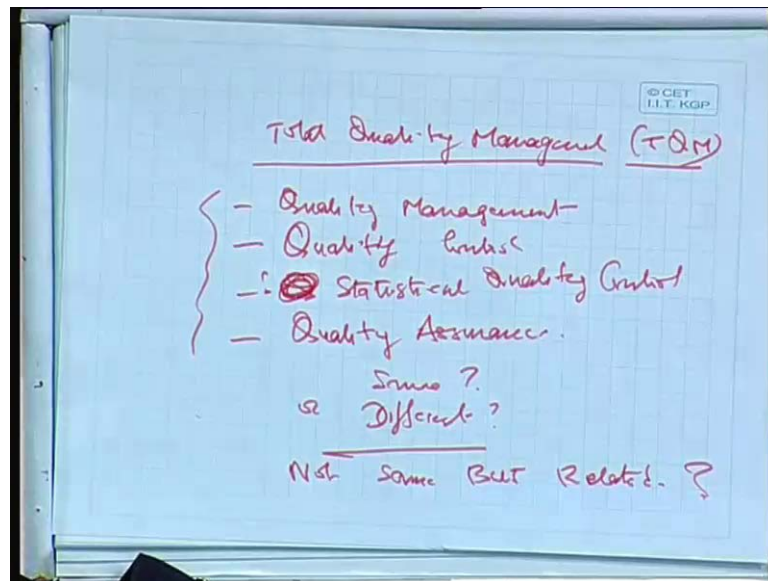


**Human Resource Management -1**  
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**Lecture No. # 13**  
**Total Quality Management**

Good morning. So, today, we have the topic of total quality management. Now, before we talk of total quality management, is there something called partial quality management, something called quality management, quality control, statistical quality control, quality assurance? So, what are all these, are they all different kinds of things? Very confusing, tell me, tell me louder, let me hear; all are different, no, they are all same, all are same, but related, **what is a kind of relation**, what is a kind of relations?

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So, I am saying, one is total quality management and this is sometimes popularly called TQM, then we have got quality management, we have got quality control, we have got statistical quality control, then we have got quality assurance and so on. So, the question was, are they same or different? And what you are saying is, that they are related, not same, but related.

So, how are they related, tell me. For, **for** instance, let us take statistical quality control. What does it refer to, give me an example, you are all are engineers, so you have some ideas. Statistical quality control, that is to control the quality of what? Of a product or a component, all right, which goes into a product, all right, **and what is,** why do they say statistical quality control? You use statistics, why? Because the quantity of products, which we have to inspect, is it not? When you do statistical quality control, you inspect; that means, if you have too many of them, it will be impossible to inspect all of them.

When you do the inspection, what do you do really? You check it against a reference, is it not? So, reference is usually a drawing or it may be a sample, but usually a drawing, and what do you check then? You check everything, which is given in the drawing, whether that is tallying with what is in the supplied component, either from vendor or you may make it in-house; that is it, and why statistical? Because you have to use statistical methods, because the quantities may go into thousands or millions, so you take some samples and then you inspect it.

So, in short, what are you doing, what is the, what is the principle? Here, principle is either product or component, that is where you are inspecting. And thereby, after it is manufactured, you are seeing whether it is correct or not correct. Correct or not correct refers to what, to the specification. So, quality control is to see, that the product is as per the specification or is there a variance. If there is a variance, is it within the tolerance, then it is all right; if it is outside the tolerance, then it has to be rejected.

So, you accept or reject, that is the philosophy, is it not? By the process of inspection and after it is already manufactured, remember that, because if you have to reject the entire lot, there is a huge amount of wastage. So, in order to prevent that, what do you do? Sometimes, you do patrol inspection, is it not?

Patrol inspection, what does it, what does that mean? In-process inspection; that means, while it is being manufactured, you can call it in-process, in-process inspection. What does that mean? When the component or assembly or the part is being manufactured, there are several operations. So, in between each of the operations, all right, do the inspection. **That means...** Why do we call it patrol? Because there are inspectors who go from workstation to workstation and they check and the idea here is to minimize rejection wastage because if you wait till the whole thing is manufactured, obviously, the

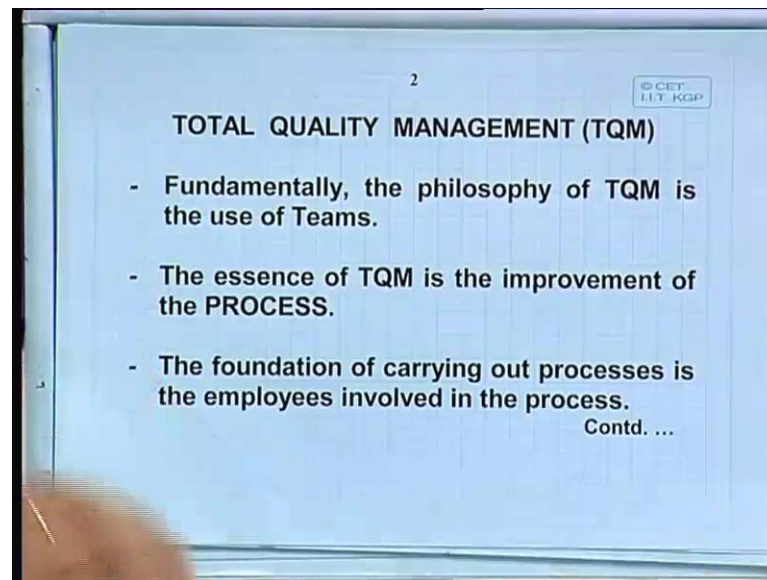
huge amount of wastage. Here, if you can see in the 3rd operation or 4th operation, there is a, **deviate**, deviation you can rework it and then correct it and then use it for the remaining operations. So, that is what is employed.

Then coming back to this, so this is statistical quality control and what is quality control, is it essentially the same thing, but for small numbers, where each part you can test or you can check. Sometimes, we do inspection by checking; sometimes we do inspection by testing, is it not, depending on the type of product.

And then, what is quality assurance, assured to whom? To the customer, so it is a broader, it is a broader look, is it not? So, when customer looks at it, he looks at not only, may be, the product, but he also looks at the design of the product. For instance, if the product design is such, that it is prone to frequent failure, then you say, that you are not really assuring the quality; the product itself may be, as per the drawing within the tolerances, but basic, inherently the design may not be correct or the packaging may not be good, is not it. That means, whilst transportation, there can be damages, breakages. So, then, it looks at it in a more whole manner, holistic manner, is not it the assurance? So, you are assuring the quality to the customer.

And what is quality management? Managing this whole effort and management means what? We all learnt about management. Management is what? Doing the right things with the right people at the right time, all right, so that the total productivity of the whole operation is good and the employees have good satisfaction that is basically, management.

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So, having dealt with this, now we come to what is total quality management, TQM? So, here, you see, fundamentally it is going away from the product or the service, the focus is shifting to what, to the whole philosophy or whole organization. So, fundamentally, the philosophy of TQM is the use of teams, why teams? This is, remember, not the product; team complies of who? People, is not it. So, you are shifting the focus from the product or service to the people.

What could be a service? Example of services - they hire taxis, now taxi service. So, companies, which are in that business, what is it that they are delivering to the clients? They are delivering a service and what is the service? Transportation service, so there, there are many parameters for customer satisfaction there. Is the taxi reporting on time whilst in its duty; is it failing because the, it is not maintained properly; is the consumption or the petrol, correct, diesel, it does not stop halfway. So, all these host of other elements may be accounting for the quality of the service that he is giving to you or the customers.

So, be it a product or be it a service, essentially, the focus of quality management of quality assurance will be more on the product or the service, but here it goes on the whole philosophy. And, so whole philosophy in this case, what do it mean? It means even the driver should be courteous, all right; maybe he should know the roads, so that

even if you do not know the roads, you prefer, he, he becomes more user friendly to you, he has an idea of the roads, all right, and so on.

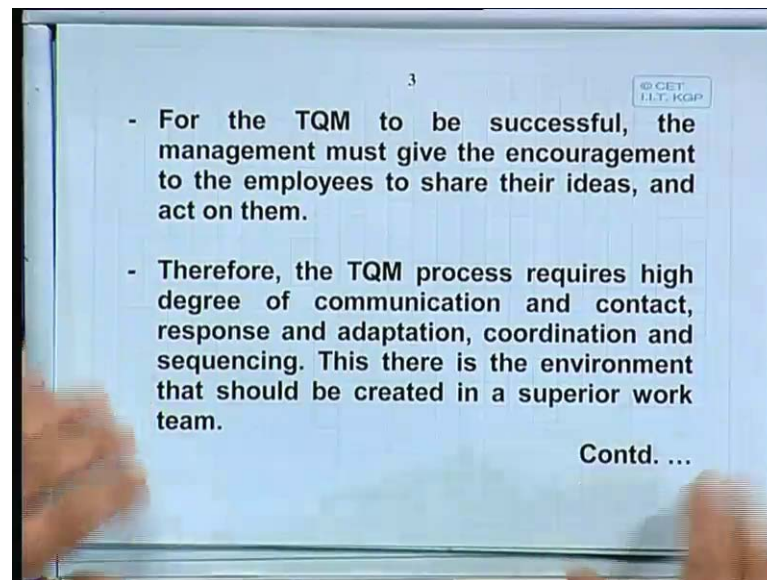
The essence of TQM is the improvement of the process, what does that mean? We are making a distinction here between what is the process and what is the product. Product is what is right at the end of the process, is not it, so sometimes we call it outcome. So, we say, one is a process, that is what goes into making the product or the service delivering the service and the outcome is the product or the service that you are delivering to the client and TQM. Remember, the focus is, whole, on the whole enterprise and it is also very much focus on the process. The foundation of carrying out processes is the employees involved in the process.

Now, we come to the next logical step. Finally, you come to the people because that is what we call is the foundation. It is either the people or it is either the service or the product, but it is always done by the common denominator, which are the people.

So, you see, more and more you are trying to, kind of, not limit yourself to the engineering aspect because inspection, quality control, even quality assurance has to do more with technical matters. So, you see, the migration now from technical, you are not abandoning the technical, that has to be there, but you are increasing the envelop, you are going to the human element, which is carrying out those tasks to deliver the product or service.

So, have you understood then, the difference between total quality and just quality assurance or quality management or quality control; any questions?

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So, for the TQM to be successful, the management must give encouragement to the employees to share their ideas and to act on them; both, to share and to act, and unless the encouragement is given, the chances are that each individual employee in the organization will not share. Whatever task is given, whatever they are told to do, they will do that either well or not so well or average, but here, you are trying to encourage them to come out and make a unique contribution as an individual and then, act on them, not just give the ideas. Because if you ask them only to give ideas, maybe the quality of the ideas will not be that good, but if you give an idea and you know, that you will be asked to act on that idea, will you not look at the idea in more detail to see, whether it is implementable. You just will not give an idea if you know, that finally, you will be asked to act on it.

So, then, what are you doing? You are involving the employees as human beings, remember, as persons. What is your idea, give us the benefit of your idea, you are doing the work there day in and day out, you are doing some limited work, but do you think this work can be done in a better method. What are your ideas of saving cost in making this product, saving time and so on; so, that is the approach.

Therefore, the TQM, TQM process requires high degree of communication and contact response and adaptation, coordination and sequencing, agree with it or not? You have got 100, 200, 300 employees, if you want to approach a philosophy or adopt a philosophy

where you are going to encourage those employees to share their ideas with you, management, do not you have to communicate with them, you have to, your style of working. You as a manager will have to change your own style, is it not?

Earlier you never talked to this employee; you talked to them, someone who reported to you talked to them. If you are a manager, your assistant manager may be, you never talked to them in order to give encouragement; you may now have to yourself talk to them, not only just leave it to your assistant manager. So, you have to adapt coordinating and sequencing.

The coordination becomes that much more because if you follow the straight and narrow path, so to say, the usual line of control, amount of coordination is minimal. You have got your hierarchy, you have got your chain of command, you have got your structure, but you want to go away from that if you want to bring into the ambit each and every individual, because you are trying to get them individually to share their ideas. Then, you have to, yeah, they, this they, this then is the environment, that should be created in a superior work team; any questions?

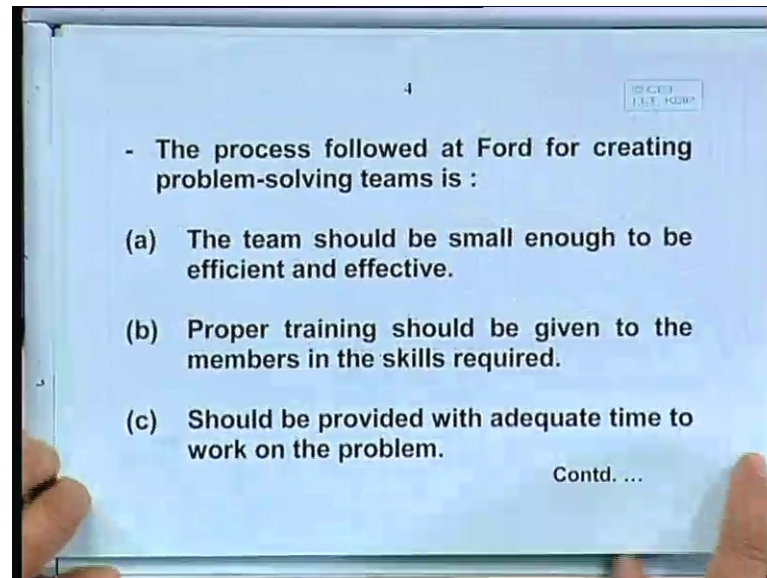
Sequencing, sequencing is anything, which is done serially or parallelly, that is called sequencing. So, if you want to have ideas from people, when will you get the ideas, will you get it periodically? Sequencing, you have, this is a series of sequencing, is not it, you can have parallel paths also. That means, which follows what? So, this may be 1, 2, 3, 4; this may be parallel 2, 3, 4, all right. So, if you want to approach employee for their ideas, when we approach, do you approach at the design stage, let us say, or you approach at the manufacturing stage, you approach at the servicing stage. So, you have to see.

Each of this cost more money to the company, remember, this is all theoretical, but when you want to, for instance, you want to do it at the servicing stage, you want their ideas, you say all right, we are having our service department who are going and installing our products, which we are manufacturing and then, if there are complaints, product complaints, they also go and repair those products, which we supplied, all right.

Do you think that we should start getting your ideas on how to improve the service first or do you think as a management, you want them to tell you, how to improve the design; are they involved with the design people on the shop floor? Not really, so now,

sequencing is something, which we have to look at, is it not? In what sequence are you going to harvest them to get their suggestion and to be part of the effort for a total quality management that is what it refers to.

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Now, you have all heard of Ford motor company, it is a very giant, so giant auto manufacturing company. Probably, now it is number 2 in size and which is number 1? General Motors' and I think number 3 is Toyota if I mistake not now.

So, process followed at Ford for creating problem solving teams. So, what is the philosophy they have adopted is if you want total quality management, you have to approach and address the human factors that mean, people. And one way to do it is you have problem solving teams; there are problem, which are coming all the time in the traditional way, the management would solve the problem, the managers sometimes take some consultation with the other employees. Here, they say, involve the other employees altogether to solve the problem, create teams and that way you kill. So, to say, 2 birds with 1 stone, you solve your problem at the same time, you take the philosophy of total involvement, that is, you approach to philosophy of total quality management, TQM.

So, team should be small enough, these are the details of how they have done it, the team should be small enough to be efficient and effective, clear, because if it is too big, it becomes too unwieldy. If it is too big, then not all the team members work and since you are paying them money, they are going to work in working time, is it not? If you are



going to solve problems with team, may be some of these people are machine workers, some are assembly workers, some are supervisors, it will be a team of the department, is not it.

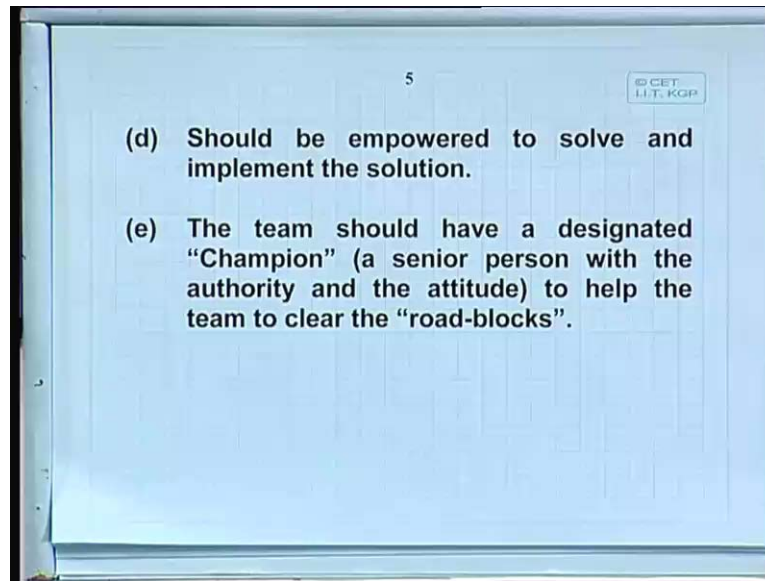
They will have to be taken off the machines, so cannot be, so practically it has to be small enough to have enough expertise available amongst the member of the team in order for the problem to be solved, but big enough, all right, to have knowledge to all the expertise. It is too big or too small, it is counterproductive, proper training should be given to the members in the skills required. Even to operate with the team do not you require some kind of training, otherwise you sit, you do not know what is your role in the team, is it not?

Some of this team is self driven team that means, we do not have management staff who is chairing this team or head of the team, we have from amongst the workmen and employees, they elect their own team leader and they solve the problem. So, some amount of training is required in order for them to efficiently work as teams, groups of workmen should be provided with adequate time to work on the problem.

Same thing again, traditionally, you know the superintendents of the workshop who are the foremen, they would not like to spare any workmen from the machine or the assembly line because direct production is going to be hurt this way, but you have to make some provision for them to come out. At the same time, workmen may not be willing to sit on this team after the shift hours because that is their own time, they want to go home.

So, it is for the management to innovatively workout some system, where they can work in the team as against working on their machines and that work and that effort, which is given, should be more value to the management. Then, if all the constituent members of the team sat at their own workstation and they did because this is supposed to generate synergy if you have team working, that is why, Ford has adopted this system. So, adequate time must be given, then should be empowered to solve and implement the solution.

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Now, this is a big step forward, which Ford has taken, is it not, because many management would say, ok, we agreed with the idea of having team solving problems, this is a management solving problem.

See, in the first place, that itself is not easy. There are not many managers who will accept, that a team of employees from the department may be cross-functional, may be someone from quality control of the department, someone from assembly, someone from production, someone from stores, all these cross-functional members, that they will do a better job at problem solving than the managers themselves.

So, it is an ego problem sometimes to start with, if as a management, top management, you want to start this system of problem solving by teams, not easy, for that lot of training is required. Most companies, what they do before even they start the TQM effort, they have general training of all employees at all levels to try and convince them. This is a rational approach, convince them by various examples of other companies, which have adopted it, how it has improved, how in this company we stand to gain if we change our method of working from an individual bureaucratic chain of command approach, departmental approach to a cross-functional team, team approach.

So, lot of training has to be given to prepare a ground for it, then you have to start in certain department. Even then, the managers who have then been there for years and years, they feel they can do the job better and in the beginning they may be right, but as

the team starts understanding their role, then you find, that it becomes far more productive when you have the teams solve the problem and you empower them to implement, this is another major step forward.

Some companies, what they do, they say you solve it, in the sense, give us the recommendation to management, we will implement it after either accepting or rejecting. But Ford have gone a step further, they say, if you think it will work we are empowering, go ahead and make it work. What is the risk, what is the risk you are taking, that may not work, therefore it may lead to wastage, it may lead to loss of time and money.

But evidently, if you have trained your workers and their attitude is ownership, that is, it is their department, it is their problem, they want to solve the problem. It is like a house owner, if your own roof is leaking, you have a sense of ownership, you will do everything possible to see, that you get the right solutions, so that you do not spend money and the leak continues, is not it.

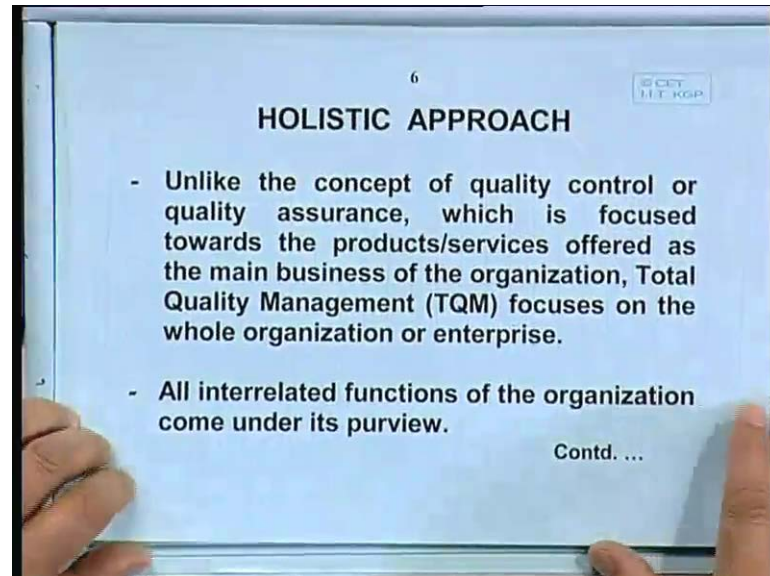
You will consult people if you do not know, so the same principle is here, so you empower them to solve and implement the solution. Sometimes some of you, few of you have experienced, you find often managements give a solution to a problem, but it is very difficult to implement it because it is not accepted. People down the line think, management does not know there are other problems here, but if you have the team doing it, then half the battle is won because it is their own problem and their own solution, so they will make it work, that is the beauty.

And the team should have a designated champion. So, what is the role now of the management? Do you see here role of a champion? Champion means what? He champions a cause, that he champions a cause, that I am for it, I think you guys can do a better job than the management were to solve this problem, do it, I am a facilitator, a senior person with authority and the attitude very, very important in TQM to help the team to clear the road blocks; road blocks means what, problems and why senior enough, because he has the authority, he can clear the problem.

Say, you have a team and you have a champion, but you cannot clear the problems. What is going to be the result? De-motivation people will say (()), they have made teams, they do not, they are not interested, but if you have a team with a champion who can clear the road blocks, then people in the team will start thinking, no I think the management is

very serious, they mean what they say, they really want to change the way of working and give us a chance to solve these problems also; any questions?

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So, let us look at little more deeply in to this holistic approach. That means, the whole enterprise, the whole organization is involved in the quality, a management, that is TQM, total, whole. So, unlike the concept of quality control or quality assurance, which we just discussed a little while ago, which is focused towards the products of services offered as the main business of the organization, total quality management or TQM focuses on the whole organization or the enterprise, all inter-related functions of the organization. And when you get into, all right, the philosophy after a few years of working, that (( )) people will not allow that later to go because they have imbibed the philosophy, that there must be excellence in every little thing, that you do.

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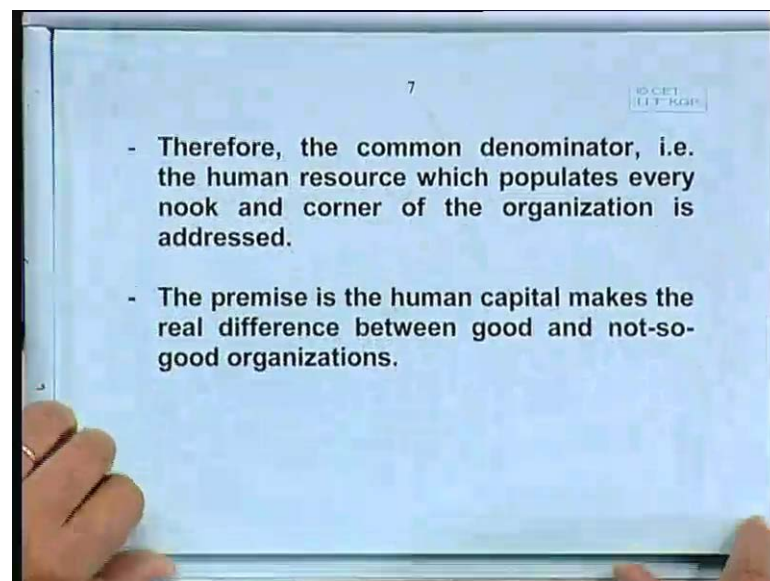
Is it, is it sum total of all quality control method because as engineers, we learn lot of technical mater of quality control, but are we addressing the human element? To my mind the big improvement, which quality control between quality control and total quality management is that addressing from the technical to the human and welding both together. As I said, you cannot abandon the technical, there are lot of sophisticated methods of testing, checking and so on, all these has to continue, systems, procedures, records, all these has to continue. But what has to change is, the attitude has to change,

yeah, but quality assurance, may be. So far as the product is concerned, let us say, in an organization, what about the bus drivers, would they like to clean their vehicles and keep it shift-shape or they would not like to? Would they drive in such a manner over potholes, that the bus gets damaged, this is companies, but it has got vehicles also?

So, the total quality management, it permeates to all the employees in the organization, that whatever is worth doing, we, worth doing well. If I am the driver, if I have to drive, number 1, do not come in a dirty uniform, wear my uniform come in a proper. So, it becomes a kind of passion, it becomes the habit, it becomes the value, your own value individual; if I come, I must come properly dressed. If I am driving on the roads, the image of the company is at stake, I do not drive rashly, I do not break rules. So, the human being is transformed and why does this happen, because right from the top it has to happen.

Every company, which has turned around, if management only gives sermons from the top management and they do not practice this, no one down the line is going to follow. So, all the instances of turn around, which has happened, Tata steel for instance, nearby, they have turned around, they call it by a different name, they have to call it TPM, total productivity management, but it is the same, whichever name you call it, it is addressing the human factor from top to bottom with one single aim, make it a passion of employees, then anything you do, do excellently.

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Therefore, the common denominator, that is, the human resource, which populates every nook and corner of the organization is addressed, no one is left out. In L&T, when we had this TQM exercise, right from the safaiwalla, you know, unskilled, every person, I told you in the beginning you have to give lot of training to see what management is doing, why they are doing it and what will be the benefits, not only to the company, but what will be the benefit to you as an individual working in the company. So, huge amount of effort was done and every, out of 12000 employees, everyone was covered by training.

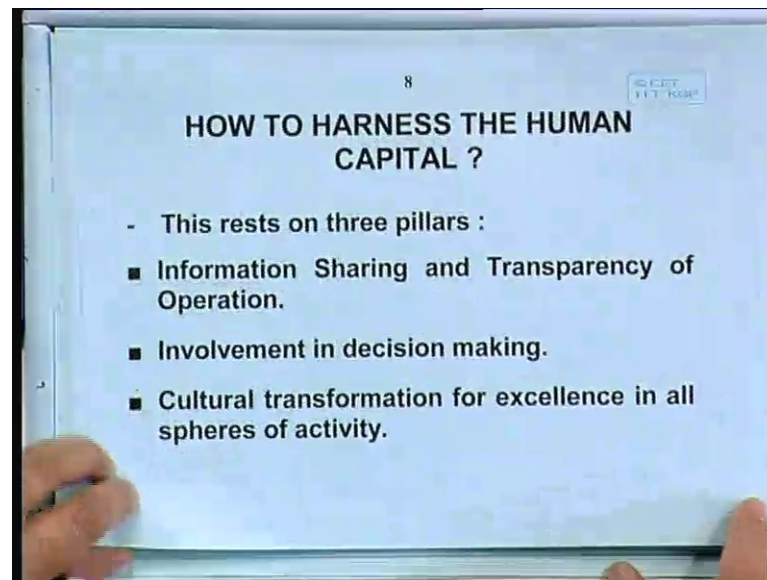
The very fact, that you train each one of them, it makes a big impact in the minds, particularly of lower down employees, because in the normal course, they never have this benefit of this training, but they come, they sit in a conference room or the, in a training hall, you know, in HRD department, there are professors or from academia and operating managers from their own company, managers from other companies, consultants who come and talk to them, they feel, they, that their self worth, you know, the self esteem is improved, then they genuinely believed, that this is only not talk, the management is spending this money and effort on us, they really want to make a change. So, let us give it a try and motivation comes.

So, the premise is that human capital makes the real difference between good and not-so-good organizations. Do you believe that? Let me ask you, all of you are going to be managers, do you believe, that the human capital really makes the difference, is it not?

Of course, you have to have good technology, you know, if competitor is having better machines, you, you also have to have that, but after us time, after a time and it is already happening in the competitive environment, the extraneous, if I may call it extraneous factors, all right, become like technology, premises, infrastructure, all these, everyone will have more or less matching, then what will differentiate the good from the not-so-good?

It is the quality of the human capital, the men were there and women, so more and more you see, companies are turning to these. TQM is just a vehicle, vehicle of delivering a philosophy, translating, I would say, a philosophy into action, transforming human beings.

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So, now, from the general to the particular; how to harness the human capital, how do you do it? One way, we have seen is the approach of team working, this is one way. Now, this rests on 3 pillars, 1st is information sharing and transparency of operation, there is no substitute for it.

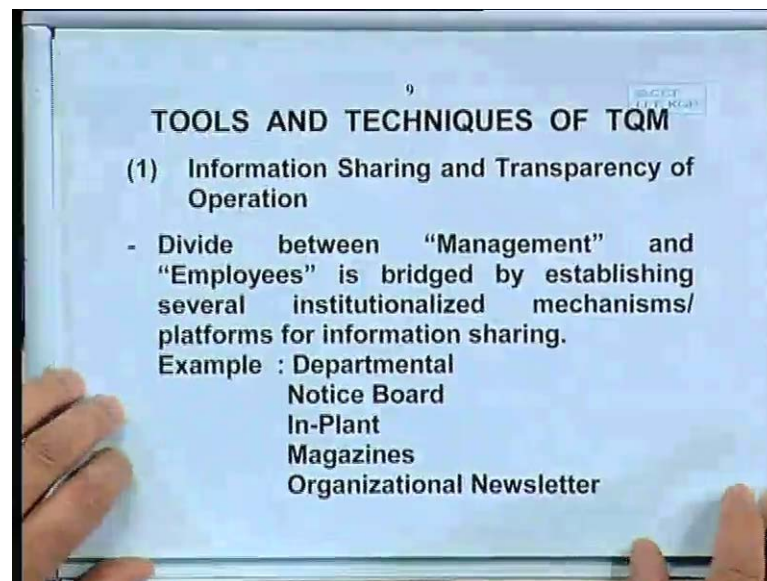
If I say, that I want to involve you people, the 1st step of involvement is, you would like to know what is happening, is it not? Otherwise, where is the involvement, otherwise it is one way. I just talked down to you, you do not know whether I am telling you the right thing or the wrong thing. So, sharing of information and transparency, therefore, happens in the operations and it is something, which the management has to give. They can always say that this is privileged information, this is a private, confidential and that is the traditional way. That workmen are given work orders, job sheets, you do that work, but they are not told what is the competition, who are the people we are competing against, what is the budget of the department for this year, what is the profitability expected, are they told all that? Very little, selected parts they are told, therefore it is not transparent; you have a window, sometimes you open one window pane, you know, and tell them little bit, after that you close it, they do not know what is happening inside.

So, 1st pillar is information sharing, 2nd is involvement in decision making. Ford has done that, we saw, they empower to take the decision and implement it also. 2nd pillar, all these, this pillar lends credibility to your effort, otherwise people are not fools. They

may be not so educated as the management people, but they are not fools, they can understand, whether you mean something you say or you do not mean.

And the 3rd is cultural transformation for excellence in all spheres of activity, simple thing. Finally, even they are, when they are exposed to this workmen etcetera, you will find though the perennial problem you used to have, you give personal protective equipment, all right, like a safety shoe to workmen who are doing manual labor, etcetera, on shop floor. They would not wear the safety shoe because they say it feels uncomfortable, they will come in **chappals** and they are working in a heavy shop with lot of hazards, welding is going on, steel is lying around, scrap is there. When the TQM effort permeates to all these levels, you will find that it becomes a value. Well, if we are given the safety shoes, we are workmen, there is pride in their work; you may wear the safety shoe otherwise it is not an excellent way to work. So, it becomes self motivation there, so in all spheres of activity. Any questions? No questions?

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So, these 3 pillars are main tools and techniques of TQM. So, we are, say, 1st pillar is information sharing, how to actually do that? The divide between management and employees is bridged by establishing several institutionalized mechanisms or platforms for sharing that information. It is all very well to say yes, yes, we will share information, how are you actually going to do it? Build platform; example, departmental notice board. Departmental notice boards, all right, have in every department notice board where



various information is posted on the notice board, like here we have notice boards, from, for academic affairs, we have notice boards for cultural affairs, you have notice boards for general circulars, and so on. What are we doing here in IIT? We are sharing the information with all students.

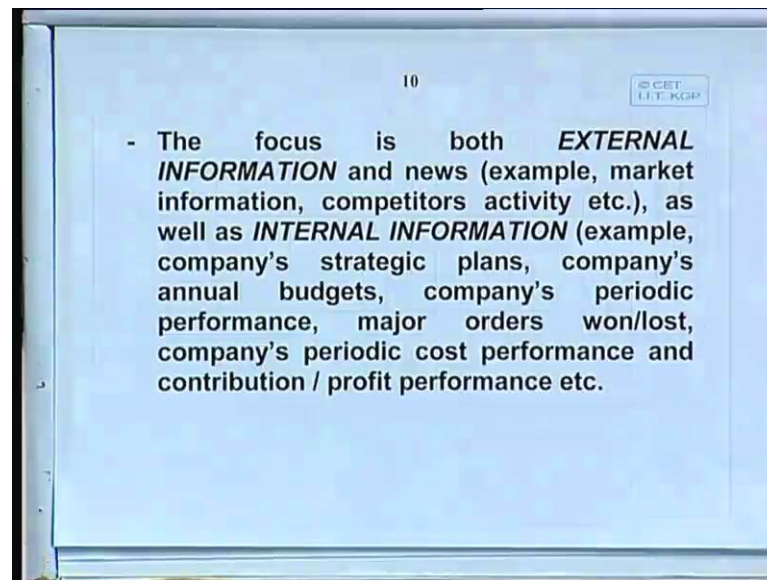
Now, here, I want to stress 1 important difference, usually in non-TQM oriented philosophy, the principle used is need-to-know basis; need-to-know. This is a time honored basis, which has been followed, need-to-know. So, the management establishes, whether there is a need for this department to know this information and if they do not need to, do not give it to them.

TQM philosophy is a reverse, you ask the question as a management, is there any need, that they should not know this, why should they not know this, ask yourself the question. And if you cannot find adequately good reason why each workmen should not know all these, then give it to them by all means; if you can find some good reason, that if they know, the cost of our production may go to a competitor or some such things, then by all means, do not give it. But change the whole philosophy, instead of need-to-know you adopt, that everyone needs to know except some limited information, some limited people need not know, that is a philosophy management must adopt.

Magazines, organizational newsletter, these magazines are in-plant. So, we have, let us say a company with 4, 5 factories, each factory can have their plant magazine, all right, so that you in a department will know what is happening in the department, then other departments of your same plant, you know what is happening because of the in-plant magazines.

And an organizational newsletter, all other factories, they say, the 6 factories are asset of this company, it may have got 20 offices including foreign offices, newsletters will come giving news about it. So, do not you think, that now if you give all this to the employees, particular lower down the line, are they going to be motivated, will they be attracted to work with that commitment because involvement, all right, information sharing bring involvement, involvement brings commitment and then commitment then brings to the job something far more than just giving enough, you go beyond what you can give and the company gains. So, this is some of the tools.

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Now, what side of information, both internal as well as external, all right, the focus is both on internal and external. For example, market information, this is external information, competitor's activity, as well as internal information, company's strategic plan, company's annual budgets, company's periodic performance, major orders, which we won or which we lost from competitors, company's periodic cost performance and contribution or profit performance.

Earlier, before this TQM movement started, these were considered to be the preserved only on management, people will never give away information, bureaucratic set-up, information is used to will power, people never give away information. Try and get information from someone, they say we cannot give it, why, then they do not know, no we cannot give it, the rule is we cannot, but no reason can be given. Finally, if you persuade them, you have to ask the department head, you have experienced that, cannot get information, even a department head will find it difficult to get information by going to a 2nd department head because there is one feeling of suspicion. So, this has to be got rid of. Then, all of us, every department, every employee, we are here to serve this company for one purpose, customer is king. If we all address work together and address the customer, not only the company gains, we also gain; finally, this philosophy.

So, information sharing in my experience and experience of others is very, very powerful for the, shall I say average employee of the organization to get a feeling, that this

management, all right, is serious and it cares about us. Therefore, in return, you get a lot of return from them.

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2nd pillar we said is involvement in the decision making process. Again, the Ford team, that is a small way of involving them, but say, you have in the entire Ford plant, that plant and there several plants worldwide, you have 15 teams or 20 teams working, you see so many people are getting chance of having a say in the decision making of solving the small problems and earlier, all this decision were taken only by management.

So, institutionalized platforms for interaction at various levels, example, departments, division and the company, level between employees and management, all right. Now, there are certain statutory provisions you probably know, factories' act for instance in India says, that in a factory of more than so many workmen, you should have a joint plant committee, what does that mean? Management should be there, union people should be there, employee should be there, why to force management to share information and take steps where steps are necessary to be taken.

What we are saying in TQM, no one has to force anyone, everyone does it willingly. The management and the workmen they say, that we should have committees, we should have meetings, we should have a safety committee, we should have productivity committee, let us have this committees where all of us meet and we look at ways and means to improve our ways of working, improve our performance, improve the safety, improve our productivity, let us do it voluntarily and jointly, no statutes or acts are necessary.

Small group activities, this is same as Ford has, some call it SGA, cross-functional teams with problem solving at inter-departmental level or organizational level, cross-functional, you all understand what it means, cross-functional? That means, from different departments or same department, but different expertise we have people.

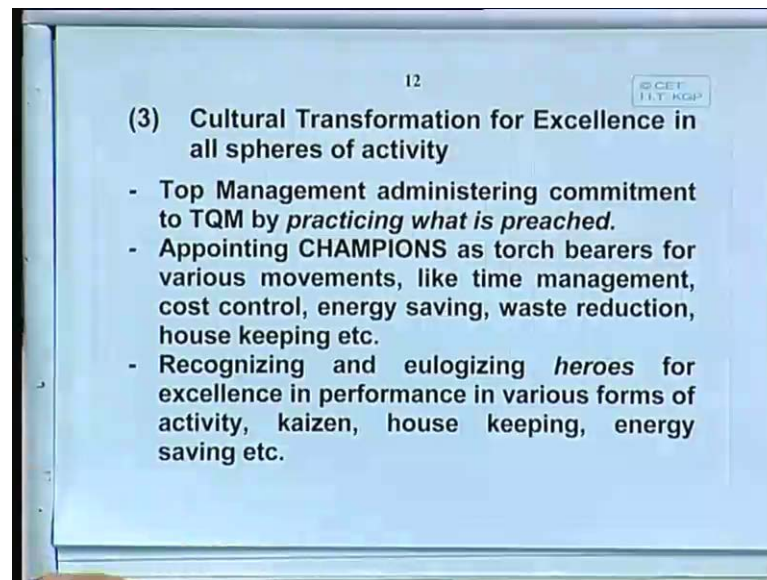
Then Kaizen, who knows, what is kaizen? K, A, I, Z, E, N, continuous improvement, but how does it work actually; because we are saying these are tools and techniques, you

want to start kaizen. So, kaizen is, yeah ok, but in very simple you announce kaizen's key saying, from now we have a kaizen, it means giving suggestions. Each employee gives suggestion, you can either drop it into a box or there is a notice board and the kaizen is printed. So, you have some assembler who is doing assembly and he suggests that at the present the fixture, which we have for a sub-assembly, all right, it has got this problem. I suggest, that another pin is added here, let us take an example, so that the time for assembling is reduced by few seconds and overall, he puts it voluntarily.

The kaizen's scheme is there, each one is expected to put his suggestions on the notice board and then the management from time to time looks at all these and sees, which are those suggestions, which are good, which can be implemented and those who have given lot of good suggestions, all right, then they are recognized by the management.

Recognized, why? Because, say, the vice president of the plant will come once in 6 months or so and say, these are the people whom we have given a small award, it will be a small not big amount of money, may be a small token, memento, but it gives recognition because is not that what motivates human beings, we learnt that in motivation topic. Recognition by people around you is very, very important to you after a certain level, if your needs are met for, you know, your basic physical needs and your safety and security needs, what do you want, you want basically recognition. So, kaizen is that and this is really to unleash the innovative and creative potential at the individual employee level.

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And 3rd, we are said, is the cultural transformation for excellence in all spheres of activity. Now, top management administering commitment, when you say administering commitment what it means? It means there must be ways in which top management shows to the others, that they are committed to the programme.

There can be so many ways, one way is the managing director comes every quarter to each of the plants and says, we have a meeting, all right, to review what is happening. The fact, that the MD who is so busy, he is giving time for this TQM only and may be half a day he comes and spends, is not that a powerful message going to all employees. So, earlier, the MD probably never came, he was in head-office, he is coming, and you can think of many, many innovative ways, all right, in which this can be administered; administered in a way, not only the MD, but other senior people, you can have presentations. What in L&T we have tried you know, good kaizen suggestions, not only were they accepted, but we had functions, you know, where we called people and those who had won this or who had won the recognition, they made a small 5 minutes presentation, we gave them power point help and all, so on, may be ordinary workmen, but they made the presentation and senior people who are there from the factory, that itself is a recognition. So, there are many ways in which you can administer this management commitment; that is very important.

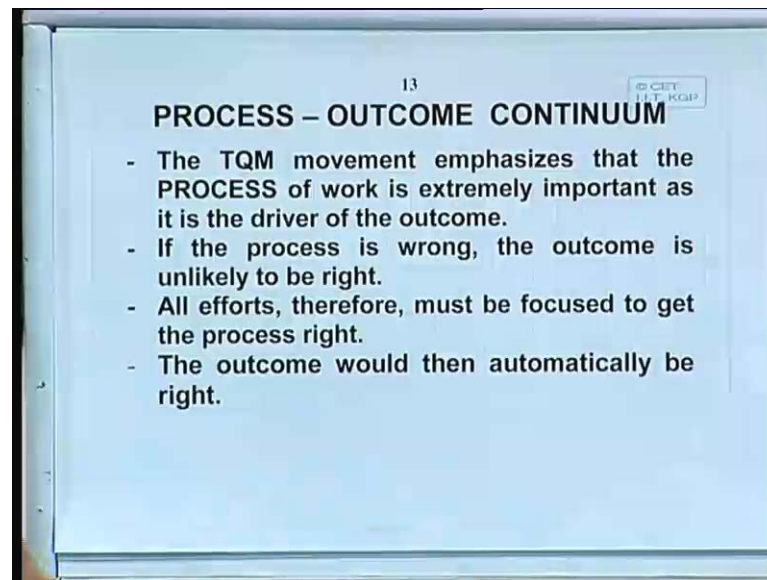
And what it means is the employee understands that the management is practicing what is being preached. We are giving circulars; we are saying we are a TQM Company; what is the top management or senior management doing it. So, it is important to have some form in which you show, that you are actually doing it not only talking, Americans call it walking the talk, you talk and then you walk, that means, you practice what you preach.

Then, appointing champions like Ford has done as torch bearers for various movements. What is torch bearer? Olympic Games, we find someone bears a torch that means he is a leader; his role is to throw the light so that the others could follow. So, torch bearers for various movements, like time management. Say, you have a movement in your factory, that one of the excellence parameters is manage your time well because that gives you unheard of increases in productivity. If each individual, groups, departments, divisions, they manage their time well, there is so much value locked into it, which you release.

So, there must be a champion to say, it is his job and he has to then think innovatively, how is he going to make this movement at various levels so that individual manage their time? May be there has to be a training company, you may think I will call some training consultants, you know, and cover may be 80, 90 percent or all of the employees within this programs, say half-day seminar on time management and many other ways. So, he is a champion and he has to be appointed by management.

Cost control, energy saving, waste reduction, housekeeping, housekeeping is what, everyone knows housekeeping, maintaining neat and clean tidy stores, workshop, offices, then recognizing and eulogizing. What is eulogizing? Fating, that means, you say, that you recognize him and say he has done an excellent job that is eulogy. Heroes for excellence in performance in various forms of activity: kaizen, housekeeping, energy saving, all these areas, those individuals are groups, that do well, recognize them, make a function, make them heroes.

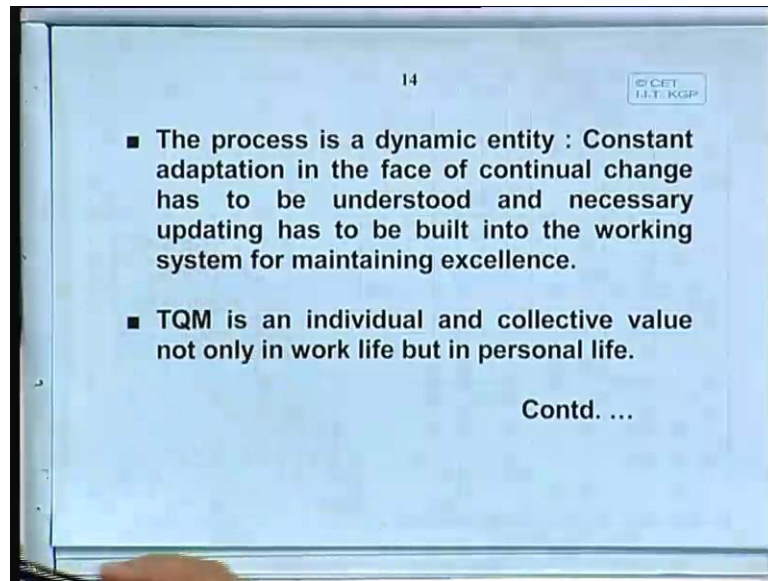
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Process outcome - we started by saying TQM, very, very important for TQM, that the process is important. The TQM movement emphasizes, that the process of work is extremely important as it is the driver of the outcome, it drives the outcome. If the process is wrong, the outcome is unlikely to be right. All efforts must therefore be focused to get the process right, the outcome would then automatically be right; any doubters here?

You do it all the time in engineering, you have a treatment plant, let us say for metal treatment, all right. Do not you have, say, a 7 tank process; you first phosphates, do not you keep the parameters: temperature, solutions strength and all. If you keep it well, the product will be good, if you do not keep those parameters right, you do not do good. So, it is the same kind of analogy here, automatically you will get good outcome.

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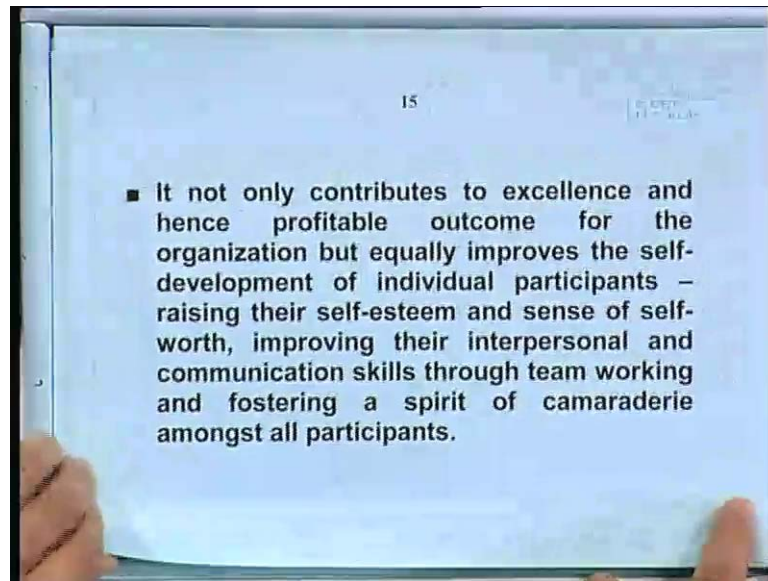


The process is a dynamic entity. Constant adaptation in the face of continual change has to be understood and necessary updating has to be built into the working system for maintaining excellence. TQM is an individual and collective value, all right, not only in work, but in personal life.

What does that mean? Excellence is a value, it is a core value, whatever I do I will do excellently and it is not only the individual, it becomes the value of the group. Also, that in our company, in our department, we have a pride in our work, we do not do bad things or shoddy things, we rather not do it, we rather delay it, but we will do it well. So, it becomes a value that philosophy becomes a core value.



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And it not only contributes to excellence and hence, profitable outcome for the organization, that is, better profits, better image, but equally improve the self-development of individual participants, all right, raising their self-esteem and sense of self-worth, improving their interpersonal and communication skills by working in teams through team workings and fostering a spirit of camaraderie amongst all participants.

In fact, in L&T, when we did the training of 12000 people, each of them was given 1 book and this is a very good book, seven habits of highly efficient people by Steven Covey, each of them was given and for those workmen who did not, who are not so good in, in English, we gave translation, we have some managers to translate into Marathi, the relevant chapters and gave it. Any questions on TQM?

What is camaraderie? Camaraderie, esprit-de-corps, that means, esprit-de-corps; that means, a fellow feeling, which is collective, you know, like the Indian cricket team or Australian cricket team, they all fuel their part of one team. Camaraderie means friendship, fellowship, all right, amongst the group of people, in this case, may be, department and finally, the whole organization, the enterprise, all right. So, we end today's topic on this.

Thank you very much.