



Complexity and change

... Building great organisations in a sea of change

Much has been written on the subject of complexity in management. Even more has been written on the subject of change. What appears to have escaped the attention of many managers out there today is that the two topics are closely linked.

To illustrate, one human being is a highly complex system. The word 'system' is used to suggest that the effective person has two broad dimensions. One may be described as the 'potential person' – the one that would feel, think and act as if their current environment was an idealised version of the world out there, specific to the individual. This person has grown up over the years, partly through interactions with the contemporary environment, whatever that might have been, from time to time, as the developmental process proceeded. This person is already walking complexity, given the wide variety of environmental effects experienced.

The second person may be labelled the 'effective person' – the actual feeling, thinking, acting person of today. This person is also the product of a complex series of interactions – occurring between the 'potential person' and the current environment. In fact, today's person is the output of a complex series of systems interactions, with feedback loops tumbling over each other in a sometimes bewildering array of mixed and sometimes contradictory messages, reactions and new incoming signals.

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Now put a few thousand such complex entities in a thing labelled an organisation and ponder the degree of complexity involved. Even if they were left to their own devices, such an

organisation would involve huge levels of complexity. Add in to this heady mixture the efforts of a few managers who do things in an effort to exert control over the actions of people, and consequences of those actions, in an increasingly volatile world, and the degree of complexity gets a few more turns up the spiral. In fact, the actions of managers trying to control how the organisation works generally add to the complexity of and chaotic behaviour in the system, much more than adding order.

If that is 'situation normal' in the organisation, think about what happens when one of the dreaded 'change programmes' comes along. First, reflect on why a 'change programme' was needed at all.

The need for change programmes

Management efforts to control what happens in organisations generally follow the form of 'short term control by variance'. This is driven by a number of concerns, not least of which is the emphasis placed on short term, financial numbers, and fears of loss of control over the business if the right checks and balances are not in place. The common effects of this type of control, especially if it operates to excess, include risk aversion, conformity, decisions being referred up the hierarchy and the silo mentality. In fact, it is a recipe for strangling the desire and ability of people, including those in operational jobs, to innovate in the face of a changing world.

This is silly. Those same operational people are the only ones who are in daily contact with what is happening 'out there' – they are sometimes referred to as the 'sensors at the periphery of the organisation'. If their ability and willingness to detect what is going on, interpret it and react to it through experimental responses, is stifled, then the organisation will

grind to a shuddering halt, in the developmental sense.

Given this condition, sooner or later the magnitude of the events occurring in the world outside the organisation will rise to the point where the incoming signals reach a crescendo of noise. At which point the corporation reacts – with an investigation, to find out ‘why?’ Generally, weeks or months later, after having studied and analysed the position, the organisation wakes up to the fact that something serious has happened – and decides to have a ‘change programme’.

Change programmes are silly

The communications programmes roll, the briefing sessions start, e-mails fly, and the workshops get under way.

Now if this was not silly enough on its own, consider what has been happening while all that analysis has been going on, and then while all the planning for the change programme lumbers into ponderous action. The world has moved on, of course, and those same ‘sensors at the periphery’ have been ignoring a myriad of other incoming signals of change, because that is what the organisation has given them permission to do.

Then the posters on the wall arrive, announcing ‘forward into the millennium’, or some other such fanciful name. The communications programmes roll, the briefing sessions start, e-mails fly, and the workshops get under way. All to the utter bemusement of operational people who observe that what the organisation is now lumbering into action to try to achieve is something that commonly has two main characteristics. One is that it is trying to cope with a situation that passed by sometime earlier. Two, is that people are being exhorted to do what they always wanted to, but the organisation would not let them – and still will not.

Hence the research that demonstrates that virtually all change programmes fail to achieve their objectives. That reports resistance to change as endemic. That notes that no named change programme has ever produced anything worthwhile at all. That reports that people simply do not respond in the way that the change programme designers expected.

In fact, the reactions are themselves complex, being yet another manifestation of that ‘complex systems’ issue noted above.

A more detached view of what has happened might conclude that management actions designed to control complexity actually achieve an increase in complexity, through a delayed action, systems response to their efforts to introduce change to offset the effects of their own control actions. Sound complex? That’s what it is.

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So where does this take us, in terms of useful lessons, that can be applied in practice. There are many, but three will suffice for the moment. One – change programmes can’t be managed, as top down initiatives. Two – mono-dimensional initiatives don’t work. Three – complexity is not to be managed, through control – it is to be embraced and encouraged. Consider each one, in turn.

The fact is that top down change initiatives are always too slow, in reaction, discovery, analysis and action. Moreover, the very fact that a corporate change programme is required at all signals the fact that something is wrong - somewhere the organisation is low on resilience. Resilience, in this context, refers to an organisation in which change is organic and dynamic. This implies that all employees are part of the strategic process, of adaptation to a changing world. All employees, and especially those in operational jobs, are sensing what is happening, and reacting to it. Trial and error is common, and the learning process through experimentation is a never ending cycle. Safety in innovation is widespread and developmental failures are treated as learning successes, not sources of retribution.

This means that, if the organisation has allowed itself to decay to the point where a change programme is required, it has only one sensible option. This is to conduct a change programme that will develop organisational resilience. This is a very different beast compared with the normal change programme. It cannot be a top down programme, with senior managers stipulating

what behaviours are needed, and obsessively communicating them to an incredulous audience.

A different kind of change process

It has to be a process of a root and branch search for the permissions in the organisation that forbid employees to do what they always wanted to, and change them to positive permissions. It has to be focused on operational people and their supervisors, and must be designed to release the human potential that has been there all along. In short, it is designed to develop an organisation that is fit for purpose. In this case, the purpose is not just the delivery of strategy – it is the dynamic creation of strategy. That is what a resilient organisation does. It will be the last change programme the organisation will ever need.

Mono-dimensional initiatives are a denial of the very complexity that is an organisation. One of the besetting sins of managers is making assumptions about causal relationships. It is rare for problems in organisations to have singular causes. Multiple causes are much more common, and causal chains abound. A causes B which causes C which causes D. Where either multiple causes or causal chains exist, tackling one superficial cause is bound to fail. Moreover, a special manifestation of causal chains is the problem of root causes.

These are the underlying characteristics of an organisation that are often hidden, and have developed over many years. Institutionalised systems are one example. Culture is another. These are the products of management decisions or inaction in the past, that sit beneath the surface, and they cause many superficial problems. Superficial in this context does not mean 'unimportant'; it means on the surface and visible. Superficial problems are always symptoms of something deeper within the routines or psyche of the organisation. Fixing one symptom simply means that a new one will pop up somewhere else, leading to an endless cycle of fire fighting.

Any successful problem solving approach must at the very least identify **ALL** the immediate causes of the problem being tackled, and address them all. Better is if

these actions are regarded as tactical or holding only, while root causes are sought and tackled head on. This way, many superficial problems will be resolved, without ever being addressed directly.

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So if the organisation is considering a training programme, for example to develop more customer responsiveness, or has decided to define and promulgate a revised set of values, or is going down the BPR track, or introducing TQM, competency frameworks (shudder the thought) or any of the other recent management fads, perhaps heading for the hills would be a sensible reaction – here comes another about-to-fail, mono-dimensional initiative.

Complexity and control

Finally, there is the vexed question of complexity and the desire to control it. A resilient organisation is, by definition, highly complex, but then so are all others. To understand the nature of the problem, stop and think about the changes managers experience, and the implications for control. There are three types of change – closed, contained and open.

Closed change operates over very short time scales. The causes are known as are the appropriate actions for managers to take in response. These are things that have happened before, and experience is a good guide to action.

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Contained change operates over rather longer time scales, and, because of volatility and turbulence in the outside world, the known goes out of the window. Managers have to move to analysis based in assessment of probabilities, and prediction, while difficult, becomes the basis for action.

Open change operates over even longer time scales, and this is where the problems of volatility and turbulence really strike home.

Even prediction now fails, and the future is actually unknowable. The only possible course of action becomes trial and error. This implies a strategic path that will never be a straight line, although the strategic direction should be kept – at least for as long as realistic.

The manager's problem now is being faced with all three types of change, and with three subsets to be considered. The subsets are managing the effects of past change, grappling with current change and trying to anticipate future change, in all three varieties of change - simultaneously. This is another version of complexity. The problem is that the control mechanism that is appropriate to each type of change is different from the others. Closed change control can be exerted through control by variance, and is critical if the organisation is not, for example, to run out of cash.

Contained change can be managed by 'grand design', as long as everyone knows what they grand design is – generally they don't. But control in open change is only possible through trial and error.

The problems begin when either the wrong sort of control is exerted, or when only one type is used, generally short term control by variance. A key trick of managing is to use all three types, appropriately applied, and then to manage the tensions that are bound to arise as managers are faced with conflicting pulls.

The witches brew

All of which adds up to one simple observation - trying to limit complexity by conventional, top down controls is not only a waste of time, it is downright dangerous. Instead, managers need to embrace complexity, adopt different forms of control, and then ensure that everyone follows the same approach.

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Take all of these three messages together, and the way ahead is clear, if attractive only to the brave. It is this. Take one organisation, and add a large dose of changed permissions, for operational people and supervisors, targeting freedom to respond to external

change; mix in a radical search for root causes of organisational ills and fix them with the advice and input of operational people; stir in a little 'roughly west' strategic direction combined with a slug of variety on control methods – and then let go of the reins. It may be a bumpy ride, but this old, tired horse and cart might just turn itself into a hot rod racing machine. There may be the odd spill, but at least there's a chance of winning the race.

Alternatively, it is always possible to carry on exerting control by variance, in all conditions, and implementing top down change programmes. In which case, the race is likely to be over before the organisation in question has even found the starting line. Or worse, discovers that there is a race on at all!