Customer Relationship Managemen

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Lecture – 37
eCRM : Components and Strategies (Contd.)

Hello everybody, welcome to the NPTEL Swayam course on Customer Relationship Management. This is Dr. Swagato Chatterjee from VGsOM, IIT Kharagpur, who is taking this course for you. We are in week 7 and we are discussing internet based CRM or eCRM Components and Strategies. So, in the last class we were discussing about the basic parts and we were discussing about the various data mining, what is the requirement. And now, in this class we will discuss about what are the data mining tasks that are available.

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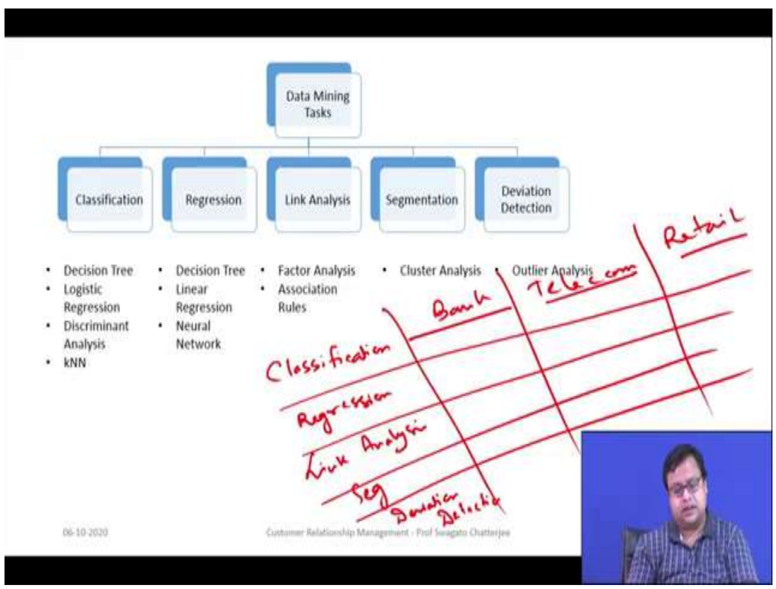

So, data mining tasks majorly can be classified into these five tasks, classification, regression, link analysis, segmentation, and deviation detection. So, these are the five classes. What is classification? For classification we can use decision trees, logistic regression, discriminant, analysis, certain techniques name I am providing, these probably will be used to create that. These kinds of answers can be provided, that which parts, which particular customer will stay with me and which customer will leave.

Or what is the probability of this particular customer to leaving or what is the probability that this particular customer will provide a positive word of mouth for me? Or positive feedback about me, or recommend my product to somebody else? These kinds of questions, it is a 1/0 kind of answer which where the output variable is categorical. Whether you will recommend me or not 1 or 0, whether you will give a positive rating to me or notwhether you will stay with me or not. These kinds of questions can be solved using a classification problem.

In a regression problem your y variable the one that you are trying to predict is generally continuous. And again decision tree linear regression neural networks can be used; some of the classic examples can be that how much you will give rating.

Whether you will give a positive rating or not is not the question. But how much you will give rating is probably can be answered here. Or how much money you are willing to pay for my services, or how satisfied you are on a 1 to 5 point scale. These kinds of questions can be probably answered using regression. Or what drives your satisfaction? What is the major probably a satisfaction driver or what is the major service quality driver? These kinds of things can be answered using regression.

Then comes link analysis, where factor analysis and association rules comes up one of the classic examples of link analysis is basically this market basket analysis. In a market basket analysis, we try to analyze that how a particular purchase, particular product is in your cart and how other products can be related to that.

For example if you buy butter in the cart if there is butter in that what is the probability that bread will also be there. Or if you buy milk what is the probability that sugar will also be there. So, this kind of association of multiple products for example, quite often if we buy a dish washing gel or a dish washing bar, then a scrub will be there with it quite often.

So, these products or quite often if you go and buy meat, eggs will also be there. So, this kind of association where one product and another product or let’s say wine and cheese, we say bread and butter. These associations are not something which has come and which has come from something which is somebody told that okay these two have to be bought together. No. People have for a long period of time people have seen that this kind of product goes together.

So, now, there can be other products which are not very commonly seen, which is not known, but still you can find out from the analysis. So, again as I told in a marketing analytic course, which has, which is probably will be given in the next term, next semester, you can probably get an idea what association rules are and how that can be applied.

In this course we are not going into the data analytics part of it. So, we will not focus on that, but I am just telling that this can be done. Then comes segmentation for which we will use cluster analysis segmentation is a technique, where we can create multiple segments. So, we cannot target one, all the customers, it is not possible. So, why it is not possible because making everybody happy is very costly.

So, you might want to only make those people happy, who which were profitable for you. Profitable means, not only that they will pay their lot of money to you, profitable also is associated with whether you are able to make them happy or not. So, let’s say there is a very rich customer or who is willing to pay a lot, but you cannot provide a service which is as per his request, then that person is not a profitable customer.

So, you have to check both and you have to check how much they are willing to pay and how much is your cost to make them happy? So, both of them create a profitable customer; and you can find out that in the whole database ─ who are your profitable customers who are your not so, profitable customers. We did customer lifetime value base calculation before and based on that you can create clusters.

Clusters can be created in multiple other ways again, you can go and do this marketing analytics course that might help you to understand that what kind of different segmentation strategies are there. But, this is something that you have to do if you want to implement CRM in e-commerce.

And then outlier analysis for example, fraud detection in a bank, or let's say you want to detect that when a particular customer is behaving not which is very common. So, if that kind of behavior is being shown by the customer, you might know that okay something is wrong with this customer. He might have switched to somebody else or he is not interested with me. Some behavioral pattern change is happening.

And if that pattern change is happening that should trigger that should create a trigger. So, that you can call him or her and ask him what kind of problem you are facing, and what is the, what is what is that is if you are not liking us and etcetera etcetera. So, all of these things this classification, regression link analysis, segmentation, deviation detection together creates your data mining task which can be applied to knowledge discovery.

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However, what are some of the applications? The applications are there in banks, the applications are there in telecom, the applications are there in retail all the five-four-five examples that I told. I will stop here probably, not stop. I will ask you that this is an exercise that I am giving to you guys.

You should go, you should stop the video here, go to the forum and write down that for the bank. Let's say I have told you five kinds of analysis just now. So, classification,. Classification, regression, link analysis, segmentation and deviation detection, and write down here bank and then telecom and then let's say retail. And all are online let's assume.

Now, give me some examples, how these techniques can be applied in each of these aspects in bank, in telecom and in retail. For example let me give an example for link analysis which is factor analysis and association rules, I can find out as I told that which product goes with which product that market basket analysis I can go and do it in retailing.

In telecom I can know that which, which kind of services should be put in the same package. If let's say 100 data, 100 SMSs goes with let's say 10 GB data it has been often seen in that people buying those kinds of things together, you can join them and create a package. So, in a package decision that which product goes in can go in a similar kind of package you can do a link analysis. Similarly, in the bank's perspective which kind of insurance goes together, which kind of services or products of the bank goes together, you can do a link analysis. So, you can try to find out that what other examples you can find out for classification problems and regression problems. In this particular three industries and write down how those can be solved. How, which kind of problems can be solved using these techniques?

So, just examples I am just asking in this, in the sales, why don't you write down. Write that down and I will ask you that, you don't just don't write on your own. Somebody else is writing you can go and see what the other person is writing and you can comment on that. It is not that you will put your own and you will wait for my comment only, you can probably collaborate with each other. All we are trying to say is co-creation, right?

So, you guys can co-create and probably come up with the solution. You can discuss with your fellow mates in the, who are also taking this course and discuss with them. So, that is a suggestion that you can come up with. I will not give examples about that let's get the examples from the forum.

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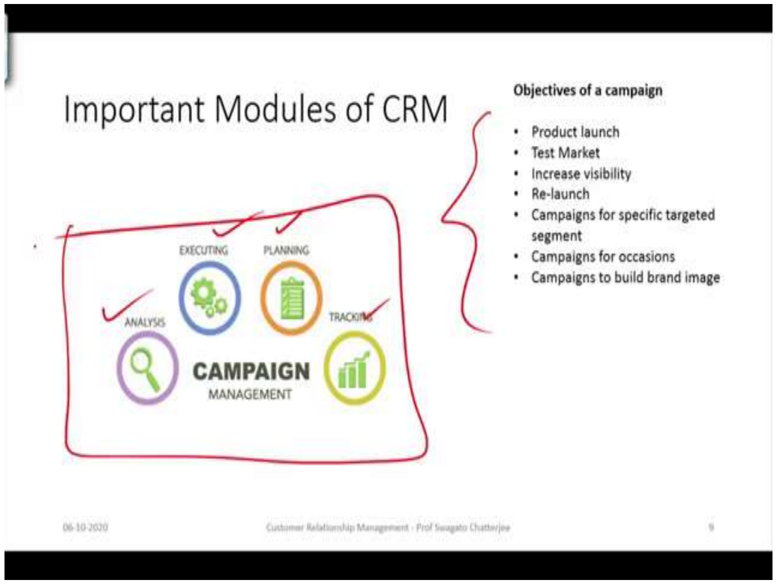

Then, what are the important modules of CRM? This particular question comes up very commonly, and it has been asked to me by various people that why don't you are teaching certain particular CRM software; I cannot teach a certain CRM software. But, I can give you that for some components of CRM is common in all software whatever software you use.

So, one campaign management is basically where one major thing is campaign management; major module campaign management means, where you are running a campaign. If you are a marketing firm you are running a campaign and you have to manage the campaign.

For example in LinkedIn or Facebook if you are ever given an advertisement, they have their own campaign management tool. Where you can put your campaigns and in this campaign management tool, there are certain aspects for example, you want to plan and execute your decision and you can also analyze and track; track and analyze basically. So, it starts from first planning, executing, tracking and analysis these are the four steps that you can do in a campaign management.

So, you can plan for a campaign then, you can give the ads, you can say that these are my target, target audience, this much margin I can give this is my bidding strategy. You can set that up and then the bids happen and etcetera and you track it, whatever is the behavior of these campaigns analyze it and change. So, the first week you have done something and you thought out away, this is not right.

So, you change in the next week. So, that kind of decision can be taken in a simple software. And there are lots of softwares which does that and you will see this kind of product. And what are the objectives of a campaign, what are the different objectives that you can have?

The different objectives are product launch. You can launch a new product and for that you can do a campaign. You can test market test market means sometimes before product launch, we give

samples of the products to various people. And we ask them that why you don’t give us the feedback of those products!
So, that can be done using the campaign management tool also, where there will be a specific section, where they will come and probably give their feedback about whatever product samples that you have sent to their house. So, test marketing is something that can be done here.
Campaign can also be used in classical marketing setup. For example, increasing visibility; more awareness generation,; relaunching another product so, which has been launched before, but failed you want to re-launch it, or probably the interest came down and you want to again increase the interest of this product, that campaign can also do that.
Campaigns for specific targeted segments, let’s say you have a huge customer base, but a particular segment you want to target them and do something special for them ─because, they are more profitable and/or you are seeing better opportunity in that particular segment. So that can be also done. Campaigns for occasions this is very common you will generally have you will see that separate kinds of posts are coming up only on Independence day or Republic day, everybody.
So, what they do is they have set those kinds of posts and they keep repeating every year. So, that is something that can be done campaigns for occasions and campaigns to build brand image. So, there are various kinds of objectives that can be adopted and which we use to do campaigns and each of them will require a campaign management tool. So, that is one of the important model, module of CRM, which is campaign management.

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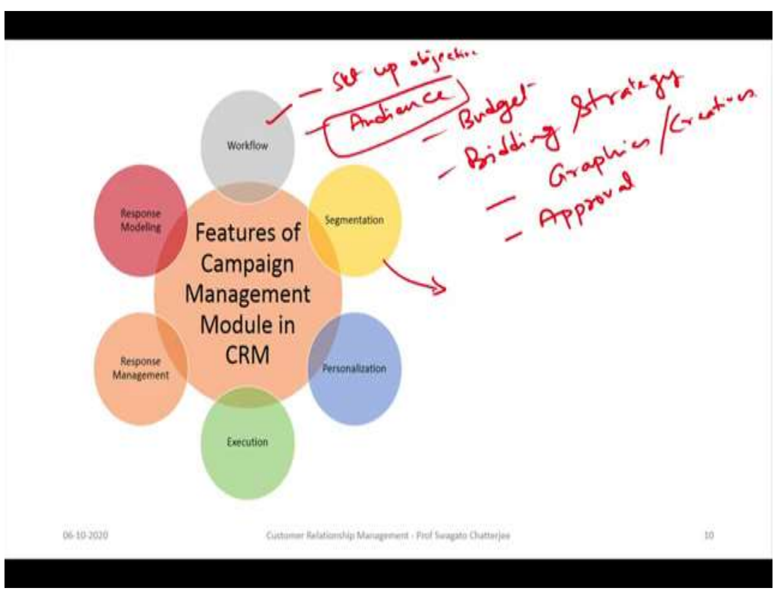

So, what are the features that are required in a campaign management module in CRM? In the first feature is probably the workflow, you want to know that what you do and then what you do.

You have to first in the workflow, you have to first set up your objective. Then you have to set up your audience, whom you want to target?
Then you have to set up your, probably the budget, the bidding strategy. And at last when all of these things are decided the graphics or creatives. So, this workflow management and then once it is done probably approval is there, approval is required. Because, you cannot use nudity, you cannot use violence, you cannot use abusive words in your this thing.
So, somebody has to check that and then approve. So, that before it goes into the online world because, once it goes in the online world, you have actually realize that or it cannot be tracked back. So, that kind of thing can have to be ensured first.
So, workflow management is the primary most important part module of CRM. Then, when we discuss about audience, there has to be a way to segment the audience. If you do a LinkedIn ad ever, you will see that or even in Facebook ads, you have to break you can break them based on gender, you can break them based on location. This is called geographic segmentation or demographic segmentation.
Then, you can break them based on age group that is also demographic segmentation; you can break them based on their interest, which kind of pages they have liked, which kind of skill sets that they have written in their profiles, if it is LinkedIn. So, these are interests and etcetera which comes as the attitudinal or probably psychographic segmentation.
And then the behavioral segmentation, that which movies, they have seen, how many times they have interacted likes, how many likes, how many dislikes, whether they follow your page or somebody else's page. So, these are some of the ways through which you can segment the customers. Why that tool is important? Because, when I am deciding my audience, I want to segment the customers and choose a certain customer segment, target a certain customer segment I do not want to spread by campaign to everybody.
So, that kind of a setup has to be there and every tool, where the databases are there at the backend, this kind of segmentation strategies ─ modules are there. So, that is the second module. The third module is personalization, for example, I do not know whether you have used Mailchimp or any mailers like this, they also have their workflow they also. If mailers, they only do email campaigns, this Mailchimp and etcetera that I am talking about they do email campaigns.
But, in email campaigns they have your database from where you can do segmentation and target a certain group and send mails to them. And there is also a workflow, you have to first name your campaign, name write the objective, then decide your audience, then create your, give your budget or budget comes later in this particular case. First you make your creative. And then you set up a budget and then you set up the time at what time and what day it will be sent.
Now, during this creative part when you are doing creatives that creatives is personalized, within this particular database there are lots of people, their name will be populated in the Email ID. So, for the same Email if they are targeting me and you for me it will be written dear, Swagato Chatterjee for you it will be written dear, XYZ ABCD whatever is your name.
So, that kind of personalization can be created. Further, more personalization can be created, I can send that okay if this customer is a person who is of this kind of age group, you populate these

pictures. Let's say if he is a, I am an electronics company and if I see that okay this his age group is small young unmarried, then send him pictures about iPods, iPads, mobile phones, etcetera.
If he is a married woman, don't take me wrong way, but if it is a married woman probably, they will send household items. If he is a married woman who is working probably certain laptops certain, iPads etcetera anybody married women or man who is working laptops iPads and etcetera. If they can understand that okay this guy is a housewife, then probably something which is a household item. So, the same campaign which is they say new arrival kind of a campaign or seasons bonanza kind of a campaign, or let's say certain festival 'dhamaka' kind of campaigns. The same campaign can target different audience or different segments differently.
And that can be very much personalized towards your individual level rather than a group level. So, that is called personalization that features are also sometimes there. Then execution, you have to execute it. Response management, so, how people are responding? How many people are clicking in the your in your these things? How many people are viewing after clicking whether they are filling it up? All these things are traced back in a campaign, in an online campaign that I am trying to say.
So, that response how people will respond to your campaign, managing that is also important. And then the last one is response modeling. Can you do a market; can you do data mining with that? Can you say that okay if I do design x the probability of response is going up, if I do design y the probability of response is going down.
This itself is a huge, this thing for advertising research, that how people are reacting to your campaigns? It is a huge initiative of advertising research. And this can be applied and to do this kind of research, you have to map the campaigns and their responses.
So, that response modeling insight, basically the tracking as I was told, tracking and analysis, these two things, will also be part of this response modeling insights, which has to be featured in your campaign management.
So, these are various features which have to be there. Some of the features are there, in LinkedIn, some of the features are there in Facebook, some of the features are there in Salesforce, Zoho CRM, this-that. There are lots of different CRM tools. And each of them if there is a campaign management module there, there this feature are some of these features are always there in those kinds of tools. So, campaign management is one of the major module.

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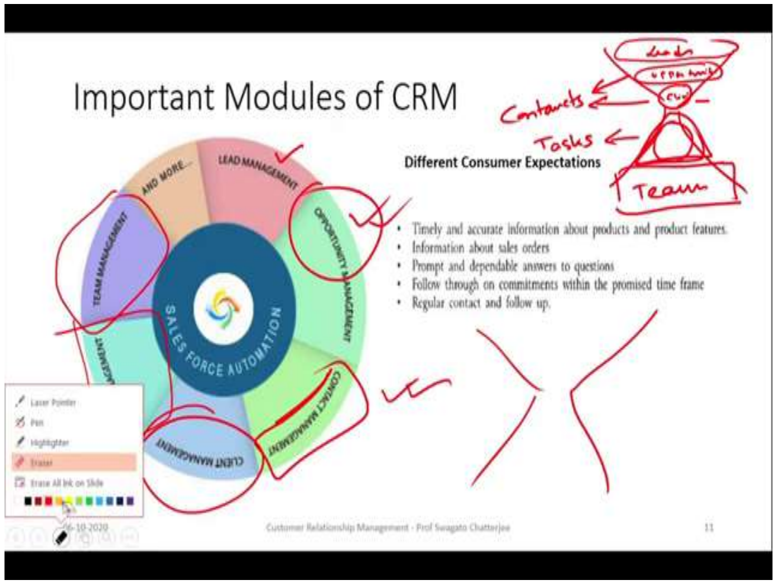

Well other important modules are there, there is lead management. So, campaign creates leads. You have to create leads and those leads you have to take care of the leads to get their information. From their leads, further nurturing of the leads creates opportunity, you have to create opportunity. And within a lead and within an opportunity you can get associated contacts.

For example, you got a lead about a company. That company expresses interest that becomes an opportunity. Now, there can be multiple contacts as I told in B2B contacts, there are multiple contacts. So, multiple contacts, multiple influences within a company. So, you have to manage those contacts. So, that becomes the contact management then, once they become your client once they actually buy your product or subscribe to your product and etcetera, you have to do client management. Then those clients give different kinds of tasks, task management and those tasks are done by certain teams.

So, all of different kind of, all these things are basically tools or features that are very common in them, probably the design will be a little bit different. You have to click, in one one module you have to click here in another module you have to click there. So, every software will have their own training tools, training videos, training tools, training manuals you can learn yourself learn all those stuff from them. But, if you want to be an expert for example, sometimes people want to hire experts, who have worked with their tool. For example, let us say there is a ERP tool called Microsoft Dynamics.

I want to hire Microsoft Dynamics experts for my client; then you have to get trained for that kind of a tool for a manager, who is taking a management job. If you are a MBA student or if you are, would be manager, you may have a little bit of idea about a certain tool which is used in your industry. But, you have to have a broader idea about what this tool does. So, rather than how it does, you have to know what and why.

So, that those questions are more important how to do is a 3 days, 4 days, 1 month training program. But, how why to do it is a more understanding level, more deep level understanding that is what I am focusing on. So, here the first thing is a funnel, it is like a funnel. And then a reverse funnel. The first thing is it is a lead. Lots of leads get generated, from that lead comes up the opportunities, out of these opportunities some are your client not everybody is your client. So, these clients will have their own contacts. Each of these clients might have an opportunities, might have multiple contacts.

Now, when they, there is one client they can give you lots of tasks. So, number of client, number of tasks is higher than the number of clients. Because, each client will give you at least one task more than one that is why the number of tasks is higher than the number of clients and each task will be done by at least one member. But probably more than one member, that's why team, which is more than the number of tasks. So, it is a funnel and then it again spreads out.

So, those features have to be there in a CRM, then what then what are the different kinds of customer expectations are there timely and accurate information about products and product features. Information about sales orders, prompt. So, these are the things that a customer, a client and opportunity person, a contact want for me.

So, timely and accurate information,information about sales orders, prompt and dependable answers to their questions. Follow through on their, on the commitments, whatever commitment, you have made whether you are following through that. Regular contact and follow up all of these things are needed. And to do that these modules, integration of these modules is very important.

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Now, in a sales process as I was just telling you the funneling in the sales process, the first part is prospective, we call it lead generation sometimes we also call it prospect in the first step. And then you initiate your context. So, you lead generate and for example, I am telling you one of the examples that I have adapted.

So, I also teach an introduction to business analytics course or data analytics with R programming kind of course, as a part of IIT Kharagpur. And there what I do is that I have created certain databases of email IDs. And I have also created a webpage, where all the data details of this particular program are there and there is a form at the bottom. And when people actually come to this page, they, if they want to get the brochure I ask them to fill up this form in that form they leave their name email ID mobile number, the moment they click submit, the link towards the brochure comes up.

And this email ID phone number is mailed to a database which I keep and that now through this process the leads get generated. So, what I do? I do prospecting. What is prospecting? I share the link of this page that I have developed, in all the social media channels and my whatever friends and students and etcetera or whatever database I have created, I sent. I have a primary database, I sent to them.

So, first I started from let's say my closed contacts. Let's say I have 100, 200 email IDs I sent to them they shared, they, I also share in my LinkedIn profile, I also share in my Facebook profile and etcetera. Now, there are certain other people who actually track IIT Kharagpur's programs and post about them, some news channels and etcetera, they also posted them the same thing.

Now, people came to this page, read this page and left their email ID. Now, this email ID I collected and stored in a database as I told, now these are my; this procedure is my prospecting or lead generation. These new email IDs that I am getting is my lead. And in the first year I got 200 such leads and out of that out of these 200 people, I sent the initiate contacts.

So, I sent them a personal email to everybody, told that this program is being launched; this is the purpose of this program blah blah blah. I sent them an email. And then I, some of them called back, called back to me and told that sir, whether this will be covered, whether that will be covered, this is my need, what, how this particular program will help me.

If this is my profile, how,what kind of benefits I will get? What should be the take away? Will you give a certificate or not? What is the acceptance of this certificate in the real world situation or not? So, I discuss with them and identify their needs and try to present my offer, okay?

And this procedure, this initiate a contact, identify needs, present offer…it goes on, it is a circular procedure. Another 7 days, 10 days back, again I sent another email. Another 15 days later again I sent another mail. Now, in the first mail I send them just the information. In the second mail I sent this is the sales process this is not particularly CRM.

But, the exact CRM should have this in the second mail I send them some more information, in the third mail I send them a video which gives lots of clarifications. Let's say out of these 200 people 2-3 people ask certain questions that doesn't mean that other people do not have that question in their mind. Other people might have that question in their mind, but they are shy enough to not ask me.

So, I created a video which will have lots of FAQs and such to FAQs and then share that video with those 200 people. And now over this time, that 200 becomes 300, let's say. Now, through this process and there will be less. In my case, I didn't face objections, in some of the cases some of the people might face objections and you have to manage them. And then out of these 200 people or 300 people for 50 people was my cutoff. So, 50 people actually bought this product.

Then, there are lots of guys who have actually registered, but didn't pay. So, they have shown interest they were very interested, but at the last moment due to time, due to dates, due to some other commitments they could not. So, I have collected those data also and put that back in the database. Now, out, I had 300 contacts, 50 went away that rest 250 is there.

Now out of this rest, 250 you have to understand, they were either shown primary level of interest, but then didn't get interested anymore. Or shown a little bit of more interest, but could not do because of certain time constraints and etcetera or somebody had a budget constant at the end of the day. So, there are different reasons out of these 250 people, who could not do.

Now, it would have been much better, if I could find out the individual level reason why they could, didn't adopt this particular program. Although showing interest initially, but okay I didn't do in that level I would probably do as I go ahead. Now, in the next time when I launch this program once more, along with sharing on the Facebook and Twitter and LinkedIn, the first thing that I do is targeting these 250 people. Because, all of these 250 people were my prospects, they have not given in the last time.

What? Whose says that this time they will not come? Now, these 250 people also share with another some people also, who were who were there in their close by. Now, this time this particular database becomes 750, let's say. Now, and then another 50 or 100 will come out of these 150 who will close the sale. So, this is a process which keeps on going. It is a funnel.

So, you will see that 250 was the initial one and out through multiple this initiating contact, identifying needs and blah, blah, blah procedure, I got 50 customers. So, 250 customers were left, 300 was the initial customer, 50 I got, so 250 are left.

Now, in the next time these 250 are the starting point, and together with my prospecting process and etcetera, I together I created let's say around 500 leads. So, the total leads or total prospect keeps on going, first year it is this, second year this is this, third year this is this, and it will keep on growing.

And if you can do an individual level analysis, you can break this into three different types of funnels. And can make three different types of strategies for these three different kinds of funnels. So, if you can do that that is the correct CRM strategy. That is the correct prospecting sales process. So, CRM tools should also have this kind of strategies or you when you are adopting eCRM, we should implement those strategies. So, sales processes can vary greatly among organizations, products and services.

And ultimately every sales manager must ensure that their sales process and its corresponding phases are as short as possible. So, they have to reduce these procedures as small as possible. So, that the sale cycle can reduce and that can be done using a better CRM implementation. So, I will stop here for this particular video, I will come back with the next video with further eCRM aspects and other parts of the modules see you in the next video.

Thank you for being with me.