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**A COMPARATIVE ANALYSIS OF
THE STRATEGY AND STRUCTURE OF
UNITED STATES AND AUSTRALIAN CORPORATIONS**

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Abstract. An analysis of the environments of leading manufacturing firms operating in the United States and in Australia produced a series of hypothesized differences in the strategies, organization structures, and market environments of firms in the two countries. Parallel hypotheses about differences between domestic Australian firms and subsidiaries of foreign multinationals operating in Australia were also developed.

The hypotheses were by and large supported when tested on data obtained from leading corporations in the two countries. The United States sample, drawn from the *Fortune* "500," contained no foreign subsidiaries, whereas about half of the Australian sample, drawn from the 100 largest Australian manufacturers, were subsidiaries of foreign-based multinational firms. Overall, the U.S. firms face faster-growing and more competitive markets, are more international and invest more in R&D, particularly for new products. Domestic Australian firms are active acquirers and resemble United States firms in terms of product diversity, divestiture activity and organization, but they are not international in focus and their limited investment in R&D is process-oriented. Australian subsidiaries of foreign multinationals are even less international than domestic firms, narrower in product scope and have simpler organizations.

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This paper tests a series of hypotheses regarding differences in strategy, organization structure, and market environment between corporations operating in the United States and Australia. It also examines similar differences between domestic Australian corporations and subsidiaries of foreign multinationals operating in Australia.

Because political, technological, and economic conditions in the external environment are so important in the evolution of firms, and because these conditions vary across industries, Tushman and Romanelli [1985] argue that research on organizations should compare firms within industries, in order to control for environmental factors. We believe that for multi-market, multi-product firms, which often compete in a number of industries and, as a result, are difficult to classify by industry, the nation-state also constitutes an appropriate control on business environments useful for the study of strategy and structure [Pfeffer and Salancik 1978]. Insight into organizational development may be obtained by comparing firms that operate in countries differing in important ways. Furthermore, the nation-state provides an important control for examining how domestic firms differ from the subsidiaries of foreign multinationals [Negandhi 1979, Hulbert and Brandt 1980, Mallory *et al.* 1983].

In the extreme, of course, comparison across nation-states leads to some self-evident conclusions as it will, for example, in the cases of environment, strategy, and organization of firms in centrally-planned economies, compared to those of firms and foreign subsidiaries in market-based economies. However, even different nation-states with essentially market-based economies may have key environmental differences that affect strategy and organization long term. Viewed cross-sectionally, firms operating in different nation-states may have evolved differently on account of different environmental factors. Similarly, subsidiaries of firms based in a foreign country may have different strategies and organizations than domestic firms.

Our work may be viewed as falling into the strategy-structure research tradition stimulated by Chandler [1962]. In addition to Chandler's work on United States companies, other studies have been concerned with the development of British [Channon 1973], French [Dyas 1972], Italian [Pavan 1972] and German [Thanheiser 1972] enterprises.

AUSTRALIA AND THE UNITED STATES

Despite geographic dissimilarities, the United States and Australia share many characteristics. Both have democratic forms of government based on federal systems, both have advanced economies based on market mechanisms, both occupy similar land areas, and standards of living and education are comparable. For both, services constitute the majority of GNP, but manufacturing, agriculture, and extractive industries are also important.

There are also many historical similarities: both countries were developed by white immigrants who overran indigenous populations, both were colonies of the British Empire, both made major commitments to the victorious Allied cause in two world wars yet suffered little infrastructural destruction, and both have

long-term membership in mutual defense organizations with Western European democracies.

But there are important environmental and historical differences. The major distinguishing environmental characteristic is the sheer size of the United States market, where a population of 225 million outnumbers the Australian population by about 15 to 1. Furthermore, the Australian population is concentrated along the coastline, since the interior is virtually uninhabitable, whereas the United States population is spread more evenly. Historically, the United States fought and won a colonial war and suffered through a savage civil war. By contrast, Australia has maintained a long-term, amicable relationship with Great Britain and eased its way to independence by political means. As a consequence, whereas Australia, isolated by distance and oceans, was for much of the twentieth century a source of raw materials for Great Britain and market for British manufactured goods under the arrangements of Imperial Preference (phased out in the 1960's and 1970's), the United States broke such bonds in the late eighteenth century. Its fast-growing population and early industrialization allowed the United States, in the late nineteenth and early twentieth centuries, to develop large, efficient domestic corporations in a more or less competitive environment. A free-market ethic at the national governmental level fueled a drive for lower worldwide tariffs and encouraged American business to invest abroad, resulting in many United States firms engaging to a significant degree in the economies of other countries.

In contrast to the free-market perspective that has guided much of the United States economic policy since World War II, and which encouraged international expansion (see, for example, Servan-Schreiber 1968), the Australian government has by and large followed a policy aimed at protecting Australian industry. Australia is the world's largest exporter of wool, beef, veal, iron ore, aluminum and mineral sands, and is among the leading exporters of many other agricultural products and minerals. The manufacturing sector was developed primarily to serve the domestic market, and a policy of import substitution was the primary aim for many years. Growth has stalled in recent years, and government and industry leaders have supported merger as a means of developing stronger domestic corporations [Jackson *et al.* 1975, Crawford *et al.* 1979, Industries Assistance Commission 1977].

We expect these environmental differences to lead to differences in the market environments, strategies and structures of firms operating in the two countries.

SUBSIDIARIES OF MULTINATIONAL FIRMS

In addition to inter-country differences, we also expect to find differences between domestically-owned firms and subsidiaries of foreign multinationals operating in the same national environment. These differences arise from two distinct types of restraint on the foreign firms, one external— how the nation-state treats foreign subsidiaries—and one internally imposed—management policies specific to the subsidiary [Hulbert and Brandt 1980, Katrak 1983, Yunker 1983, Globerman and Meredith 1984].

National governments frequently treat subsidiaries of multinational firms differently from domestically-based corporations. In general, these differences result from a desire to protect a "national interest," typically through special treatment for domestic firms. Included are preferential treatment on government contracts, more favorable tax status for domestic firms, and restrictions on dividend repatriation and acquisition activities for foreign subsidiaries. For example, in Australia, foreign firms are restricted in growth by acquisition by the Foreign Investment Review Act (FIRA). Differences in the political-legal environment faced by these two types of firm are expected to lead to strategy and structure differences. (For an example of government policy aimed at increasing R&D by multinational subsidiaries, see Rugman and Bennett 1982).

In addition to environmentally-driven differences, home office expectations about the behavior of subsidiaries may also lead to differences in strategy and structure [Cray 1984, Egelhoff 1984, Doz and Prahalad 1984]. For example, subsidiaries often enter foreign markets because of product-market advantages developed in their home countries. Indeed, it can be argued that the growth strategy of most multinationals has been dominated by their technological and product expertise, leading to growth via expansion into a broader set of international markets [Hulbert and Brandt 1980]. Such a strategic posture would be expected to lead to narrower product lines within subsidiaries than within their domestic competitors, often as a result of headquarters guidance. In contrast, domestic firms do not face the same restrictions as such decisions are made locally [Hulbert and Brandt 1980]. Furthermore, a foreign subsidiary typically is restricted in competition with company subsidiaries operating in other countries. The scope for an individual subsidiary of such activities as international sales, production, and R&D activity may have to respond not only to local market and political pressures, but also to the demands of a worldwide enterprise. The influence of such considerations might be expected to increase as multinationals move toward global integration and away from more decentralized operations, a trend that clearly has been underway for some time [Hulbert and Brandt 1980].

SAMPLES

The samples of companies for this study, drawn from the leading manufacturing companies in both countries, show key differences related to environment.

The sample of American companies was drawn from a group of 258 *Fortune* "500" manufacturing companies whose corporate headquarters were located east of the Mississippi. Of these companies, 158 were invited to participate and 133 (72%) agreed. All were based in the U.S.A., so comparison of domestic firms and foreign subsidiaries was not possible for the United States sample.

The Australian data were collected slightly later, using items from the U.S. instruments with the explicit goal of comparing the two samples. The sample of Australian companies was drawn from the leading national manufacturers; the 103 largest manufacturing companies were invited to participate, of which 63 (61%) agreed. Thirty-two of these 63 firms were subsidiaries of foreign-based companies—12 British, 12 American and 8 based elsewhere.

One clear environmental difference between the two countries is that large U.S. manufacturers are principally domestic, whereas about half of the Australian firms are subsidiaries of foreign multinationals.

Data were collected (United States in 1980, Australia in 1981) in a series of personal interviews with senior corporate planning executives, using a questionnaire that, for the most part, required the interviewee to make judgements on a series of scales. Interviews with United States companies were held in two parts, half of the interview with the senior corporate planning officer and half with the senior deputy. Interviews with Australian companies were typically held with the senior corporate planning officer. Further details of methodology are given in Capon *et al.*, 1984.

HYPOTHESES

To make the various comparisons, a series of 10 hypotheses were developed—2 dealing with the competitive and product/market aspects of the market environment, 6 with strategy (corporate size, international posture, product/market diversity, research and development strategy, acquisition and divestiture) and 2 with organization structure (depth and type). The hypotheses involve differences that may be observed between firms in two countries, the United States and Australia, and between domestically-owned firms and subsidiaries of foreign-based multinationals in Australia because of sample characteristics discussed earlier.

Market Environment

Hypotheses about environment predict inter-country differences, but posit that subsidiaries and domestic firms should face similar environments in a given country.

H1: Competitive Environment: Product/market environments of Australian firms are less competitive and more oligopolistic than those of United States corporations; both domestic Australian firms and subsidiaries of multinationals face similar competitive environments.

United States firms face relatively severe anti-trust laws and also have significant activity in frequently competitive international markets (H4); corporations in Australia are protected by significant trade barriers, and domestically-based firms are encouraged to improve their competitive positions against foreign imports by consolidation.

H2: Product/Market Environment: United States firms are more active in fast-growing markets than Australian firms, either domestic or subsidiary.

The more competitive domestic markets faced by United States corporations (H1) impel them to seek high growth opportunities to a greater extent than Australian firms. Opportunities occur in part as a result of greater international activity (H4) and in part because of greater new product R&D (H6). Furthermore, Grinyer, Yasai-Ardekani, and Al-Bazzaz [1980] have shown that companies facing competitive threats or unfavorable shifts in demand have a greater tendency to introduce new products.

Strategy

The hypotheses about strategy have strong cross-national content. However, in some cases, there may be differences between domestic firms and subsidiaries as well.

H3: Corporate Size: The largest United States corporations are larger than the largest Australian companies; domestic Australian firms and subsidiaries are similar in size.

United States firms have a home market population about 15 times as big and slightly higher in real per capita income than Australian firms. Neither domestic nor subsidiary firms in Australia can overcome this size difference.

Limitations to growth imposed on subsidiaries from both FIRA restrictions and head office constraints suggest that domestic Australian firms might be larger than subsidiaries. However, offsetting factors are the worldwide technological and marketing expertise of multinational firms that can be transferred to their subsidiaries [Capon *et al.* 1980].

H4: International Posture: United States corporations have more international sales and production than Australian firms; domestic Australian firms are more international than subsidiaries.

First, the large, competitive home markets in the United States allowed domestic corporations to develop significant economies of scale for manufactured goods. Second, after World War II, the economies of many countries were in various stages of destruction, whereas the United States had an untouched infrastructure. Given significant encouragement by their government, United States firms exploited international opportunities vigorously. As discussed earlier, Australia supplied raw and semi-finished materials to the United Kingdom and other countries under the system of Imperial Preference. With the final collapse of Imperial Preference in the 1970's, as the United Kingdom sought to join the EEC, Australia saw its position for raw and semi-finished materials weaken in its traditional foreign markets.

Foreign subsidiaries often have limited ability to expand geographically because of sister subsidiaries already in place; they are therefore likely to be less international than domestic firms.

H5: Product/Market Diversity: Significant product/market diversity is present for both United States and Australian firms. On balance, however, greater diversity is expected for United States than for Australian firms; foreign subsidiaries are less diverse than domestic Australian firms.

Size and age of firms are generally correlated with diversity; United States firms, generally both older and larger, should be more diverse. Furthermore, the results of Rumelt's work with major United States corporations shows decreasing presence of the single business firm since 1949 [Rumelt 1974]. Finally, the size and freedom of capital markets in the United States has allowed significant acquisition activity since the mid-1960's.

Multinationals have generally followed product-dominated growth strategies via expansion to new overseas markets [Hulbert and Brandt 1980]; this tends to

lead to a restricted product range in foreign subsidiaries, which in Australia is reinforced by FIRA-restricted acquisition possibilities.

H6(a): Research and Development—Total Effort: United States firms invest relatively more in research and development than Australian firms; domestic firms invest more than subsidiaries.

First, the greater degree of competition faced by the United States firms leads to greater R&D investment. Second, since the economics of much R&D effort tends to favor large-scale operation, the larger-size United States firms are expected to invest relatively more in R&D, whereas licensing of results of R&D effort should be more attractive for Australian corporations. Finally, the R&D activity of subsidiaries of multinational companies may well be centralized.

H6(b): Research and Development—Type of Effort: The balance of R&D effort in the U.S.A is directed to product development, whereas in Australia it is directed to process development; no differences are expected in Australia between foreign subsidiary and domestic firms.

First, a significantly greater portion of the Australian economy is based on raw materials, and process-oriented R&D enhances the drive for efficiency in extractive industries. Second, product licensing, a more attractive option for the smaller Australian market than new-product R&D may require process development for economical manufacture for the small domestic market.

Subsidiaries are often dependent for R&D on the parent firm, but the same process development is needed for local adaptation as by domestic firms.

H7: Acquisition: We could find no solid basis on which to predict greater acquisition activity in one nation-state or the other; however, domestic Australian firms are expected to be more acquisition-oriented than are the subsidiaries.

The size and relative freedom of the United States capital markets led us to expect significant acquisition activity by United States corporations, whereas pressure for consolidation to develop a stronger industrial base led us also to predict significant acquisition activity among Australian firms. We did, however, expect the character of the acquisitions to be different. Australian acquisitions, motivated by consolidation pressure, might be of relatively large corporations concentrated in mature markets. United States acquisitions, by contrast, would be dominated by a drive for growth, so there would be relatively smaller acquisitions in less mature industries.

In the case of Australia, foreign subsidiaries of multinationals face FIRA restriction on acquisition, whereas domestic firms are encouraged to grow through acquisition.

H8: Divestiture: United States corporations engage in more divestiture activity than Australian companies; Australian subsidiaries divest less than domestic firms.

A major constituent of corporate planning in United States corporations in the 1970's was the development of product and business portfolios, involving attempts to invest in growth businesses and to exit from low-growth and unprofitable

businesses. These portfolio concepts, which were developed in the United States, are less widespread in Australia [Capon *et al.*, 1984]. In addition, the protection afforded Australian corporations is likely to lead to less divestiture activity.

However, the growth orientation of multinationals, which leads to sharp focus on product advantages, and FIRA restrictions, make it less likely that subsidiaries than domestic firms will enter businesses that they subsequently decide to divest.

Organization Structure

The hypotheses about differences in organization structure are basically cross-national. However, since they tend to follow from the strategy hypotheses, we may expect differences between domestic Australian firms and subsidiaries as well.

H9: Depth: United States firms have a greater depth of organizational levels than Australian firms; domestic Australian firms have greater depth than subsidiaries.

This hypothesis follows from a combination of H3 and H5. Since the sales revenues of United States firms should be larger than those of Australian firms and the diversity of product/market participation also greater, the number of levels of management is also expected to be greater. The greater expected product/market diversity of domestic Australian firms, compared to subsidiaries, should tend to greater organizational depth for these firms.

H10: Type: More United States firms have product/division organizations and less have functional organizations than Australian firms. More domestic Australian firms have product-division organizations, whereas subsidiaries favor the functional form.

The product/division form of organization is a managerial innovation with roots in the United States, that has, to a large extent, replaced the functional organizational form [Rumelt 1974]. Since United States firms are also expected to be both larger (H3) and more diverse (H5), use of product divisions is expected to be greater in the United States. The greater product/market diversity of domestic Australian firms should lead to more product-division structures; for the narrower product focus of subsidiaries, the functional form is sufficient.

MANAGEMENT OF AUSTRALIAN AND AMERICAN FIRMS

In order to know whether tests of the hypotheses reflect environmental differences, we need to know whether managers in the two countries and of the two kinds of companies are trying to do more or less the same things. Existing literature comparing Australian and United States management and some comparisons between the firms in our samples help place tests of the 10 hypotheses in a managerial context.

Hofstede [1980] profiles Australian and United States managers similarly, relative to managers in 31 countries—low in terms of concern with uncertainty, low in social distance between people with different power, and high in individualism. Strategic planning practices have also been shown to be remarkably similar in large firms in the two countries [Capon *et al.* 1984]. In general, the United

States has been a net provider and Australia a net recipient of innovations in managerial practice.

Use of Goals

In our samples, the large majority of firms in both countries work toward explicit goals, with financial return goals (return on capital, assets or sales) dominant; qualitative goals in both countries generally stress leadership—as in quality, service or image. Specific uses of goals (Table 1) indicate some minor inter-country differences in emphases, although the order of importance is about the same for the two countries. The biggest substantive difference is the much greater tendency of United States firms to reward second-level (immediately below corporate) management for short-term performance—a practice frequently cited as causing general problems for United States industry. Australian firms are apparently more connected to central systems that use goals to monitor corporate and second-level performance.

There are no differences in the way goals are used in domestic Australian firms and in subsidiaries of foreign-based companies.

TABLE 1
Uses of Goals¹

	Australia†	United States
AT THE CORPORATE LEVEL		
Monitor current performance	4.22	3.73*
Provide challenge and motivation	3.91	3.79
Evaluate second-level objectives	3.95	3.80
Evaluate past performance	3.22	3.46
Communicate to external publics	2.60	3.02*
Activate contingencies	2.52	2.60
AT THE SECOND LEVEL		
Standards to evaluate business unit performance	4.46	4.04*
Major influence on corporate goals	3.23	3.52
Rationing device for capital and other resources	3.40	3.42
Formally determine incentives for management compensation	2.17	3.60*

¹Means of 5-point scales: 1 = very unimportant, 5 = very important

*Significant difference across countries on item. Significant overall differences between countries. A 5% significance level is used throughout.

†No significant differences between domestic Australian firms and foreign subsidiaries on any of the 10 items.

Environment

As noted earlier, managers in both countries face a market-oriented economic environment, and there are a number of more specific similarities (Table 2) in the environments (historic and future) in which they operate. Market uncertainty, and human and financial resource problems are all seen as similar,

although United States managers do see more government regulation and more problems in the raw materials resource environment than Australian firms overall. There are some differences in the degree to which foreign-based subsidiaries in Australia view regulation, expected because of the FIRA rules, but otherwise they face similar environments to domestic firms.

TABLE 2
Historic and Anticipated Environment†

	Historic		Future	
	Australia	United States	Australia	United States
MARKET ENVIRONMENT				
Fraction of sales revenues:				
with unpredictable demand environments	19%	20%	22%	23%
in which major competitors' reactions are unpredictable	15%	17%	19%	20%
RESOURCE ENVIRONMENT				
Fraction of sales revenues for which significant problems in raw materials are faced	2%	15%*	2%	19%*
Problems with Resources ¹				
Human	2.7	2.6	2.8	2.8
Financial	1.4	1.8*	2.0	2.2
REGULATORY ENVIRONMENT				
Fraction of revenues in highly regulated businesses	27%	41%*	NA	NA
Domestic	13%			
Subsidiary	37%			
Fractions of revenues in business where regulation is expected to				
increase	NA	NA	23%	37%*
Domestic			13%	
Subsidiary			30%	
decrease	NA	NA	3%	4%

¹Means of 5-point scales: 1=no problems, 5=severe problems

*Significant difference across countries on item. Significant overall difference between the two countries.

†Significant difference between domestic Australian firms and foreign subsidiaries for two of the 13 items as shown; no significant differences for other items.

Expressed Strategy

Finally, there are also patterns of similarity in explicit, expressed elements of strategy. Although there are some minor differences in emphasis, perceived importance of various combinations of new and old products and markets rank the same (Table 3a). Managers in both countries anticipate that growth in existing product/market combinations will become less important, and they look to new products for existing markets as the solution. Australian managers (Table 3b) are somewhat more likely to attempt to be first to market with new products and services (perhaps because of the small scale of the Australian market), but

otherwise the patterns of product entry strategies are quite similar. Again, there is some difference in emphasis (Table 3c), but the rank ordering for the two countries is the same for market entry strategies, with searching for strong positions in growth markets viewed as important and exit as relatively unimportant.

Within Australia, there are some relatively minor strategic differences between domestic Australian and subsidiary firms. These differences, which are in degree, reflect the fact that domestic firms can generally look elsewhere for markets, whereas subsidiaries often have sister units already located in more promising markets. Similarly, domestic firms can attempt to avoid competitive businesses more easily than subsidiaries, which have fewer opportunities to broaden their product lines.

Overall

The managerial settings in the two countries, while differing somewhat in emphasis, are basically similar. Only 8 of 42 environmental and strategic measures are different for domestic and subsidiaries of multinational firms in Australia. Most of these are differences in degree and none reflect basic differences in what the managers are trying to do. Testing of the 10 hypotheses thus seems to make substantive sense.

RESULTS OF TESTS OF HYPOTHESES

Each of the 10 hypotheses was tested with multiple measures, using a total of 31 testable items. Of the 31 inter-country tests (Table 4), 27 confirmed the expected results at $\alpha = .05$, 3 found no effect where one was expected, and one found an effect when equivalence was expected; there was no inter-country effect opposite to that expected. The tests are dependent, but a global test of all hypotheses also showed significant United States versus Australia differences.

Of the 31 items, 14 were significantly different between domestic and subsidiary firms in Australia; these were mostly related to government-imposed restriction or management policy based on the foreign ownership of subsidiaries. Of the 31 items, 24 produced the same significant results when United States and domestic Australian firms were compared; the only substantive reversal involved one of the measures in a hypothesis dealing with acquisition.

Market Environment

The expected market environment differences between United States and Australian firms were confirmed for all 5 measures. Also as predicted, there are no differences between the competitive or product/market environments faced by domestic Australian firms and foreign subsidiaries.

H1: Competitive Environment: The market environments faced by all Australian companies are more oligopolistic, based on sales revenue derived from markets in which there are 7 or fewer competitors, and on market dominance.

H2: Product/Market Environment: United States firms are twice as active in fast-growth markets as all Australian firms, and anticipate three times the

TABLE 3
Elements of Expressed Strategy†

a) Product Market Combinations: Importance for Growth of ¹				
	Historic		Future	
	Australia	United States	Australia	United States
Existing products in existing markets	4.0	4.3*	3.4	3.7*
Domestic			3.0	
Subsidiary			3.6	
New products in existing markets	3.2	3.2	3.4	3.7
Existing products in new markets	2.6	3.0*	2.8	3.2*
Domestic	3.2		3.6	
Subsidiary	2.1		2.2	
New products in new markets	2.2	2.4	2.8	3.2*

b) Product Entry Strategies: Attempt to Be ²		
	Australia	United States
First to market with new products and services	3.23	2.77*
Early follower in fast-growing markets	2.76	2.99
Late entrant in established but growing markets	2.62	2.75
Entrant in mature, stable markets	2.58	2.27
Entrant in declining markets	1.31	1.28

c) Market Entry and Exit Strategies: Firm Seeks ²		
	Australia	United States
Situations where large market share can be obtained	4.29	4.17
Domestic	4.71	
Subsidiary	4.03	
To enter growth markets	4.16	4.17
Situations where product differentiation is important	4.07	3.62*
To enter markets with few competitors	2.47	2.92*
Domestic	3.01	
Subsidiary	2.13	
To enter service businesses	2.43	2.32
To exit markets with many competitors	1.85	1.84
Domestic	2.11	
Subsidiary	1.35	

¹Means of 5-point scales: 1 = not at all important, 5 = very important

²Means of 5-point scales: 1 = disagree, 5 = agree

*Significant difference in item across countries

†Significant differences between domestic Australian firms and foreign subsidiaries for 6 of the 19 items as shown; no significant differences for other items

TABLE 4
Tests of Hypotheses on Environment, Strategy and Organization

		Results					
		Australia					
Hypothesis	Subject	Substance	Measurement	United States	All Firms	Domestic Firms	Subsidiaries
a) Market Environment							
1	Competitive Environment	H: Australian markets are less competitive for all firms	1) Fraction of sales in markets with seven or fewer competitors 2) Fraction of sales in markets where firm is leader	66%	83%*	84%*	83%*
2	Product/Market Environment	H: U.S. firms are more active in fast-growing markets than all Australian firms	1) Fraction of sales in markets growing faster than 10% 2) Fraction of sales anticipated in markets growing faster than 10% 3) Fraction of sales in introductory or growth stage of life cycle	20%	9%*	8%*	10%*
				Conclusion: U.S. firms face more competitive markets; Australian firms (domestic and subsidiary) face similar, less competitive markets.			
				Conclusion: U.S. firms are in faster-growing markets; Australian firms (domestic and subsidiary) face the same slow-growth markets.			

TABLE 4 continued
Tests of Hypotheses on Environment, Strategy and Organization

		Results					
		Australia					
Hypothesis	Subject	Substance	Measurement	United States	All Firms	Domestic Firms	Subsidiaries
b) Strategy							
3	Corporate Size	H: U.S. firms are larger than all Australian firms	1) Sales volume (\$ million) 2) Number of employees 3) Capital expenditures (\$ million) 4) Sales per employee (\$ thousands)	\$ 4,900 \$ 48,150 \$ 335 \$ 135	\$ 635* \$ 6,740* \$ 51* \$ 132	\$ 606* \$ 9,800* \$ 58* \$ 68	\$ 661* \$ 4,300 \$ 49* \$ 163†
Conclusion: U.S. firms are larger in terms of sales, number of employees and capital expenditures. Domestic Australian firms are smallest in terms of sales per capita; Australian subsidiaries are largest.							
4	International Posture	H: U.S. firms are more international. Domestic Australian firms are more international than subsidiaries.	1) Sales revenue overseas 2) 1% of sales in specific geographic areas ¹ 3) 1% of production overseas in specific geographic areas ¹ 4) Number of overseas manufacturing subsidiaries	25% 3.5 areas 2.3 areas 19.3	13%* 1.3 areas* 0.6 areas* 2.4*	19%* 1.6 areas* 0.8 areas* 4.8*	9%† 0.9 areas* 0.4 areas* 0.5*†
Conclusion: U.S. firms are more international than domestic Australian firms or subsidiaries, although the former are more international than the latter.							

TABLE 4 continued
Tests of Hypotheses on Environment, Strategy and Organization

		Results					
		Australia					
Hypothesis	Subject	Substance	Measurement	United States	All Firms	Domestic Firms	Subsidiaries
5	Product/Market Diversity	H: Product/market combinations of U.S. firms are more diverse. Domestic Australian firms are more diverse than subsidiaries.	1) Rumeit business classification system ²	12%	32%	18%	43%
			Single Dominant Related Multibusiness	27% 44% 17%	33% 33% 2%*	21% 57% 0%	43% 14% 2%*
			2) Number of two-digit SIC codes	5.81	4.62	6.3	3.3*†
Conclusion: U.S. and domestic Australian firms are similar. Subsidiaries in Australia are much more restricted in their product/market offerings.							
6	Research and Development	H: U.S. firms spend relatively more on R&D, with particular emphasis on product rather than process. Domestic Australian firms invest more than subsidiaries.	1) Fraction of revenue invested on R&D	2.3%	1.2%*	0.9%*	1.5%*†
			2) Fraction of revenue from new technology (post-1970)	18%	10%*	7%*	12%*
			3) Fraction of revenue invested on product development	1.4%	.3%*	.4%*	.3%*
			4) Fraction of R&D invested in process development	35%	55%*	62%*	52%*
Conclusion: U.S. firms invest more in R&D, particularly for products, and reap benefits. Domestic Australian firms spend little on R&D, and all Australian firms focus more on process development.							

TABLE 4 continued
Tests of Hypotheses on Environment, Strategy and Organization

Hypothesis	Subject	Substance	Measurement	Results			
				United States	All Firms	Australia	
						Domestic Firms	Subsidiaries
7	Acquisition	H: Acquisition activity important for both U.S. and domestic Australian firms. U.S. acquisitions are small and growth-oriented; Australian acquisitions are of large and mature businesses.	<ol style="list-style-type: none"> 1) Fraction of companies with at least one significant acquisition in five years (U.S. = Aus.) 2) Share of revenue attributable to acquisition 3) Number of acquisitions 4) Fraction of acquisition revenues in introductory or growth stage 	66%	62%	89%*	49%*†
				13%	20%*	26%*	12%†
				7.3	3.6*	4.1*	2.8*
				47%	29%*	31%*	27%*
				Conclusion: Domestic Australian firms are heavy acquirers of mature operations; acquisitions of U.S. firms are more growth-oriented. Subsidiaries in Australia are not active acquirers.			
8	Divestiture	H: Divestiture activity is more important in the U.S. Domestic Australian firms divest more than subsidiaries.	<ol style="list-style-type: none"> 1) Fraction of companies with at least one significant divestiture in past five years 2) Fraction of revenue given up in divestiture 3) Number of divestitures 	66%	40%*	59%	26%*†
				9%	6%	9%	3%
				6.1	2.3*	2.5*	1.9*
				Conclusion: Subsidiaries in Australia are not active divestors.			

TABLE 4 continued
Tests of Hypotheses on Environment, Strategy and Organization

		Results					
		Australia					
Hypothesis	Subject	Substance	Measurement	United States	All Firms	Domestic Firms	Subsidiaries
c) Organization Structure							
9	Depth	H: U.S. firms have deeper organizations. Domestic Australian firms are deeper than subsidiaries.	Fraction of firms with distinguishable: 1) second, 2) third and 3) fourth levels of operating responsibility	100% 96% 58%	100% 76%* 30%*	100% 89% 46%	100% 66%*† 17%*†
				Conclusion: Australian subsidiaries have shallow organizations.			
10	Type	H: U.S. firms are more divisional and Australian firms more functional. Subsidiaries are more functional than domestic Australian firms.	1) Fraction of firms with divisional organizations 2) Fraction of firms with functional organizations	80% 15%	63%* 31%*	82% 11%	49%*† 46%*†
				Conclusion: Australian subsidiaries are more functional than U.S. or domestic Australian firms.			

*Significant difference from United States companies.

†Significant difference between domestic Australian firms and subsidiaries of multinationals.

‡The nine geographic regions were Africa, Eastern Europe, Far East, Indian subcontinent, Middle and Near East, North America, Central and South America, Australasia, Western Europe.

§Single test for all categories.

fraction of sales revenue from such fast-growth markets over a five-year time horizon. United States firms have nearly double the fraction of sales from products in introductory and growth stages of the product life cycle.

Strategy

There was a somewhat complex pattern of strategic differences between the United States and Australian firms, as well as between domestic Australian firms and foreign subsidiaries. In three cases (size, international posture and R&D), the inter-country hypotheses were confirmed. In three cases (product/market diversity, acquisition, and divestiture), United States firms and domestic Australian firms are similar but the subsidiaries differ.

H3: Corporate Size: On average, United States firms are larger by a factor of eight in sales revenues and number of employees, and by a factor of six in annual capital expenditures. Domestic Australian firms and subsidiaries are about equal on these measures. Mean sales revenues per employee is not significantly different for U.S. and domestic Australian firms, but subsidiaries in Australia are larger.

H4: International Posture: United States firms are more international than Australian firms. They earn a significantly higher percentage of their revenues abroad, have broader foreign geographic dispersion of sales revenues and manufacturing, and have far more manufacturing subsidiaries abroad. The Australian subsidiaries are even less international than domestic Australian firms in terms of sales revenue and manufacturing, reflecting the inherently limited geographical scope of the foreign subsidiary.

H5: Product/Market Diversity: Despite the small Australian market, United States firms and domestic Australian firms are equally diverse, based on classification by Rumelt's [1974] diversification scheme, and on operations in more industrial classifications. Both are significantly more diverse than the foreign subsidiaries in Australia.

H6(a): Research and Development—Total Effort: United States firms invest about twice the percent of sales revenues in R&D as Australian firms in general, and even more than the domestic Australian firms. Indeed, the foreign subsidiaries invest more in R&D than the domestic firms, although significantly less than United States firms. The United States firms also report a higher fraction of sales revenues dependent on new technology, a pattern expected to continue in the future and also reflected in product life-cycle differences (H2).

H6(b): Research and Development—Type of Effort: As expected, United States firms put relatively more emphasis on product development, whereas the focus of Australian R&D effort is on process development for both domestic firms and subsidiaries.

The comparisons of emphases in R&D are reinforced by statements of what the firms are trying to do in terms of R&D and technology (Table 5). Whereas R&D tends to be applied in both countries, there is virtually complete agreement that it is applied in Australian firms. Firms try to be innovative, the Australians

more so, but are not necessarily at the cutting edge of technology. The Australians tend to be more averse to risk. Technological emphasis tends to be placed where economies of scale are important, especially for the Australian firms, whereas United States firms are more concerned with attempting to obtain patents. The one significant difference between domestic Australian firms and subsidiaries again reflects the relative ease for domestic firms to grow through acquisition.

TABLE 5
Differences in Strategic Elements of Technology
and Research and Development^{1†}

	Australia	United States
a) R&D: The firm		
has highly applied R&D	4.81	3.95*
has R&D that avoids risk	4.13	3.37*
is highly innovative technically	3.48	3.08*
is at cutting edge of technology	2.67	2.48
prefers to grow through acquisition rather than R&D	2.74	2.59
Domestic	3.21	
Subsidiary	2.43	
b) Technology: The firm seeks situations:		
where economies of scale are important	3.81	3.45*
where patents are important	2.28	2.83*
of low capital intensity	2.00	2.91*
of scarce raw material resources	2.19	2.04

¹Means of 5-point scales: 1 = disagree, 5 = agree.

*Significant difference across countries on item. Significant overall difference between countries.

†Significant difference between domestic and subsidiary firms on 1 of 9 items shown.

H7: Acquisition: Domestic Australian firms, encouraged by national policy, are voracious acquirers, typically of relatively large-size businesses in mature markets. A significantly greater fraction have made acquisitions than United States firms (Table 4), and although the gross value of acquisitions is (unsurprisingly) greater for United States firms, the relative percentage of sales revenues from acquired operations is much greater for domestic Australian corporations. As expected, multinational subsidiaries engage in less acquisitive activity than domestic firms, and are less likely to see acquisition as the path to growth (Table 5).

The predicted differences in the character of acquisitions were found; United States firms made roughly twice as many acquisitions as Australian companies, and those acquisitions were more likely to be growth-oriented than the Australian acquisitions of either domestic or subsidiary firms.

H8: Divestiture: More United States firms made divestitures than foreign subsidiaries in Australia and, as expected, United States firms on average made more divestitures than both domestic Australian and subsidiaries. Foregone revenue, as a proportion of total revenue, was about the same for all firms.

Organization Structure

In terms of organization, the United States firms and domestic Australian firms are quite similar; the foreign subsidiaries have simpler organizations.

H9: Depth: All companies have a distinguishable second level of operating responsibility and the domestic Australian and U.S. firms have comparable structures at lower levels. Australian subsidiaries of foreign-based multinationals are significantly more shallow organizationally, reflecting, no doubt, their narrower product diversity.

Despite this disparity in organizational depth, the number of identifiable organizational elements at each level relative to the number at the next highest level is similar, suggesting consensus on span of organizational control.

H10: Type: The domestic Australian firms are multidivisionals; four-fifths of both them and the United States sample reported a divisional form of organization; most of the remainder reported functional organizations. Conversely, nearly half of the Australian subsidiaries reported a functional organizational form.

The Domestic Australian Firms and the Foreign Subsidiaries

As mentioned earlier, the fact that our U.S. sample of large manufacturers contains no subsidiaries of foreign-based firms, while half of the large Australian manufacturers are subsidiaries *per se* reflects environmental differences. The historic development of Australia as a raw materials supplier and its small population no doubt discouraged large-scale domestic manufacture. However, relatively high incomes encouraged large foreign firms to enter, first as exporters and later as manufacturers when that made sense framed against global scale.

In some ways the domestic Australian corporations more nearly resemble the domestically-based U.S. companies, whereas in others they more closely resemble the subsidiaries.

Market Environment. The market environments faced by the domestic Australian firms and subsidiaries are practically identical in terms of competition and market growth. The U.S. firms face more competitive and higher-growth environments.

Strategy. The domestic Australian firms are similar to the subsidiaries, and different from the U.S. firms, in terms of size (except for sales per capita where the firms are similar), international posture and type of R&D expenditures (more process-oriented). The U.S. and Australian domestic firms have similar product/market diversity, while the Australian subsidiaries are more specialized.

Acquisition and divestiture present a more complex picture, largely for institutional reasons. Neglecting total scale (which cause U.S. firms to be more active in both), domestic Australian firms are more dependent on acquisition for growth than U.S. firms, although their acquisitions tend more to be of mature businesses. Foreign subsidiaries, working under legal restrictions, acquire and divest less than the domestic Australian firms.

Combined with the environmental characteristics, these results mean that the Australian firms (domestic and foreign-based) are locked into the Australian

market, but the domestic firms pay all the costs of diversity in a small-scale market.

Organization. The domestic Australian firms, despite the smaller scale of the Australian markets, are practically identical to the U.S. firms in terms of the preponderance of multi-divisional organizations and in terms of organizational depth. The subsidiaries are more specialized, have shallower organizations, and tend more to the functional form.

Does Size Explain All?

One reasonable question is whether the results in Table 4 comparing United States and Australian firms simply follow from the scale of the United States firms and the scale of the United States markets. It is hard to make a direct comparison because the largest quarter of the Australian sample is still smaller in terms of revenue than the smallest quarter of United States firms. While scale no doubt enters, we think that other factors are at work:

- Despite demographic and socioeconomic similarities of the economies, the United States firms have product mixes much richer in early phases of the product life cycle.
- The United States economy is about 15 times as large as the Australian economy, but the United States firms are only six to eight times as large as the Australian firms, based on sales revenue and capital expenditure measures. Further, sales revenue per employee is about the same in the two countries, and the Australian subsidiaries averaged higher sales per capita than the United States firms.

There are also some areas where size *per se* seems neutral:

- It is difficult to see why international posture follows *per se* from scale, particularly given Australia's historical Commonwealth ties. However, Australia's protectionist policy of import substitution and the more openly competitive United States economy should produce differences in international posture.
- Similarly, market growth seems more or less neutral with regard to size of firm, yet the United States firms are more active in growing markets

Some contra-indication of size as the sole explanation is available in areas where scale is clearly important:

- Whereas firm concentration is greater in Australia, the disparity with the United States concentration is not enormous. The difference in market leadership positions for these large firms is even smaller.
- Diversity should, if anything, be greater in the more limited Australian market if overall scale is the driving force, but United States firms are at least as diverse as the Australian domestic firms.

On balance, then, we acknowledge the importance of size (or probably more important, scale) but we do not see it as the sole or even necessarily the driving

force producing the differences in Table 4, particularly in view of the organizational similarities of the U.S. and Australian-based firms.

DISCUSSION

This paper attempts to predict differences in the market environments, strategies, and organization structures of United States and Australian corporations on the basis of environmental differences at the level of the nation-state; differences between domestic Australian firms and subsidiaries of multinationals were also investigated. Findings were generally in agreement with the hypotheses we developed. There are three kinds of implications—the first of a general nature, the second involving strategies of subsidiaries relative to domestic firms, and the third relating to Australian-based corporations.

First, though the findings that nation-state environments affect the market environments, strategies, and organization structures of firms should come as no surprise, its demonstration in a cross-cultural study reveals important implications for the management of corporations. The contextual environment of organizations can be viewed as consisting of two parts, one that is basically beyond the control of the firm and one that the firm may be able to influence. The firm cannot generally influence the nation's land area, its weather, its population, its geographic relationship to other countries and so forth, and these factors act as constraints upon the firm's activities. Furthermore, although firms in general may, through lobbying and other political efforts, be able to influence the nation's economic and foreign policy, degree of regulatory activity, operation of the capital markets, and membership in and relationship to supra-national organizations, influence of individual firms in capitalist economies may be relatively small and uneven over industries.

Management *can* influence the degree to which it draws on changing managerial practice. To the extent that managers in any nation-state do not avail themselves of the developing body of management technology, put what is appropriate to use and discard the remainder, they place themselves and their firms at a disadvantage in the increasingly competitive world economy. Over time, the capital stock of managerial practice has increased and will continue to do so as research and development activity by the world's business schools and practitioners continues to increase, and as innovative managers continually strive to be more effective. Comparative study of the type reported here may help provide benchmarks for judging various changes in managerial practice.

The second set of implications has to do with what the subsidiary of a multinational corporation can and cannot be. Not only does government regulation in Australia restrict the acquisition activities of subsidiary firms, in recent years it has pursued a policy of encouraging merger to develop stronger domestic corporations. It is not surprising, therefore, that domestic firms should both be more diverse in their products and markets, and engage in a greater degree of acquisition and divestiture activity than subsidiaries. Domestic firms are also freer to seek new markets and high market shares, and their more divisionalized organization structures give them organizational advantage. In part these findings are also consistent with an ownership perspective relevant to subsidiaries in general: foreign

firms entered the Australian market because they perceived that they had advantages over domestic firms in a limited range of products, but they are restricted to these by corporate and public policy. For a subsidiary to thrive in an environment characterized by rules of the game that place it at a disadvantage compared to domestic firms, the advantages enjoyed when the Australian market was entered must be protected by skills and strengths either developed in Australia or by transfer from elsewhere in the corporation.

The third set of implications is for Australian-based corporations. While we do not wish to set up United States-based corporations as models for Australia or elsewhere, use of United States corporations as a reference point raises some serious questions regarding the strategic directions being pursued by many large Australian corporations. Whereas the Australian natural resource base makes it reasonable for many Australian companies to commit to extractive and primary processing activities, the reported dependence on low-growth markets, lack of new product innovation, low capital intensity and low levels of R&D expenditure lead to a concern regarding the future performance of many of these firms. (Note that in Canada, R&D spending by domestic corporations exceeds subsidiaries [Globerman and Meredith 1984].) Although some degree of domestic consolidation may be desirable, merger that reduces competition in domestic markets, while failing simultaneously to increase both capital formation and R&D spending, will not achieve government objectives.

Perhaps the most striking contrast lies in the area of international operations. Compared to their large Japanese and European competitors, United States corporations are significantly less internationally-oriented, and the poor international performance of many United States corporations has given rise to national concern. Compared to even this modest base level, however, the domestic Australian corporations come off poorly. Perhaps failure to participate in international markets has contributed to the other area of major contrast, the non-innovative product strategies of Australian producers. A move from overcrowded, relatively slow-growth, domestic markets should in any case be worthwhile. However, the growth of the Pacific Basin economies suggest that a reorientation to broader market opportunities is long overdue for domestic Australian companies. Their competitiveness should improve as a result.

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