

Strategic Relational Sequences: Microsoft's Coopetitive Game in the OOXML Standardization Process

Saïd Yami ● Hervé Chappert ● Anne Mione

Abstract. The research question dealt with in this article is the following: can a leader use coopetition as its market control strategy? The study addresses how Microsoft managed relational modes in the situation of coopetition within the AFNOR Technical Committee to present the French position on its new standard OOXML draft. A dynamic perspective is considered. The results show that the leader can use coopetition as its market control strategy. They analyze the game of the leader along the standardization process that is characterized by a subtle management according to key sequences using relational modes (cooperation, competition and coopetition) that allow it to achieve its goals.

Saïd Yami

University of Lille 1 - LEM CNRS
9221 & KEDGE Business
School, Marseille
said.yami@iae.univ-lille1.fr

Hervé Chappert

University of Montpellier, MRM
herve.chappert@umontpellier.fr

Anne Mione

University of Montpellier, MRM
anne.mione@umontpellier.fr

Between 2007 and 2008, national or supranational guidelines ask public organizations, and provide advice to private organizations to use only desktop software producing standardized documents¹. The supremacy of the office software market leader Microsoft is seriously threatened. Indeed, the documents produced by its office software (including Word for word processing and Excel for spreadsheet) respond to no institutional standards.

Naturally, Microsoft has already perceived changes are going on this market and its competitors are trying to maneuver to lessen his grip on the office softwares with key clients: public organizations. But the response times are short, the context is unusual for the leader and strategic options are reduced. What may be the reaction of Microsoft to protect its leadership in the area of desktop software before this new competitive rule of the game?

From a strategic point of view, three options are possible. The first option focuses on competition between a *de facto* standard and a *de jure* standard. Microsoft maintains its *de facto* standard and engages a fight against the new *de jure* standard. In this option, Microsoft continues to offer its documents without changing the format, and waits to see if its *de facto* standards (.doc et .xls)², well established on the market, resist the rise of the institutional standard ODF. It thus positions as a leader of the market who does not envisage that the disturbances of the competitive game can threaten its dominance. However, in doing so, Microsoft takes the risk of losing its institutional customers and to encourage the emergence of competitors in the public markets. Competitors could then address the market for consumers with aggressiveness and also threaten its supremacy in this sector.

In the second option, Microsoft abandons competition between standards by adopting the *de jure* standard. He accepted the achievement of competition on the ground of its competitors. Word and Excel would then produce documents that conform to the standard (ODF) and Microsoft would continue to respond to public tenders and sell its products to large groups. But this solution, giving the credit to a standard derived of the work of its direct competitors propels them into the arena of competition with similar weapons.

1. *de jure* standard as enacted by an official certification body, as opposed to a *de facto* standard that emerges from the market.

2. Office documents produced by Word and Excel extensions.

The third option is specific and combines two opposite forms, one, clearly competitive and the other cooperative: Microsoft decides, in turn, to enter a process of standardization³ of desktop documents in order to recognize its ownership format as a *de jure* standard. Insofar as an institutional standard already exists, this option is aggressive. At the same time, the promoter of the new standard must pass to gain membership of the participants in the standardization process that is inherently cooperative. Thus, Microsoft is obliged to cooperate in order to meet the rules of the game of the market disruption. This strategy, if it comes to an end, allows it not only to remain the major player on the market but also to be the source of one of the two *de jure* standards of the market and so to get a potential competitive advantage.

Microsoft has chosen the latter option that led him to consider an unprecedented situation. Indeed, he finds himself in a formal context (SDO) where cooperation with rivals is imposed. The question is then, how Microsoft used to domination strategies (competition) is going to handle such a situation?

Under literature studying standardization processes, several work lead to a reflection on relational patterns preferred by actors and their characterization. Thus, Oshri & Weeber (2006) point out that both relational modes (competition and cooperation) can coexist at different stages of the development of a *de facto* or *de jure* standard. They show that at each stage of the development of a standard, actors have the choice between pure relational modes –cooperation or competition–, or different levels of hybrid mode. This approach has already been developed in numerous works (Axelrod & Mitchell, 1995; De Laat, 1999) and underlines the interest to deepen the knowledge of relational modes (cooperation and competition as "Pure Mode" and cooperation as "Hybrid Mode") at the emergence of a formal standard. Thus, empirical works show the variety of relational modes in the standardization process, from competitive aggressiveness (Mione & Leroy, 2013) to cooperation (Mione, 2009) in the emergence of a new market.

On the basis of a neoinstitutional perspective, Garud et al. (2002) study the establishment of a technology standard proposed by its designer –the standardization of Java sponsored by Sun Microsystems–. It is interesting to see that the tensions detected by their study also correspond to the highlighting of hybrid relational modes during the standardization process. According to their analysis, standardization brings opportunities, but also constraints and it involves "coopetition". Competitors must cooperate to reach a consensus, and it may be difficult for the actors to reconcile their personal and collective interests. Two properties –"Structuring" and "Coopetition" – contribute to fueling a number of challenges the initiator of the standard.

Overall, the imposition of a standard on its market is considered to be an important factor and generating competitive advantage (Prahalad, 1998). Garud et al. (2002) and Oshri & Weeber (2006) identify coopetition as a relational mode present in the development of institutional standards enacted by the SDO. However, strategies that are deployed through a cooperation between competitors (Chiao et al., 2007), remain rarely studied (Leiponen, 2008). Inside these bodies, all very different (Chiao et al., 2007), everything is set up to foster cooperation, while informally, fierce competition can be installed to align the choice of standards with the positions of market participants. Knowledge of specific ODS strategies deserves to be deepened (Axelrod & Mitchell, 1995 ; De Laat, 1999).

By changing of literature, research on coopetition is concerned explicitly with ODS. Some authors tackle standards from the perspective of collective strategies (see for example Demil & Lecocq, 2006 ; Mione, 2006; Tellier 2006) but do not study them as individual strategic response to competitive disturbances. Note at this stage that the analysis at a micro level of decision-making process leading to coopetition and their preconditions are still lacking in the literature

3. The standardization process takes place in a standardization body (SDO). For example, in France the AFNOR is a SDO.

(Mariani, 2009). Researchers focus on what companies are doing in cooperative configurations rather than focus on how and why cooperation occurs.

The nature of cooperation is not at the centre of discussions while dealing with the management of cooperation which looks mainly to the way tensions are managed and how organizational actors take them into consideration. Moreover, in most of the research, cooperation is viewed as the ultimate goal that is higher than pure relational strategies - competition or cooperation-, insofar as the cooperative behavior corresponds to the combination of the advantages of the one and the other strategy (Lado et al., 1997; Bengtsson & Kock, 1999, 2000).

Previous research on cooperation does not take into account the status of the actors involved in the relationship as such leaders. They are not considering characteristics of the actors in the perimeter of strategic action, nor their intentions. Thus, empirical research focuses mainly on dyads between MNF (e.g. the case of Samsung and Sony: Gnyawali & Park, 2011) or between SMEs (e.g. Gnyawali & Park, 2009), on firms' projects (e.g. EADS / Thales: Fernandez et al 2014) or networks (e.g. R&D networks: Ritala & Hummerlina, 2009). There is no research that attempted to characterize the cooperative behavior of a leader in a market.

This observation leads us to pose the following research question: can a leader use cooperation as its market control strategy? The study addresses how Microsoft managed relational modes in the cooperation situation within the AFNOR Technical Committee to present the French position on its proposed new standard OOXML.

Considering a dynamic perspective, the results show in particular that the leader can use cooperation as its market control strategy. The game of the leader along the standardization process is characterized by a subtle management according to key sequences using relational modes (cooperation, competition and cooperation) that allow it to achieve its goals.

In a first section, we develop the theoretical framework on the basis of our thinking, linking cooperation with the institutional standardization process. In the second section, we present the elements of methodology and their justification. The results of our analyses are the subject of the third section. Finally, a fourth section proposes a concluding discussion that puts into perspective our results compared to cooperation approaches.

COOPERATION AND STANDARDIZATION PROCESS

Among the theories of cooperation⁴, we mobilize the framework proposed by Lado et al. (1997) which allows to address the issue of the actors' status in a market and leaders' strategies. The authors describe, without naming it explicitly, the situation of cooperation, through their syncretic model of rent-seeking strategic behavior. In their model based on theoretical elements from game theory, the Resource-Based View, and networks theory, the authors propose to consider the combination of competitive and cooperative orientations in a rent-seeking objective.

Thus, depending on the dominant orientation – competitive or cooperative⁵ –, Lado et al. (1997) identify four configurations expressing strategic rent-seeking behaviors: monopoly, cooperative, competitive, and syncretic. In the monopoly rent-seeking behavior, a company chooses to not have neither confrontation nor cooperation relationship. Rent-seeking is competitive or cooperative as competitive and mutually cooperative orientation is strong.

The syncretic behavior, characterized by strong competition simultaneously with strong cooperation, corresponds to a pure form of cooperation. This is the most efficient strategy since it represents a "dynamic balance (or syncretism)

4. In its original sense, cooperation is the relationship between a firm to its complementor in the value network (Brandenburger et Nalebuff, 1996). It is dyadic and paradoxical in the model of Bengtsson et Kock (1999 & 2000).

5. Lado et al. (1997) explain this orientation in the following terms: "Our conceptualization enables us to examine the dynamic interplay between competitive and cooperative phenomena. Thus, we show the dimensions ranging from low to high, reflecting degrees of interdependence rather than the presence or absence of competition or cooperation" (p.118).

between competitive and cooperative strategies" (p. 122) taking advantage of the benefits of each. The syncretic rent-seeking behavior "accentuates the effects positive-sum and increased efficiency of competition and cooperation" (p. 123). In this model, the existence of the two forms of relations is simultaneous. The syncretic behavior is the result of two contradictory directions.

For market technological standards competition is specific as it is fatal to the losers (Shapiro & Varian, 1999; Brookey, 2007). The institutional standardization process consists in regulating this competition within the SDO. Competitors decide to waive a standards war and prefer either organize the compatibility between the two concurrent technologies or cooperate to set a common standard (David & Greenstein, 1990).

SDOs are therefore an ideal context implementing this form of cooperation. Their role is to create an environment allowing to gather, on a voluntary basis, the various stakeholders in the market –manufacturers, customers, users, institutions– and install the necessary formal conditions (information sharing, exchange of proposals, negotiation, vote and finally achieving a consensual common position) to ensure that joint work is carried out to produce a solution that will promote exchanges and will benefit the whole of the market. This institutional environment has specific features such as voting, majority rules, formal processes, collective action and public policy. This mechanism requires explicit communication and negotiation before irrevocable choices are taken – what Foray (1994) labels as "convergence"⁶– ; the standard issued is a *de jure* standard.

This institutional environment requires a certain level of cooperation. Institutional standardization process requires consensus and not only a simple majority of vote rule that would encourage coalitions. The objective is to foster a genuine collective strategy that would allow individual interests carried out through a shared common interest (Astley & Fombrun, 1983). This paradigm is based on the development of collaborative benefits (Contractor & Lorange, 1988 ; Dussauge, Garrette & Mitchell, 2000 ; Hamel, Doz & Prahalad, 1989 ; Kogut, 1989) which constitute a relevant way to manage interdependencies for mutual benefits (Astley, 1984 ; Borys & Jemison, 1989 ; Thorelli, 1986). Firms choose this strategy to get profits greater than they would have obtained without cooperation or alliance. The philosophy of institutional standardization is, therefore, to satisfy the overall interest of the market, and competitors are supposed to cooperate in order to achieve a middle solution enabling minimum effort each of the competitors, each stepping to the other.

However, this situation is paradoxical. Competitors must integrate conflicting objectives between their individual interest and a collective fate of the standard on which they work together (Baumard, 2000). Competitors may be tempted to push the standard to a particular direction in which the company has expertise and key skills. It must nevertheless keep in mind the interests of the whole of the market, not only because it is commissioned in this sense by the SDO, but mainly because the ultimate goal is that the published standard is actually adopted by the market and therefore won the support of other participants to the standard and more generally of all the market participants.

These elements allow highlighting the specificity of the standardization context in official instances (SDO): the context is formal, cooperation is forced, the leader must take an attitude that favors consensus because cleavage interrupts the process. This particular situation is likely to change the empirical observations conducted on the link between leadership and standardization. In general, when a company is in a position to impose a technology to others, or when it is the only one able to offer it, this gives it a leading role on the market. Thus, according to Besen & Farrell (1994), the company that holds the winner standard in a competition between standards anticipates a monopoly position. The contrary is also true. This is where a company is seen as leader that the

6. Convergence means that each contributor to the new standard is a step towards the concurrent option. The standard is the product of a convergence movement to a single reference that combines the previous alternative proposals. This cooperative attitude does not eliminate competition. Authors observe that the choice of participating in the definition of new standards within SDOs is based on the desire to influence the definition of these standards in a way that is favourable to them (Chiao, Lerner & Tirole, 2007 ; Leiponen, 2008 ; Simcoe, 2007).

technology proposed is likely to be adopted overwhelmingly by the market. Thus, in the presence of two rival technologies, the adopters refer to the ability of the company to assume the role of leader to realize their choice (Arthur, 1989 ; David, 1987). Customers expect that a single standard will be finally winning and they show more trust to the leader already installed to set the new standard. Its leading status helps it in the emergence of a new standard. However, this status may also be cumbersome in institutional standardization bodies. Indeed, the controversies that arise in the press against the dominant leaders who threaten to circumvent the laws of competition can be seen in institutional instances (SDO) whose purpose is precisely to organize the functioning of the market.

Coopetition may then appear as a posture that the leader himself must adopt in the context of institutional standardization. Out of this particular context, the empirical literature stresses that coopetition appears particularly suited for leaders as shown in the case of Sony and Samsung in the sector of high-definition television (Gnyawali & Park, 2009, 2011). On a theoretical level, in the Lado et al. (1997) model, the status of competitors and cooperators is not considered explicitly. Yet the monopoly rent-seeking behavior suggests strategies traditionally attributed to the leader.

We consider then the institutional standardization context as a revealer of the manner in which a leader can handle a coopetition situation. We take this particular situation to observe how a leader integrates institutional codes and develops subtle relational skills between competition and cooperation, to serve an individual strategy while building a collective membership.

METHOD

On the basis of the exemplary case that represents Microsoft in an institutional standardization process, this research is primarily qualitative and seeks to understand a phenomenon in all its dynamics and complexity. In this perspective, the case study is the proper method (Eisenhardt, 1989; Yin, 1984). In a first step, we present the context of our study; then, the collection and processing of data method; and finally, our approach to relational modes.

PRESENTATION OF THE STUDY CONTEXT

While already exists an ISO standard describing an Open Document Format (ODF), Microsoft launches new standardization process so that an alternative format (OOXML) is also standard. The situation raises controversy (can several standards on the same subject co-exist?) and a situation of rivalry, participants in the ISO process should position on the opportunity of a new standard.

Microsoft's logic is understandable. It dominates the market for desktop software since 1980, so it proposed the alternative format derived from the *Pack Office* software to be standardized in ECMA, professional organization for development of standards (SDO). Microsoft justifies this second standard by differences in use between ODF and OOXML. A specific group is constituted, chaired by Microsoft within ECMA (ECMA TC45), which validated OOXML as ECMA official standard (ECMA 376), December 7, 2006. Then, ECMA submitted this format to ISO using the Fast-track procedure that takes place in two stages:

- A first phase –completed in February 2007–: a survey to identify possible inconsistencies between the proposed text and the existing international standards.

- A second phase: a five-month investigation on whether to give this document the status of ISO standard –completed in August 2007–: in the event of not obtaining a consensus decision (approval, or disapproval reasoned and justified, or abstention), a public enquiry would be organized.

April 2, 2008, the format OOXML is approved by ISO as ISO 29500 standard. AFNOR (french standards body) issued two votes: first vote 'negative'⁷ and a second 'abstention' by proposing a convergence scenario between the two formats ODF and OOXML⁸.

The study focuses specifically on how Microsoft managed relational modes in the competition situation within the AFNOR Technical Committee to present the French position about the draft of the new institutional standard OOXML.

DATA COLLECTION AND PROCESSING

Data collection. For primary sources, four interviews were conducted with experts from a period of one hour per person. One of the authors has coordinated a scientific event within EURAS (European Academy for Standardization) in June 2007, which was held in Skövde in Sweden, involving four specialists to discuss the topic. The interview guide focused on two main dimensions: the reasons that led Microsoft to enter the process and elements of context; the different stakeholders involved and their behavior during the standardization process. Finally, another author participated in the AFNOR constitution meeting of the Technical Committee (TC) on 10 May 2007 in Paris. The meeting lasted 4 hours. As a member of this TC, he had access to first-hand sources via the collaborative platform implemented by AFNOR, the platform implemented by the TC President's company, and to whole E-mail exchanges during the standardization process from May 2007 until end of August 2008. Secondary data are mainly from institutional and professional official Web Sites, technical reports and other sources of information (specialized electronic press and consultants' blogs) that were used to build the case. Table 1 provides exhaustive detail for each data source.

Primary sources	
Interviews with experts	1 Director of the OECD e-government project The AFNOR's technical committee responsible The Director of standards at ECS (European Committee for Standardization) The Technical and security Director Microsoft-France (June 19, 2008)
Interviews with participants	1 Sun Microsystems representative 1 ECMA representative President of EISTI standardization chair President of EURAS
First-hand sources	E-mails and attached files (technical reports, reports of debates and discussions, proposals of participants, final results of Afnor and ISO votes); — more than a thousand pages allowing to trace the process of standardization as a whole.
Secondary sources	
Institutional official Web sites (.org, .gouv, .fr)	iso.org, oecd.org, oasis-open.org, afnor.org, ecma-international.org, xml.coverpages.org, W3.org, references.modernisation.gouv.fr
Professional official Web sites (.com)	Microsoft.com, Clever-Age.com, h71028.www7.hp.com (Hewlett-Packard)
Technical reports	iso/iec29500, Oasis White book OOxml report, ECMA 378 technical report, general repository of interoperability
Other information sources	Web specialized press and Journal officiel : Zdnet.fr, Computer Weekly [serial online], Journal officiel
Blogs	blogs.msdn.com (Integrated blog from the Microsoft Developer Network), durusau.net (Patrick durusau, OpenDocument editor), adjb.net (Alex Brown's weblog, document portability)

7. Official statement of AFNOR (3 September 2007): "Following the final deliberations at the meeting of its standards committee held on 28 and 29 August, AFNOR does not close the door to recognition by the ISO Office Open XML. It proposes to the ISO to organize the convergence between ODF and Office Open XML [...]. Technically, this led AFNOR to cast a negative vote on the draft as presented. This negative vote is however accompanied by comments which AFNOR requests consideration for it to reconsider its position."

8. See Appendix B for an overview of the standardization process of ODF and OOXML.

Data processing. The study focuses on a specific cooperation context (organized by the French institution for Standardization AFNOR) in which participants represent the players in the market. Microsoft is the protagonist who defends the new project of standard (OOXML), other participants are of a different nature: associations and institutions representative of users, direct or indirect competitors and partners who speak for or against the project. Interviews with experts and stakeholders, as well as all of the secondary data have been the object of a thematic content analysis to understand in depth the case and its context.

As for sent E-mails⁹, we first classified them according to four categories, to hold 202 exploitable e-mails (see Table 2).

E-mails of Category 1 are related to the material organization of meetings (access map to Afnor, dates changes for meetings, etc.). Category 2 includes insulting, political or unrelated to the OOXML standardization e-mails. Category 3 consists of e-mails in connection with the OOXML standardization draft. Finally, Category 4 gathers e-mails, which content focuses on another standardization project (ODF).

Sent E-mails (EM) / categories	Number of EM
EM Categ. 1 – Pure Organisation -	50
EM Categ. 2 – Out of purpose -	17
EM Categ. 3 – Exploitable -	202
EM Categ. 4 – ODF 26300 -	3
Total of sent EM	272

CHOSEN APPROACH OF RELATIONAL MODES

Coding grid used. Based on the recommendations of Miles & Huberman (2003), we adopted a thematic coding grid that distinguishes three relational modes – cooperation, competition and cooptation – to characterize the behavior of the participants during the standardization process. These three relational modes are multi-dimensional constructs from an assessment of all produced discourses, expressed by the content of sent e-mails, according to the characteristics we describe below.

As a first step, we considered the distinctions made in the literature dedicated to strategic alliances and the idea of tensions that emerge in a collaborative process (Das & Teng, 2000; De Rond & Bouchikhi, 2004). Generically, we got from the dialectical perspective of Das & Teng (2000) 'cooperation vs competition' tension and from the critical perspective of De Rond & Bouchikhi (2004), which broaden the organization's scope to social sciences, 'vigilance vs confidence' tension that allows us to express more finely competition and cooperation.

Then, more specifically, we wanted to enrich our constructs taking into account the context of discourse production (discourse written taking the form of e-mails). We used the characteristics of trust and distrust¹⁰ of Lewicki et al. (1998) since these are as independent considered variables can therefore be measured separately, their characteristics are closely linked to the context of discourse production. We added the tone of the message to detect if it is rather in

9. Received e-mails were excluded from the analysis since the emails are sent to an individual, a group or n groups which is not significant for our analysis of exchanges. Sent e-mails express the degree of participation and weight of the different groups.

10. We do not discuss here the difference between vigilance and distrust. The two concepts are opposed both to trustconfidence (see de Rond & Bouchikhi 2004, Lewicki et al 1998). Vigilance can be seen between trust and distrust (see Puthod 1995). We choose rather trust vs distrust that seems more discriminating.

the aggressive register or the more conciliatory and soothed. Lastly, we took into account the quality of the information communicated compared to the TC objective of standardization, depending on its nature constructive or non-contributory.

These relational modes express the posture of the participants during the standardization process which can be qualified as "Cooperative" (when the weight is 4), 'Competitive' (when the weight is equal to 0) or "Coopetitive" (when the weight range from 1 to 3: expressing three nuances that are respectively "Competitive cooperation", "Cooperative cooperation" and "Balanced cooperation"¹¹).

We conducted a thematic ranking of e-mails as they suggest a cooperative or competitive behavior or they express a content where both behaviors are present simultaneously or ambiguous words. Table 3 presents an excerpt from the categorization used to classify the e-mails.

Table 3. E-mails categorization

Analysis proxy	Trust		Distrust		Tone		Information		Score	Classification
	High	Low	High	Low	aggressive	conciliatory	Constructive	Non contributory		
Weight / Cooperation	1	0	0	1	0	1	1	0		
E-mail 86 (Pros OOXML)	1			1		1	1		4	Cooperation
E-mail 32 (Cons OOXML)	1			1		1	1		4	Cooperation
E-mail 185 (Pros OOXML)		0		1		1		0	2	Balanced cooperation
E-mail 242 (Cons OOXML)		0	0		0			0	0	Competition
E-mail 76 (Pros OOXML)	1		1			1		0	3	Cooperative cooperation
E-mail 17 (Cons OOXML)		1	0			1	1		3	Cooperative cooperation

Weight: 4 Cooperation; 3 Cooperative cooperation; 2 Balanced cooperation; 1 Competitive cooperation; 0 Competition

We thus obtain a classification of e-mails by category of senders and relational mode. We note that cooperation is obtained with collaborative and competitive states of the same intensity. Coopetition may be graduated from weak to strong. Appendix A presents what we mean for each of our construct, illustrating it by verbatim set out by two members having divergent declared position with regard to the new draft standard (one among Pros OOXML and one among Cons OOXML).

Chronological analysis. From a dynamic perspective, we also built a chronological matrix to identify actors' behaviors during the process. Our analysis allows distinguishing three stages in the standardization process (see Table 4). Thus, the first period from 2007-05-10 to 2007-09-02, corresponds to all the exchanges that started on 2007-05-10, with the early exchanges before the TC constitution meeting and the appointment of its President by AFNOR (2007-05-15). The second period from 2007-09-03 to 2008-03-29 resumes exchanges falling after the first AFNOR (negative) vote that took place on 28 and 29 August 2007. The third period extends from 2008-03-30 to 2008-08-15 and

11. These shades will appreciate the variations in intensity of competition and cooperation of Microsoft cooperative relations during the process.

resumes exchanges in the aftermath of the second AFNOR (abstention) vote, which took place on 2008-03-29.

Table 4. Reference periods and key dates

Periods	Key dates
Period 1 From 2007-05-10 to 2007-02-09	2007-05-10: Start of the standardization process May 15: Constitution of the TC and appointment of its President 2007-08-28 & 29: Final proceedings of the AFNOR standardization commission CN-FDR. 1 st AFNOR vote vote (Negative) Between August 30 and September 2, 2007: Vote of ISO member countries (P-members) on the standard ISO/IEC DIS 29500 (Five-month ballot process) (104 NB and 41 participating members)
Period 2 From 2007-09-03 to 2008-03-29	2007-09-04: Vote result of ISO member countries - 53 % of NB votes participating in the ISO/IEC JTC 1 process positive - 26 % negative national votes Month of March 2008: Commitments (promises) of Microsoft at AFNOR to proceed to changes and to participate in a working group on interoperability ODT-OXML 2008-03-29: Second AFNOR vote (Abstention)
Period 3 From 2008-03-30 to 2008-08-15	2008-04-02: ISO approved OXML as a standard ISO/IEC DIS 29500 - 75% positive votes - 14% negative votes 2008-08-15: ISO and CEI approved the publication of ISO/DIS 29500

In order to understand the management modalities of the standardization process as a whole, we were interested by different aspects: 1) the structural dimension: weight of participants and balance of forces present between participants for or against the new standard project (during the constitution of the TC); 2) the nature of exchanges: presence of trust, distrust, ambiguity (in e-mail exchanges) expressing the posture in terms of relational modes of participants and dynamic analysis based on process key phases. For the analysis of e-mails, we took into account five types of actors based on their role and position in relation to the new standard draft OXML: Microsoft representatives / organizers / Pros OXML / Cons OXML / Not Determined (at the beginning of the standardization process).

Taking the actors by category based on three critical periods that we have highlighted, we obtain the get the distribution presented in Table 5.

Table 5. Number of sent e-mails compared to actors' status and reference period

	Cons OXML	Not Determined	Pros OXML	Microsoft	Organizers	Total
From 2007-05-10 to 2007-09-02	43	9	10	16	24	102
From 2007-09-03 to 2008-03-29	22	2	6	7	9	46
From 2008-03-30 to 2008-08-15	30	2	10	1	11	54
Total	95	13	26	24	44	202

Among the 158 e-mails (Organizers not included), we note that 60% come from Microsoft's direct competitors (IBM, Google, Sun) and their allies while only

31% come from Microsoft and its allies. In-depth analysis of the process allowed observing Microsoft’s behavior; its way of dealing with the different stakeholders to arrive at its purposes. The results, which follow, present these elements.

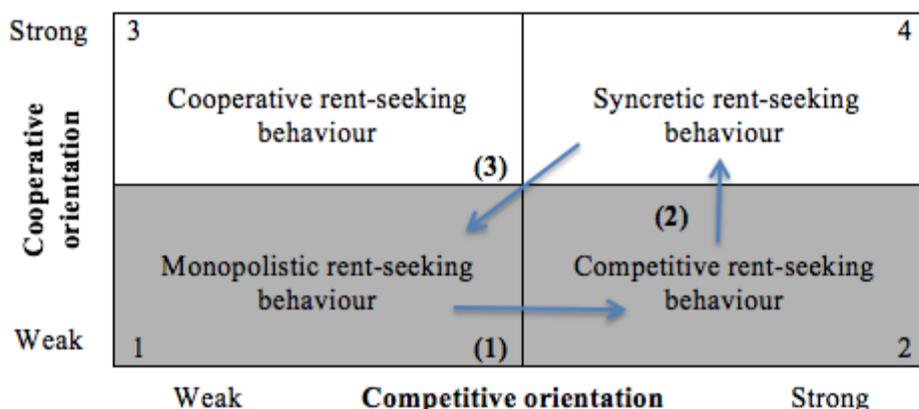
Results

How to characterize the behavior of Microsoft facing the change of competitive rules? The answer to this question leads us to consider a dynamic perspective of the context by mobilizing the analytical framework proposed by Lado et al. (1997), which we adapt to represent the whole of Microsoft’s strategy and key sequences on the basis of its competitive and cooperative orientations. The second question is how Microsoft has managed the process in terms of relational modes?

A SEQUENTIAL PERSPECTIVE OF MICROSOFT’S STRATEGY

The analysis of the context allows highlighting two clear sequences (S1 and S2) and a return to the original sequence (S3). Indeed, as shown in Figure 1, the first sequence consists in moving from a position of monopoly rent-seeking to consider a competitive rent-seeking (S1). The second sequence concerns the process of standardization as such (S2). The final sequence is the return to the initial situation (S3). We will detail the two sequences (S1) and (S2).

Figure 1. Microsoft strategic rent-seeking behaviors



Sequence 1 (S1): Microsoft’s competitive response to a serious threat perceived on the market

This sequence takes place on the market and is related to the Corporate level. Rules of the game change forced Microsoft to move from a monopoly rent-seeking behavior to a competitive rent-seeking behavior (from quadrant 1 to 2 in the bottom). Indeed, Microsoft has a *de facto* standard (.doc) that represents approximately 90% of market share. In the sense of the dimensions of the Lado et al (1997) matrix, competitive and cooperative orientations are low. The obligation of a *de jure* standard to access the market and the growing threat of the ODF standard put Microsoft in a position to confront its challenger, i.e. to privilege a competitive orientation (quadrant 2). To face the ODF standard and software vendors using this format of documents, Microsoft offers its own *de jure* standard OOXML. In reality, he confronts directly the competitors on the market and did not adopt a competitive rent-seeking attitude on the market.

Sequence 2 (S2): Microsoft relational behaviors during the institutional process

The management of the standardization process concerns here the operational level. By moving confrontation on the off-market, Microsoft adopted a

syncretic rent-seeking behavior. So, it passes from quadrant 2 to quadrant 4 (on the top right) by accepting that its draft standard should be considered by consensus. This sequence takes place within the AFNOR and decisions are taken by consensus of the participants. We consider that when the standardization process takes place, in this case –with issues and actors mentioned previously–, relations are both cooperative and competitive. Indeed, the non-market and market actors are the same and are present to set common operating rules. The majority of the standardization process unfolds then with strong competitive and cooperative orientations.

Sequence (S2) represents all of the standardization process since the constitution of the Committee for Standardization CN-FDR until the result of the final vote. It is characterized by relationships both competitive (important issues of the decision on the market behavior) and cooperative. The logic that predominates is syncretic and then leads to a return to the initial situation (sequence S3) since Microsoft, which succeeded in its goal of validating its draft standard, does not apply the convergence scenario of the two standards that coexist today.

THE MANAGEMENT OF THE STANDARDIZATION PROCESS (S2): WHICH RELATIONAL MODES?

Analysis of the standardization process is developed by considering, on the one hand, forces present at the beginning of the process, and actors game throughout the process (chronological analysis).

The analysis of actors' positions at the beginning of the standardization process reveals wide domination of participants against OOXML, the Cons (C), with 12 organizations represented, in particular with regard to the number of users' groups that defend FLOSS softwares. Pros OOXML (P) –including Microsoft– and the Not-Declared (ND) are forcibly equivalent with 7 organizations represented (Table 6).

Table 6. Types of organization, activities and position as regard OOXML

Type of organization	Nb organisations / Position			Nb of EM sent by participants	% sent EM
	F	A	ND		
IT services companies	4	2	3	62	30,69
Organizers (AFNOR)				44	21,78
Groups of users	1	7	1	38	18,81
Microsoft	1			24	11,88
Computer groups		2		24	11,88
Industrial firms		1	1	6	2,97
Public institutions	1		2	4	1,98
Total	7	12	7	202	

The number of e-mails sent by the organizers not included, it appears that the IT services companies total the largest number of e-mails sent (30.69%), followed by users groups (18.81%). Microsoft representatives, on par with the computer groups, held third position (11.88%).

Types of organizations, excluding Microsoft (that is mandatory for the standardization of its draft) and the organizers (that are neutral), take position on the standardization project as shown in table 7.

Table 7. Organizations positions / OOXML

Type of organization	Nb organizations / Position		
	F	A	ND
IT services companies	44 %	22 %	33 %
Users groups	11 %	78 %	11 %
Computer groups		100 %	
Industrial firms		50 %	50 %
Public institutions	33 %		67 %
Total	7	12	7

At more than 44% of the organizations represented, IT services companies position towards the new standard is rather favorable. The Cons and the ND accounted respectively for more than 33% and more than 22%. Users' groups and computer groups positions are largely, or even exclusively, in opposition to the new standard project. In sum, the standardization process starts with positions opposing the new OOXML standard proposed by Microsoft. This is clearly visible in Table 8, which takes into account the number of e-mails sent by the participants depending on the position of the organizations against OOXML.

Table 8. Participants position at the start of the process

Position: Pros or Cons the new standard OOXML	Number of sent e-mails
Cons OOXML	95
Organizers	44
Pros OOXML	26
Microsoft	24
Not determined	13
Total	202

After the analysis of the forces present at the beginning of the standardization process, we focus then on the modalities of management in the cooperative context. These have been the subject of two complementary analyses: the first offers a chronological analysis and the second highlights relational modes by theme.

Actors' game throughout the process (chronological analysis)

The distribution of E-mails by category and key periods allows us to appreciate actors activity during the standardization process.

Outside organizers, the highest activity is that of the Cons (representing 60% [95] sent e-mails), nearly twice the messages sent by Microsoft and the Pros, which together represent 31.6% [50] sent e-mails. The Not-Determined activity accounts for 8.2%. In terms of evolution, the activity of the participants is globally decreasing, and this, regardless of position in relation to the new standard draft OOXML. More specifically, we observe that:

- the Cons have very significant activity in the period 1 with 43 sent e-mails. Activity decreased by almost half in period 2 to take effect under the period 3, after the final vote.
- Microsoft's activity is relatively high at the beginning, then decreases in the same proportion as the Cons OOXML to become almost non-existent in period 3 where the dice are now thrown and OOXML recognized by ISO as *de jure* standard.

In General, three relational modes are present in the four categories of actors that we have distinguished in the process as we can see in Table 9.

Table 9. Relational modes by category and key period

	Cons OOXML				Not Determined			
	Trust	Coopetition	Distrust	Total	Trust	Coopetition	Distrust	Total
Period 1	10	4	29	43	4	4	1	9
Period 2	2	2	18	22	0	1	1	2
Period 3	2	2	26	30	1	0	1	2
Total sent EM	14	8	73	95	5	5	3	13

	Pros OOXML				Microsoft			
	Trust	Coopetition	Distrust	Total	Trust	Coopetition	Distrust	Total
Period 1	3	4	3	10	5	5	6	16
Period 2	1	1	4	6	2	3	2	7
Period 3	0	1	9	10	1	0	0	1
Total sent EM	4	6	16	26	8	8	8	24

	Organizers			
	Trust	Coopetition	Distrust	Total
Period 1	23		1	24
Period 2	6	2	1	9
Period 3	11	0	0	11
Total sent EM	40	2	2	44

More precisely:

- The *Cons* (with 95 sent e-mails) have a very important activity in periods 1 and 2. They largely prefer a relational mode based on distrust.
- The *ND* have more sustained activity in period 1 but that could be described as generally moderate (with 13 sent e-mails). There is less distrust and 'trust' and 'coopetition' modes predominate.
- The *Pros* (with 26 sent e-mails) use more distrust between the period 1 and period 3. The two other relational modes lowering in intensity.
- *Microsoft* has an important activity in period 1 with predominance of distrust. This chronological analysis shows that Microsoft plays on the three themes of trust, coopetition and distrust during the first two periods. The third period is located after the final vote and Microsoft no longer participates in exchanges.

In general, the highest activity, outside organizers, is that the *Cons*, then the *Pros* and finally *Microsoft*.

For the organizers, AFNOR is on a cooperative register. Its mission consists in organizing the cooperation context. Its role is to schedule appointments, arrange meetings, and prepare meeting minutes. The only observed change occurs on themes 3 and 4 where its role is limited since the AFNOR does not participate in the content of the discussions.

With regard to *Cons*, we find mainly competitive registry, characterized by distrust and sometimes aggressiveness. Thus, at the time of documents preparation for public inquiries, we can identify the following verbatim that highlight the aggressive tone of the e-mails in a climate of distrust:

« (...) [they] have challenged a number of points. Including the designation process (proposal of a candidate by AFNOR not even two hours prior to the meeting) and the choice of the president of the commission (...). We have made the proposal to appoint as president of the commission a user because the final customer who must judge is the user (...) » (Email 27).

« Maybe I haven't made myself clear. Would it be possible for the AFNOR to proceed to corrections requested as soon as possible? » (Email 75)

This tension is also present during the development and validation of meeting reports:

« (...) However it seems that the wording of the text would suggest that these positions, including those about the future consequences of a standardization or not of OOXML result from a consensus of the Committee. I think that it was not the case. (...) » (Email 210)

At the time of the investigation counting and the AFNOR decision, the register of certain e-mails is still aggressive for the *Cons* and reinforces this suspicion climate:

« (...) Don't worry, this has been seen and said yesterday. FYI, yesterday's meeting, which I was, was quite stormy, Microsoft systematically challenging all the points and trying to reject a maximum of comments. More surprising, the President of the commission has tried repeatedly to eliminate relevant technical comments which were perhaps not well written (the rules for the less fuzzy, for my part, if the rules had been clearer I would have otherwise built my contribution) under the pretext that he did not understand them.

I wish the pleasure to those who go to work today, because given the situation of yesterday, it is clear that there is no consensus, and it seems pretty obvious that MS should completely rework its draft, and lighten it's

full of rubbish. Problem, if this is done, there would probably only a good clone close to ODF! (...)" (Email 127)

Finally, for the last period during the BRM and the final vote, anxiety, doubt and distrust are still present:

« (...) I am concerned to see that communications subsequent to the last meeting of the CN 34 is important to the extent that they can, following a message sent as late as the late afternoon to the same Commission, require an urgent return of the Commission, over the weekend in addition. If one considers that the elements to be considered were diffused at 9 p.m. that day, this leaves roughly zero second working to the Commission to form an opinion and discuss. I wonder what the other members of the Commission will be able to think, and I'll be happy to discuss it informally at the earliest opportunity. (...)" (Email 176)

The cooperative mode disappears as the process until AFNOR decision. On the technical and legal aspects, we observe an exclusive discussion between Microsoft and the Against OOXML.

The *Pros* have moderate activity where we observe three relational modes. In this group, the dominant dimension is distrust. This distrust became the single mode, in particular in response to the virulence of *Cons* e-mails following the outcome of the final vote.

Concerning the *Not Determined (ND)* group, its activity is extremely weak. Participants who have not really took part in the discussions, we note the presence of the three relational modes even if the dominant relational mode is primarily based on competition and distrust. It then gives way to cooperation and trust at the end of the process.

In general, Microsoft starts the process on competitive and cooperative bases. In the competitive registry and on the topic dealing with preparation of documents for public inquiries, Microsoft holds the following discourse:

«(...) I agree that there is definitely need to review a minimum at least the introductory pages. That said, again, if every time that there is an error / omission / problem / annoyance, you over-react howling at the international conspiracy orchestrated by the awful Microsoft, discussions will be long and painful, and do not seem to me to the mind expected. (...)" (Email 72).

Thus, its e-mails in the probationary surveys phase are marked by both distrust and trust, adopting a diplomatic tone, which led us to qualify them cooperative:

«(...) Thank you for these first elements that allow to see comments submitted. It seems to me however that this synthesis is only a first draft and does not really allow understanding the nature of the contributors, which clearly has its importance. (...) Indeed, this subject is visibly very debated and I believe necessary to finally put clearly on the table the positions taken by the various actors. (...)" (Email 108)

«(...) I propose to the commission this simple sentence: "project TC 45 'Office Open XML File Formats' of Consortium Ecma Int. is approved by the Ecma General Assembly as international standard ECMA-376 on 7 December 2006."

Moreover, a consensus quickly established yesterday on the need that the questions asked are strictly the same (...). We wish therefore the

issues mentioned for the ODF component be amended accordingly and thus reflect this consensus. (...)" (Email 30)

It is not at all confident at the beginning of period then it plays on three relational modes. At the end of the process, it responds that laconically to the Cons attacks by a single e-mail with a single sentence:

"I can confirm the interest of Microsoft to participate in such a DIN/Afnor joint working group." (Email 201)

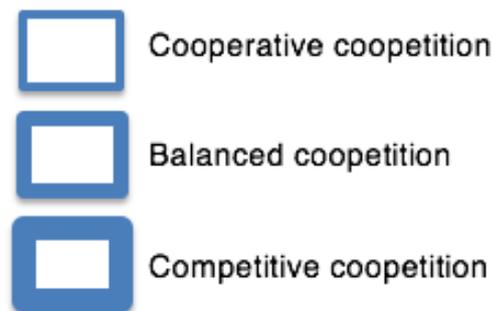
We clearly see that Microsoft is mobilizing three relational modes in a context that seems to favor only the cooperative mode.

SUMMARY: A DYNAMIC PERSPECTIVE OF THE CASE ON THE BASIS OF THE LADO ET AL. (1997) FRAMEWORK

We consider that these sequences can be understood as a succession of strategic rent-seeking behaviors in the sense of Lado et al. (1997) and we will represent Microsoft's strategy in dynamic terms.

By adapting the representation of the types of competitive relationships by Bengtsson & Kock (2000) to the types of cooperative states according to the degrees of competition and cooperation of competitors, we can visually represent cooperative-based, competitive-based or balanced cooperative relationships.

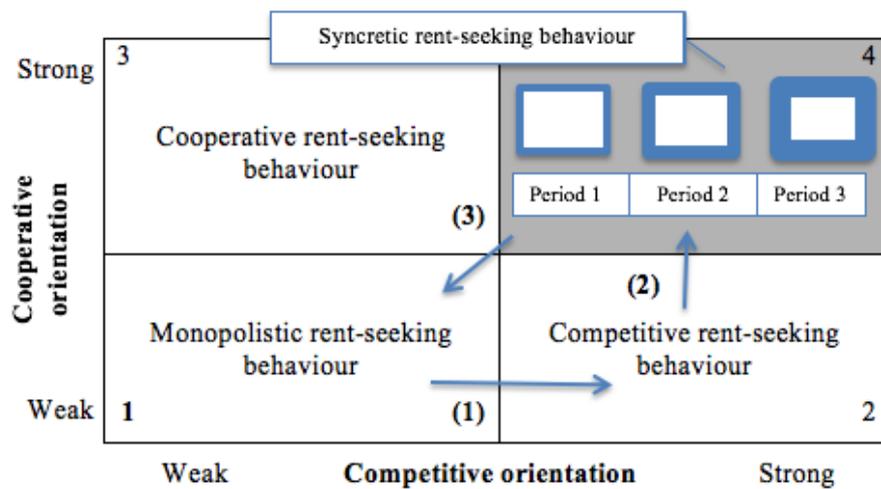
Figure 2. Different cooperation degrees



This representation allows us showing the variations in intensity of competition and cooperation of Microsoft cooperative relations during the process by integrating it into the framework of Lado et al. (1997). Figure 3 shows the entire process taking into account the degrees of cooperation from Microsoft during the three periods studied. Thus, during the 'off-market' period that corresponds to the Lado et al. syncretic rent-seeking behaviour (quadrant 4), Microsoft used three types of cooperative relations:

- in period 1, a competitive cooperation relationship,
- in period 2, relationships are balanced and we observe a balanced cooperation relationship,
- in period 3, a cooperative cooperation relationship.

Figure 3. Microsoft strategic cooperative rent-seeking behaviors



We focus our study on quadrant 3 corresponding to a cooperative context. We analyze Microsoft’s game through two studies of the sent e-mails. The thematic approach shows that Microsoft starts the standardization process in a rather hostile context to the OOXML project environment. The number of sent emails and the number of Cons representatives is important and show a strong mobilization. Chronological analysis confirms these results and shows that during the three key periods of the process Cons activity remains important while Microsoft’s activity varies according to the periods. Microsoft is very present in exchanges during the first period. The study of the second period shows a significant decrease in the number of e-mails, but Microsoft’s strategy is supported by external actions to the CN-FDR (visits of Microsoft leaders). Once the vote positive is obtained from ISO, Microsoft has almost more activities in terms of sending e-mails.

DISCUSSION AND CONCLUSION

In this section, we discuss the theoretical implications of our contribution to the concept of cooperation, based on two elements of reflection on the nature of cooperation strategies: on the one hand, the dynamic and sequential perspective of cooperation; Secondly, the transient, deliberate and emergent status of cooperation. Then, we propose to clarify the managerial implications of the case, including the consequences of Microsoft’s strategy and we will consider the influence of the case characteristics on the released results.

THEORETICAL IMPLICATIONS

A dynamic and sequential perspective of cooperation

Analysis of Microsoft’s strategic behavior throughout the institutional standardization process leads us to question the dynamic nature of cooperation. First, we propose to relocate the lessons of the case compared to the conceptual foundations of cooperation within the specific of the Lado et al. (1997) framework.

The model on which we based our analysis (Lado et al., 1997) considers cooperation as a means to achieving superior performance by the constitution of idiosyncratic competences. These latter are developed while reducing the costs

and risks associated with this effort, while competition stimulates innovation. This is the model we adopted for the reading of the case. Its interest lies in considering the intended competitive advantage and how the company tries to capture a rent. Monopoly rent-seeking behavior appears as a possible strategic option. For us, this behavior corresponds perfectly to the traditional position of Microsoft (in particular in terms of market share in its different SBUs or its predator reputation vis-à-vis and innovative businesses and startups). In this sense, we believe that this matrix is relevant to describe strategic behaviors adopted on the basis of follow-up strategic objective.

However, the case analysis leads to propose an original reading which includes a dynamic dimension that Lado et al. (1997) have not considered in their contribution. In this regard, the analysis highlights a succession of sequences in which the strategic orientation of the behavior has changed. More specifically, we derive from our analysis that if the purpose of obtaining rent through a monopolistic behavior was finally never abandoned and even constitutes a leitmotiv for the leader, Microsoft was obliged, however, to deviate from this line so to integrate more competition and cooperation – which means the advantages of competition –, to regain the advantages associated with monopoly.

Coopetition: a transitional state based on deliberate and emergent forms

From the analysis of our case, a second reflection questions coopetition form which is present in two levels (market and non-market) on which the leader's strategy is. Indeed, the case of Microsoft in the standardization process shows a rather 'emerging' coopetition form in market environments (the response to a threat of eviction of a new market), and secondly, the presence of a "deliberate" coopetition form in off-market environments (the cooperative game of the leader during the standardization process by the TC).

Taking the point of view of actors intentions, a few research shows that there are emerging forms of coopetition (Czaron, 2010 ; Mariani, 2007, 2009), where most of the research on coopetition is interested rather in deliberate forms (Bengtsson & Kock, 2000 ; Tsai, 2002). Coopetition can be defined as a deliberate strategy using cooperation and competition to achieve a positive-sum game and a better performance for partners (Czaron, 2010).

In the sense of Mintzberg & Waters (1985), emergent strategies appear as patterns or models made in spite or in the absence of intentions. Emergent coopetition was tackled from two empirical perspectives. The first study focuses on formation processes of cooperative and competitive strategies and the role of the institutional environment as a factor triggering coopetition (Mariani, 2009). In this study, coopetition is induced by a cooperation imposed to competing organizations (operas), where the "emergence" dimension prevails on the "deliberate" dimension and even anticipates it. The second study considered the context of an "unplanned competition in cooperative configurations" (Czaron, 2010). Thus, it appears as « a form of opportunistic behavior, when a partner seeks to achieve its own goals within a cooperative configuration, without worrying about goals and the common interests of its partners » (p.67).

In the case of Microsoft, we observe that only competition is present on the market; the privileged logic oscillates between monopolistic and competitive rent-seeking. This is the point of view of the leader that prevails. On the other hand, since obtaining a *de jure* standard constitutes the entry point to avoid being ousted of tendering of public contracts, the game moves and the level of analysis changes passing from the strategic level to more operational maneuvers. Therefore moving from a competitive to a cooperative (SDO) context. In this cooperative context, the three relational modes (cooperation, competition and coopetition) are relational registers that are available to the actors involved. Here, coopetition appears from two different angles. On the one hand, as context and

on the other hand as strategy or action logic. On one side, the standardization process appears as a cooperative context it is interesting to study and which lessons contribute to the field of cooperation. On the other hand, relational modes expressed by corporate actors within this cooperative context allow to capture the elements of dynamics at the more micro level.

Indeed, Microsoft's strategy, as a leader in its markets and at a Corporate level, aims first and foremost monopoly rent-seeking. Going cooperative pushes the leader to change the level of analysis to consider maneuvers that enable it to achieve its goals. Contrary to what literature highlights, cooperation is here one of the modes possible and not an ideal behavior to which tender and that would provide benefits exceeding pure cooperation or pure competition. In this regard, this is not the strategic level that should only be taken into account. It is important to also enter cooperation in a more operational levels where tensions are expressed in a tangible way through people who support their management, idea developed in a certain number of current work (see for example Fernandez et al 2014; Raza Ullah et al 2014). We argue that cooperation is transient and is not for the actors, and especially the leader, a purpose. It is a mean.

Relational modes in a cooperative context appear as a generic form of cooperation with varying degrees of cooperation, competition and even cooperation (when the level of ambiguity is high). It is therefore important to bring shades by considering cooperation as composite behavior that borrows from the three relational modes.

In this regard, the standardization process offers a cooperative framework in which the actors develop cooperative behaviors. Our case analysis shows that postures change during the process, the main actor mastering the game he fashions to its advantage. The partners are not real partners, except actors who are "Pros the new standard" and a part of those Not-Declared, and which is made up of participants who are rather skeptical but without bias towards the arrival of a new standard. It is a one-time context that no longer has any existence as soon as the standardization process leads to an outcome (positive or negative). We will here more talk about coalitions around a draft standard than genuine partnerships, as the literature tends to take it into account.

MANAGERIAL IMPLICATIONS

About Microsoft's attitude and the relational sequences

A leader may have to negotiate to avoid losing a market. Which does not prevent it to play its game during the negotiations to achieve its ends. Is this a change of attitude from Microsoft to a market where a total domination is no longer possible in all areas?

In fact, it is the appearance of new rules on the market that explains Microsoft's strategy. In reality, there is no change of attitude (see corporate level). Strategically, Microsoft pursues his main goals: the general logic remains "Embrace, Extend, Extinguish". However, at the operational level, it is brought on another ground. Thus, to achieve his ends (ISO standard), it must negotiate in an environment that fosters cooperation. This cooperative effort is not done anonymously (Microsoft acting as a corporation) but with face to face interactions through representatives. In this level, the logic is subtler and must borrow from different relational modes.

The case shows that the starting point of the negotiations was not in favor of the leader. It was even widely against if one takes into account the composition of the TC. Yet, even with 'negative' and 'abstention' votes, it happens to win at the end and gets its *de jure* standard. The process is organized in a transparent manner, but the intentions and issues for the participants are not all displayed and put on the table. Furthermore, lacking here behind-the-scenes dealings that refer to the question of influence strategies and the policy dimension that are

placed outside the process as such but which are still present for each involved actor.

This case shows that a market leader should go in the off-market to get what he is seeking. However, this is not the corporate and disembodied image of the leader that is at stake, this latter tending to fade at the beginning of the standardization process insofar as stakeholders contribute to humanize the process through debates and discussions which may be of a different nature but which relate to a written project it is necessary to evolve from certain aspects (technical, regulatory, ergonomic...).

Microsoft's trajectory can quite be considered a path-type for a leader taking a similar context (change in the environment and threat of losing a market). However, the analysis of the case does not allow us to generalize more.

The coexistence of two standards and the leader position of Microsoft

The final result leads to the coexistence of two rival ISO standards. What would happen if the standardization process had led to the existence of a single standard? ODF being forerunner, it would be the only reference standard. In this case, and since it is an open standard, Microsoft ought to evolve its office software to be compatible with ODF. The immediate consequence would have been to be confronted in a direct competition with all other softwares using ODF. In this perspective, Microsoft would have to exceed two difficulties:

1. It should catch up with the technology by investing on ODF
2. It would lose the advantage associated with the differentiation of its products justifying the payment of its software with free software.

The main players in the desktop software market integrated the two standards in their different products. The standardization process, marked by a necessary slowness, is that software do not meet 100% enacted standards.

In this regard, the rest of the story (after the ISO decision to validate the Microsoft's format as a *de jure* standard) allows us to see to what extent the question of compatibility remains asked, regardless of the format. Thus, several versions of office suites currently coexist each to generate documents conforming to the specifications of the two existing standards.

LIMITS AND PERSPECTIVES

This case enabled us to tackle coepetition in the context of standardization process in the area of office Electronic Documents Formats. This approach, unexplored until then, can mobilize coepetition in the specific SDO environment rarely studied in strategy.

On the basis of primary data collected exhaustively from the exchanges by e-mails and reports of the meetings of the AFNOR's Technical Committee, we were able to benefit from a reliable source from the standardization process itself. The analysis of this material enabled us to identify the behavior of a leader who uses the off-market coepetition to control its market. This behavior, which borrows from the formalism that characterizes the activity of a diplomat, combines different relational modes over key periods of the process.

We had the opportunity to study the standardization process context at the french level, while the final outcome of the process lies at the global level by the aggregation of different national positions. This represents a certain limit to our work, but also opens to other future research avenues.

Another limitation to our work lies in the degree of finesse in the analysis of e-mail exchanges. In order to identify the different relational modes mobilized by the protagonists, we have chosen to treat the data in a thematic way. An interesting dimension would be to analyze speeches produced so to identify from adopted behaviors underlying discursive logics.

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APPENDIX A. Coding grid

We present below what we mean for each of our three constructs, illustrating them by verbatim set by members having declared position divergent with regard to the new draft standard:

Examples of e-mails by relational mode	
Example 1	Example 2
<p>"Hello everyone, For our part, the introductory document prepared by xxxx 'French parallel probationary survey implementation of two international documents OOXML and ODF' seems relevant for the publication of the public inquiry to be launched on OpenXML and ODF. Indeed, it is purely factual, and reflects the history. » [C86 Pros OOXML]</p> <p>"Hello, In prior and following the exchange of emails which followed last AFNOR communication, zzz judges for his part the transmission of these latest contributions no more questionable on the form than previous ones, also intervened to part out of context in relation to the subject of the last meeting. Everyone remains free to assess the possible impact on his own position of these contributions, any clarification approach is a priori commendable." [C185 Pros OOXML]</p> <p>"Hello everyone, Having not all the time necessary for daily monitoring debates, we had to take some distance in recent days. It would be unfortunate if those who have time, use or even abuse of it in what would look like strongly to delaying tactics. All precautions and preventions are obviously quite eligible and must legitimately be debated ... in a serene way. AFNOR commissions may in no case be a political forum and debates finally lost in casuistry. I therefore call for a prompt return to serenity, to show restraint and to proportion in that exchange. If syntactic debates finally had to take precedence over technical considerations, these should then progress to advance concurrently." [C76 Pros OOXML]</p>	<p>"Good evening, yyyy comments seem quite justified and I did not notice the difference in the questions asked in the two documents. I think we should make these changes." [C32 Cons OOXML]</p> <p>"So, this proves that you depends on Open XML, so on Microsoft. ODF is a "real" open format, so there was enough to add support to ODF what would have been beneficial to everybody. The fact that you supported a second standard (well, the ugly tautology) rather than contributing to the existing standard also shows that you have interest (or compensation) in this support. But then I digress in a trial of intent :)Come on, we will not get angry, ISO and Microsoft have already ridiculed with this story !" [C242 Cons OOXML]</p> <p>"Hello, I wish as far as I am concerned 3 documents (short) but distinct . xxxxx document is a very good introduction in my sense. Then we can, with some changes in these matters (why suddenly talk about the internationalization of ODF?). The text on OOXML requires changes too, but it is generally good. In any case, I'm afraid that yyy compilation only adds to the confusion of the public ..." [C17 Cons OOXML]</p>

APPENDIX B. ODF and OOXML standardization processes

Date	ODF	Date	OOXML
		1998	Microsoft begins to take care of the XML in file formats
1999	The development of an XML format for electronic office (by default) starts with StarDivision, the software vendor of StarOffice. Acquisition of StarDivision by Sun Microsystems		
2000	Starting of the open source project "OpenOffice.org" by Sun Microsystems	2000	Microsoft releases the first format based on XML for Excel. Word added later (in 2001).
2002-05	OpenOffice.org 1.0 and StarOffice 6 are published: these two softwares use the default file format OpenOffice.org XML.		
12002-12	The Technical Committee of OASIS Open Office holds its first conference call		
2003-08	KOffice decides to use ODF as the default file format	2003	The Office 2003 software first to include XML formats for Word and Excel
2003/ 2004	The specification of the original OpenOffice.org XML file format is enhanced to incorporate the latest developments in XML, and desktop applications.		
2004-12	The Technical Committee (TC) approved an interim version of the work. The project name changes from « OASIS Open Office Specification » to « OASIS open document format for Office Applications (OpenDocument) ».		
2005-05	OpenDocument Format (ODF) is officially finalized as OASIS standard	2005	Microsoft seeks to standardize file formats through the ECMA (<i>European Computer Manufacturers Association</i>) standardization Instance
2005-10	StarOffice 8.0 and OpenOffice.org 2.0 are published with the full support of ODF. Sun announces a clause on ODF patents: "Sun's public non-assertion declaration may be summarized unofficially as an irrevocable covenant not to enforce any of its enforceable U.S. or foreign patents against any implementation of the OASIS OpenDocument specification" (http://xml.coverpages.org/ni2005-10-04-a.html)"		
2006-03	ODF Alliance is launched with 35 founding members with the aim to promote ODF in the public sector.		
2006-05	ISO approved ODF as an ISO/IEC 26300 standard.		
		2006-12	ECMA standardized format under the title " Ecma 376 Office Open XML" and agrees to submit to ISO for fast track standardization
		2007-01	ISO accepts the submission of OOXML by ECMA
		2007-09	OOXML fails to gain approval to ISO and passes to the final vote during a Ballot Resolution Meeting
		2008-02	Although charged with controversy, the Ballot Resolution Meeting weeklong leads to final votes
		2008-04	ISO announces that OOXML has been approved as ISO 29500

Source: White book de Oasis ODF Adoption TC, Dec. 2006 + source OOXML

Saïd Yami is Professor of Strategic Management at the University of Lille 1 - IAE and KEDGE Business School. He is a member of the LEM (Lille Economics and Management), UMR CNRS 9221 and associated member of MRM. His research focuses on competitive relationships through the concepts of collective strategies and coopetition, in connection with innovation and entrepreneurship. He is particularly interested in the high-intensity knowledge (High tech, Big science) contexts that constitute his main fields of research. He published on these topics several books and articles at national and international levels.

Hervé Chappert is Associate Professor in Management Sciences at the University of Montpellier – ISEM. He is member of Montpellier Research in Management (MRM). His fields of interest cover relational strategies, innovation and virtual environments.

Anne Mione is Professor of Management Sciences at the University of Montpellier (ISEM). She is a member of MRM (Montpellier Research in Management) and coordinates the thematic group "Standards and coopetition strategies". Her research focuses on inter-organizational strategies and innovation, particularly in the context of emergence and competition between standards.

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