

Control and organizational learning in MNCs: an analysis through the subsidiaries

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Abstract : For any large complex organization the problem of ensuring its constituent activity in accordance with overall policy and, at the same time adapt to its environment, is a central and continuing concern. Thus, the fundamental question which must be answered is 'what control mechanism can facilitate the adaptation process in the local market?'

In multinational corporations (MNCs), the control mechanism, imposed by headquarters, has an objective to integrate the subsidiaries' activities to the global strategy. However, the presents on the local market necessitates the adaptation to the local environment characteristics. The objective of this paper is to contribute solving the dilemma between control and learning in an MNC.

The interaction between control and learning process will be analyzed. The literature study leads us to develop a typology based on two factors: the stage of the learning process (knowledge production and mobilization) and its locus (local or global). The combination of these two factors provides four configurations. The control system produces knowledge, both locally and globally, which can be mobilized by the local or global units.

A proposition to resolve our main problem is formulated. The combinations of these four configurations make it possible for an MNC to resolve the dilemma between control and learning. An application of this typology has been carried out by analyzing case studies of MNCs operating in Indonesia.

Keywords: control, organizational learning, multinational corporations, local / global

1 Introduction

For many companies the process of internationalization strategy leads them to operate in many countries spread over whole continents; they are then confronted with the increasing risks related to uncertainty which rapidly developing countries present (e.g. Argentina in 2001 or Asia in 1997). The MNCs must thus deal with a great number of local heterogeneous situations, fast growth in one, crisis elsewhere, which require local adaptive capacities, but at the same time require the implementation of coordination mechanisms or effective control systems, which do not paralyse initiative and innovation.

In order to define the issue of globalization, the question of integration and differentiation can be asked, as was initially developed by Lawrence and Lorsch (1967). The new element which emerges is that of the scale, that of planetary organizations. It is thus a question of answering the centralization / decentralization dilemma which is also described as a local / global dilemma. Beyond the terminologies, this traditionally structural issue has developed in a context where differentiation is at a maximum: national cultures, logistic structures, regulation, local industrial structures and, more generally, multiplicity of specificities. One of them seems worthy of interest to us, the case of a local situation which is characterized by a fundamental crisis. These situations are of particular interest for the researcher: adaptation to major upsets and the decisions taken to respond to these random upsets within a time and space period.

This question can also be found in the design of the control mechanisms. Whereas the definition of Anthony (1988) lets us believe that the only purpose of management control is to implement strategy, but the reality is more complex with an explicit role of questioning that strategy (Simons, 1995). Control appears thus not only one factor of order and integration, which fights against entropy and inefficiencies, but also like a vector for learning intended to restore the effectiveness of in-adapted local or global strategies. This aspect is even more relevant when the environment is strongly heterogeneous, even more so when it is changing a lot.

While taking into consideration that "the suitability of the control systems to forms of learning which are sought after within the framework of the strategy ensures a certain organizational performance", we will try to reformulate the traditional integration / differentiation dilemma in terms of control / learning interactions. This movement, this rotation, has the advantage of representing a traditional problem in a more dynamic way. After all, the question of adaptation is not so much a problem of structure as a problem of process. After having specified the subject of our analysis, the MNC, and having outlined the meanings selected of control and organizational learning, we will then describe their possible interactions in order to define an analysis grid. This grid will be tested on French companies located in Indonesia.

2 Control / learning interactions in MNCs

The denomination of an MNC covers various realities which all raise such varied problems, in particular as regards integration and differentiation. Between the global specialist which provides a more or less universal model in all the countries of the world and the transnational organization which locates its global processes according to the comparative advantage; there are major differences in terms of goals as well as means. After having assessed the various forms of organization involved in international activities and specified their dynamics, we will develop a framework of analysis of the control / learning interactions in order to propose an analysis grid.

2.1 The structure of the MNC and its dynamics

The diversity of MNCs has led to the proposal of various typologies. The most frequently quoted are those of Bartlett and Ghoshal (1989) which distinguish global, multidomestic and transnational firms, and Heenan and Perlmutter (1979) which identify the ethnocentric, polycentric, geocentric and regiocentric models. These two typologies have some common points, for example, the ethnocentric can be associated with the global firm.

The typology of Bartlett and Ghoshal (1989) will be used in preference to that of Heenan and Perlmutter (1979) which is more focused on the personal element. This factor remains the first lever of control but we wanted to focus on the way in which operations are organized, which will induce, *inter alia*, choices in the field of human resources. The configurations described by Bartlett and Ghoshal are ideal types which are seldom observed (Harzing, 2000).

Organizational type	Configuration of assets and competences	Aim of international operations	Development and circulation of knowledge
International exporter	Core centralized	Commercial	Created and stored by the center
Multidomestic	Decentralized and self-sufficient	Exploiting local opportunities	Retained within operating units
Global	Centralized	Marketing or sourcing	Marketing or sourcing developed jointly and shared
Transnational	Dispersed, interdependent and specialized	Contributing to company worldwide	All functions developed jointly and shared

Table 1: The different ways of carrying out international operations – according to Bartlett and Ghoshal (1989)

The forms described by Bartlett and Ghoshal (1989) are not only ideal types but more often than not different organizations can be observed according to function (production, research and development, marketing...) (Harzing, 2000). By taking into consideration the forces of global integration and local differentiation, it is possible to bring out a certain type of dynamics within these organizational forms:

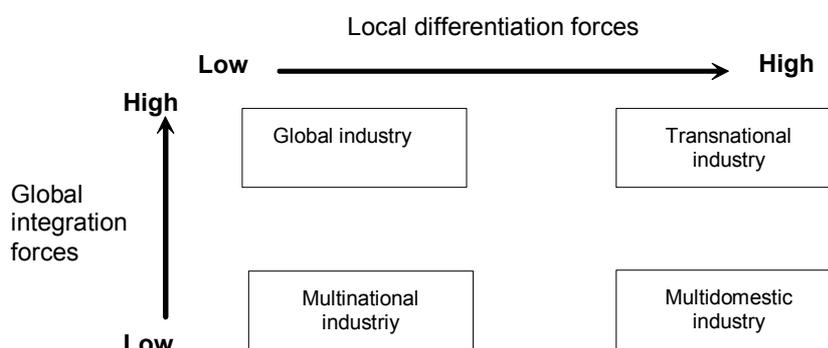


Figure 1 : Organisational types and integration and differentiation forces – According to Bartlett and Ghoshal and Porter.

In addition to touching on the dynamics of organizational forms, the interest of this diagram is to suggest the independent nature of the problems of integration and differentiation and to suggest various ways for the MNC to evolve. One should not however forget the principal conclusion of Lawrence and Lorsch (1967): the success of differentiation depends on the reinforcement of the integration procedures, at the cost of a certain amount of complexity. This does not whatsoever cause any contradiction, but enables it to be achieved. The dilemma only exists in the case where integration costs overflow any differentiation earnings.

In the case of a new product launch, the integration mechanisms must lead the subsidiary to comply with the world rules in order to obtain, for example, productivity gain. However, these integration forces should not block the product adaptations with local constraints while using, for example, information coming from other subsidiaries faced with similar situations.

Every MNC is faced with the integration / differentiation issue for two main reasons:

- organizations always show differences in relation to the standard described ideals, which lets us believe that differentiation and / or integration processes are still on going;
- the adoption of heterogeneous organizations according to function maintains tension between integration and differentiation.

There are strong differentiating and integrating tensions within the MNC; they are sometimes reformulated in the form of a centralization / decentralization dilemma. These same tensions are observed in the divisional company; they are at the origin of the appearance of a particular coordination mechanism, management control. The basis of this coordination mechanism is on the one hand the decentralization of responsibility and on the other hand the centralization of information.

This observation indicates to us a particularly relevant analysis approach. Whereas the differentiation forces introduce into the organization a form of entropy which requires an additional control effort, the integration forces, initially motivated by the search for economies of scale, pose problems of local adaptation. Therefore, the increased learning capacities are essential in order to benefit from these economies. The idealtypic model of a transnational organization would thus be that of a company which is able to strongly centralize information, but at the same time able to inspire considerable learning faculties within its subsidiaries. An other way to appreciate the differentiation /

integration link is to analyse the relationship between learning and control. The need for the latter must nourish the former.

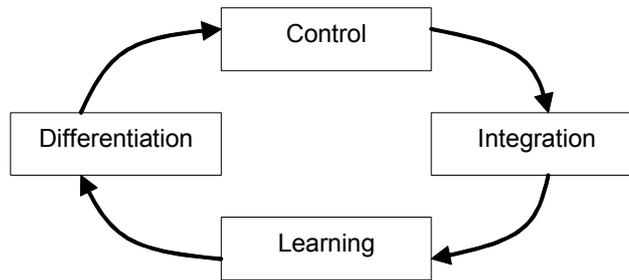


Figure 2 : Integration and differentiation - the on-going process

2.2 A larger meaning of control

Since its emergence in the 1920s at General Motors and its first definition as suggested by Anthony (1965), management control has always proved delicate to define. Nevertheless, there is a certain consensus around the second definition of Anthony (1988), who stated management control “as the process by which managers influence other members of the organization to implement the organisation’s strategies”.

The wider meaning of this definition is at the origin of many analysis grid proposals: Ouchi (1979), Hofstede (1981), Macintosh (1994) or Simons (1995). The framework for these grids, which are more complementary than competitive, can be summarized by the following table:

Analytical vision		Synthetic vision		
Control tools or means	Control systems	Control dimensions or subjects	Control aims	Configuration
Pay systems Procedures Cost calculation systems Sales pitch standardization...	Coherent link between control tools or means	Behaviour Results Clan Self-checking Competences... Centralized / decentralized Formal / informal	Guide employee behaviour Implement the strategy Understand resource consumption	The control system characterized by the role attributed to the different tools

Table 2 : The notions of control tools, systems, dimensions, aims and configurations.

The analytical vision leads us to consider control systems as a whole set of control tools or means. The synthetic vision provides varied analysis grids in terms of dimensions, goals or configurations. Whatever the approach adopted, the field of management control appears in the end to be particularly wide: there is a divergence between the organizational practices and the meaning outlined by the majority of the researchers. This is why it appears preferable to use the expressions “control” or “organizational control” which cover management control but largely exceed it.

By retaining such a definition, it is not a question of defending a hegemonic vision of control but simply of underlining the need for developing a whole set of systems with coherent objectives. This coherence is necessary in order to reach its strategic objectives, which is the main aim of control, but also to induce the essential learning in order to reinforce or to question the strategy. The definition of organizational learning is quite as difficult as that of control.

2.3 Organizational learning and associated concepts

The literature reviews devoted to organizational learning are numerous (Koenig, 1994; Huber, 1991; Levitt and March, 1988; Fiol and Lyles, 1985). Each one proposes an individual analysis of the phenomenon. For Levitt and March (1988), “organizations learn when they code in routines, which guide the practices, of the lesson of their history”. The definition suggested by Argyris and Schön (1978) is complementary: “we learn when we detect an error and correct it. An error corresponds to a

difference between what we await from an action and what occurs indeed, once the committed action. An error, it is the difference between the intention and the result obtained. We also learn when we obtain for the first time an agreement between the intention and the result".

Although Levitt and March (1988) emphasize the organizational dimension whereas Argyris and Schön insist on the individual dimension, the two reflexions indirectly agree about the recognition of distinct levels of learning. For Levitt and March (1988) referring to the work of Cyert and March (1963, pp.123-125) and Nelson and Winter (1982, pp.96-136), the two main categories of routine must be distinguished. In order to characterize these two categories of routines, they can be qualified as static and the dynamic ones. The static routines consist of the simple repetition of former practices whereas the dynamic routines are continually directed towards new learning. This second category is a risky process made of trial and error; these routines enable innovation and thus allow organizations to change.

These two categories can be put in parallel with the two levels of learning as described by Argyris and Schön (1978): the single and the double loop learning. The first process, when a dysfunction is noted, aims at correcting it by rehabilitating the practices (single loop). The second process requires the principles which underlie the practices to be reformed in order to correct the noted dysfunction (double loop). Based on the work of Argyris and Schön (1978), Sinkula (1994) proposes a more detailed analysis by retaining seven hierarchical levels ranging from encyclopaedic knowledge (declaratory) to the *deutero* learning (way of producing new knowledge).

Management control, in its most traditional and restrictive meaning, plays a privileged role in the learning process: its aim is to identify the deviances, the variations and to explain them in order to undertake corrective action. But is it a question here of individual or organisational learning? The question is of utmost importance even if the individual learning is the basis of the organisational learning.

Learning is thus the production process of knowledge. Having defined the concepts of control and learning, their interactions can now be analyzed.

2.4 Control / learning interactions

The link between control and learning is frequently made (Simons, 1995; Macintosh, 1994) even if systematic analysis are still rare. This is one of the research avenues as identified by Bouquin (1999) which are all the more promising as the reporting system activities are the principal sources of knowledge (Huber 1991). Only Kloot (1997) has thoroughly investigated this interaction, even if particular consideration has to be given to the context of the empirical investigations: two Australian districts.

Kloot (1997) associates control systems with phases of the learning process but she concentrates mainly on illustrating the role of control systems in generative learning, which is the only way of facing the changing environment. Control systems as varied as appropriate accounting information, performance evaluation systems or a quality improvement program all appear to enable generative learning.

These observations confirm those of Simons (1995): that organizations, in general, have an interactive control system which, through debate and dialogue, must enable the emergence of new ideas and new strategies. Simons (1995, p.106) evokes double loop learning for the interactive systems whereas the diagnosis control systems do not generate single loop learning. Nevertheless, there is a contradiction between the two approaches. Kloot (1997) identifies within the two districts, multiple control systems which enable a higher level whereas learning according to Simons (1995), organizations should only have one interactive system. One can envisage two explanations which are more complementary than exclusive: either the identified learning is not of a higher level, or the districts observed are undergoing a crisis period so that they use all their diagnostic control systems in an interactive way.

However, the learning process can not only be limited to the sole acquisition of knowledge. Thus, Huber (1991) described this process through the following phases: acquisition of knowledge, distribution of information, interpretation of information and organisational memory. The interest of this division lies in the variety of locus of these phases. Acquisition can be dispersed or on the contrary concentrated in specific services, distribution can be spontaneous or planned, interpretation specialized or generalized and the memory can be distributed or centralized, thus producing a great number of possible configurations. Without exploring all of them one is able to notice that a control can be carried out with each phase. It thus channels the knowledge production process and in return also mobilizes it.

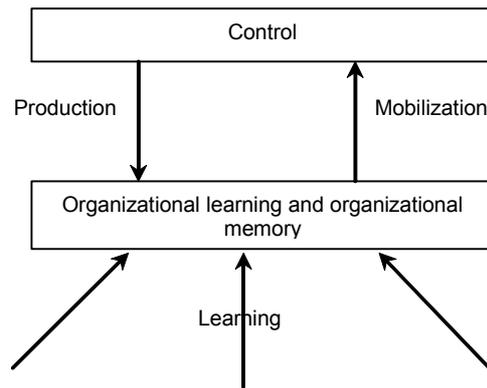


Figure 3 : The link between knowledge and control

If control is described as a vector of learning (knowledge production), it should also be noted that, in order to have a global vision of the interactions, control systems also mobilize knowledge. This last point will not be developed¹ just like the influence of strategic orientations on the types knowledge produced. It is possible to think that the prospectors, such as they are defined by Miles and Snow (1978), will seek to induce more generative knowledge whereas the defenders will privilege more adaptive learning. According to the strategy, the control systems process different types of data.

The control mechanisms thus appear as a privileged means of organisational learning, in particular from the point of view where organisational learning is considered as the transformation of individual knowledge into organisational knowledge. The vision of organisational learning as a process which was developed by Crossan *et al.* (1999) break the learning up into four phases (intuition, interpretation, integration and institutionalization) and associate them to three observation levels. This enables the transformation conditions to be specified.

Level	Process	Inputs	Outcomes
Individual	Intuiting	Experiences, images	Metaphors
Group	Interpreting	Language, cognitive map	Conversation/dialogue
	Integrating	Shared understanding, mutual adjustment	Interactive systems
Organization	Institutionalizing	Routines, diagnostic systems	Rules and procedures

Table 3 : Learning process –By Crossan *et al.* (1999)

It is first of all advisable to outline that Crossan *et al.* are interested in strategic change whereas we are interested in all types of learning or knowledge, from the most factual to the most elaborate (Sinkula, 1994). To resume again with the terminology suitable for international management, institutionalization can be local as well as global. Incremental learning can also lead to local and global change; the same is true for radical learning.

It is in the phases of interpretation and integration that the control systems play a major part in the transformation of individual learning into organisational learning. We will not talk about the intuition phase which is basically individual, or the institutionalization phase which consists of using produced knowledge². During the interpretation phase, the individual, through language, names things and starts to explain what was only feelings, foreboding or sensations. When interpretation moves from the individual to the group, it becomes integration. It is through the permanent exchanges between the members of a community and through shared practices that shared interpretations or the collective conscience develop. The financial indicators illustrate this process. The operations managers generally start by interpreting only the consequences of his actions (intuition followed interpretation).

¹This point relates to a question which is very different from the one treated here: that of the design of control instruments. In this paper, we are interested in the consequences that control has on adjustment processes. If differentiation brings about an increased form of control which facilitates integration, we must first of all ask ourselves about the consequences of integration on the learning capacity. How can a reinforced control or a consolidated integration encourage the necessary learning? If this is not stimulated, there is little chance that a balance be obtained between the levels of differentiation and integration.

²That we will call mobilization further on.

Then, through exchange, he tries to identify and validate explanations (integration) before determining the improvements which will possibly be generalized (institutionalization).

The Nonaka and Konno (1998) framework provides a complementary description of the passage of individual knowledge to organisational knowledge. Among the four knowledge developments which have been identified (internalisation, socialization, externalisation and combination), it is in the externalisation that the control systems have the most important role³. The externalisation is described as the expression and translation of tacit knowledge in a form which can be comprehensible by third parties (Nonaka and Konno, 1998, p.43). A performance meeting, by the factual explanations it induces, is an illustration of the externalisation. What they contribute is an enlightening of the learning passage from one level to another, through the examination of the tacit or explicit nature of knowledge.

Let us finally note that the passage of individual learning to a group level can also be described through the means of circulation. The epidemiologic model can thus be contrasted with the hierarchical model. In the first case, innovation (new knowledge) spreads via the mechanisms of population ecology (ideas and people) while in the second case they spread via specific communication channels which are under control of the hierarchy.

2.5 Analysis grid proposal

The analysis of control/organisational learning interactions reveals two phases of the same process: knowledge production and mobilization. *Vis-à-vis* the great diversity of knowledge produced, as illustrated by the typology of Sinkula (1994), it is essential to specify the range the learning. In the case of the MNC, the characterisation of the scope of the learning can be made by analysing the learning locus. Does it relate to a local or global scale? Does it occur in an operational unit or in a central body?

By associating the process phase (production / mobilization) and its localization (local / global), four cases thus appear. They correspond to four major types of interaction, which bring out four forms of learning induced by the control tools. The terminology adopted in this typology is more than metaphorical:

		Knowledge mobilization	
		Global	Local
Knowledge production by the control system	Global	<p>Box 1: The media model ERP, CRM and SCM</p> <p>The integration of information systems enables global knowledge to be produced and circulated, erasing any local specificities, which will be mobilized in the same way. Knowledge is mediatized by technology.</p>	<p>Box 2: The initiatory model Studies carried out by head office</p> <p>Studies carried out by head office (global production) are circulated to all the subsidiaries. Each one interprets them to its own local situation. Global knowledge is adapted.</p>
	Local	<p>Box 3: The evangelist model Identification of best practices</p> <p>The development process of a product used by a subsidiary (local production) is used by all subsidiaries (global mobilization). The best practice, once identified, will be the good word spread through out the organization.</p>	<p>Box 4: The epidemic model Benchmarking</p> <p>Exchanges between subsidiary managers, within a benchmarking process, could mean that a locally developed practice could be used elsewhere, but always in a local context. Contagious circulation could be more or less widespread.</p>

Figure 4 : Analysis grid for control/ learning interactions

Let us describe these four situations by means of some examples. During a monthly meeting between a manager and his subordinates, a performance follow-up system makes it possible to identify an interesting management practice (local production). This knowledge can be mobilized locally through interpersonal exchanges (box 4, benchmarking being another illustration) or globally if the practice is formalized and circulated throughout the organization (box 3, the ideas box is another example). By processing information from databases, an analyst based at head office will be able to identify a good practice (global production). If these conclusions lead to the formalization of a new management process, the mobilization will be global (box 1, example of a new procedure). If its

³Even if it is possible to identify for each development the significant contribution of the control systems, such as culture for internalisation or socialization.

conclusions are merely available, only the interested people will interpret them and use them freely; the mobilization will be local (box 2).

To emphasize the link between the place where the knowledge is produced and that of its mobilization gives the control systems a logistical viewpoint, how then does the control reach its targets? Learning in general, is not limited to the production of knowledge; it is also a way of transmitting that knowledge. The substance of our typology can be found in this dual observation. The "controlled learning" can thus be defined as the effort made when applying the resulting knowledge and therefore intended to make organisational control effective.

The four highlighted forms address this problem very precisely. The media model is also that of the mass media (corporate communication) as well as that of individualized media. It is also that of propaganda, of Utopia which makes us think that a small group can produce a single mental framework, circulated by means of communication technology, thus mediatizing the message. The initiatory model is characterized by two attributes: it can be secret but more often discrete and specific to the person addressed. Discretion guarantees its specificity. In this model, the head office which produces knowledge circulates in a general and ritualized way, by adapting its application to local situations. The main aim of ritualization is to obtain commitment from the receiver. The evangelist model is based on the gospel truth, which solves the problem of circulating a general message by a minority or marginal employee of a message with universal vocation. In extreme cases, one could speak about prophecy. At the heart of the evangelist model one can find the problem of conversion. Finally the epidemiologic model corresponds to a kind of organized anarchy, a network model, without any center or aim, is built through a dynamic of individuals and thoughts.

Is there an ideal type? Are some types more adapted than others to certain situations? At this stage of the analysis it is still difficult to decide. It is probably the combination of these four types of mechanism which increases the chances of succeeding internationally by exceeding the local/global or integration/differentiation dilemma. The purpose of empirical study is to further appreciate the relevance of this analysis grid by seeing it in action.

3 Methodology

The complexity of the phenomena studied as well as the exploratory character of this research justify the choice of a qualitative method. One must defend the right level of analysis. By asking the classical question concerning the link between differentiation and integration or, in a more dynamic way, the interactions between control systems and learning process, the favoured observation point is the subsidiary. From a strategic point of view, the question is not so much that of choosing a structure than that of the capacity of managing in a way which is adapted to each local unit. These factors are enough to justify the level of analysis but do not take into account the interest of the case which we are studying with the precise aim of testing our analysis grid. It was necessary to find a critical situation in which the need for adaptation was increased by the specific nature and dramatization of local conditions. Indonesia was very recently one of those environments which best met our methodological requirements. The contingencies enabled a multiple yet quite informed examination. These contingencies have their limits, they bare subjectivity. We will have controlled them through different circuits.

The managers of six subsidiaries of the largest French groups setup in Indonesia were met by the members of a bicultural research team made up of two Indonesian and two French researchers. In all cases one of the team members spoke the mother tongue of the managers. We met other local members of staff who provided us which additional information. The interviews lasted between 2 to 4 hours. In five cases out of six, more than two interviews were carried out. An information retrieval made it possible for us to prepare and complete the information collected. In all cases, the interviews took place on site, and were accompanied by site visits. They were supplemented by other meetings at the *Franco-Indonesian Chamber of Commerce and Industry*, within the economic development department and from among other Indonesian colleagues and specialists.

Indonesia is the fourth most populated country in the world with 220 million inhabitants. The country began to climb out of the 1997 crisis which affected the all of South-East Asia. Although it is very rich in natural resources (oil, natural gas, tin...) and very vast (1.8 million square kilometres), in 2002 the primary sector only represented 17% of the GDP as compared with 44% the secondary sector and 39% for the tertiary sector. The year 2002 is the period of study, i.e. during the period immediately after the fall of Suharto, after the social, political and economic shock. This was a period during which the companies interviewed had no clear general direction.

The interviews carried out were general. They concerned three main topics: the description of the Indonesian subsidiary, the manager experience and the relations with the group. During these

meetings, we gave greater importance to the facts while being very conscious of the limits of such an approach: the crisis situation encouraged the managers to rethink the facts or modify their interpretation in order to find some sort of coherence. We sought to identify the actions and the reasons which caused them. The actions seemed to us to be more important than the mental framework. The limits of this test lie in the difficulty of separating the actions from their intentions.

4 Complex coordination mechanisms

Given the impact of the strategic orientations on the types of learning, the six cases were split into three groups which are characterized by the combination of two criteria: the degree of the firm's involvement in Indonesia, and the level of centralized or decentralized control. The degree of involvement is characterized by the level of the investment and assets; the centralized nature can be evaluated by the number of expatriates, the share of the capital controlled and the reporting characteristics. This classification is more down to the researchers than the application of strict criteria. It outlines an analysis in terms of strategic groups, from the nature of the criteria used, but also in the way they describe of homogeneous configurations. This aspect will not be developed. This split only has a methodological aim: to compare control and learning systems by partially controlling the data through the strategies which generate them.

The first two companies which correspond to the first group, are characterized by (1) minimal involvement, the following two (2) through a relative immersion in the culture and the economy of the country linked to a large-scale involvement and by the autonomy given to the local unit, and (3) global piloting is the last involvement strategy identified, as it implies a large-scale investment, but with global piloting. Let us remember that all the companies observed are in a similar situation: they are confronted by a country with an attractive market but whose political uncertainties induce risks which strongly influence the entry strategies.

4.1 Minimal involvement

The potential of the Indonesian market is arousing a lot of interest. The first to enter this market could take a decisive lead. Any lost time could only be made up for by paying the full price later on; the pre-emption market strategy is thus a reasonable one. However, all the companies do not have the necessary financial resources to tap the market or wish to reduce the risk; they thus minimize their investments, while ensuring a presence on the market. Two cases corresponding to this situation were studied.

The way in which involvement is minimized is very different in both cases: an alliance in the first case and a commercial presence in the second case. The common point between these two cases is that the local entity is used as place for learning, for experimentation and for observation. One could wonder whether the low rate of involvement does not simply reflect the intention to learn. Giving up immediate profits is the corollary of the hope of substantial profits in the medium/long term.

4.1.1 Case n°1 : Sanofi – Combiphar, a real partnership

Sanofi-Synthelabo⁴ created a joint venture in November 2001 with the Indonesian company Combiphar. Sanofi-Synthelabo is a key player on the pharmaceutical market, particularly in the fields of cardiovascular / thromboses, central nervous systems, internal medicine and oncology. As for all the key players in this activity sector, research and development are strategic. The group operates in 100 countries on 5 continents, the only way of absorbing its large research budget. Combiphar, the Sanofi-Synthelabo partner, is one of the leaders on the Indonesian pharmaceutical market. It was founded in 1971 and its first activity was medicine production (antibiotics, analgesics and cough mixture) under its own brand, *OBH*. The growth in sales volume on the Indonesian market was based on a marketing strategy centered on quality through its very broad network of medical representatives.

Whereas many international co-operations can be justified by Indonesian legislation which obliges a foreign investor to join together with a local partner, in this case it is the mutual interest which has created this joint venture. This partnership has probably been made easier by the fact that the *Combiphar* manager, who is Indonesian, studied for an MBA in France. The size of the Indonesian market and its development potential are the main motivations of *Sanofi-Synthelabo*. The support of a local partner, who knows the market and can drive his sales force there, is a guarantee for success. For *Combiphar*, the partnership with *Sanofi-Synthelabo* provides them with the opportunity to market new products with a worldwide reputation and thus increase its range. Moreover, it would seem that

⁴Now known as Sanofi-Aventis.

reputation is one of the success factors in the Indonesian pharmaceutical industry, more so than the intrinsic quality of the product and the opinion of the medical profession.

The distribution of the roles between the two partners is therefore clear: *Sanofi-Synthélabo*, which has advanced know-how in the field of research and development, concentrates on products and their development while *Combiphar*, which has a better knowledge of the Indonesian market, focuses on the marketing. This perfect complementarity does not exclude any divergence of interest: *Combiphar* attaches more importance to short-term profitability whereas *Sanofi* privileges the commercial development, i.e. long-term profitability. These divergences come out during budgetary negotiations. It can be noted that this co-operation opens up the way for development projects in other South-East Asian markets, in particular South Vietnam, based on the *Combiphar* knowledge of these markets. The co-operation therefore provides exportable knowledge to other countries of the area.

4.1.2 Case n°2 : BNP Paribas Bank

PT Bank BNP Paribas Indonesia began its operations in Indonesia in November 1989 under the name of *PT Bank BNP Lippo Indonesia*. This was a joint venture between the BNP group and the Lippo Indonesia group, one of largest Indonesian conglomerates. Up until February 2000, the distribution of the capital was split between the BNP group with 70% and Indonesian partner with 30%. In October 2000, following the merger between *BNP* and *Paribas*, this joint venture became *Pt. BNP Paribas Indonesia*. For the *Lippo Group*, the co-operation with *BNP Paribas* was the result of its strategic development plan in the financial business through an alliance with an organization of worldwide reputation. However, the drop in business after the 1997 crisis led *BNP Paribas* to increase its share to 100%.

PT BNP Paribas Indonesia provides corporate banking services for large Indonesia companies and MNCs. That means that *BNP Paribas* does not have a retail activity on the Indonesian market, which would be very heavy in terms of investment. The presence of *BNP Paribas* in Indonesia can be justified by its will to accompany its traditional clients, the MNCs, on the majority of their markets. It is also a question of being present on a market which could experience strong growth. Thus, *BNP Paribas* is preceding its clients when they decide to enter the Indonesian market. The weak presence of the competition frequently puts *BNP Paribas* in a position of being the only key player, which enables it to demonstrate its know-how and which can help it to grow on other markets. The interest of this strategy is further intensified by the fact that *BNP Paribas* represents other banks in Indonesia.

The manager of the subsidiary carries out the daily management operations. The strategic decisions are taken after consultation with the regional office based in Singapore. Many operations are carried out using the regional SOP (standard operation procedure) or logistics platforms. As with every corporate bank, *PT. BNP Paribas Indonesia* uses strict procedures in terms of credit granting. For these decisions, the senior banker who is located in Paris or New York plays a determining role; he ensures the follow-up of major worldwide account portfolio. In other words, the manager of the Indonesian subsidiary is the interface with the client (large Indonesian companies or MNC subsidiaries) but also with the market to make the regional office aware of business opportunities.

4.2 Immersion

Whereas the two preceding cases are characterized by a will to minimize investment in Indonesia, the two following cases can be distinguished by the amount of heavy investment. From these two cases, it is particularly hard to generalize, but the local managers appeared to us to be very receptive to the local culture. The two managers interviewed have few contacts with the French expatriate community. This situation is also the result of the plant location of these groups which are not present in the center of the Indonesian capital, but rather symbolic located on industrial parks in the suburbs of this large city. Another common point, lies in the large amount of autonomy in decision making and action taking at the subsidiary. The control mechanisms which have been developed are particularly complex; they illustrate perfectly the local / global dilemma.

4.2.1 Case n°3 : Aqua, a subsidiary of Danone

This agro-food company has invested heavily in Indonesia by taking a majority share in a family company with more than 7.000 employees. The family was unable to finance its large industrial investment projects. However, the transition was carried out carefully, over several years, with the objective of completely taking over the Indonesian company.

The local manager shows the group culture: after 4 months of presence, he speaks to its teams in Indonesian. The manager is the only expatriate; the other managers are Indonesian and mainly trained in the United States or in Australia. The company also benefits from support functions

in finance, marketing and human resources, called "task forces", all based in Singapore. Every month, one of these teams plays a consulting role. As concerns technology, the local managers are kept directly informed; indeed, the law wage costs bring about very different problems from those encountered elsewhere.

Generally speaking, there are few procedures. The group values are internalised, except communication which has to meet the group's standards. Besides the geographic mobility of the few foreign managers, training is one of the main vehicles for spreading culture. This is only "in-house training" according to their specificity, which is organized in Asia or in Paris. One is tempted to conclude that control is based on values, ways of thinking, enabling the company to adapt locally with complete freedom. It can be noted that the Singapore regional coordination ensures the group's presence even if it is only temporary, minimal and specific. The subsidiary is responsible for its financial performance, but the group influences the marketing methods, technologies and finance through a close but discrete piloting.

4.2.2 Case n°4 : Air Liquide

Air Liquide is a group specialized in the production of industrial and medical gases. Its main products are oxygen, nitrogen, hydrogen and many other types of gases intended for various industrial activities such as the production of steel, glass, paper, food, the oil refining, chemicals, electronics, aerospace, metallurgy and even healthcare. *Air Liquide* was founded in 1902 and operates in 65 countries with 125 subsidiaries and employs more than 30.000 people. Its human resource management strategy tries to bring together the skills of a global group with a powerful local presence. The result of this strategy is independent customer-focused teams.

In 1993 *Air Liquide* set up on the Indonesian market and production began a year later, in July 1994. *PT. Air Liquid Indonesia* provides a large variety of gas for the electronics, chemical and petrochemical, oil, gas and metallurgical industries. Because of the very nature of its activity, *Air Liquide* accompanies its customers on their markets or more precisely on their production sites. This is why *PT. Air Liquide Indonesia* is located in an industrial site (MM2100) which employs 300.000 people.

The decision to supply an industrial customer is a strategic one for at least two reasons: the contracts are long-term and they always involve heavy investments not only in the manufacturing unit, but also the construction of gas pipelines making it possible to supply the customer. The strategic decision-making process can be characterized by a very large amount of autonomy, even if the feasibility studies are undertaken in cooperation with the Asia area team (in Singapore) which knows the dynamics of the region and the customers, and with the support from world experts, based in Houston in the United States, which provide exploratory studies.

Quite obviously, there are only a few administrative controls by the head office. They are the annual or periodical results which are the subject of a follow-up. The lack of standardization is the group's will. Knowledge exists, it could be capitalized through standards, procedures, like *Air Products*, *Air Liquide's* main competitor, does. Therefore, the chosen strategy is to rebuild everything each time in order to grow in accordance with the local culture. In the absence of any procedures, culture ensures group homogeneity. Its principal vector is the manager. The manager has a long experience within the group, 12 years as an expatriate in three Asian countries including Indonesia. In 1993, there were 11 expatriates. Today, they are only 3 including one French manager, the other two are Indian and Japanese. The group culture has been transmitted.

4.3 Global piloting

The last two subsidiaries studied have one main feature: they both "undergo" strict control from their head offices. The difference being from the two previous cases is that these companies are based in the Jakarta business district, completely immersed in a cosmopolitan culture. They are characterized by the large presence of expatriates and various and numerous contacts with the Parisian headquarters.

4.3.1 Case n°5: L'Oréal

L'Oréal entered the Indonesian market in 1987 under the name of *PT. Yasulor Indonesia*. This was a joint venture with *PT. Mustika Ratu Indonesia*. The activity was split into six divisions: hairdressing salons, mass consumer goods, perfumes and beauty products, finance and administration, general and legal business as well as production.

In 1993, *L'Oréal* bought *PT. Mustika Ratu* making *PT. Yasulor Indonesia* a wholly-owned subsidiary. Today, the company manufactures, imports and sales several international brand products. It has 3 product lines: mass consumer products (*Plenitude, Elsève, Néril, Birkin*), industry specific

products (Kérastase, Daicolor, Traitane) and luxury products (*Lancome, Ralph Lauren, Guy Laroche, Giorgio Armani* and *Biotherm*). Pt. Yasulor Indonesia built a plant in Ciracas in order to supply the area (Indonesia, Thailand, Singapore, Malaysia, the Philippines, Taiwan, Hong-Kong, China and South Korea). This plant plays a key role in *L'Oréal's* South-East Asian development since it exports 70% of its production.

The strategic decisions are heavily centralized at the head office, i.e. in Paris. These decisions are of two types: new product creation and communication. The main part of product creation is carried out by the R&D unit centralized in Paris⁵, even if the subsidiary has the possibility to contribute to the development process by transmitting information relative to the local market. Nevertheless, the decision to continue or not with a project is a decision made by the parent company. As regards communication, since the majority of *PT. Yasulor Indonesia* products are sold under world brand names, the parent company imposes a large degree of standardization at the world level. In other words, decisions relating to the topics of promotional campaigns and the communication channels are tightly controlled by the parent company.

4.3.2 Case n°6: Total

Total is the world's fourth largest oil company and is the result of a merger between *TotalFina* and *Elf Aquitaine* in March 2000. *Total* controls the complete production of oil and natural gas, starting with exploration and production to activities such as transport, trading, refining, petrochemicals and distribution of oil products.

Total E&P (Exploration and Production) Indonesia is wholly-owned subsidiary which was created in August 1968. Since the beginning, *Total* has worked in partnership with the Indonesian state-owned company *Pertamina* as a Production Sharing Contractor for the research and exploitation of hydrocarbon reserves in Indonesia. After nearly forty years business in Indonesia, *Total E&P Indonesia* has become one of the major oil and natural gas producers, mainly due to the operating unit located at Mahakam on the East coast of Kalimantan (Borneo).

The Mahakam operating unit reached maximum production in 1977 with 230.000 barrels of oil per day. Today, the production in this field has considerably dropped to about 20.000 barrels of oil per day. However, gas production has grown markedly due to the discovery of reserves at the beginning of the 1990s. The production of natural gas has increased because of the exploitation of gas in the Handil and Bekapai fields. At the end 2000, the production of oil and natural gas reached a new peak of almost 500.000 barrels per day just like the gas with 2.400.000 equivalent barrels per day.

The *Total E&P Indonesia* management is based in Jakarta. It is made up of a President and a General manager; they are assisted by five Vice-president (development, finance, public relations, sales, natural gas and exploration) and by a senior Vice-president who has the role of coordinating the operational activities at Balikpapan (Kalimantan).

There are two types of strategic decisions: investment choices and negotiations with the Indonesian government represented by *Pertamina*. The parent company's role in these decisions is extremely important, which is translated by a centralized decision-making process. When an oilfield is discovered in Indonesia, two teams work together to carry out the exploitation feasibility study: the R&D team of *Total* Indonesia along with that of the parent company. The role of the *Total E&P Indonesia* R&D team is mainly the transmit further information on the technical aspects of the project. As for the role of the parent company R&D team, it has to undertake a complete investment survey dealing particularly with macro-economic situation, the world need for oil and natural gas as well as the contractual aspects of relations with *Pertamina*. The final decision is taken by the parent company.

This will to centralize, or more precisely control, results in one difficulty which, among the companies studied, only *Total* is faced with: the Indonesian government's limitation on the number of expatriates. Each Expatriation must be justified by the impossibility of finding such skills locally. This strong emphasize on control thus results in the setting-up of an ERP to enable real time operational follow-up.

5 Case synthesis and discussion

The observations carried out reveal three recurring factors: the presence of French expatriates, the existence of an intermediary level between the parent company and the Indonesian subsidiary and the misuse of the joint venture.

The French expatriate manager often represents the first lever of control. This observation must however be balanced: there are other mechanisms highlighted in the case presentations and there is also bias in the case selection. The French expatriate manager is happy to share his

⁵It is however necessary to note the development of specialized research laboratories on other continents.

experience which, for the researcher, facilitates the exchanges a lot. It is a means for them to break with a certain form of insulation. However, when reading the directory of French companies located in Indonesia, one can see that usually the manager is French.

The proposed theoretical framework was based on the local / global distinction whereas the reality appears to be more complex with the existence of a quasi-systematic regional direction. A buffer seems necessary either to apply decisions or to support local initiatives. The Asian office is often located in Singapore or Bangkok but sometimes in Paris. The office generally has few means; it is a country manager who frequently carries out this coordination role. The analysis of the role of this level would in itself be a research subject.

Finally, the joint venture is often presented as a privileged way to enter an unknown market. This type of governance would make it possible to spread the risk and take advantage of the local partner's market knowledge. This is what we observed for only one of our six cases. In the other cases, the co-operation is only an administrative constraint which should imperatively be respected in order to obtain authorization to invest in Indonesia. One of the limits of this type of organization is that it makes us believe that development opportunities can only be seized with a minimum of involvement whereas a strong implication is essential to overcome the real cultural barriers. For example, how can one imagine working with a partner who always says "yes" or more precisely never dares to say "no"?

Having raised these recurrent facts, it is now interesting to present a synthesis of the control mechanisms observed by classifying them according to the proposed analysis grid (Figure 4):

		Knowledge mobilization	
		Global	Local
Knowledge production by the control system	Global	Box 1: The media model <i>Sanofi</i> : Highly centralized R&D <i>BNP Paribas</i> : logistics platforms and senior bankers <i>Danone</i> : Communication and quality standards <i>Air Liquide</i> : Reporting systems <i>L'Oréal</i> : Centralized R&D and communication strategy <i>Total</i> : ERP, strong corporate culture, expatriates	Box 2: The initiatory model <i>Sanofi</i> : Not identified <i>BNP Paribas</i> : Not identified <i>Danone</i> : Tasks forces, training programs and strong corporate culture <i>Air Liquide</i> : Support from world experts, corporate culture <i>L'Oréal</i> : Not identified <i>Total</i> : Not identified
	Local	Box 3: The evangelist model <i>Sanofi</i> : Not identified <i>BNP Paribas</i> : Not identified <i>Danone</i> : Not identified <i>Air Liquide</i> : Not identified <i>L'Oréal</i> : Suggestions made during new product development <i>Total</i> : Key role for repatriated managers	Box 4: The epidemic model <i>Sanofi</i> : Transposition of sales methods to Vietnam <i>BNP Paribas</i> : Role of the manager <i>Danone</i> : Role of the manager and <i>tasks forces</i> <i>Air Liquide</i> : Role of the manager <i>L'Oréal</i> : Not identified <i>Total</i> : Transfert of local ingeneers to other oil fields in the region

Figure 5: Synthesis of control mechanisms observed

A first striking fact is the difficulty to observe mechanisms enabling the global circulation of local learning, except in the case global piloting strategies (case 5 and 6, *L'Oréal* and *Total*). The fact that these mechanisms are not emphasized does not mean that they do not exist. The two cases are in particular engineers who go back to France presumably with bags of local knowledge thus contributing without doubt to the constitution of a more global knowledge. In the other case, this type of knowledge is circulated through interaction between the local manager and his international business manager in Paris. In both cases, one can witness the role of a local information agent. The similarity between the two cases is to be found in the media learning models which move from the center to the periphery and which make up a form of group culture, including sophisticated reporting systems, as well as a specialized structure for international business. The tools which make it possible to produce and mobilize global knowledge (box 1), in accordance with the global corporate model, are mainly not that suprising: it concerns information systems and communication strategy. When products need to be adapted to a market, apart from communication, R&D centralization is a powerful control lever. An original tool has been identified with the case of the senior banker who can make us think of operational form of matrix structure. For the two global piloting cases (*L'Oréal* and *Total*) one can see the emergence of a configuration which is based on linking a media learning model (where the center lights up intensely the whole of its empire) and of an evangelist model, limited in range, which would seem to balance the other model. At this stage of the research, one could formulate the

idea of a relation between these two models: the first would arouse the second, the latter being finally the control of the control. If the amount of investment justifies uniform knowledge, the weaknesses of the imperial model could be corrected by inoculation in the center of the organization coming from the periphery and brought about by the channel of conviction and personal experience from among the expatriate executives who were then repatriated.

One observed the tools enabling organizations to capitalize from learning which is only produced and mobilized locally (box 4, the epidemic model). That mainly concerns cases 1 and 2 (*Sanofi* and *BNP Paribas*). It can be explained by the careful strategies of these firms and their limited involvement. The subsidiaries would be laboratories where one tries to adapt and control the local conditions for a possible expansion on a regional level. There is therefore a balance between the epidemic model and the media model which takes on the form of centralizing some knowledge which is mainly related to the technology of the product or service. This learning configuration thus enable a certain acclimatization, if possible, of a core competence and letting local learning processes adapt them.

It has been noted that some tools producing global knowledge which will be differently mobilized from one country to an other: training, international experts and tasks forces (which only have an advisory role and distinguishing them from the senior banker). At first sight, we could have thought that these tools would not be widespread; that is not the case. Some of the tools observed are used in different ways. This is the case with corporate culture (box 1 or 2) or expatriates (box 1 or 4). A strong culture can lead to homogeneous behaviour at a global level (*Total*). However, when the respect for and the adaptation to local cultures are key values (*Danone* and *Air Liquide*), the culture brings about different behaviour according to the context. These two last cases are characterized by an initiatory learning model which is based on important information, expertise and training, but leaves the subsidiaries with a strong amount of autonomy. These companies core competences (technology, brand, markets knowledge...) could be circulated gently and unintentionally with support from the regional offices as concerns the cultural implications. This is backed up by a second occurrence: the need to adapt locally leads to the organization of learning around a central point made up of a local manager and his regional alter ego. Let us note that it is in these two cases that one observes the lowest number of expatriates and in some cases totally absent.

These few cases not only illustrate the different types of control mechanisms used but also the variety of their uses. Two main results emerge. The first one is the identification of three learning configurations linked to the control systems. The first includes two flows, one based on the media model which is balanced by an other flow from an evangelist model. The second one is also based around a media model and uses local support through an epidemic mode. The third one which is also based on a media model which guarantees the group values, is organized around tension between an epidemic and an initiatory model. The first one ensures a certain homogeneity of initiatives and the second one the adaptation and the suitability.

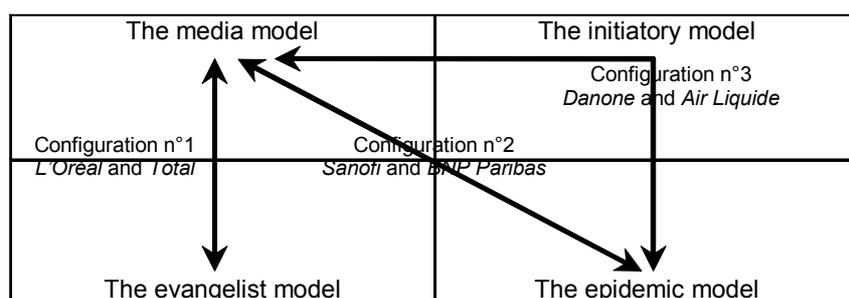


Figure 6: Synthesis of configurations observed

These three configurations derive from our small number of observations which thus limit their range. They are interesting in order to illustrate the interactions between the four basic models, thus enabling the switch from a static approach to a more dynamic one. The second result is an external coherence between corporate strategy and learning configurations. This is, of course, not surprising and could fit perfectly into a perspective of organisational strategy as described by Miles and Snow (1978). For each strategic group, minimal involvement, local immersion and global piloting, one can see the features of distinct learning configurations based around large organisational control systems.

6 Conclusion

The proposed analysis grid concerning the interactions control / learning which are based on the phases of the learning process (production and knowledge mobilization) and its locus (local / global) has been developed to study parent company / subsidiary relations. Numerous control tools which can be used in different ways have been observed; tools enabling the control / innovation or integration / differentiation dilemma to be overcome, to broaden its dynamic perspective and to provide deeper analysis of the adaptive process. This grid which was used during the observation period, even though superficial, has finally provided positive results. It reveals learning structures and takes into account their internal and external coherences. It appears to be relevant.

One needs, of course, through further in-depth case studies, to test the validity of those three configurations which have been identified. Finally, since we are limited to examine the learning produced by the control system, it would be suitable to examine the relevance of this grid in relation to other sources of knowledge (i.e.: dealings with the suppliers and customers, market research...). These results will necessarily be confirmed through further investigations. The perception of headquarters would be very enriching. One could also contemplate making some comparisons with the practices of American, British, Japanese or German companies. The interviewees have often underlined the differences that exist in practices between their group and their main competitors. It would appear that in terms of international management there exists a French exception as illustrated by cases 3 and 4 (*Danone* and *Air Liquide*).

As far as the experts are concerned, the analysis grid represents a diagnostic tool which enables control system weaknesses or further action levers to be identified, to understand further the general configuration of relations between the parent company/ subsidiary and also the general coherence of adaptive mechanisms.

It is finally possible to envisage using this grid to analyze other control situations. If we have chosen to work from the specific point of an international management problem, the suggested model could also be applied to other issues, provided that we take into account a question of suitability between local and global learning and that there is a central link between these two points. We should also consider that organizational control systems play a key role in the acquisition, circulation, memorization and use of organizational knowledge.

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