## Training of Trainers Professor Santosh Rangnekar Department of Management Studies Indian Institute of Technology, Roorkee Lecture 37 - Training Methods: Decision Making – I

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Santosh Rangnekar: So, in the last module I have discussed with you about the decision making, and in this particular training program of decision making first we have to talk about the concepts of decision making, how the right decisions are to be taken, which I have discussed in the last module. After that, then we have to ask the trainees to come forward and then make a particular activity about the decision making and one of the senior trainee from that, that he will be as an observer and then they will demonstrate, they will give the ... observer will give the comments about that.

So, before we start the actual activity, I will request Neeraj and all that is please introduce themselves and Neeraj will also brief about the what activity is going...this team is going to demonstrate.

Neeraj Kumar: I am Neeraj Kumar, I am with Department of Management Studies and I will be doing the role play of an HR analyst.

Prakash Shukla: Hello, my name is Prakash Shukla and I study in Department of Management Studies, IIT Roorkee and I will be playing the role of HR analyst.

Santosh Rangnekar: Yes, now, please.

Kuwar Ankesh: Hello, my name is Kuwar Ankesh and I am from MBA department and I will also act as an HR analyst.

Aditya Roy Munka: Hello, my name is Aditya Roy Munka, I am from the Department of Management Studies IIT Roorkee and I have been playing the part of HR analyst in this program.

Suman Kumar: My name is Dr. Suman Kumar, I have been working as a joint registrar in IIT Roorkee, my role is as observer and I will give my conclusion at the last of discussion.

Santosh Rangnekar: Right and before we start Neeraj, would like to talk about this particular activity?

Neeraj Kumar: Yes, here we are going to have a case study, here we are going to provide a solution to a particular firm where they are facing very minute problems which are getting very bigger in the end about decision making, because they are not able to reach up to the common conclusion about selecting a particular client for buying their products. And the reason the for that issue is there are so many things, many departments and no conclusion can be made because there are so many people and human factor is getting heavier on the other quantitative side.

Santosh Rangnekar: So, then at the one seat will be behavior modeling will be over, decision making and then the each one of us right, they will give the comments about this particular program. So, let us start the activity.

Suman Kumar: Well, our companies facing problem particularly in decision making, and more importantly that selection of clients and as a HR analysts I want some your remarks and your observations and which is the best tool or method on which company can go further. So I am giving this case study and I will require your good opinions in this regard.

Neeraj Kumar: Okay, so gentlemen, here we are having a case of a Cat Corporation. We are a company which manufactures the voltage stabilizers for televisions and refrigerators, their main clients are the people who live in a countryside and they require these products because their voltage fluctuations are more, so the issue with the company is, the, not the main issue, but the thing is they are having so many departments. For example, they are having sales team, after purchase and sales team, then finance team, manufacturing and quality and sometimes after sales and services.

So, so many departments are over there. So, Mr. Arun. K. Mitra over there, who is a Vice President is facing some issue regarding the decision making. So what that issue is, so, let us see.

Aditya Roy Munka: So, the issue is that, that that company want to have suppliers for its brand model VR 500 which is one of the, one of the most like most selling product of that company. So, they are in a dilemma to how to choose a supplier. So, they have certain criteria for the suppliers, to choose a supplier and let us discuss it on the board that what type of criteria they do have for the suppliers.

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Aditya Roy Munka: Criteria. So, the first criteria they do have is efficiency. They want the efficiency of the product, the second criteria they do have is the power factor. The third criteria, they do have are losses. The four criteria they do have is turn ratio. The fifth criteria they do have is cost, out of which the three criteria are qualitative in nature. And the two criteria, the remaining two criteria are quantitative in nature.

So, the company has a data of their suppliers and on the basis of that they have chosen 4 suppliers which they think can supply their demands. The 4 companies whom they think, think that they will supplier, they will be the supplier of their demand, the 4 companies, they are Idea, Dolphin, Boss and Freedom. These are the four companies, these are the four suppliers whom they think can supply them the product for their, for their flagship product, VR 500.

So, the next is, the next thing is that they have four departments which comprised of, comprise of the four departments or the teams, maybe the finance, manufacturing, finance or purchasing, design department and last sales and service. One thing we should note that though they are given the numbers, but they are do they do not have any type of priorities till now, like the 4 companies they are equal and they do not have any, they are not setting any priority orders and the department as well as the criteria.

So, the problem with this case is this that these departments, these departments are having different feedback for the criteria for different companies, the for the different suppliers. So, while in a discussion when taking the consensus of every department they not are arrive able to arrive at a common conclusion for which supplier to choose for the product. So, this is the problem which the company is facing.

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Prakash Shukla: So, as I have analyzed it, as a HR Analyst, I have found that there is a very like, if they set up a meeting and they want to discuss it about what the problem is and how to solve it and they do not like overcome for the...to the decision, the discussion turns into the debate. So, for that purpose, I found out like there is a top management and under that the subordinates and the other department, these are the human interfere.

So, we can exclude the first solution, the solution is my according to my analysis, we can ask exclude human interference and make the autonomy of the top management and by applying this solution, the decision can be made at a faster rate and, and with an accuracy and this is my first solution. So, okay.

Neeraj Kumar: So, as Mr. Prakash Shukla has told, that in the department, we are having top management team, but the top management team you know have, very have, take a lot of very big decisions and all, so they require very less human interference. So in order to just enhance his view, I would like to add that top management should have the autonomy and they should be able to take their own decisions because as he said that human interference, human interference comes when there are so many people sitting over there in a team when opinions are so much. Then there are no particular opinions coming, it becomes a debate and Mr. Aditya said so, what we can do about it?

So, in order to take it ahead, as we all know, top management have having less people, so we need that, we want to appoint, as Mr. Munka said that there are 4 departments. So, it means that whenever we are having a meeting in that meeting, many people are participating, so again, it becomes just like a parliament thing. So, for that what we have to do is those 4 departments should have one single point of contact or a team or departmental leader, okay. So which will come directly underneath them, who is going to directly report to them, so we are having single point of contact of all departments.

So what they are going to do is as management has to see the opinions of all the workers which are working over there, so it becomes tedious for them to reach up to a conclusion. Now, these 4 single point of contacts are going to do that thing for them on the basis of 4 different departments. So what they are going to do is, it will remove the tension which is created and again the bifurcation amongst the people will result in one thing, they will be able to reach 4 decisions anonymously. And on the basis of that, top management will take less time to reach on a conclusion on the basis of 4 opinions of 4 departments rather than having 200 plus or all the workers' opinions, so it will increase the efficiency of the top management. So, this is how I suggest that how appointing a single point of contact in each department will help them to reach and remove the human interference in the system.

Kuwar Ankesh: So, your suggestion was, in my opinion it was very nice. I would also like to include that we can have a pairwise comparison between these departments and

the criteria which we have made according to the qualitative and quantitative. So, my suggestion is we can give a scalar ratings to all these departments, and thus having some results out of that. We can have ratings pairwise. These ratings will be done on a scale of 1, 3, 5, 7 and 9. Accordingly, 1 will have an equal importance, that means the two elements will contribute equally. 3 will have moderate importance, 5 is a scale in strong importance; 7, it will have a very strong importance. And lastly, this 9 on a scale of 1 to 9 this has the extreme importance.

So, this scaling thing is...can be included, what you have said all those departments the SPOC can come to the conclusion and they can have their opinion directly discussed with the top management.

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Aditya Roy Munka: Okay, so that is a more quantitative approach that we are, we are going into, like the first was to give the autonomy to the top management, then the second was to select a SPOC of all the teams and the third is of a pairwise comparison between like the equal importance, moderate important, strong important, very strong. But, I would like to add something with it that yes, these are the ratings which every SPOC and every team can give, but the thing is that it would it would vary with the departments, with the perspective of the departments, because every department has its

own level of scale, has its own scaling and every department will give the importance to different the criteria, which is mentioned here differently for different suppliers.

So, since this company has a lot of data about the suppliers, so, why not we design such a such a model, which gives the equal importance to all the data as well as equal importance to all the teams. Because without their feedback, without the feedback of the department or of the team, the top level management cannot take the decisions about what how to proceed, how to take the...how to choose the supplier, and how to use their data to come to a common conclusion that is best for the company. So, let us take an example or let us take that how can we do it?

There is a very simple term in mathematics that is ratios, the ratios this term has a very good, like this is a very important term because this gives us the comparison, this gives us a comparison between two entities.

So doesn't matter what their scales are, if we can compare them, if we can get the comparison of the things then we can easily select which one is better, and which one is not better or which one is not good, not up to the mark. So, let us try to make it something like this, that we should make a...yes, we can make a pairwise comparisons and but how we are going to do the pairwise comparison that is a matter of concern. First, we are going to compare, we are going to make the pairwise comparison on the basis of the criteria, on the basis of the criteria is what I mean by it, that we should know that which criteria has the more has more importance.

Like for a company which is making, which is making a product like, like an electrical product that is a volt meter or its for its product, VR500 a voltage regulator, the losses or the power factor may be an important a very important criteria, because this is what the customer or the market segment will rely upon.

So, it needs all the efficiency of its voltage regulator, so it need to decide which of the criteria is important, which is, which of the criteria has more efficiency. And so, for this,

what we can do is that we can make the design, we can make a table out of it, a table like this. In the four columns we will be giving the criteria, there is, there are five criteria, so just take the fifth one. Now, since the cost, this cost is such a criteria, that is every time this cost is of the utmost important for the company. So, we are not taking into consideration this quantitative this quantitative area cost while making this thing because this will automatically come when they will select the product or they will select their suppliers.

So the essential 4 criteria that we would be writing they are efficiency. Let us, let us just rename this as E, the power factor as P, the losses as L and the turn ratio as T, it would be for the convenience.

So, E, P for the, for the power factor and L for the losses and T for the turn ratio and we are not taking, you are not taking the cost into consideration for the time being. So, again, it would be E, P, L and T, so what we are going to do is that, we are going to use the same, the same scale as suggested by Mr. Ankesh and what we are going to do is that we are going to put a ratio out of it, like for efficiency, efficiency, the importance is always 1. So, just like we can we can give it as 1 and this for suppose this is 3 by 1, which means that the efficiency has 3 like the efficiency has a moderate importance, when it comes in relation to the power factor, that is 3 by 1. And in this manner, we can just, we can just put it like this. Obviously, this the ratios will come in an inverse order because power has a 1 by 3 in terms of efficiency.

Yes. So, in this manner, we can come to a conclusion that which is of utmost important...importance. Like we see that efficiency is of utmost importance in relation to T which is our turn ratio. So, it means that, that when it comes to compare efficiency with the turn ratio, the efficiency has a upper hand over turn ration, but the thing is that again L, loss has 7 by 1. So, loss is also a very strong importance with relation to T. But for E and L which is better? We have to see the ratio of E way in which we can see that L has more importance than E, means what, it means what? That E is greater than T, E is greater than T and L is greater than E. But what is left is P, so now we have to just

compare P with L. If we can compare P with L, we will come to know that P has more importance than L since it is written 3 by....So, it will again like this. So by using the data of the suppliers, we can, we can...we come to know that which is the most important criterion for the, for the company also.

So, this, this is one of the charts, which is for comparison in relation to number one is criteria. Then, what we are going to do next is we will, we are, we will be making the similar type of chart, but the thing is the comparison would be different, what the comparison would the second comparison between it is, it would be a comparison between the brands.

It would be a comparison between the brands on the basis of the criteria E, efficiency, power factor, losses, turnover ratio. One thing we should remember that this shortcuts, these are actually efficiency, power factor, losses and turn ratio, these are written as E, P, L and T. So this selection, this ratios, this table will be made on the basis of E, P, L and T and from that the top level management can take out that which is, which brand has more, which brand is more efficient and which supplier we should give our project to, though I think that with this quantitative approach, with this quantitative approach Mr. Arun K. Mitra can solve the problems of suppliers.

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Neeraj Kumar: So, but, I would also like to say that yes, the quantitative factors as you have mentioned is going to do that part, the human error part, the human interference part will be reduced and all. But as again, the data will be provided to them by the on the basis of the people who are going to make the choices and all. So, it is again, that thing is perfect, but how and where and who is going to conduct that? For that thing as we all know, that he is suffering an issue of decision making. So for, I think the approach is good, we can use a quantitative at the lower level where this single point of contacts have to take the opinions of all the people, okay.

So, when it is done, it is done, then they are having the opinions of the teams, because even in case the single point of contact are having their own preferences or there is a margin of making any human error or interference, but they will not be able to do that because they are the single point of contact of their departments, they are just representing their department.

So, they have to oversee or they have to lay down their personal favoritism for that thing, because they are responsible for the team of other hundreds. And that responsibility is going to reduce the human factor and once it is done, then they are going to be like baseless, they are not having any favoritism, they will be able to put their points clearly to

the top management and they will be having the autonomy to oversee like what is the product they have to select and which product they should do. So, this is how we can solve this decision making problem over here.

Suman Kumar: Okay. I have observed the discussion all of you and I found that even top management more autonomy is required and it is okay but without human interference it also not possible. Somehow either we adopt any method human interference is most, it is a matter of concern how we can minimize that. So the single point contact is adopting, it is also very good. And we can think about that, next one is also considerable that is pairwise comparison in which there are on a certain scale we are taking consideration.

However, lastly, my opinion is that anything that is based on qualitative and criteria based, basically quantitative and qualitative, here on certain factual things, we are getting decisions. And there is a probability of some human error there because whatever data is put in by the human, but even that if 80 percent, 90 percent data is correct, so, the result will be more beneficial in case of where we are using qualitative and quantitative criteria.

So, in my idea from the company point of view, these criteria we should adopt, and we can get more success and more further improvement in our company decision making policies.

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Santosh Rangnekar: So, it was a wonderful demonstration about the decision making. Now, after this, we have to ask the trainee that is the what they have learned and their experience sharing while doing this particular exercise. So, first, we will start with Neeraj.

Neeraj Kumar: So, by doing this activity, we get to know like, what type of difficulties are faced by the leaders in the organization as there are so many departments and what are the decision making right from the lower level to the higher level. So, how they overcome that and how they reach up to the conclusion, this is how we learned over there.

Prakash Shukla: So, the experience was amazing and by this program and activity we learnt how to solve the, how to resolve the problem and how to, how to reach to the right decision and an appropriate one and the experience was amazing.

Santosh Rangnekar: Okay. So, you learnt that is the human interface is important or the technology is important?

Prakash Shukla: The human interface is also important, sir, in up to the mark manner and but if there is an increase in human interference, it hinders the organization.

Santosh Rangnekar: Oh, I see. What is your opinion?

Kuwar Ankesh: Sir, overall it was a nice experience for me. Having being discussed all these problems, it was good, I am also looking forward to take HR, so this gave me an overall image that what it would be like to be a part of an organization and help resolve their problem.

Santosh Rangnekar: Very good. Very nice. Yes.

Aditya Roy Munka: Being a part of this program and being a part of this activity, I felt that the HRM cases or the cases or human resource management, they are complex in nature, because you have to deal with, we have to deal with the humans, we have to understand the humans and they have different perspective and they come from different cultures, different backgrounds. So, while taking their, their decisions while taking their opinions and come to a conclusion is a really tough thing and we need to, we can get the quantitative data and how we can use it to come to a common conclusion? This gives us an idea about the thing that in an organization it is of equal importance to take the human interference into consideration also, because from there we will get a different or difference of opinions and from there we have to come to a common conclusion which is best for the organization.

Santosh Rangnekar: Really good. Now, I will request the observer, Dr. Suman Kumar that he please share his experience.

Suman Kumar: Being an observer and very important topic it is decision making which is very useful for any organization, either that organization in going to be profitable or not. And another aspect, the HR aspect, financial aspect, this is very good discussion, and whatever conclusion and ultimately, in present day scenario, there is a role of qualitative

and quantitative even in research and everything. So even if we get results from these type of tools, because there is some factual things, either in quantitative way and whatever in qualitative way. So up to a great extent, the result will be okay. So if we adopt such type of qualitative and quantitative research, then the result...decision making process will be good.

Santosh Rangnekar: Right, wonderful, wonderfully explained all of you and demonstrated it very well. So thank you very much, all of you.