

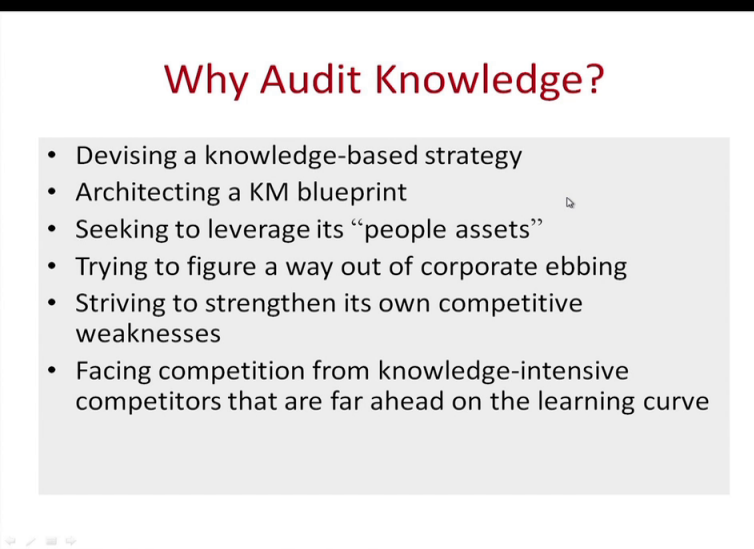
Knowledge Management
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Lecture 18
Knowledge Audit

So, next part related to analysis is design, development of knowledge management system. We have just talked about infrastructure part that how to technology infrastructure and how using this 7 layer systems we can create an efficient system. So, that you are able to transfer and share knowledge ok with the end users which could be used by them for productive purpose. Now next thing that we are going to discuss is related to knowledge audit.

So, here what we are going to discuss various concept related to knowledge audit and how it is done and how it is going to be useful ok for design and development purpose because you have to see that what kind of knowledge.

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Why Audit Knowledge?

- Devising a knowledge-based strategy
- Architecting a KM blueprint
- Seeking to leverage its “people assets”
- Trying to figure a way out of corporate ebbing
- Striving to strengthen its own competitive weaknesses
- Facing competition from knowledge-intensive competitors that are far ahead on the learning curve

Goes on into the system is very, very important, so what you have to do here is I am talking about knowledge audit, why you go for auditing the knowledge? See there are certain reasons that could be possible for knowledge auditing like see you need to create a blueprint for the knowledge management architecture.

So, you need to decide and ascertain what kind of knowledge you are going to have; you are going to have kind of knowledge which is consistent, have a quality, it is accurate which is valid

which could be applied in the relevant context right and that is why we go for auditing the knowledge. So, that only the right kind of knowledge is put into the system.

So, you need to derive a strategy knowledge based strategy for this purpose ok, so that it becomes a people as asset. Because unless you have knowledge you cannot leverage based on knowledge and in today's world only advantage that you have through which you can have a competitive advantage is through knowledge.

And this knowledge is related to the people and this knowledge is where it resides in the mind of the people and that is where you go for transforming the tacit into explicit. So, you have to find out the knowledge that it is captured codified and it is going to be put into the system is really good ok, it is an asset and it could be used by the people to solve the problems, to see that is going to help you to achieve competitive advantage ok.

Because you are living in your knowledge intensive world ok and you cannot move ahead unless you have the kind of knowledge that is required ok because it is far away from the learning curve. In learning curve what happens individual move to a learning curve and then at an optimal position the learning get saturated ok, beyond that there is not going to be new learning. The knowledge which is available there is going to help you to perform your job effectively.

Or you move or go ahead or you move up in the learning curve otherwise you get saturated once you move to the optimum point ok. It helps you to stretch your capacity to perform beyond your learning ability. And that is why you need to ensure that that is a kind of knowledge that is available is real an asset in terms of quality and consistency and relevance. So, that it helps you to achieve the competitive advantage and that is why we need to audited the knowledge.

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Measuring knowledge growth

- Very often, companies do not know where they stand in terms of the knowledge that they possess.
- Bohn's framework provides an excellent starting point for figuring out where you stand, relatively, in terms of your firm's knowledge.



When it comes to auditing you have to see how the knowledge is growing ok. So, there need to understand first kind of knowledge that they have ok. so, there we are going to use certain frameworks which is provided by Bohn to find out that where you stand in terms of your firms knowledge. So, you can a certain that this is the knowledge base company has.
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Measuring Knowledge Growth

Table 8-1 Bohn's Stages of Knowledge Growth

Stage	Name	Comment	Typical Form of Knowledge
1	Complete ignorance	Nothing known.	Does not exist anywhere.
2	Awareness	Resembles pure art.	Knowledge is primarily tacit.
3	Measure	It's pretechnological.	Knowledge is primarily written.
4	Control of the mean	A scientific method is feasible.	Written and embodied in hardware.
5	Process capability	A local recipe exists	Hardware and operating manuals.
6	Process characterization	Tradeoffs to reduce costs are known.	Empirical equations (quantitative).
7	Know why	Takes on the form of science.	Procedures, methodologies, scientific formulas, and algorithms.
8	Complete knowledge	Nirvana.	Never happens; but you can always hope for it!



And what you are going to discuss this famous Framework which is provided by Bohn related to the knowledge growth. Now if you look at the stages of knowledge growth he identified it into incremental stages that is starting with complete ignorance and complete knowledge right and at each stage if you look at it typical form of knowledge is different like in a complete knowledge you have everything.

But what the ignorant stage you do not have everything, you do not have any information complete ignorance means there is no knowledge, knowledge does not exist at all. Then at the 2nd stage you become aware about it means, yes the knowledge is there in the mind which is basically tacit then you measure it ok. It is para-technical, it means it is primarily retained it is not available in explicit form or tacit form.

Then you control the main; you apply specific method ok and then it is written about and embedded in hardware using certain technology. You to ensure that tacit is transformed into explicit. Then you have the next stage that is move to the process capability that is yes, now you have explicit knowledge in form of hardware's, manuals, processes, guidelines and see whether it is good or not ok. So, you measure it to see that how it is going to help you to do your job.

And then at the next stage of this knowledge growth you want to know that why you are going to do it? You have methodologies, formulas, algorithms and other kind of knowledge but you want to know the extent to which it is going to be used useful and relevant case. And finally once you come to know that why you are going to make use of it? You move to the next stage that that is what we call attainment of full knowledge.

That is what it we call Nirvana, it means you are in complete full knowledge stage though it does not happen there is a cycle the new knowledge come in and again you become ignorant and again you move on the cycle. So, probably though we all move to that stage that stage called Nirvana what usually generally happens, it is not possible to reach to that stage because you never achieve perfection so far as knowledge is concerned.

And that is why you move into the cycle and tries more, more and whenever you reach to that stage.

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Table 8-2 Ranking Characteristics of Knowledge Work and Processes Along Each Stage and the Effects of Each Stage on Them*

Stage of Knowledge	1	2	3	4	5	6	7	8
Nature of production	Expertise based				Procedure based			
Role of workers	Everything			Problem solving			Learning and improving	
Location of knowledge	Tacit			Written and oral			In databases or software	
Nature of problem solving	Trial and error			Scientific method			Table lookup	
Natural organization type	Organic			Mechanistic			Learning	
Suitability for automation	None						High	
Ease of transfer	Low						High	
Feasible product variety	High			Low			High	
Quality control	Sorting			Statistical process control			Feed forward	

*Since the distinction between adjacent stages in Bohn's stages is subtle, the breakdown of processes in the table, is subject to minor debates. However, all classifications are within an approximate stage.



Now if you look at these different stages beginning from stage 1 to stage 8 that is from complete ignorance to complete knowledge. Now if you look at different stages of knowledge from the earlier slide like complete ignorance to complete knowledge and then you also see that different characteristics of knowledge work in processes on the stages. You can see like nature of production ok, you move from expertise to procedure base.

Workers at the first few stages you do not have any role to play then you try to solve the problem and then try to move up in the learning curve right. Location you move especially from tacit to written environment form and it moves to KM system that is databases are software's. When it comes to problem solving the first stage you do not know anything and you try to adopt trial and error approach then you gradually move to scientific method and then you look at the KM system.

Because there you have the relevant knowledge can help you to solve the problem. Now if you look at the organisational type the expertise based knowledge is available in organic structures. The organic structures are those structures are those organisation have organic structure are very, very flexible which empower their employees right.

That is where, which are more creative and innovative compare to mechanistic system which are very, very bureaucratic and rigid system ok. And then you move to become a learning organisation, the learning organisation system is the latest buzzword talks about it that and it says that those organisation will continuously improve and innovative ok.

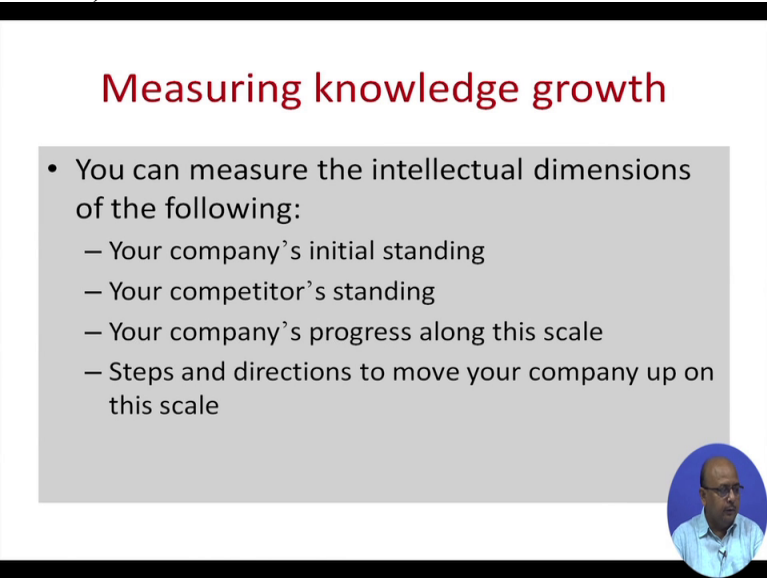
Starting with organic form and then you move to mechanistic form then try to become a learning organisation, so that you continuously improve and know it yourself in order to remain competitive right. What kind of automation is required see in the first phase we are fully; there is no automation.

As you move up in the stages you try to be as much automation as possible and easy of transfer in the first few stages it is very easy. As you move in the hierarchy and it becomes very, very difficult and if you look at product variety of course it is high. But again it becomes low and as you move up in the hierarchy it is a learning organisation.

So, again it is high, quality of course does not; much quality to start with then when you use scientific approach and move towards statistical quality control or process control and then you have a system you come to know real time information, feed forward or feedback system through which you come to know what is working.


If you look at different stages of knowledge what happened to the production worker ok and how you solve problem in case of different organisation.

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Measuring knowledge growth

- You can measure the intellectual dimensions of the following:
 - Your company's initial standing
 - Your competitor's standing
 - Your company's progress along this scale
 - Steps and directions to move your company up on this scale



So, when it comes to knowledge growth you can actually measure the intellectual dimension ok. And that starts where your company initially standing is, what is the current knowledge phase, what is your competitive understanding and what is their knowledge base, what is your company's progress along this scale ok.

And what steps and direction since you are taking in order to find that particular scale. So, that you are able to compete with your organisation.
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Table 8-3 Stages of Knowledge Growth: Where Does Your Company Stand?


Stage	Knowledge Stage	Knowledge Characteristic	Location of Knowledge	Work Processes	Learning Method
0	Total Ignorance	Cannot tell the good state from the bad	Undefined.	Undefined.	Undefined.
1	Pure Art	Pure art	In the expert's head; so tacit that it cannot even be articulated.	Rely on trial and error.	Keep repeating processes. Hope for some pattern(s) to emerge.
2	Awareness	List of possibly relevant variables exists	In the expert's head (tacit); however, the expert can express it in words, diagrams, etc., although in a very limited way.	Experts can dictate conditions for processes to work well. Some degree of randomness still exists; start with methods that might have worked in earlier problems.	Experts, instead of all other people, keep repeating processes. Hope for some pattern(s) to emerge.
3	Measure	Pretechnological	You are able to decide which variables are more important by noting their correlation with desirable outputs.	Patterns begin to emerge; experts will, however, differ in their opinions on why successful processes were successful.	Same as above. You can be more creative and tweak processes to see changes.
4	Control of the mean	Scientific method feasible	Written and embodied in hardware/software to some extent.	Some parts of the knowledge underlying the process can be explicated, codified, and written down. However, a "recipe" is yet to emerge.	Keep good records of what was done. It happened. The process is controlled.

Now if you look at this from the total ignorance to what you call the other stages see what happens. First stage what happened it is this not clear to you. Second stage is basically you move to trial and error approach ok. You do the same thing again and try to see that something happens most of the knowledge is tacit. And in the third stage what happened you move from tacit to explicit ok.

Experts walk in then you try to see that this tacit form is transformed into explicit form ok. You try to find out patterns, relationship and this kind of thinks and then you try to measure it and see that you are you going to decide what is important, what is less important try to look into the patterns ok. And finally you try to control the things ok, you have things in the written format.
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Table 8-3 Stages of Knowledge Growth: Where Does Your Company Stand? (cont.)

Stage	Knowledge Stage	Knowledge Characteristic	Location of Knowledge	Work Processes	Learning Method
5	Process capability	Local repeatable recipe	A local recipe based on experience is developed; it often works, but not always; the notion of following a procedure to obtain desirable results begins to emerge. The recipe might or might not be formally written down in its entirety.	A semi-reliable recipe emerges. Some steps in the recipe might still be random or inconsistent. Work processes are tackled using this somewhat repeatable (partially explicated recipe).	Use the records kept in the preceding stages and determine statistic patterns that work.
6	Process characterization	Tradeoffs to reduce costs; a well-developed recipe along with a limited knowledge of how contingencies are to be handled now exists.	Knowledge is well documented in the recipe; a methodology is developed; it almost always works; applying the process is almost a mechanical task of applying the recipe.	Very mechanized; highly automated; uses a time-proven methodology.	Use the proven methodology; continuous application of the methodology (recipe) will allow weaknesses and problems in the recipe to emerge.
7	Know why	Science; automation is possible; a formal or informal quantitative model is developed.	Most of the relevant knowledge is documented; most of tacit knowledge is converted to explicit; almost all knowledge can be codified and built into computer software; strong knowledge of how contingencies can be dealt with now exists.	Codified in computer software and process manuals.	More of the above; this is as good as it gets!



Then moving up in the hierarchy if you look at your stand for your company and similarly you can also look at your competitor also. You look at your process capability ok. How you process the things whether you go for record keeping ok, whether you are statistical processing and this kind of thing and similar similarly if you look at process characterization again you go for a trade off to discuss cost and quality and you do all kind of things ok.

Now at this stage the knowledge is well documented and what you need to do, you have to see that how you are going to make use of this knowledge ok. And work process are mostly automated or mechanized ok and you have well established methodology to do work and you have to see that our going to; how it is going to help you.

Then the next stages when you know why it is happening basically then probably you are trying to document whatever knowledge that is available either in explicit form or tacit form and you tried to build software and hardware to ensure that it has done properly right.

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Table 8-3 Stages of Knowledge Growth: Where Does Your Company Stand? (cont.)

Stage	Knowledge Stage	Knowledge Characteristic	Location of Knowledge	Work Processes	Learning Method
8	Complete knowledge	Nirvana	Rarely possible.	No need for knowledge management or knowledge managers. Knowledge management becomes a natural part of the firm or group; it is done perfectly; unlikely to ever be achieved.	This stage might never be reached; you will never know when you are here; occasional variations resulting in the inability to apply processes from the preceding stage push it back to stage 7.

Based on Bohn, Roger. E. Measuring and Managing Technological Knowledge, *Sloan Management Review*, vol. 36, Fall (1994), 61-73. Bohn provides an excellent discussion on measuring technological knowledge in a 1994 piece. My book extends this discussion to using it to measure knowledge in conventional knowledge-intensive processes.



Then last stage basically complete knowledge though it does not happen you do not need knowledge management or managers anything like that because very become very natural to perform either the groups or the organisation ok. The only thing is that you have to see that yes you are trying to reach this stage. But most of the cases what will happen means if you look at these stages you only move up to the 7th stage not to the 8th stage because that is not possible. (Refer Slide Time: 12:35)

From Art to Science

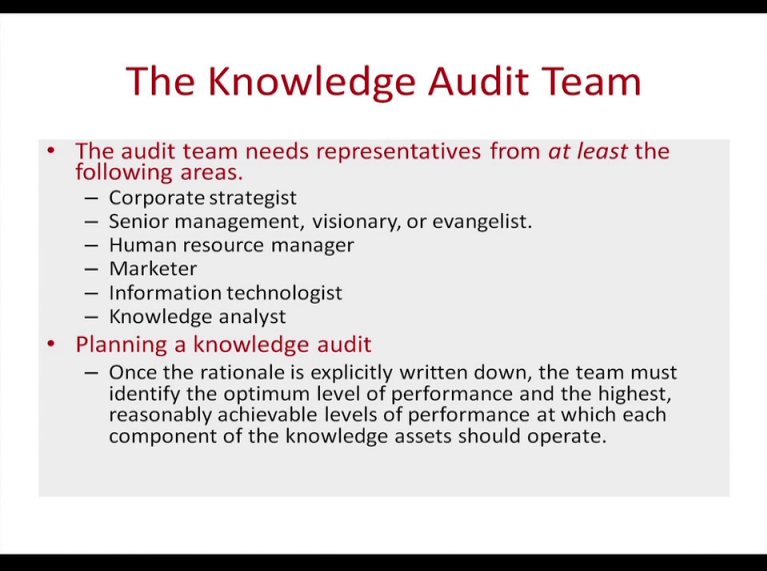
- Progression of a company **from** one that is highly dependent on the tacit knowledge of a few individuals **to** one in which both explicit and tacit knowledge are shared and easily accessible can be best described as a progression from **art** (highly subjective and dependent on the doer's tacit knowledge) to **science** (repeatable and robust methodology capable of handling variations).

Now when it comes to audit we know that knowledge is actually moving from tacit to explicit it means that it is an art to start with and then how to become a science right. So, to start with organisation basically depends on tacit knowledge and then it try to make it as explicit as possible. When company does it, so what happens in the beginning? You have fewer rules and regulations right, people talk to face to face but company expands and grows what happens?

You try to set up rules and regulations so you try to have it in written form right. So, for example new companies do not have HR structure but in a big company you have formalized HR structure right. So, you are moving from very tacit stage to a very explicit stage because in a big organisation it is not possible to manage system unless everything is very, very explicit.

And then managing this basically having this kind of system is basically a science. So, you can manage it well and that is why it is said that you are moving from art to science.

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The slide is titled "The Knowledge Audit Team" in a bold, dark red font. Below the title, there is a light gray rectangular box containing two main bullet points in red. The first bullet point is "The audit team needs representatives from *at least* the following areas." followed by a list of six roles: Corporate strategist, Senior management, visionary, or evangelist, Human resource manager, Marketer, Information technologist, and Knowledge analyst. The second bullet point is "Planning a knowledge audit" followed by a single sub-point: "Once the rationale is explicitly written down, the team must identify the optimum level of performance and the highest, reasonably achievable levels of performance at which each component of the knowledge assets should operate."

The Knowledge Audit Team

- The audit team needs representatives from *at least* the following areas.
 - Corporate strategist
 - Senior management, visionary, or evangelist.
 - Human resource manager
 - Marketer
 - Information technologist
 - Knowledge analyst
- Planning a knowledge audit
 - Once the rationale is explicitly written down, the team must identify the optimum level of performance and the highest, reasonably achievable levels of performance at which each component of the knowledge assets should operate.

Then coming to knowledge audit team, so, that is very, very important. If you are going for identifying that what is your company is stand, so for a knowledge base is concerned. You have to create a team of people who are going to do this job ok. And then you can have people from different area ok from the top management to the; you are looking into the strategy of the organisation people have senior management people you can also include HR managers.

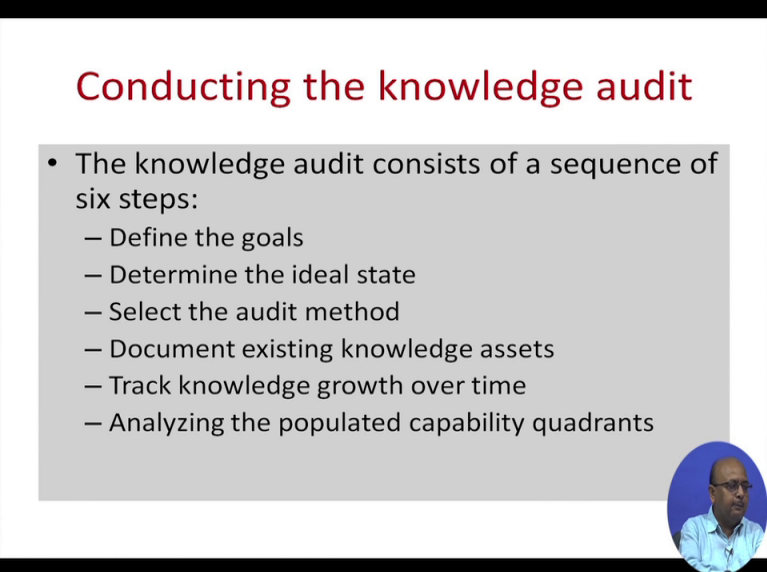
Marketers and IT people or those you are working in the knowledge management right. You can have a good combination of these people because each one as a important role because corporate strategies could be able to find out the big picture. Like senior management is going to see that ok how they are going to adopt the strategy. Then HR manager since the deal with people they out identify that who are the experts, who is going to do, how they are going to create things.

So they have a role in these kind of things then marketer because you need to market these products and services. So, you have to see that ok that the kind of knowledge that is required for

that and then you have, IT people they are going to provide the infrastructure and the new knowledge analyst they going to capture, codify the knowledge right.


So, these kind of people or relevant in the sense that must have identity from these areas want to have a good knowledge management system. Now moving farther you have to go for a audit means you have to have a rational written down that why you want to do it, what kind of performance you want to achieve ok, what is the current level of performance, what kind of knowledge assets you have, what kind of knowledge assets you should require you should write it in a explicit form.

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Conducting the knowledge audit

- The knowledge audit consists of a sequence of six steps:
 - Define the goals
 - Determine the ideal state
 - Select the audit method
 - Document existing knowledge assets
 - Track knowledge growth over time
 - Analyzing the populated capability quadrants



When you are going to conduct the knowledge audit you must define the goal. What is goal of this audit, what is the current state, what is the ideal state you want go for, how will you audit, how you are going to document the existing knowledge that is available with the organisation. How you are going to grow sorry track the knowledge growth that is happened over a period of time. Then you are going to see that how populated capability quadrants.

Since that how the knowledge is moving from one place to another place and that is where we are going to discuss some more things related to this.

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Defining the goals

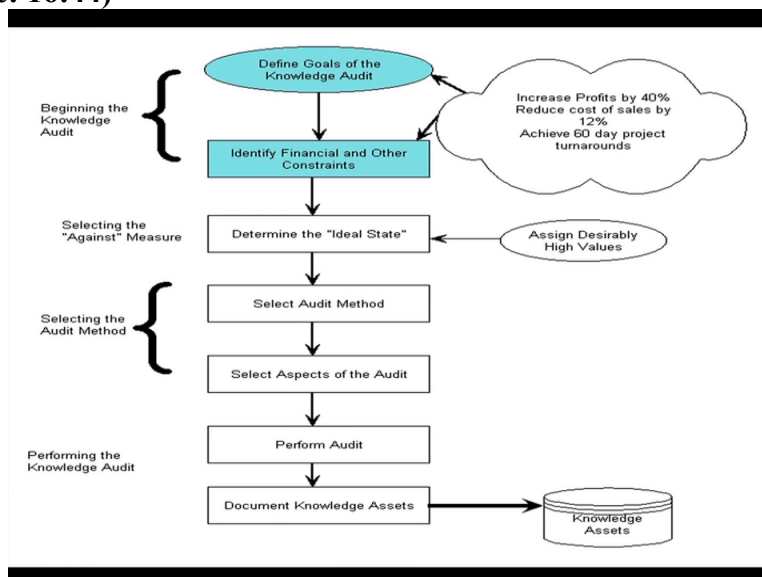
- When you think about goals, think of specific ones, such as:
 - We need to increase profits by 40 percent by next year.
 - We need to reduce cost of sales by 12 percent before the end of the fiscal year.
 - We want to improve customer retention by 4 percent within 18 months.
 - We want to increase project turnaround speed by 14 days on the average over the next 3 years.



Now the first part that is defining the goal, when you think about the goal basically you have to see that what is actually you want to achieve by having knowledge management system. It could be very, very quantified, very, very specific or quality specific for example you want to increase profit by certain percentage, I want to reduce the cost of the sales, I want to improve quality or I want to improve production and good product features.

I want to reduce customers by certain percentage in a given frame of time or I want to have a good project turnaround ok. So, you want to identify that what is the purpose for which this knowledge management exercise is going to be taken especially related to audit ok, in what way it is going to help you ok.

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So the first phase basically if you look at this you are going to define goals of the knowledge audit and then you have to see what is the financial and other constraints. So, this is basically the beginning of the knowledge audit and that is where you are going to define first stage.

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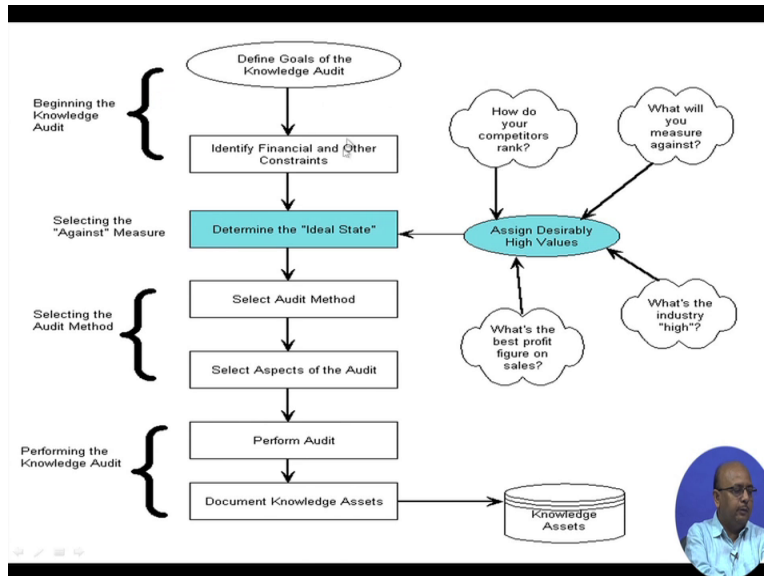
Determining the ideal state

- In this stage, you and your knowledge audit team must reach a consensus on what you consider the best state that you could wish for and more reasonably reach, albeit with great difficulty.
 - This is the best case scenario against which you will judge your entire knowledge management initiative later on.
- Knowledge of what the best value of your knowledge assets should be, is essential to allow you to measure the results of your KM efforts against a relevant and stationary benchmark.

Then you move to the next stage that is ideal state, at this stage you need to develop a consensus among the team member that ok. This is what we need to reach ok, so if you look at this picture you can see ok whether you would be able to achieve it or not. This is what in order to achieve this you must to see that ok. The team must be agreeing to this ok this is what we can do it.

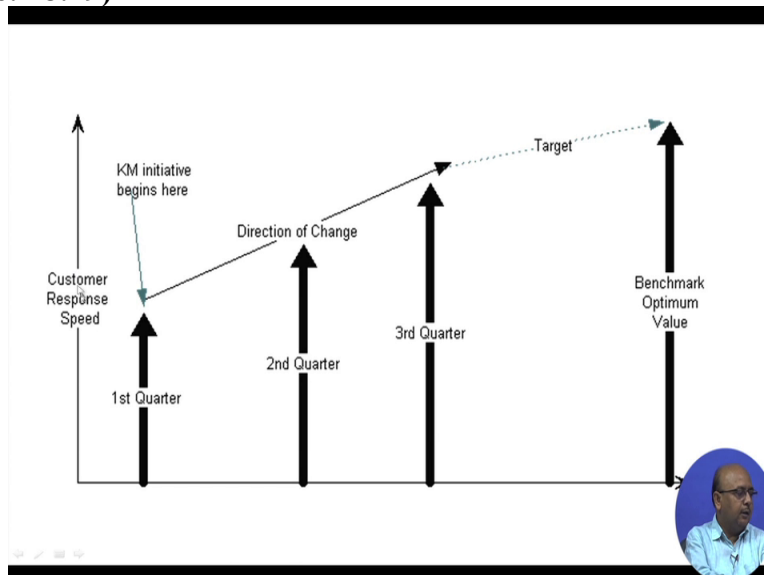
So, you also build up scenario ok and look at the KM initiatives through which you will be able to reach it ok. So, you have to see that what is the best thing that for you to do in terms of knowledge ok. So, the knowledge asset that is available to you how you are going to create while you are out of it. And how you are going to see that effort that put into the knowledge management system ok and how you are going to benchmark it. These are the issue related to this one ok.

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So, basically here we are talking about ideal assigning desirable high values right and this is related to see look at the competitors rank, how will you measure against it, what is industry standards ok, what is the best profit figures on the sales that you can achieve this is the ideal state that you want achieve at the next level.

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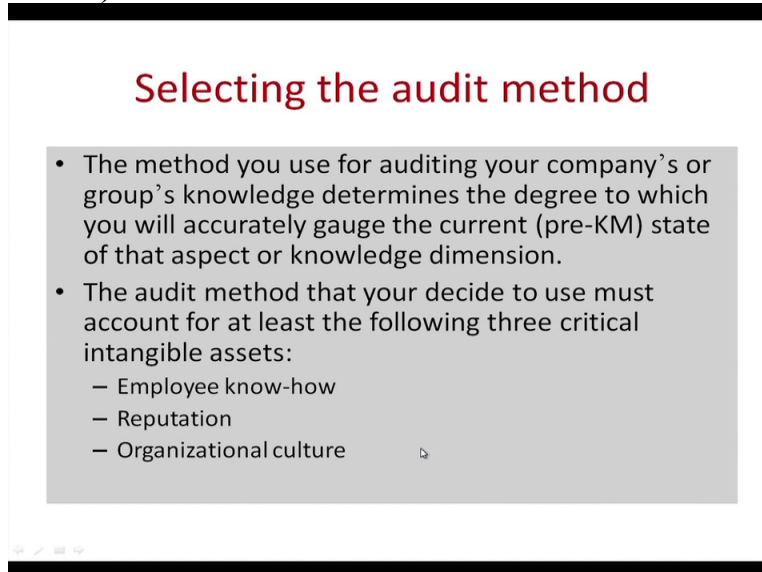


And then the next most stage these are going to move to this the customer response feedback and time this is an example. So, this is how you want to move the target is this and this is the time period ok and the first quarter you have achieved this much but you want and you want the target is this right.

You are knowledge management team initiative begin here you want to move to this target the second third and the next part and this is the benchmark or standard or optimized value that is to

be achieved by the team. So your knowledge management team initiative must help you to achieve to this level right within a given time frame right.

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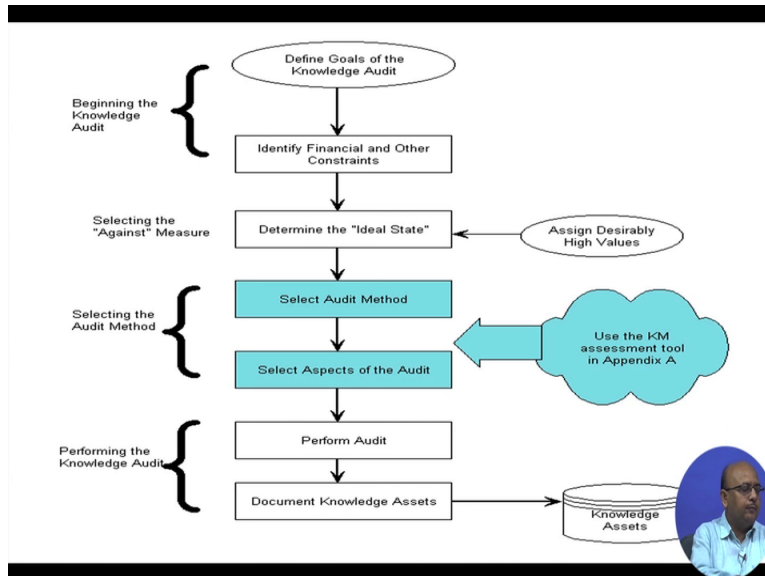
Selecting the audit method

- The method you use for auditing your company's or group's knowledge determines the degree to which you will accurately gauge the current (pre-KM) state of that aspect or knowledge dimension.
- The audit method that you decide to use must account for at least the following three critical intangible assets:
 - Employee know-how
 - Reputation
 - Organizational culture

Then you have to third stage if you have to select the audit method when I am talking about the selecting the audit method we have to see that how we are going to do it ok. So, it could be based on employee know how or what you call the reputation of the organisation or and also you are looking for culture of the organisation right. If you want to audit the company's knowledge base and what is the current knowledge state.

It is very, very important to understand what people know in your organisation. What is the competence or knowledge based skill, what is the reputation of the organisation and what kind of culture existence in the organisation.

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So, when I am talking about selecting the audit method basically there are two issues select audit method and select aspects of the audit you are going to use certain assessment tools that is given **(Refer Slide Time: 19:45)**

Documenting knowledge assets

- It is essential to document the knowledge-based assets that your company has in a consistent framework.
- The framework makes it easier to compare with previously measured values and with corresponding values for your competitors.

Based on this assessment tools you can go for auditing it right. Then the next stage we are moving to what we call documenting the knowledge assets. When I am talking about documenting the knowledge assets you have to see that how the knowledge is going to be documented ok. Now there could be different framework that could be used for documentation ok. So, you have to decide which framework is used for documenting the knowledge assets ok.

Now when I am talking about documenting the knowledge assets you have to see that ok, how you are going to measure the value of the knowledge vis a vis the value that this knowledge as the corresponding values of the competitor. So, what you have to do see that what is the value of

your knowledge and what is the value of your competitor's knowledge, but how you are going to decide about knowledge assets of the value of the knowledge that you have.

It means that you need to use certain accounting method in order to identify, quantify the knowledge base right. Knowledge base and for that what you can do is you can use intellectual capital index that is one way that you we can look at it right, because intellectual capital of an organisation talks about the intellectual capital of the organisation which consist of knowledge which is available not only with the people.

But it also talks about assets related which is embedded with the organisation in its relationship and in its infrastructure right. So, when I am talking about knowledge assets basically it is company's knowledge assets right then you have to use this frameworks to find out where do you stand so far as your intellectual asset is concerned compared to intellectual asset of your competitors that is very, very important.

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Table 8-5 The Capability Framework for Positioning Knowledge Related Assets

Regulatory Capability	Positional Capability
<ul style="list-style-type: none"> • Patents • Trademarks • Registered designs • Trade secrets • Licenses • Proprietary technology • Methodologies • Databases 	<ul style="list-style-type: none"> • Path-dependent capabilities • Reputation • Value chain configuration • Distribution networks • Installed base • Customer base • Market share • Liquidity • Product reputation • Service reputation • Service product (such as consulting outcomes) reputation
Functional Capability	Cultural Capability
<ul style="list-style-type: none"> • Lead times • Accessibility of past knowledge • Innovative capabilities • Individual and team skills • Distributor know-how • Employee skills 	<ul style="list-style-type: none"> • Tradition or corporate culture of being the best (Apple?) • Tradition of sharing • The tradition of co-opetition • The tradition of co-operation • Perception of quality standards • Ability of employees to work in teams • Capability to respond to market challenges • Innovation • Entrepreneurial and intrapreneurial drive in employees • Employee initiative and motivation

Based on an expanded adaptation from R. Hall and P. Andriani (1998), Analyzing Intangible Resources: Managing Knowledge in a Supply Chain Context, *European Management Journal*, vol. 16, no. 6, 685-697.

See how you are going to use certain frameworks right. So, see if you look at some of these things these talks about the intellectual capital that is basically what? There is a capital of the organisation. This is the infrastructure capital; capital related to the organisation ok. So, you have different kind of capital functional capital, regulatory capital, positional capital or other kind of capital.

These are like pattern, trademarks, trade secrets, license, proprietary technology, databases this is the form of the intellectual capital right. Similarly processes and other things ok customer base,

marketing sales, product reputation these kinds of things also a kind of capital for the organisation. Then kind of culture or relation relationship that you have, then the kind of processes that you have functional capability, how you perform certain things right.


That is related to knowledge and skill based, so basically it talks about the intellectual capital ok in different from that is available related to the organisation ok. You can use these capability frameworks where you can identify the capitals associated with the organisation, people relationship and its infrastructure ok. So, if you are going to calculate it you can find out your position with reference to knowledge assets.

Current Knowledge assets vis a vis knowledge asset of your competitor and then you can see whether it is going to help you to achieve competitive advantage or not ok. So, it is very, very important to use this capability framework to identify basically to compare value of your intellectual capital as compared to your competitors right.

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Stage	Description/Diagnostic
0	We don't even know the good from the bad in terms of outcomes! (You probably don't need this book then; nothing is going to help!)
1	We have no knowledge; each time we have to make a decision, it is by trial and error.
2	We have only tacit knowledge which is in the form of personal knowledge held by person _____ and _____.
3	We have tacit knowledge; we have converted it into heuristics and rules of thumb;* they often work.
4	Knowledge (some) exists in explicated form, but no one really uses it.
5	Knowledge exists in explicated form. We use it but need tacit knowledge possessed by person _____ to be able to apply it in some circumstances; but unless things are really different from normal, we can do without the tacit component. Whenever we use this explicit knowledge, we validate it or contribute back to it.
6	Knowledge exists in explicated form. We use it but need tacit knowledge possessed by person _____ to be able to apply it in some circumstances; but unless things are really different from normal, we can do without the tacit component. Whenever we use this explicit knowledge, we validate it or contribute back to it.
7	Tried and tested models now exist. We can simulate conditions; do what-if analysis in complex circumstances; modify behavior accordingly; it always works. Tacit content of the sum total of knowledge is very low. We validate existing knowledge whenever we use it. Our company has a strong "unlearning" capability. Our culture truly promotes knowledge sharing and synergy. We do not think that we have left any stone unturned in leveraging our company's knowledge. Employee walkouts do not hurt us in any significant way.
8	Difficult to characterize.

*For example, it often, *but not always*, is true that your car's battery is discharged if you left headlights on for a few hours and now it does not start.



Then there are certain questions that can be asked ok in order to identify knowledge especially when you are in you are using this Bohn stage, eight stage right and you can use it in order to find out at which stage of knowledge organisation is right. For example if you say that you have only tacit knowledge within the personal knowledge then it means that you are in the stage 2. Suppose you say that you are at stage 4 then there is exists in explicated form.

But nobody actually used it you have very good library you have all kind of things but you do not use it. So, the knowledge available in explicit form the only thing is you are not using it right.

So, these are the different stage and that is how you can diagnose at which stage of knowledge you are.

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Tracking knowledge growth over time

1. How is the stock of this knowledge resource increasing?
2. Is it increasing? If so, how do we know that it is?
3. How can we ensure that the stock (or knowledge) continues to increase?
4. Are we making the best use of this knowledge resource?
5. Do all employees recognize the value of this resource?

Then the next is that, yes you have to track knowledge growth over a period of time. At the first stage once you are able to find out where do we stand so far as knowledge asset is concerned. Then you have to see what is happening to this knowledge ok whether it is appreciating or not ok. That is your intellectual capital base whether it is appreciating or depreciating over a period of time ok.

Which include our structural capital, infrastructure, resources, human capital and relation capital? So, you have to see whether this capital base is appreciating over a period of time or not. If it is appreciating it means that you are intellectual capital versus appreciating if it is not then you cannot see that you cannot say that it is improving.

If you want to track knowledge growth over a period of time you have to see that what is the current state then you have to find out whether it is increasing or not. And in order to identify whether it is increasing or not what you need to do is measure the intellectual capital ok you need to quantify using certain indexes.

So, that you can say whether it is increasing or not next you also need to ensure whether it is increasing in a regular basis or not. So, the knowledge is not struck that is very, very important say for example you have to say that in terms of R and D output whether the number of patents,

number of publications, number of innovations that has been done by the institution is increasing over a period of time or not.

Suppose in a particular period of time it has gone up but again there is a lull and again it is increasing it means there is a gap in this, which shows that it is not continuously increasing, the knowledge base is not continuously increasing. So, you have to see that it is continuously increasing.

Let me give an example say for example 3M, 3M is a company which is top on the innovation index. Now if you look at the number of patents and the trademarks that they have every year it is going up which shows that the innovation capacity is very, very high and if you look at the intellectual capital index that is the best right.

It shows that yes their knowledge is best, their knowledge capital or intellectual capital is appreciating over a period of time and just continuously increasing ok and whatever knowledge-base they have; are you making use of it or not that is very, very important. Even if you have knowledge resources if you do not make use of it, what is the point in having a knowledge resource?

You may be having a well-established library but nobody is going to use it right. You have a KM system is nobody interested to search or retrieve information for doing things. Then what is the use of it means if these things are there it means that you are not interested in using it ok and then you have to ensure that people must recognize the value of these resources.

Because knowledge is the only resource which is going to avoid you have a competitive advantage and make sure the people understand the value of knowledge and try to make them make use of it ok.

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Tracking knowledge growth over time

6. How durable is this knowledge asset? Will it decline over a period of time? How easily can others (competition) identify and copy this resource?
7. Can the competition easily nurture and grow this knowledge?
8. Is there any aspect that our competition has leveraged but we have not?
9. Can we imitate it? Need we?
10. Can this knowledge “walk out of the door”?
11. How is it changing over time?
12. Will our company need it after X (define X) years?

So, how you are going to do it, yes you have to see that what is the durability? Whether it is going to decline over a period of time ok. How whether the knowledge can be imitated and modeled by others ok. see knowledge is a resource which is very difficult to imitate and copy right, but the similar knowledge can be also created by the organisation for example one bank which created ATM to start with right. So, it provided them a competitive advantage.

Now this was the knowledge asset for that particular organisation but it is not going to be a knowledge asset for the organisation because now all banks are using ATMs. So it has created level playing field right, it means it has value of this knowledge has declined over a period of time. Because others have been able to identify and copy this resource the knowledge resource they are also going to make use of same resource.

Which does not provide you a competitive advantage right then competitive competition easily nature and go with this knowledge you have to see. Now you are providing ATM machine but they have moved beyond this. So they are going to provide other kind of services using ATM it means that they move beyond the ATM right. Then you have to see that yes, which aspect of competition has been leveraged or which you can leverage but you able to do it ok.

Then can you imitate the knowledge that is available with the other organisation or whether there is a need to do or go for it. Can this knowledge workout to do that means the expert are they expertise resource that is located is going to be out. Suppose people leave your organisation because you are not able to manage the talent. The expertise is leaving your organisation it means what happens the knowledge or the export that is there is walking out.

So, it is no longer with you cannot make use of it and the nature of knowledge is also changing over a period of time. You need to ensure that only relevant knowledge is used there. And then you are able to make use of it. Then how; how your company needs it after this knowledge, whether this knowledge is relevant again after say 5 years or 10 years or not.

May not be relevant you need to create new knowledge and put it right and these are some of the issues related to what you call tracking growth and for a period of time knowledge is concerned.
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Strategic Positioning within the Technology Framework

- Mapping knowledge in each of the areas that you chose in the earlier stages of the knowledge audit, as describes in Figure above provides excellent insight into the way KM and business strategy can be kept in perfect synchronization.
- This insight can help in determining the strategic position and competitive advantage possessed by the firm in terms of the explicit and tacit knowledge contained within the firm – in people's head, databases, resident experience, electronic discussions, and KM systems.

Now the last part that is we are going to discuss is related to statics strategic position it in the technology of framework. When it comes to mapping knowledge ok we have to see that there could be different stages of knowledge audit we will discuss about the figure and we talked about different quadrant which is going to provide insight that how KM and business can be kept in perfect synchronization right.

You have to see that you could determine your strategic position and competitive advantage which you passes as in form in terms of whether it is explicit knowledge or tacit knowledge right. Whether it is in the people head or in the databases or it is in the experiences available in the electronic form or whether it is available in the KM system. So, when I am going to discuss about strategic positioning within the technology framework.
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The Four Positioning Choices

- The green shaded areas indicate a high competitive advantage – areas where your knowledge is already well managed but can possibly be improved.
- The right cells in the matrix represent the two quadrants where KM holds the most promise for producing groundbreaking results.
- Knowledge that falls outside these shaded areas represents those areas where the support of a KM system and an effective KM strategy is most needed.



These are four positioning choices right. Now I am going to discuss the four positioning choices then I will come back to this slide.

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Now look at this strategic position ok, now if you look at this triangles it talks about codified knowledge and also the tacit knowledge low to high and this is also low to high. Now if you look at the green shaded positions and that is strategic position A and strategic position B right. Here you have competitive advantage because you are high on either tacit knowledge or competitive knowledge. Now you if you look at this part you can say that you have better strategic position.

Because you have high codified knowledge as well as high tacit knowledge. But this also provides you strategic position or a competitive advantage because you are high on codified or explicit knowledge. In this case you are high on both explicit as well as tacit knowledge right. If

you look at this externally accessible ok and internally safe but it is also externally safe in and internally accessible.

Now if you look at this position right suppose you are tacit knowledge is low and codified knowledge is low right and then you do not get in any competitive advantage right. Now if you look at the study position you get some advantage because of the tacit knowledge is high. We does not provide you good competitive advantage.

Because tacit knowledge used by people unless it is transformed into other application, people are ready to use, are able to do not get their strategic position. Now if you look at this area been talking about ok it means shaded areas indicates highly competitive advantage where your knowledge is already well managed but can possibly improved in this area right.

Then right side of the matrix represents two quadrants where KM holds the most promise for producing ground breaking result. So, these are the right cells right tacit cells are very, very important right.

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Strategic Positions

- **Strategic position A:** indicates that your company is internally safe but externally vulnerable on this front.
- **Strategic position B:** indicates that your company has managed to explicate some portion of its knowledge; however, this is a relatively small percentage of what your competitors have managed to explicate.
- **Strategic position C:** A fundamentally weak position, where your company has to strategic advantage whatsoever.
- **Strategic position D:** Most desirable. Currently successful but need to manage knowledge in such a manner that their temporary advantage is converted into a longer term, sustainable competitive advantage.

Then look at the strategic position, strategic position A this one what does it talks about your company is internally safe and externally vulnerable on this part because what you have is more codified knowledge but less tacit knowledge right. If you look at strategic position B your company as explicate some portion of its knowledge.

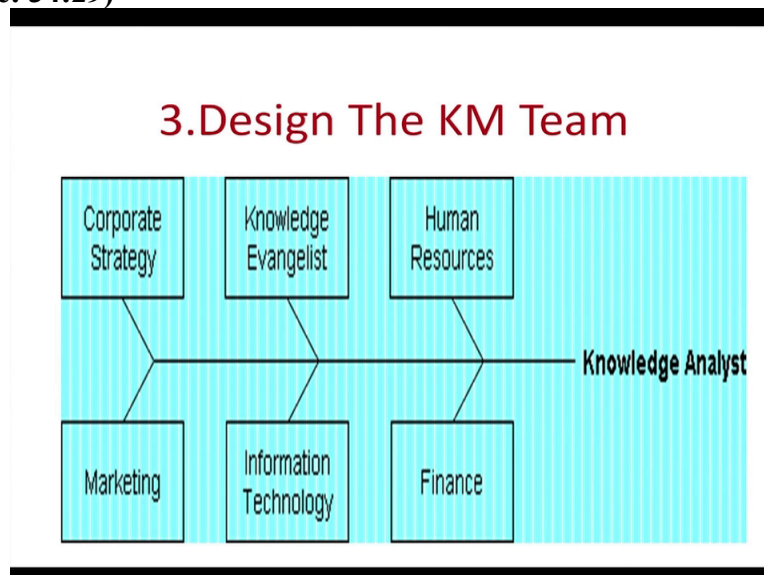
How well relatively some portion of your manage to explicate right you strategic position B but externally save and internally what you are assailable. Strategic position C is a weak position

because you have no strategic advantages because see you are low on both tacit knowledge as well as codified knowledge right and D it could be desirable in the sense which does not provide you a competitive advantage but you are very high on tacit knowledge right.

So, when I am saying desirable you are successful you need to manage knowledge but you only get temporary advantage because it is not going to help you too have a sustainable competitive advantage the reason is that you have only tacit knowledge or no explicit knowledge or codified knowledge right.

So, ideally it should be here but this is also ok this is where you have codified knowledge but it may not help you in long run. So, the best thing is that you should be here, that is where you are going to where competitive advantage. So, when I am talking about before position choices it is always important to see where you stand vis a vis it is codified and tacit knowledge right because you need to have both in order to have competitive advantage right

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Ok thank you.