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TRENDS AND TRAITS OF CANADIAN JOINT VENTURES

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Chapter 1

INTRODUCTION AND OVERVIEW

This report examines trends and traits of joint ventures in Canada during the 1980s. Joint ventures occur when two or more separate legal entities (the parents) share ownership of a third entity (the joint venture). The parents can include individuals or any of a wide variety of organizations, including corporations, trusts, holding companies, crown corporations, cooperatives, or the like. The joint venture could be either a newly formed entity or it may be the product of one or more previously existing entities (e.g., a firm or divisions of a corporation) which are now jointly owned by the parents.

IMPORTANCE OF JOINT VENTURES

An alternative to full ownership options, joint ventures are commonly used as a means of competing within both domestic and international competitive arenas. Traditionally, many joint ventures - particularly those involving one or more foreign organizations - had been formed to exploit peripheral markets or technologies, and their activities were considered to be of marginal importance to the maintenance of a parent firm's competitive advantage. However, they appear to be increasingly viewed as strategic weapons, as one of the elements of an organization's business units network.(1) Examination of data on European and U.S. firms suggests that most of the joint ventures established since 1975 have been formed between existing or potential competitors and have involved products or markets which constitute the primary or "core" activities of the parent firms (2). These data also suggest that the number of joint ventures involving participation by foreign-owned firms or their subsidiaries has been increasing dramatically during the last decade throughout most the of world. Therefore, the nature and extent of these trends have important implications for strategy, structure and performance within and between industries.

RATIONALE FOR THIS STUDY

It is clear from the above discussion that joint ventures represent an important concern for individuals concerned with corporate strategy or public policy. Nevertheless, there has been a lack of prior research which provides a thorough examination of recent Canadian joint venture experience, how this experience may compare to that of other developed countries, and the key implications for corporate strategy and public policy.

METHODOLOGY WHICH WAS EMPLOYED

Using data supplied by Investment Canada, the author was able to identify the entire population of joint ventures in existence in Canada at the end of 1981, 1985 and 1988. This database included a variety of information, including the legal nationality of each parent and the joint venture; the provincial headquarters location of all Canada-based parents and the ventures themselves; the three digit Canadian standard industrial classification (SIC) code for each domestically-incorporated parent and the joint ventures; the organizational classification of each parent and venture; and the percentage of venture equity held by each parent firm. After manual transfer of this data to a mainframe computer at the author's university, extensive statistical analyses were conducted using the SPSS-X and SAS statistical packages.(3) These analyses were conducted between July and October of 1989.

To facilitate comparison of Canadian joint venture experience to that of other nations, and thus to obtain insights into the relative uniqueness and implications of this nation's experience, the author attempted to obtain similar data on U.S. joint ventures. However, it was only possible to obtain data on joint ventures which were formed between 1981 and 1988, rather than all ventures which were in existence in 1981, 1985 and 1988.(4) In addition, it was only possible to obtain data on those joint ventures in the U.S. which involved at least one foreign partner, thus excluding the large number of ventures which involved only domestic U.S. firms. Furthermore, for purposes of comparison with the Canadian data, the available data on U.S. joint ventures was limited to the year formed, the nationality of parent firms, and the industrial classification of the joint ventures. Nevertheless, as discussed in the next chapter, this data was able to provide several important insights regarding the relative joint venture experiences of Canada and the U.S.

OVERVIEW OF THE REPORT

This chapter has provided a brief introduction and overview of the purpose, structure and content of this report. Chapter 2 provides an overview of key findings from our analysis of Canadian joint venture experience in the 1980s. The report begins by examining the overall frequency of joint venture activity, including a comparison of Canadian versus U.S. experience. It then examines Canadian experience on the basis of specific variables, including the nationality of the parent firms; the legal nationality, headquarters province, industry classification and organizational classification of the joint ventures; and the structural division of joint venture equity.

Chapter 3 provides additional insight into factors influencing the performance of Canadian joint ventures during the 1980s by providing a multivariate statistical analysis of the relationship of four variables with venture survival. The discussion addresses which variables were examined (i.e., business level and geographic market diversification of the parent firms; structural division of venture equity; and cultural congruity of venture parents), the analytical methods which were used to probe these relationships, and the results which were obtained.

Chapter 4 concludes the report by providing a brief discussion of the key conclusions which can be drawn from the study's results, as well as several of the principal implications of our findings for corporate strategy and public policy.

CHAPTER NOTES

1. K.R. Harrigan, "Strategic alliances: Their new role in global competition," Columbia Journal of World Business, Summer 1987, pp. 67-69.

2. K.R. Harrigan, "Strategic alliances and partner asymmetries," in F. Contractor and P. Lorange, (eds.), Cooperative Strategies in International Business, Toronto, Lexington Books, 1988, pp. 205-226; M. Hergert and D. Morris, "Trends in international collaborative agreements," in Contractor and Lorange, Ibid., pp. 99-110.

3. Some recoding of the raw data supplied by Investment Canada was necessary. In particular, for a small number of cases, a joint venture was listed as being in existence in 1981 and in 1988, but was not listed for 1985. For these cases, the venture was recoded as if it had existed throughout the three time periods.

4. Data on U.S. joint ventures was obtained via a series of publications published by the U.S. Department of Commerce entitled Foreign Direct Investment in the United States.

Chapter 2

ANALYSIS OF JOINT VENTURE TRENDS AND TRAITS

This chapter discusses the results of our analysis of the key trends and traits of joint ventures in Canada during the 1980s. The analysis begins by examining the overall frequency of joint venture activity, including a comparison of Canadian versus U.S. experience. It then examines Canadian experience on the basis of specific variables, including the nationality of the parent firms; the legal nationality, headquarters province, industry classification and organizational classification of the joint ventures; and the structural division of joint venture equity.

OVERALL FREQUENCY OF JOINT VENTURES

As shown in Table 1, there were a substantial number of joint ventures in existence in Canada during the 1980s: 3690 joint ventures in 1981, 3407 in 1985 and 3396 in 1988. The predominant structure of Canadian joint ventures was the presence of only two parents. Indeed, over 70 percent of all joint ventures were of this form. In contrast, approximately 21 percent of the ventures involved three parents and 7 percent involved four parents. The presence of five or more parents was clearly an infrequent and much less traditional joint venture form, representing less than 4 percent of the sample population for each of the time periods examined. Therefore, to simplify the discussion, the remainder of the analysis contained in this report will refer only to those joint ventures which involved two, three or four parents.

Our analysis uncovered several additional insights regarding the overall frequency of joint ventures in Canada. First, in contrast to dramatic increases reported for other developed countries (1), the overall number of joint ventures in Canada evidenced a decline during the 1980s. In large part, this can be attributed to the high termination rate of joint ventures between 1981 and 1985. Of the 3690 ventures in existence in 1981, 1422 (39 percent) had ceased to exist as joint ventures during the next four years, a time period which was also characterized by recession in many sectors of the Canadian economy. In

TABLE 1

TOTAL FREQUENCY OF JOINT VENTURES

	1981	1985	1988
Number of ventures with 2 parents	2501	2303	2313
Number of ventures with 3 parents	787	730	718
Number of ventures with 4 parents	268	255	239
Number of ventures with more than 4 parents	134	119	126
Total number of ventures, any number of parents	3690	3407	3396
Total number of ventures with 2, 3 or 4 parents	3556 (96.4%)	3288 (96.5%)	3270 (96.3%)

contrast, only 496 (15 percent) of the 3407 ventures existing in 1985 had been terminated by 1988, a time period which encompassed extensive economic expansion in Canada.

However, the relatively low frequency of joint ventures in Canada cannot be attributed solely to the high termination rate of ventures during the economic recession of the early 1980s. Indeed, there also appeared to be a substantial decline in the overall rate of formation of new joint ventures in Canada during the 1980s. Whereas 1154 (34 percent) of the ventures existing in 1985 had been formed in the preceeding four years, only 478 (15 percent) of the ventures existing in 1988 had been formed in the three prior years.

Another indication of the extent to which Canadian joint venture activity seems to have diminished in the 1980s is provided through comparison with similar activity in the U.S.(2). Table 2 shows that approximately 247 two parent joint ventures involving one or more foreign parent had been formed in the U.S. during the five year period between 1981 and 1985. In Canada, 235 two parent joint ventures in existence in 1985 and involving one or more foreign parent had been formed during the four years since 1981. It is likely that these

TABLE 2

NATIONALITY OF PARENT FIRMS IN 2 PARENT U.S. AND CANADA-BASED JOINT VENTURES INVOLVING FOREIGN PARENTS AND FORMED 1981-1988

	1981-1985		1986-1988	
NATIONALITY	U.S.	CANADA	U.S.	CANADA
Canada	19	177	16	86
United States	247	124	248	52
Western Europe	139	133	63	60
Australasia	83	23	165	14
Caribbean Community	0	3	1	0
South/Central America	0	0	1	1
Eastern Europe/USSR	0	2	0	0
Other/Missing	6	8	2	7
TOTAL	494	470	496	220

NOTE: The total number of parents is twice the number of joint ventures. One or both parents were principally headquartered outside of the U.S. or Canada, respectively.

latter data understate the actual level of joint venture formation in Canada, since they exclude ventures which had been formed during or after 1981 but which had ceased to exist by the end of 1985. In contrast, while 248 two parent joint ventures involving a foreign firm were formed in the U.S. between 1986 and 1988, only 110 two parent Canadian joint ventures in existence in 1988 and involving a foreign firm had been formed since 1985. These data suggest that, while the rate of joint ventures formed per capita appears to be quite high in Canada relative to the U.S., the number and relative proportion of Canadian joint ventures appears to have been declining significantly during the latter part of the 1980s.

Analysis also revealed differences in the relative stability of Canadian joint ventures based on the number of parents. During the recessionary 1981 to 1985 period, the number of four parent joint ventures declined 4.8 percent. This was much more stable than the results for either two or three parent joint ventures, which declined 7.9 percent and 7.2 percent, respectively. However, during the expansionary 1985 to 1988 period, the number of four parent ventures exhibited a significantly lower survival rate than did two or three parent ventures. While the number of four parent ventures declined 6.2 percent during this latter period, the number of two parent ventures remained relatively stable and three parent ventures declined in number by only 1.6 percent.

Overall, 1872 (51 percent) of the ventures in existence in 1981 were still classified as on-going joint ventures in 1988. This result seems to compare favorably with results for U.S. joint ventures. While survival data for U.S. joint ventures during the 1980s were not available, such data were available from a study of U.S.-based ventures in existence from 1974 to 1985.(3) That study found that the average life of U.S. joint ventures was 3.5 years, with 42 percent surviving over 4 years, and only 14 percent surviving 10 years or more.

NATIONALITY OF PARENT FIRMS

During the 1980s, the majority of Canadian joint ventures only involved parent firms which were headquartered in Canada. Nevertheless, foreign firms and their subsidiaries were involved in a substantial number of Canadian joint ventures during the 1980s. These non-Canadian parent firms were headquartered almost exclusively in the U.S., Western Europe and Australasia. Less than one percent of the ventures involved foreign firms from other regions of the world (i.e., the Caribbean Community, South or Central America, Eastern Europe or the USSR).

In addition, as shown in Table 3, the percentage of parents from Canada involved in recently-formed joint ventures was declining during the 1980s. The proportion of non-Canadian parent firms increasing from 15.6 percent during the 1981 to 1985 period to 17.1 percent during the 1985 to 1988 period. Over these same time periods, the percentage of parents which were from the U.S. increased from 5.9 to 7.1 percent, those from Western Europe increased from 7.0 to 7.2 percent, and those from Australasia increased from 1.9 to 2.1 percent.

TABLE 3

NATIONALITY OF PARENT FIRMS IN JOINT VENTURES FORMED, TERMINATED OR CONTINUOUS DURING 1981-1988

	FORMED		TERMINATED		CONTINUOUS
Nationality	1981-1985	1985-1988	1981-1985	1985-1988	1981-1988
Canada	2337	928	2899	975	3883
United States	163	79	208	80	192
Western Europe	195	81	221	105	242
Australasia	53	23	24	23	59
Caribbean Community	4	0	8	7	3
South/Central America	1	1	11	1	3
Eastern Europe/USSR	2	0	2	0	2
Other/Missing	14	8	15	9	25
TOTAL	2769	1120	3388	1200	4409

NOTE: Includes 2, 3 and 4 parent joint ventures. Total number of parents exceeds the number of joint ventures. At least one parent in each venture was legally headquartered outside of Canada.

Table 3 also shows that, for joint ventures which were terminated during the 1980s, a decreasing percentage of the parent firms were from Canada. Canadian firms represented 85.6 percent of the parent firms in ventures terminated between between 1981 and 1985, versus 81.3 percent for ventures terminated between 1985 and 1988. Similar figures for U.S. parents or their subsidiaries were 6.1 and 6.7 percent, versus 6.5 and 8.8 percent for Western European firms and 0.7 and 1.9 percent for Australasian parent firms.

According to data in Table 3, among joint ventures which survived throughout the 1981 to 1988 period, 88.1 percent of the parents were from Canada, 5.5 percent were from Western Europe, 4.4 percent were from the U.S., and 1.3 percent were from Australasia.

Additional data on parent nationality in ventures formed, terminated and continuous during the 1980s is contained in Table 4 for the specific case of two parent ventures, which were by far the most prevalent form of joint venture during the period examined. This table's data shows that Canadian firms represented an increasing percentage of the parents in recently formed ventures and a lower but increasing percentage in the ventures terminated during the 1980s. U.S. and Western European firms represented a declining percentage of the parent firms in recently formed ventures and a higher but declining percentage in the terminated ventures. Australasian firms represented a substantially lower percentage of overall joint venture activity in the 1980s than did firms from the U.S. or Western Europe. However, during the course of the decade, Australasian firms began to represent an increasing percentage of the parents in recently formed ventures, and a lower and relatively stable percentage in the terminated ventures. Furthermore, Australasian firms represented a disproportionately high percentage of the parent firms within two parent ventures which were continuous during the 1981-1985 period.

Examination of similar data for three and four parent joint ventures revealed a continued dominance of Western European and U.S. firms as parents, a small but growing percentage of Australasian parent firms, and few parent firms from other regions of the world. Specifically for the case of three parent ventures, there was a 38.4 percent drop in the number of non-Canadian parents between 1985 and 1988, from 232 to 143. In addition, there were nearly 50 percent more Western European parents than U.S. parents involved in three parent joint ventures in Canada. For four parent joint ventures, there was a continuous decline in the number of Western European and U.S. parents during both the 1981 to 1985 and the 1985 to 1988 time periods. While the number of Australasian parents increased nearly 300 percent between 1981 and 1985, their numbers subsequently dropped by nearly 50 percent during the 1985 to 1988 period.

The data in Table 2, presented earlier in this report, helps highlight Canadian experience versus U.S. experience regarding nationality of parent firms. From this table, it is apparent that most of the increase in the number of joint ventures in the U.S. is directly attributable to the rapid increase in joint ventures involving parent firms from Australasia, particularly Japan. Indeed, the proportion of newly formed ventures involving Western European parent firms exhibited a decline between the 1981-1985 and the 1986-1988 periods, as evaluated on both a per annum as well as a percentage basis. In contrast,

TABLE 4

NATIONALITY OF PARENT FIRMS IN 2 PARENT JOINT VENTURES INVOLVING FOREIGN PARENTS AND WHICH WERE FORMED TERMINATED OR CONTINUOUS DURING 1981-1988

	FORMED		TERMINATED		CONTINUOUS
Nationality	1981-1985	1985-1988	1981-1985	1985-1988	1981-1988
Canada	177	86	180	81	203
United States	124	52	161	61	152
Western Europe	133	60	159	66	160
Australasia	23	14	7	3	30
Caribbean Community	3	0	7	6	3
South/Central America	0	1	4	0	1
Eastern Europe/USSR	2	0	2	0	2
Other/Missing	8	7	8	5	17
TOTAL	470	220	528	222	568

NOTE: The total number of parents is twice the number of joint ventures. One or both parents were legally headquartered outside of Canada.

while the proportion of Canadian ventures involving Australasian parents increased during 1986-1988 versus 1981-1985, this increase was of a substantially smaller magnitude than for the U.S. and was also from a smaller initial percentage of venture activity. However, in contrast to the U.S. experience, the proportion of recently formed ventures involving Western European parents remained relatively stable across the two time periods.

LEGAL NATIONALITY OF JOINT VENTURES

As shown in Table 5, Canada represented the legal nation of incorporation for over 85 percent of all joint ventures in Canada during the 1980s. This percentage was consistent across the 1981, 1985 and 1988 time periods. The United States and the nations of Western Europe each represented the legal nationality for approximately 6 percent of all Canadian joint ventures, although the trend was toward a somewhat increased proportion of incorporations in Western Europe and a reduced percentage in the U.S. during the 1980s. Although the remaining nations of the world collectively accounted for less than 2 percent of the joint ventures' legal nations of incorporation, there was a distinct trend toward increased incorporations in the Australasian region. Indeed,

TABLE 5

LEGAL NATIONALITY OF JOINT VENTURES

Nationality	1981	1985	1988
Canada	3053	2815	2803
United States	225	198	195
Western Europe	216	213	212
Australasia	13	36	39
Caribbean Community	5	3	1
South/Central America	4	1	1
Eastern Europe/USSR	3	2	2
Other/Missing	21	20	17
TOTAL	3556	3288	3270

NOTE: Table only includes Canadian joint ventures with 2, 3 or 4 parent firms.

the number of Canadian joint ventures incorporated in the nations of Australasia tripled during the 1981-1988 period. This increase in Australasian involvement mirrors similar trends in the levels of overall investment flows of all types into Canada from Australasia during the 1980s.

The regions of the world in which Canadian joint ventures were incorporated was extremely concentrated during the 1980s. Over 99 percent of all two parent joint ventures were incorporated in North America, Western Europe or Australasia. In fact, there were continued decreases in both the number and the percentage of two parent ventures incorporated in the remaining areas of the world throughout the time period examined.

Despite a decline in their absolute number, Canada represented the legal home for the vast proportion of two parent joint ventures during the 1980s. The proportion of these ventures which were incorporated in Canada remained at approximately 83 percent during the decade. The proportion of ventures which were incorporated in the U.S. declined by more than 11 percent between 1981 and 1988, to approximately 7 percent of all two parent ventures. In contrast, the proportion incorporated in Western Europe increased by nearly 9 percent and this region surpassed the U.S. as the second most popular locale for legal incorporation of two parent ventures. Although Australasia only accounted for approximately 1.1 percent of all two parent venture incorporations in 1988, the proportion of ventures which were incorporated in this region increased by over 66 percent during the 1980s.

In comparison to two parent ventures, three and four parent joint ventures exhibited a substantially higher proportion of incorporations in Canada, with averages exceeding 90 percent for both categories. The proportion of three parent ventures incorporated in the U.S. increased from 2.8 percent in 1981 to 3.8 percent by 1988, while the percentage incorporated in Western Europe and Australasia remained relatively stable (at 4.0 and 1.4 percent, respectively) during the 1980s. The U.S. and Western Europe accounted for virtually all of the approximately 7 percent of four parent joint ventures which were not incorporated in Canada.

Overall, the proportion of joint ventures incorporated in Canada exhibited a strong positive correlation with the number of parents involved in the venture.

HEADQUARTERS PROVINCE OF JOINT VENTURES

As shown in Table 6, approximately 88 percent of all joint ventures in Canada were headquartered in the provinces of Ontario, Quebec, British Columbia and Alberta during the 1980s. Ontario represented the headquarters

TABLE 6

HEADQUARTERS PROVINCE OF JOINT VENTURES

Province	1981	1985	1988
Alberta	497	447	435
British Columbia	603	500	499
Manitoba	194	189	180
New Brunswick	33	42	46
Newfoundland	24	26	27
Nova Scotia	53	54	52
Northwest Territories	2	2	2
Ontario	1221	1165	1135
Prince Edward Island	3	4	4
Quebec	843	781	808
Saskatchewan	77	75	78
Yukon Territory	3	2	1
Not Specified	3	1	3
TOTAL	3556	3288	3270

NOTE: Table only includes Canadian joint ventures with 2, 3 or 4 parent firms.

province for approximately 34 percent of the ventures, Quebec for approximately 23 percent, and Alberta was the headquarters for approximately 13 percent. Although British Columbia served as the headquarters province for approximately 17 percent of the joint ventures in 1981, this percentage declined to approximately 15 percent for 1985 and 1988. Headquarters for the remaining 12 percent of the joint ventures were dispersed among the other 6 provinces and 2 territories. The number of joint ventures headquartered in these latter provinces and territories were relatively stable during the 1980s. The primary exception was New Brunswick, in which the number of ventures increased nearly 40 percent between 1981 and 1988. These trends with regard to the headquarters province of Canadian joint ventures evidenced substantial consistency throughout the 1980s, regardless of the number of parents involved in the venture..

Table 7 contains data on the headquarters province of all joint ventures formed, terminated or continuous during the 1981 to 1988 period. As these data show, Ontario (from 36.6 to 35.1 percent), Alberta (13.7 to 12.6 percent) and Manitoba (4.9 to 4.0 percent) each exhibited substantial decreases in their proportion of newly formed ventures. In contrast, Quebec (27.8 to 30.1 percent) and Saskatchewan (1.6 to 2.7 percent) were the only provinces to exhibit a substantial increase in their proportion of newly formed ventures.

From Table 7, it can also be seen that British Columbia evidenced a dramatic decrease in its proportion of the ventures which were terminated during these two time periods (from 46.9 to 10.1 percent), and Quebec also represented a substantially decreased percentage of terminated ventures (from 26.9 to 23.6 percent). In contrast, Ontario (from 33.6 to 39.9 percent), Manitoba (4.4 to 5.6 percent), Saskatchewan (1.4 to 2.0 percent) and Nova Scotia (1.5 to 2.0 percent) each evidenced significant increases in their proportion of terminated ventures.

The number of joint ventures headquarted in each province, broken down by frequencies of ventures with or without foreign parents, was also examined. Table 8 provides data for two parent ventures. As shown in this table, for each of the three years examined, there were over three times as many ventures without a foreign parent as there were ventures with a foreign parent. Ventures involving foreign firms were highly concentrated within four provinces: Ontario, Quebec, Alberta and British Columbia. These four provinces collectively accounted for over 93 percent of all two parent ventures involving foreign firms. Of these four, the only substantial increases in the proportion of ventures involving foreign firms occurred in Alberta (increasing from 16.9 to 23.9 percent of Albertan ventures between 1981 and 1988) and British Columbia (increasing from 14.2 to 20.4 percent over this same time period).

The proportion of ventures involving foreign firms was even lower for three and four parent firms, with over 80 percent of these latter types of ventures involving only Canadian parents. As with the two parent joint ventures, three and four parent ventures involving foreign partners were heavily concentrated in the provinces of Ontario, Quebec, Alberta and British Columbia.

INDUSTRY CLASSIFICATION OF JOINT VENTURES

Data provided by Investment Canada included three digit Canadian SIC codes for each joint venture. However, because the ventures collectively involved over one hundred different SIC codes, these data were subsequently recoded into 15 broader categories. The rationale for such recoding was threefold. First, recoding would help preserve the anonymity of firms in the database, particularly in SIC codes which only involved one or a few listings. Second, such recoding would facilitate comparison with U.S. data, which utilized a SIC code system

TABLE 7

HEADQUARTERS PROVINCE OF JOINT VENTURE FORMED, TERMINATED OR CONTINUOUS DURING 1981-1988[1]

Province	FORMED 1981-1985	FORMED 1985-1988	TERMINATED 1981-1985	TERMINATED 1985-1988	CONTINUOUS 1981-1988
Alberta	158 (13.7)	60 (12.6)	208 (14.6)	72 (14.5)	250 (13.4)
British Columbia	121 (10.5)	49 (10.3)	224 (46.9)	50 (10.1)	348 (18.6)
Manitoba	57 (4.9)	19 (4.0)	62 (4.4)	28 (5.6)	113 (6.0)
New Brunswick	19 (1.6)	9 (1.9)	10 (0.7)	5 (1.0)	20 (1.1)
Newfoundland	11 (1.0)	5 (1.0)	9 (0.6)	4 (0.8)	14 (0.7)
Nova Scotia	22 (1.9)	8 (1.7)	21 (1.5)	10 (2.0)	28 (1.5)
Northwest Territories	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)
Ontario	422 (36.6)	168 (35.1)	478 (33.6)	198 (39.9)	641 (34.2)
Prince Edward Island	4 (0.3)	1 (0.2)	3 (0.2)	1 (0.2)	0 (0.0)
Quebec	321 (27.8)	144 (30.1)	383 (26.9)	117 (23.6)	405 (21.6)
Saskatchewan	18 (1.6)	13 (2.7)	20 (1.4)	10 (2.0)	50 (2.7)
Yukon Territory	0 (0.0)	0 (0.0)	1 (0.0)	1 (0.2)	1 (0.1)
Not Specified	1 (0.0)	2 (0.4)	3 (0.2)	0 (0.0)	0 (0.0)
TOTAL	1154	478	1422	496	1872

1 NOTE: Includes 2,3, and 4 parent joint ventures.

TABLE 8

HEADQUARTERS PROVINCE OF JOINT VENTURES
INVOLVING 2 PARENTS

	WITH NO FOREIGN PARENT(S)			WITH FOREIGN PARENT(S)		
Province	1981	1985	1988	1981	1985	1988
Alberta	281	252	236	57	69	74
British Columbia	369	292	289	61	54	59
Manitoba	101	105	94	15	11	15
New Brunswick	18	26	31	6	5	3
Newfoundland	17	14	17	2	7	1
Nova Scotia	32	31	29	6	6	5
Northwest Territories	1	1	1	0	0	0
Ontario	617	571	569	272	253	238
Prince Edward Island	1	1	1	1	2	2
Quebec	414	388	420	176	166	168
Saskatchewan	42	45	49	9	7	9
Yukon Territory	2	1	0	0	0	0
Not Specified	1	0	2	0	1	1
TOTAL	1896	1727	1738	605	576	575

which varied somewhat from the Canadian SIC code system. Finally, recoding into a smaller number of categories could significantly enhance readability and discussion of findings from the study.

Correlations between parent firms' industrial classifications and those of their joint ventures and their partners were very high. Indeed, over 85 percent of all two parent joint ventures were categorized as being in the same three-digit SIC code as one or more of their parents. In addition, over 98 percent of all two parent joint ventures involved parents with the same SIC code. (It was expected that these figures substantially understated the actual extent of such activity, since SIC codes were not provided for most foreign firms.) Similar analyses conducted on three and four parent ventures revealed even higher proportions of joint ventures with the same industrial classification as at least one parent firm, and the proportion of three and four parent ventures in which at least two parents evidenced the same industrial classification was over 99 percent.

Canadian joint ventures were widely dispersed among the various industry classifications, as shown in Table 9. The dominant category for joint ventures was in financial industries (SIC 700 to 799), which accounted for over one-third of all joint ventures in Canada. The proportion of ventures in financial industries tended to increase with the number of parents, from approximately 34 percent for two parent ventures to 38 percent and 44 percent for those with three and four parents, respectively. However, the majority of the ventures in financial industries had subsequently taken full or partial ownership positions in businesses in other industrial categories. This suggests that many of "financial industries" ventures might essentially be serving as holding companies or related devices in order to facilitate ownership of companies in other industries, rather than being formed for the ultimate goal of participating strictly in a "financial industry" capacity. In this regard, possibly due to limitations of Canadian financial markets or the vagaries of the Canadian tax code, the joint venture form of organization might have been serving as an alternative mechanism for accumulating the necessary financial resources.(4)

Manufacturing industries (SIC 100 to 399) represented the second largest category of joint ventures, accounting for between 15.6 percent and 17.5 percent of all Canadian joint ventures during the 1980s. In contrast to financial ventures, the proportion of manufacturing ventures tended to decline as the number of parents increased. Although manufacturing accounted for approximately 18 percent of two parent ventures, it only accounted for about 16 percent and 9 percent of three and four parent ventures, respectively.

The most dramatic development evident in Table 9 is the decline in the number of agricultural, forestry and fishing joint ventures during the early 1980s. The number of Canadian ventures in these sectors declined by nearly 60 percent during the recessionary period of 1981 to 1985. In contrast, the number of construction joint ventures declined approximately 15 percent and no other category evidenced a decline of more than 8 percent. Indeed, there were absolute increases in the number or percentage of joint ventures in many of the other industrial sectors, particularly in mining, manufacturing, retail trade and services.

Table 10 provides a comparison of Canadian versus U.S. data on the frequencies and percentages of recently formed, two parent joint ventures by industrial category. Examination of this table reveals that joint ventures in agriculture, forestry and fishing represented a large and growing proportion of Canadian joint ventures (from 17.4 to 29.1 percent), becoming the largest single category of ventures formed between 1986 and 1988. In contrast, the number of U.S. ventures formed in these industries was very small between 1981 and 1985 (1.6 percent), with no new ventures formed between 1986 and 1988. Table 11 shows that Canadian ventures in these industries represented a large and growing

TABLE 9

INDUSTRY CLASSIFICATION OF JOINT VENTURES

Industry	1981 (%)	1985 (%)	1988 (%)
Agriculture, Forestry & Fishing	477 (13.4)	202 (6.1)	205 (6.3)
Mining	82 (2.3)	92 (2.8)	97 (3.0)
Manufacturing			
Food & Beverage	67 (1.9)	66 (2.0)	61 (1.9)
Textile & Clothing	74 (2.1)	73 (2.2)	69 (2.1)
Paper, Wood & Furniture	105 (3.0)	106 (3.2)	100 (3.1)
Metal Industries	86 (2.4)	95 (2.9)	89 (2.7)
Machinery & Equipment	62 (1.7)	63 (1.9)	59 (1.8)
Mining, Oil & Chemicals	66 (1.9)	77 (2.3)	73 (2.2)
Other Manufacturing	93 (2.6)	100 (3.0)	110 (3.4)
Construction	221 (6.2)	188 (5.7)	181 (5.5)
Utilities	128 (3.6)	133 (4.0)	125 (3.8)
Wholesale Trade	332 (9.3)	389 (11.8)	377 (11.5)
Retail Trade	124 (3.5)	147 (4.5)	164 (5.0)
Finance	1265 (35.6)	1173 (35.7)	1178 (36.0)
Services	371 (10.4)	382 (11.6)	380 (11.6)
Other/Missing	3 (0.1)	2 (0.1)	2 (0.1)
TOTAL	3556 (100.0)	3288 (100.0)	3270 (100.0)

Note: Only includes Canadian joint ventures with 2,3 or 4 parents.

proportion of new ventures (from 11.9 to 21.1 percent) and a large but declining percentage of terminated ventures (from 29.0 to 19.8 percent). Furthermore, Table 11's data suggests that ventures in these industries may tend to be short lived, since they represented only 2.9 percent of all ventures which survived from 1981 to 1988. This figure evidences a substantially inverse relationship with the proportion of ventures in these industries versus within other industries. In fact, no other industrial sector evidences a relationship - positive or negative - which

TABLE 10

INDUSTRY CLASSIFICATION OF 2 PARENT U.S. AND CANADA-BASED JOINT VENTURES INVOLVING FOREIGN PARENTS AND FORMED DURING 1981-1988[1]

Industry	1981-1985 U.S.	1981-1985 CANADA	1986-1988 U.S.	1986-1988 CANADA
Agriculture, Forestry & Fishing	4 (1.6)	41 (17.4)	0 (0.0)	32 (29.1)
Mining	39 (15.8)	10 (4.3)	24 (9.7)	4 (3.6)
Manufacturing				
Food & Beverage	5 (2.0)	2 (0.9)	11 (4.4)	1 (0.9)
Textile & Clothing	2 (0.8)	4 (1.7)	3 (1.2)	2 (1.8)
Paper, Wood & Furniture	10 (4.0)	5 (2.1)	15 (6.0)	1 (0.9)
Metal Industries	17 (6.9)	7 (3.0)	24 (9.7)	1 (0.9)
Machinery & Equipment	42 (17.0)	7 (3.0)	43 (17.3)	6 (5.5)
Mining, Oil & Chemicals	40 (16.2)	16 (6.8)	39 (15.7)	4 (3.6)
Other Manufacturing	2 (0.8)	5 (2.1)	2 (0.8)	3 (2.7)
Construction	1 (0.4)	9 (3.8)	6 (2.4)	3 (2.7)
Utilities	23 (9.3)	3 (1.3)	19 (7.7)	3 (2.7)
Wholesale Trade	29 (11.7)	34 (14.5)	28 (11.3)	14 (12.7)
Retail Trade	1 (0.4)	4 (1.7)	1 (0.4)	2 (1.8)
Finance	14 (5.7)	56 (23.8)	7 (2.8)	25 (22.7)
Services	18 (7.3)	32 (13.6)	24 (9.7)	9 (8.2)
Other/Missing	0 (0.0)	0 (0.0)	2 (0.8)	0 (0.0)
TOTAL	247 (100.0)	235 (100.0)	248 (100.0)	110 (100.0)

[1] NOTE: One or both parents from each joint venture were headquartered outside of the U.S. or Canada, respectively. U.S. figures do not include 1988 data.

TABLE 11

INDUSTRY CLASSIFICATION OF VENTURES[1]

Industry	FORMED 1981-1985	FORMED 1985-1988	TERMINATED 1981-1985	TERMINATED 1985-1988	CONTINUOUS 1981-1988
Agriculture, Forestry & Fishing	137 (11.9)	101 (21.1)	412 (29.0)	98 (19.8)	55 (2.9)
Mining	34 (2.9)	18 (3.8)	24 (1.7)	13 (2.6)	52 (2.8)
Manufacturing					
Food & Beverage	28 (2.4)	8 (1.7)	29 (2.0)	13 (2.6)	32 (1.7)
Textile & Clothing	26 (2.2)	8 (1.7)	27 (1.9)	12 (2.4)	38 (2.0)
Paper, Wood & Furniture	31 (2.7)	10 (2.1)	30 (2.1)	16 (3.2)	65 (3.5)
Metal Industries	40 (3.5)	6 (1.3)	31 (2.2)	12 (2.4)	47 (2.5)
Machinery & Equipment	26 (2.2)	13 (2.7)	25 (1.8)	17 (3.4)	26 (1.4)
Mining, Oil & Chemicals	29 (2.5)	12 (2.5)	18 (1.3)	16 (3.2)	36 (1.9)
Other Manufacturing	40 (3.5)	20 (4.2)	33 (2.3)	10 (2.0)	54 (2.9)
Construction	51 (4.4)	14 (2.9)	84 (5.9)	21 (4.2)	120 (6.4)
Utilities	48 (4.2)	15 (3.1)	43 (3.0)	23 (4.6)	72 (3.8)
Wholesale Trade	153 (13.3)	50 (10.5)	96 (6.8)	62 (12.5)	203 (10.8)
Retail Trade	63 (5.5)	27 (5.6)	40 (2.8)	10 (2.0)	76 (4.1)
Finance	327 (28.3)	133 (27.8)	419 (29.5)	128 (25.8)	764 (40.8)
Services	121 (10.5)	43 (9.0)	110 (7.7)	45 (9.1)	230 (12.3)
Other/Missing	0	0	0	0	2 (0.1)
TOTAL	1154	478	1422	496	1872

[1] NOTE: Includes 2,3, and 4 parent joint ventures.

is as disparate with its relative formation or termination activity as is the case for agriculture, forestry and fishing joint ventures. Further analysis of two parent joint ventures in these sectors revealed that there was both an increasing number and proportion of the ventures in these sectors which involved one or more foreign firms. Indeed, for both two and three parent ventures in these sectors, the number and percentage of ventures involving only Canadian parent firms declined substantially during the 1980s.

Table 10's data on U.S. and Canadian venture activity also shows that the extractive industry category of mining represented a larger, though rapidly declining component of U.S. versus Canadian joint venture formations. U.S. mining ventures declined from 15.8 to 9.7 percent of overall ventures formed over the 1981-1985 versus 1986-1988 time periods. Comparable percentages for Canada involved a decline from 4.3 to 3.6 percent of new ventures during these same time periods. Table 11 shows that, although there was a decline in the numbers of Canadian mining ventures formed and terminated during 1985-1988 versus 1981-1985, the proportion of mining venture formations and terminations increased during the latter part of the decade. Analysis of two parent mining joint ventures revealed that there were an increasing number and proportion which did not involve any foreign partners. However, the proportion of three parent ventures involving foreign partners was increasing during the 1980s, and the majority of four parent mining ventures involved at least one foreign partner.

Table 10 also shows that the largest category for new joint ventures in the U.S. was clearly manufacturing, which grew from 118 ventures (47.8 percent) during 1981-1985 to 137 ventures (55.2 percent) during 1986-1988. In contrast, there were 46 two parent manufacturing ventures (19.6 percent) formed in Canada during 1981-1985 and involving a foreign parent, and only 18 ventures (16.4 percent) between 1986-1988. Indeed, the total proportion of new Canadian joint ventures in manufacturing during 1986-1988 was significantly lower than for either the agriculture, forestry and fishing, or the financial industries. However, these figures undoubtedly understate the extent of manufacturing-related joint ventures. While there were many more Canadian ventures in financial industries than occurred in the U.S., it was noted earlier that a substantial number of the financial industry ventures subsequently involved investments within other industries, including manufacturing. (From data in Tables 11 and 12, it is worthwhile noting that ventures in finance industries also represent a very large proportion of those ventures which survived throughout the 1981 to 1988 time period. In addition, only a very small percentage of two, three and four parent finance joint ventures involved foreign partners. This further supports the notion that they might have been serving as a proxy for inefficient or insufficient capital markets in Canada, and indeed that they may provide a very stable alternative to such markets.) Nevertheless, Table 11 shows that the number and proportion of manufacturing ventures formed during the 1980s was declining (from 19.0 to 16.2 percent) while the proportion of such ventures was increasing

Table 12

INDUSTRY CLASSIFICATION OF 2 PARENT JOINT VENTURES INVOLVING FOREIGN PARENTS AND WHICH WERE FORMED, TERMINATED OR CONTINUOUS DURING 1981-1988

	FORMED		TERMINATED		CONTINUOUS
Industry	1981-1985	1985-1988	1981-1985	1985-1988	1981-1988
Agriculture, Forestry & Fishing	41 (17.4)	32 (29.1)	52 (19.7)	25 (22.5)	10 (3.5)
Mining	10 (4.3)	4 (3.6)	10 (3.8)	3 (2.7)	15 (5.3)
Manufacturing					
Food & Beverage	2 (0.9)	1 (0.9)	5 (1.9)	3 (2.7)	8 (2.8)
Textile & Clothing	4 (1.7)	2 (1.8)	5 (1.9)	5 (4.5)	7 (2.5)
Paper, Wood & Furniture	5 (2.1)	1 (0.9)	10 (3.8)	1 (0.9)	15 (5.3)
Metal Industries	7 (3.0)	1 (0.9)	12 (4.5)	6 (5.4)	9 (3.2)
Machinery & Equipment	7 (3.0)	6 (5.5)	12 (4.5)	5 (4.5)	11 (3.9)
Mining, Oil & Chemicals	16 (6.8)	4 (3.6)	7 (2.7)	10 (9.0)	13 (4.6)
Other Manufacturing	5 (2.1)	3 (2.7)	11 (4.2)	3 (2.7)	10 (3.5)
Construction	9 (3.8)	3 (2.7)	7 (2.7)	2 (1.8)	4 (1.4)
Utilities	3 (1.3)	3 (2.7)	7 (2.7)	1 (0.9)	9 (3.2)
Wholesale Trade	34 (14.5)	14 (12.7)	24 (9.1)	15 (13.5)	45 (15.8)
Retail Trade	4 (1.7)	2 (1.8)	6 (2.3)	1 (0.9)	4 (1.4)
Finance	56 (23.8)	25 (22.7)	74 (28.0)	21 (18.9)	78 (27.5)
Services	32 (13.6)	9 (8.2)	21 (8.0)	10 (9.0)	46 (16.2)
Other/Missing	0 (0.0)	0 (0.0)	1 (0.4)	0 (0.0)	0 (0.0)
TOTAL	235 (100.0)	110 (100.0)	264 (100.0)	111 (100.0)	284 (100.0)

rapidly (from 13.6 to 19.2 percent). Furthermore, for two parent manufacturing joint ventures, there tended to be a substantially higher proportion of ventures that involved one or more foreign partner (approximately 40 percent) than was the case for Canadian ventures overall (approximately 25 percent). Most of the two and three parent manufacturing ventures which involved foreign firms were in the mining, oil and chemicals or in the machinery and equipment sectors.

Table 10 shows that the proportion of two parent Canadian ventures in wholesale trade sectors and which involved foreign firms was larger than for the U.S. throughout the 1980s. However, the gap between the two nations was narrowing, with a margin of only 12.7 to 11.3 percent of newly formed ventures during the 1986-1988 period. In addition, the absolute number of wholesale trade ventures in the U.S. was twice the number for Canada for this time period, at 28 versus 14 new ventures formed. This is in contrast to a higher number of Canadian (34 ventures) than U.S. (29 ventures) joint ventures formed during the 1981-1985 period. In addition, there were decreasing numbers and proportions of two, three and four parent wholesale trade joint ventures which involved foreign parents.

A final significant note regarding data in Table 10 is that service industry joint ventures represented a rather large and rapidly growing component of new ventures in the U.S. (increasing from 7.3 to 9.7 percent), while comparable figures for Canada suggest a sharp decline in such ventures (from 13.6 to 8.2 percent). Since service industries represented one of the most rapidly growing sectors within developed countries during the 1980s, this trend for Canada seems worthy of further examination. Indeed, as shown in Table 11, it is apparent that joint ventures in service industries represented a decreasing percentage of newly formed ventures during the 1980s (from 10.5 to 9.0 percent) and an increasing percentage of terminated ventures (from 7.7 to 9.1 percent). Similar trends are evident in Table 12 for two parent joint ventures. In addition, the number and proportion of service industry joint ventures involving foreign partners evidenced declines during the 1980s.

ORGANIZATIONAL CLASSIFICATION OF JOINT VENTURES

As shown in Table 13, over 99 percent of all joint ventures in Canada were classified as ordinary corporations. The remainder of the ventures were dispersed among taxable and non-taxable federal or provincial crown corporations, cooperatives, and miscellaneous taxable or non-taxable corporations. This trend was consistent regardless of the number of parents involved in the joint venture, the structural division of joint venture equity, or the presence or absence of foreign parents in a joint venture.

Table 13

ORGANIZATIONAL CLASSIFICATION OF JOINT VENTURES

Joint Venture Classification	1981	1985	1988
Provincial Crown Corporations (taxable)	3	5	6
Provincial Crown Corps. (non-taxable)	2	4	6
Cooperatives (taxable)	4	4	4
Inactive and Unclassified Corporations	4	4	5
Inactive Crown Corporations	1	1	1
Non-taxable Federal Government Corps.	2	2	2
Other Tax Exempt Corporations	6	1	1
All Other (ordinary corporations)	3534	3267	3245
	(99.4%)	(99.4%)	(99.2%)
TOTAL	3556	3288	3270

NOTE: Table only includes Canadian joint ventures with 2, 3 or 4 parent firms.

DIVISION OF JOINT VENTURE EQUITY

As shown in Table 14, for two parent joint ventures, 50/50 division of equity between the partners was by far the dominant structure. It represented over 50 percent of all two parent ventures, with this percentage increasing slightly during the 1980s from 50.5 percent in 1981 to 52.2 percent in 1985 and 52.6 percent in 1988. The second most common structure was majority/minority, with nearly 38 percent of the ventures for each of the three years. Minority/minority and 50/minority splits made up the remaining ventures, although the utilization of these structures evidenced a decline during the decade. (The equity percentages for individual ventures do not always equal 100 percent, since a small number of shares may be held by venture management, employees or outside entities.)

Table 14

FREQUENCIES OF TWO PARENT JOINT VENTURES BY STRUCTURAL DIVISION OF EQUITY

Equity Structure	1981	1985	1988
50/50	1263	1202	1216
Majority/minority	948	865	872
Minority/minority	233	185	171
50/minority	57	51	54
TOTAL	2501	2303	2313

Additional analysis revealed that a much higher proportion of ownership structures in which no parent owned a majority of the equity tended to occur when all of a venture's parent firms were Canadian. This relationship held across two, three and four parent joint ventures.

Two parent joint ventures with majority/minority or 50/minority structures were more than twice as likely to involve a foreign parent than were ventures with 50/50 or minority/minority structures. However, it was also evident that an increasing number and percentage of recently formed 50/50 ventures involved foreign parents, and that there was a slight decline in the number and percentage of majority/minority ventures which involved foreign parents. Furthermore, the largest numbers of ventures involving foreign firms were in Ontario, Quebec, Alberta and British Columbia. However, the proportion of these provinces' ventures which involved foreign firms varied substantially. In 1988, 43.7 percent of Ontario's ventures involved a foreign partner, Quebec had 39.0 percent, British Columbia had 24.1 percent, and Alberta had 29.1 percent (the latter figure being a dramatic increase from 19.2 percent in 1981). During the 1980s, both Ontario and Quebec evidenced declining numbers of ventures involving foreign partners.

As shown in Table 15, two parent ventures involving a foreign firm were much less likely to be incorporated in Canada. This characteristic was particularly pronounced for 50/50 ventures (21.5 percent in 1988), although the figures for 50/minority and majority/minority were also relatively low (31.6 and 41.1 percent, respectively, in 1988). However, all categories of joint ventures involving foreign partners exhibited an increased tendency to incorporate in Canada during the course of the 1980s (e.g., the proportion of minority/minority

TABLE 15

NATIONALITY OF 3 PARENT JOINT VENTURES, BY DIVISION OF VENTURE EQUITY[1]

	1981				1985				1988			
Nationality	GT50	50	LT	EQ	GT50	50	LT	EQ	GT50	50	LT	EQ
Canada	116	39	29	4	121	46	23	6	116	53	20	6
United States	78	106	8	5	65	94	4	3	66	92	2	3
Western Europe	95	68	6	7	75	85	5	6	77	85	4	8
Australasia	9	6	1	1	10	10	1	1	12	12	1	1
Caribbean Community	4	1	0	0	2	1	0	0	0	1	0	0
South\Central America	1	0	0	0	0	0	0	0	0	0	0	0
Eastern Europe\USSR	3	0	0	0	2	0	0	0	2	0	0	0
Other\Missing	9	4	3	1	9	5	1	1	9	4	0	1
TOTAL	315	224	47	18	284	241	34	17	282	247	27	19

1 KEY: GT50 - one parent had over 50% of the venture's equity.
50 - one parent had 50% of the venture's equity.
LT - all parents had less than 50% of the venture's equity.
EQ - all parents had equal percentages of the venture's equity.

ventures incorporated in Canada increased from 61.7 percent in 1981 to 74.1 percent in 1988). The number of ventures incorporated in the U.S. declined continuously during the 1980s, while the number of ventures incorporated in Australasia showed a dramatic trend in the opposite direction. Similar results were found for three and four parent ventures.

The percentage of Canadian parents involved in two parent joint ventures increased in all categories of equity structure, as shown in Table 16. The percentage of U.S. firms declined across all categories. The proportion of Western European firms involved in 50/50 ventures increased since 1981, to a level approximately equal to U.S. firms in 1988. Australasian firms evidenced a dramatic increase in their proportion of involvement in majority/minority ventures (from 3.8 to 6.9 percent) and in 50/50 ventures (from 2.5 to 4.7 percent). Similar findings were evident for three and four parent joint ventures, although Western European firms represented a much higher overall proportion of the parent firms in these ventures than did firms from the U.S..

Tables 17 and 18 provide an overview of industry classification by equity structure for two parent ventures with and without foreign partners. From these tables it is possible to identify several important trends and traits. In particular, it is evident that nearly half of the majority/minority ventures in the agriculture, forestry and fishing; mining; and paper, wood and furniture sectors involved foreign firms. Over half of such ventures in the machinery and equipment sector involved foreign firms. There was also a substantial increase between 1981 and 1988 (from 33 to 43) in the number of majority/minority ventures in the services sector which involved foreign firms. However, the number of majority/minority ventures in the services, retail trade, wholesale trade and metal industries sectors which involved only Canadian firms increased during this time. Furthermore, over half of the 50/50 ventures in the mining, oil and chemicals sector involved foreign firms, and there was a substantial increase during the 1980s in the number of 50/50 ventures in agriculture, forestry and fishing which involved foreign firms. Trends for three and four parent ventures did not tend to be so pronounced, due to the small number of ventures relative to the number of industrial and equity structure categories.

TABLE 16

NATIONALITY OF 3 PARENT JOINT VENTURES, BY DIVISION OF VENTURE EQUITY[1]

	1981			1985			1988		
Nationality	GT50	50	LT	GT50	50	LT	GT50	50	LT
Canada	208	173	11	198	186	12	197	193	15
United States	181	134	8	156	131	6	150	133	6
Western Europe	182	119	15	154	133	14	152	132	15
Australasia	24	11	1	31	20	1	39	23	1
Caribbean Community	9	3	0	6	2	0	1	2	0
South\Central America	4	1	0	0	1	0	1	1	0
Eastern Europe\USSR	4	0	0	4	0	0	4	0	0
Other\Missing	18	7	1	19	9	1	20	10	1
TOTAL	630	448	36	568	482	34	564	494	38

1 Key: GT50 - one parent had over 50% of the venture's equity.
50 - one parent had 50% of the venture's equity.
LT - all parents had less than 50% of the venture's equity.

TABLE 17

INDUSTRY CLASSIFICATION OF 4 PARENT JOINT VENTURES, BY DIVISION OF VENTURE EQUITY[1]

WITH NO FOREIGN PARENT(S)

Industry	1981 GT50	1981 50	1981 LT	1981 EQ	1985 GT50	1985 50	1985 LT	1985 EQ	1988 GT50	1988 50	1988 LT	1988 EQ
Agriculture, Forestry & Fishing	110	143	6	13	33	46	1	4	27	54	1	5
Mining	14	10	0	6	24	10	0	6	24	10	0	7
Manufacturing												
Food & Beverage	19	14	0	5	18	11	1	5	7	5	2	1
Textile & Clothing	7	26	1	4	7	28	1	4	11	28	1	3
Paper, Wood & Furniture	19	27	0	3	18	30	2	3	17	29	2	3
Metal Industries	11	26	2	6	20	29	0	6	22	29	0	5
Machinery & Equipment	14	8	1	2	10	12	2	1	5	16	2	1
Mining, Oil & Chemicals	7	8	0	2	10	9	0	1	12	9	0	1
Other Manufacturing	26	18	1	8	25	32	0	6	27	33	0	6
Construction	34	86	8	18	28	70	7	14	27	71	0	11
Utilities	35	30	1	9	28	34	1	7	27	33	0	7
Wholesale Trade	52	90	3	19	76	108	2	17	75	101	2	16
Retail Trade	40	35	0	6	47	48	1	8	54	54	2	8
Finance	176	424	14	6	165	396	11	54	174	392	12	55
Services	69	92	2	17	72	97	3	15	74	96	3	13
Other/Missing	0	1	0	0	0	1	0	0	0	1	0	0
TOTAL	633	1038	39	186	581	961	34	151	590	969	35	144

[1] NOTE: Key
GT50 - one parent had over 50% of the venture's equity
50 - one parent had 50% of the venture's equity
LT - all parents had less than 50% of the venture's equity
EQ - all parents had equal percentage of the venture's equity

TABLE 18

INDUSTRY CLASSIFICATION OF 4 PARENT JOINT VENTURES, BY DIVISION OF VENTURE EQUITY[1]

	WITH FOREIGN PARENT(S)											
	1981				1985				1988			
Industry	GT50	50	LT	EQ	GT50	50	LT	EQ	GT50	50	LT	EQ
Agriculture, Forestry & Fishing	37	19	1	6	24	23	2	4	20	34	3	3
Mining	19	6	1	0	21	5	0	0	21	6	0	0
Manufacturing												
Food & Beverage	7	5	2	1	5	5	2	0	4	4	2	0
Textile & Clothing	7	5	1	2	9	4	1	0	8	2	1	0
Paper, Wood & Furniture	18	8	0	0	17	4	0	0	17	4	0	0
Metal Industries	11	12	1	1	9	8	1	2	9	6	0	0
Machinery & Equipment	18	7	0	1	13	6	0	2	12	8	0	2
Mining, Oil & Chemicals	7	15	0	6	9	24	0	4	9	20	0	2
Other Manufacturing	11	13	0	0	10	8	0	0	9	9	0	0
Construction	6	5	0	1	9	4	1	0	9	4	2	0
Utilities	9	7	0	1	7	6	0	0	8	7	0	0
Wholesale Trade	42	29	2	5	45	38	2	3	44	38	2	3
Retail Trade	6	4	1	0	4	5	0	0	4	6	0	0
Finance	83	54	9	16	61	62	8	13	65	62	9	12
Services	33	35	0	7	41	39	0	6	43	37	0	5
Other/Missing	1	0	0	0	0	0	0	0	0	0	0	0
TOTAL	315	224	18	47	284	241	17	34	282	247	19	27

[1] NOTE: Key
GT50 - one parent had over 50% of the venture's equity
50 - one parent had 50% of the venture's equity
LT - all parents had less than 50% of the venture's equity
EQ - all parents had equal percentage of the venture's equity

CHAPTER NOTES

1. K.R. Harrigan, "Strategic alliances and partner asymmetrics," in F. Contractor and P. Lorange, (eds.), Cooperative Strategies in International Business, Toronto, Lexington Books, 1988, pp. 205-226; M. Hergert and D. Morris, "Trends in international collaborative agreements," in Contractor and Lorange, Ibid., pp. 99-110.

2. Differences in the definition of "joint venture" between the Canadian and the U.S. databases make precise comparisons of the nations' joint venture experiences impossible. Canadian figures tend to be higher on a per capita basis because of the use of a broader definition of qualifying ventures. Despite this, we feel that the respective databases provide a suitable basis for comparing the relative joint venture experiences of the two countries.

3. Harrigan, K.R., "Strategic Alliances and Partner Asymmetrics," in F. Contractor and P. Lorange, Cooperative Strategies in International Business, Toronto: Lexington Books, 1988, pp. 205-226.

4. Indeed, the proposition that the use of joint ventures was encouraged by inadequate access to capital markets and by efforts to respond to specific attributes of the Revenue Canada tax code was strongly supported by data collected during interviews with over 100 parent company and joint venture executives from ventures included in this study's database.

5. For example, see J.M. Geringer and C.P. Woodcock, "Ownership and Control of Canadian Joint Ventures," Business Quarterly, Summer 1989, pp. 97-101.

Chapter 3

MULTIVARIATE EXAMINATION OF JOINT VENTURE PERFORMANCE

Because one of the principal objectives of this study was to identify practical implications of past Canadian joint venture experience for corporate and public policy, we conducted a multivariate analysis of several key contextual variables and their relationship to joint venture performance. This chapter discusses the underlying theory, the analytical methods, and the results of this analysis.

VARIABLES EXAMINED FOR RELATIONSHIP WITH JOINT VENTURE PERFORMANCE

We examined the relationship of four independent variables with the dependent variable of venture performance. These four variables are discussed in the following paragraphs.

1. Parent firm strategy regarding business level diversification between the joint venture and a parent company's principal business activity (termed "business diversification" in the following discussion).

The interrelationships among a firm's businesses can influence its ability to attain competitive advantage and superior performance, since they influence the firm's ability to leverage its skill and resource base while simultaneously allowing the firm to limit the costs associated with managing new products and processes. As a firm moves farther from its central skills or competences, it confronts increasing uncertainty and ambiguity, as well as a need for more sophisticated structures and systems in order to effectively coordinate and integrate its activities. This is particularly critical with a joint venture, since the presence of two or more parent firms often causes these ventures to be difficult to manage. Therefore, we expected joint ventures to exhibit significantly lower performance if their primary business activity (e.g., their identifying SIC code) was different from that of either parent firm.

2. Parent firm strategy regarding geographic market diversification between the joint venture and the parent company's nationality (termed "geographic market diversification" in the following discussion).

Firms may be able to leverage their skills and competences through diversification of their geographic markets, not just their businesses. Expanded geographic scope may yield competitive advantage by permitting a firm to exploit the benefits of performing more activities internally. It may also allow a firm to exploit interrelationships between different segments, geographic areas or related industries. Although geographic diversity can limit a firm's efforts to tailor its activities to serve a particular target segment, geographic area or industry, as well as increasing the costs associated with coordinating geographically dispersed operations, prior research on multinational corporations suggests that the benefits will generally outweigh these potential costs. Therefore, we expected joint ventures to exhibit higher performance if they were in a geographic area different than the location of either parent company.

3. The structural division of the joint venture's equity between the parent firms (termed "ownership structure" in the following discussion).

The issue of joint venture ownership structure is critical, largely due to the potential impact that ownership may have on how the venture is managed, and thus on venture performance. Particularly for two parent joint ventures, a key consideration is whether one partner should have a majority ownership position or whether ownership should be shared equally. Although majority ownership might provide a parent firm with some control over how a joint venture will be managed, mere possession of a majority of the joint venture's equity does not necessarily result in dominance over the venture and its activities. Rather, relative ownership share frequently has greater value as a symbol than as a true reflection of management control. Although some researchers have suggested that dominance by one parent would lend stability to a joint venture (1), recent evidence (2) suggests that equally shared ownership may be a more stable structural arrangement. Indeed, although they may be difficult to manage, the more equal bargaining power of parents in equal ownership joint ventures puts pressure on both sides to tolerate the partnership and find ways to make them work. Therefore, we expected the joint ventures in which ownership was divided equally between the parents would exhibit a higher survival rate than ventures in which equity was unequally divided.

4. The relative congruity of the parent firms' national cultures (termed "cultural congruity" in the following discussion).

National culture is an important concern in joint ventures, since there are often substantial differences in work-related attitudes and values between various cultures. Differences in values, motives and style attributable to incongruity of national culture can be particularly troublesome in joint ventures, due to the shared nature of not only their ownership but also their decision making. Partner firms from the same nation would tend to have similar cultures, thus reducing transaction costs and other difficulties associated with effective management of a cross-cultural alliance. Therefore, we expected that joint ventures involving parents with different national cultures than the joint venture would tend to evidence poorer performance than ventures in which these national cultures were the same.

ANALYTICAL METHODS WHICH WERE USED

SELECTION OF SAMPLE FOR ANALYSIS

To facilitate statistical analysis, we only examined two parent joint ventures which were in existence in 1981. The 2501 two parent ventures which were examined collectively accounted for more than 73 percent of all joint ventures in existence at that point in time. Approximately 90 percent of the 5002 parents were categorized as Canadian. The remaining 10 percent of the parent firms were legally incorporated in one of 33 different foreign countries located throughout the world. Approximately 65 percent of the joint ventures involved equal division of the equity ownership between the two parents. Of the 2501 ventures, 1334 were still in existence at the end of 1988, while 1167 had ceased to exist as joint ventures by that time.

JOINT VENTURE PERFORMANCE MEASURE

Determining whether a joint venture has been, or is likely to be, successful is of obvious importance for corporate managers and public policy makers. Yet, suitable measures of joint venture performance were understandably difficult to obtain for this sample. Financially based performance measures, which are typically employed in business research, have seldom been used to evaluate joint venture performance. In part, this is because much of the data that researchers normally turn to, such as sales or net income, is not reported for these ventures. Furthermore, a large proportion of the parent firms are either privately held or are based in foreign countries, so public disclosure of such data is not generally required. Even if such data were available, objective measures of joint venture financial performance tend to be inherently biased. Such measures seldom include full costs of parent contributions such as management time or technical and market assistance. In addition, parents commonly generate financial returns through mechanisms other than dividends based on ownership share, including exclusive supply contracts; management contract fees; and technology licensing, copyright or trademark royalties. The revenues and costs associated with these mechanisms are not commonly incorporated into calculations of financial performance at the joint venture level.

An alternative measure of joint venture performance, the survival of a venture, was possible to generate directly from data provided by Investment Canada. However, these measures may be problematic, since joint ventures may be dissolved for reasons other than "failure", i.e., the venture may have satisfied its intended purpose. However, survival does represent a quantitative, externally verifiable measure of an entity's useful existence, and can provide valuable insights into the nature of a particular organizational form such as a joint venture. Although an admittedly imperfect measure, survival provides an important proxy for joint venture performance since it represents a basic objective of most, if not all, of these ventures. In addition, prior research has clearly demonstrated that joint venture survival has a very significant positive correlation with other performance measures, including with the relative satisfaction of parent companies with a venture's performance, and with the venture's actual performance vis-a-vis its initial objectives at the time of formation (3). Therefore, the dependent variable of venture performance - joint venture survival - was calculated based on the survival of a venture from the initial data collection point (1981) to the final data point (1988). It was measured on a dichotomous, survival/nonsurvival basis.

BUSINESS LEVEL DIVERSIFICATION OF PARENT FIRMS

Data were available on a three digit SIC code basis for the principal product classifications of both the parents and the joint venture. These data were operationalized by transforming the raw data into 41 key product categories as defined by Dun and Bradstreet Inc. Business level diversification was considered to have been present if a joint venture's primary product classification was not the same as that of either of its parent firms.

GEOGRAPHIC MARKET DIVERSIFICATION OF PARENT FIRMS

The geographic market diversification variable was operationalized by comparing the nationality of parent firms with that of the joint venture. The establishment of a joint venture in Canada was considered to involve geographic market diversification if neither of the parent firms was classified as Canadian.

However, if one or both parents were classified as Canadian, then geographic market diversification was not considered to have occurred.

JOINT VENTURE OWNERSHIP STRUCTURE

Data on each parent's share of a joint venture's equity were available at a two decimal point level (e.g., 50.00). Each venture was subsequently classified into a dichotomous variable based upon whether the two parents did or did not own equal percentages of their joint venture's equity.

CULTURAL CONGRUITY OF PARENT FIRMS

The cultural congruity variable was operationalized by comparing the nationality of the parent firms. The variable was dichotomized based on whether parent nationalities were or were not the same.

ANALYTICAL RESULTS

The empirical technique used to analyze the above hypothesized relationships was the logit statistical model. Logit statistical analysis was considered appropriate because of the categorical dichotomous, mutually exclusive nature of the dependent variable of joint venture survival versus non-survival. Other more popular techniques such as ordinary least squares regression analysis would not have been appropriate because of the violation of a variety of assumptions, most serious of which is the normal distribution and equal variance of the error term along the range of the independent variables under consideration. Furthermore, logit analysis was considered appropriate because of its inherent ability to facilitate exploration of variable interactions.

The analysis had to be completed in two stages because of lack of independence between the geographic diversification and national congruity variables. Since independence of measurement is one of the assumptions underlying the logit model, the analysis required that these variables be considered separately.

The analytical approach taken was to initially substitute the principal variables into a main effects model and then adjust the model to fit the data most appropriately. Therefore, the first logit model considered the three primary variables of geographic diversity, business level diversity and ownership structure. The result of the main effects model evidenced a significant residual variable, indicating that the model could more fully explain the variance in the dependent variable if interaction terms were included.

The next model was a fully specified model which included all of the possible interaction terms. The results of this model indicated that the three way interaction term and two of the two way interaction terms were not significant. This indicated that these terms were not required in the model and they were, therefore, dropped from subsequent modelling efforts. The interaction between business level and geographic market diversification was significant and was therefore retained for further analysis.

The model was then reassessed using the three main effect variables and the significant interaction term delineated in the fully specified model above. The chi-square results for this model are illustrated in Table 19. As can be seen, the main effect variables and the two way interaction term were all significant. Furthermore, the chi-square for the residual was low and not significant. This model appeared to be the most appropriately specified model as it demonstrated a relatively strong fit with the data. This conclusion was supported by the significance of the chi-square results.

Table 19

RESULTS OF BEST-FITTING LOGIT ANALYSIS
FOR BUSINESS LEVEL AND GEOGRAPHIC MARKET DIVERSIFICAION
AND OWNERSHIP STRUCTURE VARIABLES

Parameter	Chi-Square	Significance
Geographic Diversification	10.41	0.01
Business Diversification	9.21	0.01
Ownership Equality	35.46	0.01
Interaction: Geographic and Business Diversification	7.71	0.01
Residual	1.81	0.61

The second stage of the model tested national congruity. Since the national congruity variable was not independent of geographic diversification, the latter variable had to be removed from the model in order to test this hypothesized relationship. However, unless geographic diversification was controlled for, effects of the national congruity variable could not be isolated and concerns with internal validity would result. To control for geographic diversity, the sample was restricted to joint ventures in which geographic diversification was present. (Testing the other side of the data population in this situation would lead to a redundant statistical analysis in which the variable would always yield a singular result.) Results indicated that the relationship of national congruity with joint venture survival was non-significant. The residual was also not significant, which ruled out the possibility of interaction terms which might improve the model's fit with the data. Resulting variable estimates for the best-fitting model are detailed in Table 20.

Table 20

ESTIMATED PARAMETER RSULTS FOR THE BEST-FITTING MODEL

Parameter	Estimate
Geographic Diversification	0.699
Business Diversification	-0.658
Ownership Equality	0.254
Interaction: Geographic and Business Diversific.	0.602

DISCUSSION OF MULTIVARIATE ANALYSIS AND RESULTS

Results of our analysis supported three of the four hypothesized relationships. First, our expectations regarding business level diversification was supported. Using the results to calculate probability of joint venture survival, it was found that a strategy of no business level diversification increased the probability of joint venture survival by 1.11 times when geographical diversification was occurring and equality of ownership was controlled. However, a strategy of no business-level diversification increased the probability of surviving by 12.4 times when geographical diversification was not occurring and equality of ownership was controlled.

Second, our hypothesis regarding geographic diversification was also supported. A strategy of geographic diversification increased the probability of joint venture survival by 13.5 times given business level diversification and controlling for ownership. However, a strategy of geographic diversification increased the probability of joint venture survival by only 1.21 times given no business level diversification and controlling for ownership.

Third, our hypothesis regarding equality of joint venture ownership structure was supported. Equality of ownership increased the probability of survival by 1.66 times when the potential influence of the other variables was controlled for.

Our analysis did not support our fourth hypothesis regarding the relationship between joint venture survival and cultural congruity. However, this result must be interpreted carefully. The analysis divided the database to control for another variable. Therefore, the new sample contained slightly less than 300 joint ventures in which both parents were non-Canadian. This sample had smaller cell populations than the other analyses and thus the statistical power of the test was somewhat restricted. In addition, the population included a concentrated sample of parent firms headquartered in nations of relatively similar culture, e.g., the United Kingdom and the United States.

CHAPTER NOTE

1. L. Hebert and J.M. Geringer, "Measuring joint venture performance," in J.M. Geringer, (ed.), Proceedings of the Administrative Sciences Association of Canada, Policy Division, Whistler, British Columbia, 1990.

Chapter 4

CONCLUSIONS AND IMPLICATIONS

With the growing importance of joint ventures as an organizational form, there is an increasing need to identify key variables associated with successful formation and management of these ventures. This study represents an initial effort to identify several important traits and trends of these ventures, as well as the relationship of several key variables to joint venture performance. In addition to providing an empirical description and statistical test of several key relationships, this study provides an opportunity to extend existing literature in terms of the nationality and time frame of joint ventures being examined. In contrast to most prior studies which have focused on joint ventures in the U.S. or involving U.S.-based firms, this study examined joint ventures in Canada. In addition, many prior studies focused on joint ventures existing in the 1960s or earlier. Due to expected differences in the strategic orientation and management of joint ventures since that time, some of the findings from these earlier studies may have limited applicability to joint ventures existing during the 1980s.

This chapter highlights several key conclusions which can be drawn from this study, as well as implications for corporate and public policy.

CONCLUSIONS REGARDING JOINT VENTURE TRENDS AND TRAITS

The first principal conclusion evident from this study is that the mere frequency of these ventures, as well as their potential influence on performance of firms within and between industries, makes joint ventures a topic worthy of attention by corporate and public policy makers. Indeed, in comparison to figures for the U.S., the per capita frequency of joint ventures in Canada seems quite high, at least for those involving foreign partners.

Joint ventures also appear to be a viable form of organization, not merely due to their frequency but also due to their duration. Over 52 percent of the ventures in existence in 1981 were still in existence in 1988, and approximately 85 percent of those in existence in 1985 still existed in 1988. Given the low survival rates typically found for newly formed companies, these survival rates are indeed quite remarkable. In addition, compared to similar figures for U.S. joint ventures, Canadian ventures seem to have a significantly higher survival rate.

Canadian joint ventures exhibited a relatively high termination rate during the recessionary 1981 to 1985 time period, and a relatively low rate for the expansionary 1985 to 1988 time period. Due to the limited background data which was available for the ventures involved in this study, interpretation of these findings is left to the reader. However, several plausible explanations seem to exist. First, these results might suggest that, as with other forms of organization, joint ventures are highly prone to the effects of economic cycles. However, these figures might also reflect increased experience with joint venture management in Canada, and the beneficial learning effects which might result. Consistent with this latter explanation, these results might reflect the recognition that certain industries (e.g., fisheries) might have characteristics which are less conducive to the establishment of long term joint ventures. Finally, the high termination rate of joint ventures in the early to mid-1980s might have reflected corporate responses to change in the FIRA, tax regulations, or other regulatory influences over investment flows, particularly those involving foreign-based firms.

Another important issue which this study has uncovered is that there has been a decline in the number of Canadian joint ventures. This decline has been evident both overall, across the 1981, 1985 and 1988 time periods, as well as in the number of new ventures formed during the 1981 to 1985 versus the 1985 to 1988 time periods. This decline is also evident in the number of ventures involving foreign firms. In contrast to the U.S. experience of the mid to late 1980s, which has evidenced a dramatic surge in ventures involving foreign firms, there has been a decline in such ventures in Canada. In addition, while there have been large numbers of ventures formed in both the U.S. and Canada, and which involved Australasian firms (especially from Japan), the number and proportion of such ventures in Canada has been substantially lower (and increasing much more slowly) than for the U.S. This finding might reflect the decision by foreign firms, especially firms from Australasia, to utilize other, non-joint venture organizational forms for investing in Canada versus in the U.S. It might also reflect differences in the relative perceived attractiveness of the two nations as a focus for investment activities. With the decreased influence of FIRA-type control over foreign investments and the increasing internationalization of many industries, the decreased rate of joint venture activity in Canada might reflect decreasing strategic desires by foreign firms to establish joint ventures in Canada merely to serve the local market (or otherwise overcome single-nation regulations), versus forming ventures which would be competitive on a continental or world scale. However, additional study of the divergent trends of U.S. and Canadian joint venture experience, and the specific motivations underlying the investment decisions of domestic and foreign corporations, definitely seems warranted.

This study has also identified that, although U.S. firms continue to account for a substantial proportion of Canadian joint ventures, Western European firms have begun to account for a larger volume of such activity. This was particularly the case in terms of the percentage of ventures which had survived throughout the 1981 to 1988 period. In addition, both the overall frequency and the percentage of joint ventures which involved parents from Australasia were increasing rapidly. Furthermore, ventures involving firms from other regions of the world had become almost nonexistent during the course of the 1980s.

As identified in this study, the vast proportion of Canadian joint ventures were legally incorporated in Canada, virtually all of them as ordinary corporations. This characteristic was particularly pronounced as the number of parent firms increased in number. However, this finding was biased by the large number of ventures which only involved Canadian parent firms, and which almost universally incorporated their ventures in Canada. In those instances where one or more parents were non-Canadian, a large proportion of the ventures were also not incorporated in Canada. There was a trend toward increasing rates of venture incorporations in Western Europe and Australasia during the 1980s, a decline in the rate of U.S. incorporations, and the virtual absence of incorporations elsewhere in the world. Nevertheless, over the course of the decade, there was a trend toward more ventures being incorporated domestically, regardless of whether they did or did not involve a foreign parent.

Canadian joint ventures were generally concentrated in those provinces with the largest populations: Ontario, Quebec, British Columbia and Alberta. This trait was evident regardless of whether the ventures did or did not involve a foreign firm, although it was more pronounced for those ventures which did involve a foreign parent.

Examination of the industrial classifications of joint ventures also uncovered several important findings. First, there was a very high proportion of joint ventures which were classified within the financial industries. Indeed, this sector represented the single largest category. Financial joint ventures tended to involve few foreign partners, particularly as the number of parent firms increased, and these ventures evidenced a higher survival rate than did most of the other venture categories. Comparison of these results with U.S. experiences suggested that the frequency of Canadian ventures in financial industries was extraordinarily high. Although no direct explanation of this phenomenon could be obtained directly from the data, this study raised the idea that joint ventures, in certain instances, may have acted as substitutes for imperfect or underdeveloped financial markets, peculiarities of the tax code, or regulatory requirements. To the extent that this might be true, and that such deficiencies or peculiarities have been overcome with the evolution of domestic and capital markets or with changes in regulations, some of the decline in joint venture activity might be explained. From a public policy standpoint, the possibility of such market imperfections and the nature and extent of private sector response to them, suggests that this issue should be examined in greater depth.

Another critical finding was the startling contrast between Canadian and U.S. joint venture experiences with regard to the extractive versus the manufacturing and service industries. There was a large concentration of Canadian venture activity in such extractive or natural resource-based sectors as agriculture, forestry and fishing; mining; and oil and gas. Furthermore, although these ventures had been highly unstable (as measured by the rate of non-survival) and particularly so during the recession of the early 1980s, they represented a large and growing component of recently formed joint ventures in Canada (versus being a relatively small and declining component of U.S. experience). In contrast, joint ventures in the manufacturing and particularly the service sectors represented a relatively small and declining proportion of Canadian joint venture activity, while manufacturing ventures represented the largest (over half) and a growing component of U.S. venture activity (at least for ventures involving foreign firms), and service ventures were also increasing rapidly in number. These trends have important implications, particularly for public policy, due to the large extent of Canadian venture activity in relatively low value-added and highly cyclical industries. As a result, attempts to develop and implement policies which might encourage (or not discourage, e.g., through inadequate access to low cost capital) increased levels of joint venture activity in more stable or countercyclical industries, and in industries with higher value-added potential, might be worthwhile.

Finally, this study identified what appeared to be an extremely high level of horizontal (within industry) relationships associated with Canadian joint venture activity. Virtually all ventures involved at least two parent firms which were classified within the same three digit SIC code, and most of the ventures were also in the same industry. To the extent that these intra-industry ventures might result in a lessening of competition between the collaborators, economic efficiency and consumer welfare might be harmed. Indeed, initial examination of the database suggested that a number of the ventures might produce actual or de facto monopoly, duopoly, or tighter oligopoly industry structures within the Canadian market. However, detailed examination of several of the ventures suggested that many, though not necessarily all, of the ventures which might be viewed as potentially anticompetitive within a Canadian context had actually been undertaken in response to (or in anticipation of) restructuring of their industries on a North American or global basis. Thus, these ventures might actually have had a procompetitive effect by combining weaker domestic firms into a larger and more economically viable competitor. Nevertheless, the high level of horizontal relationships involved in Canadian joint venture activity suggests that additional examination of such activity might be warranted, both from a corporate as well as a public policy standpoint, due to the potential impact of these collaborative efforts on the structure and conduct of firms within an industry.

CONCLUSIONS REGARDING MULTIVARIATE ANALYSIS OF JOINT VENTURE PERFORMANCE

The results of the multivariate analysis of joint venture performance provided strong support for three of the initially hypothesized relationships. A number of factors undoubtedly influence joint venture performance. However, for the population of Canadian joint ventures examined in this study, it appears that the highest survival rate of two parent joint ventures occurred when the parent's principal business was the same as or closely related to that of the joint venture, when the joint venture represented a geographic diversification from the parents' home countries, and when the parents had equal ownership shares.

In addition, the hypothesized relationship between equality of ownership structure and joint venture survival was supported. This result was consistent with recent research on international joint ventures involving U.S.-based firms (1). These findings may initially appear to be inconsistent with research which suggests that dominant management joint ventures will outperform shared management joint ventures. Yet, it must be emphasized that there is an important distinction between ownership structure and the management or control of a joint venture (2). However, this issue deserves further study since there is often a strong correlation between ownership structure and allocation of joint venture control.

The analysis also uncovered an interesting interaction effect whose existence was not initially expected. This interaction was between the strategic variables of geographic market diversification and business level diversification. Of course, it is necessary to exercise caution when interpreting the potential implications of this interaction effect. However, extending from the theoretical foundations underlying the first two hypothesized relationships, it would appear that if parent firms pursue "appropriate" strategies in terms of their relationship to the joint venture along either business level or geographic market dimensions, then only limited additional benefit will generally be gained from simultaneously following an "appropriate" strategy along the second dimension. This result represents an interesting outcome, and one not addressed in previous studies of joint ventures. Because of its potential managerial and public policy implications, additional research on this relationship, possibly utilizing more refined measures for both the dependent and the independent variables, might be valuable.

The analysis did not support our hypothesis regarding the relationship between joint venture survival and congruity among the parent firms' national cultures. This has important potential implications for corporate policy in terms of selection of partners for joint ventures, as well as for management of the venture. It also has important implications for public policy, since there does not seem to be any reduction in the prospects for joint venture survival when both parent firms are non-Canadian and from different versus the same home nation. However, these results must be interpreted carefully, since the analysis involved less than 300 joint ventures and thus the statistical power of the test was somewhat restricted. In addition, the population included a concentrated sample of parent firms headquartered in nations of relatively similar culture, e.g., the U.K. and the U.S.

Overall, the findings from our multivariate analysis of joint venture performance should be of great interest to corporate decision makers contemplating involvement in joint ventures in Canada. They should also be useful for public policy makers interested in promoting the formation of joint ventures which would have the greatest prospects for long term survival in Canada.

CHAPTER NOTES

1. For example, see L.L. Blodgett, A resource-based study of bargaining power in U.S.-foreign equity joint ventures, unpublished doctoral dissertation, University of Michigan, Ann Arbor, 1987.

2. For a discussion of the differences between ownership and control in joint ventures, see J.M. Geringer and C.P. Woodcock, "Ownership and Control of Canadian Joint Ventures," Business Quarterly, Summer 1989, pp. 97-101.

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