TECHNIP OR THE EMERGENCE OF A NATIONAL CHAMPION
OF OIL ENGINEERING

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The celebration of the fifty years of Technip in 2008 gave me the occasion to write two hundred pages economic history book about the history of the first French oil engineering company in terms of turnover. Created in 1958, Technip is nowadays a multinational oil engineering company which constructs extraction and transport units for oil and gaz, liquefaction units, refineries, petrochemical plants and big industrial units. It has a turnover of fixe and a half billion euros and employs 21 000 collaborators. The history of Technip has an interest for contemporary economic history insofar as it allows to analyse the mutations of European industrial policies and companies since the 1950’s. The oil shocks played a major role in its evolution. The strategy of diversification of supply sources, linked to the first oil shock, allo the expansion of the company. The second oil schok leads on the contrary to a crisis a a deep restructuration. Technip hence allows a case study of the microeconomic consequences of the oil shocks on the growth models of the big European companies.

Has the innovation in the oil engineering sector and the casting off of energetic resources it allowed since the 1950’s been exogenous or endogenous to companies such as Technip ? And is it possible to put into light an evolution of the growth model of the company ?

(plan)

The study of a big Western oil engineering company from the 1950’s to the years 2000 allow us to analyse the structural mutations of the developed economies since the post war boom. A historical analysis allows us to distinguish three periods in the history of the company, from 1958 to
1974, date of the first oil shock, from 1974 to 1994, date of the entrance of Technip in the Paris and New York stock exchange, and from 1994 to our days. The success of the company from its birth years to the oil shock was allowed by the alliance between the technical abilities of the French Petroleum Institute, the IFP, and the organizational experience of the American companies.

The market structure of the French oil market is evolving during the 1950’s towards a mixed economy market, of which the birth of Technip constitutes an exemplary case. Technip was the product of a political will of De Gaulle to form a public monopole of energetic equipment construction from the engineering division of the French Petroleum Institute. The State chooses to create a mixed capital company on an alliance between a French research center and an American engineering company rich of long years of experience and of a good reputation, the Catalytic, bought in 1961 by a patent leasing company called Air Products. The emergence of this new company is deeply rooted in the growing industrial intervention of the Keynesian economic policies. The signature of big contracts in foreign lands must allow important orders of material to French industrials and an improvement of the French balance of payment.

(graphique)

The first high points of the innovation cycle of the company are linked to innovations in natural gas liquefaction linked to a very high demand for energy supply in the developed economies. Looking at the contracts during this first period shows the success of the strategy of the company. The first activity expansion of Technip is born from a growing demand in refining equipments in Western Europe. The number of projects is soaring at the beginning of the 1960’s, the company teams studying refineries projects in the former French West Africa and in West Germany. The beginning of the 1960’s correspond to the real industrial beginnings of the company. After the first period of its existence, in 1973, at the eve of the first oil shock, the company leads roughly twenty projects at the same time. The end of the first projects corresponds to a second phase of ricardian growth without profits, which sees the turnover, bound between fifty and two hundred millions of our current euros, with a high point at three hundred millions in 1970.

(graphique)
The company at its beginning appears as an interesting mix between different company models. First, it appears as a heir of a paternalist form of management, in the context of a historical full employment period. The company for instance builds social housing in order to attract its future employees in a context of housing price rise. Technip also appears as a heir of the model of the big French firm, as it initiates a progressive shift of the direction functions from the engineers to professional managers. The organizational changes happen in the company from the beginning. From 1961 on, the expansion of the company in Spain goes with a project of a strengthening of the internal structure of the company through the hiring of new managers who are not going out of an engineer background. The projects calls for the investment into new direction headquarters, the separation from the IFP and the birth of a new organization, deeply inspired from the one of the Catalytic. The “divisions” and “deparments” are here structures which have a functional type, as the marketing fuction, oppoed to the divisional type by lines of products, projects by projects. The deeper analysis of the organization of one single function reveals the persistence of a divisional organization by lines of products a the bottom level, for instance in the technico-commercial fuction, here called “division”.

Technip is in a third stage a heir of the mixed economy model, alliance between a public research center, the IFP, and an American company, Catalytic, soon to be bought by Air Products.

The main clients of companies such as Technip, which formerly were the big Western oil companies, mainly American, become with the oil shocks the oil companies of the oil productors. In a restrained market, the role of oil engineering companies appears strengthened. The activity of the company is growing up to the beginning of the 1980’s. The follow-up of the cycle of construction of oil equipment, initiated at the beginning of the 1970’s, is going along with a diversification of supplies of the big Western oil companies, contributing to the orders of Technip. The slowing down of the companies’ market dates only from 1979. It is felt from an accounting point of view only three years later, in 1982, when the number of important contraxts goin on is diminishing of more than the half.
The second oil shocks is hitting directly the activity of Techip. The beginning of the Iran Irak war is causing in 1980 the interruption of a big natural gas liquefaction unit in Irak. The number of going on contracts is going down from 26 to eleven from 1980 to 1982. This trend is general in the world oil engineering, the American investment in this field going down very thoroughly during the 1980’s.

(graphique)

The year 1984, located at mid-distance from the oil shock of 1974 and the introduction in the stock exchange of the company in 1994, is the high point of the difficulties of the companies during the 1970’s and the 1980’s.

(graphique)

The year 1984 coincides with the salvation, by the State, of the company. In concertation with the State, Technip decides a capital increase. The rescue of the company by the State is anything but a nationalization. On the contrary, the major stakeholder, the IFP, is disengaging from the company. The management rationalization which ensues leads to numerous lay-offs from 1984 to 1988.

(graphique)

The company is trying to control the technological catch-up process of emerging markets, before leading its own advancements. The end of the 1980’s shows a recovery and a big movement of technical collaborations and transfers. The case study of an oil engineering company poses the problem of technology transfers towards oil producing countries and their slowness in spite of a big number of construction of oil equipment under the control and supervision of emerging markets and with local workforces. The construction of oil production means hence appears at the heart of the technical asymmetry between developed and emerging countries. The constitution of Groupements d’Intérêts Industriels (Industrial Interest Groups) in the 1960’s slowly diminishes in favor of, during the 1970’s and 1980’s, alliances with engineering companies from emerging countries. A look at statistics of technical advancements, build through an inventory of the minutes of the board of directors and the accounts of the general assembly of stakeholders, shows a cyclical succession of external collaboration agreements, external to the company, and the inner technical advancement, with
a high point at the beginning of the 1980’s. The cycles are generally five to six years long. These phases of collaboration and innovations are linked to the necessity to circulate knowledge for technical innovation and a will to control competition, notably investments in innovation.

(graphique)

The first oil shock initiate a transformation of the objectives of the company. The development of Technip in the emerging markets and in a time of crisis encompasses a diversification on less technical markets, where besting competitors becomes accessible at a lower cost. The Third World countries actually impose the creation of mixed companies. Technip imposes its procedures, and the client country its workforce and its materials.

As a consequence, there is an interest conflict between the oil engineering company, which sees a technical interest in its collaboration with local companies, and the State, which wants to avoid the transfer of strategic technologies. The evolution of the participation of the IFP in the capital of Technip very obviously shows a diminishing influence of the State in the capital of the company, precisely at the beginning of the 1980’s, which coincides with the high point of international technology transfers agreements towards emerging markets. The activity diversification and the institutionalization of research and development leads to a restructuration of the company’s organization in the 1980’s.

The 1980’s see a change in the role of the technical progress in the growth of the company. The computer screen replaces the original drawing boards. Technip engages itself in a series of trials against its former ally Air Products, which it accuses to have stolen its gaz liquefaction patent. The French engineering company doesn’t weigh enough in order to have its patent recognize, notably in Japan, in front of the Japanese Ministry of the Industry, wary to avoid fluctuations of the energetic supplies of Japan in liquefied natural gaz from Indonesia. The failure of the trial against Air Products, a patent leasing company external to Technip, pushes afterwards Technip to favor an internalization of its technical research in the midst of a vast reorganization.

Four objectives drive the reorganization of the 1980’s : marketing efficiency, flexibility of intervention on a global scale, unicity of methods and operational speed. A better continuity is created
between the phases of contracts acquisition, realization and payments. The marketing function is strengthened. The control function is centralized. The 1980’s hence correspond to a strengthening of multidivisional organization.

The reorganization shift of the company is linked to a new management, based on computing. Computing plans inside the company are regularly put in to place from 1988 on. The multidivisional organization, which used to be matricial, becomes organic, with two hierarchical level, a transversal functional level and a divisional level.