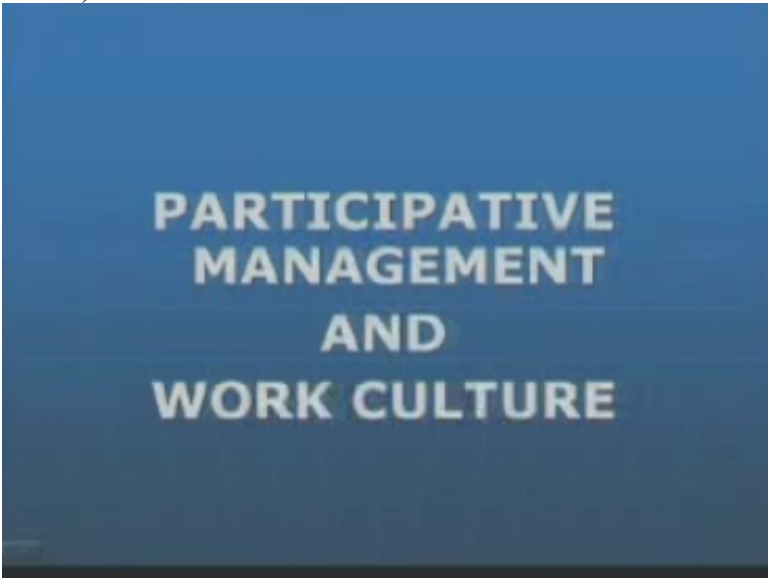


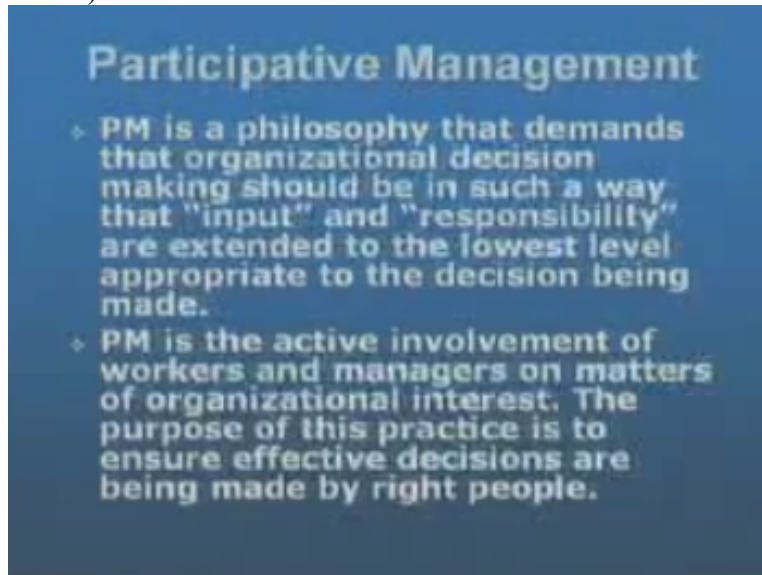
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A Video Course
On
Management Science
BY
Prof. Anuradha Sharma
Department of Humanities and
Social Sciences, IIT DELHI
Lecture # 16
Participative Management
&
Team Working (Contd.)**

We are discussing participative management and team working in our last lecture we were talking about the quality circle concept, and also participative management in different cultures we have discussed different countries and also we were talking about quality circles.
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**PARTICIPATIVE
MANAGEMENT
AND
WORK CULTURE**

In the Japanese system today I will talk to you something more about the Japanese system of participative management in our discussion on participative management and work culture.
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Participative management as we have already discussed is philosophy that demands that organizational discussion making should be in such a way that the input and there is possibilities are extended to lowest level of people in the organization in discussion making ,and participative management is the active involvement of workers and managers on matters of organizational interests.

These issues we have already delete with when we were to talking about the definitions of participative management given by various authors and various organizations I am just repeating some of those some has to give you recap of what we have done in the earlier lectures, so the purpose of participative management practice is to ensure effective decision making and which are made by the right people.

And in that effect we have many different types of a models and designs across various cultures which we were discussing last time.

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- ▷ Factors related to PM
 - ▷ Individual factors
 - ▷ Organizational factors
 - ▷ Society and Country level

- ▷ Advantages
 - ▷ Increased productivity, efficiency and performance
 - ▷ Better decision, better communication, better teamwork
 - ▷ Greater commitment, greater trust, improved job satisfaction
 - ▷ Faster adaptation to change

When we are talking about participative management then we have to talk about the individual factors organizational factors and team factors at the level of society and country and so the advantages when we are using this as a management technique as a technique you know the human technology we can say arising heart of the human sciences we can say there are number of advantages.

And when we are looking that formal organization point of view and industries point view then we find that the advantages are increase productivity, efficiency and better performance also we have better decisions making, better communication and better team working now participative management also takes to greater commitments, greater trust and better satisfaction or we can say.

A improved job satisfaction this also leads us to better adaptation of change all of you must have discussed or thought about that the issue of management of change is very important which of

Course we will seal with you know separately in our decision on the management of change but here I am discussing this in relation to participative management that immediate production of participative management.

Is situation of change management if you introduce a new kind of a system like participative management that means we are changing the system from the older system, if you are using participative management as a technique for managing any kind of a system whether it is a technology system or any kind of a economic system or social or social cultural system obviously there is some resistance and if you are using participative management then to a great extent.

We can manage without much resistance so we have much better success we can say in change management strategy so we are talking about faster adaptation to change because we have no choice we have to manage this situations for the change in this fast moving world and everyday a new idea comes a new technology comes new people come, new system come, new cultures get you know next of it each other so if we are talking about the process of change participation gives us you know here.

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Quality Circles

- ♦ Started in Japan in 1962
(Prof. Ishikawa has been credited for creating Quality Circles)
- ♦ Coordinated by the Japanese Union of Scientists and Engineers (JUSE).

Once again I am talking about the quality circles that I discussed in the last lecture that the participative management in the Japanese culture has been institutionalized as the quality circles which we were discussing in our last lecture so this is starting in Japan in 1962 by Prof. Ishikawa and we can say that he has been credited with the creation of this particular idea which is a movement today and coordinated by the Japanese union of scientists and engineers this whole concept.

You know got evolved and which is today being used by organization all over the world something more on the quality circles let us see.

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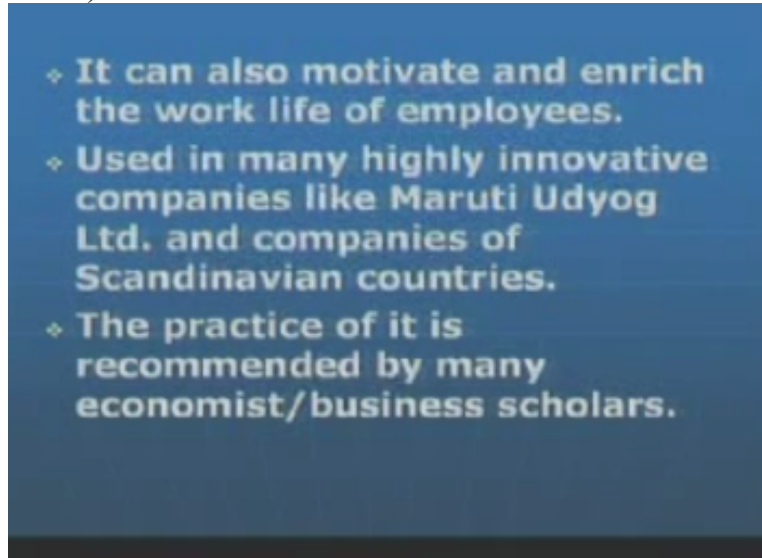
- ♦ A quality circle is a volunteer group composed of workers who meet together to discuss workplace improvement, and make presentations to management with their ideas. They meet at regular intervals to identify, analyze, and resolve work related problems.

A quality circle how do we define quality circle, quality circle is a volunteer group people join one participative management exercise done through quality circles people joining voluntarily this is what we were discussing last time, so we define quality circles as a volunteer group composed of workers who meet together.

To discuss work place in improvement and make presentation to management with their ideas they meet at regular intervals to identify and analyze resolve work related problems and they try to improve on the various issues related to the functioning of the organization may be manufacturing may be it any other function of organization.

So the quality circles aim to improve this safety for the designs and improvement of the manufacturing processes also we have the advantage of continuity the circle remains you know interact within you know project to project so we have you know many advantages when we are using the concept of quality circles.

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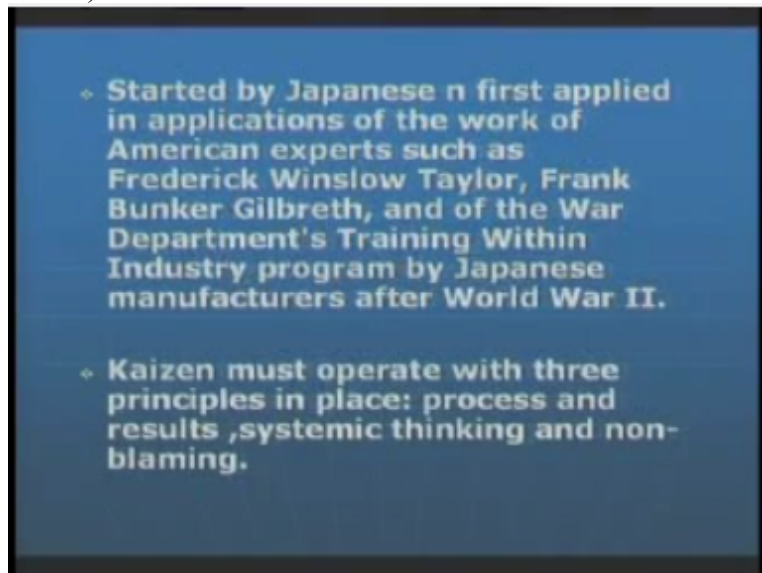
We can also say that it motivates all the participants of the quality circles and enriches the work life of the employees because earlier we were discussing when we were talking about motivation we were discussing that that when we are looking at the performance management is not only that performance and we do it hard and we do not higher only the hands or the skills of people for performance.

We actually hired the whole person to perform. And that is why if we do not take care of the whole all situation, overall quality of work life perhaps you know in the long run we may not become that much successful and quality circle takes into a count this aspect to and so what we are talking about that quality circle and richness life because in Herbliss story earlier we had discussed that work is motivating if it is enriching as so the job in Richmond theory and quality circle.

Also enriches life work life I am talking about work life here and we are also talking about the overall satisfaction and motivation of people to a work used in many highly innovative companies in fact today as I said it is a movement it is being used you know in most of the innovative companies all over the Udyog and here. I will just make a mention of Maruti Udyog Ltd. One of the car companies of our country and some of these convenient countries which have every successfully used quality circles for their manufacturing the practice of quantity circle is recommended by many economist and many business practices and business scholars we can say and so the quality circle has become a practice.

It is become a movement and it is become a technical for getting results. Not only results in the direct production sense but in the most intangible sense has well the people are very happy performing. So in the Japanese system the movement called the cuisine this has originated there and cuisine.

In Japanese means change for better or improvement and we can translate that to continue the improvement kind of connotation we can use there. So we have borrowed the term for there so India as well as in many countries we are using in the sense for quality circle for our practice because we know that in the long term. It is going to be a better results, to take it apart and put back to gather in a better way okay in the quality circle this is also an exercise that, that we do. (Refer Slide Time: 13:17)



So stured by the Japanese first it was an application of the work was the American experts are also made huge of these ideas. For example Taylor of Frank, Gilbert and many others okay in the department of training they have used these concepts. We discussed in the theory in earlier part of the course even though at that time we will not talking about the ward quality circles. But that idea was perhaps there.

And now the idea of course has been institutionalized has quality circles and lot of work and we can see that originate the Japanese system. But the idea in the management literature had been there in some were you known in we can say in the indirect form some sort of a form it was there. So the Kaizen coming back to that Kaizen must operate with these principles, and these principles are process and result systematic thinking.

And we involving the perhaps people in no way we can see their involving people like and really appreciating ideas. And with open mind, open heart we accept the new idea so we do not blame anyone for any kind of that performance or anything of the kind.

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- ♦ The goals of kaizen include the elimination of waste (as "activities that add cost but do not add value"), just-in-time delivery, standardized work, paced moving lines, right-sized equipment, etc.

So the goal of Kaizen that includes the elimination of waste if there is we are talking about the industrial organization and what are the actual articles becomes the different activity. In terms of various parameter so the goal of cuisine use of elimination of waste has the activities that at cost but do not act value. So we are talking about that kind of a design of a system okay just in time delivery standardization of work.

Then space moving lines right sized equipment some of the aspects of the designs there are included in the whole process of the designing the total system. And cuisine made significant contribution in our outstanding of some of these aspects.

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- ♦ It is also a process that, when done correctly, humanizes the workplace, eliminates hard work (both mental and physical), and teaches people how to do rapid experiments using the scientific method.
- ♦ The Toyota Production System is known for kaizen.

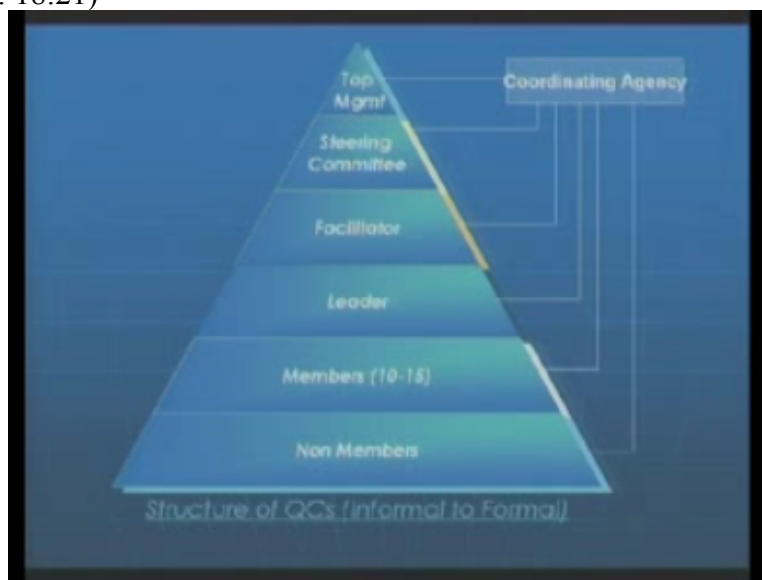
It is also process that when done perhaps correctly, then it humanizes the workplace shot while are go I was talking to you about humanizing the workplace. We are various components of a work system machine in one component the total info structure is another component train man power is third component and the performer. Is the other component total system of courses their so these are the some of the component.

And when we are analyzed we find that human being who is a performer perhaps is the won it has to be considered in reason to other parameters. That is why will saying that okay humanizing effect of the work situations in this system we have great because say concern for humanization of work.

And so this humanized the work place eliminates hard work both mental and physical and teaches people how to do rapid experiment to using the scientific method. And in my last lecture I was talking to you about how the analysis of results is done when we are using quality circles. I repeat some of those once again here with the diagram which is typically which appeared most of the standard perhaps books.

Just to give you further analysis I will discussing has time, Toyota production system is known for Kaizen. Many other company of course to take it that if I meaning a particular company that is the only company which uses.

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Quality circles are this movement in fact in there are many companies just in for the sleek of teaching are better one or two. But if you opened books which are appearing you know in the field all if you perhaps did there some web sites or if you have another teacher discussing that you will find the similar things perhaps in appearing there may be only the examples and the cases will studies will be different.

So for the purpose of teaching apps in a few there are many more available now this is the diagram of quality circle. In our lecture we will discussing that in quality circles the problem identification can come from any member of the organization and within the organization select the problem and which the quality circle will be made. Now here in this diagram we can see that we have the non members of the organization.

All employees of the organization then they give has the suggestions and after that then hand full of people they became the members of a particular circle. Which the management perhaps has choosing that okay we will have 1,2,3,4 10 quality circles working at this particular time. So all the members those who choose become part of one particular quality circle they are then the members.

Let me use this so you have the non members when you have the members okay and then we comes the leader. Okay and after that you have the facility you are studied comity and then you have the final management input coming here. So you can see that formed the workers so this is the group of all workers those who are there, if there are say 10 quality circle functioning at a particular time.

Not all of them will be participating but few of them participating 1 some in 2,3,4,5 because the selection is valence. Once you become member of the particular quality circle that means 10 such quality circles will be functioning at a particular time. So you become the member of the quality circle and typically when we are talking about the membership of quality circle has we also raid in sometimes.

In our some of the earlier discussing also that a group is become effective if we that have the optimum say the number something like 10 to 15 members. If you are larger than 15 perhaps then we will not to have the face to face contact so much introduction there many of the comity is which we may have in 50 or 100 people perhaps the result is not that effective. So base on some of the earlier research is in the design of quality circle suggest that. We should have 10 to 15 members.

In a quality circle, so if you are 10 quality circles or in a more I am just taking 10 have a just adopt number. So we have to 10 to 15 members they meet regularly and they discussed the issues related to that particular concept and the object in which in that quality circle has we need. And then you have leader in this quality circle, and then the managers are also there I was talking to you last time.

That the Japanese system is a very good combination¹ of a formal and in formal kind of a system when we will talk about participative management system We said there are some formal ways of participative management and there are in formal ways also participative management was I will discussed about it, just I short wise of now. So then here you see that here is a manger if who is the facility term then there is a comity and the talk management. So in a meet this also certain problems.

Once you know they may solve certain problems and then after that the, the leader facilitator are try to help them to arrive at to the final conclusion and then there is a steering committee that tries to monitor the quality circles and then perhaps one they you know maybe 5 qualities circles are making presentation and the 1st one is award and something in that kind so, so then the management takes lot of interest.

And then of course after all the results are given to the management then they decide that which particular quality circle has to be implemented in the functional area than that they have to decide so we find that quality circle becomes and the extremely important type of participative management system and is being implemented used in most of the organizations today.

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Impact of QC – A case study

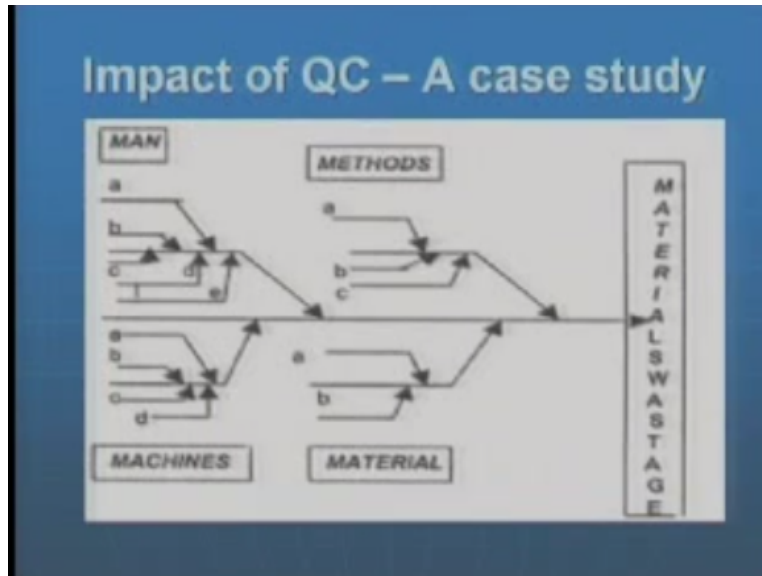
- **Problem – Reduction of material wastage in a small production shop floor**
- **Name of the organization - Workshop, University Polytechnic, AMU, Aligarh**
- **Number of circle : 01**
- **Section where the circle is operating: Machine and fitting shop**
- **Number of meetings held in one year : 10**
- **QC team - a leader, a facilitator, a coordinator and four members.**

To the impact of quality circles as we can see from a earlier discussion last lectures and today that the problem there is a reduction known of a material wastage in the production shop this examples and taking because we are talking about a suppose in our mind we have the production organizations like demand if I say organizations or a textile unit or something of that kind were any kind of production that we are doing with this.

Lot of wastage that means it increases in efficiency so using quality circle it is possible that we make such in optimum use of resources that the wastage are minimized that is the idea here then they issue that I am going to discuss just now is an about cases study that is about the name of the organization here this is one of the publications that I choose of course that is about an Indian organizations later on I was a chosen.

Another one so the name of this is a study in this work shop of the any this has published an later on perhaps I will giving you the reference also of this one so the here the number of circle is one and the section where the circle that is operating is the ,machine and fitting shop then number of meetings held in one year in 10 meetings and the QC team has a leader as facilitate a coordinator and 4 members as this is you can fit into that particular diagram is see okay this is about one of the organizations in India functioning and alleged.

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And you can here see that they have tried to develop you know the kind of a machines in the material diagram time to analyses the quality circle and how do they function the organizations we can see here that what we are try to talk about that how this whole idea of this machine system working or here the materials is working in our last lecture we are discussed that when we are using quality circle as a concept.

Is not you know only superficial but we actually collect data then we actually analyses data we use some of the strategically techniques like we can have just graphical representation or we can have correlation coefficients on we can have portal diagram or we can have the other kinds of a techniques so any strategically technique that we might you know use for the, the fiction of data so the idea here is that in a very scientific.

Wave we are trying to the pick the data will the choice could be yours but many techniques many of this strategically techniques which we normally use knowledge generation in any other field are being used for the analysis of data form quality circles and then that data becomes an official data for official input so that the company make much better profit in many situations we have found that the design of a particular system.

Of the auto mobile or something of that kind has been in proofed using quality circles many there are many other differenced to that obviously if the auto mobile design could be improved using quality circle then it is a very good business of course it gives lot of profit and the organization there a reputation the organization image of the organization increases this has some of the issues of managing best system so, so quality circle really help us.

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- *Causes Related to Man*
- a) Lack of knowledge about the materials
- b) Proper instruction not given about the work
- c) The materials were cut more than the required amount
- d) Lack of knowledge about the operations
- e) Lack of knowledge about handling special tools

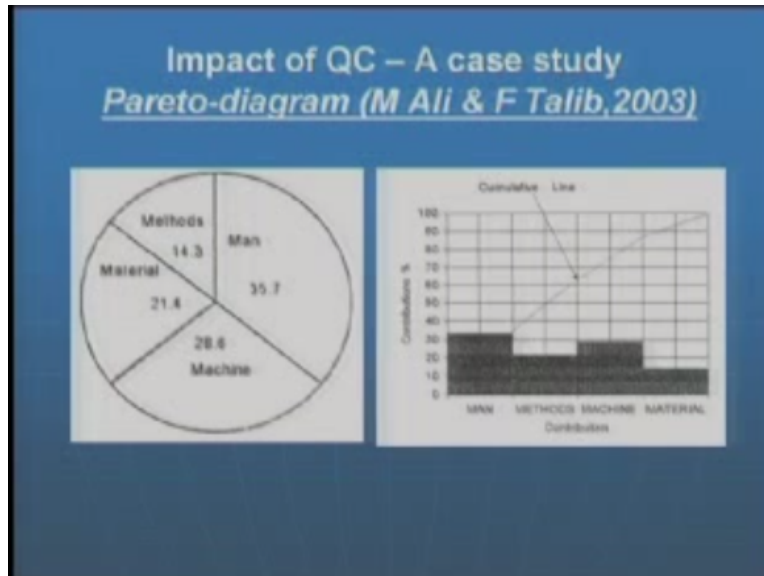
- *Causes Related to Machines*
- a) Machines not operating at optimum condition
- b) Frictional wear of machine parts
- c) Problem arising due to misalignment of machine components
- d) Lack of implementation of new and automatic machines

Now when we are trying to talk about this particular issue of quality circle some of the causes related to some of the issues some example lack of knowledge about material of we have the proper instructions lack of instructions we can say all the proper instruction is not given then maybe managing a particular situation all the materials were more than perhaps they require like of knowledge about the operations.

Lack of knowledge of handling of a particular specific tool and the general causes related to the machines, the machines are not operating at the optimum conditions the fractional we are as in the machine parts the problems arrives in due to miss alignment of the machines an lack of implementation of know an automatic machine you can see that the so many issues which relate to quality circles but and here.

What I am trying to see that these are most of these are the issues associated to the engineer sector where we are talking about the manufacturing process and if these issues are not dealt with then perhaps you may have difficulty in terms of the genetic production so quality circle in other words we trying to say that this is the system were the , the machine and the human interface is been emphasize in fact us we have seen earlier also in this course that we have to understand the overall system in which all the subsystems are working in the inter going fashion so here is one example that we have giving using quality circles.

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Also this 2 figures as you can see these are the analysis given using some of the diagrams then practical and pare to of that particular study which we are bother in that study we can just explain that to must students you can see that how scientific is the presentation of quality circles maybe some of you can note down some of this points of your wanting to do that so I can just showing to this next going to give you also.

The ,reference from this so if you want you can also go to that we can see we have draw the graphs the pie diagrams all of you know about it but then this are also being used you know such subjects in the sometimes of pay attention of that so that is the idea here.
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- Causes Related to Methods
- a) No proper inspection in the machine shop after the material has been issued from the store
- b) No proper care was taken in storing the materials
- c) Lack of knowledge of improving the existing method of production
- Causes Related to Material
- No proper inspection of the material dimension before machining
- b) Materials obtained not having the required composition

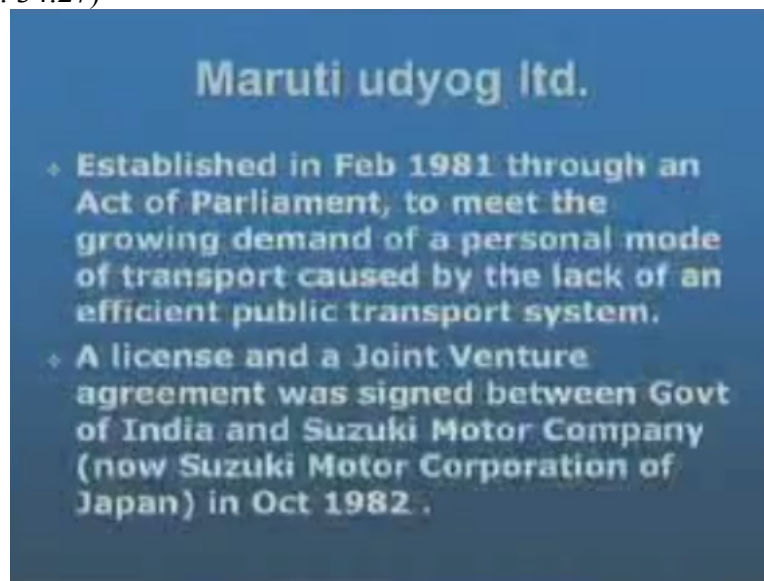
And so what also we have to understand that causes related to some of these methods know proper is inspection in this particular study know proper inspection of machine shop after the material has been issued from the store all of you know that the system how the system works and this to machines shop and then we have inspection department okay and they have to work in with a date co ordination if they are not with that then that will be very difficulty so here one

of the causes that the in this particular study they have found that the perhaps lack of coordination then no proper here has been taken for the materials then lack of knowledge of improving the existing method production and the causes related to the material they relate to that no proper inspection has.

We would discussing and the, the material dimension are is important this is before inspection in of your not match the material and perhaps you know machine in other things okay so, so we perhaps you know they could have hidden one quality circle and expecting that then the report have come then the research have that could have been input for another manufacturing processor.

Yet another quality circle we can say that , that is also possible okay in that inputs of some quality circles maybe taken you know as the output of one particular quality circle maybe taken has an input for a new quality circle I will waiting that so ,It is not that one quality circle is end in itself. It generates new ideas, new exercises, new data and then you can feed that to new circle and then you can solve a new problem that is the idea I am trying to take above. Now also the material obtained and having the required composition that is also very important.

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So from here I bring you to another case study or another example that is of Maruti udyog ltd sometimes short while from now, we know that Maruti udyog ltd is a car manufacturing company, we have already discussed earlier. This was established in 1981 through an act of parliament and to lead the growing demand of personal mode of transport cause of lack by inefficient perhaps well someone on that way.

It is not necessary but there is a social need we need in a personal transport. Today I am going to talk about many other companies you know which manufacturing tools by the personal need of people are. Okay that is started as a joint adventure and the agreement was signed between a government of India in Suzuki motor company in 1982, and all these information is available in many of the websites of company and many other places.

Okay this is just give you some kind of a scenario I just mentioned that, okay but you get to know much more information on this and go to some other sources. So the objectives of this

company at that time was organization of Indian automobile industry and that at time we have know many of the auto mobile companies, and that was the modernization of production (Refer Slide Time: 36:26)

- ◆ The objectives of MUL then were:
 - Modernization of the Indian Automobile Industry.
 - Production of fuel-efficient vehicles to conserve scarce resources.
 - Production of large number of motor vehicles which was necessary for economic growth.

Of fuel efficient vehicles, and production of large number of motor vehicles and which is necessary for our economic growth. Even today we can see we know the maruti company is one of the leading manufacturers well but today the scenario has changed, we have many others, why I am talking about this is to say that because that of the background like cultural background that they have developed.

We also borrowed some of the we can say the issues or some of the cultural setups that we have their in the organizations like quality circles. We have also tried to borrow them and try to invite them in our organization. So multi company has culture of quality circles that is why I have chosen this but many other company is also doing that, I am not saying that other are not doing perhaps I could leave my hands on this kind of company which is exciting to me and I thought of discuss that with my group of students.

So but as a exercise as a self learning you can learn this concept and study other organization as are they using quality circles and participative management has the techniques of these management systems. Perhaps question you that you could put that in the part of the exercise. So the objectives that we were discussing that this had long term objectives.

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- ❖ **“Our employees are our greatest strength and asset.”**
- ❖ **Employee-Management relationship is characterized by:**
 - **Participative Management.**
 - **Team work & Kaizen.**
 - **Communication and information sharing.**
 - **Open office culture for easy accessibility**

And today it is manufacturing unit and they believe that they are employees and our greatest strength, assets and employee's management and the relationship that are characterized by participative management, team work, communication and information sharing and open office culture for easy accessibility.

All these issues we have been discussing for last perhaps the lectures, when we had discussing the participative management and which we have diverted, sometimes, because we believe that in today's time and today's culture one of the greatest challenges is how to manage an organization to achieve perhaps the competitive advantage that we know that we will not achieve it unless we have really try to involve people in the decision making process and quality circles in participative management is perhaps you know showing us a way to achieve these results.

Now further on these ratio,
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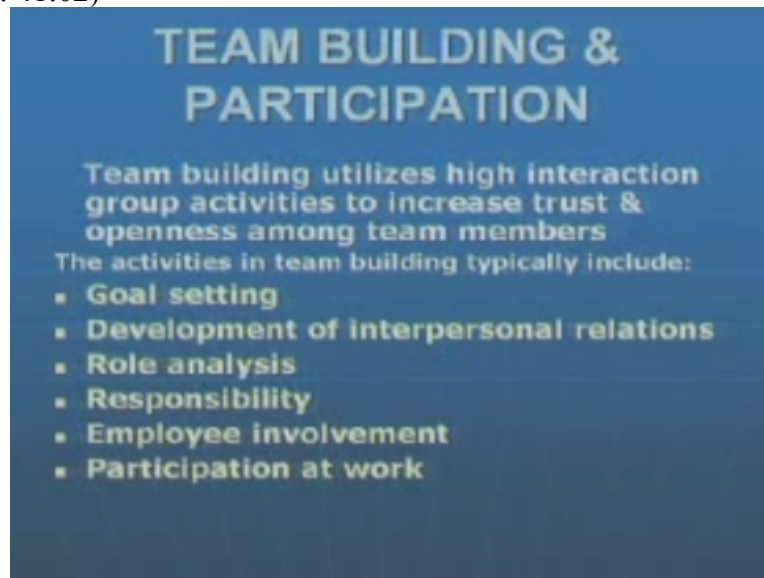
- Maruti Udyog Ltd.**
- ❖ **A well defined organizational structure.**
- ❖ **Have a Flat Organizational structure.**
 - **Only 3 levels : Board Of Directors, Division Heads to Department Heads**
- ❖ **Cooperative working style.**
- ❖ **PM techniques are learned from Japanese culture.**

Let us see these organization has well defined organizational structure and they have a flat structure, organizational structure if you would recollect in our chapter on organizations that we

have talking about are tall structure, flat structure because in a flat structure we have the levels of hierarchy are much lesser but if you have a tall structure levels of hierarchy are too many levels of hierarchy.

So they have the flat structure and there are three levels that we can say the word of directors, division heads, and department heads okay and then cooperative working style and participative managements are techniques that are learned from the other cultures like the Japanese culture and being practiced in the organization.

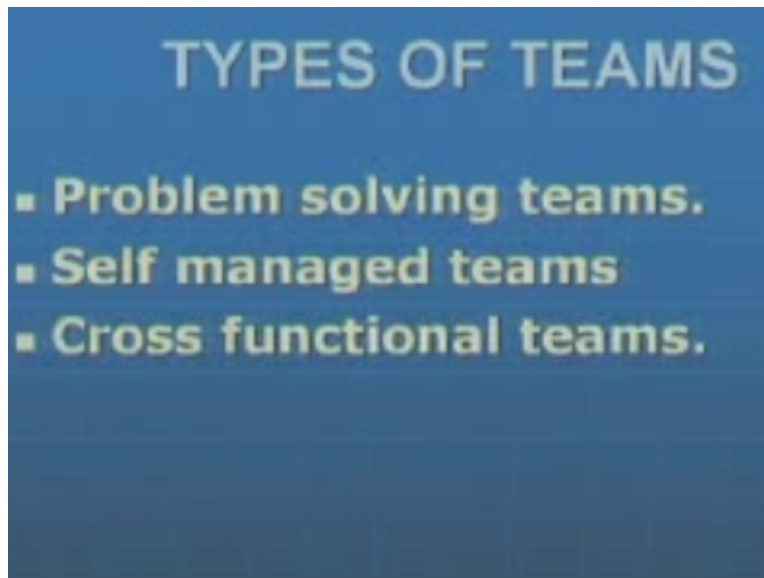
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So when we come to discuss the quality circles and participative management we find that we cannot achieve this unless we have understood the team working process. Because teams are very important for success of participative management for that matter the success of any organization so in a few lectures now, few minutes I am going to discuss with you about the team building and participative management and let us very briefly look at earlier also perhaps I discussed you to what is the meaning of the team and how a team is made but once again I repeat that a section teams.

We all know that groups, we are talking about the teams we make the distinction between teams and groups which we have done earlier also team building, I will not repeat that distinction once again. Let me first go to the team building itself, team building utilizes high interaction, group activities and increases the trust and openness among them the team members and it involves team building typically in every organization includes goal setting, development of interpersonal relations, role analysis, responsibility, employee involvement, participation at work.

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So we find that team building is an important aspect of participative management and there could be many types of teams, but we are talking about problem solving teams, self managed teams and cross functional teams. In some of the literature they are also talked about participative management as team management because they believe that could be an alternative perhaps you know the expression for participative management using teams we in essence we are using participative management system.

If you look at some of the organization for example, if there is a software company team management is the perhaps the cracks of that unless there is a project team, unless there is a team functioning perhaps you will not be able to do so much excellent work in the software organization. Particularly, I am talking about when you are solving the solutions you are doing consultancy kind of the situation, team management.

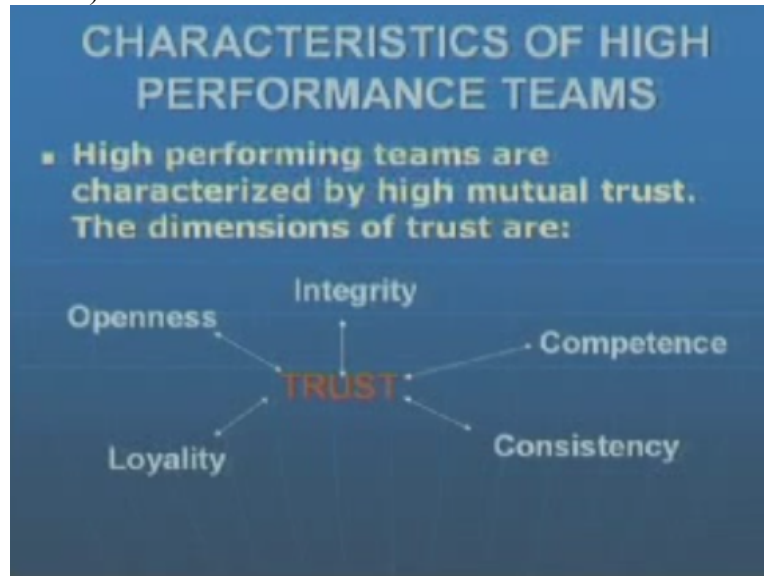
Becomes extremely important. So everywhere even in a manufacturing unit you have a department and a number of teams and they have a certain jobs which they are performing and the input from all the teams come in the departmental idea. So that goes as the final output of that particular department whatever these teams have done and then the departmental output that is the idea.

So team is a members perhaps you know two or more members in a team it is not the large number one of the important characteristics of the team is that this face to face interaction not only that people in a team have complementary characteristics that means each person is the expert or each person is the good in particular area.

And so when you make a team of these five or six of those persons then the input come from each of them okay, making the solution very easy that is participative system so team management becomes very important and we have the problem solving team and we have the problem that team is solving sometimes the teams are self managed in the sense that the organization will say that these five members are the team, okay you achieve this in the marketing situation there may be a self managed team.

Many of the other problems like the forestry or many other developmental projects you have then team management and self management teams where there are no leaders but the team

members are managing that particular situation and the cross functional team you may of teams of different functions and eventually you know you find that they have the outputs to actually comes to the final conclusion. So this brings us to the idea
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Team management and the performance of functioning and how high performance teams they can see are characterized by integrity, competence, consistency, loyalty, openness and these will lead to the idea of trust because in team the whole idea of trust is extremely important this we have discussed earlier itself. So we have seen that whole exercise of participative management we have to have team functioning also.

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Produced by

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