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I & J Munn Ltd

Achieving strategical change



*I & J Munn's response to the challenges
facing senior management in managing
strategic change*

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The challenge of change

Change is no longer an option, it is vital for success, and has to be driven by the top – hence this paper addresses some key issues that must be considered in the drive for market dominance

Introduction

Whether implementing DBR, Critical Chain or any other form of TOC applications there is one clear and constant theme – the need to change paradigms. The learning objectives of this paper are related to the research carried out by the author as part of his PhD at Cranfield University UK, his work in implementing TOC applications for over ten years and the development of Paradigm Lock. The intention is that those attending will understand some of the obstacles to strategic change, which revolve around the individual. They will be able to relate the content of the paper to their own organisation and be able to consider the methods described to successful change. Though the focus of the paper is that of change related to TOC implementations the lessons are applicable to any change programme. The paper was also presented in a slightly different form at the APICS conference in San Antonio Texas in March 2001.

In the implementation of any TOC application there is a fundamental challenge to existing paradigms. Whether it be major issues such as the use of cost based measures, existing tools and techniques, which are rendered, outdated by the TOC or any other form of step change. This challenge will prevent any successful outcome of the investment in TOC. This in turn only serves to prove that the TOC has limited application. For the supporters of the TOC introduction this has had a devastating effect. All of the effort in implementing TOC within the organisation now seems to have been wasted. Part of the problem lies in the nature of the market, TOC is now being marketed to a group of people who are not captivated by technical wizardry, or the latest fad, they just want solutions that work, that deliver results, that they can understand and manage for themselves. This group of people is the substantial majority that must embrace TOC if there is to be a major sea change in thinking, hence the importance of overcoming their fears. If the TOC is a solution then the cloud it breaks must be clear, and the barriers to such change overcome.

Where does change start?

There is a great deal of debate about how people know there is a need for change. Some seem to subscribe to the notion that as change is always with us they might as well keep changing everything, the broom continually sweeping clean. But change usually has a starting point, a perception that all is not well with the system, whatever the system might be. The recognition that things cannot stay the way they are is becoming obvious to all. It might be commercial pressure; the fact that for the fourth quarter in a row competitors have once more beaten them

to the market with new products, or just simply made the product quicker than their production processes could manage. It might be that the financial institutions on Wall St or the London Stock Exchange consider the performance of the organisation to be below that which they feel is appropriate, or prudent for such an industry. It might be the reaction of the shareholders to the current position that forces their hand and leads them to making important pronouncements about changing direction, taking strong measures, re-aligning their forces and so on. Often technology itself is the driving force for change. (Burns and Stalker 1966).

One dimension stands out above all this clamour for action, change is now a necessary condition for improvement, but what change, and in what direction? If these two questions cannot be answered then there is the risk of falling into the usual trap, namely any change is good, especially tried and tested ones such as “cutting costs”, or “going lean”, or addressing the supply chain, which is usually translated into beating suppliers into submission, forcing costs down through fierce price reduction whilst at the same time demanding that delivery performance and quality measures go up. These might work in the very short term but reality and experience suggests that over time they are very poor methods for really focusing on the change process.

Of course there are many suggestions offered to address these questions. Hayes and Wheelwright (1984) outlined the need for examining the manufacturing enterprise in a more focused manner than before. Womack, Jones and Roos (1990) brought lean manufacturing to worldwide attention as one of the suggested mechanisms for ensuring long-term success, though today this is given far less credence than before. Schonberger (1982 and 1986) has for some time argued for people within manufacturing to understand the nature of improvement and why others, notably the Japanese were so successful for so long. There is one interesting dimension to all of these writers and researchers; they did not challenge the dominant paradigm of the time – seeing the organisation as a set of independent links. They did not challenge the measurement systems of the time, but they did highlight that the way in manufacturing companies were managed had to change. They created the desire to focus on improvement by asking a key question – why do we have to improve?

Why do we need to improve anyway?

Part of the problem lies in the fact that little or no real analysis is done to identify the real reasons for the change, just why do we need to improve? Now part of what was said above has impact, it is a brave CEO that bucks the market. But at the same time questions need to be asked about both the need for improvement and where to focus attention. Just how well is the company doing? Is the company making a reasonable profit? How good is the return on investment? How does the cash flow look both now and in the immediate future? It is also necessary to look beyond the financial measures. How good is the quality of the product or service provided? How good is the delivery performance? What do the customers say about the company? What markets is the company succeeding in, and which ones are they failing in? These questions form the starting point about current performance in both financial and non-financial terms. There is also the question about the strategic direction, assuming they have one! What does the business strategy look like? How clear are the business objectives? Is the goal of the enterprise clear to all members of staff? Does the marketing plan and the manufacturing plan and all the other plans within the organisation support the overall business plan? It is amazing how many organisations do not have plans, which are working documents, plans which can be assessed and validated and checked against progress. If the goal is just to stay as they are then there is little need for improvement. If the goal is to make more money now and in the future with a real strategy behind it, with the various functions within the organisation aligned through their own objectives and plans then there is hope for the future. Once into execution they might have to change the plans in order to reach the objectives, but no matter, the plan is not the objective, the goal is. The plans give them an outline structure to work with, but they are not the end in themselves. Writers such as Imai



(1986) and Deming (1994) have argued for a strategy for improvement based on sound management practices and tools. But these have all depended on one key aspect, the ability to see the organisation, as it really is, a revenue chain.

Revenue chain

The key focus in all this is the state of the revenue chain. This is not a new concept; Deming (1986 and 1994) has been a proponent of the revenue chain, as has Goldratt (1990), though he calls it the Throughput Chain. Either way, the real focus within any for-profit organisation has to be the competence of the revenue chain to deliver. This concept has important implications for the way people manage the system. The role of management now is to optimise the performance of the whole chain not just any one link in isolation. No longer is it enough to deliver excellent performance for any one link, they must all align themselves with the overall goal. It should also be remembered that the revenue chain stretches from the supply base all the way through to the market. Our own organisation is only one part of the overall chain. This places a new demand on those managers responsible for either procurement or sales and marketing. Procurement now must ensure that what it does assists the chain to function properly, sales and marketing must develop ever closer links with current and potential customers and feedback what they find to the whole enterprise.

Problems exist that prevent better performance within the chain

Now whenever the revenue chain is examined it soon becomes clear that there are problems. Throughout the organisation people are struggling with trying to improve their area? The assumption here is that any improvement within the chain will improve the overall performance, but this rarely translates into reality. The true nature of any chain is that only by focusing can any real improvement be achieved, and the place to focus is the weakest link. This is the nub of the five focusing steps of Goldratt (1986). These being:

1. Identify the constraint
2. Exploit the constraint
3. Subordinate to the constraint
4. Elevate the constraint
5. Prevent inertia – go back to step 1

This approach was originally based on the assumption that the constraint was physical, but what if it is not? Constraints can be policies; they can also be paradigms. When the constraint is physical the five steps of focusing work extremely well, when they are either policies or paradigms they are less effective. What are the indicators of a policy constraint, or a paradigm constraint? Within the normal operations of the organisation there will be problems, undesirable effects, could these be the indicators we seek?

What problems? – the nature of undesirable effects?

Within the TOC terminology these problems are called undesirable effects (UDEs). They exist at all stages of the revenue chain, both within the links and in the linkages as well. They have a wide and varying impact on the chain. Some will have a major impact, others not so major. Some will suck cash out of the system; some will prevent the obtaining of cash. Some will do both! UDEs are never alone, they like to gang up on people, and they like to attack the revenue chain in packs like hunting animals. They take up a great deal of our time; indeed many so-called improvement projects within organisations are designed to deal with individual UDEs. In some cases there might many hundred such projects on-going at any one time. This is however based on one major assumption, that the UDEs are not connected, or if they are the connection is not important. TOC and the notion of the revenue chain teaches something different, that these UDEs are almost certainly connected and that dealing with each one in isolation is a very ineffective way to address them, they will simply return once more, and be even harder to eradicate the next time. The revenue chain concept also highlights the need to think systemically, which means that without proper identification of the weakest link, all improvement projects are doomed to failure unless by some quirk of fate we actually improve the weakest link without knowing it. UDEs are therefore indicators of a deeper problem within the organisation, they are the noticeable symptoms of a deeper malaise that, if people within the organisation are to be free of these problems, must be addressed. There is little to be gained in attacking each UDE in turn, there is simply not enough time, there is not enough capacity, there are not enough resources, and sooner rather than later, the market will decide. To continue to deal with UDEs one by one means that eventually the company will be lost to someone else, it will be taken away from the current owners and managers.

When capturing the UDEs of any organisation it is particularly useful to draw the revenue chain and place the UDEs in their respective locations within the chain, including the financial impact they might have. This is an excellent way to assist those within the organisation to really focus on what is being lost, in global terms.

What is the real nature of UDEs

The real nature of UDEs lies in the fact that they are effects and not causes. It also lies in the fact that they have been around for some time, which suggests that previous attempts to remove them have failed. This is an indicator that UDEs have two very important dimensions. The first is that the cause of the UDE is not addressed when the UDE itself is addressed, therefore the causal nature of the system lead to the UDE remaining in place. The other dimension lies in what is uncovered when we try to analyse UDEs in a more systemic fashion than before. To discover this dimension we must first build the UDE cloud, the tool within the TOC/TP set that offers the best way to first understand UDEs and then deal with them properly. For further discussion about the use of the UDE cloud see Scheinkopf (1999) and Hutchin (a 2001).

What happens when there are a number of UDEs?

Here the problems become more complex. For each UDE there is a cloud. Each Cloud/UDE is driven by a deeper causal element. If the UDEs all come from the same environment then it is likely that the same causal factor is operating. Now there is a need to delve deeper. Using the ability construct composite clouds from a number of individual UDE clouds it is possible to determine this deeper level of causality. If there is a problem, which is creating major difficulties within the organisation, if they are likely to be driven either by policies or paradigms; then this is the most effective technique to throw light on the real nature of the constraint. A note of caution here, many times people take insufficient time to properly



analyse problems, preferring to implement solutions that are the fad of the day. This superficial approach to improvement will only result in failure and disappointment, and possibly worse. Remember the notion within Chaos Theory of sensitive dependence on initial condition, if the analysis of the problem is weak the initial condition in terms of problem analysis is weak, and therefore the results will often be well wide of the mark. In other words build a solution on sand and expect the normal results, build them on rock and a different result will ensue. Having built the analysis of the problem, and then constructed the solution, tested it, developed the implementation plan, there is only one thing left to do, make it happen.

The five steps to successful change

This is described in more detail in Hutchin (b 2001). In dealing with constraints in a systemic manner there are five steps for implementing successful change. The first is to gain consensus on the nature of the problem. Without this consensus there will be people who do not subscribe to the analysis undertaken and put forward alternative suggestions. This in turn will dilute the efforts into the creation of a robust solution. This will then lead to people not supporting the implementation properly. The second step is to gain consensus on the direction of the solution. Within TOC there are three primary solutions, Drum – Buffer – Rope, Critical Chain and Replenishment and the need to attach Throughput Accounting for a successful outcome. The direction of each of these solutions can be determined quickly and clearly for all to see. In itself however this is insufficient, people still need to see the benefits that will accrue following successful implementation, they need to see what is in for them and their people. It is necessary to take people through the benefits and how they will be obtained. This leads naturally to the fourth step, which is overcoming all the reservations people have. They will have reservations about what will happen once the solution is implemented, the ‘yes but’ type of reservation, and they will have reservations about whether it could ever be implemented, the obstacles that stand in the way of successful implementation. Both types of reservation exist and both must be addressed if the solution is to work properly, and remove the cause of the UDEs that started the whole process. Once this has been accomplished the final stage is to make it happen. It is at this point that the research at Cranfield University in the UK was started, to try to understand why, when all this work has been done, nothing happened.

The research at Cranfield in the UK

What the research at Cranfield identified was that given all of the analysis that has been described here has been completed, once the full buy-in of the people has been obtained, once the solution has been given the go-ahead, often nothing happens. The full analysis of the research is contained within the book ‘Unconstrained Organisations’ due out later this year (Hutchin b 2001). Drawing on some three hundred people from thirteen companies operating in both Europe and the USA, the data set was both large and covered a wide range of people and their positions within the organisations. There were manufacturing companies, consultancies, service companies and one not for profit organisation. The UDE cloud was used to collect data and then combined into one single cloud, which took about eleven months to produce. The basic hypothesis was that when people have spent some considerable time analysing their problems, going through the whole process of the TOC which is both rigorous and time consuming, they have developed a robust solution that has overcome all the reservations of their team, nothing happens. No results, no successful outcome, no financial or non-financial benefit to either the company or the people, why? The hypothesis

suggested that this dysfunctional reason was rooted in the individual. Hence the collection of UDEs from the many people attending TOC programmes over a four year period throughout Europe and the USA.

The cloud, taken from the thesis (Hutchin 1998 unpublished PhD thesis Cranfield University) is shown in figure 1 below.

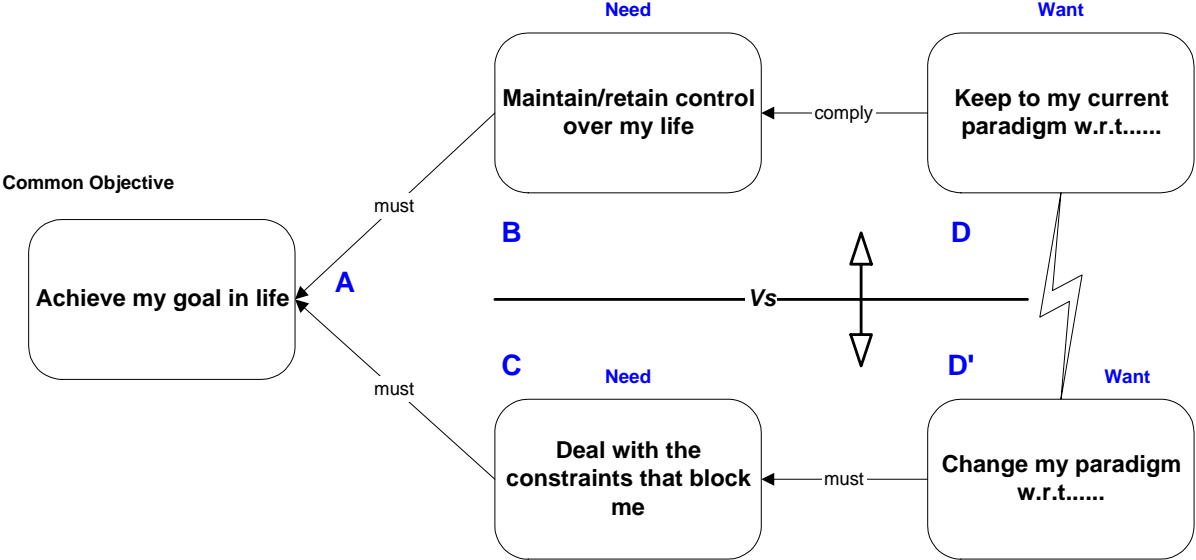


Figure 1 – the paradigm lock cloud

Once the cloud had been constructed it was necessary to surface the assumptions, of which there were many. Some, also taken from the thesis (Hutchin 1998 unpublished PhD thesis Cranfield University) are shown on figure 2 overleaf.

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Because?:

This is a function of safety/security
 Change is a threat to my security/safety
 I do not know how to effect change without putting myself at risk
 I am not in full control over the change process
 It is not my problem, it lies outside my span of control
 The proposed change is not my idea - it is a function of my own failure

Because?:

It's my goal
 This is my job
 This is what I am supposed to do
 I am responsible for the goal

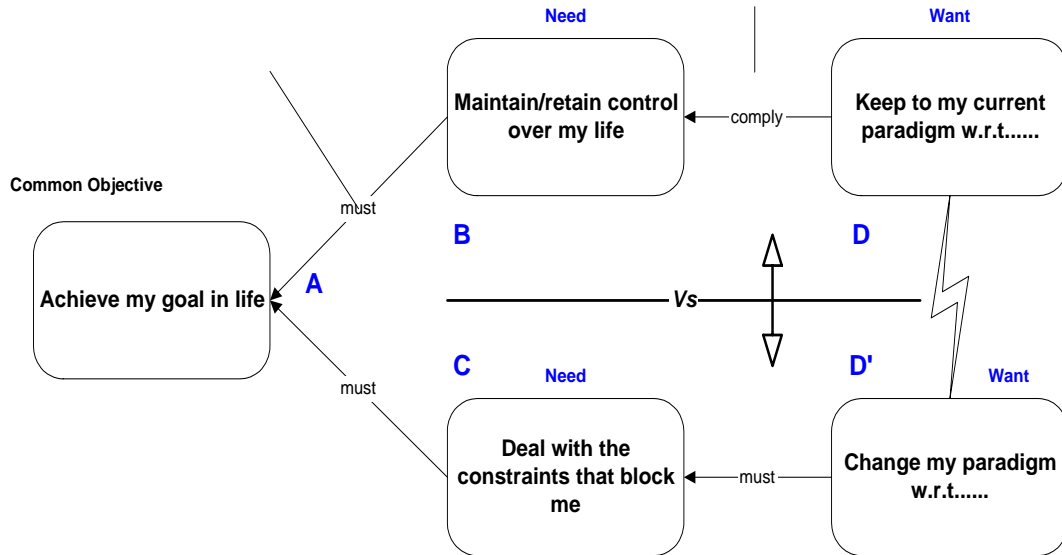


Figure 2 - the paradigm lock cloud with assumptions

Having constructed the cloud it was sent to people around the world for verification. This took some four months as they each had to validate what had been determined, and either confirm the hypothesis or destroy it. The cloud was also subjected to fierce scrutiny by the TOC community around the world. The cross connection was subjected to scrutiny, the assumptions checked, the power of the cloud continually validated. The result of this activity was confirmation that what was called paradigm lock was indeed a major barrier to change, and the cloud was one of the most focused verbalisations of that barrier to date.

Understanding paradigm lock

Thus paradigm lock is a very powerful force acting as a barrier to change. The threat to the individual cannot be underestimated, indeed must not be underestimated. It will prevent any improvement from taking place. It will lock not only the individual but also the organisation. Within the period of the research I came across organisations where the impact of the lock prevented any discussion about how to improve, even where the full analysis showed precisely what had to happen. People who considered that DBR was the only way forward for their production environment would ground to a halt once the real impact of the cloud was made apparent. The way to describe it is as follows. The individual knows there is a problem, thus takes the time to go through a full TOC analysis to determine both the real cause of the problem (s) and from that a robust solution to remove the problem set and replace it with the desirable effects that bring so much enhanced performance. The individual even

overcomes all the obstacles, all that is left to do is do it. At this point they realise that to implement they have to change a paradigm they have held to for some considerable time. This paradigm is part of them, part of who they are, part of their self-knowledge, they cannot give up on this paradigm easily if at all. Therefore they cannot change their paradigm, they have to stay where they are in this respect. This in turn means that the constraint identified in the analysis cannot be addressed, which in turn means that they can never achieve their goal. There is only one thing left – maintain/retain control over their life. This becomes their goal, to maintain control over their life because to change paradigms means losing control over that aspect and that cannot be countenanced. Why is it a lock? Simply because the individual does not believe there is any way that they can have both control and address the constraints that block them from achieving the goal. And even if there was such a process, it would not work for them. They are truly locked into the current paradigm. It is a dysfunctional barrier to change, it is powerful, it is at the root of many failed implementations of change, not just TOC based solutions. It is however not set in tablets of stone, it can be broken.

Breaking paradigm lock

There are three key injections to break the power of the lock. The first is that the individual has to refocus on the goal. They have to develop the ability to not only focus but to subordinate to that goal, and by definition the constraint that blocks progress. This is not an easy task but is a necessary condition for moving forward. This of course depends on the goal being properly verbalised once more. The starting point for breaking the paradigm lock is acceptance of the goal for both the organisation and more importantly the individual. If the individual does not accept the goal, or the verbalisation given there is no progress. Care must be taken here. The goal must speak to the individual, it must revitalise him or her, it must capture their imagination and open up their hopes and aspirations once more. It must allow people to follow their dream.

The second injection is for the individual to take responsibility, and be accountable for the results of their own actions. They can no longer point outside of themselves for the situation they are experiencing, they have to take responsibility for the predicament they find themselves in. This too is not an easy task. It is easy to point to others, to those higher, to the outside influences, the consultants not understanding the real position, senior managers not taking the time to really get to grips with the key issues. In the research the reasons for people being able to allow the real responsibility to pass to others were highly imaginative and highly dangerous. This is because every time the individual was able to let the responsibility pass to others it did not have to rest with the individual. They never had to really face up to their responsibilities and thus the paradigm was never challenged openly. This injection is a major step forward. The individual can no longer blame anyone other than themselves, they have to take responsibility for the results of their actions. This also has to be done carefully, this is not the place to force the issue. The cloud technique is particularly powerful here.

The final injection is that the individual must give, and respond to leadership. Leadership can come from any position within the organisation, and from outside. It is not a function of position within the organisational hierarchy. This is perhaps the simplest of the three injections and is usually running concurrent with the other two. One powerful tool here is the use of the Personal Focus technique developed by Oded Cohen, one of the partners of the Avraham Y. Goldratt Institute and used by this author many times with great success. It is not an easy tool to use, requires a high level of care, but in the right hands can assist greatly with breaking the paradigm lock.

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These three injections form the core of the solution. They are necessary but are probably insufficient. Each individual example will require careful analysis, will require careful handling to be successful. Other injections may well be developed to work alongside the three outlined here. The research showed these three to be the minimum to start the process of overcoming this most powerful of barriers to change, paradigm lock.

The rest is up to you

This paper has outlined one very specific barrier to change, the paradigm lock. It has outlined the feature set of the solution in part, the three features (injections in TOC terminology) that are necessary but not sufficient to overcome the paradigm lock. The real drive now resides with each individual within the organisation and how much they want to improve.

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