ISB CTO

Week 17: Championing Change Management

Video 1: Module Overview

In this session, we are going to be thinking about how to approach external partnerships. The role of the CTO is more externally focused rather than internally focused in the sense that the CTO needs to scan outside technologies. Try and understand which of these technologies are more important for the firm to pursue and think about how best to pursue them for strategic advantage. So, in that sense, we really need to think about how what kind of a relationship, the CTO needs to structure with these external technology vendors. So, we will be doing this session with the help of a case where an Indian company pursued a partnership with a Dutch company. So, before we start with the case itself, let us first think about what are the different ways in which a business can be scaled up or a new business is grown.

Video 2: Business Expansion: Entering and Scaling Up

So, there are two main ways in which we can grow a new business or scale up an existing one. The first is organic growth that is through new product development or internal corporate venturing, we organically develop something inside our organisation. The second alternative is inorganic growth that is we essentially look outside; we look for some kind of a partnership.

Inorganic growth comes in three different ways. You could either pursue a non-equity alliance that is some kind of a contractual relationship with the technology provider. We could pursue an equity alliance that is we take some level of investment stake in that company, or we can pursue an acquisition. So here, we are going to consider how to make the decision between organic and inorganic growth and to the extent that we choose inorganic growth, how to make the decision between a non-equity alliance and equity alliance or an acquisition. So, at this stage, what I would like you to do is I would like you to read the Moser Baer OM&T case and think about what kind of an opportunity Moser Baer should pursue with OMNT.

So, the discussion question really here is should Moser Baer pursue OMNT? Does OMNT have interesting technology that Moser Baer needs? That's the very first question. The second question is, to the extent that you wish to pursue OMNT, what form should that partnership take? Should you make a contract, should you take some kind of an equity relationship, or should you buy OMNT outright? What form should that relationship take?

So now, let us consider the decision situation in this scenario. So, as Moser Baer, what are you looking for? Why are you looking to diversify to begin with? you will notice that not just the core industry, it is in the core industry being the CDs and manufacturing CDs and then DVDs. The case devotes a lot of space to thinking about whether they should pursue the HD DVD technology or if they should pursue the Blu-ray technology.

But the subtle context here is that all these technologies were becoming obsolete. Now, it was more flash drives and then streaming. These were around the horizon and Moser Baer, the management, had seen the writing on the wall. Their core business was dying. if your core business is dying, what do you do? One opportunity is to sell yourself to the industry leader. The other opportunity is to buy up several firms. This is especially relevant if you were the industry leader to buy up several firms and concentrate and become the industry leader yourself.

And the third opportunity really is, is to shut down. I mean return cash to shareholders. None of these generally are very palatable to managers. So, what do managers end up doing? They end up diversifying. So, in this case, why did Moser Baer want to diversify? They wanted to diversify because their core business which is the manufacturing of disk drives that is of DVD player, DVDs and Blu-raters was dying. So, what did they decide to do? They essentially decided to look at the solar opportunity. So, they wanted to make solar cells. Why a solar cells? An interesting diversification opportunity for Moser Baer. To begin with, solar was a burgeoning sunrise industry. The projections was for this industry to grow tremendously and even if you could get 10% of this industry, you would still be a very big business. So, on the demand side, it's a very attractive industry.

So now, let us look at the supply side. At the supply side, the Moser Baer management figured out that what you need to do to manufacture solar cells is exactly the same technology as you would need to manufacture HD DVD's or Blu-rays. As the case says, both of them are about coating a substrate with a light reflective coating So, at this point I would like you to pause me again and ask yourself, why OMNT? Why is OMNT important for Moser Baer to pursue the solar business? Because on the surface of it, OMNT is not a great partner for Moser Baer, because Moser Baer used organic dyes in its coating, and it used what they call low to high technology. So, OMNT did exactly the opposite. It pursued a technology called high to low and it used inorganic coating. But if you dig deeper, you would notice that for the solar market, it is precisely the OMNT technology that is important. So, this answers the question, is OMNT an attractive opportunity? It is because the in house technology that Moser Baer had is not useful for the market opportunity that they want to pursue.

So, we see that OMNT has this technology offering that Moser Baer is looking for. On the other hand, Moser Baer has money and OMNT was struggling financially. The second interesting reason is that Moser Baer had very good ability to manufacture on a mass scale. This is something that OMNT utterly lacked. So now, we come to the second question, what kind of partnership these two firms should pursue. So, here what we will do is we will look through somewhat of a theoretical framework that will help us understand how we should think about organic versus inorganic growth as well as think about how we should perform, how we should approach partnerships.

Video 3: Growth Tree: Organic vs Inorganic

So, how do you decide between organic vs inorganic? Well, the first question is, "Does any other company out there have the resources? Does any other company out there has the technology that you are interested in?" If the answer to that is, "No", then well, you do not have a choice. You have to build it yourself. If the answer to that is yes, then you still need to think about whether you need to pursue this yourself or you need to go ahead and get it from somewhere outside. the first question we tend to think about is do you have any related technologies that will help you to build the new technology? in the case of Moser Baer and OMNT, you can say that "Hey, we have this related technology. We also how to coat substrates with thin films, with reflective thin films." But then you can say, "Hey, you know what, we have low to high technology, but what you really need is high to low technology. We need inorganic compounds. "Do we actually have that capability? And that is a much murkier question to answer. It can help. It may actually be a stumbling block because you're in house technology may prevent, you may act as the centre of gravity that prevents resources from going towards this new technology that you are going to experiment with.

So, the next thing that we want to ask is, are there increasing returns? So, for instance, if you make an investment in creating this technology, is it subject to increasing returns? So, in this case that we are thinking about, there is no clear reason to think about why there may be increasing returns. One way to think about it is that "Hey, if have some of these baseline patents, it may be more easier to build upon them more quickly, and you will also have a portfolio of patterns that are more protected from competition from other people copying." So, in this case, to the extent that there are some of these increasing returns. And to the extent that there is a company out there that already has this technology, then you should think about partnering with them. So, you should go the inorganic route rather than the organic route.

The third question that you want to ask is, is there significant uncertainty in developing this technology? So, the technical term that we use for this is causal ambiguity. A quick example, for instance, is Steve Jobs always credited taking a calligraphy class for creating true type fonts. So, if you are a new computer graphics company and you want to create new fonts, should you send your employees to a calligraphy class. There may be more to innovation. So, this is the idea that we have under causal ambiguity, is there significant uncertainty in how to develop high to low technology that uses inorganic compounds in its functioning? To the extent that there is significant uncertainty, you should go ahead and partner with somebody who already has this technology rather than try and build it yourself. So, again, to the extent that you have high causal ambiguity, you are more likely to pursue the inorganic route than the organic route. Finally, we have to ask ourselves how important is speed, how important, how easy it is, how important it is that we are first to the market. To the extent that it is very important that we are first to the market.

To the extent that crash investment programs are unlikely to succeed, again, you are better off partnering with somebody who already has this technology rather than developing it in house. So again, you see that you are being steered more towards the inorganic branch than towards the organic branch. So, now that we have this framework to consider whether to go inorganic or organic, next we will try and understand how to choose between different modes of inorganic growth. The different modes being a pursuing a non-equity alliance, that is a contractual relationship, pursuing an equity alliance or pursuing an acquisition. So, in this case, before we think about what these alliances are, we need to understand that alliances come in a bewildering variety of ways. You can think about just traditional arm's length buy-sell contracts. You can think about joint research, franchising, some kind of long-term sourcing, shared distribution.

There is all kinds of contractual relationships that are longer-term that you could pursue. So, apart from that, you can also have what we call minority equity investments or equity swaps where, for instance, Toyota is very famous for this. Toyota and its suppliers, they take Toyota, always takes may be 10% equity in many of its suppliers and ask for a board seat, it does not buy them outright. So, these are what we call equity alliances.

Then you have joint ventures, joint ventures essentially where a new firm is created, and both the parents have 50-50 equity in this new joint venture and they both steer those joint venture towards a joint opportunity. The venture was between Hero Motors and Honda Motor because Honda wanted to come and sell bikes in India, but it had no idea how to set up distribution channels. It had no idea how to think about marketing in India. It had technology. So, it approached Hero Motors for this kind of more contextual information. They set up this joint venture, Hero Honda, where Hero and Honda took 50-50 equity. And we all know that it was spectacularly successful. And over a period of time, once the partners had learnt about the market, they went their separate ways. Hero bought out Honda Stake and Hero Honda is now just Hero.

On the other hand, joint ventures can also go sour. The other example we can think about is Kinetic Honda. Kinetic Honda was Honda's joint venture with Kinetic Motor for scooters and that never took off very well and it was dissolved very early. And of course, finally, after all this, we simply come to acquisitions, at which stage the target disappears and only the acquirer states. So, what essentially happens is that the acquirer integrates the target inside of itself, and target ceases to exist as a legal entity.

So, how do we make a decision between what kind of a relationship we want to pursue? So, an interesting anecdote, this was research that was done in India, is do you view acquisitions and alliances as two different ways of achieving the same growth goals? And we see that 82% of managers say that is true and 18% of managers do not see acquisitions and alliances as complementary mechanisms. Then you ask the question, when your company executed its last acquisition, did it consider the alternative of forming an alliance?

And you see that 76% of the managers said they did not. And the third question is even more interesting. Has your company developed any kind of specific policy guidelines for choosing between alliances and acquisitions? And 86% of managers do not have such a thing. in other words, what we see is that even though 80% of the managers believe that alliances and acquisitions are complementary mechanisms, that is we really need to think about whether we want to pursue an alliance or an acquisition for a given strategic goal. We also find that these very same managers do not have any framework to think about how or under what conditions they should choose an alliance vs an acquisition. And that's precisely what we are going to be doing now.

Video 4: Equity Ownership

So, when we want to think about the differences between alliances and acquisitions, we want to think about this equity ownership criteria. So, what are the benefits of ownership? You have exclusivity, exclusivity and control. Essentially what happens, you have taken the partners technology out of the market, right? You have denied access to that technology to your competitor by becoming their partner. The higher your equity ownership, the more your ability to control the technology from falling into different hands and acquisition is of course the most foolproof way of essentially saying no, we will not give you that technology.

The second way to think about this is alignment of interest. So, for instance, how do you know that your partner is going to act in ways that has your best interest at heart? So, coming to the OM&T and Moser Baer case first, if we think about exclusivity and control, if Moser Baer wants to make a big play in the solar industry, then perhaps it is important for Moser Baer to keep this sputtering inorganic technology out of the hands of its competitors. So, to the extent that they can have this control over the OM&T technology and not provided to competitors, the more advantage that they have. So, in that sense, ownership is good.

Similarly, alignment of interest. So, why is Moser Baer interested in OM&T? It is interested because it sees this technology as core to developing a solar cell. Is OM&T in the business of developing solar cells? No, they are not. They are in the business of developing Blu-ray discs. So, if you are going to partner with them, you need some kind of a mechanism to ensure that OM&T engineers and scientists are going to take solar cell development seriously. To the extent that you have equity ownership, you can align their interests. You can take a board seat, you can, you know, have some kind of a say in their incentive agreements, in their compensation agreements. You can have some kind of a say in how resources are allocated in the firm and by that process you can safeguard your interest. That is that OM&T is actually going to spend time and money and effort developing a solar cell rather than a cool Blu-ray disc.

So, the last thing that you want to think about is inter organisational coordination. That is, do your engineers and your partners engineers need to work closely together in order to develop this new technology. The more closely together that they need to work, the more important coordination is and again, the more ownership you have, the more you can facilitate this coordination. If you are, if you do not have so much ownership, you have to rely on much less rich means of information transfer. So again, in the case of OM&T and Moser Baer, to the extent that OM&T needs to develop its technology in such a way that it is aligned with the manufacturing capabilities that Moser Baer has, the more useful it is for Moser Baer because it need not invest again in new tooling. It need not invest again in new assembly lines, need not invest in training it's employees all over again. So, to the extent that is possible, it is important for Moser Baer. So, here we see that exclusivity, alignment and inter organisational coordination, all of these are important in the relationship between Moser Baer and OM&T which suggests that they should have some level of ownership.

But benefits of ownership is not the one thing because ownership also comes with cost. The most obvious cost is just the price you need to pay. For instance, if you are going to do an acquisition, you have to pay an acquisition premium that is just a cost of equity. But apart from that it also comes with other subtle cost. So, the easy way to think about it is a commitment. Commitment is very important because what you are essentially you are staking money on the ground by saying that you are going to develop this technology. Well, solar cells is a nascent technology. It may well be that there may be a newer technology around the corner that makes this one obsolete. So, to the extent that you have a lot of technological uncertainty, maybe you do not want to commit so much, in which case you should not buy so much equity.

Similarly, if you are very unsure that there is a market for this product, perhaps in the solar cells example this is not very relevant, but it is much more relevant in other things like for instance if you are Sharp's decision to develop LCD technology for a flat screen TV, when they made that decision, it was completely unclear whether flat screen TV's were even possible and even if it were possible, what kind of a market we were looking at. So, to the extent that they you invest a lot of money in that technology and the market moves away from you, you have kind of lost out. So, to both technological and market uncertainty, therefore, suggest that you have less equity ownership.

The last one is more subtle in the sense that generally people who are working for small entrepreneurial organisations where they have a real stake in the outcomes are highly motivated. If they are part of a much bigger enterprise, they are working for a salary or they are there is lowered motivation. So, to the extent that a large company is buying a smaller company or is having an equity stake in a smaller company, you may be lowering motivation of these employees in order to of the scientist to work hard to come up with these new tech innovations.

So, this is something that you need to take into account. So, in this case, the Moser Baer and OM&T case, for instance, the significant problem here is technological uncertainty. We can consider how there may be other technologies around the market that may be producing solar cells at more efficiently and we do not know them. The other idea here of lowered motivation may be more interesting simply because here you have an Indian company trying to buy or trying to have a partnership with a Dutch company. This is an Indian, you know, low cost manufacturer, right? Whereas the Dutch company is much more high tech, more differentiated, prides itself on its technology. So, there may be some kind of a cultural mismatch that may lower motivation. So, these are the benefits and costs you need to consider when you think about what kind of a partnership you should pursue.

So, at this point, now that we have spoken about it, pause me and think about how these apply in the Moser Baer, OM&T case. But at the same time, you can use this perhaps as a template to think about what kind of a partnership you would like to pursue with some of your technology partners that you are scanning and thinking about bringing in house. So, here we simply have a quick table that summarises the framework that we went through and here what we are thinking about is the some of these criteria that we have been talking about. We have reduced them to some bullet point form so that you could answer some of these questions to get a good understanding of where you are in terms of motivation, commitment and exclusivity.

So, we can think about the problem of how what kind of a relationship to pursue along 2 dimensions. One dimension is what kind of inter organisational integration that you would like. The more you need to align interest, the more closely you need to work with a partner, the more you need to keep the technology out of competitor hands, the more the greater the integration that you need. But what we also want to remember is that you can get high integration levels only if you have high ownership levels. At high ownership level, you can choose what level of integration you want to pursue. You may want to pursue this partner to the extent that you want to leave them independent. You want to give the mall the freedom that you want. All you need is to prevent access to their technology from a competitor. Otherwise, you would like them to operate as independently as possible. That is very highly possible with a high equity level but at the same time you want them to be completely integrated with your existing team. That is also possible with high equity level. But at low equity levels you do not have a choice. There is only so much influence that you have with your partner. So, you really need to think about.

So, the 1st order of decision that you need to make is to think about how much influence you need with your partner. If you need high level of influence, you do not have a choice. You need to take high equity ownership levels. To the extent, that you only need low levels of integration with the partner. You can still think about some of the other criteria that we spoke about earlier to think about whether you need high or low equity ownership levels. So, this is particularly interesting simply because as the role of the CTO demands that you look at outside technologies and try to bring them in house and a lot of that, bringing them in house involves decisions about what how to pursue these partnership.

Video 5: Managing Strategic Change

So, pursuing new technologies, looking outside for new ideas for how we want to change business, or our business model is only one part of a digitally enhanced business model or digital change. The second half of that is to pursue this change successfully through the organisation, in which case we need to think about change management. So, how do we think about managing strategic change? A new business model or even a change in a part of the business model can have significant resistance within the organisation.

So, this type of strategic change must be introduced and managed carefully in order to achieve the desired results. Why is this the case? This is because in most cases, and this is especially true of digitally led change, is that your business processes are going to be very different than what your employees are used to. And because you are. Often many processes are discarded, many processes are significantly changed, and many new processes are introduced because of this, we need to carefully manage and orchestrate this change process to successfully transition to a new business model. So, ideally the life cycle of a management intervention starts with observing patterns out there in the industry and forming a hypothesis about what would be a new value-added service or a different way of doing the doing our business. So, the moment we do that, the next thing we have to do is to try and understand, what are the basics of this transformation. And try, if possible, to test them out in a small scale.

So, for instance, we would run a small field experiment, or we would, we could even run a lab experiment, if possible, but a field experiment is generally better. And once, we have run this field experiment, so this would be something like your randomised control trials that the economists run for considering different public policy changes. We can do similar kinds of experiments in the firm. And once, we are convinced that this is the way that we need to move, then we should go ahead and implement. Surveys, several surveys especially, I mean, I have one here from the Conference Board, which is a survey of CEO's that talks about why there is resistance to significant change.

And we see that the biggest impediment that they talk about is simply resistance to change. That is, they are essentially saying that people do not want to change, but that is kind of essentially saying that the problem is the problem. It does not go a bit deeper into asking why there is resistance to change and what can we do about it. So, some of the other responses are a bit more thoughtful. So, for instance, they say inadequate executive sponsorship. Unrealistic expectations, which leads to sovereign of the project.

So, these are things that we can actually think about, poor project management. These are interventions that we can think about rather than simply blame the lack of change to resistance to change. So, resistance is natural. There is fear of the unknown, there is fear of failure, there is disagreements, there is a sense of loss in the sense that we are no longer doing what we are likely, what we were doing before, and we have built up significant amount of skills to do that. So, in that sense there is a sense of loss. There is there is the problem of leaving our comfort zones. Also, there are false beliefs that, what we are doing is the best that is possible at the moment and all new ways are not great. And there is, I mean misunderstandings. These are the same as false beliefs.

And there is inertia, which is another way of simply saying that there is resistance to change. So, why do we have inertia? We have inertia because we do not want to leave our comfort zone, because we have false beliefs, because we disagree with what we are trying to achieve, because we have fear of failure. These are the reasons why we have inertia. So, it is not just laziness, and this is something that we can try and work on. And therefore, what are the different steps that we should take in order to try and overcome these eight different ways in which resistance to change manifests? We should encourage participation, we should facilitate change, we should negotiate, we should have executive sponsorship, we should educate, and we should have good performance indicators. So, even though some of these things have a good is good kind of a flavour, let us dig down a bit deeper and try and think about, how we can better manage each of these processes.

Video 6: Kotter's Process of Change

So, let us start with a very well respected and well known process for change management. It essentially says that there are eight steps to good change management. The first, is to establish a sense of urgency. We want to make sure that people understand that not changing is not an option because the business and the world is moving much faster and for us to keep up with that, we really need to change. So, this is establishing a sense of urgency.

Next, we need to form a powerful guiding coalition. What it essentially means is that we need to have executive sponsorship, as well as sponsorship in different levels of the organisation who can communicate the sense of urgency and think about how we should change. The third step is to create a vision. So, create a vision essentially is to come up with a, a viewpoint of the end state. So, we see that the world is changing. We want to change in these ways, but to paint a picture about where we are going to end once this change transformation journey is complete, that is to create a vision.

Once we have created that vision, we have to communicate it widely and we need to empower others to act on this vision. Finally, we need to think about and plan for short term wins. So, instead of talking about a whole transformation, we break it down into smaller chunks and we think about having quick wins. So, for instance, I mean, this is perhaps an, a useful analogy if you want to build muscle or drop weight or it is very difficult for us to say we need to drop 40 kilograms, to reduce 40 kilograms is a very difficult task. Instead, what we do is we create quick wins. We say we have these behavioural modifications towards diet. We have these behavioural modifications towards exercise.

And with these small modifications, we see a small change. We lose 3 kilos. We celebrate that, then we build on it. So, finally this build on it essentially is consolidating these improvements and finally institutionalising these new approaches. That is these become the ways in which we do our business, and our employees are measured and the new business model that we are thinking about that is the vision that we created is fully institutionalised in the firm. So, when we think about this, we have to think about a sponsorship network. One way that Carter thinks about the sponsorship network is to think about change sponsors. These are executive leaders who are responsible for the change. Then we have change champions. Champions are essentially divisional leadership, or we can perhaps think about them as senior managers and directors. Then we think about change agents. Change agents are essentially functional managers as well as change management teams. They interact with or change targets, that is all the employees in the organisation whose processes and activities we wish to change.

So, here is an example to think about when, who is an effective change agent. On December 1, 1955, in Alabama, Rosa Parks was arrested for riding in the white section of the local bus and this led to a 381 day boycott of all buses and eventually led to the repeal of segregation loss and public transportation. So, why was Rosa Parks so successful? And this is important to ask because Rosa Parks was not the first person that was arrested for not moving into the 'blacks only' section of the bus. She was not even the second. But why was the arrest of Rosa Parks so influential? That was because Rosa Parks was the first member who was also a member of many, many different networks. So, we see that what was different about Rosa Parks from the other people was that her, the information about her arrest and people who were outraged by it came from many, many different parts of the organisation. So, what does this tell us about what an influential change agent should be?

An influential change agent who has connections with many different parts of our firm, different functional areas across different hierarchical levels, perhaps across different offices. So, this is what we call a central member in an organisational network, something that we will discuss just in a little while. So, the second thing that we need to think about is comes from the idea of disruptive innovations.

So, disruptive innovation is an innovation that has a very different business logic than our current innovation. So, Clayton Christensen and who coined the term disruptive innovations and other people who have subsequently enriched this term have spoken about how firms can faster disruptive innovations within their organisations. And the first thing that we should do is that we should create a small unit that is going to adopt these new practices and act as an exemplar for the rest of the organisation to kind of follow. So, what should this new small organisation that is going to enact this new processes, what should it do? It should kind of forget what happens in the rest of the business. So, it should be focused completely, and they should be. The executives should allow them to focus completely on this new process. What does that really mean?

That means, not holding them to the same kind of performance standards that you expect from the current organisation, at least not in the short-term. But you should hold them to higher standards in the longer-term. The second thing that we should do is, we should allow this new organisation to borrow resources selectively from the core, from the parent organisation, so that they are able to thrive, and they are able to expand. Lastly, what we should be able to do is, we should allow this new core to learn separately from what the core organisation is doing so that they can act as an exemplar for the core organisation when the time comes.

Video 7: Approaches to Change Management

So some typical approaches to change management include behavioural modifications. So, what do we mean by behavioural modifications? We essentially say, "Hey, you know what unless you follow this new process, you will be given some bonus. And if you do not follow this new process, you will be punished." Another way to think about it is let us change the culture of the organisation. We need people to become champions. We need them to take initiative. So, what we are trying to do is we are trying to change the culture of the organisation. The second approach is when we think about communicating the vision, communicating the need for change, a lot of times what we essentially do is we take an analytical approach.

The first approach, which is communicating by charts and numbers is a macro or we take a very micro approach, which is to essentially say well your job is going to be like this. Here are some screenshots of how you will be doing business. It turns out that neither of these approaches, neither the behavioural modification approach nor this communication strategies, are particularly effective.

One approach that we have seen, and research has shown is very effective is what we call storytelling. So, what is storytelling? Storytelling is to use stakeholder analysis to help position your message. So, what we are doing is we are building a story around are the way that the business is going to operate. Now, the story could be from the perspective of the user. The story could be from the perspective of the employee. The story could be from the perspective of say a new piece of equipment that we are bringing in. And depending on the perspective, the protagonist and the audience may change. So, what is so powerful about stories? Storytelling has a lot of imagery associated with it. That is one thing that is very powerful about stories. The second thing that is very powerful about stories is you can provide a lot of data in a context that people can immediately understand.

And the third thing that is powerful about a story is it follows some of the steps in Carter's change process for instance, it becomes easier to create and communicate a vision. It becomes easier to show people how they fit in the larger picture. They help show people, who values this change? And why this change is valuable to the customer or to the employee or to the organisation? How this change is valuable How was it creating value? These are much easier to communicate using stories than with simple behavioural modifications.

Finally, the stories, generally, they have a conflict, and they achieve resolution. So, in summary, something that we need to think about is that managing strategic change is a complex process that requires a lot of discipline to carefully navigate. Creating businesses within organisations is a balance of leveraging synergies. While we allow space for differences. When driving change in a business model, we need to identify a clear case for the change, complete a good stakeholder analysis, tell the business model story, and develop a plan for managing this change. So, how do we do this? Especially in technology enable change, management is a process that involves the use of technology to manage and facilitate change within an organisation.

There are five steps to successful technology change management, and a successful tech enable transformation requires that organisations make progress on several paths simultaneously. To reiterate, a readiness assessment helps to bridge the gap between the current state of the organisation and desired change. Q Back. This is establishing a vision. To that end, when assessing readiness and designing a change plan, it is important to focus on tasks such as getting a clear picture of a current business or current processes. Understand, how the organisation's current culture effects its performance Evaluate the technology that we need to use in this workforce. Then we need to assess employees skills and attitudes towards this change. Finally, analyse the impact of the changes.

According to Walkman, change readiness assessments should offer a clear picture of the organisation's digital capabilities, its digital maturity and examine everything from business processes to digital strategy to the employee's digital savviness. Assessing employee's skills and attitudes towards change and technology is also important.

Video 8: Organisational Network Analysis

One way to think about how to enable change is to consider organisational network analysis. Social networks, that is, informal relationships between employees in an organisation, is an important component of all organisations. People have gone so far to say that social network is the real organisation behind the organisation structure. So, regardless of what the organisation structure dictates, it is the social network that will allow change to happen, or it will keep resistance to change. So, what are the social networks? Social networks are essentially things like, who talks to whom? Who gets advice from whom? Who provides advice to other people? Who do we work with in order to solve a problem? These informal social networks provide insight on how the work actually gets done. We have to remember that the informal social networks almost always grow around the formal organisation. But they complemented and they extended. If the change that you are contemplating, for instance, involves organisational change as well, then the role of the social network becomes even more important because it can facilitate it, or it can hinder it. So, here is an example of a social network.

As you can see here, this is a geographic network where there are four or five different geographies, and we are showing the lines, the symbols in this graph are people and the lines are which people, who is connected with whom. So, here is another exhibit and this shows the network of a single person. It analysis the network of this person along several dimensions such as, whether they are in the same function? What is the hierarchy level? What is the tenure level? What is the location? So, it essentially says that this person has a network size of seven. That is, this person speaks with seven other people in the organisation most frequently, and this tells you something about what kind of influence this person has in the organisation.

So, in general, when we think about social network analysis, we think about two characteristics, centrality and density. So, what is network density? Network density shows how connected members are with each other. So, this is not a property of an individual. This is the property of the entire network. So, how connected in general are members with each other? So, we would expect, for instance, it is very natural that members within the same location are more connected that is, there is a high network density within location than between locations.

Similarly, there is likely to be high density within a division or a function or a geographic group than it is across these. But then, what do we need to watch for when we think about network density, especially if we are thinking about organisational change, we want to think about cross functional ties. We want to think about whether there are ties across hierarchical levels. We want to think about whether there are ties between resource providers and resource users. So, for instance, if you are going to think about technology led change, how dense are the ties between your employees in the in the technology area, for instance, your IT department and your users say, for its for instance your call centre employees or your shop floor sales agents. How dense are the ties between your sales agents and your IT department? So, to the extent that you are worried about technology enabled change, you should have a highly dense network between these two functions for the change to be more successful.

Similarly, we need to think about centrality. Centrality is both a property of the network as well as a property of the individual. So, we can think about it either way. In this case, we will think about it as a property of the individual. So, when we think about the network, are there any central players? That is, central players are players who are connected to many others. That is, they have disproportionate influence than the average person within the network. So, who tends to be central players? Central players tend to be experts. They tend to be long tenured. They tend to be people who have a lot of informal power within the organisation. This may or may not be tied to a formal position. So, now we can automatically see how when we want to do change management, engaging with central players are very important because central players have an outsized influence on the success or failure of a change management initiative, because they influence a lot of people with their opinions and with their activities. So, they can facilitate change management by reaching deep into the network. They know a lot of people and they can communicate this message, or they can become bottlenecks. They can become bottlenecks for personal reasons.

For instance, they do not believe in change, or they can become bottlenecks for capacity reasons. There is only so much that a person can do before they get burnt out. So, in that respect, we want to think about centrality, and we want to think about how we may need to include change or replace people for our change initiative to succeed. And this is particularly important for the CTO's organisation because they are change agents. They are looking outside for different kinds of technologies to try and bring into the organisation. But often employees are inward looking. They have few outside contacts. They have few contacts outside their division and very little outside the firm. And we need to think about how to staff this so that we have enough information, enough knowledge coming in from the outside that can help us make decisions.

Finally, we want to think about brokers. Brokers are employees who are connecting to disparate networks. For instance, we can have the sales organisation, and we can have the new product development organisation, and there may be a single manager who connects, who channels information from the market into new product development or who channels information from new product development to the sales organisation to test out what is the possible market attractiveness for an idea. Do you really need, want only one person doing this job? You are providing them a tremendous amount of power and they can make or break this organisation. So, we need to carefully think about how many brokers we have in our firm and whether they will help us facilitate change or whether they will hinder change.

So, when we think about social networks and change management, understanding how change agents are embedded within the different functions and hierarchical levels will give us a good handle for how to facilitate the change that we want to see happen.

Video 9: Module Summary

Finally, as everybody talks about what is the hardest part of change, we always come back to organisational culture. As someone humorously once said, "Culture is strategy for breakfast." But at some level that is somewhat of a cop out because if the organisational culture does not support the change, should we just abandon a desired change?

So, we want to think about what culture really is? So, culture in, at least in my definition, is two things. It is a set of values or beliefs. Beliefs about what kind of a company we are, what, why are we in existence? What value we create for the stakeholders and a set of informal interactions or social networks as we just saw. So, it is essentially those informal interactions that enliven values and beliefs within the firm to make or the value happen. But then cultures can be designed. How can cultures be designed? Cultures can be designed by designing social networks as well as by practices such as storyboarding or such as incentive management, such as communication management. These are all different ways in which we can design a culture. The one thing that we should remember is that changing the culture takes time. It is not impossible; it just takes time.

So, if you are wanting to see change in a very short period of time, it should be aligned with our culture. If you are wanting to have a transformational experience, then we need to make sure that we are not trying to deliver the transformational experience in an unreasonably short amount of time.