

**Empirical Literature on Joint Ventures Success:
a Review of Performance Measures and of Factors Affecting Longevity**

Cahier de recherche CREPA n° 38 -1998

Fabien BLANCHOT, Maître de conférences, CREPA, Université Paris-Dauphine
Place du Maréchal de Lattre de Tassigny
F-75775 Paris Cedex 16
Tél. : 33-1-44-05-47-37
Fax : 33-1-44-05-40-84
e-mail : fabien.blanchot@dauphine.fr

et

Ulrike MAYRHOFER, Allocataire de recherche-moniteur, IECS Strasbourg, CESAG,
Université Robert Schuman
47, avenue de la Forêt-Noire
F-67082 Strasbourg Cedex
Tél. : 33-1-88-41-77-07
Fax : 33-1-88-41-77-01
e-mail : ulrike.mayrhofer@iecs.u-strasbg.fr

Cet article est également édité par le CESAG (Centre d'Etude des Sciences Appliquées à la Gestion), Université Robert Schuman, Strasbourg. Une version précédente a été publiée dans les Actes de la 23^{ème} Conférence annuelle de l'EIBA (European International Business Academy), Stuttgart, 14-16 déc. 1997, pp. 901-931. Cette recherche a bénéficié du concours financier de la FNEGE.

Résumé

L'objectif de cette recherche est d'évaluer le degré de convergence des résultats des travaux empiriques sur les facteurs explicatifs du succès des joint ventures (JV). Une première partie recense les critères de performance retenus dans la littérature et en propose une classification. Une deuxième partie analyse les déterminants de la longévité des JV. Elle permet de mettre en évidence que :

- (1) trois catégories de facteurs ont un effet significatif : les caractéristiques de l'accord, des partenaires et de l'environnement ;
- (2) trois explications sont avancées : ces facteurs influencent le potentiel de création de valeur de l'alliance, le risque de conflit et/ou la difficulté pour rompre la relation ;
- (3) les résultats disponibles ne sont pas contradictoires ;
- (4) aucun facteur n'a d'incidence opposée sur la probabilité de dissolution et d'acquisition des JV ;
- (5) plusieurs pistes de recherche restent à explorer.

Mots clés

Alliances stratégiques, joint ventures, performance, succès, déterminants de la longévité.

Abstract

This research attempts to identify trends as for findings of empirical studies on explanatory factors of joint venture (JV) success. The first part of the paper provides a list of performance criteria used in the literature and suggests a classification of the latter. The second part analyses determinants of JV longevity. It reveals that :

- (1) three categories of factors have a significant impact : the characteristics of the agreement, of the partners and of the environment ;
- (2) three explanations are given : these factors influence the potential for value-creation of the alliance, the risk of conflict and/or the difficulty in dissolving the relationship ;
- (3) available findings are not contradictory ;
- (4) no variable has an opposite effect on the probability of JV dissolution and JV acquisition ;
- (5) several research directions remain to be explored.

Key words

Strategic alliances, joint ventures, performance, success, determinants of longevity.

INTRODUCTION

The past few decades have been characterised by a multiplication of studies focusing on the subject of alliances¹ and joint ventures² (JV). The statistics provided by some of these investigations allow to identify two major trends : (1) an increasing use of collaborative arrangements by companies, (2) a relatively high failure rate of these hybrid forms of organisation.

Several studies show that the number of JV and non-equity cooperative arrangements has surged since the early eighties. Hergert and Morris (1987) found a steady increase in the number of collaborative agreements signed between 1979 and 1985. Conversely, most recent investigations indicate that the flow of new coalitions fluctuates from year to year (Hagedoorn and Narula, 1996 ; Doz, 1992), as already pointed out by Ghemawat, Porter and Rawlinson (1986). However, the trend is towards a general increase in the use of alliances. The number of agreements reported in 1993 appears to be more than six times the number of alliances concluded in 1979 (Braxton Ass., Horack Adler & Ass. and Morris, 1995). Observing alliances signed by US firms, Culpan and Kostelac (1993) notice that the number of cross-border increases even more than that of domestic alliances.

Failure rates of collaborative arrangements are generally high, even if all results do not support the thesis that the failure rate of JV is higher than that of wholly-owned subsidiaries (Chowdhury, 1992). Bleeke and Ernst (1991) mention that two thirds of cross-border alliances run into serious managerial or financial trouble within the first two years. Gomes-Casseres (1987) underlines that the instability rate of JV is 30,6 %. Only 45,3 % of the ventures studied by Harrigan (1988a) were assessed to be successful by both partner firms. In Urban and Vendemini's (1992) sample, more than one agreement out of four did not achieve the objectives initially fixed by its partners.

The initial observation has alerted researchers to examine advantages, limits, and determinants of the choice of hybrid forms. A review of this literature has allowed to identify fifteen theoretical determinants, none of which can be rejected, considering available empirical results (Blanchot, 1997).

The second observation has, on the one hand, launched a debate about the concept of performance in the field of alliances. Evaluating the performance of JV is not an easy task. Firstly, JV are owned and governed by two or more companies, and therefore should not be evaluated like wholly-owned divisions, all the more so as the interests of the JV and its parents are often in conflict (Anderson, 1990). Secondly, JV are not always established in order to meet conventional business purposes such as profit and market-share, but also in order to meet more qualitative objectives, e.g. organisational learning, coopting or blocking competition (Contractor and Lorange, 1988 ; Hennart, 1988 ; Kogut, 1988a). Thirdly, the success of strategic alliances is not to be confounded with the success of the joint project (Dussauge and Garrette, 1997b). Nevertheless, the success of the latter does not exclude the former and can even be its condition. Consequently, the study of success of joint projects remains a pertinent research object, even if not sufficient to advise firms (for indirect effects of the project have also to be taken into account).

On the other hand, it has contributed to the development of empirical investigations that aim at identifying determinants of JV success. A cross-study examination and comparison of their results would be useful. In particular, it is indispensable in order to find out trends which alone have a really convincing force in the field of business administration, given that « rarely do single experiments or studies provide sufficiently definitive answers upon which to base policy » (Hedges and Olkin, 1982, quoted by Wolf, 1986, p. 9). Yet, few

existing publications on the success of alliances include such an exercise. They provide relatively brief syntheses and/or focus on results that are available on the impact of one single explanatory factor, such as of the division of control between JV partners (Geringer and Hebert, 1989 ; Hebert, 1997). The purpose of this article is one attempt to fill this gap. The study analyses 42 empirical studies that identify determinants of the performance of alliances and that include JV in their sample. The first part will present the methodology employed and reveal how the concept of performance is effectively measured in empirical studies. The second part is dedicated to a synthesis of explanatory factors of success. Given the diversity of performance measures used in the literature, the analysis will focus on studies that examine the determinants of JV longevity.

I. MEASURING THE PERFORMANCE OF JOINT VENTURES

I.1. Research Methodology

A review of major French and Anglo-Saxon academic journals of business administration (*Revue Française de Gestion*, *Strategic Management Journal*, *Journal of International Business Studies*, *Management International Review*, etc.) has allowed to identify, in mid-1997, 51 empirical investigations dealing with the determinants of JV success. Seven of these studies do not exclusively include joint ventures in their sample. They are taken into account, because they evaluate the incidence of factors that concern JV as well as other types of collaborative agreements. Conversely, studies of inter-firm arrangements excluding JV from their sample are eliminated, given that, in this case, all or some of the factors whose incidence is evaluated constitute specific aspects of the considered alliance form³. The methodologies employed in the selected studies are either of quantitative or of qualitative nature. Case-studies that are not founded on proper research methods and where managers relate the success or failure of one particular JV (e.g. Knittel and Stefanini, 1993 ; Leysen, 1990 ; Wörner, 1992) are eliminated because of their non-scientific character. Nevertheless, the authors of this paper recognise the contribution of such studies to academic research, for they allow to illustrate particular issues and to formulate some hypotheses. Table 1 presents the 42 investigations that are subject to the present study⁴. When reviewing this table, one observes that the research area is relatively recent (no study prior to 1970 has been found) and that JV performance has only become a major issue in strategic management in the late eighties. Tomlinson (1970), Franko (1971), Killing (1983), and Beamish (1985, 1987) can thus be regarded as precursors in this field of research. It also appears that the samples used by the authors in order to assess JV success differ considerably in terms of size, type of agreement, and geographic scope, which naturally requires extreme caution as far as comparisons and generalisations are concerned.

Table 1 : Empirical Studies Dealing with Strategic Alliances and Performance

Author (Year of Publication)	Sample (Industry)
Beamish (1985)	66 JV located in LDCs
Beamish (1987)	12 JV located in LDCs
Beamish and Inkpen (1995)	1 JV Japanese-Canadian JV located in Japan + 5 JV located in LDCs + 40 Japanese-American JV
Blodgett (1992)	1025 IJV (production and commercialisation)
Cartwright and Cooper (1989)	3 JV of one MNE located in England (information technology)
Chowdhury (1992)	8 550 IJV and wholly-owned subsidiaries of US MNEs
Doz (1996)	6 projects within 3 SA
Dussauge and Garrette (1995)	63 ISA (aerospace and defence industry)
Dussauge and Garrette (1997a)	150 SA between firms located in the Triad and operating in the Triad (automobile industry)
Dussauge and Garrette (1997b)	197 SA between industrial firms
Dymsza (1988)	15 JV of US and Western European MNE located in LDCs
Eisele (1995)	131 German-foreign JV (manufacturing industries)
Fey (1995)	20 Russian-foreign JV located in Russia
Franko (1971)	IJV concluded by 159 US companies having manufacturing operations in at least six foreign countries (exclusion of JV with third-country firms) (production and commercialisation)
Gomes-Casseres (1987)	2378 JV of US MNE
Harrigan (1988a)	895 SA
Hebert (1997)	70 IJV located in Canada (manufacturing industries)
Hill and Hellriegel (1994)	31 US-UK JV (exploration and production of petrol and gas)
Hu and Chen (1996)	2442 Chinese-foreign JV in China (manufacturing industries)
Inkpen and Birkenshaw (1994)	40 North American-Japanese JV located in North America (automotive supply industry)
Killing (1983)	37 JV located in North America, Western Europe or LDCs
Kogut (1988b)	148 US-foreign and US-US JV
Kogut (1989)	92 US-foreign and US-US JV
Kogut (1991)	92 US-foreign and US-US JV (in manufacturing)
Koh and Venkatraman (1991)	175 JV (information technology)
Lane and Beamish (1990)	66 JV in LDCs and 15 North American-foreign JV in LDCs
Lasserre (1997)	98 IJV located in Asia Pacific
Lecrew (1984)	153 foreign subsidiaries (including JV) of US MNE
Lyles and Baird (1994)	60 Hungarian and Polish JV
Meschi and Roger (1994)	54 IJV located in Hungary
Millington and Bayliss (1997)	49 JV between UK and partners located in EU-founder-members (manufacturing industries)
Park and Russo (1996)	155 US-foreign and 49 US-US JV (electronics)
Park and Ungson (1997)	137 US-foreign and 49 US-US JV (electronics)
Parker, Zeira and Hatem (1996)	73 IJV
Parkhe (1993)	111 SA of US companies
Posth and Bergmann (1997)	6 German-foreign JV
Schaan and Beamish (1988)	22 JV in LDCs
Teagarden and von Glinow (1990)	14 Sino-foreign SA and 6 Mexico-foreign SA
Thietart and Vandangeon (1992)	20 SA
Tomlinson (1970)	71 UK-foreign JV in India and Pakistan
Verna (1989)	78 JV including one French firm
Yan and Gray (1994)	4 US-Chinese IJV

JV = Joint Ventures

SA = Strategic Alliances

MNE = Multinational Enterprise

IJV = International Joint Ventures

ISA = international Strategic Alliances LDC = Less Developed Country

For each study, the authors collected the following information :

- (1) methodology (qualitative or quantitative) and statistical analysis used ;
- (2) sample characteristics : type of agreement (exclusively JV, or JV and other forms of alliances), number of agreements, observation period, geographic area concerned by the arrangement, nationality of partner firms, industry of JV and of partner firms, and method of data collection ;
- (3) explained variable(s) : definition, instrumental variable(s) (proxy/ies) used, and method of data collection ;
- (4) explanatory variable(s) : definition, underlying hypotheses and foundations, proxy(s) used, and method of collection ;
- (5) results obtained : sign of incidence, significance of incidence, explanations and comments given in the study.

In order to reduce the risk of omissions and errors of interpretation, each author collected the data for each publication. The gathered information was then exchanged and compared.

In order to elaborate an accurate analysis and synthesis of the findings of these studies, the instrumental dependent and independent variables have first been codified. This codification is conceived in a way that the research associated with each variable can easily be identified. For instance, v96p2 means « 2nd explanatory variable relative to the publication 1996 of Park and Russo » and p96p2 « instrumental variable associated with 2nd performance criteria (dependent variable) in the research published in 1996 by Park and Russo » . The authors then established an exhaustive list of proxies and of their definition. Finally, a table was created that comprises as many lines as there exist different explanatory instrumental variables and as many columns as there exist different dependent instrumental variables. Whenever an independent variable is taken into account in several studies using the same performance criteria, the results are put into the same cell. For each of the findings, the tested instrumental variable (its codification), its sign, and the degree of significance of its coefficient are indicated. In order to facilitate comparisons between the results of different investigations, the table has been filled in so that the sign of the influence of each independent variable can be interpreted in the same way for each performance criteria. This has necessitated to present the opposite of the dependent variable and of the results of certain studies. For example, in Kogut's (1989, 1991) findings a positive coefficient of an independent variable indicates an increase in the probability of JV dissolution or acquisition, whereas in the study of Park and Russo (1996) a positive coefficient means exactly the opposite. In our table, this performance criteria corresponds to the duration and the probability of non-termination. The results and the dependent variable of each of Kogut's studies have therefore been transformed.

In the future, the purpose will be twofold : (1) to carry out an analysis and a synthesis of the results obtained for each performance criteria taken separately (analysis in columns). This should allow to evaluate to which extent trends emerge as for the incidence of certain factors, to gauge the solidity of hypotheses and proposed explanatory models, and to formulate new hypotheses ; (2) to compare the impact that one single explanatory variable may have on several performance criteria (analysis in lines), as it has already been done by Geringer and Hebert (1989) and Hebert (1997) for the explanatory variable "division of control". The present article, that limits itself to a presentation of performance proxies used in the literature and to an analysis and a synthesis of studies identifying factors affecting JV longevity, thus only represents a stage within a larger research project. Finally, we would like to point out that we opted for a qualitative method to carry out this synthesis rather than for a meta-analysis, given our objective and the restricted number of studies taken into

consideration (see *infra* II.). Indeed, a meta-analysis is primarily adapted for the evaluation, based on several studies, of the incidence of one single independent variable on one single dependent variable (whether the instrumental variables used in different studies are identical or not) and loses its relevance whenever the number of available studies is small (Wolf, 1986, p. 54). Furthermore, such an analysis does not allow the precision of a more qualitative method.

I.2. Evaluating the Performance of Joint Ventures : a Variety of Criteria

A major difficulty in evaluating the success of alliances is due to the definition and the measure of performance. The aim of this research is not so much to examine the concept itself⁵, but to report how success is measured in different empirical studies.

A initial observation is that the 42 investigations use a large array of criteria for measuring performance. Not only do few studies employ exactly the same dimension, but 19 investigations test the incidence of explanatory factors on more than one single indicator of performance. Moreover, the operationalisation of a same criteria is not always the same. In order to account for this diversity, the 82 proxies⁶ identified are classified according to two dimensions : (a) the object of the evaluation, that is the **performance of the operation itself (JVPERF)** or the **performance of the partners (PARTPERF)**, (b) the way of evaluating performance : by an **objective measure** or by a **subjective measure**. Table 2 presents the proxies in a chronological order. Each variable is codified as follows : p = performance, nn = year of publication, initial letter of author (followed by a, b, c, etc. in order to distinguish references whose year of publication is identical and whose authors have the same initials), followed by a number if several proxies are used within the same study. For instance, p96pa1 means « instrumental variable associated with the 1st performance proxy used by Park and Russo (1996) » .

The first set of research (I) attempts to identify factors that explain JVPERF whereas the second (II) measures the impact of JV characteristics on PARTPERF. In each case, one can distinguish whether performance is assessed by (1) objective measures, (2) subjective measures or (3) a combination of both objective and subjective measures. Frequently, subjective measures correspond to a rating of how effective a given JV is at meeting its goals. Financial measures that are interpreted by managers are considered as subjective, for they reflect the extent to which the JV has achieved its objectives (related to turnover, benefits, etc.).

Table 2 : Classification of Performance Proxies Used in Empirical Studies

I. PERFORMANCE OF THE OPERATION ITSELF (JVPERF)		
Type of Measure	Performance Criteria	Proxies for Performance
I.1.Objective	a. Longevity	p88h2, p88k, p89k, p91ka, p92c2, p96pa1, p96pa2, p97m, p97pa1, p97pa2
	b. Survival	p71f2, p71f4, p87g2, p88h1, p92c1, p97db1, p97db3, p97db4, p97db5
	c. Stability	p71f3, p87g1, p92b, p92c3, p97da1, p97db2
	d. Combination of Longevity/Survival and Stability	p71f1, p83k2, p85b1, p87g3, p95b, p96d
	e. Quantitative Business Indicators (Profitability, Market-share, etc.)	p70t, p84i1, p96h
I.2.Subjective	a. Various Items Assessed by Partner Firm(s)	p84i2, p84i3, p85b2, p87b, p88h3, p89c, p89v1, p89v2, p89v3, p89v4, p89v5, p90t1, p90t2, p93p, p94h1, p94h2, p94h3, p94h4, p94i, p94y, p95e, p97h1, p97h2, p97i, p97pb
	b. Various Items Assessed by JVGM*	p83k1, p94m1, p94m2, p94m3, p94m4, p96pb1, p96pb2
	c. Various Items Assessed by Partner Firm(s) and JVGM	p88s, p94i, p95f
	d. Various Items Assessed by Industry Analysts (Experts)	p95d1, p95d2, p95d3
I.3.Objective and Subjective	Composite Indicators	p88d, p90l
II. PERFORMANCE OF PARENT FIRM(S) (PARTPERF)		
Type of Measure	Performance Criteria	Proxies for Performance
II.1.Objective	a. Stock Market Reactions	p91kb
	b. Relative Competitive Position of Partners	p97da2
	c. Profitability	p92t1
	d. Innovativeness**	p92t2, p92t3
	e. Productivity**	p92t4, p92t5, p92t6
II.2.Subjective		
II.3. Objective and Subjective		

* JVGM = Joint Venture General Manager

** though, no indication is given on the way it is measured

An overwhelming majority (96 %) of proxies identified in the literature correspond to JVPERF. Only three studies assess PARTPERF. They are of recent nature, which may be explained by the fact that spillover effects of collaborative agreements (e.g. organizational learning) have only been emphasised in the late 1980s (Hamel, Doz and Prahalad, 1989 ; Turcq, 1985). The fact that two of these studies focus on one single industry probably reflects the willingness of their authors to avoid that variance in characteristics of industries affects the results obtained. The dominance of category I raises the question whether JVPERF is more relevant than PARTPERF.. Anderson (1990) argues that companies should evaluate JVPERF, for this encourages the JV to find its best direction and thus promotes harmony among its parents. Allowing the venture to have autonomy would, furthermore, increase its chances of survival and prosperity, and facilitate learning and innovation. These arguments

are, of course, not valid for academic research. Indeed, an alliance is part of the strategy of each partner, so that the evaluation of its impact on the parents' overall performance seems pertinent. Moreover, a high JVPERF does not necessarily lead to an increase of PARTPERF. Firstly, JVPERF may originate from a continuous transfer of know-how from one partner and thus have a negative impact on the performance of this parent firm. Secondly, if a JV produces at low costs (and sells at low prices), it might seriously affect the competitive position of other subsidiaries of one parent. However, measuring the effective contribution of one single JV to a parents' overall performance is tricky, all the more so as the effect of alliances on the performance of the partners may not be immediate (Dussauge and Garrette, 1997a). Perhaps, PARTPERF would be more pertinent if the whole portfolio of JV owned by a company was taken into consideration. Evaluating indirect effects of JV could also represent an interesting alternative that has yet to be explored. Additionally, it would be of particular relevance to test the comparability of JVPERF and PARTPERF.

With regard to the second dimension of the above classification, the proportion⁷ of objective (48 %) and subjective measures (48 %) is equally split up. Only two studies (4 %) combine both measures. A thorough examination of the samples and data collection methods reveals significant differences between studies relying on objective measures and those employing subjective measures. Firstly, the former contain particularly large samples (e.g. Blodgett, 1992 ; Chowdhury, 1992 ; Franko, 1971 ; Gomes-Casseres, 1987 ; Hu and Chen, 1996), whereas 82 % of the latter include less than one hundred agreements (against 41 % for the former). Secondly, the proportion of samples exclusively including cross-border alliances is higher within the second group of studies, as if subjective measures constitute a more accurate measure for the performance of international joint ventures (IJV). Thirdly, 50 % of researches using objective measures, against 0% otherwise, exclusively rely on secondary sources (data-banks, business press, company reports, etc.), 14 % use interviews, 18 % mail questionnaires, and 18 % employ both interviews and mail questionnaires (respectively 36%, 23% and 41% for investigations using subjective measures).

Some authors argue that objective measures are to be avoided because they do not adequately reflect the extent to which a JV has achieved its short and long-term objectives (Killing, 1983). As already pointed out, JV may be established not only to pursue quantitative objectives (profit, market-share, etc.) but also qualitative goals (technology transfer, joint R&D, etc.). Evidently, the latter can only be assessed by perceptual measures. Others emphasize that subjective measures are exposed to serious biases (Geringer and Hebert, 1991). Moreover, the fact that a JV reaches its goals doesn't mean that it is efficiently managed or without problems. Clearly, the two types of measures are complementary and are both useful. Yet, Dymrza (1988) and Lane and Beamish (1990) are the only researchers who employ both measures. An explanation is that the collection of two sets of data appears to be operationally difficult and costly (Parkhe, 1991). The fact that the sole studies employing both measures do not treat them as separate indicators and thus do not allow to evaluate their convergence is less justified. It is also regrettable that no study of category II (PARTPERF) employs subjective measures, for this would allow to control for the relative importance of JV for their parents and to establish how far JV enable the partners to acquire new knowledge, to improve manufacturing processes, etc. Moreover, a simultaneous and separate use of objective and subjective measures would, as already pointed out, serve to evaluate their correlation.

In contrast to the first dimension of our classification (JVPERF vs. PARTPERF), the links between objective and subjective measures have been empirically tested (for JVPERF only, though). The research carried out by Geringer and Hebert (1991) provides a useful insight into the relationship between these two types of measures. It reveals that the

correlation between objective (survival, stability, and duration) and subjective measures is generally positive but that the strength of the link varies significantly according to the criteria used. Objective measures are strongly correlated to subjective assessments of overall satisfaction with JV performance and individual dimensions evaluating overall effectiveness (e.g. sales level, market-share, profitability). Conversely, their link with more specific individual dimensions (e.g. manufacturing/quality control, labour productivity, customer service) appears to be weak or insignificant. Furthermore, whereas the correlation with subjective measures is positive and rather strong for survival and duration, it is weak for stability. These results show that different criteria, even when belonging to the same group, are generally not to be mixed up and that some combinations are more relevant than others.

As indicated in table 2, objective measures for JVPERF (category I.1) are limited to five criteria : (a) longevity, (b) survival, (c) stability, (d) combination of longevity/survival and stability, (e) quantitative measures. The « longevity » of a JV corresponds to its duration (lifespan), that is the number of years between its formation and its termination. The criteria « survival » indicates whether a JV is still operating or not at the end of a given observation period. It is usually coded by a dichotomous variable. In contrast to longevity, survival-based indicators do not control for the age of an alliance. « Stability » refers to changes in the capital structure or the distribution of tasks during the life of a JV. In the literature, the terms employed are sometimes confusing. For instance, Kogut (1988b, 1989, 1991) and Millington and Bayliss (1997) use the term « instability », but their results deal with « durability » (probability of premature dissolution and/or acquisition). In the present study, proxies are classified according to the above definitions, regardless of the terms employed by the authors. « Quantitative business » indicators are those typically employed in business research such as profitability, growth, and market-share.

As ex-post indicators, longevity, survival, and stability cannot be used by managers to assess the performance of JV that are still in operation. Yet, they are frequently employed by academic researchers. In this context, it is important to note that these criteria represent rather ambiguous dimensions of JV success. Precisely, the criteria of longevity and survival are rather confusing because it is the premature failure of the JV in regard to the objectives fixed by its parents that has to be avoided. Therefore, a short duration of a JV should not systematically be equated with failure. It may clearly be a sign of success when firms terminate their JV in response to changes in their environment (Gomes-Casseres, 1987, p. 101 ; Harrigan, 1988a), ownership or strategy (Beamish and Inkpen, 1995, p. 27). Moreover, when exit barriers are high, the survival of a JV may reflect the incapability of partners to stop their operation. Furthermore, some firms may view JV as intentionally temporary and thus plan and anticipate their termination (Park and al., 1997, p. 292). However, in the sample studied by Beamish (1985, p. 14), most of the ventures that ceased operations did so because they failed. One way to reduce the risk of confusion between termination and failure may be to distinguish whether a JV is terminated by dissolution or acquisition. Indeed, whereas dissolution frequently reflects a business failure or an irresolvable conflict among parents (Kogut, 1989 ; Verna, 1989), the acquisition of a JV more often corresponds to a success (Kogut, 1991, pp. 19-20, 24 ; Park and al., 1997, p. 302). One explanation, given by Kogut (1991), is that JV may be created as real options to expand in risky markets. In this case, the acquisition of a JV simply means that the option is exercised. In the same way, changes in the ownership structure or in the distribution of tasks (instability) do not necessarily mean failure: they may simply correspond to an adaptation to changing conditions (Doz, 1996).

Only three studies of our sample use quantitative business criteria. Whilst most companies continue to evaluate the performance of their JV by standard operating procedures with emphasis on financial criteria (Anderson, 1990)⁸, researchers are aware that the short-

term oriented nature of these dimensions limit their ability to reflect JV achievements. As outlined by Ohmae (1989), financial measures generally do not capture the real benefits of alliances. Furthermore, firms are reluctant to provide information about their financial and marketing results, and tax consideration, transfer pricing practices, and competitive secrecy make these data biased and questionable (Lasserre, 1997, p. 3).

With regard to subjective measures of JVPERF (I.2.), criteria assessed by the partner firm(s) appear to be the most frequent (68 %). However, this category comprises important disparities. On the one hand, the dimensions assessed vary considerably (overall satisfaction, overall performance, financial performance, market share, labor productivity...). On the other hand, some of the studies only take into account one partner firm (Lasserre, 1997), whilst others consider a JV as successful if both partners are satisfied with the dimension(s) considered (Harrigan, 1988a ; Schaan and Beamish, 1988).

As JV are separate business entities that are jointly owned, it seems reasonable to examine whether both partners and the JVGM evaluate performance in the same way. In this context, it is important to note that JV owners may have different intentions and attempt to directly influence the management of their venture (Oesterle, 1995). However, researchers frequently have to limit themselves to relying on one single respondent (either for logistical or cost reasons). Thus, the links between the evaluation made by the different actors need to be specified. Geringer and Hebert (1991) found that results do not differ substantially if one evaluates the satisfaction of : (1) one partner, (2) both partners, (3) the JVGM. It seems thus possible to adopt the first approach without taking any major risks. Nevertheless, correlation is reduced in at least two circumstances, where an evaluation by several respondents is desirable: firstly, when the criteria assessed correspond to specific dimensions of JVPERF (e.g. product design, distribution, customer service) rather than general or overall dimensions (e.g. sales level, market share, profitability); secondly, when JV involve parents with distant national cultures, for the assessment of performance by managers of such partners is more likely to differ (Schaan and Beamish, 1988, pp. 284-285). If a multi-respondent method is used, it is preferable to question both partners rather than one parent and the JVGM, given that correlation tends to be higher between evaluations by one single parent firm and the JVGM than between estimations by both parents.

Table 2 clearly reveals that there is no consensus on the most appropriate criteria (and methods) for the evaluation of success, even if some of them are more widely used than others. Certainly, none is perfectly adequate, since each of them reflects one specific aspect of performance. Only an adequate combination of criteria allows to assess the multidimensionality of performance, which requires a better understanding of the links between its different dimensions. Whereas the correlation between objective and subjective measures has been empirically tested, little is known about the links between the various criteria used within each category. Given this lack of knowledge and the strengths and weaknesses inherent in each indicator, an accurate analysis of findings of empirical studies necessitates a separate examination of each class of results. Moreover, the instrumental variables used for each criteria are rarely identical. In the following, we shall therefore focus on explanatory factors of the sole objective criteria of longevity.

Certainly, longevity is not to be considered as a goal per se, but it is a means (input) to achieve the real objectives of the parent companies (organisational learning, patents in case of R&D agreements, penetration of a foreign market, scale economies, etc.) and to improve the output of the JV. Since problems generated by JV make these cooperative agreements particularly unstable (Millington and Bayliss, 1997, p. 2), it is of managerial interest to know how to establish long-lasting agreements. A thorough examination of explanatory factors of

JV longevity is appropriate for different reasons. Firstly, JV constitute one specific type of interfirm agreements and, in contrast to contractual arrangements, they are intended to last longer because of the associated costs (Harrigan, 1988b ; Osborn and Baughn, 1990 ; Pisano, Russo and Teece, 1988). Since JV need a certain duration in order to be profitable, considerable efforts should be undertaken in order to avoid their premature termination. Secondly, time appears to be an important factor of JV success. As pointed out by Ohmae (1989), many JV are considered as premature failures because of the short-term orientation of their parents. Moreover, longevity tends to reduce perceived national as well as organisational cultural differences (Meschi, 1997) and may, thus, facilitate coordination. Thirdly, partners may seek durability in order to enhance their reputation in anticipation of future agreements (Park and Ungson, 1997, p. 302). Finally, in certain countries local institutions and firms search investments that allow local partners to acquire know-how and that contribute to the development of the local economy. Especially in Eastern European countries (Oesterle, 1993) and LDCs (Lane and Beamish, 1990), JV should be regarded as long-term investments.

II. DETERMINANTS OF THE LONGEVITY OF JOINT VENTURES

Among the 82 performance proxies identified, 12 exclusively refer to JV longevity. They can be grouped into three types : (A) probability of non-disappearance (non-dissolution and non-acquisition), (B) probability of non-dissolution, (c) probability of non-acquisition. Table 3 presents all explanatory factors whose incidence has been tested on this criteria. Such determinants of JV longevity can be divided into four categories : (1) characteristics of the agreement, (2) characteristics of parent companies, and (3) characteristics of the environment of the JV, the fourth class (4) corresponding to a combination of factors.

The results indicated in table 3 allow to formulate 21 propositions that may help managers in creating long-lasting JV. Considering that the longevity of a JV (or an alliance) grows the more its probability of termination by dissolution and acquisition is reduced, it can be deduced from the available results that a JV lasts longer:

Table 3a: Explanatory Factors whose Incidence has been Tested on JV Longevity

	(A) : p88k; p97m; p92c2**; p88h2**	(B) : p96p1; p89k; p91k2; p97pa1	(C) : p96p2; p97pa2; p91k1
(1) Characteristics of agreement			
Characteristics of JV activity			
Agreement includes R&D activity		v96p9 (- ns); v89k5.1 (- ns)	v96p9 (++); v91k2.1 (-)
Agreement includes MKG-distribution activity	v88k4 (-)	v89k5.2 (- ns)	v91k2.2 (-)
Agreement includes production activity		v89k5.3 (+ ns)	v91k2.3 (- ns)
MKG & production JV as compared to MKG JV	v97m1 (+++)		
Multiple market JV		v97p10 (---)	v97p10 (ns)
Multiple product JV		v97p11 (ns)	v97p11 (ns)
High level of overlap in product-market scope between JV and partners		v97p6 (---)	v97p6 (---)
Type of product concerned by JV		v96p7 (ns)	v96p7 (ns)
Contribution of partners			
Similar roles and contributions		v96p2 (ns)	v96p2(---)
Technology transfer to JV		v97p7 (---)	v97p7 (---)
Characteristics of manoeuvre			
Horizontal diversification for both partners rather than for one partner	v88h3 (ns)		
Vertical diversification for both partners rather than for one partner	v88h4 (ns)		
Related diversification for both partners rather than for one partner	v88h5 (+ swoi)		
Unrelated diversification for both partners rather than for one partner	v88h5.2 (ns)		
Choice rather than a constraint (as compared to a wholly-owned subsidiary)	v97m4 (+++)		
Distribution of capital			
Degree of inequality of equity sharing		v96p10 (ns)	v96p10 (-)
Foreign firm (US MNE) holds majority equity stake of JV	v92c1.1 (+snt)		
50/50 JV	v92c1.2 (-snt); v88k1 (+ ns)	v97p9 (-)	v97p9 (- ns)
51-49 JV vs 50-50 or <49-51> JV	v97m2 (---)		
Other			
Number of partners		v96p5 (+)	v96p5 (ns)
High intra-firm trade between JV and parent	v97m7 (- ns)		
High intra-firm trade between JV-parent if JV 50-50 or 49-51	v97m8 (---)		
Age of JV	v88k8 (curvil.)	v96p6 (curvil.)	
(2) Characteristics of partner firms			
National origin			
Differences in national origins of partners	v88k7 (- swoi); v88h6 (+ swoi)	v96p8 (+ ns); v89k9 (ns)	v96p8 (+ ns)
Cultural distance between partners		v97p1.1 (++)	v97p1.1 (+++)
US-Anglo JV (vs US-US JV)		v97p1.2 (ns)	v97p1.2 (ns)
US-North European JV (vs US-US JV)		v97p1.3 (ns)	v97p1.3 (ns)
US-Latin Eastern JV (vs US-US JV)		v97p1.4 (ns)	v97p1.4 (ns)
US-Far Eastern JV (vs US-US JV)		v97p1.5 (ns)	v97p1.5 (++)
US-Japanese JV (vs US-US JV)		v97p1.6 (++)	v97p1.6 (+++)
Industry			
Partners are horizontally related (in product, market, or technology) to each other	v88h1 (ns)	v96p1(---); v97p5 (---)	v96p1(ns); v97p5 (- ns)
Partners are vertically related (in product, market, or technology) to each other	v88h2 (ns)		
Prior or parallel relationships between partners			
Prior collaborative experiences between partners during the 5 years prior to JV		v97p8 (++)	v97p8 (++)
Presence of other JV between partners		v96p4(+++)	v96p4(+++)
Presence of other collaborative agreements (supply, licensing agreements and/or JV) between partners		v89k1.1 (++)	
Presence of other supply agreements between partners		v89k1.2 (ns)	
Presence of other licensing or JV agreements in parallel		v89k1.3 (+++)	
Other			
Policy standardisation in the operations of parent companies	v97m5 (++)		
Differences in size of partner firms	v88k2 (+ ns); v88h7 (ns); v97m3 (-ns)	v97p3 (ns)	v97p3 (ns)
Differences in number of subsidiaries owned by partners		v97p2 (ns)	v97p2 (ns)
Differences in age between partners		v97p4 (-, ns)	v97p4 (+, ns)
Level of collaborative experience of each partner		v96p3(+ ns)	v96p3(+ ns)
Differences in partner firms' venturing experience levels	v88h8 (- swoi)		

(+) or (-) => p<0,1

ns = non significant at the 10% level

swoi = significant without other indication

(++) or (---) => p<0,05

ns* = considered as non significant if p>0,05

** no control of censored data

(+++ ou (---) => p<0,01

snt = significance not tested

Table 3b: Explanatory Factors whose Incidence has been Tested on JV Longevity

	(A) : p88k; p97m; p92c2**; p88h2**	(B) : p96p1; p89k; p91k2; p97pa1	(C) : p96p2; p97pa2; p91k1
(3) Characteristics of environment			
Characteristics of JV industry			
Industry of alliance	v88h9 (swoi)		
Segment of industry of alliance (electronics)		v97p12 (ns)	v97p12 (ns)
Degree of concentration of industry	v88k3 (-)	v91k1 (- ns)	v91k1 (---)
Industry with an intermediate level of concentration		v89k8 (--)	
Changes in degree of concentration of industry		v89k6 (--)	v91k5 (- ns)
Average growth rate of industry	v88k5 (+ ns)	v89k7 (- ns)	
Growth rate of industry the year prior to JV termination (or observation period)		v91k3 (+ ns)	v91k3 (-)
Difference between industry sales and anticipated long-term trends (regression) in the year prior to JV termination (or observation period)		v91k4 (- ns)	v91k4 (---)
JV within service sectors	v88k6 (- swoi)		
(4) Combination of factors			
High policy standardisation and JV 50-50 or 49-51	v97m6 (- ns)		
JV with R&D activity in R&D intensive industry		v89k2 (++)	
JV with MKG activity in MKG intensive industry		v89k3 (+ ns)	
JV with production activity in production intensive industry		v89k4 (-)	

(+) or (-) => p<0,1

ns = non significant at the 10% level

swoi = significant without other indication

(++) or (--) => p<0,05

ns* = considered as non significant if p>0,05

** no control of censored data

(+++ ou ---) => p<0,01

snt = significance not tested

(1) if it includes an R&D activity, at least if it is formed within the electronic industry (v96p9) or, more generally, within an R&D intensive industry (v89k2). The non significance of v89k5.1 may be explained by the fact that R&D does not increase per se the benefits of a long-lasting cooperation and therefore does not constitute a determinant of JV longevity. Nonetheless, one has to note the incoherence, a priori, between the impact of v96p9 on p96p1 and of v89k2 (agreement includes R&D in R&D intensive industry) on p89k, knowing that the study of Park and Russo (1996) focuses on JV concluded within the electronic sector whose R&D intensity is relatively high (Hagedoorn, 1993 ; De Woot, 1988). The hypothesis formulated by (Kogut, 1989, p. 193) that firms especially want to establish long-lasting collaborations when the environment creates high requirements for R&D investments is thus only partially validated. However, the negative incidence of v91k2.1, even if its significance is low (p<0,1), is consistent with the idea that the effect of the presence of an R&D activity varies according to the industry to which the JV belongs. The opposite effect of v96p9 and v91k2.1 might be due to the fact that none of the two studies controls for the incidence of a simultaneous presence of several functions.

(2) if the JV does not include a MKG-distribution activity (v88k4, v91k2.2), even if the influence of this variable appears to be lowly significant (p<0,1) and non significant when the JV belongs to a marketing-intensive industry (v89k3). Given that v89k5.2 has no effect on the probability of JV dissolution, the low significance of v88k4 may reflect a high positive incidence of the presence of a MKG-activity on the probability of JV acquisition. Nevertheless, the low significance of v91k2.2 does not support this conjecture. The hypothesis that ventures with a partner who facilitates market access have a lower risk of dissolution, because of procuring a more durable advantage than technology (Kogut, 1988b, p. 46), is not validated. A cooperation in an area that has an impact on the downstream competition between the partners appears to be rather destabilising (Kogut, 1989, p. 188), though not more in marketing intensive than in other industries.

(3) if it does not include a production activity when situated within a production intensive industry (v89k4). On the one hand, a production activity does not prevent per

se JV dissolution or acquisition (v89k5.3, v91k2.3), even if its required assets are physical rather than intangible and slower to depreciate (Kogut, 1989, p. 189). On the other hand, the fact that it favours dissolution whenever the JV is situated in an environment where mass-production is a key success factor (v89k4) supports the idea that structural conditions that increase competition have a destabilising effect on cooperation (Kogut, 1989, p. 189). An alternative explanation is that this type of operation is rarely sufficient to reach the efficient minimum size companies are looking for. Thus, the dissolution-rate is high and/or the partners prefer to dissolve their joint operation rather than to sell it (dissolutions would substitute for acquisitions)⁹ (Kogut, 1989, pp. 193-194).

(4) if marketing JV also incorporate a production activity (v97m1), at least when the JV has a UK parent whose objective is to penetrate another European market. If the presence of a production activity does not reduce per se the risk of dissolution, it increases the durability of marketing JV. Millington and Bayliss (1997, p. 4) propose the following explanation : (a) the marketing expertise that one partner can contribute to the JV is often concentrated within a small group of individuals, so that the continuity of the partner's contribution is submitted to the maintaining of this staff in his firm ; (b) in case of the departure of this staff (a risk that is not to be overlooked), the liquidation of the JV is probable if its activities are limited to marketing, for its rationale disappears and exit costs are relatively low ; (c) if the JV also includes a production activity, the partners' contribution is broader ; the presence of manufacturing assets thus reduces the risk of dissolution in case of withdrawal of marketing expertise.

(5) if it does not cover multiple markets (v97p10). However, the fact that the operation simultaneously concerns several products (v97p11) has no effect. The hypothesis that JV involving multiple markets or products are more difficult to manage and therefore more unstable, as broadening their area of intervention increases the difficulties in controlling and coordinating their resource flows (Borys and Jemison, 1989 ; Park and Ungson, 1997), is thus only partially supported. Coordination difficulties might only appear when products concern different markets, which remains to be tested.

(6) if the operational overlap (product-market scope) between the alliance and the parents is low (v97p6), matching the hypothesis formulated within the research. The authors suggest that whenever the JV operates within the product-market scope of its parents, the benefits tend to be minimal and less visible, which is a source of conflict. On the contrary, if the JV operates in activities that are new to both partners, the benefits of the operation are higher, because of an increased willingness of each partner to commit resources to the venture (Park and Ungson, 1997, p. 289).

(7) if partner contributions are not similar (v96p2), which means if the alliance is complementary rather than additive according to the definitions given to this concept by Dussauge and Garrette (1997a). Park and Russo (1996) argue that additive alliances are more exposed to the problem of protection of the partners' intangible assets than complementary alliances, because joint decisions are more frequent. One can be cautious towards the relevance of this argument. On the one hand, the link between uncontrolled transfers of intangible assets and JV dissolution is not clearly explained. However, one can assume that the motivation to cooperate diminishes if such transfers take place, either because the presence of the partner loses its rationale, or because transfers stimulate competition between partners. On the other hand, complementary alliances can be considered as offering more opportunities for resource transfers than other agreements (Dussauge and Garrette, 1997b),

considering the complementarity itself of the partners' competences. An alternative explanation for the obtained result would thus be that complementary contributions lead to (or reflect) reciprocal specialisation, which is a factor of increased dependence between partners (Dussauge and Garrette, 1995) and thus of the relationship's continuity, and/or increases the benefits of a cooperation (Parkhe, 1991, p. 580), so that a termination of the venture represents an accrued cost of opportunity.

(8) if there are no technology transfers in destination to the JV (v97p7). Park and Ungson (1997, p. 290) argue that such transfers would increase competitive risks, because the exchange requires intimate human contacts (appropriation by one firm of intangible assets that form the competitive advantage of its partner). It would also be a factor of ambiguity, for the effective content of the transfers and the amount of what is expected in return are difficult to evaluate. Once again, the link between these consequences and the probability of JV termination is not clearly established. Presumably, the appropriation of initially not held competences reduces the motivation to continue the collaboration, in the same way as the existence of ambiguities is a factor of conflict and dissatisfaction, and thus of JV dissolution and/or acquisition.

(9) if the JV corresponds to a related diversification for both partners rather than an unrelated diversification for one and/or the other (v88h5). This relationship confirms the hypothesis of Harrigan (1988a, p. 54) that operations closely related to the activities of their parents last longer, because related diversification strategies are more frequently successful than unrelated ones. The non significance of v88h3, v88h4 and v88h5.2 is not incoherent with the previous result. In particular, the finding that an unrelated bilateral diversification (v88h5.2) does not threaten the continuing existence of alliances might be explained by the fact that it is compared to the effect of a non-bilateral unrelated, a non-bilateral related, and a bilateral related diversification.

(10) if parent companies initially seek a partnership rather than a wholly owned subsidiary (v97m4), which means that there exists a real willingness to cooperate. This finding is consistent with the idea that if a partner prefers a wholly owned subsidiary, then he may lack commitment and seek to control the venture as soon as possible (Millington and Bayliss, 1997, p. 6).

(11) if the distribution of capital is (a) not weakly unequal (v97m2) when the JV is concluded with a British firm that aims at penetrating another EU market, (b) is neither very unequal (v96p10) nor equal (v97p9, v92c1.2) when at least one partner is American, with an attribution of the majority stake to the US firm in case of international ventures (v92c1.1)¹⁰. Millington and Bayliss (1997, pp. 5-6) justify the incidence of v97m2 by the fact that a nominal majority agreement (51/49) reflects the desire of one partner to control the JV, but that a 51 % equity share might be insufficient to ensure such a control ; a divergence between the desired control and the effectively possible control may result in a high level of instability. Park and al. (1996, p. 882 ; 1997, p. 294) consider a 50-50 equity sharing as a source of « *unexpected difficulties* », since extensive communication is necessary in order to reach decisions. Conversely, in an unequal ownership structure, the minority partner knows a priori that he cannot pursue his individual interest and that certain future choices could differ from what he would have decided, if he were in a dominant position ; this may lead to a certain form of resignation facilitating the management of the JV. Additionally, the authors suggest that in case of a highly unequal capital distribution, the temptation to cheat, especially for the minority partner, is high, because he little experiences the effects of his actions.

Clearly, neither of the previous arguments are supported if all available findings are taken into consideration. In fact, it is possible that the disparity between these incidences is due to that : (a) it is more the degree of coherence between the ownership structure and the characteristics (or the context) of the relationship that influences JV longevity. For instance, the research carried out by Beamish (1985, 1987, 1994) suggests that capital distribution has to vary according to the degree of development of the partners' and JV's country of origin; (b) capital distribution is an inappropriate approximation of the mode of control of a venture's management by its partners, which contrasts the conclusions reached by Kogut (1987 ; 1988a, p. 46), at least as far as situations of equality (50-50) or low inequality (49-51) are concerned. On the one hand, the significance of the correlation suggested by Killing (1983) is not clearly established, particularly because the sample of its study is relatively small (37 JV). On the other hand, there exist other means than capital control to exert a dominant influence on a JV's management (Geringer and Hebert, 1989, p. 238 ; Schaan, 1988). Consequently, it is possible that considerably different management methods correspond to one identical ownership structure. Moreover, these arguments lead to a coherent explanation for the fact that v97p9 and v96p10 are only significant at the 10 % level and that the coefficient of v88k1 is not significant.

(12) if there are no substantial transactions between the JV and its parents in 50-50 or 49-51 JV (v97m8). Knowing that a trade between the JV and its parents may generate conflicts about transfer prices, delivery dates, and quality levels, situations where one partner holds a dominant position, thus allowing him to take decisions on his own, would be preferable (Millington and Bayliss, 1997, p. 7 and 14). Once again, it is the degree of compatibility between the importance of transactions with the JV and the capital distribution among the partners rather than the importance of transactions itself that seems to determine JV longevity (v97m7), if one admits that a high majority stake increases the power of control.

(13) if the number of partners increases (v96p5), though the influence of this variable has a low significance ($p < 0,1$)¹¹. Park and Russo (1996, p. 880) expected an opposite incidence, presuming that an increase in the number of partners would generate supplementary coordination costs and a more complex management. Nevertheless, an increase in the number of partners may result in a greater autonomy of the JV and a greater margin of manoeuvre for the JVGM (which is supported by the research of Shenkar and Zeira, 1992, p. 68), autonomy being considered as a success factor¹² (Killing, 1983).

(14) if the partners are from culturally distant countries (v97p1.1). In fact, only JV where the partner of the American company is East-European (v97p1.5) or Japanese (v97p1.6) survive significantly longer than JV exclusively involving American firms. Moreover, v97p1.1 loses its significance (but keeps its positive sign) when the effect of the interaction between the cultural distance and the existence of prior relationships between partners is controlled. The positive incidence of v97p1.6 was expected by Park and Ungson (1997, pp. 283-285), given the specificity of Japanese culture (great importance accorded to reputation and goodwill, and prevalence of trust and norms of reciprocity) that facilitates cooperation, mitigates opportunism, and contributes to resolve disagreements between partners, in contrast to American culture dominated by norms that encourage opportunism and a search for short-term benefits. Conversely, a significant negative incidence was hypothesised for v97p1.1, for the greater the cultural distance between two partners, the more their manner of thinking, acting, and reacting is different. Communication and thus coordination problems are likely to increase, thus making the JV more vulnerable to managerial conflicts (Park and Ungson, 1997, pp. 282-283). The authors do not give any convincing explanation for this rather

unusual result, in so far as that type of interfirm diversity is frequently considered as problematic (Parkhe, 1991). Indeed, it is conceivable that two partners attribute more importance to the management of their cultural differences when they are visible. In domestic agreements, cultural differences may be less apparent (because of being « non national ») and not be subject to any particular attention whilst still being present. In this perspective, Harrigan (1988, p. 67) points out : « *several observers noted that General Motors' values are more similar to those of its partner, Toyota, than to those of Ford Motor* » . If this observation is confirmed, then it becomes significant that JV between partners of the same national culture are more exposed to problems than those where the intercultural component (of national as well as organisational origin) is straightaway taken into account. The finding concerning v97p1.5 is compatible with this idea, in so far as collaborative experiences of most American firms with their East European counterparts are relatively recent and as the planned economy that has marked Eastern Europe is the polar opposite of the American model. Therefore, it is likely that American and East European partners are extremely aware of the existence of cultural differences and are highly motivated to manage them. This argument is also consistent with results on the effect of differentials between partners in regard to size (v88k2 ; v88h7 ; v97m3 ; v97p3), number of owned subsidiaries (v97p2), and age (v97p4). All these factors reflect the distance between the culture, structure and processes of collaborating organisations. A priori, one could assume that a size asymmetry would cause problems (Killing, 1983, p.123 ; Kogut, 1988a, p. 45), given that important differences are probable in the partners' viewpoints, value-systems, management style, and vulnerability (Millington and Bayliss, 1997, p. 6 ; Park and Ungson, 1997, p. 286). Moreover, maintaining the initial capital distribution would be difficult in case of expansion of the venture, and the commitment of the larger partner would be susceptible to diminish (Millington and Bayliss, 1997, p. 6). Nonetheless, a strong awareness of these difficulties at the beginning of the agreement could lead partners towards more tolerance or encourage them to develop regulating mechanisms. In the same way, whenever substantial differences in terms of decision-making processes (approximated by the number of subsidiaries owned by each partner), leadership style, control system, and entrepreneurial behaviour (approximated by age) are likely to create coordination problems and to generate conflicts (Park and Ungson, 1997, pp. 286, 288), the awareness of these virtual incompatibilities would stimulate firms to manage them. Finally, one can note that, according to Park and al. (1996) (v96p8), national differences between partners do not appear per se as an explanatory factor of JV longevity. Yet, this factor is significant in the studies of Harrigan (v88h6) and Kogut (v88k7), though (a) their findings are contradictory, (b) the instrumental variable used by Harrigan (dummy variable taking the value 1 if the two partners are American and 0 in the other cases, if the partners are of the same nationality or not) does not constitute an approximation of an asymmetry in terms of nationality, (c) the sample of Harrigan includes alliances that do not take the form of equity JV, (d) the studies of these two authors do not simultaneously control for the incidence of other variables, so that the clause « *ceteris paribus* » is not respected (the findings may thus be explained by the composition of the sample). In these circumstances, it is difficult to attach a great significance to these results. As suggested by findings on the incidence of national culture (it is possible that agreements between Japanese, or between Japanese and American firms are of particularly long duration, those between American, or between American and Anglo-Saxon companies of particularly short duration, ...), the results are likely to vary considerably according to the nationality of the partners. It is thus not evident to identify a clear trend concerning the impact of this factor.

(15) if the partners' main activity does not belong to the same industry (v96p1, v97p5). This finding conforms to the hypothesis formulated by the authors and founded on the

following argument : when partners are direct competitors, their individual goals tend to be in conflict, which may disturb the functioning of the joint operation. Moreover, an uncontrolled spreading of information or an assimilation of know-how (they are more likely to take place when the respective competences of the partners do not differ too much) might threaten the cooperative climate between participating firms, because they affect their relative competitive position and stimulate opportunism (Park and Russo, 1996, p. 878 ; Park and Ungson, 1997, p. 289). It is possible that the non significance of v88h1 is due to the fact that it only has a positive incidence on the probability of dissolution (and not on the probability of acquisition).

(16) if there has existed a collaborative experience between the partners during the five years prior to the current JV (v97p8). Park and Ungson (1997, p. 294) suggest that prior experiences allow trust to develop, encourage cooperative behaviours and the development of norms of reciprocity (Kogut 1989, p. 185), and allow the partners (once they have ascertained their strengths and weaknesses) to better ensure their coordination. In contrast, the sole fact that partners have enjoyed a collaborative experience with third parties appears to be without any significant incidence (v96p3). This does not support the hypothesis of Park and Russo (1996, p. 879) that firms with collaborative experiences will be more considered as worthy of trust (and will adopt a cooperative behaviour in order to maintain their reputation).

(17) if there exist other JV or licensing agreements between the partners (v89k1.3 ; v96p4 ; v89k1.1). These findings confirm the hypothesis that the more firms are capable of retaliation against eventual opportunistic behaviours of their partner, the stronger will be their motivation to cooperate (Kogut, 1989, p. 185, pp. 187-188 ; Park and Russo, 1996, pp. 878-879). However, the sole existence of supply agreements in parallel (v89k1.2) has no significant incidence. Supply agreements may be more difficult to modify, they may not let develop such easy opportunistic behaviours and/or their strategic importance for the partners may be lower, so that they can serve as a means of retaliation with more difficulty.

(18) if there exist no substantial differences in collaborative experience levels of partners (v88h8). This finding contradicts the hypothesis of Harrigan (1988a, p. 54) that the existence of important asymmetries between partners allows each firm to respond to the needs of the other and thus constitutes a stabilising influence. It is important to note that it is not the experience per se whose incidence is evaluated, for the result suggests that partners without any collaborative experience as well as those with a great experience increase the duration of their cooperation : what counts is to have a equal level of experience. One can assume that an experience differential is a source of mutual incomprehension, of conflict and thus of a premature ending of the agreement, given that the difference is a priori difficult to perceive.

(19) if the partner penetrating a foreign market has a highly standardised marketing policy across international operations (v97m5). This rejects the hypothesis that firms with standardised corporate policies rarely tolerate that their JV adopts a policy diverging from their own (whereas local control and decentralisation of decision-makings are, otherwise, possible) so that each divergence is likely to result in a premature ending of the alliance. However, this result should be adressed with caution. Indeed, the presence of a standardisation policy appears to be positively correlated to a highly unequal capital distribution (in favour of the partner that develops the business internationally), just as there exists, as indicated above, a significant positive relationship (Millington and Bayliss, 1997, pp. 13-14) between the duration of the JV and a highly unequal or equal ownership structure (v97m2). It is therefore possible that the reported positive incidence reflects more the pertinence of the adopted ownership structure rather than the effect of the degree of marketing

policy standardisation of the partners (Millington and Bayliss, 1997, p. 14). This idea is underpinned by the fact that this factor loses its significance when it is associated with a weakly unequal capital distribution (v97m6).

(20) if the degree of concentration of the JV industry is reduced (v88k3, v91k1), if the JV does not belong to an industry with an intermediate level of concentration (v89k8) or to an industry whose degree of concentration faces substantial changes (v89k6). Yet, Kogut (1988a, p. 46) expected a positive incidence of v88k3, arguing that concentrated environments are attractive for JV, because firms operating within oligopolies can more easily agree on mutual objectives. Moreover, the existence of important entry barriers would increase the probability of survival of ongoing operations. However, his later developments (Kogut, 1991, p. 26 and 29) are compatible with this finding : in concentrated environments, JV would constitute a « *phased divestiture with a future exercise date* » preferred by the acquiring firm to external growth ; it allows to absorb the required organisational know-how while exercising a pre-emption right on the operation in order to prevent a competitor from making the acquisition. This objective would be more frequent in concentrated industries where an internal growth is not very desirable. The second finding validates the hypothesis that an intermediate level of concentration, if it stimulates the conclusion of agreements, makes JV more fragile, for it is associated with a high instability of market-shares increasing opportunities and benefits of defection (Kogut, 1989, pp. 185-186, 190-191). The third result supports the hypothesis that variations in the level of interdependence between the partners are destabilising, as they question the objectives for which the JV has been signed : a decrease in the level of interdependence is likely to withdraw the benefits of the cooperation, and an increase is particularly susceptible to remove those of a formal rather than a tacit agreement (Kogut, 1989, p. 186). However, the growth-rate of the industry to which the JV belongs (v88k5, v89k7) has no significant impact. If it increases the profitability of the venture and thus the benefits of the cooperation, it simultaneously favours rivalry between its partners (Kogut, 1989, p. 186, 188). All these results are consistent with the statement of Harrigan (1988a) that the industry of an alliance has a significant impact. On the contrary, differences that exist between segments of one single industry, at least as far as the electronic sector is concerned, are not significant (v97p12). Finally, one has to note that the variables v91k3 and v91k4 primarily reflect unexpected changes in the growth of industries rather than structural characteristics of the latter. Their significant negative impact confirms Kogut's (1991) hypothesis that the probability of JV acquisition increases whenever there appears an unexpected increase in their value.

(21) if the JV is not established in the service sector (v88k6). Nonetheless, Kogut (1988a, p. 40) does not mention whether this finding takes into account the age of the JV, nor the reasons susceptible to explain this result, nor the way it was obtained. Perhaps, irreversible investments are particularly scarce in service sectors, so that exit barriers from a joint domain of activity are reduced.

All things considered, the combination of available findings clearly reveals that no variable has an opposite effect on the probability of JV dissolution and JV acquisition. In other words, a firm that aims at meeting the conditions reducing the risk of JV dissolution would not, by so doing, increase the risk of acquisition¹³. Nevertheless, certain factors only have an incidence on one mode of termination. This observation suggests that the criteria of disappearance is not particularly relevant for empirical research. Indeed, a non (or weak) significant coefficient can perfectly be due to the fact that the explanatory variable has no effect on the sole dissolution or acquisition (as suggested by findings on the incidence of the

degree of concentration of the JV industry). Beyond that, this view allows to confirm that the conditions to fulfil are not always identical according to whether one aims primarily at avoiding a rapid dissolution or acquisition. In this way, the operation of a JV in one single market (v97p10) or in an industry whose degree of concentration is stable (v89k6), an unequal capital distribution (v97p9), and the presence of more than two partners (v96p5) that are not direct competitors (v96p1 ; v97p5) constitute situations that, according to available results, only reduce the risk of JV dissolution. Conversely, the incorporation of an R&D activity in JV belonging to the electronic industry (v96p9), dissimilar contributions and roles of partners (v96p2), a weakly unequal capital distribution (v96p10), an East-European partner for a US firm (v97p1.5), a weak degree of concentration of the JV industry (v91k1), and the absence of significant changes in the growth-rate of the latter (v91k3 ; v91k4) represent situations that only reduce the risk of JV acquisition.

CONCLUSION

This article has attempted to provide an insight into empirical studies dealing with JV and performance. A thorough examination of the literature shows that measuring such a multidimensional concept is difficult, all the more so as these operations concern more than one firm. The analysis contributes to a better understanding of findings of these studies and suggests several research directions : (1) the relative contribution of JV to a firms' overall performance needs to be specified (especially by employing subjective measures) and compared to measures assessing JVPERF ; (2) a simultaneous and separate use of objective and subjective measures for both PARTPERF and JVPERF would allow to determine the convergence of these two types of measures ; (3) testing the impact of explanatory factors simultaneously and separately on several criteria would be useful for finding adequate combinations of variables.

The investigation of determinants of JV longevity can be useful to managers that have an interest in the future of their joint operation(s). It gives them, in a synoptic and concentrated manner, indications about the most favourable contexts for durable agreements as well as about the way they can increase JV longevity. In fact, it appears that the durability of a JV is not entirely determined by its field of activity and the characteristics of its environment. The partners' profile and implementation modalities also exert an influence. The longevity of an agreement is thus, at least partly, a matter of management. However, available results appear not to be very numerous : only nine variables (out of 56), are simultaneously tested in more than two studies. If one admits that only an accumulation of results allows to find out reliable trends in business administration, then this field of research is far from being explored. Several questions still remain unanswered : **Firstly**, the incidence of the functional content of an agreement has to be specified. On the one hand, JV longevity seems to be influenced by the degree of appropriateness between structural conditions and the functions covered by the agreement rather than by the functional content itself. On the other hand, no research controls for the potential impact of a simultaneous presence of several functions. Yet, Millington and Bayliss (1997) find that the combination of marketing and production promotes JV longevity. **Secondly**, the diversity of results on the effect of capital distribution calls for complementary tests that evaluate the solidity of the link between the power of control of a firm and the capital part it actually holds. Moreover, the incidence that the context and the characteristics of a relationship can have on a given ownership structure remains to be explained. **Thirdly**, it would be interesting to evaluate the extent to which the low significance of the single available finding on the impact of the number of partners does not result from the fact the relationship is curvilinear (a great number of partners would be

detrimental to the dynamics of the cooperation). **Fourthly**, the reasons why an important cultural or organisational distance does not increase the probability of termination are not identified. The conjecture put forward in this respect that is consistent with the research of Parkhe (1991) remains to be tested. **Fifthly**, one does not have at one's disposal indications on the relative importance of factors whose incidence is significant. Yet, it is possible that certain factors are far more influential than others. **Sixthly**, if one considers situations, for all that they are very realistic, where a firm only has low degrees of freedom as to the choice of its partner's profile, it appears that available findings are mostly of limited usefulness to the manager. In other words, few studies attempt to measure the incidence of factors that concern modalities of JV implementation and management. Yet, this research direction appears promising, as stated by Doz (1996) according to which the survival of agreements would be largely determined by the initial conditions (in particular, the modalities) of their implementation. **Finally**, in so far as a JV dissolution or acquisition can be a perfectly planned issue (Verna, 1989 ; Kogut, 1989), new studies that only integrate the cases of acquisitions or dissolutions effectively reflecting a failure of the cooperation would be particularly useful. In fact, the studies of Park and al. (1996, 1997) about causes of dissolutions, and that of Millington and Bayliss (1997) about determinants of disappearances are the only ones that clearly take this aspect into account.

After a first analysis of performance criteria used in the literature and a synthesis of determinants of JV longevity, available findings on other performance criteria remain to be examined. Furthermore, a comparison of the relative impact that each explanatory variable (or group of variables) has on different performance criteria would contribute to a better understanding of different assessments of JV effectiveness.

NOTES

¹ Contracts between independent firms, that are not to be executed instantaneously.

² Separate business entities owned by at least two companies, where each partner has an equity stake superior to 5 % (none of them holds more than 95 % of the capital).

³ In the same way, all investigations that limit themselves to evaluating the impact of the conclusion of a JV on its partners are naturally excluded (Hagedoorn and Schakenraad, 1994; Hu, Chen and Shieh, 1992 ; Luo, 1996 ; McConnel and Nantell, 1985 ; Woodcock, Beamish and Makino, 1994 ; Woolridge and Snow, 1990), for they do not aim at identifying explanatory factors of alliance performance.

⁴ The other nine (Awadzi, Kedia and Chinta, 1986 ; Awadzi, 1987 ; Blumenthal, 1988 ; Hill, 1988 ; Janger, 1980 ; Rafii, 1978 ; Schaan, 1983 ; Tillman, 1990 ; Woodcock and Geringer, 1990) are unpublished communications or doctoral dissertations.

⁵ For a synthesis of the literature on this theme, one can notably refer to Morin and al. (1994).

⁶ In the table, each variable, on which the impact of explanatory factors has been empirically tested, is specified. Proxies are codified separately for each study, even when they are identical.

⁷ Since the studies carried out by Beamish (1985), Harrigan (1988a), Killing (1983), and Lecraw (1984) use both objective and subjective measures, they are counted twice in the following analysis. The percentages thus refer to a total of 46.

⁸ This fact is also reflected in various case-studies written by managers that attempt to explain the success or failure of their JV (e.g. Leysen, 1990 ; Wörner, 1992).

⁹ Either because of the fear to increase the competitive power of the acquiring firm, or because a termination of the partnership would create a situation of overcapacity for the latter.

¹⁰ The significance of v92c1.1 and v92c1.2 is not tested. Furthermore, these two results are obtained without controlling for other variables that might influence JV longevity.

¹¹ Maybe this is due to the fact that, in reality, this relation is not linear.

¹² At least if the criteria of survival is used as an indicator of performance.

¹³ At least as far as factors are concerned, for which results are available.

REFERENCES

- Anderson, E. (1990), Two Firms, One Frontier : On Assessing Joint Venture Performance, *Sloan Management Review*, Vol. 31, No. 2, pp.19-30
- Awadzi, W., Kedia, B. and Chinta, R. (1986), *Performance Implications of Locus of Control and Complementary Resources in International Joint Ventures : An Empirical Study*, paper presented at Academy of International Business Conference, London
- Awadzi, W. (1987), *Determinants of Joint Venture Performance : a Study of International Joint Ventures in the United States*, Ph.D. dissertation, Louisiana State University
- Barkema, H. G., Bell, J. H. J. and Pennings, J. M. (1996), Foreign Entry, Cultural Barriers, and Learning, *Strategic Management Journal*, Vol. 17, No. 2, pp. 151-166
- Beamish, P. W (1985), The Characteristics of Joint Ventures in Developed and Developing Countries, *Columbia Journal of World Business*, Vol. 20, n° 3, pp. 13-19
- Beamish, P. W. (1987), Joint Ventures in LDCs : Partner Selection and Performance, *Management International Review*, Vol. 27, n° 1, pp. 23-37
- Beamish, P. W. (1988), *Multinational Joint Ventures in Developing Countries*, New York : Routledge
- Beamish, P. W. and Inkpen, A. C. (1995), Keeping International Joint Ventures Stable and Profitable, *Long Range Planning*, Vol. 28, No. 3, pp. 26-36
- Blanchot, F. (1997), Modélisation du choix d'un partenariat, *Revue Française de Gestion*, n° 114, pp. 68-82
- Bleeke, J. and Ernst, D. (1991), The Way to Win in Cross-Border Alliances, *Harvard Business Review*, Vol. 69, n° 6, pp. 127-135
- Blodgett, L. L. (1992), Factors in the Instability of International Joint Ventures : An Event History Analysis, *Strategic Management Journal*, Vol. 13, No. 6, pp. 475-481
- Blumenthal, J. F. (1988), *Strategic and Organizational Conditions for Joint Venture Formation and Success*, Ph.D. dissertation, University of Michigan
- Borys, B. and Jemison, D. B. (1989), Hybrid Arrangements as Strategic Alliances : Theoretical Issues in Organizational Combinations, *Academy of Management Journal*, Vol. 14, No. 2, pp. 234-249
- Braxton Associates, Horack Adler & Ass. and Morris, D. (1995), *A European Approach to Strategic Alliances, Volume I : Synthesis of Main Findings*, London
- Cartwright, S. and Cooper, C. L. (1989), Predicting Success in Joint Venture Organisations in Information Technology, *Journal of General Management*, Vol. 15, No. 1, pp. 39-52
- Chowdhury, J. (1992), Performance of International Joint Ventures and Wholly Owned foreign Subsidiaries : a Comparative Perspective, *Management International Review*, Vol. 32, n° 2, pp. 115-133
- McConnel, J. J. and Nantell, T. J. (1985), Corporate Combinations and Common Stock Returns : The Case of Joint Ventures, *The Journal of Finance*, Vol. XL, n° 2, pp ; 519-536
- Contractor, F. J. and Lorange, P. (1988), Why Should Firms Cooperate ? The Strategy and Economics Basis for Cooperative Ventures, in : Contractor, F. J. and Lorange, P. (eds.), *Cooperative Strategies in International Business : Joint Ventures and Technology Partnerships between Firms*, New York : Lexington Books, pp. 3-30
- Culpan, R. and Kostelac (Jr.), E. A. (1993), Cross-National Corporate Partnerships : Trends in Alliance Formation, in : Culpan, R. (ed.), *Multinational Strategic Alliances*, Binghamton/ New York : International Business Press
- Doz, Y. (1992), Empirische Relevanz von Strategischen Allianzen in Europa, in : Bronder, Ch. et Pritzl, R. (eds.), *Wegweiser für Strategische Allianzen : Meilen- und Stolpersteine bei Kooperationen*, Frankfurt am Main : Frankfurter Allgemeine Zeitung ; Wiesbaden : Gabler
- Doz, Y. L. (1996), The Evolution of Cooperation in Strategic Alliances : Initial Conditions or Learning Processes ? , *Strategic Management Journal*, Vol. 17, Special Issue, pp. 55-83
- Dussauge, P. and Garrette, B. (1995), Determinants of Success in International Strategic Alliances : Evidence from the Global Aerospace Industry, *Journal of International Business Studies*, Vol. 26, No. 3, pp. 505-530
- Dussauge, P. and Garrette, B. (1997a), Les évolutions et les issues des alliances stratégiques entre concurrents : une étude longitudinale dans l'industrie automobile, in : *Actes de la 6^{ème} Conférence Internationale de Management Stratégique (AIMS)*, Montréal, 25,26 et 27 juin, Vol. 1, pp. 423-438
- Dussauge, P. and Garrette, B. (1997b), Anticiper les conséquences des alliances stratégiques, *Revue Française de Gestion*, n° 114, pp. 106-117

- Dymsza, W. A. (1988), Successes and Failures of Joint Ventures in Developing Countries : Lessons from Experience, in : Contractor, F. J. and Lorange, P. (eds.), *Cooperative Strategies in International Business : Joint Ventures and Technology Partnerships between Firms*, Lexington Books, New York, pp. 403-424
- Eisele, J. (1995), *Erfolgsfaktoren des Joint Venture-Management*, Wiesbaden : Gabler
- Fey, C. (1995), Important Design Characteristics for Russian-Foreign Joint Ventures, *European Management Journal*, Vol. 13, No. 4, pp. 405-415
- Franco, L. G. (1971), *Joint Venture Survival in Multinational Corporations*, New York : Preager Publishers
- Geringer, J. M. and Hebert, L. (1989), Control and Performance of International Joint Ventures, *Journal of International Business Studies*, Vol. 22, No. 2, pp. 235-254
- Geringer, J. M. and Hebert, L. (1991), Measuring Performance of International Joint Ventures, *Journal of International Business Studies*, Vol. 22, No. 2, pp. 249-263
- Ghemawat, P., Porter, M. E. and Rawlinson, R. A. (1986), Patterns of International Coalition Activity, in : Porter, M. E. (ed.), *Competition in Global Industries*, Harvard Business School Press, Boston, pp. 345-365
- Gomes-Casseres, B. (1987), Joint Venture Instability : Is It A Problem ? , *Columbia Journal of World Business*, Vol. XXII, No. 2, pp. 97-102
- Hagedoorn, J. (1993), Understanding the Rationale of Strategic Technology Partnering : Interorganizational Modes of Cooperation and Sectoral Differences, *Strategic Management Journal*, Vol. 14, No. 5, pp. 371-385
- Hagedoorn, J. and Narula, R. (1996), Choosing Organizational Modes of Strategic Technology Partnering : International and Sectoral Differences, *Journal of International Business Studies*, Vol. 27, No. 2, pp. 265-284
- Hagedoorn, J. and Schakenraad, J. (1994), The effect of strategic technology alliances on company performance, in: *Strategic Management Journal*, Vol. 15, pp. 291-309
- Hamel, G., Doz, Y. L. and Prahalad, C. K. (1989), Collaborate with Your Competitors - and Win, *Harvard Business Review*, Vol. 67, No. 1, pp.133-139
- Harrigan, K. R. (1988a), Strategic Alliances and Partner Asymmetries, *Management International Review*, Special Issue, pp. 53-72
- Harrigan, K. R. (1988b), Joint Ventures and Competitive Strategy, *Strategic Management Journal*, Vol. 9, No. 4, pp. 141-158
- Hebert, L. (1997), Does Control Matter ? A Path Model of the Control-Performance Relationship in International Joint Ventures, *Management international / International Management / Gestión Internacional*, Vol. 1, N° 1, pp. 27-39
- Hergert, M. and Morris, D. (1987), Trends in International Collaborative Agreements, *Columbia Journal of World Business*, Vol. XXII, No. 2, pp. 15-21
- Hennart, J.-F. (1988), A Transaction Costs Theory of Equity Joint Ventures, *Strategic Management Journal*, Vol. 9, No. 4, pp. 361-374
- Hill, R. C. (1988), *Joint Venture Strategy Formulation and Implementation : A Contingency Approach*, Ph.D. Dissertation, Texas A&M University
- Hill, R. C. and Hellriegel, D. (1994), Critical Contingencies in Joint Venture Management : Some Lessons from Managers, *Organization Science*, Vol. 5, No. 4, pp. 594-607
- Hu, M. Y., Chen, H. and Shieh, C. (1992), Impact of U.S.-China Joint Ventures on Stockholders' Wealth by Degree of International Involvement, *Management International Review*, Vol. 32, n° 2, pp. 135-148
- Hu, M.Y. and Chen, H. (1996), An Empirical Analysis of Factors Explaining Foreign Joint Venture Performance in China, *Journal of Business Research*, Vol. 35, pp. 165-173
- Inkpen, A. C. and Birkenshaw, J. (1994), International Joint Ventures and Performance : an Interorganizational Perspective, *International Business Review*, Vol. 3, No. 3, pp. 201-217
- Janger, A. R. (1980), *Organization of International Joint Ventures*, New York, NY : Conference Board
- Killing, J. P. (1982), How to make a global joint venture work, *Harvard Business Review*, Vol. 60, n° 3, pp. 120-127
- Killing, J. P. (1983), *Strategies for Joint Ventures Success*, New York : Routledge
- Knittel, B. and Stefanini, A. (1993), Indian Joint-Venture : Les leçons de l'expérience, *Gérer et comprendre*, n° 30, pp. 17-23
- Kogut, B. (1988a), Joint Ventures : Theoretical and Empirical Perspectives, *Strategic Management Journal*, Vol. 9, No. 4, pp. 319-332

- Kogut, B. (1988b), A Study of the Life Cycle of Joint Ventures, *Management International Review*, Special Issue, pp. 39-52
- Kogut, B. (1989), The Stability of Joint Ventures : Reciprocity and Competitive Rivalry, *The Journal of Industrial Economics*, Vol. 38, n° 2, pp. 183-198
- Kogut, B. (1991), Joint Ventures and the Option to Expand and Acquire, *Management Science*, Vol. 37, n° 1, pp. 19-33
- Koh, J. and Venkatraman, N. (1991), Joint Venture Formations and Stock Market Reactions: An Assessment in the Information Technology Sector, *Academy of Management Journal*, Vol. 34, No. 4, pp. 869-892
- Lane, H. W. and Beamish, P. W. (1990), Cross-cultural Cooperative Behaviour in Joint Ventures in LDCs, *Management International Review*, Vol. 30, Special Issue, pp. 87-102
- Lasserre, P. (1997), *A Contribution to the Study of Joint Ventures in Asia Pacific*, INSEAD working paper, Fontainebleau, 97/14/ABA
- Lecraw (1984), Bargaining Power, Ownership, and Profitability of Transnational Corporations in Developing Countries, *Journal of International Business Studies*, Spring/Summer, pp. 27-43
- Leysen, A. (1990), Strategische Allianzen in der fotografischen Industrie : Das Fallbeispiel Agfa-Gevaert, *Zeitschrift für betriebswirtschaftliche Forschung*, Sonderheft 27, pp. 91-100
- Luo, Y. (1996), Evaluating the Performance of Strategic Alliances in China, *Long Range Planning*, Vol. 29, No. 4, pp. 534-542
- Lyles, M. A. and Baird, I. S. (1994), Performance of International Joint Ventures in Two Eastern European Countries : The Case of Hungary and Poland, *Management International Review*, Vol. 34, No. 4, pp. 313-329
- Meschi, P. X. and Roger, A. (1994), Cultural Context and Social Effectiveness in International Joint Ventures, *Management International Review*, Vol. 34, No. 3, 197-215
- Meschi, P. X. (1997), Longevity and Cultural Differences of International Joint Ventures : Toward Time-based Cultural Management, *Human Relations*, Vol. 50, n° 2, pp. 211-228
- Millington, A. I. and Bayliss, B. T. (1997), Instability of Market Penetration Joint Ventures: a Study of UK Joint Ventures in the European Union, *International Business Review*, Vol. 6, No. 1, pp. 1-17
- Morin, E. M., Savoie, A. and Beaudin, G. (1994), *L'efficacité de l'organisation. Théories, représentations et mesures*, Montréal : Gaëtan Morin
- Oesterle, M.-J. (1993), *Joint Ventures in Rußland : Bedingungen - Probleme - Erfolgsfaktoren*, Wiesbaden : Gabler
- Oesterle, M.-J. (1995), Probleme und Methoden der Joint Venture-Erfolgsbewertung, *Zeitschrift für Betriebswirtschaft*, 65. Jahrgang, Heft 9, pp. 987-1004
- Ohmae, K. (1989), The Global Logic of Strategic Alliances, *Harvard Business Review*, March-April, pp. 143 - 154
- Osborn, R. N. and Baughn, C. Ch. (1990), Forms of Interorganizational Relationships : Integration for Future Directions, *Academy of Management Review*, Vol. 33, No. 2, pp. 503-519
- Park, S. H. and Russo, M. V. (1996), When Competition Eclipses Cooperation : an Event History Analysis of Joint Venture Failure, *Management Science*, Vol. 42, n° 6, pp. 875-890
- Park, S. H. and Ungson, G. R. (1997), The Effect of National Culture, Organizational Complementarity, and Economic Motivation on Joint Venture Dissolution, *Academy of Management Journal*, Vol. 40, No. 2, pp. 279-307
- Parker, B., Zeira, Y. and Hatem, T. (1996), International Joint Venture Managers : Factors Affecting Personal Success and Organizational Performance, *Journal of International Management*, Vol. 2, No. 1, pp. 1-29
- Parkhe, A. (1991), Interfirm Diversity, Organizational Learning, and the Longevity in Global Strategic Alliances, *Journal of International Business Studies*, Vol. 22, No. 4, pp. 579-601
- Parkhe, A. (1993), Partner Nationality and the Structure-Performance Relationship in Strategic Alliances, *Organization Science*, Vol. 4, n° 2, pp. 301-324
- Pisano, G. P., Russo, M. V. and Teece, D. J. (1988), Joint Ventures and Collaborative Agreements in the Telecommunications Equipment Industry, in : Mowery D. C. (ed.), *International Collaborative Ventures in U.S. Manufacturing*, Cambridge, pp. 23-70
- Posth, M. and Bergmann, G. (1997), Managementprobleme internationaler Equity-Joint-Ventures, in : Macharzina, K. and Oesterle, M. J. (eds.), *Handbuch Internationales Management : Grundlagen - Instrumente - Perspektiven*, Wiesbaden : Gabler

- Rafii, f. (1978), *Joint Ventures and Transfer Technology to Iran : The Impact of Foreign Control*, unpublished Ph.D. dissertation, Harvard University
- Schaan, J.-L. (1983), *Parent Control and Joint Venture Success : The Case of Mexico*, unpublished Ph.D. dissertation, University of Western Ontario
- Schaan, J.-L. (1988), How to Control a JV even as a Minority Partner, *Journal of General Management*, Vol. 14, No. 1, pp. 4-16
- Schaan, J.-L. and Beamish, P. W. (1988), Joint Venture General Managers in LDCs, in : Contractor, F. J. et Lorange, P. (eds.), *Cooperative Strategies in International Business : Joint Ventures and Technology Partnerships between Firms*, New York : Lexington Books, pp. 279-299
- Teagarden, M. B. and von Glinow, M. A. (1990), Contextual Determinants of HRM Effectiveness in Cooperative Alliances : Mexican Evidence, *Management International Review*, Vol. 30, Special Issue, pp. 23-36
- Thietart, R.-A., and Vandangeon, I. (1992), Direction et contrôle des alliances stratégiques, in : *Mélanges en l'honneur de Guy Mérigot*, Paris : Economica, pp. 577-590
- Tillman, A. U. (1990), *The Influence of Control and Conflict on Performance of Japanese-Thai Joint Ventures*, D.B.A. dissertation, Nova University
- Tomlinson, J. W. C. (1970), *The Joint Venture Process in International Business : India and Pakistan*, Cambridge, MA : MIT Press
- Turcq, D. (1985), *La tunique de Nessus (Les stratégies d'accords internationaux des entreprises japonaises)*, Cahiers d'études n° 85-47, ESCP
- Urban, S. and Vendemini, S. (1992), *European Strategic Alliances : Co-operative Corporate Strategies in the New Europe*, Oxford/Cambridge, Massachusetts : B. Blackwell
- Verna, J. (1989), *Les stratégies conjointes des firmes françaises depuis 1980 : des comportements différenciés*, Thèse de Doctorat en Sciences de Gestion, Université de Grenoble
- Wolf, F. M. (1986), *Meta-Analysis. Quantitative Methods for Research Synthesis*, Sage Publications, n° 07-059
- Woodcock, C. P., Beamish, P. W. and Makino, S. (1994), Ownership-based Entry Mode Strategies and International Performance, *Journal of International Business Studies*, Second Quarter, pp. 253-273
- Woodcock, C. P. and Geringer, M. J. (1990), Parent Strategy, Ownership Structure, Cultural Congruity and Joint Venture Performance, in : Geringer, M. J. (ed.), *Proceedings of the ASAC Conference*, Whistler, B.C.
- Woolridge, J. R. and Snow, C. C. (1990), Stock Market Reaction to Strategic Investment Decisions, *Strategic Management Journal*, Vol. 11, pp. 353-363
- De Woot (1988), *Les entreprises de haute technologie et l'Europe*, Paris : Economica
- Wörner, H. (1992), Bosch-Siemens Hausgeräte GmbH - Vom Management einer Strategischen Allianz, in : Bronder, Ch. and Pritzl, R. (eds.), *Wegweiser für Strategische Allianzen : Meilen- und Stolpersteine bei Kooperationen*, Frankfurt am Main : Frankfurter Allgemeine Zeitung ; Wiesbaden : Gabler
- Yan, A. and Gray, B. (1994), Bargaining Power, Management Control, and Performance in United States-China Joint Ventures : a Comparative Case Study, *Academy of Management Journal*, Vol. 37, n° 6, pp. 1478-1517