

MODERN TIMES – STRUCTURES OF MEN AND MACHINES

“The curse of modern times is, that almost everything does create controversy.”

(Horace Walpole (1717 – 1797) (4th Earl of Orford), English author, politician)

In 1987, in his article entitled “The Coming of the New Organization”, published in the Harvard Business Review, the Austrian-born American management Guru Peter F Drucker, expounded his theory and opinions on the organization and management structure that he believed would develop during the last decade of the 20th century and be the model for company organizations for the beginning of the 21st century. Drucker was of the view that management, in most companies and organizations, has too many layers and that each layer in turn was little more than amplification points along the information chain between the directors, who discuss and determine company direction and policies, and the workforce who implement the directives. In other words he was encouraging the notion of flatter management structures but there was no mention of flatter pay structures to complement the flat management structure.

However, there are a number of problems that arise from a flat management structure and they are mostly associated with managing the most important asset, if company annual reports are to be believed, the employees. In any organization with a flat management structure there is a reduction in levels of responsibility because, so often associated with such a management structure is the other management fad of empowerment, a system whereby those higher up the tree avoid accountability by being seen to push decision-making too far down the organization; and, there is a reduction in motivation to succeed because the opportunity, at different levels, to learn and accept responsibility and accountability for the actions and efforts of others, before being elevated too high and too quickly, have been lost with the removal of middle management positions.

Drucker also appears to suggest, perhaps, that in the classic hierarchical structure too many layers might mean the message, from top to bottom, could be misinterpreted, but, it is so often confused by the use of management jargon and management speak that is becoming part of the academic based system of learning to be a manager. However, I would suggest that this weakness has everything to do with the art of communication, the ability to impart or transfer knowledge, information or instruction from one human being to another such that it is clearly understood, something that is gradually being lost in the age of data transfer and the use of machinery to exchange information. Some organizations now appear to rely entirely on internal company networks and e-mail systems to disseminate information and that means the loss of personal contact.

Some directors, senior managers and academics subscribe to the notion that regular briefings, for groups, sections or divisions are essential to keep employees lower down the chain aware of policy decisions affecting the general functioning of an organization, including changes to the management structure, that are likely to affect the performance of a company. The real problem lies in the apparent inability of senior managers to share information with those lower down the tree and too often middle and junior managers find themselves caught up in the regular process of setting or producing budget targets or requirements rather than covering their areas of responsibility and managing the assets under their control, that is people and products or machinery.

British managers, increasingly, are fond of telling others of the numerous management and management-related courses they have undertaken in their quest to climb the corporate ladder, but, few, if any, appear to find the time to take a genuine interest in the people working for them, get to know what motivates each of them and their ambitions, what makes them tick, why they do the job and their individual observations about the way that a section, division or company is managed. When that attitude and approach is applied throughout any organization then it is little wonder that there is not only a breakdown in communications but a gradual breakdown in trust, commitment and perhaps even productivity and competitiveness.

But, in this age of computers, information technology systems and software and increased automation to design, produce, manufacture, manage and control systems increasingly it is the efforts of the workforce, guided by junior managers and supervisors, who are the ones who do the most to ensure that the future existence of a company is maintained and not necessarily the input and efforts of the most senior management.

The big difference between man and machine is that human beings are capable of thought, are likely to have opinions on internal decisions and external factors affecting their job or career, the terms and conditions of their employment and with particular issues relating to pay and allowances, areas and levels of responsibility and they are likely to want to ask questions. Conversely, machines can only respond to orders and pre-programmed instructions stored within their systems or deal with data entered by human beings and, therefore, once a directive is issued to a machine it may be difficult to cancel the programme or reverse the process immediately. This factor alone indicates that whilst decisions are important so also is the need for clear and concise communication before implementation.

The most successful and effective managers are those who find the time, or indeed make the time, to communicate personally with members of their team, group, division or company, not only talk to them but more importantly listen. This procedure is very important if a manager is required to complete company pro-forma for annual appraisal reports and you can only begin to know someone by communicating with them. We are given two eyes and two ears and only one mouth indicating, perhaps, that we should see and hear twice as much as we speak but so often that is not the case.

However, Drucker suggests that the core structure of any organization now and for the future should be modelled on that practised in a Hospital or an Orchestra. The former he states have a number of deep medical specialists in every area of medicine each supported by their own individual team of associate doctors, qualified nurses, paramedics, operating room personnel and administrators. I suspect that in this instance he is referring to the private fee-paying smaller hospitals in the US and not the very large public hospitals employing enormous numbers of personnel in various sections and where people have to queue and wait to be seen or to receive treatment.

The American system of healthcare is based almost entirely on the ability to pay where every item of medical and surgical equipment, bandages, dressings, treatment, tests, drugs, needles and systems to dispense medicine and where the time of the orderlies, nursing staff, administrators, physicians, surgeons and operating theatre staff are costed and covered by either by private means or private medical insurance, but, some 40 million Americans cannot afford private medicine and have to take their chance in public systems.

However, some public hospitals appear to be so big that inevitably they are too big to manage and lead effectively I am unconvinced they provide an example of good management and organization; and, because many of the surgeons and physicians also have private practices they are not always available to treat ordinary NHS patients.

Referring, again, to Drucker's choice of examples of flatter management structures little or no mention is made of the overall administrative support that is needed in a hospital to arrange appointments, check-in patients for visits to consultants and for tests and checks in different departments, to provide the most important service in a medical building, that of hygiene and cleaning support arrangements, the provision of food to patients, pay and contract records, keep important electrical supplies running to provide heating, lighting and ventilation, fire and safety equipment, administer ambulances bringing patients to and from hospital and for typing and despatching letters arranging appointments.

The fact is that in the UK National Health Service, the third largest employer in the world, there are some 900,000 administrators, all of whom cost money to employ in their jobs of collecting, saving and entering data in order to produce statistics so that other administrators and politicians can set targets in order to collect and input more data to refine and update targets.

I am sorely tempted to suggest that if there were fewer administrators and accountants and more medical staff, doctors and nursing staff, wards and beds the waiting lists for patients to be seen by a consultant and appropriate tests and operations carried out would be shorter. And, any future pay increases for employees in the NHS must be based on the requirement to improve the overall productivity and efficiency of the system as a whole.

In the medical professions the reward is not only financial because most medical staff are in receipt of good wages, but there is personal satisfaction from having made a correct diagnosis, successfully treated an illness or disease or from carrying out a successful operation that deals with pain and discomfort. On top of which there is appreciation shown by patients and relatives when people recover and recognition from peer groups and other medical employees.

The fact that we all need to specialize in one profession or another should not be a question but it means that we all have to rely and depend on other specialists in other areas of business, industry and commerce and in hospitals to provide support services. But, having many more separate groups within an overall management structure necessarily leads to a further increase in administrators and 'bean counters' whose objectives are to collect data for statistic reports, put a cost on everything and a value on nothing but in the process it increases the costs of administration.

And, a very big word of caution, it has been said for more than a decade now that there is no such thing as a job for life and that people will need to be trained and retrained to change jobs over and over again to cope with changing demands. Can this really be applied to everyone? How does that square with, say, deep specialist surgeons and physicians on whom we rely to have the knowledge and experience to make life-saving decisions or operations? How does it apply to solicitors and barristers or highly specialised electronic or space engineers or how can it be applied to deep specialist chemists who work in areas of medical research to develop medicines and vaccines?

Frankly, I suspect it is a rather lame excuse, by politicians, senior businessmen in industry and commerce, the City of London and bankers, for failing to address future employment trends, for failing to produce a national industrial policy that takes account of evolving areas of industry and more especially in manufacturing, information technology and aerospace, and instead relying on the service sector to produce low and poorly-paid jobs in the burger-flipping cafes, hotels and restaurants and others in the retail sector and some in the media that have sprung up in the last two decades.

But, the service sectors do not create or generate wealth and, just like the public sector, they make money from people working in industry and commerce who generate wealth by designing and manufacturing products that consumers want and need, that is why Germany still has a strong industrial based and is still the strongest economy in Western Europe.

Job movement, or whatever the latest phrase is being used to refer to shuffling people in and out of companies, is just another service sector that is providing a service that most companies, because they have closed or lost their personnel department, are no longer able to undertake. And, the only organizations that benefit from this merry-go-round of job losses and job changing and re-training, if and when courses are made available in colleges of further and higher education, are the recruitment companies. The ones who take money from employers and sometimes from applicants in order to find a niche in some organization somewhere that needs spaces or jobs to be filled.

Any organization including hospitals, that uses internal market principles when providing a service, the resultant increase in administrative costs either increases the costs of medical processes, procedures, drugs and medicine or leads to a reduction or a delay in operations or investigations. Don't get me wrong, administrators are essential to keep an organization functioning, the problem lies in the fact that it is possible to end up with more administrators than professionals forming the core of a particular organization and that means fewer services to customers.

In the example of the orchestra, with a possible complement of 200 or more highly specialised and trained professional musicians, it only has one Conductor with no deputies, assistants or subordinates and no intermediate management organization. Each member of every section of an orchestra is a specialist and they have been highly trained to master a particular instrument or group of instruments and to re-produce musical scores written by other people, call them programmes of work if you choose, when they all come together for a specific period of time.

But, each section of the orchestra has its own pecking order, for example principle, second and third violinist, percussionist and brass section and each is responsible for ensuring that they have the right number of musicians and the right number of musical instruments for each piece that the orchestra plays during a performance at a particular place and at a determined time under the baton of one person.

The question is what happens if the planned programme of music has to be changed for whatever reason, for example, the conductor is unable to perform, the wind section loses some instruments or musicians, the pianist breaks a finger or sufficient copies of the music score are not available? If the programme is changed are there enough violinists or trombonists to cope with a different score?

And, if the orchestra is short in some sections will they have to bring in additional musicians and will they fit in with the existing members or will it necessitate more practice and training? Do they have knowledge and experience of the particular type and style of music and do they have the transferable skills necessary to ensure the programme is a success?

However, all professional orchestras have a separate management and administrative organization to take care of every other facet of the orchestra's existence, apart from playing the music, including travel arrangements by land, sea or air, hotel accommodation, bookings and venues, sales and marketing and advertising and liaison with local authorities and owners of halls and venues.

But, the analogy of an orchestra is perfect in one respect in that the principle of getting everyone within an organization, group or section to understand the score, play the right tune, at the right tempo, at the right time and to a high quality is how any organization should function. That is what management, motivation and communication, personal and corporate, is all about good leadership, good organization, sound administration and having the right number of people with the right qualities and experience to complete the task or tasks.

Success in achieving the end product and playing the music to the satisfaction of the audience, the customers, is not simply about the conductor, call him the chairman, chief executive or managing director is you choose, to read and understand the score, it depends on the whole team, group, company or organization and their ability to work together, their knowledge and understanding of the company and delivering the programme or schedule of work, the amount of training or practice they undertake, their ability and willingness to accept direction and their individual levels of self-motivation and their ability to accept responsibility and accountability.

Nonetheless, Drucker believes that this structure is likely to come about mainly because of demographics and because of the increasing use of information technology which he appears to suggest is the panacea for poor and inefficient administration. I believe that his thinking is based on financial considerations to increase profit margins by reducing overheads and removing personnel and not on achieving the optimum organizational structure that best meets the needs and demands of a company.

Besides, all forms of automation, using computers and computer aided design and manufacturing systems, do not necessarily make companies more effective or efficient and neither do they make them more competitive. What they can do is improve internal processes and procedures by operating 24 hours a day and more quickly but only when dealing with transferring data and responding to customer queries. There is still a need for human interaction and human involvement in ensuring that all machines are maintained and repaired and that quality standards and quality of products and services is maintained.

From my own experience, in naval radio and telecommunications, many decades ago we introduced the first fully automated message handling and distribution system that connected all the UK naval bases and establishments and the Royal Navy's global bases in the world. It was an enormous machine and it took 6 months of testing, after building and assembly, before becoming operational and another 6 months before the system had finally settled down and was fully operational.

However, some in the management chain tried to reduce manpower levels, the real reason for introducing computer automation, earlier than sensible and before it was fully tried and tested and the result, for some months, was a level of chaos that demanded the immediate return of male and female operators to man manual systems. Therefore, is it possible for a commercial organization that has introduced lean and mean structures, minimum manpower levels and just-in-time techniques to be able to find people with the right experience and qualifications at short notice?

The organizational structure that Drucker appears to be advocating for the future is similar to the matrix-type arrangement that is used mainly in the engineering professions for the design, manufacture and testing of products or equipment to be given over to other companies to use, and, the loose management structure sometimes applied in the advertising profession for a particular advertising campaign where groups come together to 'brainstorm' ideas for submission and consideration and determine a way forward.

However, in each of those examples the 'team' of various 'experts' is brought together on a sort of 'ad hoc' basis for the duration of the project and is then dispersed once the project is underway or completed.

This kind of management structure relies on pro-active and re-active responses to changing or developing situations and therefore demands flexibility of effort and commitment, it relies on other organizations meeting deadlines for the delivery of ideas, drawings, equipment, services and manpower in order to meet the objectives and implementation dates and to move to completion. However, once a project or an advertising campaign is underway and once various objectives are achieved the matrix management put in place is no longer required and many of the team lose responsibility for that item and move onto something else. I suspect this matrix system is what is applied in hospitals and certainly in operating theatres.

Whilst this type of structure encourages flexibility in the use of manpower and resources and perhaps even leads to job satisfaction because individuals move from one project to another gaining experience, there is no clear administrative and managerial responsibility other than for the project manager or advertising campaign leader. And, because members of the project team or advertising campaign are not tied to one project they may not always be available when required because the members are not wholly accountable to the project manager or campaign leader.

The problems associated with a flat management structure are communication, delegation of levels of decision-making and clear lines of responsibility and accountability with a clear organizational diagram indicating communication between different sections of a company or organization. All decisions cannot be made at the very top and, therefore, without clearly visible and titled authority how on earth do customers, suppliers and employees know who to turn to if a product, a service or a project is not progressing as it should.

Besides, the matrix management structure does not appear to function so well in some service industry sectors, which is most of what remains in the UK because we have lost and continue to lose our industrial and manufacturing base, where customers need to be able to refer to single points of contact or to managerial levels when a service, a product or a contract is not being provided as required.

Many German and Japanese companies still have hierarchical systems in their manufacturing companies, the backbone of their economies, and who is to question the success of their mechanical, electrical and electronic engineering industries? Both countries have some of the strongest automotive industries, electronic companies and chemical and pharmaceutical companies in the world. Does anyone really disagree?

More importantly, it seems that German businessmen and politicians reckon, in 2008, that they are short of a few hundred thousand electrical, electronic and mechanical engineers to meet demands in its growing industrial sector in jobs that are not being filled because of a shortage of suitably qualified candidates. So, the German government has decided to open up the present closed labour market in Germany and is looking to either encourage more university students to undertake engineering degree courses or recruit foreigners taking engineering courses at German universities or to recruit highly qualified engineers from within the EU.

Meanwhile China, with its industrial base expanding globally and some companies already looking to acquire western companies, is also running out of managers with the right background knowledge and skills especially, allegedly, in research and development, manufacturing and supply chain experience. Some of the bigger Chinese multi-nationals are already addressing this shortage and it will not be long before regional and local companies begin to look for managerial talent, especially people with some international and different cultural experience, outside their region or borders to help them grow organically. If British companies are in the business of removing managers then there might be opportunities in Germany or China.

Companies must address manpower and manning levels on a regular basis to take account of changing circumstances and conditions and this appears to particularly be the case when recession is looming and senior managers opt for the 'leaner and fitter', for which one should really read 'leaner and meaner', approach to structure and organization. But, once a company has gone through the process of re-structuring, re-organizing or re-allocating resources, they all usually mean the same thing reducing the number of employees, there will still be many people remaining with whom the senior management has to work.

If the rationalisation or re-organization programme was introduced and implemented without the goodwill of the staff and if they were not involved in the process of job evaluation and proposed redundancies then it is highly likely that those remaining will feel a greater degree of distrust and resentment towards the senior management and are more likely to feel even less motivated with the loss of colleagues and friends in the 'thinner and weaker' company that is not able to contend with the competition.

I also suspect that those left in the company, often referred to as 'survivor syndrome', are far less likely to respond to demands or even requests for increased productivity and output and more especially if and when reductions in manpower levels have already increased stresses and strains on the remaining employees. Sometimes it can lead to a panic or chaos situation where senior management realize they might have gone too far and are forced into a rapid programme of recruitment and training often costing more than they think they saved. Instead of working to achieve minimum manpower levels, to reduce overheads and costs, companies and organizations should recruit to achieve the optimum manpower levels to cope with contingencies and be able to continue to provide the goods or services that their customers want.

Instead of always resorting to the favourite British 'knee-jerk' reaction of cutting employee levels at the first sign of an economic downturn or recession companies should consider other areas of the business. For example, cutting out business lunches, cancelling or reducing the number of social events that the 'marketeers' are fond of setting up as a means of pushing company products or services when so often they are little more than an excuse for a 'bash and a thrash', reducing perks like first-class travel, by air and rail, to club or even economy class depending on the distance involved, restricting the use of company cars and reducing the amount of petrol the company pays for in directors and senior managers cars, reducing stationary wastage and monitoring communication networks to ensure that private calls are not abused.

The concept of 'intelligent' machines, capable of interpreting and responding to commands, is almost with us and it is likely that as the use of machines increases so the usefulness of human beings will continue to decrease. As rapid transport systems have increased so has the pressure on human beings to manage and organize the information related to, for example, scheduling take-off and landing slots or the routing and re-routing of traffic on networks to maintain the safety of transportation systems.

It is very possible, highly likely I suggest, that most modes of transport in the very near future, planes, ships, trains and rapid transit systems will be pre-programmed drones controlled from central main-frame computers and this in turn will demand reliable and secure systems of radio and telecommunications for the human element to retain a degree of control. But, will human beings feel completely safe in the hands of machines without the possibility of human control and intervention if an emergency situation develops? And what about management, leadership, organization and administration, the daily decision-making that keep a company functioning?

The only danger is that we could allow machines to dominate our every function even to the point of controlling how we live our lives. It is possible that the science fiction fantasies of Jules Verne and others, with mankind under the control of computers and machines, is just around the corner. I am reminded of the film 'Logan's Run' in which every human lived in a huge dome and their lives, eating, drinking and other natural human interaction and activity from birth to death, was controlled by computers. As Lee Iacocca, whilst agreeing that the fundamental principle of management is about motivating others to succeed, suggested,

"If I had to sum up in one word what makes a good manager, I'd say decisiveness. You can use the fanciest computers to gather the numbers, but in the end you have to set a timetable and act."

(Lee Iacocca (1924 -), businessman, former president and chairman of US auto companies)

So, whilst adopting and adapting to the inexorable introduction of automated machinery and computer controlled systems we must not lose sight of the fact that human beings developed them, the machines, and human beings must retain control. If we do not then the human race really will end up in a desperate state.

(4540 words including quotations)

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June 2008