FIRMS DYNAMICS. THE INELUCTABLE "ENTANGLEMENT" OF THE ORGANIZATIONAL FORMS.

Christophe Assens, Université de Versailles, Saint-Quentin-En-Yvelines, France & Alessandro Baroncelli, University of Bologna, Bologna, Italy

ABSTRACT

The debate on the organization modes has begun by discussing the nature of markets and hierarchies. Adding further perspectives to somewhat outdated economic views of organization, it was then made clear that network forms of organizations should be considered as a third type of coordination mode. As a result of this work, it is now commonly accepted that the dichotomous view of economic organization should be overcome. Thus, the debate moved away from critiquing the tyranny of markets and hierarchies. Many scholars concentrated on discussing the supremacy among organization modes. They focused on the prevalence and functionality as well as constraint and disfunctionality.

This paper review work that contributed to these debates and move forward trying to develop a theory of polymorph organization. The argument is made that no real organization can be seen as an ideal-typical category. The paper claims that the entanglement of organization modes is ineluctable given the non-monolithic nature of organization. An in-depth case study is used to highlight and discuss organization entanglement and to show how it is ineluctable in changing environments. Finally, an agenda for future research efforts on these issues is advanced.

INTRODUCTION

Interest in understanding organization modes continues to engage researchers in organization theory, organization economics, strategy and sociology. These efforts aimed to discuss fundamental issues such as the nature of the firm, the aims of the economic action and the issue of rationality in organizations, the coordination modes, the locus of the organizational and economic action (within or outside firm boundaries), the unit of analysis (individual companies or communities of interdependent organizations). However, while trying to grasp around these major themes the academic debate was sometimes absorbed by controversies that seemed fruitless disputes oversimplifying opposing theses rather than useful contribution to turn on new light on the real world (Grandori, 1997; Friedberg, 2000). This applies to the way some of the enormous literature produced was treating the following issues : i. Discussion of markets and hierarchy as coordination modes.; ii. Discussion of interfirm relationships as coordination modes (such as clans and the various types of networks); iii. Interfirm relationships: hybrids or third forms of organization ? (Williamson, 1985, 1991; Powell, 1987; 1990); iv. Supremacy of one organization mode over the others.

This paper will shortly review the nature of the debate on theories and models of organizing alongside the issues listed above, then we will try to present a framework of the dynamics of the firms which in our views shows the limits of design process within a frame of emergent complexity.

We will then move towards the second objective of the paper which is to develop the concept of "organizational entanglement". After having sketched the conceptual background of this concept, we will present an in-depth case study based on a large diversified international corporation which allows us to present empirically the substance of an organizational forms' entanglement.

Our contention in this paper is that the point is not determining to which organization mode belongs a firm, neither is discussing the dominance of a form over another, but rather understanding what is the most appropriate organization mode considering either external industry patterns or internal resources and capabilities.

Moreover we argue that each organization present some degrees of polymorphism and that in dynamic environments the capability of a firm to manage simultaneously different organization modes may lead to a competitive advantage.

THE DEBATE ON COORDINATION MODES

Discussion of markets and hierarchy as coordination modes

Since the seminal writings of Williams on (1975) inspired by the work of previous institutional economists, one of the most spectacular debates in social sciences was initiated. The market versus hierarchy dichotomy was the inevitable reference for those who wished to contribute to the debate on coordination modes. No matter if it was to support or to criticize transaction costs theory, the discussion on organization modes was invariably centred around this dichotomy (Friedberg, 2000). Organizational sociologists (White, 1981; Granovetter, 1985; Barney, 1990; Oliver, 1990), lawyers (Macneil, 1974, 1978, 1980; Klein, 1982; Goldberg, 1980) and strategic management and organizational theorists (Barney and Ouchi, 1986; Hill and Kim, 1988; Jones and Hill, 1988; Donaldson, 1990; Hill, 1990) contributed with original perspective to this theoretical discussion. Over a decade, Williamson continued to take part to this discussion updating and modifying its view (Williamson and Ouchi, 1981; Williamson 1985). Such a vast debate which aimed to establish which one (either market or hierarchy) was the most relevant mechanisms was basically turning around transaction costs economics. Paradoxically, this reinforced the tendency to approach the reality of living organizations through formal, discrete and alternative coordination and governance modes rather than to empirical analysis of the actual functioning of organizations.

Such a conceptual simplification due to a misuse of “ideal-typical” categories was not settled by the issue of interfirm relationships which has also been the focus of intense scholarly interest.

Discussion Of Interfirm Relationships As Coordination Modes

Sociological, strategical and organizational research on network forms of organization (Ouchi, 1980; Thorelli, 1986;) challenged some basic assumptions of the transaction costs theory such as the nature of the transactions (Ring and van de Ven, 1992), the actor of the economic actions and as a consequence the relevant unit of analysis for research on organizations (DiMaggio, 1986). It has been argued that from a structural perspective every form of organization is a network, and market and hierarchy are simply two manifestations of the broader type (Laumann 1991). In this view each market actor is a node that lacks any ties to the other actors/nodes, while a hierarchy could be operationalized as a centralized network in which the vast majority of ties flow to or from one particular node.

As Grandori (1997, p.898) points out: “many studies treat inter-firm organization as a single broad mode of organizing, either conceived as an intermediate generic mode between those of markets and hierarchies (Williamson 1991), or characterized as an additional “third mode”.

Interfirm Relationships: Hybrids Or Third Forms Of Organization ?

Hybrid forms of organization became commonly accepted rather recently. No matter if Powell (1990) had already convincing refused to accept the oversimplifying opposition between two organization modes, and even more explicitly Johanisson (1987) and Lorenzoni and Ornati (1988) had claimed that networks should be regarded as a specific organizational form with its own distinctive properties that should not be defined starting from canonical organizational forms (market and hierarchy) (Larson 1992). The dichotomy between markets and hierarchies was overcome and widely considered outdated, only when Williamson (1991) further refined its model. Since then Williamson (1985) and the transaction costs perspective acknowledged that other forms of organization existed. Nonetheless two relevant points were asserted. First, to describe the emergent phenomenon of atypical forms of organization, Williamson (1985) and Thorelli (1986) highlight an hybrid transactional organization, whose structure is designed as an intermediary situation between the market (externalization process) and the hierarchy (integration process): the business network. Thus, the distribution of organizations along the market-hierarchy continuum is “thick in the tails” (Williamson, 1985). In other words, pure types tend to prevail over the mixed forms. Second, the alternatives to pure organizational forms (market and hierarchy) can be conceived as intermediate or hybrid forms, combining elements of markets and hierarchies (Williamson, 1991).

However by introducing the notion of “hybrid organization” it was implicitly reaffirmed the existence of “pure forms of organizations” which reinforced the idea that organizations are atomistic actor competing against each other in an impersonal environment.

Supremacy Of One Organization Mode Over The Others

Another crucial question of the debate around coordination modes was the dispute - among different schools of thought that were claiming to provide the most relevant theoretical basis to understand organization modes – on the supremacy of one mode over the others. While those above mentioned schools appeared to relate to the same issues, for a long period they have tended to ignore the others. Empirical evidence coupled with a specific theoretical framework was not receivable on journals and reviews that were the expression of a competitive school.

Even when this dichotomous view was finally overcome, still alternatives schools of research sought to establish the supremacy of a perspective rather than moving further towards the understanding of real organizations. Sociologists seemed to be more effective in dispelling the differences between interfirm relationship and other organizational forms than convincingly reduce the large variety of types of relationships that were described. For example, it was argued that the network form of organization has a number of distinct efficiency advantages that are not possessed by pure markets and pure hierarchies, and because of these efficiency advantages, network forms were quite prevalent (Bradach and Eccles, 1989).

DYNAMICS OF THE FIRMS : FROM A DESIGN PROCESS TO AN EMERGENT COMPLEXITY

Taking into account the complexity of an organization, many researchers have recourse to metaphors to define it. According to Burns (1963), the organization can be considered either as a machine, whose elements are connected like interdependent mechanical pieces engaged in the same regulation procedure, or as an organism constituted by self regulated cells, each of them engaged in a "struggle for life" selection process. In a book entitled " Images of Organization ", Morgan (1986) completes this approach by providing other analogies. Then, a company is successively compared to a brain, a culture, or a political system, focusing on the human dimension of this abstract economical concept.

Prolonging this approach, the most spread metaphor and undoubtedly most discussed in sociology (Lazega 1994) consists in associating a firm to a collective actor, able to reason and make decisions (organizational rationality) during its history (organizational biography), guided in that by beliefs and values (organizational culture), observable through the rites, the codes and the habits of work (organizational identity). In the literature, this collective actor is perceived like a perfectly rational " Homo Economicus " governed by exogenous game theory rules, besides by internal cognitive process with the capacity to learn and memorize (Argyris, Schön 1978), and finally as an individual who gives sense to his action by mental representations through his speeches or its acts.

On the basis of this theoretical postulate, the major difficulty consists in exceeding the limits of the metaphor to approach the reality of the observable facts. Indeed, the metaphor enables us to apprehend a complex object, the Organization, starting from another simpler object resulting from our experiment. However, although the metaphor highlights analogy from two separates images, between collective actor and organization for instance, it occults most of their differences. It is undoubtedly for this reason that metaphor is paradoxical. It enables to understand a complex phenomenon, with the risk, however, to over simplified this complex reality. In fact, an organization does not behave like a single and indivisible collective actor, but rather like a plurality of actors animated by individual divergent interests.

The question arises then to understand how a set of individual actors manage to conciliated their divergences, in order to produce a collective action, coherent and rational due to objectives. That is the reason why this issue is recurrent in organizational theory. Actually, many researches devote their studies to subjacent mechanisms defining organizational behavior :

- the analysis of decision-making processes (which individual (s) actor (s) represent the collective one ?)
- the analyzes of strategies (which direction given to the action?)
- the analyze of structures (which mechanisms of coordination between actors ?).

To guide us in this reflection, there are the ideal models. On the one hand, Company is then considered as a closed and foreseeable system, which is freed completely from external pressures by self-sufficiency and self-determination principles. On the other hand, Company is described like an opened system, interdependent with environment, which relies on the influence of inputs and outputs variables that are not managed from the inside. In the closed system perspective (" thinking in closed systems "), each element of the organization has a particular utility to achieve a precise goal. So the overall action can be planned and controlled from local operating units. This model is developed in theories of scientific management, administrative management and bureaucracy, based on assumptions which are not any more relevant. Indeed, the organization is much more complex according to Daft and Lewin (1984). For instance, organizational boundaries emerge from an interaction process between operating units beside the usual criteria of shared authority or property perimeter (Weiss, 1994). Moreover, organizational goals emerge between environmental determinism and managerial voluntarism. The uncertainty of this non-linear process call into question the organization definition as it is most generally presented in the literature.

However, some certainty remain: the firm is dependent from the outside. Thus, an organization cannot evolve, without opening its boundaries on the environment. According to Thompson (1967), it is thus advisable to study the firm on the postulate of opened system, like a set of units communicating between them and in interdependence with their environment. In this approach, uncertainty is set up as a fundamental variable to interpret organizational dynamics. Indeed, if it is not possible to predict the consequences of an action within a system in isolation, firm behavior must be studied, to a large extent, by ethnographic observations, of learning process, of test-errors process, and of rationalization process devoted to reduce uncertainty on the dynamics.

As for Thompson (1967), the organization wishes to preserve a margin of self-determination in its action, by transforming external uncertainties into managerial variables. For that, each firm aims to rely other organizations (suppliers, partners, competitors.) on its core competencies, especially if those are rare, hard to copy and to substitute. At the same time, it also aims to control external transactions by multiplying provisioning sources, by acquiring prestige to influence at a large extent behavior of the others, or by negotiating uncertainty in the terms of a co-operation. The organization also aims to anticipate and to adapt to the changes of environment which can be controlled neither by key competencies, nor in the transactions.

In parallel to external considerations, the organization aims to rationalize its own operating methods to reduce its costs, while making evolve, permanently, its rules of action and its decision process. This phenomenon is particularly observable in the organizational design. The organization shifts its boundaries to integrate or control the major constraints : by adapting its structures to the customer, while merging horizontally with competitors, and integrating vertically suppliers or distributors for instance. But, including the external constraints in the organizational design is not an easy task, because it often requires for the actors to reconcile contradictory principles of management. The configuration of an organization counterbalance the need for adapting means and resources to a specific economic field (strategic fit), with CEO’s strategic motivations (strategic intent), according to Hamel and Prahalad (1989).

In the same way, the organization form search a balance between variety required by the demand to differentiate the offer, and internal cohesion required by the collective action which obliges on the contrary to standardize the offer (Lawrence and Lorsch,1973). The emergence of an organization mode rises thus from a subtle proportioning between a degree of differentiation, and a level of integration necessary to coordinate activities.

To take into account this paradox, Barnett and Burgelman (1996) set up a normative theory based on the firm dynamics, including historical or contextual diversity. From the vision of these authors, organizational design evolves during a linear process of variation, selection, and retention of patterns, which strongly depends on the initial conditions of the analysis and the strategic context of the firm. At a starting point in the history, the company tests various options of change and various strategic alternatives which result from a deterministic process to adopt the structural form best fitted to the particular situation. A selection of an optimal form among different alternatives is then carried out, to escape from external determinism (Pfeffer, Salancik 1978) according to internal motivations and cognitive representations (Hamel, Prahalad 1989). This “enactment” process is emphasized by Weick (1979-2001). When the environment appears unanalyzable or too complex, the organization is experimenting new behaviors and seeing what happens. During this heuristic phase of test and simulation, the organization constructs his own environment and improvise a new design under the belief that it must be so in order to perform economically. At the end of the selection process, a new configuration emerge by a decisional consensus, regarding to previous structural alternatives. The retention of this organizational design lead to a new structural equilibrium which represent the beginning state for the next redesign process. Throughout this “variation-selection-retention” process, dynamics of the firm is guided by managerial preoccupations toward economic performances :

- The firm seeks to obtain a decisive advantage on the competitors, by integrating key success factors like hard to copy skills or rare resources => organizing in the hierarchy

- The firm try to obtain a recurrent income on a captive market while protecting itself from the competition => organizing from the market
- The firm is looking to neutralize competition by occupying a dominant position in a network of partners => organizing by networking

This perspective is conditioned by a linear vision of the company dynamics, whish enters in contradiction with the non linear vision of Thietart and Forgues (1993) based on chaos theory. Indeed, the linear process (variation-selection-retention) is too normative. Such approach considers that the organization is designed for an ideal configuration, by adopting a specific position on a market or in a network, whish could be optimal at each stage of the company "life cycle". On the contrary, the chaos theory suggests that each configuration is not exclusive compared to the others, because company "life cycle" is very complex, including feed-back and anticipations process. Furthermore, Bradach and Eccles (1989) consider the organization as the result of an emergent process whish combine simultaneously different logic's of action, including various types of coordination as prices, contracts, authority and trust. This analysis suggests that a form of organization could be far from an ideal type, combining characteristics from market and hierarchy (Daft and Lewin 1993 ; Desreumaux, 1996).

THE ORGANIZATIONAL ENTANGLEMENT : A POLYMORPH ANALYSIS OF THE FIRM

Our attempt to spell out a concept of organizational entanglement is founded on three specific issues:

i. The questionable assumption of rationality in organizations
ii. The myth of the monolithic entity of the organizational design
iii. The dynamics of the firm

Having discussed these issues we will then introduce the notion of Organizational Entanglement.

The Questionable Assumption Of Rationality In Organizations

The relationship between uncertainty and organizational structure - theoretically rooted in behavioral and cognitive theories of bounded rationality developed by Simon (1947) and March and Simon (1958) - has been at the center of the debate on organizational economics during the last 20 years (Williamson 1975; 1991). One of the main tenets of this line of inquiry is that organizations react to key uncertainties and dependencies in their environments by removing transactions from the market and place them in more hierarchical contexts (Williamson and Ouchi 1980; Ouchi 1980). Since the work of Thompson (1967), this has been regarded as one of the most widely shared principle of organizational design (Pfeffer and Salancik 1978).

However, more recent research is beginning to question the generality of this principle by showing that - when market uncertainty increases - individual companies tend to interact more, rather than less with other organizations, therefore increasing their overall volume of market transactions (Podolny 1994). This research shows that the main effect of market uncertainty is not the enclosure of the sources of uncertainty within corporate boundaries, but the increased reliance on external partners that are known and trusted to be reliable (Podolny 1994; Baker 1992). Under conditions of market uncertainty and volatility, factors typically considered as "non economic" such as - for example - status, reputation, role and position (Burt 1992; Faulkner 1987; Podolny 1993) define and sustain entire networks of transactions across corporate boundaries as individual organizations attempt to stabilize their mutual dependencies.

The various theories that we have sketched above seems to converge to the need to rediscuss the notion of the rational bureaucratic model of organization. Some scholars have raised doubts about the importance of formal rationality in organizations (Anderson, 1983; Manning, 1983). Others (Pfeffer, 1981) consider that organizations use rationality when they talk about goals, planning, intentions, and analysis, not because these practices work, but because people who supply resources believe that such practices work and indicate sound management.

However, as we have shown above, incommensurable literature has been produced to describe organizational modes and to discuss the dominance of an organization mode over the another (or the others). This seems to us increasingly inadequate in a world in which firms are embedded in networks of social, professional, and exchange relationships with other organizational actors (Granovetter, 1985; Gulati, 1988; Galaskiewicz and Zaheer, 1999). In order to reduce costs of transaction beyond the market affected by the opportunism risk, and beyond the integration process affected by high control and coordination costs, within a business network the firms aim to share specific asset and mutual revenue resulting from their financial, technological or commercial complementarity (Lorenzoni, Baden Fuller 1993, Ring 1997).

The table below illustrate the coordination types associated with the three "ideal-typical" organization modes

ORGANIZATION MODE	COORDINATION TYPE
MARKET	Compete by the prices Adjustment by the negotiation Formalization by the contract
NETWORK	Reciprocal co-operation Adjustment by trust Formalization by conventions
HIERARCHY	Integration of the activities Adjustment by the authority Formalization by the rules

The myth of the monolithic entity of the organizational design

We agree with Weick (2001) when he argues that although most theorists persist in referring to organization as they were monolithic, one can hardly find an organization which is not segmented. Although it is often assumed that the technology of an organization is essentially the same across tasks and occupational groups and the social structure is the same across work units, multiple structure and designs are found within a single organization. Any reference to "the" organizational design is misleading because it makes the "assumption of homogeneity" (Dornbush and Scott, 1975, p.77). However, reasons for that assumed homogeneity can be seen in observing the nature of top management activity in complex organizations. Kuhn and Beam (1982) introduce the notion of "metamanagement" to underline that top managers do not design operating structures, they design decision structures. Top management divides the organization into segmented subunits, which then design the operating structures. In other words, top management does not actually manage the organization, it manages the process that manages the organization. A lack of knowledge and visibility - which tends to worse in dynamic environments - prevents top management to make some decisions, therefore to design a decision structure, they actually select the people who will be in the decision-making group.

Multiple structures and designs are found within a single organization, which means it is more accurate to describe organizations as group of groups, a set of shifting coalitions, or a as a federation of subcultures. Once more we share Weick's view which is rather categorical: "Any attempt to construct "the" design is doomed because there is no such thing".

Dynamics of the firm

The concept of system dynamics has been pervasive in organization studies since March and Simon (1958) model of "adaptive motivated behavior" which was explicitly formulated in feedback terms. Their reinterpretation of models of bureaucracy was based on the connection between feedback processes and unintended consequences of organizational decisions. This attention to feedback processes and to the relation between repeated events, behavior and structure joins the notion of Crozier (1963) "vicious circles". Another emphasis on the concept of dynamics is on how and why change of firms occurs in interaction with the environment. A further perspective relates system dynamics to learning. This is particularly intriguing while although it has on one hand a positive connotation it also narrows the range of alternatives later identified and acted upon (Levinthal, 1996). In other words, the dynamics of the firm can be slow down or prevented once an organization have learned a way of doing things, and may find itself locked into a trajectory (Arthur, 1989; David, 1985). The way we want to use the concept of system dynamics is linked to the previous issue that we have treated concerning the unity or segmentation of organizations. It is a matter of fact that organization are not only segmented, but also that the segments are both small and stable (Weick, 2001) or let say more stable than pretended monolithic organizations. In order to face external (within the economic and social environment) and internal (e.g.: due to mobility of people among positions, faulty memories, changes in authority or job description, etc.) evolution, segmented organization are much better off than those representing themselves as a unity.

The organizational entanglement

The tendency to present an organization as a unity rather than as a cluster of segments has introduced inaccuracy in most analysis of organizations. It is a matter of fact that the majority of the organizations are more likely to be represented as segmented organization rather than unities. In these segments will eventually prevail the hierarchy, the market or the network as organizational modes. This implies that the single organization will be simultaneously tangled up in different forms. For Brousseau (1993) and Imai and Itami (1984), the networking research trend introduce the idea that organization has to become more modular, to produce variety with the same elements without altering structures limits, in order to adapt the offer to different environments with the same resources and competencies. Thus, their contributions support the idea of "interpenetration" and "hybridation" of organizational forms.

The evolution process is then considered not like an objective to reach for the firm, but like a "natural imbalance" of its operating cycle. So, there is only one certainty: everything is changing. In this context, the capacity to change and to evolve rapidly with an economy of investment come from the capacity to combine structural advantages from the market, the hierarchy and the network. One attends to weigh up that most of the organizations, facing brutal environment mutation or strong structural metamorphosis, are engaged in an interpenetrating process of the typical organizational forms. For instance, the use of "reversed pyramid" terminology signify a kind of decentralization process in a firm strongly integrated, by introducing some of the market foundations. In other cases, clandestine solidarity from inter-firms or interpersonal network are superimposed to traditional charts (Håkansson, Johanson 1988, 1989). The network is then superposed to the hierarchy as a way to add some structural flexibility in a rigid set of relations. This emergent solution is best fitted to facilitate transversal relations between actors from different business units, and to harmonize the coordination with external partners. Lastly, one assists with the emergence of a "hierarchical market" pattern, with few dominant firms which try to transform the free play of competition in a captive market or a quasi-monopoly situation.

Elsewhere (Baroncelli and Froehlicher, 1997) have already introduced the notion of "organizational entanglement"; we would like to further define that concept. We consider that organizations are polymorphic as they tend to divide themselves in discrete subunits or segments where the most efficient operating structures are different from each others. The evolution of the organization is often presented as the shift from of one discrete (and somehow "pure") coordination mode. On the contrary, through the notion of organizational entanglement we would like to argue that not only the different coordination modes are simultaneously present within the same organization, but also that there is no pure mode of coordination in real organizations. Rather, we observed contamination of modes across the segmented subunits in which an organization can be divided. In dynamic environments this entanglement of organization forms tend to be accentuated due to the lack of knowledge and visibility on different and somehow new business conditions.

PROBLEMATIC AND DESIGN OF THE RESEARCH

We use the process of diversification carried out by Vivendi-Universal until June 2002 as a case study to reinforce some of the issues we have introduced around the concept of Organizational Entanglement. Showing the actual operations, functioning and evolution of this organization we hope to offer a more accurate definition of this concept.

We would like to depict the discourse on rationality in organizations by showing that the appearance of rational action legitimates the organization in the environment it faces, deflects criticism, and ensures a steady flow of resources into the organization. This seemed even more evident once the analysis focuses on companies diversifying in the TIC industries. These business are also useful to express the notion of firms'dynamics. Of course, the change of firms in terms of strategy, structure and core competences is a necessary microfoundation for economic evolution and growth. Here, we are most interested in dynamics of the firm in relation to learning and diversification (one may say even "intrapreneuring"). Moving from public utilities to TIC industries certainly is a radical change which implies learning of new technical, market and organizational patterns. Within that a framework one can hardly argues that this is a monolithic organization, no matter of surprise if it is easy to identify various organization mode cohabiting in the same group. Moreover it is easy to see that it doesn't change matters if one mode of coordination become "dominant" instead than "exclusive" once we read the organization as an entanglement of coordination modes.

We give details on the case study methodology in Appendix 1.

VIVENDI -UNIVERSAL'S CASE : AN ORGANIZATIONAL ENTANGLEMENT PROCESS FROM MARKET, HIERARCHY, AND NETWORK

Synopsis of Vivendi - Universal

From 1998 until June 2002 Vivendi –Universal (VU) carried out a spectacular process of diversification under the lead of the President and Managing Director Jean-Marie Messier. This new strategy also implied a major transformation in the organization's coordination modes.

VU was a French conglomerate devoted, at first, to public utilities and diversified in communication sector, where it occupies the second worldwide position. In 2001, it employed 320 000 workers and carried out an annual sales turnover of € 56 billions. In the communication sector, which is the focus item of this case study, VU intervened in several complementary activities to provide a "galaxy of services" in all multimedia areas : entertainment, sport, education, information and leisure's. To consolidate its leadership in the new economy, VU participated to the concentration process by external growth. By the way, it aimed to set up barriers at the entry for new competitors who couldn't reach similar economy of scale.

Vivendi -Universal's Galaxy

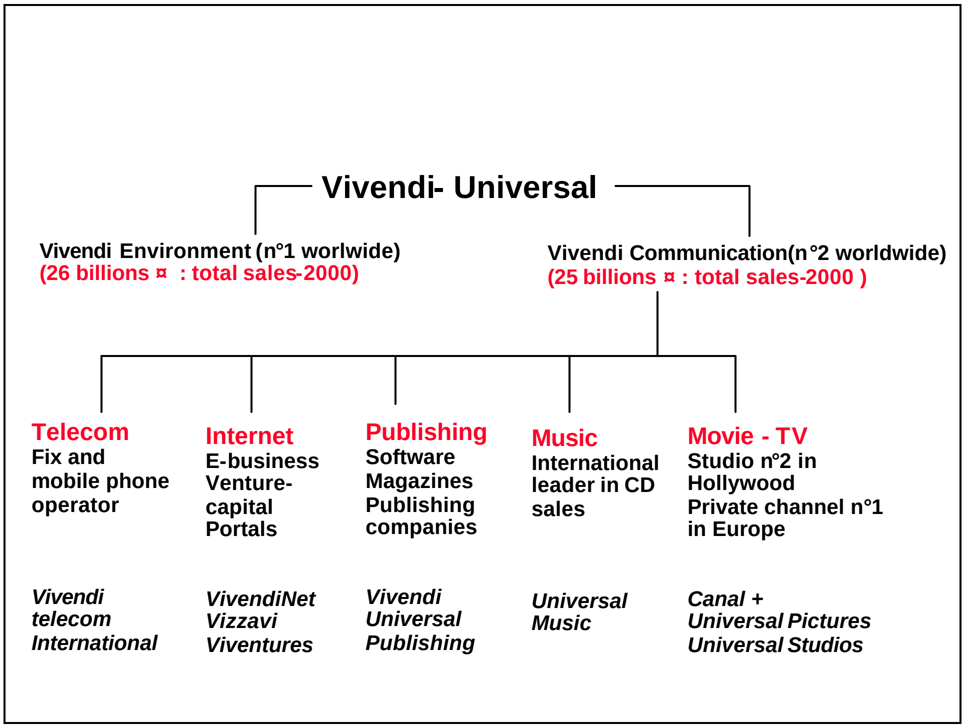
Business areas	Competitive corporate position	Main acquisitions
Cinema	World N°3	Universal Studios, USA Networks
Music	World N°1	Universal Music Group, MP3.com
Edition and Press	World N°3	Havas, Houghton Mifflin
Telephony (fix and mobile)	France N°2	Partnership with Vodafone
Television	Europe N°1	Canal + Group (Pay TV channel and digital offer by satellite)

Indeed, VU's strategy consisted in proposing on the Internet, to the same customer i.e. subscribers from VU's mobile phone or pay TV offer, a simultaneous access to multimedia services on sport, information, education or entertainment. This policy occurred because VU integrated multimedia contents, as a generalist able to provide multi – services in multi –access. Through its wide range of multimedia and audiovisual services, VU thus hold a commercial leadership with a portfolio of notorious brands as Universal Music or Universal Studios. For instance, on the Internet, this group vertically internalized most of the value chain links in conception, production and distribution, aiming to deliver an exclusive offer for the E-customer.

On a technological basis, the E- customer may entered in "VU's galaxy" by various ways, from interactive TV, personal digital assistant, mobile phone. At the interior of the VU's galaxy, the E-customer was initially "lock in" by subscriptions contracts. Then, he could easily travel from on star to an other in VU's galaxy. By the way, he benefited from the commercial complementary between VU's subsidiaries engaged in cross marketing, by sharing subscription files. It was then difficult for him to leave VU's galaxy because of strong costs of mobility, dependent on the breach of contract, or to the exclusive commercial offer. This strategy relied on the search of perpetual and recurrent sources of revenue by subscription formula, which was similar to the " business model " predefined in paying television activity.

According to this description, VU attempted to rise synergies between complementary subsidiaries inside the "new economy" value chain : conception of interactive services, multi-diffusion of services via digital screens, capitalization and value creation by implementing a particular attachment to brand names. Consequently, some of VU's subsidiaries took part in the design of multimedia programs (video games, TV programs, education software, and so one) in tight coordination with other ones to provide these interactive programs through VU's broadcasting networks : mobile phone network, pay TV and digital channels, Internet portals and Web Sites. Finally, at the end of the value chain, other subsidiaries as Vivendi Net for the Internet strategic domain, increased the customer relationship value for the group, by managing subscription databases and by implementing cross marketing between communication designers and distributors in VU's galaxy. As a result, the organization is designed to keep consumer loyalty by an exclusive and personalized offer provided by combining, integrated, outsourced or co-managed assets in the value chain.

Vivendi -Universal Group



This ambitious strategy proceeded in a specific environment, where it was necessary to acquire a "pioneer advantage" and to "lock in" the market, very quickly before other competitors. This was reason VU claimed to justify spreading out and managing famous brand names as Universal Music or Universal Picture for instance. The goal was to occupy most of profitable market segments, by providing most of the value added to customers in the new economy.

As a result, VU was designed in a flexible way, by internal and external networking emergent process, to adapt and to benefit from technological or commercial opportunities in the environment. At the same time, the organization was shaped on a very stable hierarchical basis, to keep the confidence of international financial investors. Thus, CEO's of VU took a particular attention to govern specific relations with shareholders and stakeholders, necessary to sustain the external growth funding. So, two contradictory statements underlined VU dynamics in the new economy : the aim to be as modular than the market to gain a "pioneer advantage" ; the aim to "lock in" the market to reduce financial and commercial uncertainties, by creating for instance new barriers at the entry for competitors and costs of mobility for the customer inside VU's galaxy. These two principles were simultaneously present in the design of the organization, which combines different forms of cooperation, externalization and integration (cf. appendix 2).

<u>Cooperation</u> : To participate to the concentration process, without having the capacity of self development, VU cooperated with competitors which encounter same strategic difficulty : joint venture with Mannesmann and British Telecom to co-finance investment in mobile phone sector, partnership with Sky Network in digital TV broadcast to enter on new markets, cooperation with Sony to share music catalogs, contractual agreement with Yahoo to benefit from the portal size effects, cooperation with Bertelsmann to promote the edition on the Internet, joint venture with Vodafone to pool subscription data bases in Europe. Besides, these alliances between competitors (Richardson 1972), allowed to regulate intensity of the competition by setting up new barriers at the entry, by sharing information in a benchmarking process, and by defining new standards in the E-business. For instance, Bertelsmann and VU's CEOs were active members of an international lobbying association to transpose the business model of pay TV on the Internet, against the generalization of "shareware and freeware" formula on the Web sites. For as much, the risk of competition was not completely isolated. Alliances based on specific circumstances or momentary opportunities turned into conflicts with former partners like British Telecom (action at law against the partnership between VU and Vodafone), or Bertelsmann (departure of VU's

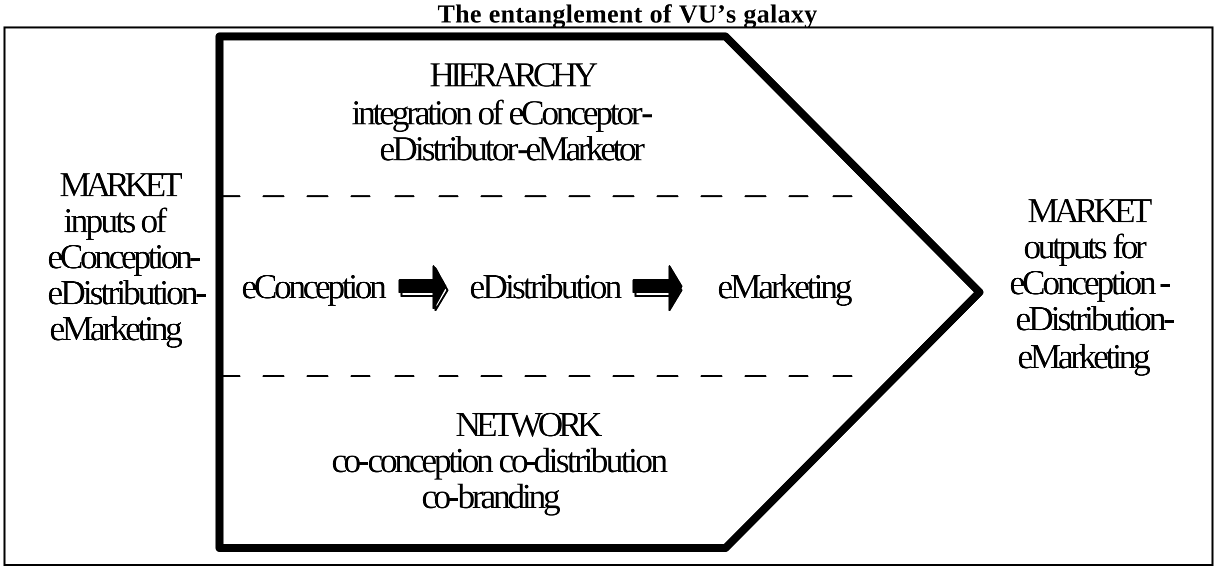
board for Bertelsmann CEO's). Under these conditions, integration or subcontracting seemed solutions to reduce uncertainty of the cooperation.

Integration : In parallel of collaboration or negotiation on the market, VU aimed to sustain a strong competitive position against other competitors, either by integrating them, or while seeking to acquire key resources or competencies in order to dominate the competition. In this perspective, VU concentrated part of its efforts to integrate exclusive contents, by reinforcing value added of his channels of distribution. Reciprocally, VU did not hesitate to repurchase channels of distribution to emphasize his contents, with for example, the acquisition of USA-Network in the United States, or the take over of MP3.com on the Internet.

All these actions were carried out, by combining various modes of governance, with hierarchical procedures to consolidate organizational boundaries, with commercial negotiations outside the boundaries and networked partnerships inside boundaries. In this context, the question is to know if VU had the capacity to control this entanglement, to benefit of competitive advantages resulting from the complementary between various designs of organizations : size effects and economy of scales with the integration, economy of structure on the market, transaction costs economy with the network.

Indeed, hierarchy was assigned at all decision levels in VU, within the registered office governed by a Management committee and a board of CEO's, within subsidiary companies governed by a specific general direction. At each decision level, from corporation to business units, hierarchy was considered as a vector of integration between parts of the organization. Integration was a way to control uneasy to imitate competencies or uneasy to substitute resources, which contributed to a strong reputation for the customers, or to a strong financial valorization for VU's shareholders. Rare competencies and resources were so integrated in the structure, generally by external growth within the framework of fusion-acquisition process. The recourse to the market supplements this strategic action. When the activity was considered to be secondary or when it was not possible to acquire the company which hold it, VU externalized, by contract, unspecific resources or basic competencies. The network constituted the sediment between the logic of integration and the market principle. Inside the boundaries of VU, industrial and commercial synergies were required preferably by collaboration agreements often supervised by Vivendi-Net whish is a VU's subsidiary dedicated to pilot the network in the E-business ; the entities behave then like the members of an internal network guided by the same connivance. Outside VU's boundaries, when subcontracting was prolonged in the duration by agreements of reciprocity between the parts, an external network emerged and federated the subsidiary companies of VU with independent partners. These modes of coordination, like authority in the integration process, trust in the networking process and contractual agreement on the market, were articulated along the same value chain of VU's galaxy of services. They form the basis of an entangled organization, in which it was possible simultaneously to conceive, to produce and to market services, within the framework of the market option, the network alternative and the integration choice.

The entanglement of VU's galaxy



In the value chain, the management of the organizational entanglement, was based on three complementary levels of decision: the corporate level, the business level, the middle management level.

At the corporate level, the head office of VU centralized most important strategic decisions, on the choices of investments according to opportunities of take over, in the environment. The head office tried to adjust the portfolio of activities, according to the field of profitability and growth of the markets. As an "architect", the head office transposes his economic choices in the construction of a galaxy of services founded on complex financial arrangements, by having recourse to the capital of international shareholders (80 % of the capital are held by European funds, of which 45 % are French). For this reason, the action of the head office was primarily oriented in direction of shareholders interests. It is necessary to obtain financial capacities with the support of financial markets, in order to make evolve the boundaries of the organization, by integrating new links along the value chain, to offer a galaxy of services similar with other world competitors as AOL-Time Warner (n°1) or Bertelsmann (n°3).

At the business level, the subsidiaries of VU took position along the value chain according to their degree of specialization from their expertise and their specific assets. They acted as autonomous profit center to capitalize on their specialization in interdependence with the others. Their logic of action was especially determined by the concerns of the customer, in the fields of entertainment, education, information or sport. Based on the control of subscription files where customers were registered, the strategy consisted in making profitable the client relationship (CRM: customer relationship management) to make the customer captive by the differentiation and the exclusiveness of the services, and to make the customer multi dependent by cross- marketing between subsidiaries to carry out commercial synergies inside VU's galaxy. To achieve these goals, VU's subsidiaries were encouraged to specialize on core competencies. From their specialization, they have to sub-contract relying activities. For instance, in the E-business, most of VU's web sites delegate the selling of spaces advertising on the Internet to other specialized companies: the web agencies. Thus, CanalNumedia (VU's subsidiary) which gathers all the web sites of Canal+, initially decided to integrate the selling of advertising spaces with the creation of a web agency: Numeriland. In the second time, to benefit from size effects in coherence with the policy of other VU's subsidiary companies, CanalNumedia cooperated with Ad2one, an internal web agency created for the entire group VU. Lastly, for reasons of competitiveness, CanalNumedia sub-contracted this activity at the outside, to the French leader in web advertising, IP Interactive, which belongs to Bertelsmann a main competitor of VU. In other cases, some synergies between Vu's subsidiaries reinforced the logic of business network :

- with agreements on the co-design of services between Universal Music and SFR to listen for the music from cellular phones

- with agreements to co-diffuse sport events results between Vizzavi (Vu's European portal on the Internet) and Canal + (VU's pay TV digital channel)
- with efforts to pool subscription files between Canal +, SFR and Vodafone to promote the project of universal portal on the Internet : Vizzavi.

In parallel, the subsidiary companies signed contracts of cooperation or subcontracting with competitors in stronger position, because of their notoriety and their pioneer advantage like Yahoo with Vizzavi, because of the complementary of their offer like Sony Music with Universal Music, because of their expertise like Bertelsmann to sale books on line with Vivendi Universal Publishing.

At the middle management level, on the interface between corporate and business levels, there was for instance, Vivendi-Net, a subsidiary company charged to coordinate VU's policy on the Internet. This subsidiary company had a behavior which took into account at the same time financial and commercial interests ; it gave direction to the corporate strategy, it implemented and coordinated this strategy at the business level. It accompanied the subsidiary companies efforts, by developing activities of support with the creation of a VU's web agency (Ad2one) able to offer general services as web sites design and maintenance or spaces advertising selling. It also stimulated the networking process between VU's subsidiary companies, by supervising complementary between VU's multimedia contents and VU's multimedia channels. It managed also relations with firms from abroad, by supervising the license selling to the competitors, and the repurchase of external services to the suppliers ; it also took part in the integration process by controlling VU's capital risks funds as Viventures or @viso. For instance, Vivendi Net decided to integrate " iFrance " in VU's galaxy. At the origin, iFrance was a start up held to 50 % by Viventures, which encountered a commercial success in the Net surfers community. For example, iFrance hosts 1,7 million of home pages. In order to relaunch the audience on VU's portal, Vivendi Net registered iFrance's home pages on Vizzavi, which did not give sufficient commercial satisfaction, with only 2 millions of subscribers.

The table (cf. appendix 3) offers a synthesis on the articulation of VU's various levels of decision, by analyzing the role played by each level of decision to allow the company to sustain competitive advantages on its competitors. Then, the organizational entanglement was seen as a way to make convergent corporate interests towards the shareholders, with market interests towards the customers, in accordance with business interests towards the entrepreneurs.

CONCLUDING REMARKS

This paper is an initial attempt to provide a coherent structure to the study of coordination modes within organizations in dynamic environments. It does so by building on arguments derived from a literature review, it then moves towards an attempt to draw a theoretical framework to what we have called the entanglement of organizational modes. Starting from the literature review, we have examined a large volume of research carried out around the issue of organization modes. As noted in the introduction, we suspect that the initial focus of this debate was to challenge or support the market and hierarchy dichotomy issued by Williamson's transaction costs theory. When explicitly linked to a critique, the primary objective was to show that at least under some conditions, non-market, non-hierarchical forms of organization are functional. However, as the literature evolved, it has become coupled from such an explicit critique. Such a decoupling seems a necessary and important stage in the evolution of this literature, otherwise even with the introduction and acceptance of networks as a third organization mode it would not be possible to enlarge the discussion.

The framework developed in this paper aims at offering a new approach for the assessment and design of organizational forms. It suggests that no organizations can be regarded as a monolithic, rather the segmented nature of organizations obliges to reckon that in each firm one can ineluctably observe an entanglement of coordination modes. We use the VU case to show how organization modes are entangled and that no specific organization mode can represent the complexity of a real organization.

One of the most intriguing implications of the analysis, for theoretists and practictioners alike, is the claimed impossibility to understand and consequently reorganize a firm by trying to represent its organization according to "pure" modes of organization. Other examples could be taken, which would show for instance that the notion of organizational entanglement is useful to overcome ideal-typical categorizations and that a dispute on organizational typologies cannot contribute to the understanding the functioning of real organization. Only by considering the organization as a simultaneous entanglement of all three forms of coordination one can objectively represents the nature of an organization.

In our view, this is just a first step of the potential benefits for theory building and management development purposes that may be derived from an inquiry into how organization modes are designed and managed in different organization segments. This inquiry is, however, still in its infancy. We know little, for example, of how the organizational entanglement could be mastered in order to improve the overall effectiveness of the organization. Why it is that certain firms, with comparable level of complexity as well as expertise, seem to be more able to manage strategic and organizational change? Further research maybe oriented to investigate around the hypothesis that the capability to design an appropriate organizational entanglement to face changes within and outside the organization can be regarded as a competitive advantage.

APPENDIX 1 : RESEARCH METHODOLOGY

This paper uses grounded theory methodology (Glaser and Strauss, 1967) in order to handle a large amounts of non-standard data which otherwise makes analysis problematic. Research proceeded in two stages over one period of 12 months:

- a first stage of data collecting necessary, to build a chronological account about the evolution of Vivendi Universal in the new economy;
- a second stage to validate this account near the principal actors, difficult to join because of the infernal timing imposed by the net-economy. In the first stage, we analyzed a press review over the period until 1996. Then, we supplemented this approach by in depth interviews with actors engaged in the communication sector within Vivendi Universal, or in relation to the group.

The first investigation elements have been validated with telephone and electronic mail from the same actors or other employees at the head office of Vivendi Universal. To eliminate bias of objectivity, these data were crossed with interviews outside the group near consultants or analysts in the new economy area.

Interviewed actors	**Interview object**	**Interview time**
Associate-manager of the funds of venture capital : Viventures	To study the links between the start-ups portfolio in Viventures and the strategy of Vivendi	2 X 2 hours
Representative at Canal + Representative at Vivendi Net	To study the stakes of audio-visual on Internet and the forms of coordination between Canal + and Vivendi	3 X 1 hour
Representative at the Direction of the Strategy and Development in Vivendi	To study the forms of governance and valuation of the assets on Internet	1 X 2 hours

In complement of secondary data, we carried out in depth interviews with the key actors, on the level of the subsidiary concerned with net-economy (Canal +, Viventures, Vivendi Net), but also on the level of the head office with the department responsible from the questions of strategy design and implementation.

Type of contact	**Object of contact**	**Method of contact**
Representative Direction of the strategy and development	To validate the strategic and organizational stakes	Interview and E-mail
Business lawyer Financial consultant	To validate the legal stakes To validate the financial stakes	Interview and E - mail
Consulting engineer	To validate the stakes of the information systems	Interview and E - mail

APPENDIX 2 : THE DESIGN OF VU'S ORGANIZATIONAL ENTANGLEMENT

Businesses	Integration	Cooperation	Externalization
(1) Cinema and TV	Production of films with Universal Studios (3rd international catalogue with 9000 films) and Studio Canal (40 % of the French movie production)	Merger between Tele + (Canal +) and Stream (BSkyB Network) in Italia.	Purchase to ISL Group whish control rights of broadcasting for the world football competition until 2006
(2) Music	Acquisition of Universal Music (A&M Records, Decca, MCA Records, Polydor…)	Internal alliance with SFR to provide Universal Music Mobile : a new on line Music by phone offer External alliance with Sony and Yahoo to create Duet, a musical platform on the Internet based on Peer to Peer technology	Sale of licenses to diffuse the Universal Music portfolio on Amazon (the Internet portal n°1)
(3) Publishing	Acquisition of Havas (40 % of the French Market) and Houghton Mifflin	Cooperation with Bertelsmann to promote the edition on line	Sale of professional and medical tittles in B to B
(4) Telephony	Creation of SFR (mobile) and Cegetel (fix) on the French market	External alliance with Vodafone to share subscribers files Internal alliance from SFR (mobile) to sustain Vizzavi as an entry portal to access by phone to the Internet	On the French telephony market, purchase of France Telecom's services in order to interconnect fixed and mobile networks
(5) Internet	Investments in venture capital through "Viventures" and @viso Funds, in order to integrate new start-up as "iFrance" in the galaxy of Vivendi Universal's Web sites or Portals (Vizzavi)	External alliance partnership with Nextenso a data-processing " start-up " attached to Alcatel, partnership with British Telecom on the high flow networks. Internal alliance cross Marketing between Web Sites, Pay TV channels and other subsidiaries.	Enabling sub-contracted to AOL-Europe

APPENDIX 3 : The Management of VU's Organizational Entanglement

Level of decision	Strategic role	Strategic capacity	Competitive advantage
Corporate level Strategic Management	Architect of the organizational design = > focused on portfolio of strategic segments	Financial engineering = > linked to shareholders	Economy of scale by concentration
Articulation between corporate and business level Middle Management	Coordination, implementation and representation (enactment) of the strategy = > focused on strategic business unit	Engineering of information systems = > linked to shareholders and customers	Industrial synergies upstream (capital risk), in the E-business, and downstream (CRM)
Business Level Operational Management	Specialization on a chain link and valorization = > focused on market segmentation	Commercial engineering = > linked to customers	Development of mobility costs on the entry (technological barriers) and on the exit : (subscribing contracts, exclusiveness in the services provided)

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