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Module No. # 03
Lecture No. # 28
Nature of Organisational Process (Contd.)

There are several techniques of decision making and again like in many other inventories, it is not possible to cover all of them, but I will briefly touch upon a few. Let us begin with SWOT analysis.

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Techniques in decision making Managers at various levels use several techniques for decision making, some of them are: SWOT Analysis - Evaluation by the decision making individual or organization of Strengths, Weaknesses, Opportunities and Threats with respect to desired end state or objective. Analytic Hierarchy Process - procedure for multi-level goal hierarchy Buyer decision processes - transaction before, during, and after a purchase

This is an acronym as many of you will recognize of strength, weakness, opportunities, and threats analysis. To come to a decision, you find out what are the strengths, what are the weaknesses of that situation, of that person and then simultaneously with that you look at the opportunities which can be utilized by the competencies of that person. For example, he is very good at pole vaulting; so, he can be used to scale boundaries and get on to the other side of the fence, and of course, the possibilities of what you do when you get on the other side of the fence are endless. The threats, of course, are that you can be caught and be roundly beaten up, but if the prize at the end of the jumping over the fence

is attractive enough, then it is risk taking for profit maximization and if you think I am fooling around, I am not.

What applications you saw is a matter entirely of your frame of mind; what I have is decision making and no matter what you do, you will find that you will have to grapple and deal with the unknown and that is always a threat - handling the unknown. The question arises - how do you convert threats into opportunities? And if you are good at that you will be ahead of others. The art of life lies in what threat you to choose to face; you cannot get away by saying I will not face threats, you will be always faced by threats, but the wisdom of decision making lies in choosing your threats appropriately.

Then, there is analytic hierarchy process; there is not much to teach there; this has been converted into a software; you must know how to use that software. It is a procedure for multilevel goal hierarchy and then you select which goal hierarchy requires which kind of analysis.

Then, there is a buyer decision processes transactions before, during, and after a purchase; in a lot of electronic goods, the real transaction begins after you buy the goods, then begins the series of breakdowns and therefore it does not really matter whether you are buying brand x, brand y, brand z; whether you are asking for [FL] or you are asking for Kent or whatever you it is that you are asking for, how do you maintain that equipment is the real threat.

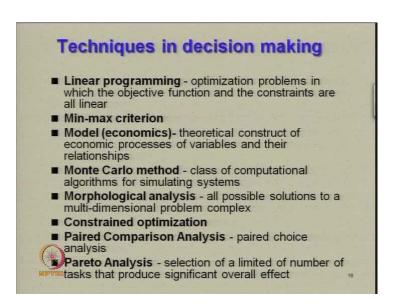
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Techniques in decision making Decision trees Program Evaluation and Review Technique (PERT) Critical path analysis Critical chain analysis Force field analysis - analizing forces that either drive or hinder movement toward a goal Grid Analysis - analysis done by compairing the weighted averages of ranked criteria to options. A way of comparing both objective and subjective data.

Techniques of decision making include decision trees, PERT; again, there is nothing much to learn in PERT; it is been all converted into a software, critical path analysis critical chain analysis. Industrial engineering is full of techniques, it is a very rich area; if you are the person who keeps looking for a toolbox, you become an industrial engineer; you would always have lots of tool - whether they will work or not; then, if they do not work, then we start looking for a problem where you can apply your tools.

People usually identify a problem and look for a solution which will solve the problem, but if you have a solution and you know only how to apply that solution, then you choose a problem where that solution will work; so, it is a question of search for options of the problem. Now, if you do not get the lighthearted manner in which I am saying what you need to know, that a technique bound problem solver will forever be in trouble; well that is entirely your problem.

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Then, there is a force field analysis - analyzing forces that either drive or hinder movement towards a goal. Grid analysis - analysis done by comparing the weighted average of ranked criteria to options; a way of comparing both objective and subjective data. I am not going to spend time discussing each one of these techniques because this is not what organization management is about, I am going to move on from there to help. You see the whole listing of techniques from handling closed ended problems to open ended problems, to handling problems of nonlife substances, to problems of life

substances and ultimately the whole universe is continuous decision making, everything is a decision.

There are linear programming optimization problems in which objective function and constraints are all linear; real life, unfortunately is never linear. The other day, I was asked a question whether history repeats itself; well, the truth is history never repeats itself, historical solution historical situations repeat themselves. So, the other gentleman was a smart gentleman; he said - sir, what is the difference? I said - young man the difference is very simple; if history were to repeat itself the problems and the solutions would get repeated.

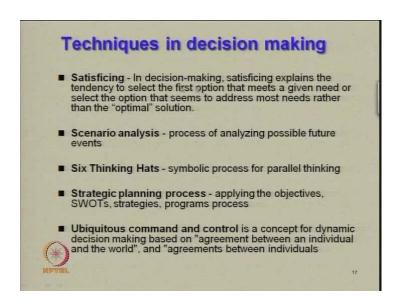
If historical situations repeat themselves, then you have to find new solutions because of the new context. Your granddad was in love; the situation may reoccur; you may fall in love, but if you are going to use the techniques which your granddad used to communicate, you had it. So, this not a question of history repeats itself, history never repeats itself. The long and short of it is life experiences are remarkably similar, the solutions are not; each prescription is a personalized solution, each managerial decision making is a contextual decision making. The same problem in one organization - a solution will work, and you have that problem in another organization and that solution may not work.

Then, there is of course, min-max criteria - minimum and maximum criteria. There is a question of models; now this word is so abused. I do not know how many types of models there are. No, I am not talking of fashion models; you have econometric models, you have socio metric models, you have software models. Now, I hear people claiming, I have been to modeling; I do not know what modeling means, either it means all sorts of things to all sorts of people, but that does not prevent me from telling you, mode theoretical constructs of economic processes of variables and their relationship is one type of a model.

Then, there are all types of methods and analysis and models; again, there is a Markovian model in human resources planning. There is the Monte Carlo method class of computational algorithms for simulating systems. There is the morphological synthesis - it is a tool of creative problem solving; there is not anything common between the Monte Carlo method and the morphological analysis.

Monte Carlo method is used in computational situations. Morphological analysis is used in undefined situations, where you have a possibility of creating new combinations; so, morphological analysis is used in open ended situations. So, clearly techniques are available both for closed ended problem solving and open ended problem solving. There is a question of constrained optimization, paired comparison analysis, paired choice analysis, Pareto analysis, selection of a limited of number of tasks that produce significant overall effect; remember my discussion on quality movement and we were talking there of Pareto.

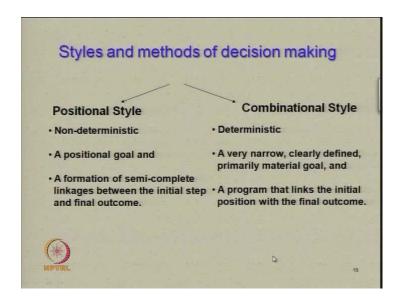
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What are the other techniques of decision making? Satisficing. In decision making, satisficing explains the tendency to select the first option that meets a given need or select the option that seems to address most needs rather than optimal solution. Now, this is a very interesting concept; it is not a question of getting the best solution, it is a question of getting a solution which solves the widest number of problems. Like you go to an amphitheater in a student cultural festival, you can have a problem solving, which gets you a chair right next to the dais - the best solution for one problem. But the best solution for 20 different problems is locate space at the center of the amphitheater and enable 20 people to sit there. So, instead of optimizing on one solution, you optimize in a way in which you cover large number of situations; so, depends upon what you are looking for. So, it seems to address most needs rather than optimal solutions.

Scenario analysis - process of analyzing possible future events. Six thinking hats - symbolic process of parallel thinking. As distinguished from longitudinal thinking you have lateral thinking. Strategic planning processes - applying the objectives, SWOTs, strategies, programs processes. Ubiquitous command and control is a concept for dynamic decision making based on agreement between an individual and the world, the agreement between individuals.

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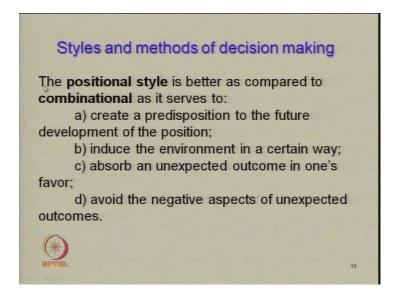
And if you think the list is over, the list is not. I merely took you for a medium level walk to give you n number of techniques to show you; you can multiply it by 3, the list of techniques will still not be over.

So, let us now move on to styles and methods of decision making. There is a positional style and there is a combinational style. The characteristics of a positional style are it is non-deterministic, it is a positional goal, and a formation of semi complete linkages between the initial step and final outcome. A combinational style is deterministic, a very narrow clearly defined primarily material goal; a program that links initial position with the final outcome. This is programed, this is not programmed. This can go all over, this will not go all over; this will go in a straitjacket solution.

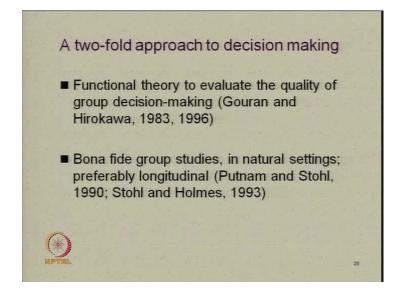
You know it is like a person who says - I do not have a schedule, I have a list of tasks; you know that is a very profound statement. He has not come there with prior appointments; he has not sequenced them. He is not going to do it in a manner in which

he knows which one he will take first. He will tackle the problem as per the time available and he will tackle a problem as per the situation which offers itself most easily to handle that problem.

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Styles and methods of decision making - the positional style is better as compared to the combinational as it serves to: create a predisposition to the future development of the position; induce the environment in a certain way; absorb an unexpected outcome in one's favor; avoid the negative aspects of unexpected outcomes - this is a positional style.

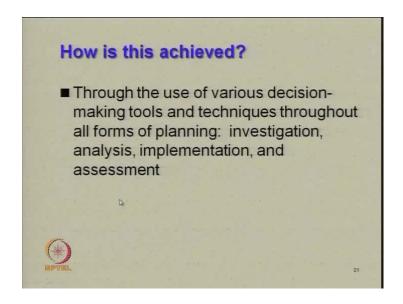
Similarly, there is a two-fold approach to decision making: the functional theory and the bona fide group studies.

The functional theory tends to evaluate the quality of group decision making. Now, please recall decision making can be individual, the decision making can be a group. What marks the Indian society to be different from the western society? In the Indian society decision making is always group. I know it is becoming fashionable to say, it is my life I will decide whom to marry. I have obviously nothing to say but the chances are your [FL], your brother, your [FL], your [FL], your [FL], even your teacher, who knows will become a decision maker in who you should marry. Now, jokes apart, it is a group dynamics which decide and no he should marry her; I have known her for 20 years; sir but she is only 19; no, I knew her ever since she was conceived; so, that makes it 20; I knew her mother; I was the one who chose the doctor for her, which means I know her so well; you listen to me; now you will never get a good girl like her.

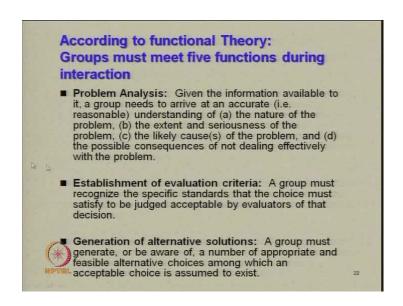
Now, at a serious level, a lot of decision making in India is collective. The family decides what job you should take. You want to be a painter, but the family decides you want to be you are going to be an engineer and you do not go to an engineering college; the ladies of the house go hysterical - this is why we brought you up, to defy us, you are not obedient at all, I am not going to eat dinner today. So, you fight it for a day, you fight it for two days, you fight it for three days and you say - what do I do now? I will go to an engineering college. Now, again I do not want to be fibulous, but the long and short of it is there are cultural styles of decision making and the punishment of getting out of step is very severe and the first thing which it costs you is you are denied the social safety net. Like in India, even illness, you know they all start coming - tell me what happened, how did you meet with the accident? So, there was less pain in the accident, than there is in describing it to everyone who comes.

But all that I am saying is that there are different styles and there is no superior style and there is no inferior style; whatever works before a person is good enough for that. Then, there is a bona fide group studies in natural settings, preferably longitudinal; we have discussed this in different incarnations, I do not want to go back to it again.

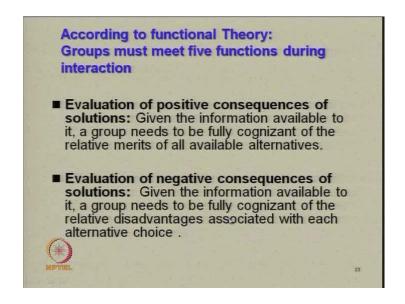
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How is this achieved? Through the use of various decision tools and techniques throughout all forms of planning: investigation, analysis, implementation, and assessment. Now, remember, processes can be segmented if I am explaining it to you through planning and decision making and what have you; I am not trying to explain to you what is planning; let us get that clear - this is not a session on planning; I am not even trying to tell you what is decision making; if I have referred to what is decision making, it is only to the limited extent of explaining it to you the processes. This is a session on processes, but processes do not exist in abstraction; processes must flow through a channel. So, then I tried to show to you how processes flow through the planning channel; then, I tried to show to you how processes flow through the decision making channel and it can be multiplied, and obviously my choice of application has to be managerial.

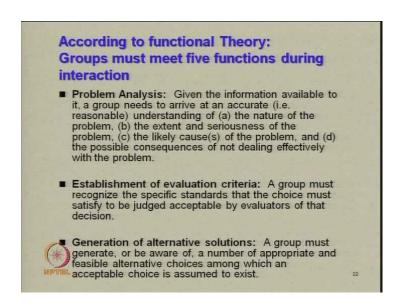


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But all processes include investigation, analysis, implementation, assessment; no matter how you play it, at each stage you have to assess. According to the functional theory - the group must meet five functions during an interaction. The five functions are: problem analysis, establishment of evaluation analysis, generation of alternative solutions, evaluation of the positive consequences of solutions, evaluation of the negative consequences of solutions.

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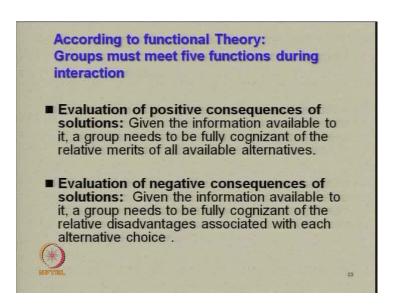


Problem analysis - totals up to a situation where given the information available to a group needs to arrive at an accurate - that is reasonable - understanding the nature of the problem, the extent and seriousness of the problem, the likely causes of the problem and the possible consequences of not dealing effectively with the problem; this is the problem analysis. Now, let us apply that to a managerial situation.

Everyone talks of training, nobody believes in it, and training is something which is always given to the other person, and if you look at one corporate entity with another corporate entity, a decision maker says - at a general manager level may have powers of incurring expenditure with the due processes of 5 lakhs, but in nomination in a training program - of even 30000 - will go to the chairman and managing director, because nobody is really interested in training and development and nobody really sees its worth; yet, it is a fashionable thing to pay lip service to and when I say no one, I do not mean every single one obviously, there are the 10 percent exceptions. So, how would you do with the problem analysis? There are two statements which are made to jam that kind of unthinking position; if you think training is costly, try running your organization without training, then you will discover what are the costs of not training - that is problem analysis or people say we are so busy working we cannot spare people for training; it is like saying you are so busy cutting down a tree with an axe, which is blunt that you have no time to sharpen the axe; now, good luck to you.

Then, there is establishment of an evaluation criteria; a group must recognize the specific standards that the choice must satisfy to be judged acceptable by evaluators and of that decision. You cannot have a process without evaluation criteria; at each stage of the process you need an evaluation criteria to work out if your process ready to graduate to the next level. Do not push it on to the next level unless it is fully baked. Take an analogy from cookery - do not take something out of the cooker and start marinating it unless it is fully cooked. Now, if you do not know what marination is, learn it from somebody who does. In an era where all cookery advertisements are being done only by men, when i ask - if you do not know what is marination, obviously, I mean if you are the women who does not know marination, because all men know marination. Anyhow, ask the next man you meet; you will find out he knows marination, especially if he is married.

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The establishment of evolution, evaluation criteria leads on to the generation of alternative solutions - we have covered that and I am not going to repeat it, but again it is a part of that process. According to the functional theory, the next sequence is evaluation of positive consequences of a solution. What would happen if you took that decision and what would happen if he did not take that decision. So, that is the evaluation of the positive consequences of the solution and evaluation of the negative consequences of the solution.

Bona fide group perspective

■ Two characteristics that underlie a bona fide group are *permeable and fluid boundaries* and *interdependence with context*. The idea of "groupness" itself and the social processes that form and sustain a group rest on a continual negotiation of borders, boundaries, and arenas.



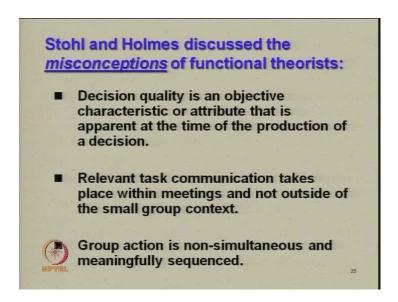
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There is a bona fide group perspective - two characteristics that underline a bona fide groups are permeable and fluid boundaries and interdependence with the context. You cannot get into a bona fide group perspective with rigid positions; a lot of decision making is rendered infructuous, because people approach a discussion with the clear assumption that I have the solution and only I have the solution, which will work. Now, that is bad management and there is of course the interdependence with the context. The idea of groupness itself, and the social processes that form and sustain a group rests on a continuing negotiation of borders, boundaries, and arenas.

If you recall what I was telling you on the Johari window arena was defined as getting yourself to be known and encouraging the other person to be known. So, if the borders, boundaries, and arenas are open to negotiation, then the iterative process is a happy one. Incidentally, I have never heard anyone who concedes that I am rigid, but operationally three-fourths of the people are rigid. It is rooted again in the same theory - if I am the smartest and I know the best, my solutions work the best and what is the communist preface of the statement. Now, you listen to me, you know trouble is when he talks nobody else is listening, because before half his sentence is complete, he is cut into and another person is talking and before that person can complete his sentence, the third person has wanted in; you observe group dynamics - people are constantly walking into another person's statement to claim priority, because it is so much more fun talking than listening; it is so much better to educate, than to learn and it's natural, because you are so

much smarter than everyone else together. All this behavioral theory permeates processes; so, it is not just structure that determines processes; it is also the behavioral dimension of the people practicing that process that affect it.

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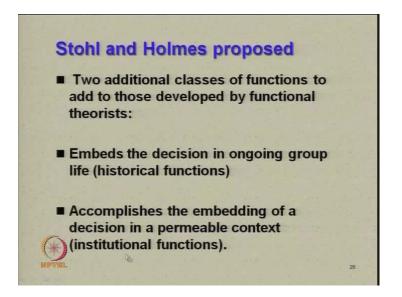


Stohl and Holmes discussed the misconceptions of the functional theorists, they said that decision quality is an objective characteristic or attribute and that is apparent at the time of the production of a decision. The problem with Stohl and Holmes is they are assuming a solution; if people are full of an objective characteristic, then the problem is solved; it has not worked. The relevant task communication takes place within meetings and not outside small group context. The actual problem solving begins when people sit together and ask themselves the first basic question - what is the problem? Why is that necessary? Because everyone may not perceive the problem in similar conditions. The boundaries of the problem may not be the same to everyone, the content of the problem may not be the same to everyone.

If there is a boundary dispute, then both sides see the other as an aggressor and both sides discover arguments to prove that the other is the aggressor; then how do you prove things? You apply time cut offs - if you freeze a story 100 years ago, it is one kind of conclusion; if you freeze a story 200 years ago, it is another kind of conclusion; if you freeze a story 500 years ago, then very different conclusions can come. So, the problem has to be understood first by an objective definition of the problem criteria; and an

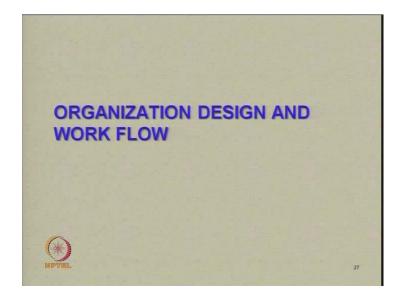
objective definition of a problem criteria is important because that is where the process begins. Relevant task communication takes place within meetings and not outside; small group action is non-simultaneous and meaningfully sequenced.

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Stohl and Holmes proposed the two additional classes of functions should be added to those developed by functional theorists; one is the historical function which embeds the decision in ongoing groups life; two - accomplished the embedding of a decision in a permeable context institutional functions.

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We then get into issues of organization design and workflow and we shall look at the processes therein also. We have looked at decision making, and information flows, and decision flows in the context of planning. We have applied the principle of processes to different components. I would like to take a quick look at organization design and workflow, because again as I told you right at the beginning, the design issues are central to organization management.

Organization design involves the creation of roles, processes and formal reporting relationships in an organization; I want you to be very clear on this, because one of the critical takeaways of organization management is the design issue. It can also be defined as development in or charges to the structure of the organization. Now, if the structure is changing and there are developments taking place in the structure, that is new wings are being created, the old ones are being dismantled; and the ones which exist are being modified, the processes will change. You alter the levels of hierarchy from 16 to 12, the processes will be undergoing change; you alter the number of people in a group, the processes will change; you alter the technology, the processes will change.

So, what can distinguish between two phases in an organization design processes? One is the strategic group and the other is the operational group design. The strategic group establishes the overall structure of the organization; it means subunits and their relationships. The operational design defines the more detailed roles and processes. I think both these statements are quite self-contained and self-explanatory. I will pause there very briefly for you to read it with care and absorb it, before I move forward; namely, what is strategic grouping? What is operational design?

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You put it in diagrammatic form; and this is what emerges. The structures have to be aligned and how do you align the structures? You align the structures by aligning environment, people, size, technology with strategy - these are the components. Organizational design aligns structures with situational contingencies and this is the heart of the matter.

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What is a workflow system?

- Bridge between "real world" and "virtual world"
- Real world contains the organization's structure, physical goods, employees, and other organizations
- The virtual world contains the organization's computerized infrastructure, including its applications and databases.
- Workflow The computerized facilitation or automation of a business process, in whole or part.
- Workflow Management System A system that completely defines, manages and executes "workflows" through the execution of software whose order of execution is driven by computer presentation of the workflow logic.

You cannot make the structure as a goal; the structure is an enabling situation. Therefore, be it structure or process, it is a surrogate; not just of the object, but also of environment. The question which arises is - what is a workflow system? This is a bridge between the real world and virtual world. The real world contains the organization's structure, physical goods, employees and other organizations.

The virtual world contains the organization's computerized infrastructure, including its applications and databases. You have to bridge a working relationship between the real world and the virtual world, and that can be done only through workflow and processes; that is where processes become very important.

The computerized facilitation or automation of a business process in whole or part will involve work flow. Now, obviously, this is a statement related to an ongoing situation; if you are discussing a situation which is over, this will have to be reformulated. The computerized facilitation or automation of a business process in an organization such as x, y, z has to be understood in the terms of the context; you will not say in a whole or part.

Workflow management - a system that completely defines, manages and executes workflows through the execution of software, whose order of execution is driven by computer representation of the workflow logic. You can clearly see that there will be a lot of people who would believe that it is impossible to have a workflow management,

which is almost entirely software driven; it will not be a growing entity. Therefore, what is a deduction to be made? It is not that it is undesirable; it is just that it can be used only in a project mode.

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Workflow system

- Workflow models represent the organization's design in a visible way.
- The workflow runtime interprets the workflow design.
- The combination of model visibility and organizational execution tied to the model facilitates both a top-down and a bottom-up evolution of the organization's computerized infrastructure.
- Workflow models tie the data flow, organizational charts, and flowcharts together.
- Workflow models are also defined across
 organizational boundaries to facilitate trading petween organizations.

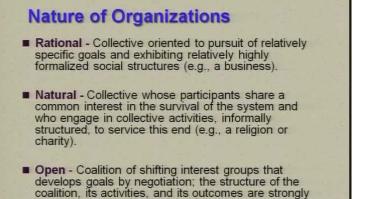
The workflow models represent the organization's design in a visible way. Workflow runtime interprets the workflow design; this is a very important statement; I want you to take note of it and reflect upon it. The workflow runtime interprets the workflow design, the time it takes to interpret and do a task will affect the workflow design because processes have to pass through that; that is the way and this is again one of the key takeaways.

The combination of model visibility and organizational execution tied to the model, facilitates both a top-down and a bottom-up evolution of organization's computerized infrastructure. A problem in many organizations which has not really been solved - what is the problem? The problem is what kind of structure and processes do computerizations create. If you bring in a computerization process in an organization, what does it do to the structures, which were already existing? Very important questions; some of which will get answers when I talk of mechanization, automation and computerization, but some of them we do not know the answers to, especially this business of interpreting the workflow design.

The combination of model visibility and organizational execution type to model facilitates both a top-down and a bottom-up evolution of the organization's computerized infrastructure; maybe, maybe not. What it is saying is, it works from top-down and it works from bottom-up and together they create the computerized infrastructure.

Workflow models tie the data flow, organizational charts and flowcharts together. Work flow models are also defined across organizational boundaries to facilitate trading between organizations. This is a statement to make, which I have seen always complicated in practice to practice. Because, if you are looking at workflow models, then you have to recognize that the free flow of information will have to integrate with a screening of the information. Therefore, you open a whole host of issues, which have to do with the criteria of screening; you know it is like your computer being automated to a point where it identifies junk, and then you realize your letter from the boss has been marked as junk; so, you went peevishly to the secretary and say - what happened I am not getting it? You are not getting it because your computer is marking it as junk.

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So, the long and short of it is - the data flow, organizational charts, and flowcharts can be put in a flow only after a conscious decision of what they can be used for. And that is the evaluation process. I shall come to the nature of the organization shortly.

influenced by environmental factors (e.g., a

tandards organization).