The Deming’s Theory of Management : a Key for Updating CEOs’ Practices
By Jean-Marc CHANEL and Jean-Luc FOURNIER
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Abstract
In the current economic environment, the adoption of the Deming’s philosophy of management will help CEOs to transform their companies into an authentic sustainable economic development, of which they are socially and ecologically responsible.

They will privilege a holistic and long term perception, orientated towards the historical raison d’être of their companies. They will strengthen the crossfunctionnality and the alignment of their teams, in a continuous progress of dynamics, which also includes suppliers.

By putting human being in the core of the system, they will know how to create an appropriate climate which releases the individual and collective initiatives for qualitative innovative and advantageous products and services.

Due to their efficiency, their management style will evolve towards a real human leadership. Their decisions will be supported by quantified data and rational interpretation of their variations.

The knowledge development will be at the core of their company culture. By cooperating with other organizations (companies, universities, etc.) their organizations will understand how to find the source of their uniqueness within their companies.

To support CEOs in their efforts to establish these conditions for true sustainable development, a vast project should be opened: initial and continuous training courses, and, why not, international yearly rating on which the IFSAM would be actively involved with Deming associations (AFED in France).

Introduction
As the resources of the earth are limited and as the world financial system came very close to collapsing a few months ago, is it reasonable to continue to run businesses as usual? It may be an historical opportunity for CEOs to wonder about their practices.

Let us consider a first example. Toyota recently overtook GM which was the biggest automotive company for decades. Does this change in the hierarchy of the automotive industry result only from external factors as the yen-dollar parity, the difference of credit rates between Japan and the USA, etc.? Without any doubt, to a large extent, there are internal success factors to be identified, most of them largely depending on CEOs and their respective management practices.

In many large companies observers notice an increasing mistrust between the staff and the top managers. Beyond the heavy climate which rots the working of the staff, this situation has a negative impact on the competitiveness and the ability of the company to react. Is this divorce a fate? Without any doubt, it is a consequence of management practices, so that by changing these practices it should be possible to drastically improve them and turn this counterproductive situation into a more satisfactory and contributory one.

In a more general way, CEOs are appointed to prepare the future of their companies. But do their decisions seriously prepare this future while their strong focus is on objectives, costs and savings to aim at short-term financial results? Do they prepare it when they mainly rely on Cost Killers? Anyway there should exist another better way for CEOs to implement and develop a corporate culture based on trust between all the stakeholders so that sustainable development and job creation may be ensured.
We could put here other important problems which, in a significant way, result from practices of management as taught in business schools and widely deployed. Other practices of management are thus necessary.

This kind of new management was already discussed, experimented and rolled out successfully on a large scale by Deming a few years ago.

In 1980, American business discovered W. Edwards Deming and his work with Japanese industry. He was honoured in Japan for his contribution to quality, to the Japanese Economic Miracle, and his American clients saw his potential to raise the quality level of US products and services. Nevertheless, his ideas went far beyond what was typically seen as the quality arena. Deming had much to say about survival and prosperity, and about the methods needed to sustain business, enterprise and economic well being.

In his last book *The New Economics*, Deming outlined a way of seeing and offered a prism for looking at work and life. He called this prism a *System of Profound Knowledge*. It was to enable improvement of quality of management, quality of life, and quality of our interactions with one another and our environment.

This approach underlines the importance of Deming’s five leverages ¹:

- The enterprise as a system
- Human being at the core of the system
- Leadership
- Keeping variation under control
- Always learn to improve knowledge

For each of these five subjects, the schedule will be identical. For every theme, let us say a few words on what Deming has in mind. Then, always for the same subject, we will compare some items regarding the present management practices, as they are mostly taught and practised, with the management practices lived by the organizations whose management philosophy is compliant with Deming’s recommendations.

**The Enterprise as a system**

From 1950, long before the current process approaches acquired a legitimacy, Deming invited the leaders not to perceive any more their organizations as a hierarchical pyramid or a juxtaposition of operational or functional divisions. He brought to light the physical and informative circulation which irrigates the company from the listening of its customers to the delivery of products and services which answer their needs, as a stream which has never stopped circulating and which is important to optimize.

In a few words, for Deming, a company is effectively seen as a system if it is managed as a set of interdependent components and interdependent relations. Its activity also has to be directed with a long-term purpose which aims at bringing satisfaction to all its stakeholders, with a not only economic but also societal and environmental responsibility. If the role of the staff is to work in the system, the role of the management is to work on the system, through the staff, so that the company will last a long time, always be more productive and more successful.

Concretely, *on the one hand*, today in many companies, the entities and the people are put in competition by the way of a system of objectives or incentives. For a given entity, it is not rare that the achievement of its assigned objectives is made to the detriment of the other entities. To set up objectives through the whole company is a corner stone of management. The limited and arbitrary

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¹ In his famous book *Out of Crisis*, Deming presented seven « Deadly Diseases », eight other « Obstacles » and his « 14 Points for Management ».
character of the objectives assigned and mechanically declined in all the hierarchical strata of the organization is denounced as counterproductive.

Today, the activities are piloted on a day to day basis to obtain short-term results and profits. The cash flow is often a criterion determining the choice of the investments, postponing today investment costs on the coming years. Managers who focus on the short term are urged to postpone investments that prepare the future and, at the same time, they do not care about the impact on employment in the labour pools where their companies operate. Because the skills of the staff do not enter the income statement or the balance sheet, they are often underestimated or even ignored in the strategic decisions, while they are often the fruit of numerous years of training and experience and constitute a central part of the capital of the company.

Today the suppliers are regularly put in competition. The buyers have to obtain always lower prices from the suppliers, until they go bankrupt. The stressful working overload, the delays and the costs resulting from the failure of a supplier or from a supplier's change are rarely taken into account.

On the other hand, in a company managed according to Deming’s philosophy of management, there are no barriers between the entities but a permanent collaboration; synergy and cooperation are the normal way of working.

It is up to their management to coordinate the efforts of all the teams, as well in operations as in continuous progress and innovation. But the framework of this coordination is long-term efficiency. For example, an investment will be estimated on its global cost of ownership. The pursued target is not only a good profitability but also an increase of the co-workers in skills, salaries and number.

The piloted system which constitutes a company can be widened to its suppliers. A long-term win-win partnership with sole suppliers who share the same management philosophy is an important success factor which leads to create added value for the long term.

**Human being at the core of the system**

A company is not only a system, robot or machine which generates cash. It is a human system, a system whose members (management people, workers, customers, suppliers, and stakeholders) are women and men. In the spirit of his management philosophy which he qualifies as Psychology, Deming emphasizes the following points:

- Each person is unique, different from his neighbour. For example, in the same job function, two people will have neither the same behaviour nor the same results. This is normal.
- The motivation in the work is especially intrinsic. As a consequence, the rewards and the other bonuses have no long-lasting effect on the motivation of the staff.
- It is up to the management to facilitate a serene climate where the staff can collaborate in the mission of the company, where the staff can report objectively his activity without any risk of being punished, where it is possible to pursue over time the continuous improvement of efficiency.

Concretely, on the one hand, today in most companies, job functions are defined by a mechanical application of repository professions coming from the outside. Then the Human Resources have not only to adapt the post to the specific profile of the person but also to take into consideration the skills of the person in the predefined frame.

Today most companies rank their staff and their teams according to results. Through annual assessments or periodic challenges, they identified the best elements. They reward them, and they value them. In the meantime, the worst performances are reprimanded, or, at least, they are encouraged to improve, otherwise... But, they become generally demoralized, their results do not improve because the true causes of their difficulties are neither identified nor eradicated.

Then, to reach unreachable and ambitious targets set by their management, the managers drive their staff by using financial or other incentives. This of course creates a climate of stress and fear of failing...
among the employees. As a consequence, people produce what we call watermelon indicators (green outside to satisfy the management but in fact red inside). In such a climate, it is difficult to share one’s opinion frankly, which is a serious handicap to work together effectively.

In these companies people no longer talk about Staff but about Human Resources. The ideal solution would be to have a formatted, standardized staff. Moreover, not being in the core of strategic decisions, the staff is a variable of adjustment. In these companies, it is natural to part from one’s employees, whatever their contribution to the prosperity of the company. The fear of loosing one’s job largely spreads with the increasing survivor syndrome.

In these companies, the training of staff is neglected. In spite of the speeches on the training, due to the lack of time or due to the lack of motivation at work, due to the necessity of reducing costs, training is reduced to the bare minimum and, in any case, it does not include an individual and collective educational dimension. This lack of investment in training or the development of skills has certainly an impact either on the quality of the products and services or on innovation, any way for sure on the sustainability of the company.

**On the other hand** in the companies managed according to the Deming’s management philosophy, there is no stress on internal competitions between men and teams. Instead of comparisons between them, there are open discussions to identify the roots of the observed differences and action plans to help everybody to go ahead and progress from the current situation.

In these companies, managers rely on the development of intrinsic motivation. In particular they allocate means to make the staff proud of its current job. They help the employees to work as a team, to foresee and solve problems in operations, current products and services. They also involve the staff in continuous improvement or in innovation. Who knows better than employees what could be done to improve processes, products or services? Managers have to listen to employees and let them improve things. So the managers express they have faith in the men to solve the problems rather than in technology. As a prerequisite, to make possible a long lasting involvement, they must guarantee that nobody will be fired because of better quality or better productivity.

Furthermore, the training is seen as an investment which is going to enrich not only the employee but also the company.

**Leadership**

As many words which cover different realities according to the speakers, the word « leadership » is a trap. It is nevertheless the word Deming used about the behaviour of the managers who supervise their co-workers. In a company effectively perceived and steered as a system, in a company where human being is put at the centre of the system, leadership infers a style of management which is both human and effective.

Concretely, **on the one hand**, today, in most companies managers are paid to assign targets to their co-workers and check if they are reached. They are not asked to know the work of their co-workers. Sometimes they are interested in their workloads, but rarely on the basis of sufficient and reliable observations. Many are isolated as in an ivory tower. They work exclusively for their N+1 and their N+2, because it is fundamental for them to be appreciated to get pay rises and promotion.

In this context, managers are caught between two fires: on the one hand the fear of being badly assessed by their leaders and on the other hand the fear that their co-workers do not reach the assigned objectives. Let us note here that targets are only exceptionally based on objective knowledge. They are often estimated by extrapolation of the targets of the previous period, plus a supplement which makes it an « ambitious target ».

By ignorance and by need to be reassured, managers tend to « know everything » in order to impose their teams methods and working tools imported from the outside. Thus they destroy not only the know-how internally constructed for years but also the self-confidence to reach a reasonable level of professionalism.
On the other hand, in the companies managed according to Deming’s management philosophy, the managers as well as the top-managers look for direct contacts with people of the base, with the *gemba*. They not only trust the calculated reports but also the more direct forms of information. Every manager is attentive to the work of his co-workers. Through coaching for instance, he helps his co-workers in whom he is sincerely interested. Managers never rank them and never forget that each co-worker is different.

Not only in production plants but in all the departments of the company, the Statistical Process Control (SPC) is used every day to collect data and interpret their variations. Thanks to this method and shared information, the managers can watch whether people are in the system, and when people are not in the system, they do their best to drive them in. They provide regular communication in order to empower every employee to take initiatives that contribute to the general goals. They make sure that information circulates not only within their teams but also with the related entities.

The authority of such managers does not result from their hierarchical position, from their capacity to impose objectives. It is an authority of skills and respect for the people. By their steady attention and their humility, they succeed in giving confidence to their teams to face any situation.

Finally, it should be considered that the Deming style of management is eminently beneficial to social cohesion. By attenuating the climate of violence and fear which prevails in companies, the Deming style of leadership contributes to improve human relationship in the city.

Keeping variations under control

It may be seem strange to find the idea of « variation control » while we are talking about management. Whereas companies spend a lot of energy to establish dashboards to enlighten the decision-makers, the revolution introduced in 1931 by W. A. Shewhart with Statistical Process Control (SPC) and « control charts » that Deming popularized is only very partially implemented.

In a few words, it deals with measuring not only the order of greatness of the measurable parameters but also their dispersal. A long enough series of measures allows one to know if the system is stable or unstable. Moreover, the variations of these greatesses are very useful signals to watch, because, according to the state of the system, the actions to be led will be of different types. It is also the base to build reasonable forecast, which is an important mission for managers.

Concretely, on the one hand, most companies today are using standard dashboards to compare results of the current month/year to results of the past month/year without any consideration of large series of data. The analysis generally aims at measuring the gap between results and the target, which often leads to focus on tiny problems. Boards of directors spend much more time looking at these figures than on the way to improve things. When the SPC is implemented, it is the job of a specialist, in the industrial field only.

The assigned objectives do not take into account if the system is stable or not. They are assigned even when the system is unstable. By putting the focus on the gap between the assigned objectives and the obtained results, the managers do not take into consideration the knowledge of the system for which they are responsible.

Then, to feel reassured, the managers use sophisticated and expensive controls : audits, certifications, etc.

Finally, instead of using SPC, the managers prevent the emergence of a language common to the staff as well as to their supervisors : the simple statistics of the control charts.

On the other hand, in the companies managed according to Deming’s management philosophy, there is the use of self control and simple statistics understood by everyone. Statistical Process Control with control charts is an essential part of the decision-making tools. In this context, it has been observed that the benefits are much greater with cooperation between people rather than senseless competition. Transversal working groups are very efficient to collect data then perform analysis and find the root causes of the problems. All teams are committed to using this method and setting up
appropriate action plans. To a certain extent, the success of Six Sigma projects is the proof of how efficient Deming approach is.

In these companies, there is no point assigning quantified objectives as the SPC indicates clearly reliable forecasts. If it is stable, the performances are predictable; if it is unstable, the performances are not predictable and therefore the priority is to make it stable. Why wasting time setting up objectives whereas the use of long series of data allows one to make accurate forecasts?

It is a decision management tool used to check whether the process is under control or not. In case of significant deviation, not only the product controllers but all the staff can understand the signal. This also allows managers to share knowledge on process with the staff.

**Always learn to improve knowledge**

With this last theme, Deming invites us to focus on knowledge. Since Fayol, and even before, we know that management is dealing with foreseeing.

To set up a forecast it is necessary to be confident in the future. For that we need to rely not only on figures but also on knowledge.

- Figures: To get reliable and useful measures, it is fundamental for indicators to be clearly defined and understood by every one.
- Knowledge: In order to be confident in the future, we have to make hypothesis and check whether the results are conforming or not. This scheme was used by Claude Bernard in order to improve the medical science. Information is not Knowledge; the latter is based on cause/effect relationships between factors, so that you can predict things; forecasting is not giving a target by guesswork.

Deming suggested to adapt this way of working through the PDSA (Plan Do Study Act) methodology, the so called « Deming’s wheel ».

Concretely, *on the one hand*, today most companies culture is mainly financially oriented to the short term. The products and services portfolio but also the staff and its skills are not perceived as the main assets. Therefore there is an increasing divorce between the expectations of the top management and the involvement of the staff, especially the young generation.

Because of the pressure to show results corresponding to the objectives, it is not rare that indicators are badly defined. Their definitions are often changed so that it is impossible to make long-term comparisons. In line with the company agenda, knowledge management activities consist in capitalizing information into large data bases. The leaders are reassured because, according to them, the know-how of the company is stored in voluminous databases.

In these companies, the PDCA (Plan Do Check Act) is generally known. But it is mainly used for controlling that assigned action plans are completed, they do not use it to build knowledge according to a rigorous process of continuous experiment.

Leaders carry out comparisons with other companies through commercial benchmarks, certifications or other assessments by external agencies or experts. Then they try to duplicate quality management systems or other bureaucratic process descriptions. The fact that they are eager to look outside for best practices show that they do not trust their own internal resources.

*On the other hand* in the companies managed according to Deming’s management philosophy, the company culture is based on knowledge development.

Knowledge in a company relies non only on quantitative data and qualitative data but also on the experience of it’s people This knowledge of course has to be used and shared in a crossfunctionnal way most of the time to allow one to improve products, services and processes.

The circle of people using knowledge to grow the business should be of course extended to suppliers, universities, laboratories etc.
Conclusion

Since the last international crisis, we can notice the followings facts:

- CEOs have been looking for an alternative management system
- Rating agencies have been criticized and their reputation and trust have vanished
- The ISO 9000 management system is no longer so popular

The impact of Deming's philosophy of management is still perceptible in Japan. Toyotism which is Toyota's inner philosophy, should not be reduced to a manufacturing system. It is a question of global management system, very close to Deming's philosophy. It is still alive and being enlarged mainly in Asia. This has been the case for more than 50 years.

A lot of small and medium size companies are managed according to Deming's philosophy, especially companies owned by families because their goals are to protect and develop their assets in the long term.

Consequently, we would like to take advantage of being here with all of you today to suggest a way of setting up the first international management rating based on a long term approach as advocated by Deming's theory. Thanks to both of our networks IFSAM and the Deming one, why not try to make it possible?

This rating will give a reliable indication on the compliance of the management practices of a large panel of companies with Deming’s philosophy of management. What for? First of all, to give CEOs the opportunity to assess their practices of management compared to those of Deming in order to implement a more sustainable development with social and environmental dimension together with economic ones. But this rating could also be useful for the private or public investors to select profitable long term companies. It could also help those who are looking for a job on the labour market to choose companies that don’t create value just by downsizing.