0.00%	1.82%	6.45%	
0.00%	21.43%	44.44%	20.00%	21.74%	15.38%	25.45%	25.81%	
0.00%	0.00%	11.11%	0.00%	0.00%	0.00%	0.00%	0.00%	
0.00%	21.43%	22.22%	40.00%	14.29%	13.04%	15.38%	22.73%	19.35%
0.00%	5.36%	0.00%	0.00%	0.00%	4.35%	0.00%	0.91%	0.00%
33.33%	25.00%	0.00%	20.00%	42.86%	13.04%	7.69%	9.09%	16.13%
33.33%	8.93%	0.00%	0.00%	28.57%	21.74%	7.69%	4.55%	6.45%
0.00%	17.86%	22.22%	20.00%	14.29%	13.04%	53.85%	35.45%	25.81%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

So, if I check affordability then better prepaid plans, call-drop. What is the highest?

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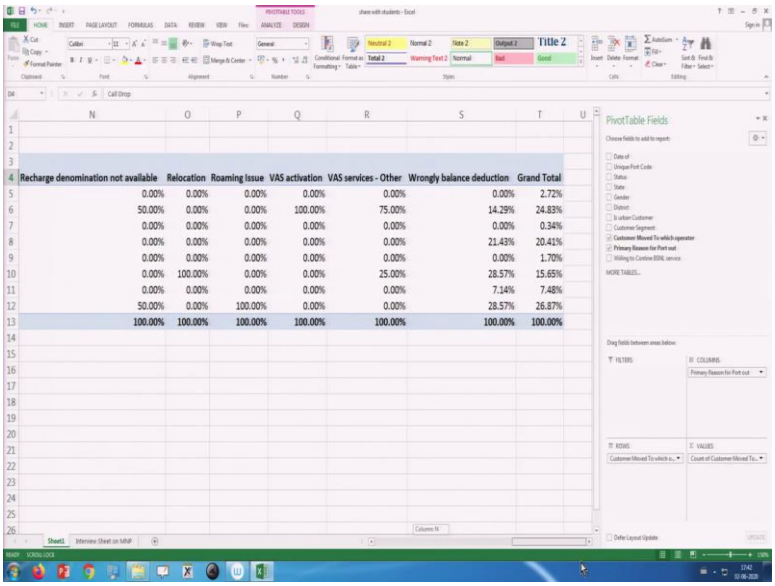

Recharge denomination not available	Relocation	Roaming Issue	VAS activation	VAS services - Other	Wrongly balance deduction	Grand Total
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.72%
50.00%	0.00%	0.00%	100.00%	75.00%	14.29%	24.83%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.34%
0.00%	0.00%	0.00%	0.00%	0.00%	21.43%	20.41%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.70%
0.00%	100.00%	0.00%	0.00%	25.00%	28.57%	15.65%
0.00%	0.00%	0.00%	0.00%	0.00%	7.14%	7.48%
50.00%	0.00%	100.00%	0.00%	0.00%	28.57%	26.87%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Which one is the highest? So, you will see the bigger problems were the network issues, network problem.

So, when people are having network problem this was the major one network problem if you remember. People who are having network problem 35% are going to Vodafone and 22 and 25% will go to Airtel and Idea.

So, majorly when you have a network problem you will switch to Vodafone. Network coverage ─ the same thing applies so that might be very much localized decision. That means, that is probably Mathura's decision because in Mathura probably the network coverage of Vodafone was better at that time.

But whatever I am saying that you can get an idea that that if network problem is the major issue where people are going? So, if network problem are major issue people are going to Vodafone.

On the other hand if affordability price call rates are major issue. For example, high call rates you will see that people are going to Airtel and UNINOR, very less percentage they are going to Airtel mainly. Or let's say, if I talk about better prepaid plans if they are going to TATA DOCOMO, Idea, Airtel. So, Airtel is coming up to be, affordability again TATA DOCOMO, Aircel sometimes, UNINOR.

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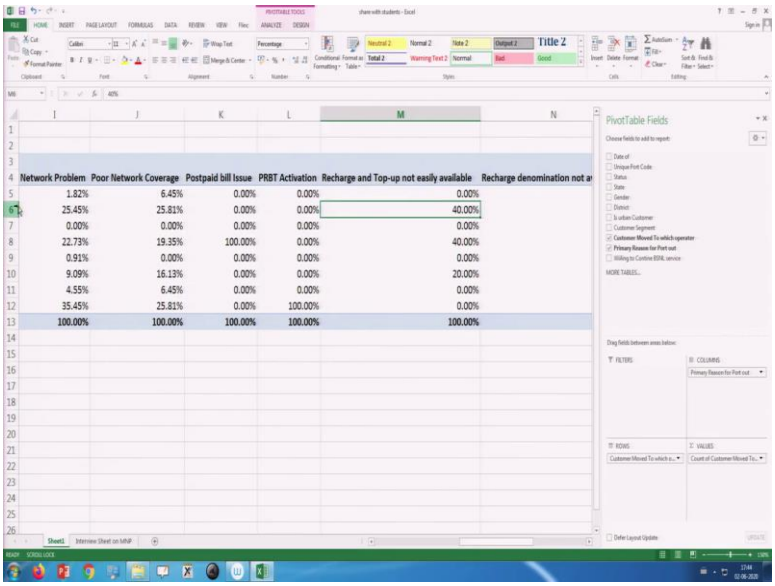

Those who are talking about let's say, roaming issue, wrong balance deduction, which was the major ones? The major ones were recharge or top-up availability again they are going to this one which is Airtel and then this one which is Idea. So, all the non-monetary related reasons, all the monetary related reasons they are going to all other places.

But the only problem which is network problem which is the majority chunk they are coming to Vodafone's. Vodafone in this context I would say that Vodafone had been able to capture the problem of its competitor quite well because network problem, coverage is the major problem in this context.

On the other hand price and affordability and call rates and all of these things which are related to price, this is where Vodafone does not have an advantage many other people have an advantage and they are playing with each other. So, they are fighting with each other, they are not creating a major market share because they are cannibalizing each other.

On the other hand Vodafone had a pretty good market share in this particular zone because they could differentiate and they could say that network coverage is the major thing that we are going to provide.

This an old data old case study in 2011. You have to collect newer data the situations have changed quite a bit. But this is how from the exit interview from basic creating certain charts and graphs you can get an idea of what are the possible reasons people are leaving. Whether there is a difference between different segments in terms of the reasons of leaving or not; whether people are happy to stay with you, where if they live where they are going all details can be analyzed using this kind of a data analysis.

So, that is all for this particular class on retention planning. In the next session we will discuss, in the next video we will discuss about in detail about relationship management, strategies and co-option and customer engagement experience strategies. And in the later part of this particular week we will discuss about social CRM.

Thank you very much for being with me I will see you in the next video.