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Entrepreneurship In Multinational Corporations: The Initiative Process In Foreign Subsidiaries

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ENTREPRENEURSHIP IN MULTINATIONAL CORPORATIONS: THE INITIATIVE PROCESS IN FOREIGN SUBSIDIARIES

by

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ABSTRACT

This is an empirical study of initiatives in the subsidiaries of multinational corporations. An initiative is the subsidiary-driven creation of a value-adding activity. While previous research has focused on the "world product mandates" earned as a result of initiatives, or the corporate systems that facilitate subsidiary initiatives, this study is concerned with the internal processes that actively drive subsidiary initiatives. This issue is of vital importance to subsidiary managers who are looking for ways to enhance their value-added role in the corporation; it also has substantial implications for corporate strategy and for theoretical models of multinational management and entrepreneurship.

Two research questions drove this research: "What forms do subsidiary initiatives take?" and "What is the initiative process?" The research was undertaken using an inductive approach, building knowledge from an iterative combination of empirical evidence and theory. A total of 39 initiatives from six Canadian subsidiaries of U.S. multinational corporations formed the final sample. Data was gathered through over 100 personal interviews, but also from two questionnaires and archival and secondary sources.

There were two key findings. First, four distinct types of subsidiary initiatives were identified, labelled "reconfiguration", "local market", "competitive bid" and "mandate extension". These four types were empirically validated, and conceptualized in terms of the market opportunities they tapped into. Second, the initiative process was analyzed in depth, and found to consist of four phases representing the increasing viability of the initiative. The process was found to be strongly influenced by the organizational context of the subsidiary, as predicted by Burgelman's model of corporate venturing. The key contribution, however, is the observation that the internally-defined subsidiary context is a more critical driver of initiative than the externally-defined corporate context.

The implication for the management of multinational subsidiaries is that the assignment of subsidiary roles has limitations, because it assumes the opportunity set of the subsidiary can be prejudged and better understood from the centre than the periphery. Subsidiaries should have sufficient slack that opportunities can be identified and developed; and they should attempt to build an internal management context to foster the entrepreneurial spirit. Theoretical and managerial implications are developed around these core insights.

ACKNOWLEDGEMENTS

This thesis represents the completion of three and half years of fulfilling doctoral education. The never-ending intellectual stimulation I have received in that time is a function of the interaction I have had with professors, fellow doctoral students, and managers, some of whom I would like to acknowledge here.

Nick Fry was the model supervisor for me, providing the latitude to explore a research topic that interested me, but ensuring that I never strayed too far from either the task at hand, or the real world I was studying. He was an invaluable source of industry contacts, new insights and practical advice. Paul Beamish and Rod White were both instrumental in shaping an interesting topic into a theoretically-grounded and methodologically rigorous study. Mary Crossan, Peter Killing, Mike Levenhagen, and many other Western professors also provided their advice and insights in a variety of ways.

Fellow doctoral candidates were a constant source of support. On at least five occasions they were subject to the 'latest version' of my thesis research, and their questions and ideas were of great value in bringing my ideas together.

I would also like to acknowledge here the 150 or so managers who gave their time to provide me the raw data on which this thesis is based. In particular, I would like to thank the five companies that formed the core sample; 3M Canada, Monsanto Canada, Amazon (disguised), Hewlett Packard Canada, and Honeywell Canada.

My parents played a special role in this thesis by making it possible for me to spend six years at Western as a student. I suspect they had concerns over my decision to pursue a doctorate when I had just made myself employable with an MBA, but they never voiced them and they continued to support my apparently never-ending studies. Their patience and faith has been a constant source of support during this process.

Finally, my wife Laura's contribution to this thesis was instrumental in two ways. As an employee of a Canadian subsidiary she was able to challenge my thinking on a continual basis. She was also the unfortunate recipient of every "first draft" document I produced, and her ability to pick out conceptual as well as grammatical errors was of enormous benefit. Second, her encouragement and emotional support during my doctoral education was unfailing, and not helped by the 200km of Highway 401 that separated us during most weeks. Should she ever decide to go back to school for a doctorate of her own, I would like to hope I can be half as committed to her project as she was to mine. This thesis is dedicated to Laura.

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CHAPTER 1
INTRODUCTION AND OVERVIEW

This is an empirical study of the initiative process in the subsidiaries of large Multinational Corporations (MNCs). Prior research has studied the end result of the subsidiary initiative process (e.g. Roth & Morrison, 1992), the corporate systems that promote subsidiary initiative (e.g. Ghoshal, 1986) and the generic initiative process in large companies (e.g. Burgelman, 1983a). The current study lies at the intersection of these three pieces of work in that it focuses on the *internal* processes that drive subsidiary growth. The research has implications for the role of the MNC subsidiary, subsidiary growth and MNC structure.

This introductory chapter provides an overview of the research project. First, the research questions are described, and the points of departure from the existing literature are discussed. Second, the empirical approach is explained. Third, the findings are summarized. Finally, the contents of the 10 remaining chapters and 2 appendices are outlined.

The Research Phenomenon and Research Questions

The empirical context for this study was the changing role of the multinational subsidiary in Canada. With the advent of free trade in North America, and the globalization of business in general, the role of the multinational subsidiary is shifting from addressing the entire needs of the Canadian market to identifying ways of adding value to the corporation worldwide. This typically means undertaking a limited range of economic activities for the North American region or world, rather than a full scope of activities exclusively for Canada. International responsibilities of this type are commonly

referred to as World Product Mandates (WPMs)[1]. While WPMs have been documented for at least the past 15 years (Crookell and Caliendo, 1980; Science Council of Canada, 1980), the arrival of free trade in North America has given them greater prominence.

A key feature of the world product mandate is that it is earned by the subsidiary (Crookell, 1986). In other words, if the subsidiary wants to undertake manufacturing on a world scale (for example) it has to demonstrate to parent management that it can do so in an efficient and effective manner. If that case cannot be made, the activity should logically take place in another location. The process of identifying opportunities, putting together a proposal, and convincing parent company management to award a mandate, is referred to here as a subsidiary *initiative*. Initiative is defined here as a *subsidiary driven, proactive undertaking that advances a new way for the MNC to use or expand its resources*. The outcome of a successful initiative is an *internationally-configured value-adding activity*. This definition will be elaborated in chapter 3.

The choice of the initiative (the process) rather than the world product mandate (the end result) as the focal construct represents a significant departure from tradition in this area of research. Other literatures, notably in the fields of entrepreneurship and multinational management, were therefore used to provide the theoretical anchors for the study. The lack of detailed prior investigation of the *initiative* construct also meant that an inductive research approach using open-ended research questions was appropriate. The three research questions are as follows:

- What forms do subsidiary initiatives take?
- What is the initiative process?
- How do subsidiary initiatives develop and link over time?

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[1] Strictly speaking a world product mandate is an arrangement between parent and subsidiary whereby the subsidiary undertakes the development, manufacturing, and marketing for a single product line on a worldwide basis (Rugman and Bennett, 1982). For this research a broader definition is used, namely "an arrangement between parent and subsidiary whereby the subsidiary undertakes a specific economic activity of international scope". See chapter 3 for a more complete discussion of this definition.

While the current changes in the North American industrial environment inspired this study, the implications for MNC management extend beyond either the narrow research phenomenon (the initiative) or the Canadian setting. In particular, the initiative construct is central to what Bartlett and Ghoshal (1993) have termed *The entrepreneurial process*, one of three core processes in their new organizational model. The latter part of this thesis is devoted to understanding the broader theoretical and managerial implications of the research.

The Points of Departure from the Existing Literature

This research falls broadly into the stream of literature concerned with the role of the subsidiary in the large MNC. Studies by Bartlett and Ghoshal (1986), Jarillo and Martinez (1990), White and Poynter (1984) and others have observed that subsidiaries take different roles depending on their internal capabilities, their local environment and their relationships with other corporate affiliates. A major issue around which there is little agreement, however, is the relative influence of parent and subsidiary management on the definition of that role. One school of thought suggests that parent management shapes an organizational context that defines the subsidiary's role (e.g. Bartlett & Ghoshal, 1986); the second school of thought sees the context as a constraint within which subsidiary management are free to shape their own role (e.g. White & Poynter, 1984). The implication is that any autonomous action such as subsidiary initiative is a function of both the subsidiary's organizational context and the tangible actions of subsidiary management. Research to date has, however, centred predominantly on the contextual factors.

To shed some light on the internal actions taken by subsidiary management to encourage initiative, Burgelman's (1983a) research on internal corporate venturing was applied to the MNC subsidiary context. Burgelman's focus was on autonomous (i.e. entrepreneurial) ventures such as new product introductions. He documented the management activities that shape the definition of such ventures and their upward progress (or impetus) through the organization. He also proposed a development process, whereby

new ventures gradually become incorporated into top management's concept of strategy. While there were some translation issues regarding the application of Burgelman's study to the subsidiary context, it formed a valuable theoretical foundation for the process analysis. Other entrepreneurship literature, such as Kanter (1985), Kirzner (1973) and Schumpeter (1934) was also used to complement Burgelman. This literature will be reviewed in chapter 2.

The last few years have seen an upsurge of interest in what Bartlett and Ghoshal (1993) have termed *the entrepreneurial process* in large corporations. Research has focused on new structural forms (Bartlett & Ghoshal, 1993), business unit renewal (Ghoshal and Bartlett, 1994) and internationally-coordinated research projects (Hedlund & Ridderstrale, 1992). The current study complements these pieces of work by studying entrepreneurship and initiative in the subsidiary context.

The Research Approach

An inductive research approach was chosen, in part because of the lack of prior studies and in part because of the complexity of the research phenomenon. As observed by Parkhe (1993), the premature use of theory-testing approaches to research can obscure understanding of the core phenomenon. He recommended a multi-phase research design, beginning with a single case-study, moving on to replication studies, and finally raising the theoretical level by conducting a large-sample test.

This research corresponded to the middle stage of Parkhe's design i.e. an in-depth study of a limited number of similar cases. The final sample consisted of 39 initiatives in 6 Canadian subsidiaries. Data was gathered primarily through 100 in-person interviews, but also through a questionnaire and secondary data sources. The result of this process was a very clear understanding of the initiative and growth processes in the sample companies, but limited insight into the generalizability of the findings to other subsidiaries. The next phase of research will be directed towards issues of external validity and generalization. For the moment, the findings presented herein must be viewed as exploratory and provisional.

Scope of the Research

Consistent with Parkhe's (1993) research design, care was taken to reduce the variance among the sample companies to make comparison more meaningful. This made it necessary to constrain the scope of the research along the following dimensions.

Focus on large MNCs. Prior research has suggested that subsidiaries only begin to seek out international responsibilities once they have reached a certain level of resource development and maturity. This study was restricted to corporations with $5 billion or more in revenues and to subsidiaries with sales of at least $300 million to ensure that the necessary levels of resource development had been achieved.

Focus on Canadian subsidiaries of U.S. MNCs. To be faithful to the original research phenomenon as identified in the exploratory study, it was necessary to restrict the study to the Canadian subsidiaries of U.S. MNCs. This is also consistent with most prior research in this area (e.g. Bishop and Crookell,1986; White & Poynter, 1984).

Focus on subsidiaries with evidence of initiatives. Exploratory research showed that some subsidiaries have never taken initiatives of the type defined here, perhaps because of the lack of parent company support for such actions, and because of the lack of management expertise in the subsidiary. While it was considered important to study cases of failed *and* successful initiatives, the preference was to focus on subsidiaries with examples of both, rather than include subsidiaries in which the initiative phenomenon was absent. Why some subsidiaries have never taken initiatives is an important research question, but it is distinct from the question of why some initiatives end in failure. Subsequent research will address this issue.

Focus on global industries. The research phenomenon was explicitly concerned with internationally-focused initiatives, so industries that were still configured on a country-by-country basis were deemed inappropriate for study. The exploratory study suggested that subsidiaries in these industries frequently pursued initiatives which were exclusively tailored to the Canadian marketplace.

Overview of Findings

The empirical findings from the research can be summarized concisely. In terms of the first research question, four distinct types of subsidiary initiatives were identified[2], labelled "Reconfiguration", "Local market", "Competitive bid" and "Mandate extension". *Reconfiguration* initiatives were driven primarily by the (free-trade induced) opportunity to consolidate North American operations. The outcome for the MNC was a more efficient internal operation but no net change in sales revenues. *Local market* initiatives were driven by the identification of new product or business opportunities initially in the Canadian market. These initiatives quickly achieved substantial international sales revenues. *Competitive bid* initiatives were driven by the identification and pursuit of an intended global investment by the MNC. While the MNC in this case had already planned to make the investment, subsidiary initiative was necessary to attract that investment to a Canadian location. Finally, *mandate extension* initiatives were driven by the perception of a new product or business opportunity in the global market. These were somewhat different to the other types, in that the subsidiary in question needed an existing world mandate before a mandate extension could be sought. Binding these four types of initiative together is the concept of market opportunity. Using Kirzner's (1973) definition of entrepreneurship as "alertness to market opportunities", these four types can be modeled as alertness to (respectively) internal, local and global market opportunities. Figure 1-1 illustrates this point.

The second research question was concerned with the initiative process. A generic initiative process was put forward based around the four stages of *conception, definition, commitment, and approval*. These stages represented the increasing viability of the

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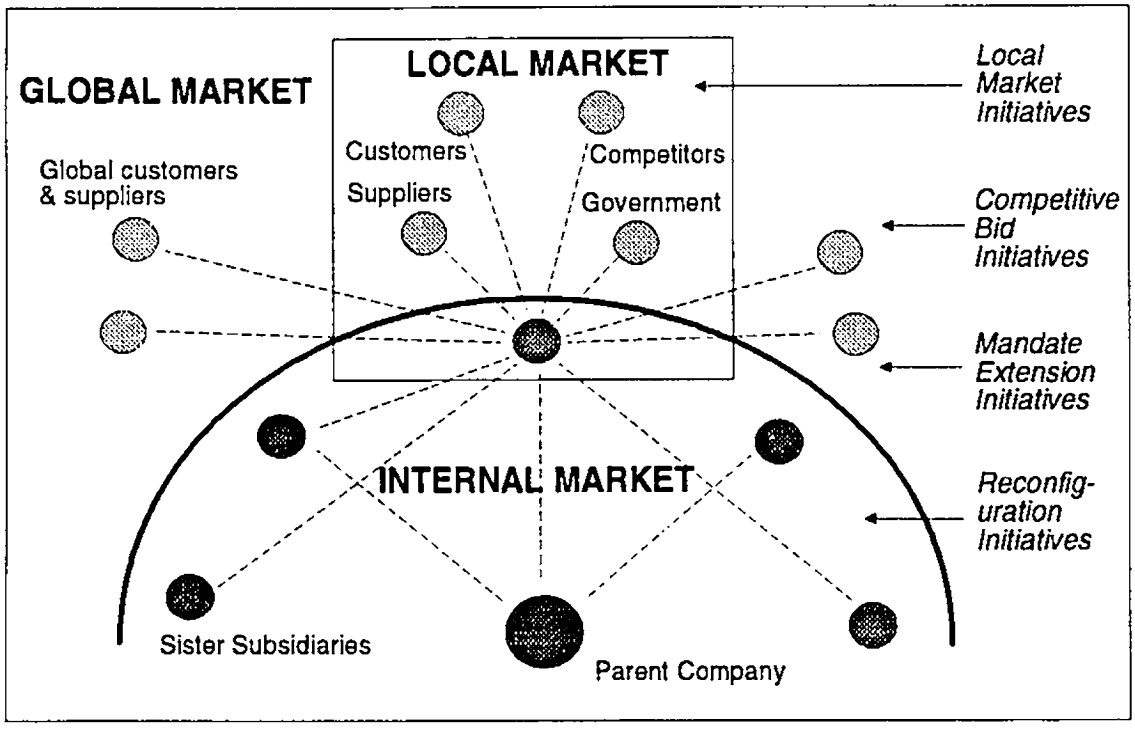
[2] Note that the typology refers to a set of processes (initiatives) and not a set of end results (world product mandates). A successful initiative --by definition-- leads to the creation or enhancement of some sort of world mandate, but the type of mandate (e.g. manufacturing, development, product management) is of very marginal interest. The basic premise here, which is expanded on in chapter 2, is that greater insight can be gained by understanding the mandate-winning processes than by studying the characteristics of the mandates themselves.

initiative, the corollary being that an initiative could also be derailed at each stage. Furthermore, the process was shown to be strongly influenced by the organizational context of the subsidiary which in Burgelman's (1983a) model consists of the various facets of the subsidiary-parent relationship and the perceived role of the subsidiary in the minds of parent managers.

Figure 1-1
Local, global and internal markets of the national subsidiary



Some variance from Burgelman's model was observed. First, the initiative process varied across types: in the case of reconfiguration and competitive bid initiatives the process followed a classic upward progression through the layers of management; in the case of local market and mandate extension initiatives there was considerably more decision-making power at the subsidiary level. Also, a number of horizontal processes were identified, overlaying the conventional vertical arrangements. Second, it was discovered that the process through which autonomous action (such as initiative) impacts the organizational context of the subsidiary was found to be weak. This point is developed in the theoretical implications.

The final research question addressed the growth of the subsidiary over time and, specifically, the extent to which a clear initiative development process could be discerned[3]. Growth was shown to be driven by the resources and capabilities of the subsidiary, and particularly by the inflow of investment, new capabilities and learning that a successful initiative inspired. Four mechanisms of resource transfer between initiatives were identified: complementarity of physical resources; application of a proprietary capability; reputation enhancement; and learning of the initiative process. With regard to long-term development, all cases exhibited an increase in international responsibilities, and all except one achieved an enhanced standing in the eyes of the parent company over the period of study (ten years). The one exception saw its initiative funding curtailed as a result of changes (at head office) entirely beyond its control.

Theoretical Implications

This study has substantial theoretical implications in two areas. First, there are implications for the role of the subsidiary in the MNC and, as a consequence, for the strategy of the MNC. Second, there are implications for process models of strategy and decision making in general. The two sets of implications will be discussed separately and brought together at the end.

The role of the subsidiary in the MNC. An emerging view of the national subsidiary both in practice and in academia (e.g. Hedlund and Ridderstrale, 1992) suggests two distinct functions: (a) a sales and marketing organization to meet the needs of the local customer; and (b) a research and development, manufacturing and business management organization to undertake value-adding activities on behalf of the MNC. Setting aside the local sales and marketing activities for the purposes of this study, the

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[3] It was not possible to address the third research question as thoroughly as the first two because the primary unit of analysis was the initiative. These findings must therefore be considered provisional.

subsidiary's role is to add value[4] to the MNC by establishing and developing these latter activities.

This study takes the adding-value role one stage further by suggesting the subsidiary's role is to *identify and exploit market opportunities*[5]. Traditionally one would expect the subsidiary to exploit local market opportunities, but it is important to recognize that the subsidiary also interfaces with an "internal" corporate market of sister subsidiaries and a "global" market of international customers, suppliers, and competitors (Figure 1-1). All three offer opportunities for value-adding initiatives.

Market opportunities, however, only represent one side of the equation. If the objective of strategy, for autonomous firms or for semi-autonomous subsidiaries, is competitive advantage, then the subsidiary should exploit only those market opportunities to which it can apply a distinctive set of capabilities (Barney, 1991). This can be location-specific advantages (on account of the local market interface), firm-specific advantages or some combination of the two. If the subsidiary does not have a competitive advantage, in comparison to either sister subsidiaries or to external entities, then it should not exploit the opportunity itself. Note that this does not detract from the subsidiary's responsibility to identify opportunities; there were several examples in this research of new business ideas started in Canada and then transferred to other locations.

In addition to the need to match distinctive capabilities with market opportunities, it is also important to have strategic alignment with the MNC for a meaningful value-adding subsidiary role. If a new business opportunity is closely aligned with an existing division, it will more readily gain access to strategic investment and it will also benefit from the operational synergies such as access to a global salesforce. By contrast, a strategically marginal business activity is prone to "cash cow" treatment or divestment.

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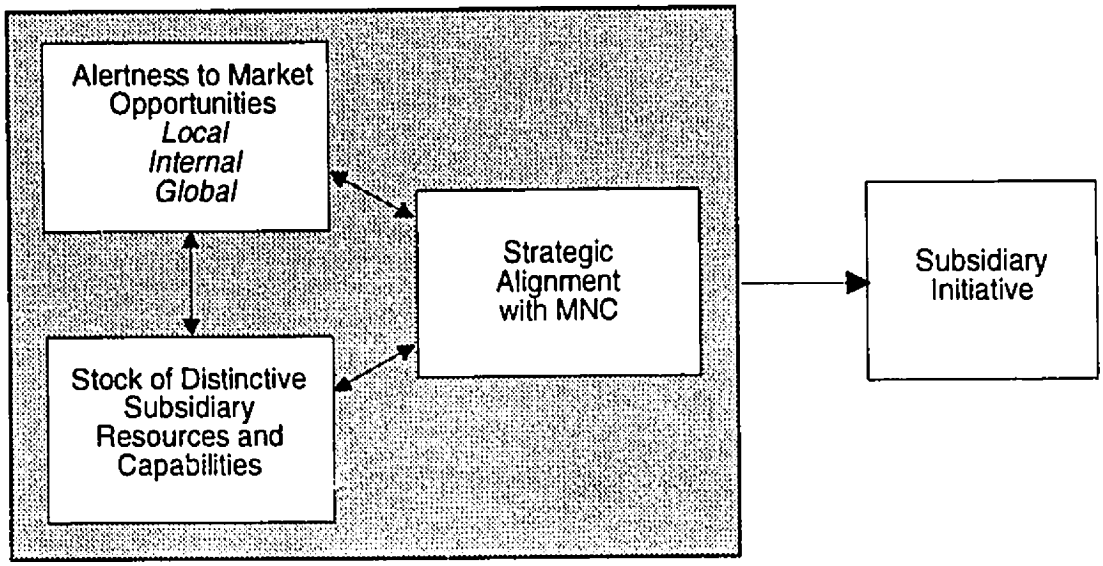
[4] In simple terms adding value means increasing revenues or decreasing costs for the MNC. In this context adding value also assumes that the subsidiary activity in question could not be undertaken more effectively by another entity.

[5] Note that it is also possible for the subsidiary to add value without a market interface, e.g. through a simple efficiency enhancement. Such activities are not considered further in this thesis because they tend to be part of the ongoing managerial responsibilities of the subsidiary, rather than part of its entrepreneurial function.

Figure 1-2
Components of a subsidiary initiative



Thus, it is not sufficient for the subsidiary to offer a competitive advantage for the business opportunity in question: it should also be able to demonstrate alignment with an existing division. Figure 1-2 illustrates this concept.

Implications for MNC Strategy and Structure. This model suggests that the traditional approach whereby subsidiaries are assigned roles by the parent is incomplete. The major limitation is that the assignment of a role assumes parent management understands the nature of the opportunities within the subsidiary's jurisdiction better than subsidiary management. This is extremely unlikely and, in fact, contrary to the basic laws of economics which rely on the "invisible hand" (i.e. the process of entrepreneurial discovery (Kirzner, 1973)) to achieve an efficient allocation of resources. A much better approach is to build a set of systems that create a market-like self-regulating process so that subsidiaries only exploit those opportunities for which they can offer competitive advantage *and* strategic alignment with the MNC. This means assigning a broad role to all subsidiaries, such as "to identify and exploit market opportunities commensurate with your distinctive capabilities and the corporate strategy". Note that this does *not* imply a

standard set of organizational contexts, because the context for each subsidiary will evolve with its capabilities and its international responsibilities. It *does*, however, imply that certain systems need to be in place to ensure the integrity of the value-adding process depicted in Figure 1-2. For example, there should be a competitive bid mechanism in place so that any subsidiary has the opportunity to bid for a planned global investment. Likewise, there should be a challenge mechanism (e.g. Dow Chemical) to facilitate the transfer of a value-adding activity from a non-competitive location to a competitive one.

The organizational model implied by this discussion is largely self-regulating. Corporate management defines a strategic direction and a set of mechanisms to regulate the entrepreneurial efforts of the subsidiaries. The rest is up to the subsidiaries themselves. Efficiency in existing operations is ensured by internal market activities; country-specific opportunities are catered to and leveraged through local market activities; and transnational integration is achieved through global market activities. Interestingly, subsidiary top management (the president and general managers) have a limited role to play in this system because it is the front line managers who are identifying and pursuing market opportunities. Subsidiary top management's role becomes apparent only through the process model described below.

This model of MNC organization is consistent with much of the recent thinking on the MNC, particularly Hedlund (1994). New ground has, however, been broken in two directions: (1) the identification of the four types of subsidiary initiative, and their relationship to market opportunities; and (2) the use of a resource-based approach to growth and development in the multinational subsidiary. Both of these insights have substantial implications for MNC strategy and structure.

Process Models of Strategy and Decision Making. While the Canadian setting gave this research an explicit international dimension (and hence a perspective on the theory of the MNC), it has implications for more general models of strategy process as well. In particular this research builds on the most recent work of Bartlett and Ghoshal (1993, 1994)

In their simplest form, models of the strategy process (e.g. Bower, 1970; Burgelman, 1983a) suggest that managerial action defines an organizational context which then prescribes individual behaviour. This is uni-directional in terms of causality. Ghoshal and Bartlett (1994) refined this by suggesting that the actions of management interact with the existing organizational context to create a continually-evolving context, which in turn shapes individual behaviour. Furthermore, they proposed that context should be understood in terms of the behaviour-framing attributes of discipline, support, stretch and trust, rather than the more concrete notions of impetus and definition (Bower, 1970). This formulation is an appropriate lens through which to view the phenomenon of subsidiary initiatives. In fact, one of the individual behaviours that Ghoshal and Bartlett focused on is "distributed initiative", so their model applies directly to the current research.

The problem is that the subsidiary's organizational context is very complex, created in part by parent company management and in part through the internal activities of the subsidiary. In fact, an initial assessment would suggest that there were elements of both the uni-directional model and the refined model (of Bartlett and Ghoshal) at work.

Figure 1-3. Process Models of Subsidiary Strategy

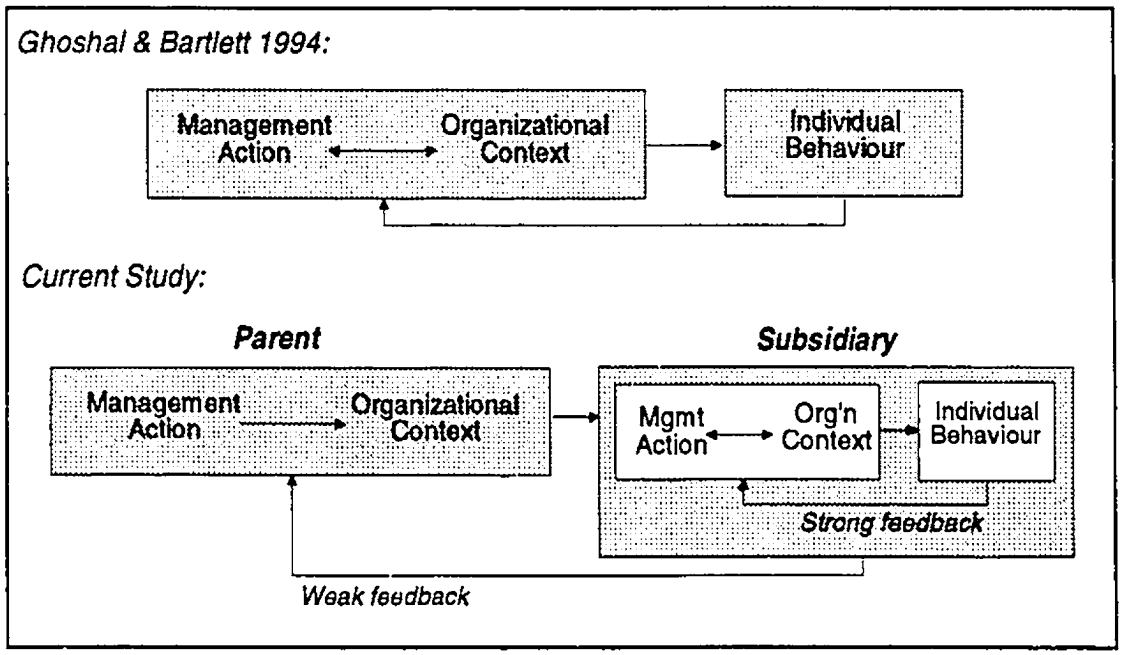


Figure 1-3 depicts graphically the process at work in the subsidiary, with Ghoshal and Bartlett's (1994) basic formulation as a comparison.

As a result of this research, two nested processes are envisaged. (1) Parent company management, through their assessment of the capabilities and opportunity set of the subsidiary, define an appropriate context in terms of lines of reporting, budgets, head count and areas of accountability, and this circumscribes the behaviour of the subsidiary. (2) Subsidiary management then take whatever degrees of freedom they have and through their own actions they shape the internal organizational context which in turn influences the behaviour of individual subsidiary employees.

The point is that Ghoshal and Bartlett's interactive process occurs far more readily and far more effectively at the subsidiary management level. If distributed initiative is the desired individual behaviour, then subsidiary management, through a series of tangible and intangible actions, can create a context to support or select that behaviour. Managerial action and context interact, and the feedback loop, from individual behaviour back to action, is strong. The outer process, involving parent management action and macro organizational context, is by contrast uni-directional. There is very little interaction between context and managerial action, and the feedback loop from individual behaviour to context is weak. The reason for this appears to be twofold: first, geographical and cultural distance prohibit frequent personal interaction and hence they stifle the development of a vibrant, fertile context. Second, the subsidiary's macro-context is impacted by more than just the behaviour inside the subsidiary. Changes in the business environment or corporate strategy can derail the finely-balanced subsidiary-specific development process.

To summarize, Ghoshal and Bartlett's process model sheds new light on the subsidiary initiative phenomenon, but it is more appropriate at the intra-subsidiary level. A more complete understanding of the subsidiary context involves two nested processes, the outer of which involves very limited feedback from individual behaviour to organizational context. The contribution of this research, therefore, is its demonstration of the need to apply both process models simultaneously to better understand the multi-

faceted nature of organizational context in large multinational corporations. Either one in isolation leads to an unsatisfactory conceptualization of the phenomenon.

The implication of this analysis (for practice) is that subsidiary top management, who had a limited role to play in the model described earlier, suddenly have a critical role, namely the development of a vibrant organizational context that is capable of fostering initiative. The more successful cases of subsidiary growth identified in this study all showed evidence of subsidiary-level context development which, given the recent strong shift away from country management in Canadian subsidiaries, is an important finding. The process model is thus complementary to the earlier content-oriented model, with the content model suggesting the hard structural components needed to institutionalize the initiative process, and the process model indicating how the softer elements of context and culture can be encouraged.

Summary

This chapter has provided a brief overview of the study's foundations, objectives and methods, and a fairly detailed exposition of the principal empirical / conceptual findings and their theoretical implications. To summarize, the study's principal academic contributions are three: (1) the identification of four types of initiative centred around the concept of market opportunity; (2) a model of subsidiary development over time, driven primarily by the subsidiary's stock of resources and capabilities; and (3) a process model of subsidiary initiative that refines Ghoshal & Bartlett (1994). There are parallel managerial implications as well, which will be explicated in chapter 10. As a guide to the next 350 pages, the following section briefly outlines the contents of each remaining chapter.

The Chapters in Outline

Chapter 2 is a review of the relevant literature, most notably the body of work centred around MNC subsidiary management. The "emerging model" of the national subsidiary is identified and described. Other related bodies of literature are also discussed, including corporate entrepreneurship, the economic theory of the MNC, and the resource-based view of the firm.

Chapter 3 identifies and defines the research phenomenon, the subsidiary "initiative". An explanation for the focus on initiatives rather than world mandates is put forward. Three research questions are posed, relating to the content, process, and long-term development of subsidiary initiatives. The existing literature, most notably the work of Burgelman (1983a), is used to put forward some provisional ideas relating to the three research questions.

Chapter 4 provides an in-depth account of the research methodology. The choice of an inductive approach is explained, and the selection of a suitable sample of subsidiaries is described. There is an account of the multi-method approach to data collection and data analysis, and finally a description of all of the variables used in the research.

Chapter 5 describes the initiative typology. For each initiative type a case study is outlined, and then the strategic drivers, outcomes and key success factors are discussed. Finally, the methods used to validate the typology are detailed.

Chapter 6 builds on the typology in chapter 5. A conceptual integration of the four types is put forward around the dimensions of market type and initiative contestability. The framework is used to derive three propositions, which are examined using the quantitative data. Mixed support is found for the propositions. Two other statistical tests are also conducted around the impact of industry type on initiative type and the differences in key success factors by initiative type.

Chapter 7 documents the initiative process. A generic process is offered first, followed by a closer look at the different processes at work in each initiative type. Six

variants on the initiative process are identified altogether. Finally, the antecedents to the initiative process, and the importance of the MNC subsidiary setting to the process are discussed.

Chapter 8 examines the subsidiary development process over time by presenting the six case studies and an analysis of each.

Chapter 9 continues the analysis of chapter 8 by considering the commonalities and differences between cases. The role of initiatives in subsidiary growth is also assessed, using a mixture of qualitative and quantitative data. Mechanisms of growth, based around the subsidiary's resources and capabilities, are described.

Chapter 10 considers the theoretical implications of the research. The findings are considered in relation to the two existing theories of the MNC, the "economic" theory of foreign production and the "network" model. The latter is shown to be much more closely aligned with the current study, and a theoretical extension is proposed using the results of chapters 5 to 8.

Chapter 11 considers the managerial implications of this research. From the subsidiary manager's perspective, the identification of four types of initiatives and their key success factors offers a useful approach to winning a world mandate. For the parent manager, the mechanisms that facilitate subsidiary initiatives are described, and the reasons why many parent companies do not encourage initiatives are discussed.

Chapter 12 is a summary of the findings from the research. The limitations of the current study, and the opportunities for further research are briefly discussed.

Appendix 1 exhibits all of the materials used to collect and analyze the data. It consists of two case interview protocols, two questionnaires, four cover letters, and four analysis "worksheets" as used by both the researcher and the research assistant.

Appendix 2 consists of six detailed case studies, one per subsidiary. These are long forms of the cases described in chapter 8.

CHAPTER 2
THEORETICAL AND EMPIRICAL FOUNDATIONS

This thesis builds on a well-established body of literature that seeks to understand the managerial processes occurring in large multinational corporations (MNCs). The primary objective of this chapter is to review this body of literature and draw out the key insights it offers on the management of the MNC subsidiary. The secondary objective is to examine a number of related bodies of work, mostly from a theoretical standpoint, to provide some additional perspectives on the research issue.

THE "PROCESS SCHOOL" OF MNC RESEARCH

Research focused explicitly on the MNC can be traced back through three distinct streams of literature. First, the work of Stopford and Wells (1972), Franko (1971, 1974) and others built on Chandler's (1962) seminal work, "strategy and structure", to suggest a link between international growth (strategy) and organizational form (structure). More recent studies by Egelhoff (1982, 1988) and Daniels, Pitts and Tretter (1984, 1985) followed in the same vein. These studies helped to identify the key contingencies associated with various structural configurations, but offered limited insight into the internal workings of the MNC on account of their preoccupation with formal structure.

A second body of work took as its focus the relationship between MNC headquarters and subsidiary[1]. The academic foundations for these studies were frequently left implicit, but typically represented the extension of the principles of decentralization

[1] Subsidiary (or "national subsidiary") is defined in this study as the set of MNC-owned value-adding activities in a single country.

(e.g. Sloan, 1964) into the international setting. Also relevant were the Aston Studies (e.g. Pugh, Hickson, Hinings & Turner, 1968) for their definition of the key structural variables such as centralization and formalization. The focus of this stream of research was narrow, concentrating on the factors associated with subsidiary autonomy (Hedlund, 1981; Negandhi & Baliga, 1981), coordination (Brandt & Hulbert, 1977; Picard, 1980; Welge, 1981) and control (Cray, 1984; Youseff, 1975). Results from these studies were sometimes contradictory and ambiguous (Gates & Egelhoff, 1986), and with retrospect, it can be deduced that this was in part due to a lack of understanding of the variety of subsidiary types that have subsequently been identified.

A third body of research took a very different cut at the MNC. Rather than focusing on the formal elements of structure, the so-called "process school" built an understanding of the MNC around the decision-making processes within the organization (Bower, 1970), which ultimately gave rise to a much richer conceptualization than that generated by prior research. The work of Prahalad (1976), Doz, (1976), Bartlett (1979), Ghoshal (1986) and Hedlund (1986) formed the core of this work, and it is useful to briefly describe their major insights.

Prahalad (1976) modeled the decision process in a single MNC in terms of the relative power of the international business groups and the country units. The role of top management, he argued, was to manage the relative power dynamic rather than the structure *per se* as a means of dictating the strategic direction of the MNC. Subsequent work by Prahalad and Doz (1981) showed that national subsidiaries lose their dependence on the corporate parent as they develop their own capabilities. They showed that the head office can most effectively influence subsidiary actions by managing the organizational context (e.g. management transfers, cross-business teams, measurement systems, socialization programs) rather than ruling by decree. Bartlett's (1979) research complemented this insight by showing that a sample of pharmaceutical firms had achieved strategic reorientations without changing their formal structures. He concluded that they had superimposed a "latent matrix" on the formal organization, so that conflict resolution could be addressed by a number of management systems rather than through a formal hierarchy. Subsequently Bartlett and Ghoshal (1989) developed these insights into a

complete theory. They argued that the key strategic capability for an MNC was the ability to create an organizational context that simultaneously addressed the demands for local responsiveness and global integration[2]. Formal relationships and roles typically rigidified one set of demands at the expense of the other. The key was to develop a "matrix in the mind of the manager" through more subtle processes. They termed this model the *Transnational.*

An independent body of work out of Sweden evolved from a focus on headquarters-subsidiary relationships (e.g. Otterbeck, 1981) to a more holistic perspective that focused, like the foregoing work, on management processes in the MNC. Hedlund (1980, 1984, 1986), in particular, was instrumental in putting forward a new conceptualization of the MNC which he labelled *Heterarchy*. The characteristics of Heterarchy included multiple types of subsidiaries, a wide variety of governance forms, loose-coupling between units, and control based on normative integration (Etzioni, 1961). The subsidiary, in this formulation, had a high level of discretion and frequently took on international responsibilities for the MNC as a whole.

Finally, White and Poynter (1990) developed the concept of the *horizontal organization* based around three key attributes: lateral decision processes, horizontal network, and shared decision premises. While working primarily from a subsidiary perspective, their model shared much with the head-office based conceptualizations of Hedlund, Bartlett and Ghoshal.

To summarize, the process school's major contribution was to recognize the fundamental organizational differences between the MNC and the traditional M-Form (Chandler, 1962; Williamson, 1975) and to develop alternative conceptualizations that more effectively modeled reality. Central to these conceptualizations was the notion of the national subsidiary as a semi-autonomous entity, with both the resources and the managerial know-how to pursue its own ends. A considerable amount of research effort from the late 1980s on was directed towards the role of the subsidiary, and from this

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[2] The notion of the dual focus as a key MNC imperative can be traced back to Fayerweather (1969) and Stopford and Wells (!972).

work two quite distinct viewpoints emerged. These will be discussed separately.

(1) The Subsidiary Role Perspective

Bartlett and Ghoshal (1986) observed that national subsidiaries can take one of four generic roles, based on the strategic importance of the local environment and the competence of the subsidiary. They further suggested that the MNC's structure should reflect this heterogeneity, so that certain subsidiaries receive, for example, much greater strategic autonomy than others. While this notion of a *Differentiated Network* (Ghoshal, 1986) was implicit in some of the foregoing process-school research, its articulation was a critical contribution because it spawned a number of other studies, each with their own typologies. Gupta and Govindarajan (1991) for example, modeled subsidiaries in terms of resource inflows and outflows, while Jarillo and Martinez (1990) focused on strategic pressures for integration and responsiveness. Ghoshal and Nohria (1989) extended the concept further by modelling subsidiary roles in terms of environmental complexity and access to resources. Each piece of research took a different position on the nature of the subsidiary's strategic context (i.e. the spectrum of environmental pressures, corporate expectations and internal capabilities that determined the subsidiary's role) and attempted to predict various structural characteristics. Consistent with the contingency approach to strategy (Lawrence & Lorsch, 1967), the link to subsidiary performance was also examined.

These studies shared a number of underlying characteristics. First, despite their focus on the national subsidiary, there was an implicit parent-company perspective, in that subsidiaries were modelled in terms of "relative capabilities" or "relatively high levels of resource outflows" (vs. sister subsidiaries). Second, and related to the first point, the subsidiary's role was determined by the parent company, and essentially assigned to the subsidiary in question. The implication of this assumption is significant, because it means the key strategic decision-making occurs at head office. Third, the subsidiary's role was enacted through the structural context of the MNC. That is, by defining an appropriate set of reporting relationships, reward systems, and human resource management systems,

the parent company could induce subsidiary managers to deliver on the assigned role. Innovative activity in the subsidiary, for example, was found to be associated with normative integration, intra-unit communication and inter-unit communications (Ghoshal and Bartlett, 1988). In this sense, key subsidiary behaviours such as innovation were institutionalized.

(2) The Subsidiary Strategy Perspective

While the foregoing is a somewhat stylized description of recent research on subsidiary roles, it provides an interesting contrast to a separate stream of research that was focused directly at the subsidiary level of analysis. That is, it viewed the subsidiary as the key strategic decision maker, and talked in terms of subsidiary strategies rather than subsidiary roles. The principal assumption, in contrast with the subsidiary role research, was that the subsidiary's strategy is constrained (rather than defined) by the structural context, and that subsidiary managers have considerable latitude within the imposed constraints to shape a strategy as they see fit.

This body of research was predominantly Canadian, stretching back to Safarian's (1966) work on the foreign ownership of Canadian industry and with key contributions from Crookell (1986, 1990), D'Cruz (1986), Poynter and Rugman (1982) and White and Poynter (1984, 1990). Given the high levels of foreign ownership in Canadian industry (consistently in the region of 50%), Canadian managers and public policymakers have actively looked for opportunities for subsidiary companies to influence their own destinies. Academic thinking has reflected this desire, and consequently has pushed hard towards subsidiary managers utilizing their strategic discretion rather than simply responding to parental decree. White and Poynter (1984: 69), for example, noted that subsidiary managers "Will have to adjust their strategies to successfully deal with changed circumstances... Through the careful development of local capabilities the subsidiary manager can contribute to the evolution of the Canadian subsidiary's strategy."

Central to much of the Canadian research on subsidiary strategy was the quest for World Product Mandates (Bishop and Crookell, 1986; Etemad and Dulude, 1986; Roth

and Morrison, 1992; Science Council of Canada, 1980). A World Product Mandate (WPM) is defined as an agreement with the parent company whereby the subsidiary is responsible for development, manufacturing and marketing of a product or product line for the MNC on a worldwide basis. While WPMs have been utilized in Canada and elsewhere for many years, they only received widespread recognition at the beginning of the 1980s, when a Science Council of Canada (1980) report described WPMs as "An interesting and useful instrument for dealing with the problems posed by a branch plant manufacturing sector". The report went on to describe four case studies of Canadian subsidiaries that had met with considerable success in winning WPMs. Subsequent researchers built on this foundation by identifying the strategic options facing Canadian subsidiaries in the pursuit of WPMs. Widespread agreement that WPMs were desirable was, however, coloured by a perception that MNC parent companies would be reluctant to cede control of strategically important activities to subsidiary companies (Crookell, 1986; Poynter & Rugman, 1982). There were also concerns voiced regarding the competitiveness of a WPM on a sustainable basis (D'Cruz, 1986) and the merits of government actively supporting WPM subsidiaries at the expense of other industrial sectors (Johnston, 1982). Notwithstanding these concerns, WPMs became an important feature of the foreign-owned industrial sector in Canada, particularly in the light of free trade with the U.S. WPM strategy research, furthermore, has not been restricted to Canada. The concept has received explicit attention in Europe (Forsgren & Johansen, 1992; Young, Hood and Dunlop, 1988) and is implicitly at the centre of much recent research on the network conceptualization of the MNC (Ghoshal & Bartlett, 1991).

WPMs are frequently constrained both geographically and by function, so that some researchers have opted for more generic terms such as "specialized mission" (Ontario Ministry for Trade and Tourism, 1980) or "international responsibilities" (Moore, 1993). Regardless of scope, however, the primary outcome for the subsidiary is greater specialization, in terms of a focused factory or product responsibility. Full-scope WPMs also offer the subsidiary greater autonomy (the right to make strategic decisions without parent company intervention), but, as observed by Crookell (1986), manufacturing mandates (such as the Canadian auto plants) actually lead to a lower level

of autonomy than that held by Canada-focused operations. A second key point is the recognition that WPMs are earned not given (Bishop and Crookell, 1986). Though exceptions exist, the responsibility for identifying the WPM opportunity and pursuing it rests wholly with the subsidiary, because most MNCs are reluctant to yield control of strategic activities to subsidiaries.

In conclusion, the body of work on subsidiary strategy (as opposed to subsidiary role) focused clearly on the opportunities for subsidiary management to shape their own destiny within the expectations and constraints of the corporate system. With its focus primarily on Canada, this research showed very clearly how certain subsidiaries have been very effective at winning World Product Mandates, and went some way towards understanding the process followed by these subsidiaries.

Table 2-1
Two contrasting views on the national subsidiary

(1) subsidiary "role" perspective	*(2) subsidiary "strategy" perspective*
Focus on head office management	Focus on subsidiary management
Subsidiary has an assigned role	Subsidiary has a strategy
Role is defined by structural context	Strategy is constrained by structural context
Creativity and innovation are institutionalized through corporate systems	Creativity and innovation are endemic in the subsidiary and drive the strategy

Table 2-1 summarizes the key features of the two bodies of research on national subsidiaries. It should be stressed that these polar positions do not do justice to the breadth of thinking manifest in these scholars' work. Reality is a subtle blend of these two models, and most academics have recognized this. In particular, the observation that complete "control" of the national subsidiary by contextual methods is

neither possible nor desirable has been discussed by many proponents of the subsidiary role concept (e.g. Bartlett & Ghoshal, 1989; Kim & Mauborgne, 1993; Prahalad and Doz, 1981). There is clearly an interesting trade-off between control and autonomy in the parent-subsidiary relationship, and the fact that subsidiary "role" research favours control and subsidiary "strategy" research favours autonomy is simply a function of the opposing perspectives of parent and subsidiary managers. A matter of great interest that will be fully explored in chapter 3 is the capacity of the subsidiary for creativity and innovation. Ghoshal and Bartlett (1988) took the position that certain subsidiaries could most effectively pursue the innovative and creative needs of the MNC, and that the structural context of those subsidiaries should reflect this role. White and Poynter (1984) and others in the subsidiary strategy school suggested that creativity and innovation *should* be endemic to the national subsidiary, as the driver of its strategy. The normative emphasis is important, because in reality a large number of subsidiaries are somewhat passive.

THE CHANGING BUSINESS ENVIRONMENT

The globalization of business has created a host of new and complex strategic imperatives for the MNC. There is widespread agreement that the requirements for global integration continue to grow, but the extent to which requirements for national responsiveness are changing is much less clear-cut. One argument sees the world moving towards pure globalization (Levitt, 1983) while the counterposition foresees a continued dependence on national differences (Douglas & Wind, 1987). From the perspective of the MNC, Bartlett & Ghoshal (1989) have argued that the diversity of businesses and functions that need to be managed ensure that a capacity to deliver both global integration and national responsiveness will be imperative in the years ahead. Within that broad perspective, however, they acknowledge that the integration - responsiveness dilemma is heavily contingent on the industry structure and the chosen business strategy.

Empirical evidence of MNC structures has found mostly in favour of global integration at the expense of national responsiveness. While no definitive work exists,

research by Theuerkauf, Ernst and Mahini (1993), Humes (1993), Quelch (1992) among others has pointed to a convergence among large MNCs on global business unit structures, whereby all assets related to a single business unit are coordinated on a worldwide basis from the head office. At the same time many MNCs have also put together regional structures in North America and Europe (Lehrer & Azakawa, 1994; Morrison, Ricks and Roth, 1991) in accordance with the formation of trading blocks. Both these shifts have lessened the role of the national subsidiary in the global network. With lines of reporting flowing directly through the business units, the country manager is frequently left as a spokesperson or figurehead (Quelch, 1992) rather than as an operating manager. The support functions have in many cases been eliminated, leaving a very lean subsidiary organization.

While these are the dominant structural trends among MNCs, there are many companies that have opted for a much greater emphasis on local responsiveness and have retained or employed matrix or country-centred structures to that end. Furthermore, it should be observed that much of the reduction in subsidiary overhead has occurred during an economic slowdown, which must take part of the blame (or credit) for the very lean structures that have been adopted by many MNCs. Overall, then, there has been a trend away from strong subsidiary management in recent years, but it is not clear whether future changes will be in the same direction or back towards stronger subsidiary management.

A separate trend that can also be traced back to globalization is the increasing dis-aggregation of the business value-chain. Enhanced communication, greater standardization of world demand, and lowering transport costs make it possible, for example, to develop a product in Japan, manufacture it in South-East Asia, manage the process from the U.S., and distribute it worldwide. Apart from the downstream activities such as sales and service that require --by definition-- a substantial local presence, value-adding activities are geographically flexible. Choice of site for a new manufacturing facility, for example, depends more on comparative advantage than on the destination of the products. What this has meant is an increasing level of geographic dispersion of value-adding activities to national subsidiaries on the basis of that subsidiary's unique

capabilities. International acquisitions have also helped to disperse value-adding activities away from the MNC centre.

THE EMERGING MODEL OF THE NATIONAL SUBSIDIARY

Taken together, theoretical research on the role / strategy of the national subsidiary and empirical evidence of the structural changes occurring in large MNCs make it possible to detail the emerging model of the national subsidiary that is central to this thesis. This model has its origins in the *heterarchy* and *transnational* formulations of the process school, but owes more to the recent literature that describes the MNC as an interorganizational network (Forsgren & Johansen, 1992; Ghoshal & Bartlett, 1991; Hedlund & Ridderstrale, 1992; Solvell & Zander, 1994). In simple terms this literature views the MNC as a set of interconnected entities (i.e. subsidiaries) embedded in an external network of customers, suppliers and competitors.

The key element of the emerging model is that the national subsidiary often does not exist as a single entity[3]. Instead the subsidiary consists of a set of value-adding activities that fall within the same sovereign jurisdiction. There is typically a substantial downstream organization that is responsible for marketing and selling the MNC's products in that country, and then an assortment of upstream activities such as research and development or manufacturing facilities. The upstream activities are either full-scope world product mandates, responsible for a product or product-line worldwide, or reduced-scope mandates (e.g. in manufacturing) closely tied in to the integrated corporate system. In industries where there is a high need for national responsiveness there may also be locally-configured value-adding activities.

The function of subsidiary top management depends to a large degree on the number and size of the value-adding activities that comprise the subsidiary. As noted above, the country manager typically has authority only over the sales and marketing

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[3] Note that this emerging model is drawn from the existing body of literature and not from the current research.

organization, though he or she may also coordinate the activities of the other value-adding activities. The country manager's role is also to represent the MNC in that country of operation, by meeting its fiscal and legal responsibilities and by acting as the interface with government, key customers and other national bodies.

The accepted notions of subsidiary role / strategy must be re-assessed in the light of this new model. The role of the subsidiary can be characterized as "adding value"[4], with whatever corporate resources are located in that country. Thus, Bartlett and Ghoshal's (1986) "implementer" subsidiary would probably have a downstream function so that it could add value in terms of local responsiveness. In contrast, their "strategic leader" subsidiary would have a number of world product mandates as well as a downstream business through which it could add value to the MNC. Subsidiary top management's role becomes one of managing a portfolio of value-adding activities, and (to the extent that it is possible) exploiting the commonalities between them. In a country like Canada where there are a large number of country-focused branch plants, top management must also be concerned with rationalizing or reconfiguring such activities for the global market.

Less obvious, but of critical importance for this thesis, is the additional role of identifying opportunities to develop *new* value-adding activities within the country. This is basically an entrepreneurial role (to be discussed below) and it can be traced in implicit form through much of the previous literature. Bartlett and Ghoshal (1986) for example, made the argument that the MNC should tap its subsidiaries for new ideas that can be utilized by the corporation as a whole. Similarly, the literature on world product mandates recognized that subsidiaries should take the initiative in pursuit of mandates, rather than waiting to be given them. Hedlund and Ridderstrale (1992) offered a comprehensive discussion of the contrasting objectives of "creation" and "exploitation"

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[4] In simple terms adding value means increasing revenues or decreasing costs for the MNC. In this context adding value also assumes that the subsidiary activity in question could not be undertaken more effectively by another entity. Note that the "adding value" terminology was frequently used by interview respondents as well, so it has theoretical and managerial validity.

in the MNC. They argued that the MNC is well equipped to exploit its firm-specific advantages, but is less effective when it comes to creating new ones. Creation, they proposed, should be actively pursued throughout the MNC, rather than in predetermined locations.

A later section in this chapter will deal more comprehensively with entrepreneurial behaviour in the MNC. Most MNC literature has not addressed the issue of entrepreneurship directly, yet there is evidence, particularly from the work on world product mandates, that it can occur quite effectively. Furthermore, there are questions regarding the locus of the entrepreneurial effort: Should it be focused in specific locations, or should it pervade the entire system? At this stage, it is sufficient to note that there is an entrepreneurial component to the emerging model of the national subsidiary, that must be considered alongside the more traditional "exploitational" components.

OTHER THEORETICAL PERSPECTIVES

While conceptualizations such as *heterarchy*, *the transnational* and *the interorganizational network* have been discussed here as the most appropriate for understanding the emerging model of the national subsidiary, it is important to recognize that a variety of other theoretical perspectives have been utilized over the years to shed light on the nature and form of the MNC. This section will briefly consider the economic theory that has been widely used to explain the existence of the MNC, and the resource-based view of the firm in an international context.

The economic theory of the MNC. The so-called eclectic paradigm (Dunning, 1980; 1988) attempts to provide a comprehensive theory for international production, which is the *sine qua non* of the MNC. Stated very simply, three necessary conditions must be met for a corporation to engage in international production in a specific country: (1) there is some proprietary firm-specific advantage that makes it possible for the company to compete with domestic producers; (2) there is a country-specific advantage

that makes the company want to produce in that country; and (3) there is some form of market-failure that makes it preferable to internalize the relationship with the foreign production unit rather than to conduct it at arms length. An enormous body of theoretical literature has built up since the 1960s around these concepts, and it would not be appropriate to summarize it here. Dunning's statement is still the most broadly accepted position, though many academics have taken issue with specific elements of his theory.

The economic theory of the MNC has proven most valuable in its explanation of foreign market entry, and it has been extensively used to shed light on the distribution of foreign direct investment across industries and countries, as well as on the different forms of entry appropriate in a specific case (e.g. greenfield, acquisition, joint venture). When it comes to understanding the organization of an already-international MNC, however, the economic theory is less valuable. This is primarily because of complexity: the location of a given value-adding activity in the corporate network is a function not only of current ownership- and location-specific advantages but also a long history. Furthermore, how that activity is coordinated with other activities may be more critical than its physical location. To some extent, the theory can be applied when changes are made, but Boddewyn's (1983) research on divestment represents the only significant progress in this area. Other frameworks, noticeably those of Porter (1986) and Prahalad and Doz (1987) have proven more valuable for understanding the distribution of the MNC's value-adding activities.

A recent paper by Rugman and Verbeke (1992) showed how the economic theory (the "transaction cost model" in their terms) could be reconciled specifically with Bartlett and Ghoshal's (1989) *Transnational*. They observed that two problems existed with the transaction cost framework: first, the assumption that the MNC's firm-specific advantages always originate in the parent company; second, the assumption that country-specific advantages cannot be leveraged internationally. When these assumptions are relaxed, they argued, Bartlett and Ghoshal's transnational fits easily within the existing economic theory of the MNC.

The resource-based view of the firm. An area of increasing research interest in strategic management is the so-called resource based view which models the firm as a bundle of heterogeneous resources (Barney, 1991; Dierickx & Cool, 1989; Grant, 1991; Lippman & Rumelt, 1982; Wernerfelt, 1984). As stated by Barney (1991), sustainable competitive advantage accrues to firms with capabilities that are rare, valuable, imperfectly imitable and non-substitutable. These capabilities are developed through combinations of resources, including human, organizational, physical, financial and reputational (Grant, 1991). Research has mostly focused on the characteristics of capabilities that make them hard to imitate (termed "isolating mechanisms" by Lippman and Rumelt (1982)). These include causal ambiguity, tacitness, complexity, and asset specificity (Reed and DeFillipi, 1991).

The parallels between the resource based view and the theory of the MNC are substantial. The firm-specific or ownership factors that are one of the pillars of Dunning's eclectic paradigm are imperfectly imitable resources along the lines proposed by Barney (1991). Furthermore, it is the complex and often tacit nature of these capabilities that results in market failure, and hence the desire by the MNC to internalize the transfer. It would appear that the resource based view and the theory of the MNC have much to offer one another, but so far little explicit cross-fertilization has occurred.

One notable exception is the recent work by Kogut and Zander (1992; 1994). Building on the resource based view, and more specifically on the tacit nature of knowledge, they proposed that the MNC's *raison d'etre* can be justified solely on the basis of tacit knowledge transfer. Rather than resorting to assumptions of self interest and opportunism as a justification for internalizing markets, they argued that the market may actually be less effective than the firm as a mechanism for transferring tacit knowledge. An empirical test bore out this basic hypothesis. Related theoretical work by Kogut (1991), Hedlund and Zander (1993) and Solvell and Zander (1994) builds on these concepts.

Corporate Entrepreneurship

The objective of this section is to review the literature on corporate entrepreneurship to the extent that it is relevant for this thesis. In broad terms, three forms of corporate entrepreneurship can be identified (Stopford and Baden-Fuller, 1994): (1) the creation of new business activities within the existing organization; (2) the transformation or renewal of existing organizations; and (3) the enterprise changing the rules of competition in its industry. The focus of this study is on the first of these forms, the creation of new business activities within the existing enterprise.

There is a broad recognition, however, that the generation of new business activities or "new combinations" (Schumpeter, 1934) alone does not constitute entrepreneurship. A research and development group, for example, has a clear mandate to innovate, but the behaviour expected of its employees falls within established norms and guidelines. Entrepreneurship suggests more: a predisposition towards proactive and risk taking behaviour (Covin and Slevin, 1991; Miller, 1983); use of resources beyond the individual's direct control (Kirzner, 1973; Stevenson and Jarillo, 1990), or a "clear departure from existing practices" (Damanpour, 1991: 561). Kanter (1982) proposed the following distinction between "basic" and entrepreneurial activities:

> "Basic accomplishments... are part of the assigned job and require routine and readily available means to carry them out. In contract innovative accomplishments are strikingly entrepreneurial. They are sometimes highly problematic and generally involve acquiring and using power and influence" (1982: 97).

This dichotomy can be traced back through much of the literature on entrepreneurship. Penrose, for example distinguished between entrepreneurial and managerial services, with the former consisting of "The introduction and acceptance on behalf of the firm of new ideas particularly with respect to products, location, and significant changes in technology" (1959: 31) and managerial services concerned with "the execution of entrepreneurial ideas and the supervision of existing operations".

Similarly, Kirzner (1973) delineated between entrepreneurs who perform an arbitrage-like function through their "alertness to new opportunities" while managers are simply price-taking market participants.

On the basis that within-firm corporate entrepreneurship involves a departure from existing practices or "a *new way* for the corporation to use or expand its resources" (Kanter, 1982), the literature suggests two distinct models, which will be termed focused and dispersed corporate entrepreneurship respectively. Initiative, the focal construct in this research, is a manifestation of the dispersed approach.

Focused corporate entrepreneurship works on the premise that entrepreneurship and management are fundamentally different processes that require different modes of organization to occur effectively (Burns and Stalker, 1961; Galbraith, 1982; Kanter, 1986). This is typified by the New Venture Division (Burgelman, 1983a), whose mandate is to identify and nurture new business opportunities for the corporation (Kuratko et al. 1990; Sykes, 1986). The new venture division is typically a semi-autonomous entity with little formal structure, integration across traditional functional areas, availability of "patient money", and management support for risk-taking and creativity (Galbraith, 1982; Kanter, 1986; Kuratko et al, 1990; Quinn, 1985; Sathe, 1985). There are many examples of corporations that have pursued this approach to corporate entrepreneurship, including 3M, Kodak, and Exxon (e.g. Sykes, 1986). Note that the mandate of a new venture division is fundamentally broader and more ambiguous than that of a research and development group, where the set of tasks and responsibilities can be fairly narrowly defined. In Schollhammer's terms (1982), the new venture division is a case of "incubative" entrepreneurship while the R&D group is "administrative" entrepreneurship.

Dispersed corporate entrepreneurship builds on the premise that every individual in the company has the capacity for both managerial and entrepreneurial behaviour *more or less simultaneously*. Rather than hiving off separate groups or divisions to be

entrepreneurial, while the rest are left to pursue the ongoing managerial tasks (Galbraith, 1982), the dispersed approach sees the development of an entrepreneurial culture or posture as the key antecedent to initiative (Covin and Slevin 1991; Ghoshal and Bartlett, 1994; Kanter, 1985; Stopford and Baden Fuller, 1994). The design of an "organic" (Burns and Stalker, 1961) or "integrative" (Kanter, 1985) organization (with many of the systems and structures described above) creates the facilitating conditions, but entrepreneurship is actually driven by the actions of employees who -for whatever reason- - choose to pursue risky or uncertain ventures 'for the good of the organization' (Barnard, 1938: 200). The challenge for corporate management is to instill the personal involvement and commitment in its employees that drives entrepreneurship (Ghoshal and Bartlett, 1994).

Dispersed corporate entrepreneurship therefore assumes a latent dual role for every employee, consisting of (a) the management of ongoing activities and (b) the identification and pursuit of new opportunities (Kirzner, 1973; Penrose, 1959; Stevenson and Jarillo, 1990). The advantage of this approach over the focused approach is that a greater diversity of opportunities will be sensed, because the entrepreneurial capability is dispersed throughout the organization, rather than restricted to a new venture division. The major disadvantage of this approach is that managerial responsibilities typically "drive out" entrepreneurial responsibilities (Hedlund and Ridderstrale, 1992; Kanter, 1985) because they are more clearly defined and have more immediate rewards. Unless it is well managed the dispersed approach can actually inhibit entrepreneurship (Drucker, 1985).

To return briefly to initiative as an MNC subsidiary phenomenon, it should be readily apparent that the focused form of corporate entrepreneurship is broadly consistent with the subsidiary role perspective, while the dispersed form of corporate entrepreneurship in consistent with the subsidiary strategy perspective. Once again, though, the two contrasting perspectives should be viewed as complementary rather than alternative. Clinical evidence suggests that successful entrepreneurial companies such as 3M and HP do indeed exhibit both approaches (Kanter, 1985; Peters and Waterman, 1982). While the focus of this research is on the dispersed approach to corporate

entrepreneurship, a comprehensive understanding of the phenomenon cannot be achieved without embracing both perspectives.

SUMMARY

A variety of literatures were reviewed in this chapter, all of which shed some light on the changing role of the national subsidiary. It was suggested that an "emerging model" of the national subsidiary could be discerned which built primarily on the process school of MNC research and the associated "network" conceptualization. Other literatures were also considered briefly. Finally, the literature on corporate entrepreneurship was reviewed, and two forms were identified, labelled focused and dispersed respectively. Initiative was described as a form of dispersed corporate entrepreneurship, consisting essentially as the identification and pursuit of new opportunities. The integration of this concept of entrepreneurship and the emerging model of the national subsidiary will be proposed in the following chapter.

CHAPTER 3
RESEARCH QUESTIONS AND THEORETICAL MODEL

The objective of this chapter is to describe the research phenomenon at the heart of the thesis, and to put forward the research questions that subsequent chapters will address. These research questions will be discussed in relation to the existing body of literature that was reviewed in chapter 2.

THE RESEARCH PHENOMENON

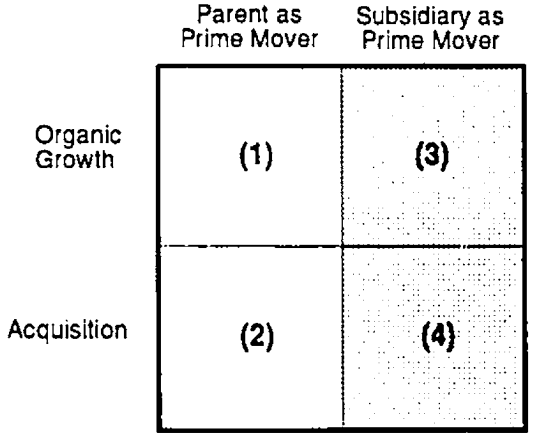
The emerging model of the national subsidiary (as described in the previous chapter) is of a set of discrete value-adding activities coordinated and overseen by a country management function. The subsidiary markets and sells the MNC's portfolio of products in the national market. It also undertakes a number of upstream value-adding activities on behalf of the corporation. These activities are variously referred to as world product mandates, centres of excellence, or international responsibilities. Their definitive feature is that their scope extends beyond the country in which they are situated.

Value-adding activities. The focus of this thesis is on the *maintenance and development of the internationally-configured value-adding activities* of the subsidiary. These are the activities that create export opportunities, in-bound investment and local employment: it is self-evident that their development is a matter of critical interest to subsidiary management and to host government bodies. More open to debate is the argument that these activities are of vital importance to the MNC as a whole, particularly when the evidence suggests a preference in some MNCs for centrally-managed activities. There are benefits associated with locating value-adding activities away from the home country, including differential factor costs and access to leading-edge markets, but there

are costs as well, including loss of control and increased communication costs. The salient issue, however, is that subsidiary management are aware of these costs and benefits, so their role becomes one of attracting only those activities for which they have a demonstrable competitive advantage. Simply put, subsidiary managers are looking for win-win solutions, so corporate management *should* perceive a net benefit to the MNC as a whole. Note that the possibility exists for subsidiary management to pursue projects that do not align with the goals of the MNC. Such projects are indicative of a poor relationship between parent and subsidiary, and have negative ramifications for both parties. This issue will be considered in more depth later. For the moment, a reasonable assumption is that the efforts of subsidiary management are made with the best interests of the MNC in mind.

Origin of value-adding activities. How do these value-adding activities arise? As observed in chapter 2, the traditional assumption in the world mandate literature is that mandates are earned not given. This is mostly true, but on closer inspection a more complex picture emerges. There are cases where a parent-led international acquisition results in a world mandate being forced on the subsidiary. Similarly, there are cases where the parent company elects unilaterally to invest in the subsidiary country, perhaps

Figure 3-1
How value-adding activities arise



for political reasons. There are also occasions when the subsidiary has the basic option of pursuing value-adding activities by organic growth or by acquisition, which involve very different procedures. In essence four generic alternatives to world mandate genesis can be defined, as figure 3-1 indicates.

The focus in this study is on quadrants three and four, where the subsidiary is the prime mover in the development of the value-added activity. Prior research (e.g. Science Council of Canada, 1980; Bishop and Crookell, 1986; Etemad and Dulude, 1986) has typically focused on quadrant three, but it is important to recognize the possibility of growing through acquisition. It should also be observed that the dividing line between subsidiary-driven and parent-driven activities is less clear-cut than figure 3-1 implies. Typically both parties contribute to each activity, and in some cases there may be a judgement call on whether the subsidiary or the parent is the prime mover.

Initiatives

The foregoing discussion frames the principal construct used in this research, namely the "business development initiative" or "initiative" for short. An initiative is defined as a *discrete, proactive undertaking that advances a new way for the corporation to use or expand its resources* (Kanter, 1982; Miller, 1983). As discussed in the previous chapter, initiative is an example of the dispersed approach to corporate entrepreneurship, whereby managers have ongoing managerial responsibilities in addition to their entrepreneurial role. The initiative construct has been used in a number of prior studies, but not with the same level of specificity (e.g. Burgelman, 1991; Sathe, 1985).

A subsidiary initiative is a special case of an initiative in that it is subject to two additional constraints. First it must be subsidiary-driven, that is, subsidiary management have to be the prime movers. This does not preclude parent-company involvement: parent-company managers may be the source of the opportunity, and they may work with subsidiary managers on the initiative, but the driving force, the championing, must emanate from the subsidiary. Second, it must result in an internationally-configured value-adding activity. This can be best understood in terms of what it does *not* include,

namely initiatives that were focused on internal subsidiary organization or local-market needs[1]. The rationale here was that the national subsidiary is looking for ways to add value within the corporate network, which can principally be achieved by doing things that are transferable or saleable to corporate affiliates. The dividing line between locally- and internationally-configured activities becomes blurred only in the case of a new-business, where the first sales are likely to be domestic even when the business has international potential. In reality this was not an issue, because all the new-business initiatives identified very quickly generated sales beyond the confines of the national market. This is testament to the increasingly global nature of business.

The initiative construct above all refers to a *process* that begins with the identification of an opportunity (Stevenson and Jarillo, 1990) and ends with the commitment of resources to a project by the corporation. A failed initiative is one that does not achieve the commitment of resources. For example, it may fail to gain support at the subsidiary level, or it may be rejected at the corporate level. Note that the long-term success of the resultant business activity is a secondary issue. The entrepreneurial challenge is to move from an idea to a commitment of resources; the managerial challenge is to make the resultant business activity profitable.

Initiatives and world mandates. The distinction between an initiative and a world product mandate is an important one. A world product mandate, narrowly defined, is an agreement between the parent company and the subsidiary that the subsidiary will undertake the development, manufacturing and marketing of a product line on a worldwide basis (Rugman and Bennett, 1982). This definition is rooted in the Canadian public policy literature that sought to encourage MNCs to cede control of all three functions (development, manufacturing and marketing) to their Canadian subsidiaries (Science Council of Canada, 1980). However, the reality is that most world mandates

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[1] Note that locally-focused initiatives can be very important in industries with a high need for national responsiveness e.g. most consumer goods industries. In such cases the ability to adapt and/or innovate to meet local needs is critical. In the global industries in this study, however, locally-focused initiatives were not in evidence.

are for single functions, and they are often regional in scope only. Hence, a world mandate as defined here is *an arrangement between parent and subsidiary whereby the subsidiary undertakes a specific economic activity of international scope.*

In simple terms, an initiative can be understood as the process that results in a world mandate. There are three exceptions to this rule. First, an initiative can be undertaken to build on an existing mandate as well as to create a new one; second, the initiative can fail; and third, some mandates are given by the parent company rather than earned through an initiative. Thus, the one-to-one correspondence between initiative and world mandate is valid in most cases, but not on an absolute basis.

By focusing on the initiative (the process) rather than the world mandate (the end result) this study makes it possible to understand what actually drives the mandate-winning process. It is also a significant contribution in its own right, because the initiative construct has never been used in multinational subsidiary research before[2]. Finally, the initiative focus makes it possible to transcend the recurring debate in the world mandate literature around the appropriate definition for a world mandate. It is suggested here that it does not really matter whether a world mandate includes (for example) research and development responsibility (Rugman and Bennett, 1982), because that is in most cases a parent company decision that the subsidiary will not be able to influence. What matters is the subsidiary's ability to take effective entrepreneurial action[3], because it is central to corporate renewal and growth (Bartlett and Ghoshal, 1993).

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[2] The initiative has been used in other settings as a focal construct. Burgelman (1991) is probably the best example.

[3] Note the underlying premise in this study that ineffective entrepreneurial action, e.g. subversive activity, will be rejected through the MNCs selection mechanisms. This premise needs examining in a future study.

RESEARCH QUESTIONS

The foregoing explanation was intended to provide an unambiguous definition of the research phenomenon The remainder of this chapter explores the research phenomenon in depth, using the existing body of literature to define a set of research questions and laying out some *a priori* expectations regarding the answers to those questions. It should be observed here that this is an inductive study, so the ordering of the material is a reflection of the need for clear exposition rather than a faithful replication of the research process. Thus, *a priori* expectations were developed, and used to drive the specific questions asked during the research, but they were not translated into formal hypotheses, for fear that the inductive learning would be constrained.

Research Question 1: What Forms do Initiatives Take?

A first-cut at understanding the initiative phenomenon was to build a typology, defined as a "conceptually derived interrelated set of ideal types" (Doty & Glick, 1994: 232). The analytical value of a typology is that it highlights the key dimensions along which different initiatives vary. It also provides a strong foundation for theory development, in that it sheds light on the broader issue of the role of the national subsidiary.

The literature on world mandates (described in chapter 2) demonstrated that mandate activities are often constrained by function (R&D, manufacturing, management) and by geography (Europe, North America). This has important consequences for the number and types of jobs created in the national subsidiary, but it says little about the underlying reason why the mandate arose in the first place. Equally, a distinction between successful and failed initiatives is important, but it may not address the most salient features of initiatives. The challenge was to deduce from prior research (in which the initiative construct was basically implicit) the most salient dimensions for analysis. Two observations were critical in this regard.

First, there were a large number of Canadian[4] subsidiaries such as Westinghouse and Litton (Science Council of Canada, 1980) that had historically been configured for the Canadian domestic market, on account of the high tariff barriers between Canada and the U.S. With the shift towards a more global economy, and specifically with the reduction in tariffs achieved through the FTA, these subsidiaries were faced with the need to re-configure their operations, particularly their branch-plants, for global-scale efficiency. The thrust of their initiatives, consequently, was for reconfiguration. For subsidiaries that had never been miniature replicas (White & Poynter, 1984) the value-adding opportunities were not tied to the existing asset base. Their initiatives took two forms: developing a new activity from scratch or extending an existing activity.

Second, entrepreneurship covers a broad scope of activities. Ellis and Taylor (1987) conducted a meta-analysis of prior research to identify four levels of entrepreneurship: efficiency-based (e.g. a new process), product-market extension, new business and corporate (e.g. a new division). Setting aside corporate level entrepreneurship which could not realistically occur at the subsidiary level, this implied a three-fold typology of initiatives, involving increasing levels of resource commitment, uncertainty and parent commitment. While the "reconfiguration" initiatives identified above appeared to exist primarily at the efficiency level of Ellis and Taylor's spectrum, ongoing initiatives could clearly be any of the efficiency, product-market extension, or new business type.

No further analysis of the types of initiatives that were hypothesized to exist will be specified here. Consistent with the inductive nature of the study, the typology went through several reformulations in the life of the research project. Chapter 5 will elaborate the final version.

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[4] Note that predominantly Canadian examples will be used to develop the theory because they have been the most comprehensively reported in the literature. The theoretical model and the research questions are not intended to be specific to the Canadian situation.

Research Question 2: What is the Initiative Process?

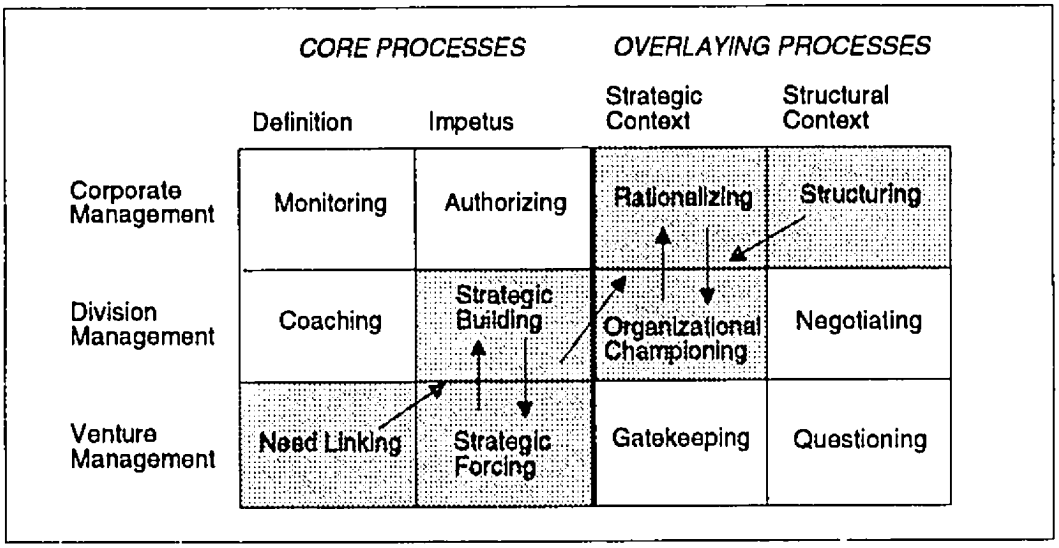
There were several useful bodies of literature available to shed light on the question of initiative process. First, some work on corporate entrepreneurship had investigated the internal systems that facilitated and / or impeded innovative activity (e.g. Burns and Stalker, 1961; Kanter, 1985; Pinchott, 1985). Second, literature on the strategic management process provided some insights into the mechanisms by which managers pushed projects forward for approval (Bower, 1970; Burgelman, 1983a). Third, literature on organizational behaviour provided some evidence of the championing process (Howell and Higgins, 1990; Schon, 1963) that drives initiatives forward. Of this research, Burgelman's study of the internal corporate venturing process in a large multinational was both the most relevant and the most comprehensive, so it formed the basis of this study. Other literature was also drawn on but to a lesser degree.

The initiative process. Burgelman's study (1983a, 1983b) followed the activities of the new venture division in a large diversified company. Specifically, he traced the life of six new products from their conception through to their recognition as viable business activities. Building on the framework developed by Bower (1970), he proposed a process model of corporate venturing, reproduced in figure 3-2.

The model identified two sub-processes, definition and impetus. Definition is "the process by which the basic technical and economic characteristics of a project are determined" (Bower: 1970: 67). Impetus refers to the force that moves a project towards funding, and is defined as "the willingness of a general manager ... to commit himself to sponsor a project" (Bower, 1970: 68). For each of these sub-processes, Burgelman identified the key activities that occurred at three levels in the organization: corporate management, divisional management, and venture manager. For example product championing (Howell & Higgins, 1990) was observed to occur at the venture manager level, and to bridge both the definition and impetus sub-processes.

The second part of the model identified two overlaying processes, structural context and strategic context, that together defined the corporate context within which the

Figure 3-2.
Process model of internal corporate venturing (Burgelman, 1983a)



venture transpired. Burgelman stated that structural context "is a broad envelope concept used to denote the various administrative and cultural mechanisms that corporate management can manipulate to change the perceived interests of strategic actors in the organization" (1983b). Mechanisms such as lines of reporting, discretionary budgets, and reward systems all create a context that induces lower levels of management to act in a certain way. Thus, rather than attempting to impose a strategy through autocratic rule, corporate management's role becomes one of defining a structural context appropriate for the desired strategic direction. Strategic context is defined as "the process through which the corporate strategy is extended to incorporate the new business activities resulting from the venture that fall outside the scope of the current corporate strategy." This is a subtle concept, because it views strategy as both an explanation of past actions and a projection into the future (Hurst, Rush and White, 1990). Strategy addresses the question "What business(es) are we in?" If an internal venture is successful it will modify the corporation's product / market portfolio, which in turn will lead corporate management to re-assess their strategy. This re-assessment may lead corporate management to make changes to the structural context which will influence subsequent

strategic behaviour. Strategic context both drives, and is driven by, the core processes of definition and impetus.

While Bower's initial formulation of this model was induced from a study of capital investment decisions, Burgelman's focused more broadly on any internal corporate venture. The concept of a subsidiary initiative is similar enough to Burgelman's internal venture that the model was embraced without modification, at least for the initial stages of this research. However, it is important to note a few significant differences between Burgelman's research context and the current one. First, Burgelman's internal ventures occurred within the new venture division, which was established with the exp. ss purpose of cultivating new business activities. The national subsidiary, by contrast, is geared primarily towards implementing existing activities. The structural contexts in these two settings will be very different, in terms of decision-making autonomy, research and development budgets, expected payback periods for capital investments and so on. All else being equal, an initiative could be expected to require a greater effort and meet with a greater likelihood of rejection in the national subsidiary setting than in the new venture division. Second, the international dimension adds a layer of complexity to subsidiary initiatives that was not present in Burgelman's research. Often subsidiary managers are not well known in head office, so the impetus process may require a greater level of effort. The definition process tends to be driven by issues of comparative advantage, trade balance, and currency sensitivity rather than simple economic analysis. Finally, the strategic and structural contexts are shaped by the global strategy of the MNC, which is itself driven by a complex set of economic and political factors. The complexity of the strategic imperatives on the MNC is likely to make the feedback link between initiatives and context more tenuous than would be the case in a non-international setting.

To summarize, Burgelman's model represented a solid theoretical foundation on which to base this research, but it was not without its limitations. One issue that rapidly became evident, for example, was the difference in management systems from one company to the next (not observed by Burgelman, who only studied one company). In some cases the impetus process involved an approval committee who had the right to veto the initiative; in other cases subsidiary management had complete discretion to implement

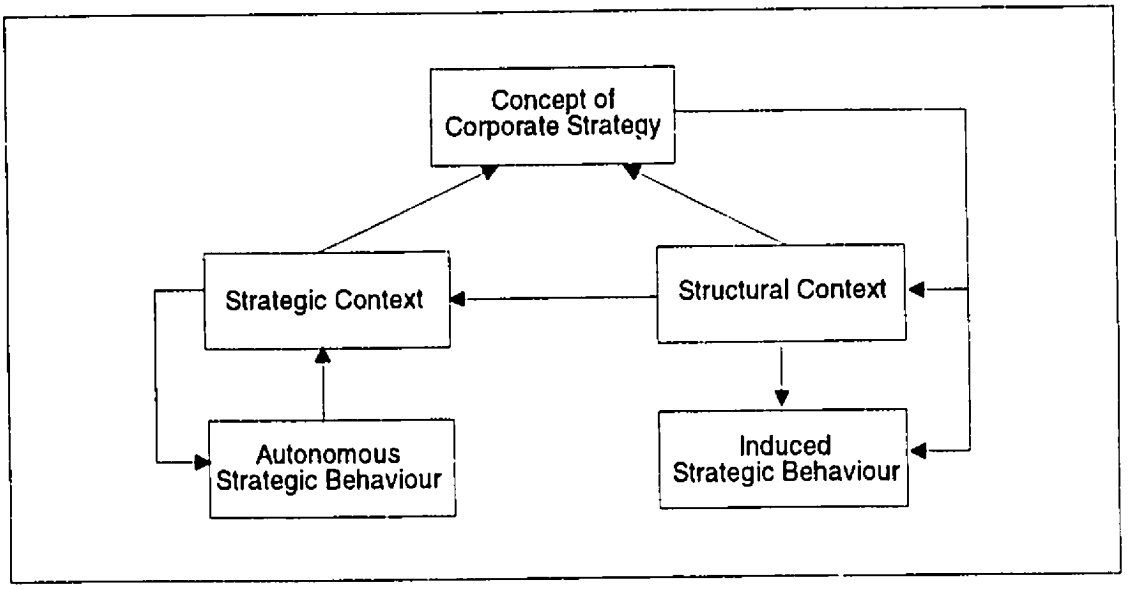
the initiative. Rather than develop a series of situation-specific models, the preference was to stay at the higher level of conceptualization (i.e. using Burgelman's four process) and build a generalizable framework.

Research Question 3: How do Subsidiary Initiatives Develop and Link Over Time?

The third research question was focused at the subsidiary level of analysis, and in that regard it is best understood as an extension of the primary research objective (which was to understand initiatives). The fundamental issue here is that initiatives do not occur in isolation. Many of the interesting issues, from both the subsidiary and the MNC's perspective, are of broader scope. Specifically, prior research showed that subsidiaries grow over time through the accumulation of specialized or unique resources (Prahalad and Doz, 1981). Initiatives represented one way of developing these resources, so the possibility was put forward that a pattern of initiatives could be discerned over time, hence the research question above. In addition, the broader question "What is the process of subsidiary growth?" was kept in mind, in order to keep the relative importance of the initiative mechanism in perspective. Once again, Burgelman's research (1983b) on internal corporate venturing provided a valuable starting-point for developing these ideas.

The subsidiary development process. Burgelman (1983b) proposed a model of the dynamic interactions between categories of strategic behaviour, corporate context processes and the concept of strategy (figure 3-3). Strategic behaviour, he argued, is of two types. *Induced behaviour* is consistent with the current concept of strategy, and is achieved through the definition of an appropriate structural context. *Autonomous behaviour* falls beyond the current concept of strategy, and is more-or-less synonymous with corporate entrepreneurship, discussed in chapter 2. This behaviour is rationalized by management through a process (the "strategic context") of questioning, evaluating and reappraising of the corporation's product / market scope, which in turn facilitates a re-assessment of the concept of corporate strategy.

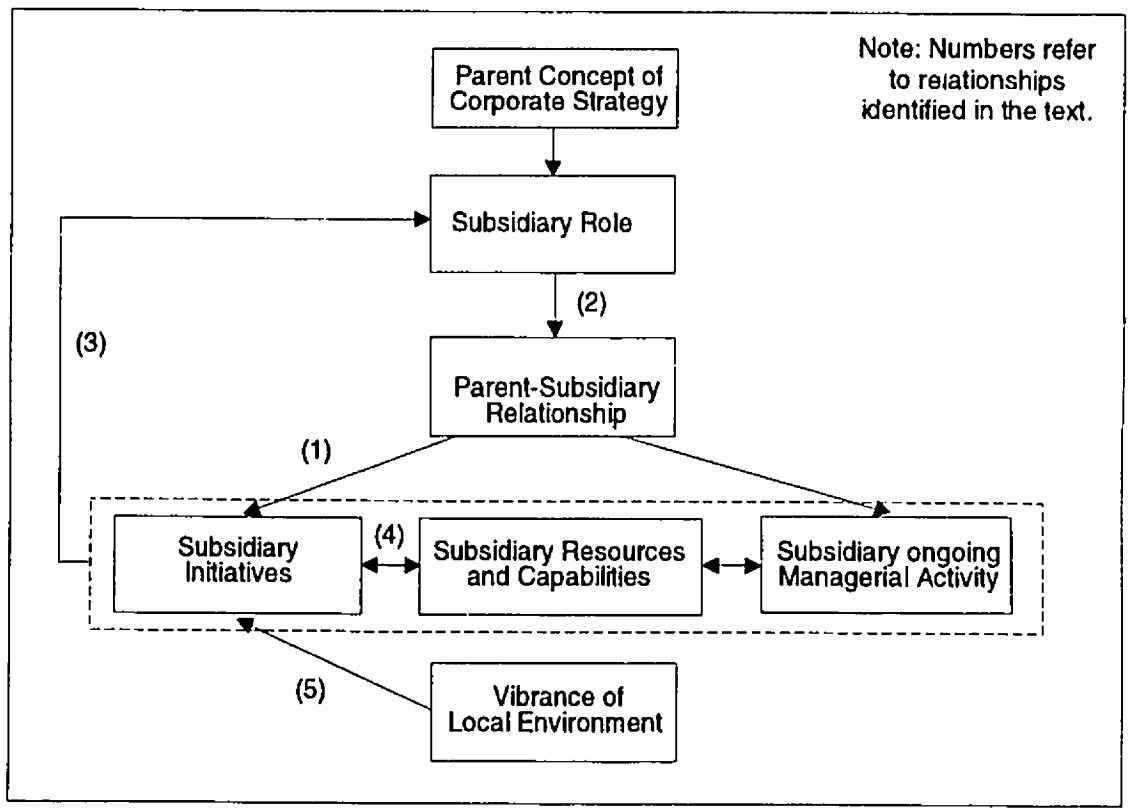
Figure 3-3
A model of strategic behaviour and corporate context (Burgelman, 1983b)



Notwithstanding the differences between Burgelman's study and the current research that have already been noted, this model can be applied --with some modifications and enhancements-- to the multinational subsidiary context. Figure 3-4 outlines the revised version of the model, and the following paragraphs detail the theoretical rationale behind the proposed relationships.

Burgelman's constructs can be easily translated into the context of this study. Subsidiary initiatives represent autonomous strategic behaviour, while the ongoing managerial activity in the subsidiary is induced; the parent-subsidiary relationship represents the structural context in Burgelman's model; and the role / strategy of the subsidiary represents its strategic context. Using Burgelman's logic, the parent-subsidiary relationship defines the induced behaviour in the subsidiary, and either constrains or encourages the autonomous behaviour i.e. the initiatives (1: see numbers on figure 3-4). Prior research has identified several factors that would be expected to encourage initiatives, including autonomy, slack resources, intra- and inter-subsidiary communication, teamwork, and an entrepreneurial culture (Ghoshal, 1986; Kanter, 1985; Pinchott, 1985). The parent-subsidiary relationship is in turn defined by the subsidiary's

Figure 3-4
A model of subsidiary development (adapted from Burgelman, 1983b)



role (2), so that strategic leader subsidiaries would be given a much greater degree of autonomy and access to slack resources than an implementer subsidiary (Bartlett and Ghoshal, 1986). Finally, the subsidiary's role is defined by the corporate concept of strategy and by its initiatives. The successful creation of a world mandate, for example, would be expected to register with parent management as a significant achievement, and lead them to re-assess the subsidiary's role in the MNC (3).

Two other modifications to Burgelman's model can also be proposed. First, the subsidiary develops a set of specialized resources over time through a combination of induced and autonomous behaviour (Prahalad and Doz, 1981; Kim and Mauborgne, 1993). These resources provide the subsidiary with the capability and the credibility to more effectively undertake autonomous behaviour (4). Second, Bartlett and Ghoshal

(1986) and others have noted that the importance of the local environment is a major determinant of the subsidiary's role (5). This is in large part because the local environment provides a competitive environment and a set of suppliers and customers that can potentially lead to upgrading of capabilities and identification of new opportunities (Porter, 1990). All else being equal, a vibrant local environment will lead to more subsidiary initiatives.

The critical feature of figure 3-4 is the implicit development process in the national subsidiary. If the subsidiary pursues initiatives, its capabilities and credibility are enhanced which makes it possible to pursue more initiatives. Over time these initiatives lead to a re-assessment of the subsidiary's value-added role by the parent company, and a more favourable relationship, perhaps in terms of greater autonomy or more slack resources. This shift makes it possible to pursue additional initiatives. By the same token, the failure to pursue initiatives could lead to a deterioration in the subsidiary's resource base, and eventually a tightening up of control over the subsidiary's activities. It should be noted that Burgelman did not address this long-term development issue, though it is implicit in his work. This is for one principal reason, namely that the initiatives he studied occurred in a specially-formed new venture division whose mandate was to nurture ventures and then transfer them to other divisions when they were viable businesses in their own right. Thus, the division was not looking to build high value-added activities, nor was it hoping to grow or enhance its role over the long term. The situation, of course, is very different in the national subsidiary, so to that extent the process encapsulated in figure 3-4 represents an extension to Burgelman's theory.

It should be noted here that the research addresses the third research question in a more exploratory fashion than it addresses the first two, for the simple reason that the primary unit of analysis is the initiative. While the concepts set out above are examined in the course of the research, the findings are less comprehensive than those for the initiative-level research questions.

Broader Issues

The three research questions above build on the phenomenon of subsidiary initiatives on the assumption that they are of value to subsidiary management, corporate management and the local economy. This assumption will now be revisited because evidence from the literature, and from data collected during this research, shows that there are many subsidiaries that have never pursued initiatives of this type.

The biggest obstacle to subsidiary initiative appears to be a lack of openness on the part of corporate management. In cases where the MNC's assets and capabilities are centralized in the home country, there is a strong belief among corporate management that strategic initiatives will also be led from the centre. Subsidiary managers become accustomed to an implementation role in which local initiative is neither sought nor rewarded. Their understanding is that "If this opportunity was worthwhile someone in head office would have already thought of it" (exploratory study interview). As a result, subsidiary initiative is inhibited.

Other factors that appear to inhibit initiative are a pure global (Porter, 1986) industry structure, a non-vibrant local market, a history of centralization in the MNC, a lack of strategic discretion in the subsidiary, and a poorly-performing parent company. A better understanding of the relative importance of these and other factors is needed, but it can most effectively be undertaken in future research. In other words, one of the objectives of the current study is to understand exactly what is meant by subsidiary initiative; a subsequent study will explore the presence / absence of initiative in a large sample of subsidiaries. Chapter 10 provides some further insight into this issue.

A related issue is the extent to which the subsidiary's initiatives are coaligned with the MNC's strategy. There are examples in the literature of national subsidiaries making use of their autonomy to pursue projects that challenged or even subverted the parent's expressed strategy (e.g. Ghoshal and Bartlett, 1991). Clearly there is a fine line to be drawn here, because one of the benefits of initiatives is to push the MNC into new products and/or markets that can subsequently be brought under the corporate umbrella (Burgelman, 1983b). If the subsidiary is seen pursuing empire-building or subversive

ends, however, the parent company is liable to "pull in the reins" and forestall any subsequent initiatives. As above, this is an important issue, but one which requires a better understanding of subsidiary initiatives before it can be addressed. It will be considered in a future research project.

SUMMARY

This chapter built on the emerging model of the national subsidiary by suggesting that business development initiatives are a critical means by which the subsidiary adds value. The initiative concept was defined as being: (a) entrepreneurial; (b) subsidiary driven; and (c) internationally-focused. Three central research questions were developed around the initiative phenomenon, namely "What forms do subsidiary initiatives take?" "What is the initiative process?" and "How do initiatives develop and link over time?". Burgelman's (1983a; 1983b) research on internal corporate venturing was adapted to generate a provisional conceptual framework.

CHAPTER 4
RESEARCH METHODOLOGY AND EXPLORATORY STUDY

This objective of this chapter is to describe the research approach that was chosen to address the research questions, and then to explain in detail the phases of the project. The research that comprised the thesis was preceded by an exploratory study and an in-depth case study, so these earlier pieces of work are also briefly described.

RESEARCH APPROACH

The overall research approach used for this thesis was inductive, that is, it attempted to "infer general patterns of order or structure from particular sets of empirical data" (Robinson, 1951). This favoured the use of a case research methodology, but not to the exclusion of other methods. In particular, questionnaire data was collected and analyzed to support the qualitative findings from the case research.

Yin (1984) provided a clear statement of the circumstances under which case research was appropriate. He proposed three necessary conditions: (1) the research question is of the "how?" and "why?" type; (2) the phenomenon is being studied in its real-life context; and (3) the boundaries between phenomenon and context are not distinct. Similarly, Eisenhardt (1989) defined case study research as "a strategy which focuses on understanding the dynamics present within single settings" (1989: 534). Both of these definitions suggest that the current research would most effectively be studied through a case methodology. In particular, the complex causal relationships proposed in the previous section would be very difficult to understand through any other technique.

In a recent paper on research methodology, Parkhe (1993) characterized research on international joint ventures (IJVs) thus:

> "Although several theoretical dimensions have been emphasised in the literature, researchers have not addressed certain crucial questions at the heart of the IJV relationship. Consequently, individually useful IJV studies have not coalesced into a collectively coherent body of work with an underlying theoretical structure (1993: 227)."

This state of affairs, Parkhe suggested, is associated with a predisposition among researchers towards "hard" methodological approaches, that are inappropriate given the "messy" nature of the phenomenon under investigation. In such circumstances, he argued, a program of research that begins with a fundamental assessment of the core research phenomenon is likely to more effectively build understanding. In essence, that means a case study methodology, at least in the early stages.

There are some notable parallels between the state of IJV research and the state of knowledge in subsidiary initiatives. The world mandate literature can be summarized as follows:

(1) In-depth studies of world product mandates are very few in number. The Science Council of Canada study (1980) represented the best example, and Bishop and Crookell's (1986) work was also informative. Most studies tend to be normative and/or conceptual, taking much of their evidence from the original Science Council study (e.g D'Cruz, 1986; Johnston, 1982; Rugman & Bennett, 1982; Pearce, 1992; Poynter & Rugman, 1982).

(2) A number of empirical studies have been undertaken (e.g. Bonin & Perron, 1986; Etemad & Dulude, 1986; Roth & Morrison, 1992), but have failed to yield systematic or consistent findings.

(3) There has been little attempt to establish the theoretical foundations of world mandate research. Researchers have either avoided theory issues or built their work around the transaction-cost theory of the MNC (Rugman and Bennett, 1982). Furthermore, the linkage between world mandates and subsidiary initiatives (e.g. innovations) has not been made.

As with IJV research, it is proposed here that a return to the core empirical phenomenon would be a very healthy and worthwhile step in the study of subsidiary initiatives. A clear understanding of the nature of initiatives, and the way that they fit

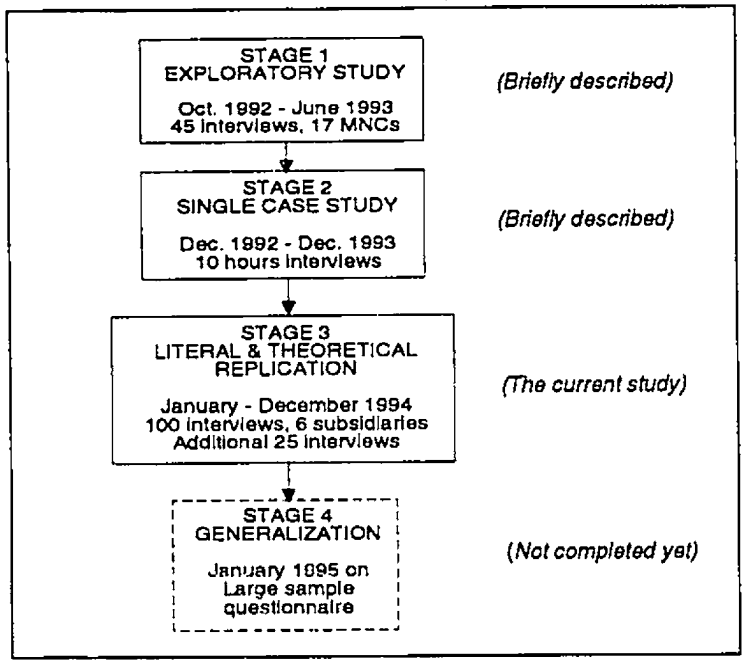
into the broader issue of subsidiary strategy, could potentially make a useful contribution. It would also pave the way for a progression to more generalizable, large-sample studies.

Stages in an Inductive Research Program

Parkhe (1993) outlined a four-stage program for theory development in IJVs, consisting of (1) a single case study; (2) literal replication of the case study; (3) theoretical replication of the case study, and (4) raising the theoretical level. During the single case study the researcher induces a set of constructs and propositions around the core phenomenon. These are applied to similar cases for which equivalent findings would be expected (literal replication), and then to very different cases for which predictably different findings would be expected (theoretical replication). The final stage involves generalization to a defined population, typically through a more deductive, theory-testing approach.

This research project followed Parkhe's model with a few modifications. The first phase was an exploratory study of the changing role of the national subsidiary. It was used to identify an interesting research phenomenon and develop a set of research questions. The focus on subsidiary initiatives grew out of this study. The second phase was Parkhe's *single case study*, and was used to verify the selection of research questions and to formulate an appropriate interview protocol. The third phase, the thesis itself, comprised a mixture of Parkhe's *literal replication* and *theoretical replication.* The objective was to address the research questions using a broad enough sample that generalizations could be drawn, while limiting the variance along certain parameters. The fourth phase, which is currently underway, corresponds to Parkhe's final step in that it attempts to understand the presence / absence of initiatives in a large sample of subsidiaries. Figure 4-1 shows the four main phases, the samples used, and the timing. The discussion below provides a brief summary of phases one and two before describing in detail the methodology of phase three.

Figure 4-1
The Research Program



Two observations should be made at this stage. First, for reasons of practicality this research was focused on Canadian subsidiaries, with some consideration of British subsidiaries early on. Canada represents an interesting country in which to do subsidiary research, both because there is a long history of related work in the country and because the issue of subsidiary management is so important to the Canadian economy. Equally, however, there are clear limitations to a study that is restricted to a single country, and these will be discussed towards the end of the thesis. In keeping with Parkhe's recommendations, however, it is important to restrict the variance between cases in the early stages of a research program, so the Canadian focus was appropriate.

Second, the inductive nature of this research meant that the flow of the thesis does not reflect how the ideas were formulated. For example, the exploratory phase of research discussed below was used to generate the research questions that were set out in the prior chapter; and many of the variables, along with their respective measures, were only identified as the research progressed. Glick et al. (1989) and Inkpen (1992) reported similar experiences.

THE EXPLORATORY STUDY

The initial observation that led to an exploratory study was that country management, the individual or group responsible for the activities of the national subsidiary, was losing power. In many Canadian subsidiaries the country manager was becoming a figurehead and spokesperson rather than an operating manager; in a minority the country manager's role was eliminated altogether. The objective of the exploratory study, therefore, was to speak with MNC managers in a wide variety of contexts (i.e. subsidiary, parent, several countries) to get a firm understanding of the issues. Specifically, the following questions served as a guide to the interviews:

> (1) What is the current structure of the subsidiary, internally and with respect to the parent company?
>
> (2) How has the structure of the MNC as a whole, and the subsidiary, changed over the past decade?
>
> (3) What is the current role of country management? How has it changed?
>
> (4) What environmental triggers are responsible for this change (or for the lack of change)?
>
> (5) What actions have been taken by subsidiary management in the light of recent structural or strategic changes? How successful have they been?

Between October 1992 and June 1993 a total of 45 interviews were conducted in 17 MNCs, at both parent and subsidiary level. Subsidiary companies were Canadian, British and American; parent companies were European and American. Interviews typically lasted for an hour each, though some were longer and a number of respondents were interviewed on multiple occasions. The breakdown of companies and interviews is listed in table 4-1.

Table 4-1

Exploratory study companies and interviews

Company	*Interviews*
GE Canada	8 executives in country management team, 12 hours total.
Diversey Corp.	4 top parent executives and British sub CEO; 9 hours total.
VW Canada	President, strategic planning director, 4 hours total.
3M Canada	President, 2 VPs, one other; 3 hours total.
Kimberly-Clark Canada	2 senior managers (no president!); 3 hours total.
Du Pont Canada	Executive VP, planning manager; 4 hours total.
Pirelli Cables US/Canada	VC, VP Finance of US & Canadian subsidiaries; ex-CEO of world business; 4 hours total.
Quaker Canada	Chairman/COO, 2 senior managers. 4 hours total.
Hawker Siddeley	Canadian corporate planning manager; 2 hours.
ICI PLC	3 global business managers; 3 hours total.
BASF UK	Strategic Planning Manager; 1.5 hours
Rhone Poulenc UK	Business manager & UK country manager; 3 hour.
Shell Chemicals PLC	Business manager. 1 hour
Schering UK	British country manager; 1.5 hours.
BT (parent)	Global HR manager. 1 hour.
Parker Hannifin UK	European Marketing Coordination Manager. 1 hour.
GPMC	President, VP. 1.5 hours total.
Investment Canada	Director, 2 researchers, plus presentation to group.
Omega (disguised)	Marketing Director. 1 hour.

It quickly became apparent that subsidiaries in Canada and Great Britain had been impacted to very different degrees by the forces of global integration. Furthermore, it also became clear that the "fate" of the subsidiary was not determined solely by the parent company: in many cases the proactive efforts of subsidiary management had been instrumental in shaping strategic changes such that the subsidiary "earned" a more important role in the new integrated North American form. Thus, the idea of initiative

development in the subsidiary emerged as a key factor, and the emphasis in interviews gradually shifted to reflect this evolution in thinking. The latter stages of the exploratory study sought to identify clear evidence of initiatives in subsidiaries, and to gain some preliminary understanding of the factors that were responsible for shaping them. Thirteen subsidiary-led initiatives were identified, along with three where the parent company was the prime mover. Ten research sites showed no evidence of initiatives. The results of this study made it possible to identify the research questions central to the thesis, define an interview protocol, and put forward the *a priori* expectations described in chapter 2.

THE "SINGLE CASE STUDY" PHASE

Having identified the initiative as the key phenomenon, the second phase of research sought to gain an in-depth understanding of the process through a single case study. The initiative chosen was the "GE Energy Management Initiative". It was subsequently released as a Western Business School teaching case (Birkinshaw, 1994a, 1994b)[1].

The GE Energy Management initiative was conceived by a business development manager at GE Canada's corporate headquarters. In terms of content, it was an opportunity for GE Canada to enter the rapidly-growing energy-management industry by leveraging its existing strengths in lighting, motors, and financing. In terms of process, the initiative followed a complex path through the GE system, gaining support from increasingly high levels of management, finding a "home" in an existing division, and subsequently being moved to another division. The business development manager who identified the opportunity in the first place championed the project through this entire period. A total of 10 hours of interviews were conducted over a one-year period (ending in December 1993), mostly with the initiative champion, but also with the Canadian country management and key managers in the U.S. In addition, access was given to

[1] One of the other initiatives studied during this research, the 3M Scotch Brite initiative, has also been released as a teaching case. See Beamish (1993).

business plans, presentations made by the project champion, industry information, and related data on GE.

This case study verified many of the emerging ideas regarding the initiative process, and specifically it confirmed the wisdom of using Burgelman's (1983a) model as a theoretical foundation. The case also provided insight into the diversity of initiative types that existed, because it represented a very different situation from the better-known "reconfiguration" initiatives discussed in chapter 2. This was an important realization, because it underlined the need to continue with the case study methodology into the next phase of work.

THESIS RESEARCH DESIGN

The first two phases of research led to the following conclusions about methodology: (1) A case-research methodology was essential to fully understand the phenomenon under scrutiny; (2) The complexity of the corporate and environmental context was such that several major sources of variance (e.g. host country) would have to be controlled for; and (3) Two distinct levels of analysis had to be pursued simultaneously, the initiative and the subsidiary (in terms of its development over time). The decision was therefore made to pursue "literal replication" (Parkhe, 1993) which essentially means identifying research sites that are as close as possible to the single case study, in the expectation that they will yield similar findings. Specifically, this meant limiting the sample according to the following criteria:

(1) *Canadian subsidiaries of U.S.-owned MNCs.* It is generally understood that Japanese, European and North American MNCs are organized on different models (Humes, 1993) and that subsidiary behaviour depends on national context (Bartlett and Ghoshal, 1986). The focus on Canadian subsidiaries and US parents was consistent with most of the exploratory work discussed above, and ensured a large body of possible research sites.

(2) *"Global" industries*, meaning those in which competitive advantage results from international operations (Kobrin, 1991). In global industries, subsidiary initiatives

naturally extend beyond the national market; in "multidomestic" (Porter, 1986) industries, by contrast, subsidiary initiatives tend to be local in scope. Further to this, only the industrial sector was considered because most of the research on global industries has been focused in that area (Boddewyn, Halbrich and Perry, 1986).

(3) *"Large" subsidiaries*, defined here to mean over $100 million in sales. During the exploratory phases of this research a number of small or medium-sized subsidiaries were investigated, and it was observed that the set of issues they were facing was different from those experienced by larger subsidiaries. To generalize, smaller subsidiaries do not have the level of infrastructure of large ones; they are typically run by entrepreneurs not "managers"; and they are concerned with market penetration and growth, not profitability. Such features may actually enhance the level of initiative in the subsidiary, but the focus here is unambiguously on large MNCs with mature subsidiaries.

Sample Size

According to Yin (1984) and Parkhe (1993) the number of case sites should be defined on the basis of redundancy: that is, cases should be added incrementally until little additional learning is forthcoming. This raised a problem for the current research, because two levels of analysis were being simultaneously pursued. Given that a single subsidiary could be expected to yield between three and ten initiatives (estimated from the exploratory study), it was expected that "redundancy" would be achieved more quickly at the initiative level than at the subsidiary level.

The decision was made to study six subsidiaries, in the expectation that between 20 and 50 initiatives would be uncovered. Of these six subsidiaries, the intention was to have three "capital-intensive" manufacturing companies and three "technology-intensive" companies. The exploratory phase of research had suggested that the types of initiatives in these two settings might be very different, primarily because the asset-specificity of investments in capital-intensive companies impedes mobility. Studying both types would ensure that a comprehensive assessment of the initiative-level research questions could be achieved, and provide some variance at the subsidiary level. An additional concern was

simply the volume of work that could be realistically undertaken by a single researcher. This capped the number of subsidiaries at six. Table 4-2 lists the subsidiary companies that formed the sample, their approximate size, and the number of interviews conducted in each. Note that the research was restricted in four cases to something less than the entire subsidiary. In Monsanto, the focus was on the two largest divisions because they were the ones that had been successful with initiatives; in Honeywell the homes and industrial divisions were researched separately because they operated in very different industries (the former capital-intensive, the latter technology-intensive); and in Amazon the focus was on an internationally-focused division. Amazon was the only case where access was restricted for reasons of sensitivity. Note that the company name, and all subsequent data about it, is disguised for Amazon.

Table 4-2.
The sample (subsidiary level)

Company	Approximate size (1993 revenues)	Number of initiatives	Number of interviews
3M Canada	$600 million	10	22
Monsanto Canada	$450 million	7	19
Amazon Canada	$500 million	8	15
Hewlett Packard Canada	$800 million	6	19
Honeywell homes Canada	$420 million	5	14
Honeywell industrial Canada	$420 million	3	11
Average / Total	$530 million	39	100

Sample Selection

The six subsidiary companies listed in table 4-2 were selected according to a careful screening process. The population was determined by using the *Financial Post*

500 list for 1993. Limiting the search to Canadian subsidiaries of U.S. manufacturing MNCs with over $100 million in sales, a total of 92 companies were identified. This list was then filtered to derive a set of target companies that might be appropriate. The filter criteria were as follows:

> (1) Evidence of significant value-added activities in Canada, especially manufacturing. This data was obtained through the *Disclosure* CD Rom and other directories.
>
> (2) Competing in a global industry. This excluded much of the food processing sector where some Canadian subsidiaries still operate in a multidomestic mode.
>
> (3) A record of success at gaining world mandate activities. This was gleaned from popular press articles, prior academic research (e.g. Etemad and Dulude, 1986; Moore, 1994; Science Council of Canada, 1980), personal contacts, discussions with industry bodies (e.g. The Conference Board of Canada, various manufacturing associations), and the first phase of research.

The filter process yielded approximately 30 subsidiary companies that held significant potential as research sites. Thereafter, company selection was made on a convenience basis, which was deemed appropriate because no additional *a priori* selection criteria existed. Ten of these companies were approached. One declined to participate, three turned out to be inappropriate because they did not offer the scope of initiatives that was required, and six agreed to participate fully with the research project. At the same time as this structured process was being followed a series of ongoing informal interviews were also held with companies involved in the exploratory study. While not strictly part of the current study, these interviews added further insight into the research phenomenon.

THE DATA COLLECTION PROCESS

Once access had been secured, the next challenge was to identify the set of initiatives that had occurred in the subsidiary company. The most effective process was

to begin with all products / activities for which the company had international responsibilities, and to ask top management how those responsibilities had arisen. This provided a good departure point for the interviews, but throughout the process it was necessary to stay alert to additional initiatives that had been neglected in earlier interviews. A long-standing world mandate, for example, often had two or more discrete initiatives associated with it, each of which had to be separately researched; and on a few occasions small initiatives were uncovered that the original respondent had either forgotten about or was not familiar with. Equally, there were some initiatives that on closer inspection did not meet the definition used here, typically because they had been driven by the parent, not the subsidiary. Overall, though, the identification of initiatives proved straightforward. In the case of 3M Canada there were a couple of small initiatives that could not be followed up in the period of study, but in the other five companies there were no known omissions. A total of 39 initiatives were identified, as table 4-3 below indicates.

The more difficult task was the identification of *failed* initiatives, as discussed in chapter 3. While not strictly necessary to answer the research questions, it was considered important to examine initiatives that --for whatever reason-- had not met with success, because they would help to shed light on the key processes. Two problems were faced. First, managers were reluctant to talk about their failures, presumably because they did not want to show themselves or their company in a bad light. Even when they did, their memory of the events was much less vivid than for successes. Second, the incremental process is such that many initiatives "failed" before they even got off the ground. A total of five failed initiatives were identified, usually towards the end of the interview process when respondents were more comfortable with the researcher. It seems unlikely that this is comprehensive, but continued probing on this issue would have served only to antagonize the respondents and potentially undermine the relationship that had been developed over the course of the research project. There were also six cases of semi-successful initiatives, in which international responsibilities were won and then subsequently lost. These proved straightforward to identify, and managers were quite open to questions aimed at understanding why the responsibility in question was lost.

Table 4-3

The sample (Initiative Level)

Company	Initiative	Outcome	Interviews
3M Canada	Original Scotch Brite	Success	1 MM; 1 STM
	Morden investment	Success	1 MM; 1 STM
	Scotch Brite conversion (a)	Failure	1 MM; 1 STM
	Scotch Brite conversion (b)	Success	1 MM; 2 STM
	London Abrasives plant	Success	1 MM; 1 STM
	Perth Tape plant	Success	1 MM; 1 STM; 1 PM
	Brockville Investment	Success	1 MM; 1 STM; 1 PM
	North American Plan	Success	4 MM, 3 STM; 1 PM
	Micro-encapsulation plant	Success	3 MM; 1 STM; 1 PM
	"Self Check" business	Mixed	1 MM; 1 STM
Monsanto Canada	Maleic Anhydride investment	Failure	1 STM
	Scripsets business	Success	1 MM; 2 STM; 1 PM
	NTA business	Success	1 MM; 3 STM; 1 PM
	Triax business	Success	4 MM; 2 STM; 1 PM
	Dry Glyphosate	Success	2 MM; 2 STM; 1 PM
	EZ Ject product	Success	1 MM; 1 STM
	Metal Chelating business	Failure	1 MM; 1 STM
Amazon Canada	ELD technology	Success	5 MM; 2 STM
	Controllers	Success	4 MM; 2 STM
	Niche business	Success	2 MM; 1 STM
	QWAV missile	Success	2 MM; 1 STM
	STERM product	Success	2 MM; 2 STM
	A300 / A400 product	Success	1 MM; 1 STM
	QWAV 2nd generation	Failure	1 MM; 1 STM
	Communication product	Failure	1 MM; 1 STM
Hewlett Packard Canada	Panacom acquisition	Mixed	2 MM; 2 STM; 1 PM
	Rugged terminal product	Mixed	3 MM; 2 STM; 1 PM
	X Terminal	Success	3 MM; 2 STM; 1 PM
	Calgary development centre	Success	6 MM; 2 STM; 2 PM
	Montreal development centre	Mixed	1 MM; 2 STM
	Protocol Testing centre	Success	2 MM; 1 STM

Honeywell homes Canada	Zone Valve business	Success	1 MM; 2 STM; 1 PM
	Fan & Limits business	Success	2 MM; 2 STM; 1 PM
	N. Am. Prod. Rationalization	Success	5 MM; 3 STM; 2 PM
	2 SBU designations	Success	3 MM; 2 STM; 1 PM
	Delta project	Mixed	1 MM
Honeywell industrial Canada	Oil movement & storage	Success	3MM; 2 STM; 1 PM
	PCNM	Success	2 MM; 2 STM; 1 PM
	SACDA acquisition	Success	3 MM; 2 STM; 1 PM

N.B. "MM" = subsidiary middle management; "STM" = subsidiary top management; "PM" = parent company management.

Choice of Respondents

The aim at the outset was to speak to all the key individuals for each initiative[2], but it quickly became evident that this was an unreasonable goal. Many key individuals had left the company or moved on to different assignments; others had retired. An attempt was made in these cases to pursue the individual in his/her new situation, but there was frequently some reluctance on the part of the company respondent to provide access, for obvious reasons. Only where sensitivity was not an issue were such individuals pursued. Another reason that some individuals were not pursued was the principle of redundancy. Particularly towards the end of the project, if two individuals had provided more-or-less similar accounts of an initiative, the third potential respondent was not pursued. Furthermore, certain individuals were able to provide full accounts of several initiatives, which proved to be a very efficient way of collecting data. Altogether, exactly 100 interviews were conducted, lasting just over an hour each.

Care was taken to ensure that at least two perspectives were gained on each initiative: (a) the middle-management level, where the initiative was typically championed; and (b) subsidiary top management, either the president or another key

[2] Glick et al. (1989) discussed the pros and cons of using multiple informants in organizational research. While there are disadvantages, primarily in terms of gaining high-quality access, validity is substantially enhanced if multiple informants are used.

individual. The perspective of a U.S. parent company manager was also sought in every case, but as table 4-3 suggests, this was only possible in about half the sample. Problems were encountered in, first, identifying and, second, getting hold of the appropriate U.S. manager. Where the individual in question had been transferred the subsidiary manager had often lost contact with him; in addition, the quality of access, while very good at subsidiary level, was often less satisfactory at parent-company level so securing interviews (by telephone) proved quite a time-consuming and tedious process. A total of 15 parent-company managers were eventually contacted, representing three per subsidiary[3]. Often a single parent company manager was able to answer questions about more than one initiative. The consistency of their perspectives with those of their subsidiary counterparts provided some reassurance that other initiatives (where no parent-company input was gained) did not suffer from biased accounts. A full discussion of the differences between subsidiary and parent accounts is provided later in this chapter.

Subsidiary level data collection. At the subsidiary level of analysis it was necessary to build a clear understanding of how the identified initiatives had evolved over time, and the role they played in the "strategy" of the subsidiary. The focus here was --for obvious reasons-- the subsidiary president or general manager, though sometimes other individuals were valuable for their historical perspectives (e.g. when the president was relatively new to the job). The subsidiary president / general manager was interviewed in all six companies, often more than once. In addition, parent company managers were asked about subsidiary-level issues when it was felt that they would be in a position to speak authoritatively.

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[3] Amazon declined to provide access to their parent company for fear that the researcher would compromise an already-delicate situation. This was less of a concern than might be thought, because Amazon's initiatives mostly occurred when it had a very high level of autonomy vis-a-vis the parent company. No one in the parent, consequently, had a very clear understanding of the initiatives pursued by Amazon.

DATA COLLECTION METHODS

Data was collected from three sources: research interviews, questionnaires, and "other" (including company documents, archival material and public source data). This section will outline the methods used in each case, followed by a discussion of the variables and their measures. Table 4-4 lists the variables and their measurement.

Data sources

Research interviews. Interviews were the primary method of data collection. Categories of questions were put together as the exploratory study progressed, and assigned to two interview protocols, one for initiative-level respondents and the other for subsidiary-level respondents. These are reproduced in Appendix 1. Interview questions were of the open-ended type, such as "Describe the initiative in your own words". There were also some specific questions to ascertain the dates of key events, the magnitude of the initiative (capital investment, export sales, number of additional employees), and the functions/activities that were affected.

Interviews were tape-recorded, except on the one occasion when the respondent did not give permission, and long-hand notes were also taken. Interview write-ups were conducted immediately following the interview. Following the recommendations of Yin (1984) and Bourgeois and Eisenhardt (1988), several steps were taken to ensure completeness and reliability: (a) the researcher's impressions were separated from the respondent's answers; (b) all interview material was recorded, even when it went beyond the protocol; and (c) open-ended questions such as "what does this mean?" or "what did I learn?" were addressed, and the answers incorporated into the write-up. Subsequently the tape recording was transcribed and matched up with the interview notes, to create a complete record of that interview. Additional factual data was also added to each record where possible. A later section of this chapter describes the data analysis process. Each interview generated between 15 and 40 letter-sized pages of transcripts and notes, giving a total of about 1300 pages of interview data.

Questionnaires. Two questionnaires were developed (see Appendix 1), one directed at the lead respondent for each initiative; and the other directed at the subsidiary president or general manager[4]. The questionnaires were put together in the middle of the interview phase of research. Consistent with the inductive approach, some provisional findings had begun to surface at this point, such as key initiative characteristics, drivers of the initiative process, and measures of success. Using a mixture of inductive results and standard measures, a set of key questions was prepared.

The initiative-level questionnaire was put together around the emerging constructs, rather than standard measures, with questions such as "How open was the parent company to initiatives of this type?" (very closed - 1; very open - 5). There were 24 questions in total. Single measures were used for each construct rather than standard scales for three major reasons: (1) most constructs were narrowly-focused and specific to this study. Using the nearest-equivalent standard scales would have sacrificed precision; (2) respondents had already given a substantial amount of their time so a *brief* questionnaire was likely to be better received than a lengthy one; and (3) it was felt that reliability could be assessed quite effectively by getting several individuals (respondents, the researcher, the research assistant) to answer the same questions, rather than by getting one individual to answer a set of related questions.

The subsidiary-level questionnaire used a mixture of standard scales and specially-worded questions. Standard scales were more appropriate here because the subsidiary level of analysis had been explored empirically by a variety of researchers (e.g. Ghoshal, 1986; Roth & Morrison, 1992). Nonetheless, it was necessary to put together specially-worded questions in several cases where no prior measures could be found.

Questionnaire validation. The format and design of the initiative-level questionnaire was checked through a two-stage process. First, four academicians reviewed the questionnaire for clarity, wording, and layout. Subsequently, three

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[4] The second questionnaire was also being put together for the next stage of research which will involve a large sample study of Canadian subsidiaries.

subsidiary managers involved in a recent initiative (but not part of the research sample) were asked to fill out the revised questionnaire with the researcher watching. This revealed that certain questions needed re-phrasing to capture the intended meaning. It also led to a couple of additional questions being added. Once these changes had been made, the questionnaire was mailed to the lead respondent for each initiative (39 in total), and any other individuals (from parent and subsidiary) who it was felt could fill out the questionnaire effectively. Dillman's (1978) total design method was used, with a follow-up mailing after 4 weeks. Of 49 mailed questionnaires, 44 were returned giving a response rate of 89%. This was a very satisfactory response rate. As will be discussed below, the researcher and research assistant also filled out the questionnaire themselves for all 39 initiatives, so it was possible to conduct some careful inter-rater reliability analysis. A similar procedure, involving academic and subsidiary manager reviews, was used to validate the subsidiary-level questionnaire. This was sent to the six subsidiary president or general managers, with a 100% response rate.

One point that should be emphasised here is that the questionnaire responses were intended to complement, rather than substitute for, the interview findings. The sample of 39 initiatives and six subsidiaries was identical for both sources of data. Thus, while questionnaire data is typically used to generate external validity, the objective here was instead to improve reliability and construct validity

Other data. Several other sources of data were also used. During interviews permission was sought to access and copy confidential documents such as strategic plans, internal memos, records of meetings, financial statements and presentations. This request met with mixed success, but usually it was possible to gain access to the critical items. Public source material was also accessed. A CD-Rom search of each company was undertaken for the period of study (dating back to 1950 in one case), using the *Business Dateline, ABI - Inform* and *Canadian Business and Current Affairs* packages. All relevant newspaper and journal articles were copied and added to the database, a total of approximately 150 items. Separate files were built up for all 39 initiatives, and for the 6 subsidiary companies. Certain material had to be duplicated and put in multiple files.

Finally, data was gathered through a variety of less-formal activities including plant tours, group meetings, and on-site lunches.

Variable Measures: Initiative Level

Change in revenues, exports, number of employees and new investment as a result of initiative. The lead respondents for each initiative were asked to estimate these facts, and their responses were confirmed by at least one other respondent. No substantial differences were found between estimates. The only potential cause of ambiguity was the time period over which these changes occurred, because increased revenues flowed immediately for some initiatives while others took several years to fully materialize. It was decided, therefore, that changes would be measured over a two-year period, which was the normal limit for an initiative. The cases of initiatives that lasted for significantly longer than two years were exceptional for a variety of reasons. They are considered in detail towards the end of chapter 6.

Value-added scope and geographic scope. White and Poynter (1984) typed subsidiaries according to their value-added and geographic scope, and many other academics have adopted similar schemes. These measures were therefore used to capture the intended scope of the world mandate activity on which the initiative was focused. Value-added scope referred to value-chain activities such as R&D, manufacturing, and marketing; geographic scope referred to Canada, North America, or the world. Respondents were asked to fill in a grid (see interview protocol, Appendix 1).

Initiative drivers. As part of the interview protocol respondents were asked to explain why the initiative occurred. These answers were then categorized into a set of eight environmental (e.g. free trade), corporate (e.g. parent pressure for local value-added), and internal (e.g. perceived local market opportunity) drivers. The questionnaire asked respondents to estimate the relative importance of each on a 7-point likert scale.

Prior experience with initiatives. This was assessed primarily with an open-ended question to all respondents. Answers focused on two key facets of prior experience: existing international responsibilities and a track record of success in getting projects

approved. This is consistent with Morrison and Roth's (1993) findings which showed that existing international responsibilities were one of the main factors contributing to world mandate success. A track record of success in getting projects approved has also been identified as a key factor in capital investment studies (e.g. Bower, 1970). To validate the importance of these factors, two questionnaire items were drawn up asking about the subsidiary's experience at the time of the initiative.

The initiative process, and roles played by other individuals. This was by necessity an open-ended question, because one of the primary aims of the research was to understand the breadth of initiative types. The preference was to let the respondents "tell the story" in their own words, rather than delimit the discussion according to *a priori* expectations. Occasionally the researcher's prior experiences were used to prompt for important factors, and to fill in gaps, but only once the basic story had been laid out. Two questionnaire items were prepared on the basis of the open-ended answers, one relating to the extent of the selling process, and the other to the involvement of the subsidiary president. These variables were consistent with Burgelman's (1983a) study.

Parent-subsidiary relationships. Subsidiary and parent company respondents were all asked to comment on aspects of the parent-subsidiary relationship that had helped or hindered the initiative process. These answers were analyzed, in conjunction with prior literature, to yield three facets of the relationship: strategic autonomy (Roth & Morrison, 1992); parent openness (Inkpen, 1992); and personal relationships (Ghoshal, 1986). Single-item questions were put together for each. Note that this study, like all previous research in this area, adopted an empirical approach to defining the appropriate elements of organizational context. Unfortunately, there is currently no accepted theoretical anchor for the concept of context. Work is currently underway in this area (see Pierce, 1995).

Resource / capability demands of initiative. During the course of the study the importance of a resource perspective (e.g. Barney, 1991; Grant, 1991) became apparent. Specifically, the qualitative evidence suggested two key facets of the resource issue: (1) the "proven" existence of the necessary resources and capabilities for the initiative; and (2) the "country specificity" of the resources and capabilities needed to undertake the initiative. Two questionnaire items were written to capture these variables.

Table 4-4
Initiative Level Variable Measurement

Variable / Concept	*How measured?*
Change in revenues, exports, # employees, and new investment as result of initiative	Factual data. All obtained through interview with lead initiative respondent and confirmed by at least one other respondent.
Value-added scope and geographic scope of initiative	Factual data. Based on White and Poynter (1984). Obtained through interview with lead initiative respondent, using block diagram (see Appendix 1).
Initiative drivers	■ Open ended question, asked of all respondents ■ Eight questionnaire items, reflecting the key drivers as induced from exploratory study (Q11 to Q18)
Prior experiences with initiatives	■ Open ended question, asked of all respondents. ■ Two questionnaire items, Q3 and Q5.
The initiative process; roles played by other individuals	■ Open-ended questions. Responses from multiple informants transcribed, analyzed, cross-referenced and coded. ■ Two questionnaire items (Q8,Q9), induced from interviews.
Parent-subsidiary relationship	■ Three questionnaire items (Q1,Q2,Q4), derived from Ghoshal (1986) and induced from interviews ■ Open ended question, asked of lead informants and parent company managers.
Resource / capability demands of initiative	Two questionnaire items (Q6,Q7), induced from interviews.
Subsequent initiatives	Open ended question, asked of all respondents.
Key success factors (or reasons why a failure)	Open ended question, asking for 3 KSFs. Answers were transcribed and coded using Q-sort technique.
Outcome	■ Open ended question, asked of all respondents. ■ Three questionnaire items, Q19,QS20, Q23, after Nutt (1993).

Subsequent initiatives. Respondents were asked open-ended questions about the impact of the initiative on subsequent initiatives. The objective was to capture qualitatively the mechanisms by which initiatives linked over time (to address the third research question). Many respondents spoke in terms of subsidiary resources and capabilities as drivers of the development process, but the concepts were not delineated clearly enough for questionnaire items to be developed.

Key success factors. Respondents were asked in the interview to identify the three key factors that they believed most contributed to the success (or failure) of the initiative. Their responses were transcribed and analyzed using the Q-sort technique, as described later in this chapter. While the notion of key success factors has been critiqued in the academic literature (Amit & Schoemaker, 1993: 34; Ghemawat, 1991), it remains widely understood and used by managers. It was therefore considered appropriate in this study as a means of subjectively assessing the relative impact of a wide range of independent variables on initiative success.

Outcome. The initiative was considered a success if it resulted in a commitment of resources. Typically a commitment of resources involved the explicit approval of parent management, but in some cases the subsidiary had the authority to make its own capital expenditures. Respondents were asked to elaborate on the broader outcomes of the initiative as well, to capture the impact of the initiative on the subsidiary's objectives such as growth, value-added contribution or profitability. Another cut was taken at the initiative outcome in the questionnaire. Following Nutt (1993), questions were posed corresponding to the end result (approved, rejected, modified), the importance of the initiative (i.e. its strategic importance to the parent), and the efficiency of the process ("how quickly was the initiative brought to fruition?").

Variable Measures: Subsidiary Level

Subsidiary performance. Subsidiary performance is notoriously hard to measure because: (a) the role of the subsidiary in the MNC network may not be to deliver profitability but some other objective such as growth or market share; and (b) most

subsidiaries are private companies with minimal disclosure requirements. Previous research has relied on self-rated measures of performance, which raises concerns about bias but has generally been shown to be reliable (Dess & Robinson, 1984). Ghoshal (1986) favoured a single subjective assessment of subsidiary performance, while Roth and Morrison (1992) used seven different measures.

The intention in this study was to focus on one key performance variable, namely *subsidiary value added*. While commonly used at a perceptual level and by managers, no prior efforts had been made to measure value-added. Four measures were chosen: Growth in revenues 1983-1993; growth in exports (including inter-company sales) 1983-1993; exports as a percentage of total revenues; and a subjective assessment (by the subsidiary president) of subsidiary value-added. A two-item scale was put together for the subjective assessment (Alpha = .88), and other measures were sourced from a combination of company documents and interviews. While these measures had their weaknesses, they came far closer to tapping the subsidiary's value-adding objective than previous measures.

Subsidiary strategy, subsidiary role. This was assessed with an open ended question to all subsidiary top management and parent management respondents. Of interest here was the variety of perspectives on the subsidiary's role or strategy, and also the tactics or processes that management intended to follow to deliver on that strategy.

Historical development of subsidiary. A key issue for this study was to understand how the subsidiary had developed over time. No prior subsidiary research had effectively addressed this issue, most concentrating instead on cross-sectional data. The first step, then, was to ask an open-ended question of all top management respondents, and to induce from the initiative data what facets of the subsidiary had changed over time. This process led to the development of two sets of questionnaire items. The first was a four-item scale labelled "historical development", which asked about the development of international responsibilities, capabilities, credibility and leadership over time. Cronbach's alpha for this scale was .83. The second was four separate items relating to autonomy, parent openness, capabilities and international responsibilities. Respondents were asked to assess these variables on 5-point scales for 1984 and 1994, and the difference in values

between the two dates were analyzed.

Table 4-5

Subsidiary Level Variable Measurement

Variable / Concept	*How measured?*
Subsidiary performance (revenue growth, growth of value-added)	■ Factual data obtained through combination of interviews, archival data, and public record data. ■ Two item "global value added" scale on questionnaire (Q2.6), induced from interviews. Alpha = .88.
Subsidiary strategy, subsidiary role	Open ended question, asked of all senior subsidiary managers and parent company managers.
Changes in business environment, and MNC strategy over time	Open ended question, asked of all senior subsidiary managers and parent company managers.
Historical development of subsidiary	■ Open ended question, asked of all senior subsidiary managers. ■ Four item scale on questionnaire (Q2.4) induced from exploratory study. Alpha = .83 ■ Four separate items (Q3.1) relating to specific changes in parent-subsidiary relationship and subsidiary capabilities over time.
Development / linkage between initiatives	Open ended question, asked of all senior subsidiary managers.
Overall attitude towards world mandates and initiatives	■ Open ended question, asked of all senior subsidiary managers. ■ Single questionnaire item 2.3.
Nature of parent-subsidiary relationship	■ Open ended question, asked of all senior subsidiary managers and parent company managers. ■ Eight item autonomy scale on questionnaire (Q1.1) from Roth and Morrison (1992), Alpha = .74 ■ Two item communication scale on questionnaire (Q1.7) from Ghoshal (1986), Alpha = .90
Subsidiary Entrepreneurship	Five item scale on questionnaire (Q2.2) from Kuratko et al. (1990), Alpha = .95

Changes in business environment and MNC strategy over time. This was assessed with an open ended question to subsidiary top management and parent respondents. The intention behind the question was to understand the "external" factors that may have contributed to changes in the role of the subsidiary over time.

Linkages between initiatives. This related specifically to the third research question. All subsidiary top management respondents were asked if a common process or mechanism could be discerned linking together the subsidiary's initiatives over time. Four "mechanisms" were identified towards the end of the research, but too late to incorporate a quantitative assessment into the questionnaire.

Strategy towards world mandates and initiatives. Respondents were asked to describe their strategy towards world mandates and initiatives in both open-ended and closed format. This was essentially a "control" variable to ensure that all subsidiaries held an approximately consistent view of the importance of initiatives. All questionnaire responses were either "We have tried to win mandates with mixed success" or "we have tried to win mandates with considerable success".

Parent - subsidiary relationship. An open-ended question was asked of all respondents regarding the nature of the interactions between parent and subsidiary. In addition two specific constructs were measured on the questionnaire, autonomy and subsidiary-parent communication. Autonomy was measured using 8 items from Roth and Morrison's (1992) scale. Cronbachs Alpha was .74. Communication was measured using 2 items from Ghoshal's (1986) study, with Alpha = .90.

Subsidiary entrepreneurship. This was measured using five key items from Kuratko et al.'s (1990) "Intrapreneurial Assessment Instrument". The items were chosen on the basis of their compatibility with the subsidiary context. Cronbach's alpha was .95.

DATA ANALYSIS

Qualitative data analysis is a complex process and, in comparison to quantitative analysis, relatively poorly understood. Miles and Huberman (1984) have provided the

most comprehensive guidelines, and they emphasize adaptation and experimentation to suit the specific needs of the research. Their emphasis is on methods for reducing and displaying data, in particular visual techniques such as tables, charts and diagrams.

Consistent with Miles and Huberman (1984), and in recognition of the complexity of the phenomenon under investigation, a creative approach was taken to data analysis, utilizing a mixture of qualitative and quantitative methods. The following sections describe the stages of analysis for each of the three major research questions. This is followed by a section discussing issues of reliability and validity for the research project as a whole.

A research assistant[5] was retained for the data analysis, primarily to replicate the steps undertaken by the lead researcher. This was a key element of the analytical process in terms of ensuring reliability and validity for three reasons. First, the research assistant had to be provided with a clear set of instructions and a set of clearly-presented data, which ensured that a replicable process had been designed; second, the research assistant's findings were compared and discussed with those of the lead researcher, and any differences reconciled; finally, the research assistant's independent perspective shed light on certain issues that had not been apparent to the lead researcher, which improved the overall quality of the findings.

Research Question 1. Initiative Content

Data pertaining to the substance of the initiative took several forms. Most easily analyzed was the factual data, including key dates, new investment, changes in exports and number of employees, and the functional and geographic scope of the initiative. This data was collected by interview, verified by comparing and reconciling the responses of several individuals, and summarized on a single sheet (reproduced in Appendix 1). Intertwined with the factual data was the description of the initiative itself. The analytical

[5] The research assistant had an undergraduate degree in business and five years experience in a variety of businesses and industries.

process here involved reading all the transcripts, notes, and secondary data that related to the single initiative and putting together a case history. Four of these case histories (i.e. one per type) were written up in detail, and reproduced in chapter 5. All other case histories were written up more briefly and reproduced in Appendix 2. For each, the case history was then sent to the lead-respondent, who made factual corrections where necessary. This verified the accuracy of the descriptions. In addition to the case-history write up, the environmental and strategic drivers of the initiative and the key success factors were assessed in each case, using the subjective assessments of the respondents (i.e. rather than the corresponding quantitative data).

The most substantive analysis relating to initiative content was undertaken using the questionnaire data. As noted above, responses were received from the lead respondent for 34 of the 39 initiatives. In addition, the lead researcher filled out questionnaires for all 39 initiatives on the basis of his understanding, the research assistant did likewise on the basis of the transcript data, and secondary respondents were gained for eight of the 39 cases. Table 4-6 summarizes these facts.

Table 4-6

Questionnaire returns by respondent type

Respondent category	*Number of sent-out questionnaires*	*Number of returned questionnaires*
Lead respondent	39	34
Secondary respondents	9	8
Parent company respondents	4	4
Lead researcher	39	39
Research assistant	39	39

Multiple respondents made it possible to assess the reliability of the data. Inter-rater reliability analysis was undertaken for: (a) lead respondent vs. lead researcher; (b)

lead respondent vs. other respondents; and (c) lead researcher vs. research assistant. Using Cohen's Kappa (Perreault & Leigh, 1989), reliability figures of 0.64, 0.61, and 0.57 respectively were attained. What these figures suggest is that an acceptable --but not entirely satisfactory-- level of reliability was achieved. Specifically, agreement between lead researcher and lead respondent existed 64% of the time, excluding the level of agreement one would expect by chance alone[6]. It should be observed that the reliability for pairs of respondents from the same company were not significantly different to reliability for respondent-researcher pairs. This suggests that the shortfall in reliability was a function primarily of the complexity of the constructs, in that no two individuals (even within the same company) could entirely agree on their measurement, rather than an inferior level of understanding on the part of the researchers.

Analysis proceeded using the questionnaire responses from the lead respondents (in 34 cases), and the lead researcher's responses for the five cases where no questionnaire was returned. The sample size (39) made it unlikely that parametric statistical analysis would be possible. To verify this, the Kolmogorov-Smirnof test of normality was conducted for each of the 24 variables on the questionnaire, and in 12 cases the null hypothesis had to be rejected ($p < .05$). Essentially this means that an assumption of normality in the data would very likely be flawed. Hence, the decision was made to conduct all analysis using non-parametric statistics, in which no underlying assumptions about the data distribution are made. The various tests are described in detail in chapter 6.

The final stage of analysis associated with initiative content examined key success factors. The Q-sort technique (Stephenson, 1953) was used as described by Kim and Mauborgne (1991). Each respondent was asked to identify the three key factors that in their opinion led to the success or failure of the initiative. These responses were recorded verbatim. Once all initiative data had been collected the key success factors were written out on separate sheets of paper (128 in all) and clustered independently by two individuals

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[6] Nunnally (1978) indicated that for the early stages of a research program reliability above 0.6 was indicative of acceptable measurement reliability. This was with regard to Cronbach's Alpha, which exhibits very similar behaviour to Cohen's Kappa.

(the researcher and the research assistant) into eight groupings that had previously been identified by the lead researcher, such as "individual leadership" or "relationships with the parent company". The clustering process resulted initially in a Cohen's Kappa of 0.71. Each discrepancy was then considered by both researchers together, and reconciliation was achieved in all but two cases. The net result was a classification of 128 unique comments into eight generic key success factors that could be compared across initiatives.

Research Question 2. Initiative Process

Data pertaining to initiative process was captured primarily through the transcriptions of respondent interviews. The method of analysis that was devised during the research project was a chart that plotted elapsed time against level in the organization (see Appendix 1). This chart was a modified version of Burgelman's (1983a) corporate venturing process model. The procedure involved the researcher carefully reading through the transcripts for each initiative, and plotting all definable actions, such as "championing", "opportunity-seeking", or "questioning" on the chart at the appropriate time and organizational level. This provided a graphical representation of the sub-processes of the initiative, through from conception to implementation. The next step of analysis was to pick out the key sub-processes and to draw them as a set of causal relationships (see Appendix 1). This causal map then formed the basis of the cross-case analysis.

Again, the research assistant was used to replicate the analytical process. He was provided with clear instructions on the process, and a set of 100 action words (developed by the lead researcher) to use on the charts. Once both researchers had completed this process they went through their analysis together. It was not possible to measure the degree of inter-rater reliability here, because the comparison was of two graphical representations. Subjectively speaking, however, there were strong commonalities in basic processes and some differences in the more micro-level processes. More importantly, the exercise made it possible for the researchers to actively discuss the

commonalities across and differences between initiative processes, and hence to derive a valid process model and rigorous typology.

Research Question 3. Development Process Over Time

Data pertaining to the issue of subsidiary development over time had to be brought together from multiple sources. The subsidiary president and other general managers were asked general questions such as "Taking this set of initiatives as a whole, can a pattern be discerned?" and "What are the major influences on this pattern?". Furthermore, respondents for specific initiatives were asked about prior and subsequent initiatives with questions like "Prior to this initiative, what experience did your business have in internationally-oriented activities?" and "What were the ramifications --if any-- for subsequent subsidiary initiatives?". The questionnaire data from the subsidiary president or general manager, and the company data on growth rates were used to shed light on subsidiary development. Table 4-5 lists all the key variables.

This data was analyzed using charts and tables as recommended by Miles and Huberman (1984). For each subsidiary a table was constructed with time on the horizontal axis and the set of business units down the vertical (see chapter 7 and Appendix 1). Each initiative was plotted as a horizontal bar in a fashion similar to a Gantt-chart. Resource flows were then superimposed on the chart. Thus, sharing of physical resources between initiatives A and B led to a solid line connecting the two, and the sharing of technology or transfer of learning merited a dashed line of some type. These resource flows were inferred from the interview data, though occasionally respondents made them explicit. A related chart was also developed that simply plotted export sales over time for the subsidiary, broken down by mandate (see chapter 7 and appendix 1). This showed clearly when major initiatives had occurred.

Further to the above, a case history was prepared for each subsidiary that included a factual account of the development process over time. Copies of these case studies were sent to the subsidiary president and other general managers for review. Their comments were incorporated into the case studies. Overall there was widespread

satisfaction among these respondents that the case studies presented an accurate reflection of the recent history of their companies.

Finally the quantitative data was analyzed using a variety of non-parametric techniques. Despite the fact that there were only six companies in the study some rudimentary analysis could be undertaken. The results are reported in chapter 8.

Parent Company Interview Analysis

As noted earlier, a total of fifteen interviews were conducted with parent company managers, to ensure that both sides of the story were understood. Their responses offered insights into all three research questions, but it is important to consider specifically the nature of their contribution to the study.

Overall, no substantial differences in responses were discerned between subsidiary and parent company respondents. As would be expected, the lead respondent's memory of the initiative was always the most comprehensive, while other individuals, including the senior parent managers and the senior subsidiary managers, were able to shed light on the part of the process with which they were intimately involved.

There were two common themes within the group of parent company respondents that should be highlighted. The first was a perceived lack of openness, relative to the candid responses gained from subsidiary managers. Bearing in mind that the researcher was approaching the parent manager through the subsidiary, there was presumably a concern on their part that their comments might be relayed back to subsidiary management. Despite efforts to convince them of the confidential nature of each interview, this concern could not be totally allayed. The need to speak to these individuals by telephone rather than in person (for logistical reasons) also contributed to their relative lack of openness.

Second, there was a pervasive sense that the subsidiary's actions were rather less important to the parent company than to the subsidiary. This, of course, is not surprising in itself, but it remains an important observation. The coolness of parent management to subsidiary initiatives exists for a number of reasons, including a different strategic

focus, parochial bias, lack of familiarity and concern that a subsidiary win may become a parent company loss. Subsidiary management needs to remain aware of these factors. From the point of view of this research, it simply meant that a greater reliance was placed on subsidiary managers for the in-depth qualitative analysis.

The parent management interviews were very valuable in a number of areas. The understanding of changes in the industry, the external business environment, and the strategy and structure of the MNC, was often superior among parent company managers. This, again, was a function of the different foci of the two groups, in that subsidiary management were far more focused on their immediate environment. Also, parent managers typically gave very insightful responses to the broader contextual questions, such as the pros and cons of world mandates and the relative impact of regionalization and globalization on business.

Steps Taken to Ensure Reliability and Validity

Inductive research has frequently been criticized for its lack of methodological rigour. The intention in this study was to follow carefully the suggestions of Eisenhardt (1989), Miles and Huberman (1984), Parkhe (1993) and Yin (1984), all of whom have proposed ways of enhancing both the reliability and validity of inductive or case-study research. The objective of this section is to summarize the methodology described above in terms of reliability and validity.

Reliability. Reliability indicates that the operations of the study could be repeated at a later date and yield the same results (Yin, 1984: 36). This was achieved through two basic processes: documentation and replication. Throughout the study all stages of preparation, data collection and data analysis were carefully documented. Interview protocols were drawn up and adhered to; all interviews were taped and transcribed; careful records were made of which individuals were spoken to; and a data-base of materials specific to each initiative was put together. The research assistant verified that the documentation was effective. Replication was undertaken whenever possible by the

research assistant. Specifically, he filled out the initiative-level questionnaire, undertook the process analysis, and shared his insights into the subsidiary development process.

Validity. Construct validity involves establishing correct operational measures for the concepts being studied (Yin, 1984). The use of a case-study methodology is very conducive to construct validity, in that the researcher cannot become divorced from the object of study. However a number of steps were taken specifically to ensure that construct validity was maximized. First, multiple sources of evidence were used, including subsidiary and parent company respondents, archival data and secondary sources. Second, a questionnaire was developed and submitted to the lead respondents, to verify that the inferred constructs had some empirical validity. Third, case material was sent to subsidiary managers for feedback. In all cases the material was returned with detailed comments, which were subsequently incorporated into the case studies.

Internal validity is concerned with establishing causal relationships between constructs. This can best be achieved in an experimental (i.e. controlled) setting, but it can be approximated in an inductive study using a variety of techniques (Yin, 1984: 36). The major technique used in this study was *explanation building*, which is the stipulation of a set of causal links about the phenomenon, and the iterative process of confirming those links while ruling out alternative hypotheses. This was undertaken during the process analysis phase of research. In particular, discussions between the lead researcher and research assistant specifically addressed the question of causality. Furthermore, by examining failed initiatives as well as successful ones, causal inference about the importance of certain factors on success could be drawn. Finally, cross-case analysis made it possible to identify commonalities and differences from one initiative to the next, and hence a better understanding of the key stages in the process.

A related procedure is *pattern matching* whereby an "empirically based pattern is compared with a predicted one" (Yin, 1984: 103). This was achieved through the *a priori* development of a process model, which was subsequently challenged and modified as the research went on. Finally, Yin suggests *time series analysis*, whereby empirically

observed changes in subsidiary capability, or facets of the parent-subsidiary relationship would follow a predictable pattern according to the number and scope of successful initiatives that occurred in that time period. This was undertaken to a limited extent, by polling managers on the changes in the subsidiary company's capabilities between 1984 and 1994. A fourth test, external validity, was of limited relevance to this study. External validity relates to the generalizability of the findings to other sites, but in keeping with the inductive nature of this research the objective was to understand the phenomenon on a case-by-case basis before raising the theoretical level to the population of Canadian subsidiaries. Table 4-7 summarizes the discussion above in terms of the main procedures followed.

Table 4-7

Steps taken to enhance reliability and validity

	Research design	*Data collection*	*Data analysis*
Reliability	■ Definition of a research protocol	■ Careful attention to protocol; Transcribed and taped interviews; notetaking. ■ Development of case database. ■ Questionnaire filled in by multiple respondents and researchers.	■ Use of research assistant to replicate process analysis, key success factor analysis,and fill in questionnaire
Construct validity		■ Multiple respondents interviewed (subsidiary and parent). ■ Multiple sources of data. ■ Questionnaire sent to lead respondents.	■ Key informants reviewed drafts of cases. ■ Discussions held with research assistant.
Internal validity			■ Pattern matching. ■ Explanation building. ■ Time series analysis.

SUMMARY

This chapter began by explaining the choice of an inductive research approach, which was driven primarily by the need to fully understand the core phenomenon in a small number of cases before attempting to generalize to a larger sample. The exploratory study and the single case study were briefly reviewed, in terms of the insights they offered for the current research.

The chapter then described the process that was followed in selecting research sites and identifying the initiatives to be studied. The data collection methods (interviews, questionnaires, archival and public record data) were described, and the measures used for variables itemized. Finally, the methods of data analysis were discussed. In particular, some novel analytical techniques were used for the qualitative data along the lines proposed by Miles and Huberman (1984). Notwithstanding the inductive nature of the research, great care was taken to meet the criteria of validity and reliability that are indicative of a rigorous methodology. The final part of the chapter assesses the steps that were taken to deliver on these criteria.

CHAPTER 5
A TYPOLOGY OF SUBSIDIARY INITIATIVES

The objective of this chapter is to answer the first research question, "What forms do subsidiary initiatives take?" In overview, four distinct types of initiative were identified, labelled "Reconfiguration", "Local Market", "Competitive Bid" and "Mandate Extension". Each is discussed in detail, with a single case study and then an assessment (in aggregate) of the strategic drivers, outcomes, and key success factors of that type. The following chapter builds on this typology by proposing a conceptual integration and testing the derived propositions.

Building a Typology

Chapter 3 showed that several types of initiative could be identified. Previous literature had mostly focused on the geographical and functional scope of the mandate in question, but in the early stages of this research it became apparent that other factors, such as the strategic drivers (i.e. the antecedent conditions) and the nature of the business opportunities, were more salient. Through an inductive process the identified initiatives were grouped into four clusters, whose defining characteristics gradually emerged. The result of this process was a typology in the strict sense of the word, meaning "A conceptually derived interrelated set of ideal types" (Doty & Glick, 1994: 232). Note that a typology, unlike a taxonomy, does not provide a set of "decision rules" for classifying items. As such, it also does not require the types to be mutually exclusive and exhaustive. Instead, it posits ideal types, each of which "Represents a unique combination of organizational attributes" (Doty & Glick, 1994: 232).

The development of a typology of initiatives has substantial theoretical implications, both in terms of a "grand theory" explaining initiative success and a "middle

range" theory of causal links between attributes. The theoretical issues will be addressed in the next chapter. First, the results of the field study will be described. Each type of initiative is considered in turn, with a single case-study example and then some generalized comments about all the cases.

1. RECONFIGURATION INITIATIVES

A reconfiguration initiative is one that *promotes the re-distribution of existing corporate assets or resources such that they are more efficiently deployed.* Twelve initiatives of this type were identified in the research. The most common scenario, with eight incidences, was the conversion or extension of a branch plant to a north-american or world-scale production facility, resulting in a manufacturing mandate. Two other situations were also identified; the first was a reconfiguration of the product management function, such that the global management for a particular product was moved up from America to Canada (3 cases); the second was directed at the sales & marketing organizations in Canada and the U.S. (1 case). Tables 5-1 and 5-2 list summary data for the reconfiguration initiatives in the sample.

The *raison d'etre* of reconfiguration initiatives is the increased efficiency of the internal system, achieved by reconfiguring value-adding activities between the subsidiary and other corporate entities. As such, they represent no direct increase in sales revenues for the MNC. Reconfiguration initiatives are driven by the subsidiary organization, but the role of the parent company is also substantial. In some cases, such as Honeywell's NAPR initiative, the reconfiguration process was managed by a joint committee of parent and subsidiary managers; in other cases, including most of the 3M initiatives, subsidiary management took a proactive stance. The extent of parent involvement depended to a large degree on the nature of historical parent-subsidiary interactions. A further key point is that reconfiguration initiatives are inherently competitive. From the cost side the result is always win-win, because both parent and subsidiary become more efficient, but in terms of revenues the reconfiguration process will inevitably result in the subsidiary taking a value-added activity from the parent, or vice versa. For this reason,

reconfiguration initiatives typically involve a high level of "political" activity and selling in the parent organization.

An exception to all of these generalizations was the 3M North American Plan, which involved no reconfiguration of assets. This initiative, championed by the 3M Canada President, resulted in a strong interdependence between 3M Canada and 3M U.S. based around increased communication, closer collaboration in marketing programs, and sharing of ideas. It was clear from the field research that this was the single most important initiative taken in 3M Canada in the recent past, but no other similar initiatives were identified so it is grouped with the reconfiguration type on the basis that it was concerned with the efficiency of existing activities.

Table 5-1

Summary of Reconfiguration Initiatives

Company	*Initiative*	*Outcome*
3M	Morden investment	Approved; manufacturing mandate
	Original Scotch Brite	Approved; manufacturing mandate
	Scotch Brite conversion (a)	Turned down
	Scotch Brite conversion (b)	Approved; manufacturing mandate
	London Abrasives plant	Approved; manufacturing mandate
	Perth Tape plant	Approved; manufacturing mandate
	The North American Plan	Approved; increased interdependence, Canada & US
Monsanto	Triax business	Approved; manufacturing mandate, extended to business management
	NTA business	Approved; product management mandate
Honeywell homes	Fan & Limits business	Approved; manufacturing mandate
	North American Product Rationalization	Approved; three full manufacturing mandates
	2 SBU designations in Canada	Approved; product management mandates

Table 5-2
Reconfiguration Initiatives: Summary facts

Number of successful Reconfiguration initiatives	11
Number of failed Reconfiguration initiatives	1
Number that were approved but subsequently lost	0
Average increase in export volume in first two years	$10.5 million
Average capital investment (by parent) in initiative	$4.8 million
Average number of new employees	19
Types of mandates arising from reconfiguration initiatives:	Manufacturing (7); product mgmt (3); business (1); other (1)

CASE STUDY: HONEYWELL HOMES' NORTH AMERICAN PRODUCT RATIONALIZATION

Organizational Context

Honeywell homes and buildings (hereafter "Honeywell homes") was the largest division of Honeywell Inc., with 1986 operating revenues of $1.6 billion. Honeywell homes sold controls for heating, ventilation and air conditioning, radiator valves, security systems, and comfort management systems. The Canadian subsidiary of Honeywell was the longest established international affiliate. It represented approximately 10% of the company's sales, and it had a large manufacturing facility in Scarborough, Ontario.

Honeywell homes Canada had historically had a high level of strategic autonomy. This was in large part because the market for control devices varies considerably from country to country, according to the type of heating, the climate, and the technical standards of the products. Thus, in Canada a major product was the Line-Volt thermostat which sold predominantly in Quebec where electric heating is preferred. This product had been adapted and re-engineered by the Canadian entity to meet market requirements, and as such it was unique in the Honeywell world.

Notwithstanding the local adaptation work that occurred, the Scarborough facility

was a classic branch plant, manufacturing about a dozen products for the Canadian market, most of which were also produced in Minneapolis. Local production was undertaken to reduce distribution costs, to cater to unique customer needs, and also to avoid tariffs. However, the additional cost of coordinating activities across plants, and undertaking short-run production detracted from the competitiveness of the Scarborough plant. One respondent commented that he spent his time in the early eighties "assessing conformance material coming from affiliate plants for local assembly" rather than engaging in value-added work.

There were two interesting exceptions to the "branch plant" principle, which proved to be of enormous value to the Canadian organization. The first was the Zone Valve, a product that controlled the flow of water through central-heating radiators. Honeywell homes Canada had sold a trickle of zone valves into England through the early seventies, primarily because of the preferential tariff rates between commonwealth countries. Around 1975 a market opportunity for a 3-way valve became apparent in England. The Canadian engineering manager at the time took the initiative to undertake the necessary design work in Canada, and it quickly became a major export. The second product was the Fan & Limit control device used in forced air residential home systems. This was manufactured in Scarborough to the U.S. design, except that the switch, the most complex part of the device, was made by Microswitch, a wholly-owned affiliate in the States. During a tour of microswitch's plant in about 1970, a Canadian engineer decided that he could improve on the design of the fan & limit switch. The Canadian group put a design together and presented the new switch to U.S. management, with an estimated 20% cost saving. Microswitch lost the contract, and the Canadian subsidiary became the north american supplier of the switch component. Thus, as of 1985 Scarborough produced 100% of the Fan & Limit switches and about 17% of the final product (i.e. the Canadian domestic sales).

Origins of the Rationalization Initiative

The shift towards rationalization was driven by changes in Canada *and* the U.S. In Canada, the senior management had begun to realize that the branch plant operation was uncompetitive. As noted by the engineering manager at the time:

> "We developed a conviction here. We knew that there was no future in being a Branch plant operation. We had made gains as far as the line voltage thermostats were concerned and zone valves, and Fan and Limit controls. And we had a tremendous appetite to achieve dramatic improvement in productivity in the factory. We knew that we were not going to be able to succeed by having the factory do everything for everybody. Numerous little product lines, organized into a branch assembly operation was not the formula for long-term success. We had to improve ourselves --dramatically improve ourselves-- to survive. The strategy was to focus on some key things that we were extremely good at. Hence the initiative from Canada to U.S. on a high management level."

At around the same time (1985) top management in the States were facing a number of challenges worldwide. North America had just emerged from recession, so many plants were running well below capacity and earnings were poor. Furthermore, prices for control products had taken a downturn. There was thus an openness to innovative cost control solutions, and some form of manufacturing capacity reduction was high on the agenda.

Putting Together an Initial Plan

It was in this environment that Canadian management put together its long term Computer Integrated Manufacturing (CIM) plan, the first stage of which was the North American Product Rationalization plan (NAPR). This document essentially proposed that Scarborough would be given North American production rights for the Zone Valve and Fan & Limits products, and would retain the Line-Volt Thermostat business. All other products (ten in total) would be made on a North American basis from Minneapolis.

Zone Valves, they argued, had design control and were already produced in greater numbers in Canada than in the States. For the Fan & Limits device, the technical core of the product, the switch, was designed and made in Canada, so to move final assembly up to Scarborough would be a logic consolidation. NAPR was critical to the CIM plan, because without it in place the subsequent investment could not be justified. As such, it was part of a very clear vision for the Scarborough facility. One of the architects of the plan, Mitch Smith, described it thus:

> "Not only did we need a cohesive document that talked about strategies and moulded our destiny, for our own needs, but it had to be a marketing document as well internally to Minneapolis to say that these guys know what they are doing, and we earned the credibility for it."

This report was sent to U.S. manufacturing management, whose reaction was "positive but superficial": some comments came back, but one manager commented that it was a "strategic plan for the top shelf" rather than the start of a major leap forward. Fortunately, the relationship between the Canadian general manager, and his counterparts in the States was reputedly excellent. He made full use of his personal contacts, and actively promoted the plan to the general manager of the U.S. division. This was, in retrospect, a major step forward, because the division general manager fully understood the benefits of the plan. A Canadian manager saw this as a critical point in the initiative:

> "[The general manager] had a kind of "let's do the right thing then tell everyone" attitude. Let's not be political about this, let's collaborate and do the right thing. What's right to do here is not what's right for our own camp, its what's right for the corporation. So we got backing on this and got him interested. He then adopted it and became the overall mentor for it, and kept up the momentum."

The Canadian - U.S. Manufacturing Negotiations

Having gained the support of top management, the next stage was for U.S. and Canadian manufacturing management to sit down and work out the viability of NAPR.

The economic justification for the proposed changes was a major issue here, but the greater concern was achieving buy in from the U.S. team to a plan which involved moving an entire production line from Minneapolis to Scarborough. There were some concerns expressed by the U.S. manufacturing management, both in terms of the disruptions to production and the possible reaction of the U.S. Teamsters Union if jobs were lost.

A team of 3 U.S. and 3 Canadian representatives was put together. They agreed to make decisions on rationalization on the following criteria: (1) strategic fit; (2) financial outcome; and (3) currency sensitivity. For each "dual build" line (i.e. where both countries had some production already) they looked at the total cost of manufacturing the product all in Canada and all in the U.S. in relation to the current cost. Thus the Line Volt thermostats in Canada, and several products in the States, were never discussed because they were not dual-build products.

From the Canadian team's perspective, Zone Valves were a non-issue because the Canadian product was both more technically advanced and produced in greater numbers than its U.S. equivalent. $2.5 million was the projected saving if the line was consolidated in Scarborough. The U.S. manufacturing director still put his case very strongly, but Scarborough won on the basis of strategic fit and economics. The Fan & Limit device argument was "a lot more intense" according to the Mitch Smith, the head of the Canadian team. Scarborough was producing the Switch, the key component, but Minneapolis had the production line. In addition the U.S. engineering team still had "official" design control, and there were some concerns about negative customer reaction to a non-U.S. built product. Of the 2.1 million units sold in North America only 300,000 went to Canadian consumers. Thus, the economics pointed towards Scarborough, but the proposed shift represented a major change for the Minneapolis plant. As one manager observed: "We're talking 20-30 people that lived and died the design and operation of that product line and now to give it up, well, this was a major emotional hurdle to overcome within the negotiations."

The Final Approval

The U.S. manufacturing director eventually agreed to support the shift of the Fan & Limits device to Canada, through the persuasive efforts of one of his own colleagues. All the other lines, as a matter of course, were pencilled in to be consolidated in Minneapolis. The estimated net impact was savings of about $10 million over five years. While the Fan & Limits line represented the single biggest shift, the overall savings, and staff reductions, were split more-or-less equally between the two plants.

Final presentations of the plan occurred in Minneapolis in January 1987. There had been some changes in the composition of the top management group, including the departure of the project's original sponsor. However, the project had received such visibility in Minneapolis that its approval was achieved without difficulty. While active sponsorship by the former general manager was critical in the early stages of the initiative, once it had been pushed into the spotlight it took on a life of its own.

Implementation

Through 1987 and half of 1988 the rationalization plan was implemented. For Scarborough the move involved about 50% of the operations; for Minneapolis it was significantly less. The smaller changes were all made first. The latter 6 months were devoted exclusively to moving the Fan & Limits line to Scarborough. The Canadian project manager for the change described it:

> "I came in just as they were making the final decisions. And then worked with a program manager in the US to complete it. We set up team structures below the management level to accomplish the work. To facilitate the move itself, I rented 3 apartments in Minneapolis, the production supervisor lived there, running the line for almost a year so he knew how to run the line. Also we sent the hourly union set up man to the U.S. for 2 months; I had maintenance people there for 2 weeks at a time, dismantling the line. Everyone shared jobs, despite union regulations. The whole project came in on time, there were no major disruptions, and it exceeded our cost saving objectives. And it was Fun!

We made it fun too, having some rivalries, barbecues etc."

For the Canadian organization, the net result of the rationalization process was a major increase in exports (50% to 85% of total sales volume), three manufacturing mandates (or "missions" as they prefer to call them), and a much lower cost base. Work began on implementing the CIM plan, but over time thinking evolved and factory management shifted towards other tools such as JIT, self-directed workteams, simplification and work cells. More important than the actual techniques, however, was the opportunity that rationalization gave to management. As the current factory manager commented, "Rationalization made us effective; it helped us to do the right things. Now we are learning to be efficient; we are doing things right."

Environmental and Strategic Drivers for Reconfiguration Initiatives

The Honeywell homes case was typical among the twelve examples of reconfiguration initiatives in that the primary strategic driver was the need for greater operational integration between the Canadian and the U.S. businesses. Where Honeywell homes was somewhat unusual was in its foresight in bringing about rationalization well before Free Trade was a reality. A mixture of poor operating results in the U.S. and the increasingly global business environment spurred on the change in this case. As one individual commented "Free trade just formalized a process that had been underway for the last twenty years". The broader issue here relates to the timing of the initiative. Honeywell homes Canada's realization of the need for change was roughly contemporary with similar thinking in the parent company. This made it possible for both entities to work together towards a common solution. The subsidiary can also be ahead of the parent company in understanding the need for rationalization. In the case of 3M Canada's Scotch Brite initiatives, the original one was turned down because the parent company did not perceive the need, but the second one (two years later) was approved. One 3M respondent explained the process thus: "For every global business group there is a distinct developmental process that we have to monitor. When they are ready, we put

forward our rationalization plan." Finally, the subsidiary can be behind the parent company in realizing that rationalization is needed. In such cases, the result is often the closure of the subsidiary's operation because rationalization is proceeding according to the parent company's agenda. Some examples of this were identified in the exploratory interviews, but not in the main study. These cases suggest that there is a window of opportunity defined by the stance of the parent company towards rationalization. If this is the case, it is in the subsidiary's interest to time its initiative to coincide with that window.

Free Trade. Of the twelve reconfiguration initiatives in this study, eleven can be traced directly or indirectly to the emergence of free trade, and hence a recognition of the need for change. Four of the 3M initiatives occurred in the early-mid eighties, but were positioned to take advantage of free trade when it arrived. The rest were either at the same time as, or just after, the free trade talks. The one exception was Honeywell homes' Fan and Limits switch. This was an initiative by some Honeywell homes managers in 1972 to redesign the switch to one of their branch-plant products, and gain approval to produce it for the whole North American market. In this case the driver was simply a recognition that the existing process was sub-optimally efficient.

Initiative Outcomes

Very little evidence of failed or lapsed reconfiguration initiatives was found. The only one (Scotch Brite) was essentially a "false start" in the words of the manager, and it was remedied two years later. Speculatively, the reason for the lack of failures in this sample is indicative of strong relationships between parent and subsidiary managers. The suggestion is that subsidiary managers have a good feel for the level of comfort among parent management for their overtures, hence a high degree of success when the decision is made to actively pursue an opportunity. 3M Canada's plant managers were exemplary in this regard, but Honeywell homes Canada and Monsanto Canada managers were also very well linked into the developments in head office. It is interesting to note, as well,

that no examples were found of mandates being won through reconfiguration initiatives and then lost. This is related to the development process, whereby, for example, the Honeywell homes NAPR initiative created the opportunity for the SBU designation five years later. If a development process (i.e. a continuous upgrading of capabilities) is actively pursued by the subsidiary, the evidence suggests that the mandate activity in question will remain competitive and will not be lost to the parent company or other subsidiaries.

Key Success Factors

Four primary factors were identified as critical to the success of reconfiguration initiatives, namely (a) timing, (b) championing efforts by key individuals; (c) credibility and good relationships with parent management; and (d) a compelling proposal[1].

Timing involves correctly assessing the openness of the parent company to the subsidiary initiative (as discussed). Championing, as the Honeywell homes case exemplified, is at the heart of the process. Both the Canadian general manager and Mitch Smith, head of the negotiating team, committed themselves wholeheartedly to the NAPR, and pushed the project to its completion. In every case there was a readily-identifiable individual whose name had become closely-linked with the initiative in question. This observation is consistent with much of the literature on championing (e.g. Schon, 1963; Howell & Higgins, 1990). Credibility is somewhat more intangible, but it refers to the confidence that the parent company has that the subsidiary will deliver on its promises. In the Honeywell homes case, the prior successes of the Canadian group in exporting Zone Valves and re-designing the Fan & Limits switch provided a measure of credibility. The Canadian general manager's personal relationship with his U.S. counterparts was also positive, though it served primarily to enhance the familiarity of the Canadian group to U.S. management. Familiarity appears to be an essential element of credibility: on

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[1] These four factors were confirmed in the quantitative KSF analysis described towards the end of this chapter. However, it should be understood that this analysis represents the lead researcher's *interpretation* of the key success factors for reconfiguration initiatives (and likewise for the other 3 initiative types).

several occasions individuals commented that the lack of awareness of Canada among their American counterparts --rather than any negative feelings per se-- was a real cause of delay to the initiative.

A "compelling argument" was the fourth key factor. For the initiatives in this study, proposals were put together explaining anticipated savings, the track record of the plant in question, government involvement, the credentials of the individuals involved, how the initiative would impact the US and Canadian organizations and so on. Unless the case had been water-tight on both financial and strategic grounds, respondents thought that their initiative would not have been approved. The Honeywell homes case, again, illustrates this point well. This was an initiative that --in retrospect at least-- was regarded by all respondents as clearly the right decision, and yet it still required a very strong selling effort by Mitch Smith and his colleagues. The implication of this case is that unless every component is in place the chances are high that the default option, which typically involves rationalizing everything to the United States, will transpire.

2. LOCAL MARKET INITIATIVES

A local market initiative is *one that seeks to develop a new product, market, or process through business opportunities that are first identified in the subsidiary's home market.* The notion behind this definition is that the local market is a source for business opportunities that may not be readily apparent in the parent's home market. While initiatives --by definition-- result in international sales, they must have been sparked by a local customer need, a government proposal, or an existing business relationship. Interestingly, of the 13 cases identified in this research, there were no clear examples of local initiatives that had remained local only. It would appear that business has become so global for the companies in the study that international sales occur almost as a matter of course. The other interesting initial observation is the high number of local market initiatives (6) where the associated mandate was subsequently phased out or handed over to the parent company. This issue will be explored below. Tables 5-3 and 5-4 provide summary data on the local market initiatives identified in the sample.

Table 5-3
Summary of Local Market Initiatives

Company	*Initiative*	*Outcome*
3M	"Self Check" business	Approved; manufacturing in U.S. Market development in Canada
Monsanto	EZ Ject product	Approved; business mandate
	Metal Chelating technology	Turned down
Amazon	Niche business	Approved; business mandate
	ELD technology	Approved; business mandate
	QWAV Missile	Approved; business mandate
Hewlett Packard	Panacom acquisition	Approved but subsequently phased out; business mandate
	Calgary development centre	Approved; business mandate except sales
	Montreal development centre	Approved but subsequently phased out; development mandate
Honeywell homes	Delta project	Approved but subsequently phased out; development mandate
Honeywell industrial	Oil Movement & Storage	Approved; business mandate
	PCNM software product	Approved but subsequently phased out; development mandate
	SACDA acquisition	Approved; business mandate

Table 5-4
Local Market Initiatives: Summary facts

Number of successful Local Market initiatives	7
Number of failed Local Market initiatives	1
Number that were approved but subsequently lost	5
Average increase in export volume in first two years	$5.2 million
Average capital investment in initiative	$2.2 million
Average number of new employees	24
Types of mandates arising from local market initiatives	Product management (1); development (3); business (8)

Local market initiatives resulted in either full-scope mandates for the product in question (including sales), or a development mandate for a software-type product. However, the mandate in question was usually very small, with the notable exception of Honeywell industrial's Oil Movement and Storage initiative. The average capital investment of $2.2 million was the lowest in all four initiative types. It should be observed, however, that local market initiatives exemplified a much more incremental process than the other types. The original product was frequently bootlegged, and only funded after some evidence of sales potential had been proven. International sales began quickly, but often on an opportunistic basis rather than through a dedicated effort. This sort of process appeared to be typical of initiatives pursued without parent-company involvement. It would appear that parent company managers in this sample were happy to let "niche" businesses (of marginal strategic importance) grow in their subsidiaries, but they wanted to have a firmer hand of control over any initiatives they believed were strategically important. Another defining characteristic was the fairly low level of contestability. Notwithstanding the parent company's lack of interest in niche products, this was primarily because the initiating subsidiary could claim either a unique capability (e.g. because of a leading edge customer), a greater commitment to the project, or both. In several cases, notably Self Check, the Calgary development centre, and OM&S, the Canadian subsidiary was challenged, but it prevailed in each case[2].

CASE STUDY
HEWLETT PACKARD'S CALGARY PRODUCT DEVELOPMENT CENTRE

Organizational Context

In the early 1980s Hewlett-Packard (HP) was alone among the major computer manufacturers in having no significant manufacturing or development presence in Canada.

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[2] Self-Check can only be judged a partial-success in this regard. The initiative was taken by 3M Australia and 3M Canada; the final outcome was manufacturing in the U.S. and market development in Canada.

With sales in 1982 of $186 million, HP Canada was under pressure from the Federal government to undertake some local value-added activities. A branch-plant manufacturing operation established in the seventies did not work out and was shut down four years later.

Under the leadership of Derek Holmes, HP Canada developed a growth strategy based around meeting the needs of the oil & gas sector. This was a major industry in Canada, and despite some interest in the sector at head office no progress had been made in developing it. In 1983 HP Canada purchased Panacom, a North York, Ontario company that made data acquisition and control devices for hostile environments such as oil wells. The plan was to build on the acquisition with related manufacturing and development activities, and hence create a significant value-added presence in Canada.

Organizationally, HP (as a whole) distinguished clearly between its sales and marketing organizations and its "businesses". Thus, any manufacturing or development activities in Canada were aligned primarily through the appropriate business unit, and not through the national sales organization. Thus, while Derek Holmes was responsible for promoting new investment in Canada, his primary accountability was for the Canadian sales operations. All manufacturing and development investments were made on the "world mandate" principle.

The Initial Opportunity

In 1985 Johann Stich, the Calgary district sales manager, came across what he perceived to be an un-met need among some of his industrial customers. The need was for a system to communicate effectively with remote-access data acquisition devices, such as remote terminal units (RTUs). In the oil & gas industry, where many wells are in remote or hostile environments, a system that monitored and controlled well activity, and analyzed the data, was thought to have considerable merit. The system could also be linked to an automated accounting system that kept track of costs and disbursements for specific wells. Stich noted that a few small, customized packages had been written, but they were very industry- and geography-specific and "no big player existed."

Furthermore, Calgary was a leading-edge market for this industry, known as Scada (Supervisory Control and Data Acquisition), so it was unlikely that the product was available elsewhere.

Stich put together an outline of the market need, and how he felt HP could meet that need, and sent it to HP Canada's business development group whose response was enthusiastic. The fit with the Panacom acquisition, as well as the longer-term vision for HP Canada, was strong. Stich was given the go-ahead to look into the opportunity in more detail:

> "I was given the task of putting together a business plan, doing some market research, hiring a consulting firm to help me with that, here in Calgary, to try to put together a business case, a business plan for a software entity here in Canada."

A key component of the business plan was to establish that there was a genuine market for the product. Holmes spoke with a number of the major oil companies in Calgary and Houston, and established that there was a clear need for a software system to integrate the various elements of the oil production process. Shell Oil, in particular, were very interested, and they essentially agreed to buy the entire supervisory control package (including remote terminals and communications software) once it was complete in 18-24 months time. This business was potentially worth about $40 million.

Stich presented the business plan to the Canadian executive group, and they agreed to go ahead and build the software product. The only problem was that development activities were officially meant to be aligned to business groups, and not national sales organizations, but at that time there was no obvious business group for the Calgary development team to report to. The decision was made, therefore, to fund the development through a 1% "uplift" on a portion of Canadian product sales. This was an established mechanism that was occasionally used to meet unique country needs when business group sponsorship could not immediately be obtained. While the potential for the product was by no means limited to the Canadian market, it was felt that a tangible product should be available before corporate involvement was sought.

Developing the Product

Stich was given a mandate by Holmes to put together a team and develop a product. In the first six months of 1986 he hired five people with experience in the Scada industry. They put together a product specification, based on the identified market demand. A number of changes were made to the original concept though. First, it was decided that the higher-level accounting system would not be part of the initial product; second the product was made generic, that is, not unique to the oil & gas industry. The name RTAP (Real Time Application Platform) was selected. They also made a slightly contentious decision by opting for Unix (open architecture) technology ahead of the HP proprietary system. This proved to be a wise decision though.

In the words of one of the development team, "We then locked ourselves in a back room for a year to come up with the first release". They had attempted to buy components of the system off-the-shelf, but the existing packages were all customized to specific sites, so they ended up doing it all themselves. By the middle of 1988, they started to release components of the product to local customers, primarily as "beta" (test) sites. As explained by Stich:

> "We completed the product as we envisioned it in 1989, but we released the functionality in stages so that our first customer actually was Esso Resources here in Calgary in November 1988. That's when the installation went in and we actually sold it to them in June of 1988. But then we were adding functionality to the product to where it is today, so what we were able to sell in 1988 was a small subset of what actually is available today and that was the core of the real time database and the interface with the instruments."

Selling the Initiative to Parent Management

As the first generation product was being finalized, it was discovered that an HP product division in California was working on a very similar product. While Stich's "skunkworks" group had been working on a shoestring budget up in Calgary, this

Californian group had 60 people, five times the budget, and --most importantly-- the official "blessing" of the corporation. There were significant differences between the products, most notably that the Californian product was designed for internal lab use while the Calgary version was built for harsh environments. Stich's group were also about 6 months closer to completion. Nonetheless, the feeling among corporate management was that the Californian product had been given the official charter, and that the Calgary version should be killed.

Stich and Holmes worked hard to persuade corporate management that the Calgary product should be given corporate approval. They were able to make a very strong case, on the basis of the their advanced stage of development and their "guaranteed" sale to Shell Oil. Their tenacity prevailed, and eventually HP Corporate agreed to support the Calgary operation. The rival product group was disbanded. The RTAP product was still being funded through an uplift on Canadian sales, but at least it was a legitimate part of the HP system, with a "charter" and a place on the HP sales list. This was actually a big step because it involved one of the divisions officially signing off on quality assurance, testing and support of the product.

The sale to Shell was made shortly thereafter. The product was installed in Houston first, and subsequently at other Shell sites around the world. Through 1989 and 1990, Stich worked hard to promote the product. Sales within Canada were good, and a long sales tour around Europe in 1990 led to a significant number of product sales. Applications included traffic light control, PCB manufacturing, pipeline control and telescopes. The problem was that HP salespeople were not knowledgeable about the product. They were more used to selling mainstream computer systems, and realized that the level of customer interface required for the RTAP system was substantially higher than for most of their product portfolio. As a result, most RTAP sales were more-or-less direct (i.e. working directly with Calgary). A full-time salesperson was hired in Germany to handle the European customer base.

Subsequent Changes

By 1991 / 1992 the Calgary operation was making an operating profit, although its total return on investment was still negative. Global sales were around $3.4 million, but that figure automatically leveraged a further $12 million of related hardware sales. Employment had peaked at 45 but settled at around 24. The development team's mandate, once the initial specification had been completed, was to augment the system with new components, and to port the software onto IBM, DEC and Sun systems.

A major organizational change was implemented by HP corporate in 1992, the essence of which was (a) prices would be fixed centrally according to a "global pricing model"; (b) the "uplift" funding mechanism would be closed down; and (c) all "non-aligned" entities (such as Calgary) would either be aligned or sold. The rationale behind this change was twofold. The uplift mechanism was creating pricing disparities across national boundaries and hence the emergence of a "grey" market in cross-border sales. Also, product development had got out of control, with various subsidiary teams duplicating or adapting the work of the central development groups. The change restored the business group heads as the final arbiters of what development work occurred where. The drawback of the scheme, from Calgary's perspective, was that they needed to find a "home" in a business group, rather than continuing as an independent entity.

Through much of 1993, Stich explored his options, which consisted of (a) finding a parent division in the States; (b) pursuing a management buy-out of the business; or (c) scrapping the business. Eventually he found a willing "parent", the "Lake Stevens Instrument Division" (LSID). This group, based near Seattle, WA, was part of the "Test and Measurement Organization" and sold signal analysis equipment and machine monitoring devices. LSID's management saw an immediate fit between their product portfolio and RTAP, most notably in terms of industrial sectors. Furthermore, their salesforce, being industrially-oriented, were much more suited to selling product like RTAP that required high customer interface. The match was made, and from November 1993 the Calgary operation was officially linked to LSID. It took almost eight years from the initial idea until the product was officially sanctioned by the corporate system.

Environmental and Strategic Drivers for Local Market Initiatives

While the inspiration for local market initiatives came from the local market in each case, the nature of the opportunity varied substantially. In seven cases there was a clear customer need. The EZ Ject product by Monsanto, for example, was conceived by a product-development representative in British Columbia during a routine discussion with a customer. In four cases, the emphasis was more on the development of a local technology for which applications were subsequently developed. Amazon Canada's Electro-Luminescent Display technology (ELD), for example, was developed through local expertise and then applied in a range of local and international applications. Finally, two cases were acquisitions of local companies (Panacom and Sacda). Several cases exhibited close links with federal or provincial government bodies. These were typically regional development programs, though, which acted more as facilitators than as drivers of the process. Parent company involvement in local market initiatives was very limited. In three cases (EZ Ject, the Metal Chelating technology, and "Self Check") there was R&D involvement from either the parent or a sister subsidiary; in all others the Canadian subsidiary was acting autonomously.

Initiative Outcomes

Monsanto's Metal Chelating technology was the only case of a local market initiative that was turned down by the parent company, and it was subsequently pursued as an independent venture by the two individuals who had championed the project within Monsanto. The stated reasons for this lack of success included a lack of clear strategic fit with Monsanto's evolving technology/product portfolio, and a lack of top-management sponsors (with the former presumably influencing the latter).

The more interesting finding from the sample of local market initiatives was that four resulted in temporary mandates. Two (Delta, PCNM) lost their mandate when the second-generation product was shifted to head-office, and two (Montreal Development Centre, Panacom) never reached critical mass and were wound down. A possible

interpretation of this finding is that local market initiatives are fragile. If the new product is recognized as a success it may be taken over by parent company management; if it is a niche product it may be phased out (because it did not reach critical mass) or left as a marginal activity. Local market initiatives that go on to become full-scope business mandates in the subsidiary are relatively rare, Panacom and Honeywell's Oil Movement and Storage business being the only examples identified in this study. Viewed in this way, contestability becomes an important issue. From the subsidiary's perspective, it is not sufficient just to identify an opportunity for a new product before a sister subsidiary, it is necessary also to stay ahead, by developing a unique expertise around the mandate in question. Of course, from the parent company's point of view a new business that is nurtured by the subsidiary and then handed over to the parent is certainly a success, but its impact on the subsidiary's development is less than if the business were retained by the subsidiary.

Key Success Factors

Three success factors were identified by respondents. First, they felt that a high level of autonomy and local presence was necessary for local market opportunities be exploited. This appeared in part to be a function of the structure and systems in the MNC, particularly the level of strategic discretion given to subsidiary presidents. It is also dependent to some degree on the type of industry in which the subsidiary is competing. Where the product is globally standardized, salespeople would not expect to respond to local market opportunities; where the product requires some level of local customization, product development expertise is necessary. The Calgary initiative, interestingly, was less a case of local responsiveness than of Calgary being a leading-edge market for the Scada industry. Thus, while the RTAP product is generic, the need for it in the oil & gas sector was not understood equally in all markets.

Second, fit with the parent company's strategic objectives was thought to be important. Monsanto Canada, for example, talked about the need for new business ideas to be "peninsulas" building out from the corporation's core capabilities rather than

"islands" of unrelated expertise. In the Calgary development centre case, there was a strong strategic fit with the Canadian president's grand strategy, but a relatively poor fit with Hewlett Packard as a whole. This resulted in a lengthy spell in isolation for the Calgary operation which was eventually resolved when strategic alignment was achieved. In HP particularly, alignment is a *sine qua non* for access to the global sales force.

Third, respondents observed that a creative or entrepreneurial spirit is needed in the subsidiary, so that salespeople or business managers spot opportunities when they emerge. Unlike many of the other initiative types, that can be led by the subsidiary president, local initiatives can present themselves to any employee at any time. Of the thirteen cases studied here, eight were conceived exclusively by middle-level subsidiary managers.

3. COMPETITIVE BID INITIATIVES

A competitive bid initiative is *one that seeks to attract a global investment or internationally-focused value-adding activity which has already (in principle) received corporate support.* Implicit in this definition is the recognition that the Canadian subsidiary is only one of several possible sites for the investment in question, so issues of *relative* credibility and capability are paramount.

Five examples of competitive bid initiatives were identified in the research. All were for manufacturing investments with either a North American or global scope. On average, the capital investment and the consequent increase in subsidiary exports were larger for competitive bid situations than the other three types. This is testament to the "strategic" importance of the investments in the eyes of parent company management.

Of the five initiatives, four were successful[3]. Tables 5-5 and 5-6 provide summary data on the five cases.

Table 5-5
Summary of Competitive Bid Initiatives

Company	*Initiative*	*Outcome*
3M	Brockville tape plant	Approved; manufacturing mandate
	Micro-encapsulation plant	Approved; manufacturing mandate
Monsanto	Dry Glyphosate	Approved; manufacturing mandate
	Maleic Anhydride investment	Turned down
	Scripsets business	Approved; manufacturing mandate

Table 5-6
Competitive Bid Initiatives: Summary facts

Number of successful Competitive Bid initiatives	4
Number of failed Competitive Bid initiatives	1
Number that were approved but subsequently lost	0
Average increase in export volume in first two years	$9.2 million
Average capital investment in initiative	$8.6 million
Average number of new employees	16
Types of mandates arising from reconfiguration initiatives	Manufacturing (4)

The defining characteristic of competitive bid initiatives is that they are conceived at the corporate level. This has two major ramifications. First, the selling or championing process is inward-looking, because it involves convincing divisional or parent management that the Canadian subsidiary represents the optimum location for investment. As stated above, one tactic that was identified during this study was early

[3] The high percentage of successful competitive bid initiatives may be misleading, because by definition for every "winner" there must also be one or more "losers". The small size of the sample makes it impossible to judge relative numbers of successes and failures: one possibility is that the failures were not made known to the researcher.

involvement as a means of ensuring that the Canadian "bid" was given due consideration. Second, the corporate-level definition makes competitive bid initiatives inherently contestable. In every case alternative investment sites, in the U.S. or Mexico, were considered. This heightened the importance of *relative* superiority in productivity, quality, service, and cost-base, rather than absolute capability. Another defining characteristic was the exclusive focus on manufacturing mandates in capital-intensive industries. It is by no means clear that competitive bid initiatives should be limited to manufacturing operations: a similar process could be envisioned, for example, in a new research and development centre. It is proposed here that manufacturing investments are more susceptible to the bid process because their competitiveness is contingent on quantifiable factor costs such as raw material and labour. Consequently they are less often "tied" to the intangible or unique elements of the local market context.

CASE STUDY
MONSANTO'S DRY GLYPHOSATE INVESTMENT

Organizational Context

Monsanto Agricultural Company was a leading producer and marketer of herbicides worldwide. The Canadian division accounted for around 7% of its sales, which in 1993 totalled almost $2 billion. The Agricultural company had held a position in Canada for several decades, primarily through export of its triallate and glyphosate products. In the 1980s, however, the Canadian division was actively developed: A liquid "Roundup®" facility was put in place at La Salle, Quebec, and the high-potential prairie market received considerably more attention. Glyphosate sales grew by a factor of four through the eighties.

Notwithstanding the sales growth in Canada, the lack of local value-added activity (i.e. research, development, manufacturing) was a real concern. The liquid Glyphosate plant in La Salle was focused on the Canadian market, and represented a fraction of the total sales. Almost all research and development work occurred in St Louis, the head

office. The general manager of the Canadian division, who was appointed in 1990, recognized that the company's commitment to Canada was not being manifest in its investments, and he sought to identify possible ways of bringing in world-scale facilities within the Canadian Division. Federal and provincial government bodies were strongly in support of this strategy. St Louis, the head office, also recognized that investment in strategic markets (of which Canada was one) was a priority for future growth. The company's Belgian president, had stated, "I'm not opposed to making an investment anywhere in the world, but it has to be competitive, it has to be the right business decision in a global context." The recently-signed free trade agreement between Canada and the U.S. certainly made the chances of locating such an investment in Canada higher. Senior management in Canada felt that the parent company's espoused openness to non-U.S. investment was very positive. They worked hard to increase the exposure of the Canadian organization in St Louis, by networking with counterparts, attending meetings and broadcasting their successes.

The Dry Glyphosate Opportunity

In June 1991, Canadian senior management identified an interesting opportunity in the company's long-range strategic plan. The company was developing a "dry" formulation of its glyphosate technology, through collaboration with a Japanese affiliate. The plan was to bring this product to market around 1996. This would require a pilot plant in the first instance, but a full-scale manufacturing facility shortly thereafter. The dry technology was available through a contract manufacturer in the States, but given that the potential market was worldwide, there was no pre-specification was to where the manufacturing facility would be built.

It was evident that Canada was a possible site for the dry glyphosate plant, for all the reasons identified above, but the proposed date for the investment was still five years away. Since glyphosate had recently lost patent protection in Canada, the possibility of competitive entry into the local market and the resulting loss in market share strengthened the case for bolstering Monsanto's presence in western Canada. No decision was made

at this point regarding the location of the investment, but by actively promoting the plan, Canadian senior management were confident that Canada would be considered. They worked with their direct counterparts in the States to put the case for a Canada-located dry glyphosate facility.

The Search for an Investment Location

Once the go-ahead to select a site had been received, an engineering consulting company out of Regina, Saskatchewan, was hired to choose a Canadian "candidate". They looked at about 40 different sites in western Canada, and selected Morden, Manitoba as the best candidate. Reasons included the quality and cost of labour, cost of energy, and distances from raw material and markets. Another important factor was the involvement of Manitoba's trade and tourism ministry. While steering clear of any outright subsidies, they worked hard to ensure that the Canadian proposal was as good as possible. As explained by the general manager in Canada:

> "...the kind of assistance they offered added real value to the project analysis. For example, if we needed contact with trucking companies to get the best rates or if we needed to ensure lowest cost raw material and packaging they facilitated the contacts. They wanted to help us have the best possible proposal with the best possible numbers."

The Morden community itself was also extremely supportive of the proposed investment, offering to re-zone the chosen site, and build a rail spur to it. Intangible qualities, such as the strong work ethic in southern Manitoba, were a clear factor in the decision to put forward Morden as the best Canadian location.

The second stage of the selection process required the Morden location to be compared with alternative sites, one at an existing facility in Luling, Louisiana and one with a contract formulator in Des Moines, Iowa. A team was put together in June 1992 to undertake this task, consisting of four members of the Canadian division and four head-office managers. Their mandate was to make an objective assessment and ensure that the

selected site was economically competitive. This was normal procedure for all capital investment projects within Monsanto.

The selection process took six months. The biggest issue facing the Canadian team members during this period was a lack of understanding of the Canadian business environment by the other team members. As explained by one of them:

> "There is tremendous inertia, traditional thinking, that you run up against [with head office managers]. Getting receptivity is like prying open a big door. People didn't know anything about Canada. Early on, one of the manufacturing people said, "how are we going to get the materials shipped out of there in winter?" Their impression was that the roads frequently become impassable during winter! We laughed, and maybe that's a silly example, but those little perceptions add up collectively to your disadvantage over time. Another thing was the perception that Canada was a socialist country where all the costs would be prohibitive. It turned out that Morden's labour rates and productivity were better than in the U.S. And absenteeism was almost non-existent."

The role played by the Canadian team members was to educate their colleagues on the realities of doing business in Canada, so that for each cost factor they understood where the Morden numbers had come from. Utility rates, for example, were cheapest in Morden, and freight costs were surprisingly low because there are discounts for "backhauling" (i.e. the return journey where the trucks are often empty). There was also an underlying factor that the general manager expressed as "U.S. people wanting to protect U.S. jobs." As he observed:

> "You always had to worry about what we would call the background conversations like 'why are we doing this anyway?' Why don't we just add it on to the Luling facility? So that was the perception and we said, 'just give us a chance, that's all we're asking for, we've got a mandate from the President that says we're going to act globally and anybody that wants to bid on a project is free to do so."

The ethnocentric mindset appeared to be a very small factor; the problem was more one of unfamiliarity with the Canadian business environment. The general

manager, an American himself, was careful to avoid any nationalistic arguments. He made it clear that the bottom-line economics were what would drive the decision: "If we're not competitive, we don't want the plant, pure and simple."

After 6 months of analysis, the Des Moines, Iowa site worked out more costly, and Morden and Luling came out within a couple of hundred thousand dollars of each other. As commented by the U.S. project manager, "The result was a wash. A difference of $200,000 is nothing on a $5 million project. At that point we started looking at other factors, such as how quickly we could get moving, and enthusiasm. Morden won on both these counts, so we recommended to the president that he invest in Morden."

How was Morden able to compete on a cost basis with Luling, which was an existing Monsanto facility with infrastructure in place? The key factor was the style of plant that the Canadian project team came up with. As the Canadian project manager explained, "We had to build a very different plant. We had to break some paradigms to build it. If we had used traditional Monsanto methods, we would not have built it here." The team read extensively on self-directed work teams, empowerment, "high performing organizations" and a number of other revolutionary management methods. The facility they designed required the smallest possible increase in head-count possible, extensive outsourcing of services, and multi-skilled workers. Unlike Luling, which was encumbered by the systems already in place at that facility, Morden's designers were able to start with a clean sheet of paper.

While it was necessary to gain the support of all the project team members, the senior executives in St Louis also had to be convinced of the merits of the Morden option. The president of the division and the Glyphosate manufacturing manager were the final arbiters of the investment decision, so the team kept them abreast of their progress, and at one point managed to get the manufacturing manager to visit the proposed Morden site. The reception he received from Monsanto employees and Morden residents was very positive, and helped to ameliorate any concerns he felt about investing outside of the States.

The Decision and Beyond

Around the end of 1992 an AR (appropriation request) was signed by the division president, committing Monsanto Agricultural Company to making the $5 million investment in Morden. As observed by one of those present, "When the final decision was made there was no dramatic meeting where everyone faced off. In these matters the correct decision unfolds as you go, and that's why continuous involvement is so key." Essentially the project team had reached a consensus that the Morden site represented the best option, and the division management, who had been well informed all along, saw no reason to challenge their judgement. On the signing of the AR, the project team disbanded and a key member of the team was put in charge of actually building the Morden facility. The whole implementation process took just over a year, and was completed in early 1994.

Implementation followed closely the specification that the team had put together during the proposal process. The design was innovative, certainly with Monsanto circles, but proved to be very effective. The implementation manager described the process:

> "We had to get all the permits, the engineering team together, the contractors, all the work that goes into putting up a plant. The site was on agricultural land so it had to be rezoned, so we had to bring this to public hearing to get the approval. We put on an open house for the community to tell them what we were doing, so that they were comfortable about what we were trying to put in their community. A tremendous amount of work by a lot of people. We involved dozens and dozens of Monsanto employees in this project. I think another key to success is the enthusiasm and innovation and commitment and time that many people put in this plant. Willingly. I can't underscore how important that was to get everybody behind this project, whether they were Agriculture [employees]. or not it didn't matter. We had Searle people, Nutrasweet people, Monsanto people, it didn't matter. Everybody wanted a part of this thing, it was so much fun."

In June 1993 the plant manager was appointed. He worked with the project manager for a time, and then took over sole control of the facility. Production began,

at pilot plant levels, in April 1994. While the capacity of the facility is only 5 million pounds, the opportunities for expansion at the same site are very good.

Environmental and Strategic Drivers

The definition of the international business opportunities associated with competitive bid initiatives stemmed in each case from the "corporate" management system, but the nature of that system varied enormously between companies and between divisions of the same company. The Monsanto Scripsets investment opportunity was identified by a "global business team" which included a Canadian manager; the 3M micro-encapsulation technology opportunity was identified by a division of the parent company and broadcast to all subsidiaries by E-mail; and the Monsanto Dry Glyphosate opportunity was set down in a strategic plan and subsequently pursued by Canadian management. While the micro-encapsulation technology initiative showed every sign of being an open competition, all the other cases in this research involved Canadian managers at an early stage in the specification and/or selection of an investment site. The implication of this finding is that subsidiaries should not wait to be offered bid opportunities, but should actively seek out and define them in collaboration with parent company managers.

Initiative Outcomes

Of the five cases identified during the research, only one did not result in an investment. This was Monsanto's proposed Maleic Anhydride plant in Sarnia which was eventually placed in Florida because corporate management felt "it was not the right opportunity" to invest in Canada. The specific reasons for this decision did not become apparent during the research, in part because the initiative in question occurred over a decade ago. The following section on key success factors provides some general insights into the factors that may have been responsible. On a related note, there were no cases of competitive bid initiatives where the mandate was subsequently lost. This is probably

a facet of the high asset-specificity of a manufacturing investment, in that relocation would be prohibitively expensive.

Key Success Factors

Three factors were identified through the interviews as critical to the success of competitive bid initiatives. First, the subsidiary had to have a competitive proposal to ensure that it made the short list. Certain elements of cost-competitiveness, such as transportation costs, raw materials, and labour rates, are basically out of the control of the subsidiary. If the investment has a high labour component, for example, the Canadian costs will be substantially higher than those in South East Asia or the Caribbean. Other factors, however, such as productivity, choice of manufacturing techniques, level of automation, strategic fit with related operations and so on, are under the direct control of the subsidiary, and offer substantial opportunities for differentiation against the competition. Both Monsanto and 3M Canada knew what sorts of investment they were competitive on, and what sorts they were not, and they targeted accordingly.

Second, the credibility of the subsidiary was felt to be critical. As noted by the president of one company, "you end up with a couple of sites that come pretty close and one that will have a minor advantage economically, but sitting in an operating committee in the States, what really swings you is the credibility of the organization that's asking for the order. We have built an excellent reputation for continuous improvement and responsiveness to the needs of the customer". Stated slightly differently, there was a clear sense that parent company decision makers are inherently risk-averse. They tended to opt for the subsidiary that had proved that it could deliver on budget, even if its proposal was not clearly the most competitive. In the Maleic Anhydride case, Monsanto Canada had not --at that stage-- developed a track record of success with prior initiatives, which may have been one reason why the investment was made elsewhere.

Third, respondents felt that competitive proposal initiatives need championing and selling efforts to be successful. This is another facet of the need to go beyond the numbers and work on the softer elements of selling the subsidiary's capabilities. In the

case of Monsanto Canada's Dry Glyphosate initiative, for example, the dedicated lobbying efforts of the president, the agriculture division general manager, and several others contributed very strongly to the success of the project. Similar levels of championing were observed in the two 3M Canada initiatives, and somewhat less in Monsanto's Scripsets and Melaic Anhydride cases.

4. MANDATE EXTENSION INITIATIVES

A mandate extension initiative is *one that seeks to build on an existing mandate or proven capability to meet a perceived international product or market opportunity.* Nine cases were identified in the course of this research. Eight were extensions of existing business mandates (i.e. where the subsidiary had control over R&D, manufacturing and marketing); the last represented a comprehensive penetration of a market that the subsidiary had developed by chance. Two of the initiatives were officially turned down by parent management, but were subsequently pursued in a modified form i.e. with less capital investment. Tables 5-7 and 5-8 provide a summary of the mandate extension initiatives in the sample.

The key characteristic of a mandate extension initiative is that it builds on the existing strengths of the subsidiary, and as such it is relatively uncontestable by other divisions or affiliates. Thus, unlike competitive proposal initiatives, where other subsidiaries could win the investment, these initiatives either led to investment in the proposing subsidiary or no investment at all. A strong business case obviously had to be made, but in most cases there were no alternative locations on offer. The exception to this rule was the mandate extension initiatives undertaken by Hewlett Packard Canada. HP's divisional structure was designed to incorporate a certain level of competition between divisions. Thus, Panacom only won their X terminal mandate after they had demonstrated a superior level of advancement towards a deliverable product than rival divisions. The HP system essentially lies at the boundary between the "competitive bid" and "mandate extension" situations, in that the incumbent division has preferential access, but no right, to new business opportunities.

It should be pointed out that subsidiaries with divisional mandates will be undertaking initiatives all the time as part of their ongoing business. This study was interested only in cases where the initiative represented an extraordinary capital investment i.e. over and above the standard development budget. The idea was that such initiatives represented substantial new projects rather than incremental developments. *A priori* the intention was to constrain the definition to include explicit parent company approval. The reality, however, was that the approval process was often implicit. Subsidiary managers in Amazon and, to a lesser degree, HP and Honeywell homes had been empowered by the parent company to make strategic judgements, and the concept of a formal approval process at the parent level (as was instituted in Amazon) was judged as excessive meddling. It was thus decided that as long as the initiative went ahead (i.e. as long as the initiative ended with the allocation of resources) it would be considered approved for the sake of this research.

Table 5-7
Summary of Mandate Extension Initiatives

Company	*Initiative*	*Outcome*
Amazon	Controllers	Implicitly approved; business mandate
	STERM product	Implicitly approved; business mandate (except sales)
	A300 / A4000 product	Implicitly approved; business mandate
	QWAV 2nd generation	Turned down; pursued in reduced form
	Communication product	Turned down; pursued in reduced form
Hewlett Packard	Protocol Testing Centre	Approved; development mandate
	Rugged terminal product	Approved but subsequently phased out; business mandate
	X terminal	Approved; business mandate
Honeywell homes	Zone Valve business	Implicitly approved; manufacturing mandate

Table 5-8
Mandate Extension Initiatives: Summary facts

Number of successful mandate extension initiatives	6
Number of failed mandate extension initiatives	2
Number that were approved but subsequently lost	1
Average increase in export volume in first two years	$7.8 million
Average capital investment in initiative	$1.7 million
Average number of new employees	9
Types of mandates arising from reconfiguration initiatives	Manufacturing (1); development (1); business (5)

CASE STUDY
AMAZON'S "STERM PRODUCT"

Organizational Context

Amazon Canada Inc. was a majority-owned affiliate of the giant Amazon Corporation, with operations in electric products, power systems and electronics. Its 1984 operating revenues of $574 million made it one of the largest foreign-controlled `operations in Canada.

The Electronics Division developed in the 1950s as a defence contractor to the government. When Prime Minister Diefenbaker scrapped the Avro Arrow fighter program in 1958, the Electronics Division recognized that the Canadian defence industry was in decline, and consequently that they should look to other areas for future growth. An early success was the development of an electro-luminescent display system that was used in airports, betting-shops and stock-exchanges. This was essentially the fore-runner to the computer terminal, and the commercial applications for the product were enormous. Some early work for American Airlines led to contracts for ITAWA, the international telecommunications body for world airlines, and hence to a position --in the

early eighties-- as the number one provider of terminals and terminal-controllers to the airline industry.

The Electronics Division had an unusually high level of autonomy, with respect both to its Canadian and U.S. parent companies. As a defence contractor (in the 1950s) the division actually competed with the U.S. parent in San Diego in a number of areas. Furthermore the diversification away from defence was undertaken by the Canadian division alone. As it strayed away from its technical origins, the division developed capabilities that were unique within Amazon, and entered product-markets (i.e. visual displays and telecommunication for airlines) that were not traditionally being supplied by Amazon. By the seventies, no-one at the Canadian headquarters, or down in the States, really understood what the Electronics Division were doing. They were very successful, though, so they were given complete strategic discretion to develop their business as they saw fit. Essentially the division had a full "world product mandate", in that it was responsible for product development, manufacturing, marketing and sales on a world basis. While the definition of the mandate was never set in stone, it was typically expressed as "meeting the information processing needs of the airline industry".

The Opportunity

In 1983 ITAWA was approached regarding the airline scheduling for the 1984 Los Angeles olympics. The LAX airport authority, faced with anticipated capacity constraints at its international terminal, had mandated sharing of facilities at the gates and check-in counters. This created a problem for the user airlines, because historically each had owned its own dedicated terminals with its own data protocol. An Air Canada check-in terminal, for example, had a set of standards that made its use by American Airlines or Canadian Airlines impossible. The challenge to ITAWA was to design a system that allowed common usage so that LAX's gates and check-in counters could be used more efficiently.

The electronics division was closely allied with ITAWA by this time. Amazon engineers met with ITAWA people at least once a month for technical and commercial

discussions, and went out of their way to promote ITAWA to the airlines. A high level of mutual confidence and trust built up between the two groups. Several of the electronics division's best engineers spent a lot of time in Paris working with ITAWA on projects. On a trip in 1983, the LA olympics problem was posed to them, as one of the engineers recalled:

> "I used to have a lot of meetings in Paris with ITAWA, afterward we would go to what we call the ITAWA Ilex, the bistro next door, where we would have a few beers, chatting all evening with ITAWA. A few of us eventually came up with the idea of this "shared terminal equipment". In newer airports, up to that time airlines had had their own dedicated terminals for their whole operations. Now as new airports were being built they wanted to share the gate between many different airlines. They didn't want to have 10 terminals sitting around, so the idea was this "STERM": Shared Terminal Equipment, which the agent would sign in and it would now take on the complete characteristics of the airlines and terminals. Anyway, LAX had a requirement for this so ITAWA called and said can we come over to Paris and have a meeting, well I was completely tied up so they said well we'll send a team of 4 to New York if you can meet us in New York and we can see what ideas we can get. So we met in New York. I went there. We discussed the problems, worked half the night on it and came up with some ideas as to what we could do. ITAWA went back, they wrote the proposal and 2 weeks later we went to LAX to meet the airline users committee, because there were a number of bidders on this. We made a presentation, ITAWA together, a few hours later we were told that we'd got the job. So that's how STERM really got born."

The STERM Product

The essence of the STERM system was a series of "terminal emulations" that made the STERM display appear just like, for example, the Air Canada or British Airways screen. There was also software for communicating between the different protocols; software for generating standard printing output; and a security system to prevent users from accessing the wrong system. The package sold by Amazon comprised the terminals, concentrators and software, with the cost of the software buried in the cost of the hardware. STERM thus provided the Electronics division with an

opportunity to enhance its communication networking capabilities, and also to sell the related hardware to a range of airlines.

While the Amazon concentrators (the heart of STERM) were sold to every participating airline, there was some competition for the terminal equipment and airline emulation software. Specifically, Lufthansa declined to purchase the Amazon terminals. They brought a competitor in to supply terminals and emulation software, and these products were subsequently sold to a number of other airlines. Nevertheless, Amazon retained a dominant position in the STERM market. The system was subsequently sold to a further 24 airports.

In 1988 ITAWA put out the specification for a second-generation product, STERM II, that was based on PCs rather than dedicated terminals. Amazon lost that contract to a competitor, but picked up a number of the software emulation contracts, just as the competitor company did with Lufthansa. As explained by the business manager at the time, "We got into the [emulation] business because American Airlines had confidence in our engineers' ability. American insisted that Amazon be permitted to write their STERM II emulation and after much negotiation with ITAWA authorization was obtained. This became a very profitable business and provided excellent communications channels with airlines technical staff". STERM I also continued to sell, principally in less-developed markets that could not afford the new version.

While STERM I and STERM II were successful products in their own right, the by-products were also significant. As a result of the success of the LAX venture many of the Far East Airlines became familiar with Amazon, and this helped enormously in sales of terminals and concentrators to Qantas, Singapore Airlines, Thai Airlines, and several others. Airline-specific software development opportunities also arose through the STERM business. Just as STERM itself was spawned by relationships and capabilities built up through earlier work, subsequent business opportunities could be identified as flowing from the success of STERM.

Environmental and Strategic Drivers of Mandate Extension Initiatives

Mandate extension initiatives were found to be driven by the traditional processes of business development, such as identifying a new customer need, applying new technology to a proven product, or exploiting new market sectors. The initiatives studied in this research were all basically related to product extensions. Without exception they were driven by international opportunities, that is, where the market was not specifically Canadian. There is no reason why this should have to be the case though. If, for example, the leading edge market for the mandate in question were Canadian, all new product ideas could start locally and then be rolled out internationally (not unlike the product life cycle model of Vernon, 1966). The reality with this sample, however, is that the opportunities resulted from interaction with large multinational corporate customers, such that opportunities were international in nature.

Initiative Outcomes

Two cases of failed mandate extension initiatives were identified at Amazon. This was less a function of the quality of the proposals than a reflection of Amazon Corporation's poor financial position, and the severe curtailment of *any* capital investment. For the other seven cases where corporate approval was implicit, the outcome at least in the short term was successful, in that resources were allocated. The more interesting question, however, was the long-term success of the associated business mandates. All the mandates in this sample were still ongoing though their performance, at a subjective level, was mixed[4].

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[4] The "performance" of a world mandate business is very difficult to assess. Given the perennial difficulties in interpreting transfer prices, and the reluctance in some instances of management to "open their books", estimates of performance were not attempted. Gross revenue data suggested, however, a high level of success in HP's Panacom, and a mixed level of success in Amazon's world mandate.

Key Success Factors

Three primary success factors were identified by respondents from these initiatives. First, a high level of autonomy was felt to be important. This reflected the desire of subsidiary managers to break free of the bureaucracy of their large parent company, and manage the business "as if it were their own company". Given that the subsidiary already had the mandate, or at least the perceived capabilities, to pursue the business opportunity in question, heavy involvement by parent management could be rightfully seen as meddling. Such behaviour runs counter to the idea of giving the subsidiary a mandate in the first place. Certainly in the case of Amazon, the operation had a very high level of autonomy and respondents were convinced that this had been one of their major reasons for success. As one individual noted, they could draw on the Amazon name and corporate technology, but they were not encumbered by the bureaucracy typical of many large corporations.

Second, respondents acknowledged the need for a solid business plan, despite the fact that in all but two Amazon cases subsidiary top management had sufficient autonomy to make the necessary resource commitment themselves. The business plans, in these cases, were internal proposals put forward by the initiative champion to the subsidiary president. There was no indication that such proposals were substantially different to the equivalent proposals put forward in the other three types of initiative.

Third, there was felt to be the need for strategic fit with the parent company. This is a complex issue. Respondents observed that the parent company will always attempt to match funds with worthwhile projects. Unless the project in question is perceived by parent management to be of strategic importance, it will not receive funding. The two failed Amazon initiatives bore this observation out. The QWAV 2nd generation initiative, for example, requested funds for an upgrade to the existing QWAV Missile, which was highly profitable. The parent company division turned down the request because the defence business had not been targeted for growth, and because there was a severe shortage of resources within the parent company as a whole.

VALIDATION OF TYPOLOGY

The validity of the typology was assessed in three ways. The first was a face validity test, which involved sounding out academics and managers (not from sample companies) on the usefulness of the typology and on the definitions of the specific types. Several changes were made as a result of the this feedback, the result being the final typology described here.

Second, the research assistant was provided with transcripts and notes from all interviews, sorted by initiative. He was also provided with the definitions of the four initiatives as used above. His task was to read the set of material provided for each initiative, and to assign the initiative to one of the four types. Independently, the lead researcher had previously undertaken the same task.

36 of the 39 initiatives were typed identically by the lead researcher and the research assistant. For the remaining three, the research assistant equivocated between the type chosen by the lead researcher and one other type. All represented "borderline" cases that did not fall easily into one type or another. Following a discussion of these specific cases it was possible to reconcile the differences of opinion between the two researchers. The output from this discussion was the "final" typology as presented above.

Finally, the typology was tested by performing a discriminant analysis on the questionnaire data[5]. Eight variables were selected for the discriminant analysis, relating to the driving forces behind the initiative such as "a local product/market opportunity" or "desire to consolidate operations with those of the parent" (questions 11 to 18 inclusive: See appendix 1). The selection of these particular variables was a reflection of their centrality to the initiative definitions.

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[5] Discriminant analysis assumes multivariate normality and equivalent variance-covariance matrices. Four of the eight variables met the criterion of normal distribution (using the Kolmogorov-Smirnov test); but Boxes M test could not be performed because of the small number of cases in two sets. Given the failure of the data to satisfy all of the assumptions of the test, some care is needed in interpreting the results. However, given the lack of a suitable non-parametric counterpart, discriminant analysis was felt to be the most suitable test in the circumstances.

The results of the analysis are reported in table 5-9. Wilks Lambdas of .06, .23 and .54 respectively for the three canonical discriminant functions represent a very high level of separation between the four groups. In sum, 33 of the 39 cases were correctly classified by this procedure, or 85% of the total. This is an excellent result, and provides further confirmation of the validity of the typology.

Table 5-9
Discriminant analysis of four initiative types

Canonical Discriminant Function	*Eigen value*	*Canonical correlation*	*Wilks Lambda*	*Significance level*
1	2.8	.86	.06	.0000
2	1.3	.75	.23	.0000
3	.9	.68	.54	.003

SUMMARY

The objective of this chapter was to describe in detail the four initiative types that lie at the heart of this study by drawing on case study data. Table 5-10 summarizes the definitions that were proposed. Throughout this chapter the approach has been entirely inductive, in that no objective "evidence" has been provided to verify the findings. This is in deliberate and marked contrast to the next chapter, where a more deductive approach is used to examine some key characteristics of the four initiative types.

Table 5-10
Summary definitions of the four initiative types

Reconfiguration Initiative	Promotes the re-distribution of existing corporate assets or resources such that they are more efficiently deployed
Local Market Initiative	Seeks to develop a new product, market, or process through business opportunities that are first identified in the subsidiary's home market
Competitive Bid Initiative	Seeks to attract a global investment or internationally-focused value-adding activity which has already (in principle) received corporate support
Mandate Extension Initiative	Seeks to build on an existing mandate or proven capability to meet a perceived international product or market opportunity.

CHAPTER 6
INITIATIVE - LEVEL FINDINGS
CONCEPTUAL MODEL AND QUANTITATIVE ANALYSIS

The objective of this chapter is to approach the typology of initiatives developed in chapter 5 from a theoretical angle. The first part of the chapter puts forward a conceptual model, in terms of the scope of market opportunity and the contestability of the initiative, and advances a number of specific propositions. The second part of the chapter uses the results of the initiative-level questionnaire to test the validity of the model.

Two points should be stressed. First, the sequencing of this chapter after the typology chapter is a fair representation of the inductive process as it occurred, insofar as the questionnaire data analysis was undertaken well after the typology had been developed. Second, the objective of the questionnaire analysis is really only to enhance the validity of the conceptual model as it applies to the six companies in the study, because the same raw data was used to construct *and* test the model. Future research on a larger sample will be required to comprehensively test any of the proposed relationships.

CONCEPTUAL MODEL

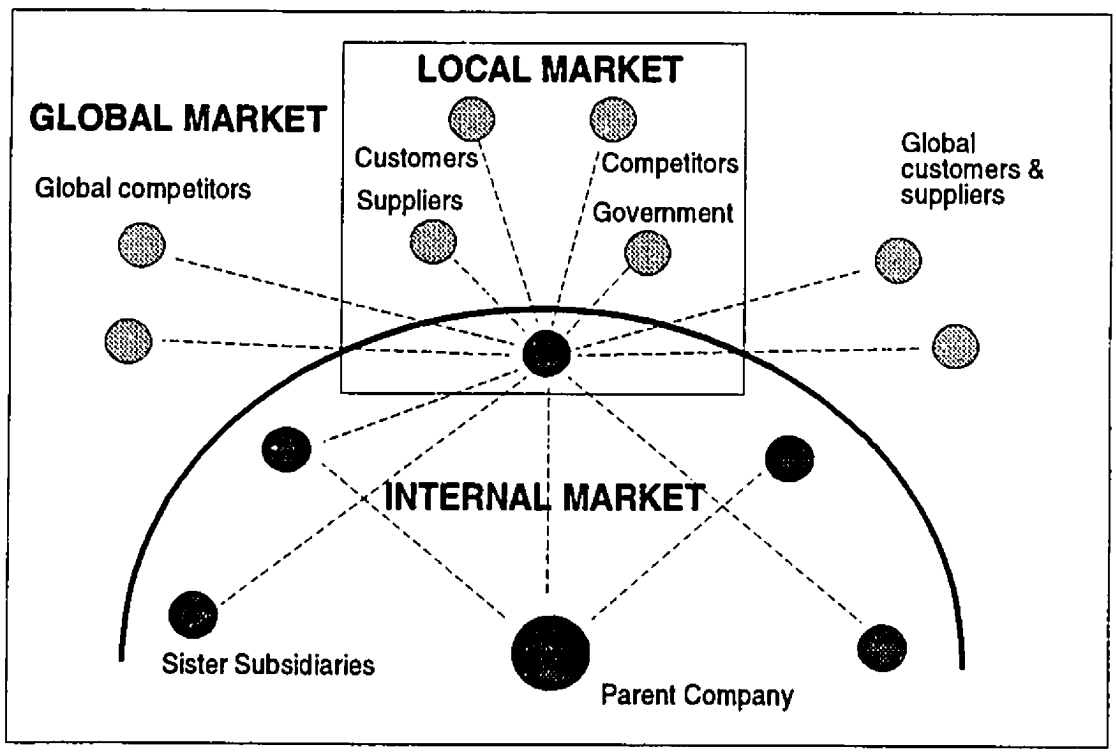
Market Opportunity

It is proposed that the national subsidiary has an entrepreneurial role that can be distinguished, analytically at least, from the managerial function of maintaining the ongoing business. This dichotomy was explored in chapter 2 through the work of Schumpeter (1934), Penrose (1957) and Kirzner (1973) in particular. The definition of

entrepreneurship used here is "alertness to opportunities" (Kirzner, 1973), which essentially means that the entrepreneur is monitoring the market and looking for "gaps" that he/she can capitalize on. These gaps can take the form of un-met product needs, un-served markets, or inefficient production by current players.

A second strand of theory that needs to be considered here is that the national subsidiary's position in the corporate network involves three distinct market interfaces: (1) it acts, on behalf of the corporation, as the sole interface with the "local" (Canadian) market; (2) in most cases it has a window on the "global" market for the particular product segments it serves; and (3) it is tied into the "internal" corporate market. This conceptualization is consistent with much of the recent work that models the MNC as a network (e.g. Forsgren & Johanson, 1992; Ghoshal and Bartlett, 1991). Figure 6-1 captures the essence of this conceptualization. The entrepreneurial role of the subsidiary can be applied to all three markets, as follows:

Figure 6-1
Local, global and internal markets of the national subsidiary



1. Alertness to opportunities in the local market. This essentially refers to the local market initiatives that were identified in this research. Managers identify product / market needs through their ongoing relationships with Canadian entities (typically customers, but also suppliers, competitors, and government bodies). Needs are pursued, and the resulting product offerings sold into the local market and to other markets as well. Note that all the cases of local market initiatives in this study led very quickly to international sales. In some cases this was because the Canadian subsidiary had a unique position vis-a-vis leading edge customers (e.g. Monsanto's EZ Ject in the British Columbia forestry industry); in other cases it was relatively fortuitous that the product idea originated in Canada (though it was a tribute to the entrepreneurial capability of the subsidiary in question), because the need was also present in other sophisticated markets. The distinguishing factor, nonetheless, was the alertness to *local* (i.e. Canadian) opportunities. This is in fact a critical activity, because the corporation has no other way of sensing opportunities of this type.

2. Alertness to opportunities in the global market. The national subsidiary's role in identifying "global" opportunities is much less clear-cut than it is for sensing local needs, but it is nonetheless very important. Globalization involves much more than just manufacturing products for export within the corporate system. To be an effective part of the global network, the national subsidiary must also take an active role in meeting international customer needs.

There are two quite distinct mechanisms at work here, corresponding to Mandate Extension and Competitive Bid initiatives respectively. The first involves the subsidiary owning a global mandate for a specific product line, market or technology, which it is then responsible for developing. Opportunities within this demarcated area of responsibility can be pursued by the subsidiary with little or no involvement from the parent company. The second scenario suggests a much more centralized system of resource allocation, whereby global opportunities are identified by the corporate "system" and then opened up for subsidiaries to bid on. Under this scenario, subsidiary managers are involved in identifying the market opportunity through their involvement in the

appropriate "global business team" or through their relationships with parent company managers. The opportunity to pursue the initiative, however, rests on their ability to persuade parent company management that their proposal is superior to those put together by sister subsidiaries.

3. Alertness to opportunities in the internal market. A common feature of most large multinational corporations is a high level of intra-company product flow, typically raw materials or semi-finished products that are shipped to other corporate entities for assembly or finishing. These inter-subsidiary flows constitute an "internal market" mediated by transfer pricing mechanisms. The internal market offers the clear benefit that the corporation retains control over all stages of the production process. However, it runs the risk of becoming less than optimally-efficient, because raw material suppliers (for example) know that the manufacturing operation is obliged to source from them, which causes their competitive edge to atrophy.

Viewed in this way, the internal market represents a third opportunity for the national subsidiary to apply its entrepreneurial talents. The suggestion is that subsidiary managers are aware of their cost structure and their internal capabilities, and are looking for opportunities to apply their expertise to ongoing corporate activities. If they come across an "inefficient" operation, they can then demonstrate to parent management how it could be more efficiently done, either by transferring the whole thing to the Canadian subsidiary or by reconfiguring a series of operations. Clearly this refers to the "Reconfiguration" initiatives identified during the research. It should be underlined that most of the reconfiguration initiatives identified in this research were one-time rationalizations brought on by free trade. Alertness to internal market opportunities includes these initiatives, but it is anticipated that in the future more will be along the lines of Honeywell's Fan and Limits Switch initiative, as described in chapter 5.

Contestability

The second key dimension of the synthesis is contestability, which can be defined as *the degree to which the Canadian subsidiary is required to compete actively with other entities for the business activity*. High contestability means that the Canadian subsidiary, even if it defined the business opportunity in the first place, does not offer any unique advantage that would ensure that it won approval for the initiative. Low contestability means that the Canadian subsidiary is uniquely positioned to take advantage of the business opportunity, in terms of the required capabilities or the local network contacts. In this case, the parent company has the choice of approving the initiative or of cancelling it altogether.

Reconfiguration and competitive bid initiatives both offer high contestability, though in subtly different ways. Reconfiguration initiatives typically occur when the subsidiary is challenging an existing arrangement, in essence saying "We can do that better than they can". The onus lies with the subsidiary to prove that it can deliver lower cost, increased customer service, or other benefits. Unless a strong case can be made, the incumbent will retain the value-adding activity in question. In a competitive bid situation, by contrast, the competing subsidiaries face a relatively objective set of selection criteria because there is no incumbent producer. Mandate extension and local market initiatives generally offer low contestability. In the former case the subsidiary holds the "mandate" which (by definition) gives it the right to develop its business as it deems appropriate. In the latter case the initiative is specific to the national market, so the business activity in question cannot be easily appropriated by the parent company or by another subsidiary.

Contestability is not quite as clear-cut as this initial distinction would suggest. The section above noted that mandate extension and competitive bid initiatives are end points on a continuum, and that hybrids exist. Such hybrids, as would be expected, offer a moderate level of contestability whereby there is a "favoured" subsidiary or division that can be challenged. Equally, local market initiatives can be contestable to a limited degree: unless the links to local customers or other entities are unique in some way, the

business activity in question can potentially be transferred to head office or another subsidiary. 3M's self-check product, for example, was developed in parallel by 3M Canada and 3M Australia, whereupon the manufacturing activity was placed in the U.S. Equally, Delta and PCNM both started as "unique" local market initiatives and ended up being phased out and taken over by the parent company.

Figure 6-2
A conceptual integration of initiative types

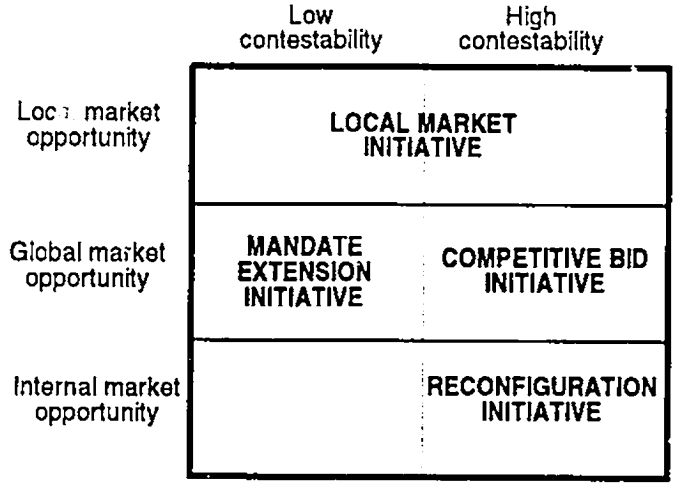


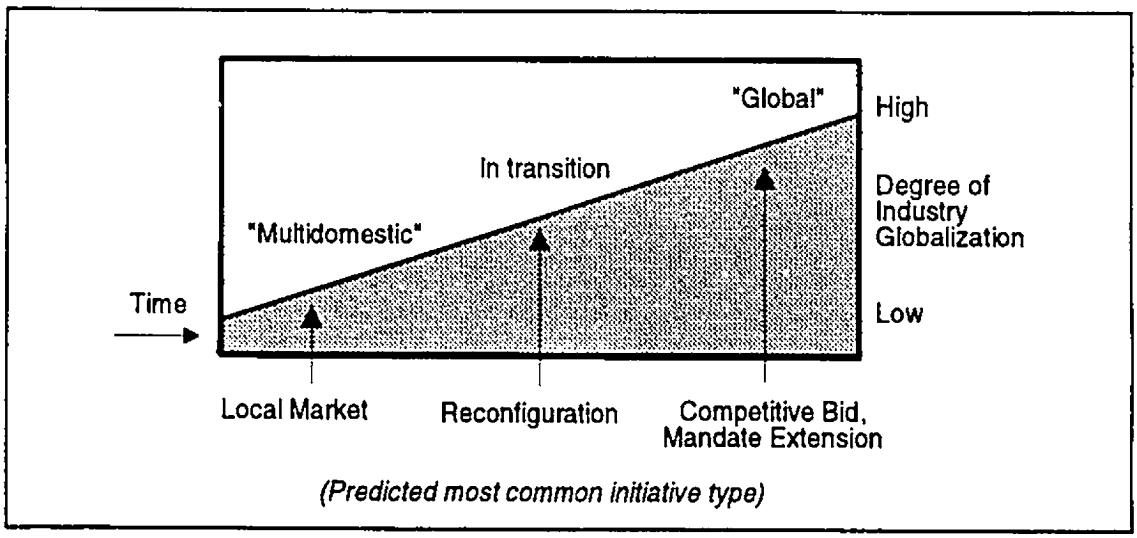
Figure 6-2 represents the juxtaposition of the concepts of market opportunity and contestability, with the four initiative types mapped onto the figure. Two observations should be made. First the concept of an internal market opportunity that offers low contestability is somewhat unlikely, because as a matter of definition the subsidiary in question is looking to win a business activity from an incumbent producer. The only case that could be pushed into that box is 3M's North American Plan, the objective of which was to redefine the relationship between 3M Canada and 3M U.S.A. *without* either side losing jobs. As stated earlier, though, this is a somewhat exceptional case. A second important observation is that local market initiatives are shown spanning the contestability spectrum. The reality, as suggested, is that the majority of local market initiatives will cluster in the "low" end of the contestability spectrum.

RESEARCH PROPOSITIONS

Market opportunities

It is widely accepted that many industries are undergoing a transition from "multidomestic" to "global" status as demand patterns converge and MNCs drive costs lower through transnational integration (Porter, 1986). At the subsidiary level, this shift means a greater level of interdependence with affiliates and with the corporate parent, and typically a much lower level of local responsiveness. In terms of the classification in use here, it represents an increasing number of global market opportunities and less local market opportunities. Furthermore, in the course of the transition many national subsidiaries go through a rationalization process that involves a reconfiguration of their sub-optimally efficient country-centred operations. In short, it is predicted that industry globalization is responsible for a clear sequence of market opportunities, from "local" to "internal" to "global". Figure 6-3 illustrates this notion.

Figure 6-3
Market opportunities and industry globalization



Given this sequence, it is apparent that later initiatives will be built on earlier ones. Thus, there will be a much higher level of international experience associated with global market opportunities than with local or internal market opportunities. This should be manifest in both the subsidiary's capabilities and the parent company's expectations.

> Proposition 1. Competitive bid and mandate extension initiatives will score significantly higher than reconfiguration and local market initiatives on the following variables: (a) prior international experience; (b) a track record of success at getting initiatives approved; and (c) level of openness to initiatives on the part of the parent company.

Contestability

The concept of contestability is broader than the basic dichotomy would suggest. Reconfiguration and competitive-bid initiatives are inherently inward-looking. One results in a re-distribution of existing activities; the other defines where an already-approved investment will be positioned. As such they are concerned primarily with exploiting the existing resources of the multinational as effectively as possible. By contrast, local-market and mandate-extension initiatives are outward-looking. They are focused on market opportunities, in the local market and in the global market respectively. They are thus "creative" activities that are concerned with building the resources of the multinational[1].

This argument has substantial implications for the key characteristics one would expect to be associated with initiatives on either side of the dichotomy. First, the level of contestability means that for high-contestability initiatives one would expect to see proven capabilities, while for low-contestability initiatives the capability set could be latent. The reasoning is that parent management, in a contested bid, will always take the risk-averse option and favour the proven subsidiary. Second, and using similar logic,

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[1] The suggestion here is not that "creative" activities are better than "exploitative" activities: rather that both are essential in the long term if the multinational is to be successful. Hedlund and Ridderstrale (1992) discussed the creation-exploitation dichotomy at great length.

high-contestability initiatives require a high level of personal contacts, selling effort, and "political" activity to give the subsidiary the edge over rivals, while low-contestability initiatives do not require such skills to anything like the same degree. Third, a high level of strategic autonomy is required in the low-contestability initiatives, so that they are free to react to opportunities swiftly, and without the involvement of head office. In high-contestability initiatives, strategic autonomy is not critical (though it may be desirable). These observations can be formalized as follows:

> Proposition 2. Reconfiguration and competitive bid initiatives will score significantly higher than local market and mandate extension initiatives on the following variables: (a) level of proven capabilities; (b) strength of personal relationships with parent company management; (c) extent of the selling effort; and (d) level of involvement from the subsidiary president. The reverse relationship is expected for (e) level of strategic autonomy.

Country Specificity

The uniqueness of the opportunity to the Canadian subsidiary is a function of both market opportunity type and contestability. Local market initiatives, which by definition are the exclusive preserve of the subsidiary in question, should have the highest level of country specificity. Competitive bid initiatives, which involve the solicitation of bids from multiple sites, should have the lowest level of country specificity. Mandate extension and reconfiguration initiatives fall somewhere between these two extremes. In summary:

> Proposition 3. The uniqueness of the opportunity to the subsidiary's Canadian location will be high for local market initiatives, low for competitive bid initiatives, and intermediate for mandate extension and reconfiguration initiatives.

Table 6-1 Summary of propositions

Variable	*RC*[2]	*LM*	*CB*	*ME*
Previous relevant international experience	Low	Low	High	High
Record of success getting projects approved	Low	Low	High	High
Openness of parent to initiatives	Low	Low	High	High
Level of proven capabilities	High	Low	High	Low
Strength of personal relationships with parent mgmt.	High	Low	High	Low
Extent of "selling" process	High	Low	High	Low
Level of subsidiary president's involvement	High	Low	High	Low
Level of strategic autonomy	Low	High	Low	High
Specificity of opportunity to Canada	Mod	High	Low	Mod

QUANTITATIVE DATA ANALYSIS

The objective of this section is threefold. First, the propositions developed above are analyzed using the questionnaire data, and the results interpreted. Second, additional analysis is undertaken on the questionnaire data to investigate "control" variables such as industry, company, and initiative size. Finally the key success factor data is analyzed and the results discussed.

Test of Differences in Key Variables by Initiative Type

To test propositions 1 to 3 the non-parametric Kruskal-Wallis test was used. This is equivalent to an analysis of variance test (ANOVA), but it does not rely on any assumptions about the distribution of the data. The null hypothesis is that the four initiative types have the same mean for each dependent variable; a significant finding

[2] This table and all subsequent ones use the following abbreviations for initiatives: RC = reconfiguration; LM = local market; CB = competitive bid; ME = mandate extension.

indicates that at least two types have significantly different means. Further analysis is necessary to discern which pairs of means are different.

The results of the Kruskal-Wallis test for the eight variables in propositions 1 to 3 are listed in table 6-2. Mean scores (on 5-point scales) are listed, along with the test statistic, significance level, and (where applicable) the pairs that were significantly different.

Table 6-2

Kruskal-Wallis test for initiative characteristics by type

Variable	Mean scores for four types				Statistical test		Signif. different pairs
	RC	LM	CB	ME	F stat	Signif	
Q3. Previous relevant international experience	3.7	3.2	3.6	4.1	3.1	.38	
Q5. Record of success getting projects approved	3.8	2.9	4.0	3.4	4.3	.23	
Q2. Openness of parent to initiatives	3.3	3.2	4.6	4.0	6.6	.09	RC, CB LM, CB
Q7. Level of proven capabilities	3.0	2.1	3.6	3.3	12.3	.01	LM with all others
Q4. Strength of personal relationships with parent management	3.9	3.1	4.2	3.0	7.4	.06	LM, CB
Q8. Extent of "selling" process	4.1	3.6	3.8	3.3	3.9	.27	
Q9. Level of subsidiary president's involvement	3.8	2.8	3.8	2.4	7.3	.06	RC, LM RC, ME
Q1. Level of strategic autonomy	2.6	3.0	2.8	4.4	11.2	.01	ME with all others
Q6. Specificity of opportunity to Canada	3.5	2.9	1.8	3.8	7.1	.07	LM, CB CB. ME

Proposition 1 received limited support. No significant differences in prior international responsibilities or initiative success existed between initiative types. However, openness to initiatives was significantly higher in competitive bid initiatives than reconfiguration and local market initiatives, consistent with expectations.

Proposition 2 was well-supported. The results showed that: (a) proven capabilities were substantially lower in local market initiatives than other types; (b) personal relationships were stronger in competitive bid than local market initiatives; (c) subsidiary president involvement was higher in reconfiguration than local market or mandate extension initiatives; and (d) mandate extension initiatives had higher strategic autonomy than all other types. Other proposed differences were directionally supported but not significant.

Proposition 3 was partially supported. Competitive bid initiatives, as predicted were the least country-specific of the four types by a significant margin. The other three types were all very similar in country-specificity.

In aggregate, these results can be interpreted as satisfactory. In light of the small sample size, the number of significant differences between initiative types was reassuringly high, and they lend support to the basic validity of the conceptual framework. Interestingly, the *contestability* dimension was strongly supported as a key discriminator between reconfiguration and competitive bid initiatives on one hand, and local market and mandate extension initiatives on the other. The market type dimension was less well supported by the data, despite its strong conceptual underpinnings. This casts some doubt over the logic behind proposition one, which predicted an ordering of initiative types according to industry globalization. Certainly it seems evident that global market initiatives increased over time with industry globalization, but the parallel decrease in local market initiatives was less apparent, and reconfiguration initiatives were so concentrated in one company (3M) that effective analysis is difficult. The contrasting levels of suuport for propositions 1 and 2 also hint strongly at the importance of the resource-based perspective for understanding subsidiary initiatives. The resource-based perspective and the initiative development process will both be discussed in chapter 9.

Control Variables

The questionnaire data was further analyzed to see if any other variables differed significantly across the initiative types, using a mixture of Kruskal-Wallis tests (for ordinal data) and Cross-tabulation analysis (for nominal data). The *strategic drivers* (e.g. local opportunity, desire to consolidate operations) all varied significantly across types, but as they were used to construct the typology in the first place that was to be expected. *Initiative outcome* (successful, failed, phased out) was found not to be significantly different across types. *Levels of capital investment, changes in exports, and number of jobs created*, likewise, revealed no significant differences. While substantive differences in means existed, the high variance within types prevented the differences from being statistically significant.

The only variable that provided significant insight into the four-fold typology was the industry type. This was a dichotomy, between the "capital intensive" companies (3M, Monsanto, Honeywell homes) and the "technology intensive" companies (Amazon, Hewlett Packard, Honeywell industrial). Analysis revealed an almost-perfect split, such that reconfiguration and competitive bid initiatives were most common in capital-intensive industries and local market and mandate extension initiatives were most common in technology-intensive industries. Table 6-3 illustrates this distribution. The non-parametric Chi-Square test indicated that this distribution was significantly different from that expected by chance at $p < .0001$.

This distribution deserves further consideration. Reconfiguration initiatives, first of all, would be expected in industries transitioning to global status and characterized by high economies of scale (justifying cross-border integration) and high asset-specificity (that make adjustments expensive). A similar argument can be made for competitive bid initiatives, because they represent global-scale highly-specific commitments on the part of the company. Consequently, one would expect the capital-intensive rather than technology-intensive companies to be involved in these types of initiatives.

Table 6-3

Cross-tabulation of industry type by initiative type

	Capital Intensive	Technology Intensive
Reconfiguration	12	0
Local Market	4	9
Competitive Bid	5	0
Mandate Extension	1	8

Mandate extension initiatives, by contrast, are primarily restricted to the technology-intensive companies because world product mandates are more commonly awarded in that environment. This is a function of the concentration of decision-making power around the technology (e.g. the software development function), whereas capital intensive industries typically exhibit a very dispersed value chain, which limits subsidiary companies to single-function mandates.

Finally, the evidence suggests that local market initiatives are more common in the technology-intensive companies but there is no clear reason at this stage why that should be the case. Both groups of industries are essentially global, which would predict that local market initiatives are rare in both cases. The fact that this is not the case is important, because it highlights the continued importance of a local presence, even in a global industry.

Key Success Factor Analysis

Analysis of open-ended responses. As described in the methodology chapter, the open-ended responses to "What are the (three) factors to which you attribute the success / failure of the initiative?" were classified by two researchers into eight broad categories listed below. The importance of each KSF for each case was then placed on a scale from

zero to one. Zero meant the factor was not mentioned; "1" meant that it (and it alone) was mentioned, "0.5" meant that it and one other were mentioned and so on[3]. This numerical data was then analyzed using the Kruskal-Wallis test, to see if any KSF varied significantly across initiative type.

Table 6-4

Differences in key success factors by initiative type

Key Success Factor	*RC*	*LM*	*CB*	*ME*	*Signif*
Personal drive and/or sponsorship by subsidiary managers	.13	.19	.12	.06	.52
Capabilities and/or resources of the subsidiary organization	.27	.21	.30	.33	.86
Openness of parent company to initiatives	.10	.12	.07	.13	.78
Reputation and/or credibility of the subsidiary organization	.11	.03	.25	.11	.05*
The strategic fit and/or timing of the initiative	.21	.21	.10	.22	.68
The initiative process; knowing how to put a good proposal together	.06	.08	.07	.02	.83
The vibrance of the local market	.08	.17	.00	.07	.06*
The business environment as a whole	.04	.00	.00	.06	.61

The results are displayed in table 6-4. While the relative importance of the KSFs for each initiative were consistent with the qualitative analysis discussed earlier, there

[3] The analysis was also attempted using a binary system whereby 1 = mentioned by at least one respondent, 0 = not mentioned. There were no significant differences in findings, so the original analysis was retained.

were only two statistically significant findings. First, credibility and/or reputation with the parent company was significantly less critical in local market initiatives than competitive bid initiatives. Second, the importance or the vibrance of the Canadian marketplace was significantly higher in local market initiatives than other types. Both these results are intuitively obvious. The more interesting finding in this case is the lack of significant differences between types. A likely reason is that the KSF concept has several limitations (e.g. Ghemawat, 1991), not least of which is its subjectivity. A consensus on what the KSFs were for a given initiative would be very hard to achieve, even between the key players, because so many different factors impinge on the process. The reliability and validity of any KSF measure is therefore liable to be mixed, which potentially compromises the integrity of the data. It may be, in this case, that a subjective assessment by the researcher is the best approach.

Assessment of successful vs. failed initiatives. An alternative approach to understanding the KSFs in the initiative process is to search for significant differences between the characteristics of successful and failed initiatives. This was done in aggregate, because the small number of failed initiatives made analysis by type meaningless. As before the Kruskal-Wallis test was used. The statistically significant results are listed in table 6-5.

These results can be quickly summarized. Failed initiatives were characterized by low openness on the part of the parent company and no prior success with initiatives. Phased out or lost initiatives were associated with a lack of proven capabilities and a lack of country specificity. These results are intuitively appealing. The suggestion is that the biggest obstacle to approval is the scepticism of parent management. If they are open-minded, and if the subsidiary has a track-record of successful initiatives, then approval is significantly more likely. Once approved, however, the endurance of the associated mandate is a function of the subsidiary's capability base. If the capabilities were not proven at the time of the initiative, or if they are not unique to the Canadian subsidiary, then the mandate is prone to subsequent loss. This interpretation should, however, be

treated with caution given the small numbers of failed and phased-out initiatives in the sample (5 and 6 respectively).

Table 6-5
Significant differences between successful and failed initiatives

	Successful	*Failed*	*Phased out or lost*	*Signif. diff.*
Parent openness to initiatives	4.0	2.2	3.0	.01
Track record of success at getting projects approved	3.8	2.2	2.8	.01
Opportunity specific to Canada	3.4	3.4	2.0	.08
Existence of proven capabilities	3.1	3.0	1.7	.01

Note: figures are mean data for each type on 5-point likert scales, where 5 = high, 1 = low.

SUMMARY

It was proposed that the four initiative types could be best understood in terms of: (a) the type of market in which the business opportunity arose (local, global, internal); and (b) the contestability of the initiative. Quantitative analysis of the questionnaire data suggested that significant differences between types were more evident along the contestability dimension. Additional data analysis revealed an important "industry effect" whereby reconfiguration and competitive bid initiatives were found almost exclusively in capital-intensive industries. Finally, analysis of initiative success suggested that the openness of the parent company and the track record of the subsidiary were the factors that most effectively distinguished successful from failed initiatives.

CHAPTER 7
THE INITIATIVE PROCESS

The objective of this chapter is to address the second research question "What is the initiative process?" The chapter is in three parts. First, the generic initiative process is described, using Burgelman's (1983a) model as a theoretical anchor. Second, the process is considered at the level of the four initiative types, because each was found to exhibit a subtly different process. Finally, the extensions to, and implications of, the process model are discussed. This latter section deals specifically with three issues: (a) variants on the basic initiative process; (b) antecedents to the initiative process; and (c) the uniqueness of the subsidiary context.

The methodology for the process analysis was described in chapter 4. To reiterate briefly, the transcripts and notes from each initiative were analyzed using a standard form (see Appendix 1) and then coded independently by the lead researcher and the research assistant. The independent analyses were reconciled on a case-by-case basis. A cross-case comparison was then done to build up an understanding of the generic process, and the differences between the four initiative types.

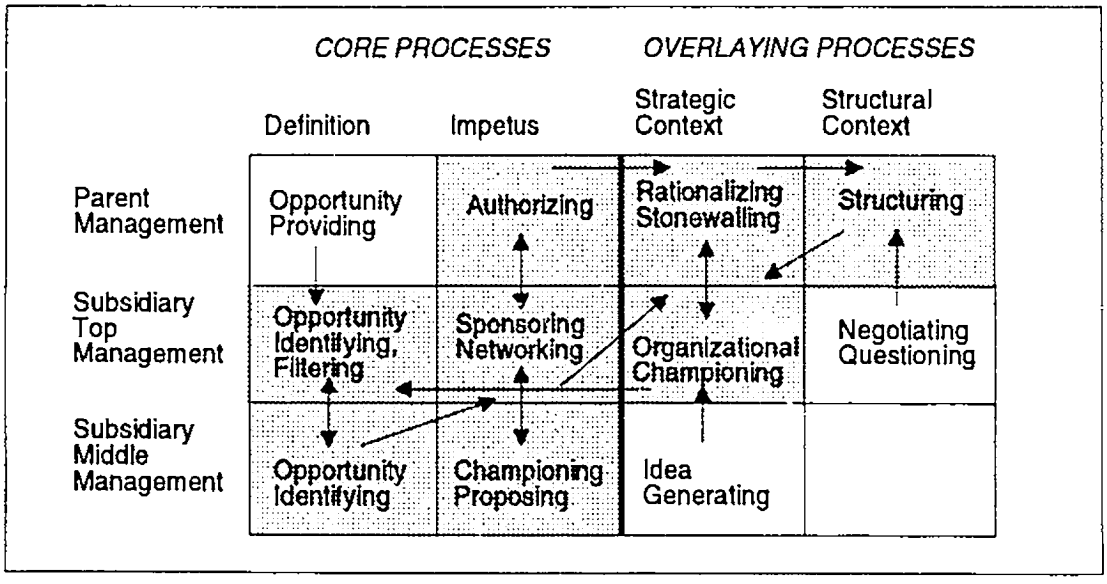
THE GENERIC INITIATIVE PROCESS

Burgelman's (1983a) process model of corporate venturing is both comprehensive and theoretically rigorous, and forms the basis for this work. His conceptualization consisted of two core processes "definition" and "impetus", essentially the active drivers of the venture, and two overlaying processes "structural context" and "strategic context", which were the facilitators. The overlaying processes both influenced, and were influenced by, the core processes. The greatest strength of this model --but also the characteristic that makes it relatively hard to comprehend-- is that the overlaying and core

processes interact at all levels. As such, it approximates the reality of a large and complex corporation[1].

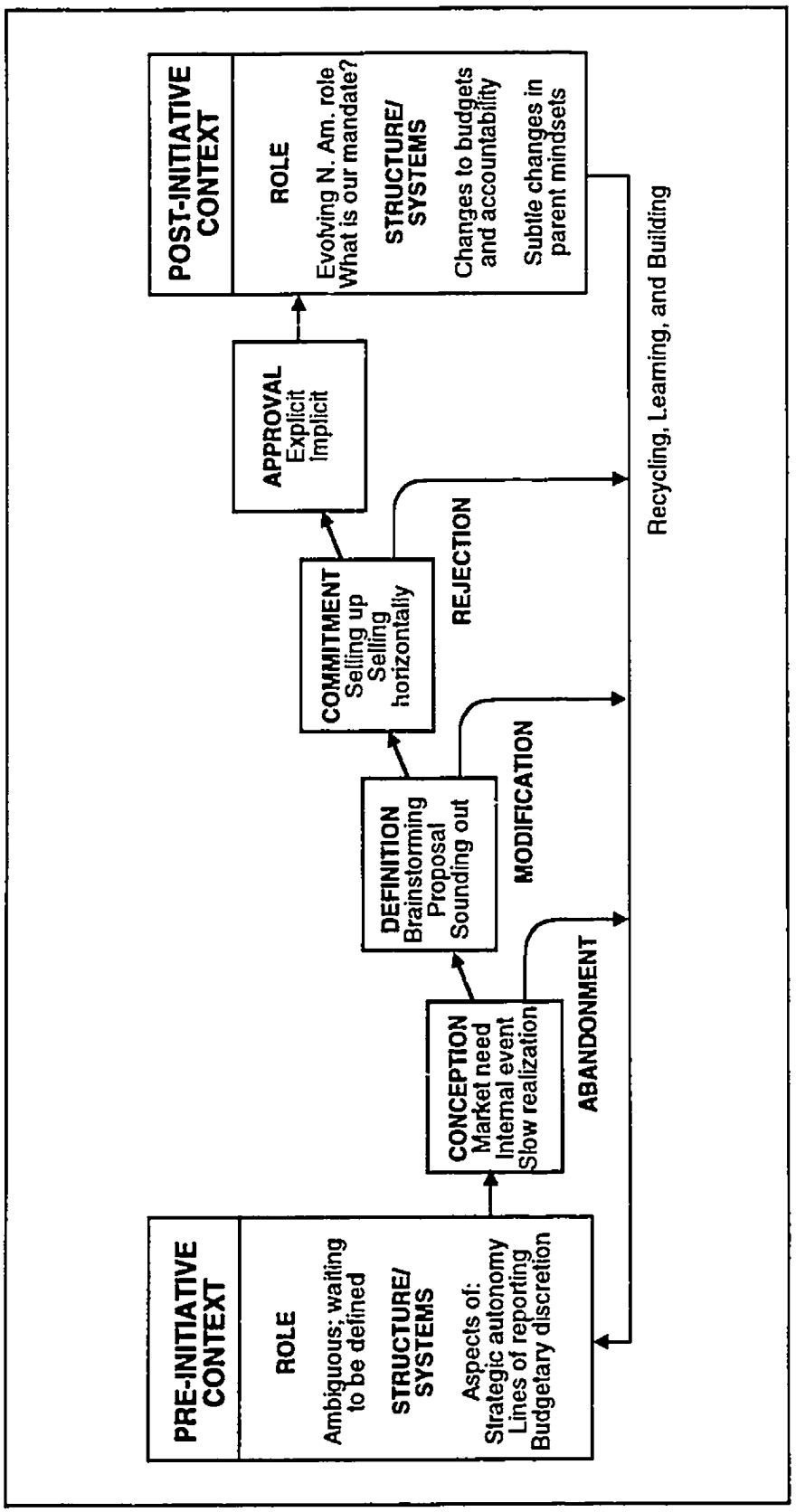
The adapted version of Burgelman's process model is shown in figures 7-1 and 7-2. Figure 7-1 is close to the original, and identifies the key initiative activities divided by sub-process and management level in the MNC. The primary sequence of activities is also shown. Figure 7-2 is new to this stream of research. It is essentially an "exploded" version of Burgelman's model that picks out the generic activities and plots them in sequence. This figure also recognizes the roles of strategic and structural context as facilitators of the process, and the trajectories of initiative failure. The remainder of this section will elaborate on the components of Figure 7-2.

Figure 7-1
Core and overlaying activities in an initiative process model



[1] Many other models of internal corporate venturing have been proposed, including Covin and Slevin (1991), Ellis and Taylor (1987), Guth and Ginsberg (1990), Hornsby, Naffziger, Kuratko, and Montagno (1993), Kanter (1986), Schollhammer (1971), and Zahra (1991; 1993). The strength of these models --to generalize-- is their recognition of the environmental, organizational and individual factors that are associated with corporate venturing. Their corresponding weakness is the lack of an integrated process perspective. Some, including Hornsby et al (1993) and Kanter (1986) did address process issues, but not as effectively as Burgelman.

Figure 7-2
Sequence of key activities in an initiative process model



Pre-Initiative Context

The structural and strategic contexts of the subsidiary together represent an environment that either encourages or hinders initiatives. The strategic context can be interpreted as the role of the subsidiary, as understood by parent and subsidiary management. The structural context is the more tangible facets of the parent-subsidiary relationship. Key elements of structural context that were identified in this study were formal structural arrangements such as the level of strategic autonomy in the subsidiary and lines of accountability, informal relationships with parent company and affiliate managers, and aspects of the corporate culture. Note that these elements were taken primarily from the findings of previous studies (e.g. Bower, 1970; Burgelman, 1983a, Prahalad and Doz, 1981) rather than from theory.

The formal structure and operating systems appeared to be the most critical dimension of corporate context. HP Canada and Monsanto Canada were both faced with strong global business units based in the U.S., which were not accustomed to investing in value-adding activities in Canada. As explained by a Monsanto manager, the corporate urge to keep important activities close to the centre was very frustrating:

> Even though you like to think your a global company, if you've got 10,000 jobs in headquarters with all this power, and an "I already know the answer" mentality, then it's like pushing against a big door. There's a tremendous amount of conventional thinking, of traditional inertia that you run up against. I think that's the biggest thing that impressed me, or depressed me, whichever way you want it.

In contrast, both Honeywell companies and 3M Canada had corporate structures that were much more amenable to subsidiary initiative. In all three cases there was a balanced matrix structure, with a strong Canadian president to counteract the power of the global business units (Prahalad, 1975). These individuals had either the authority to sanction the initiative in question (Honeywell Industrial), or the clout to effectively champion subsidiary initiatives at head office (Honeywell Homes and 3M). In the case of Honeywell Homes and to a lesser extent 3M, the informal network of the Canadian

president was sufficient to give impetus (Bower, 1970) to the initiatives.

> We wanted to have a rapport between the management groups of the two divisions north and south of the border. So a couple of key people facilitated that. At that time the [Canadian president] knew very well the U.S. marketing director, and they would bring their staff together. It was almost a gentleman's club. It started there and that's where we tabled first what we were really trying to do here...

Informal corporate coordination systems were evident in three cases, and they consistently promoted subsidiary initiative. At Honeywell Industrial and Monsanto "Global business teams" had been established in the early-eighties and late-eighties respectively to coordinate strategy across world regions, and they proved to be a valuable forum for Canadian managers to identify opportunities and build support. In a slightly different vein, Homeywell Homes and Monsanto put ad-hoc international business teams together to make important investment decisions, rather than retaining tight central control over them. This again appeared to enhance the subsidiary's chances of success.

The strategic context was more ambiguous. In most cases North American regional consolidation was occurring so rapidly that a consensus view of the Canadian subsidiary's role had not emerged. This made the pursuit of "autonomous" behaviour (one facet of which is initiative) a rewarding, if somewhat risky, strategy because the opportunity existed for subsidiary top management to shape the strategic context themselves. The first quote below describes how one newly-arrived president was able to define the subsidiary's strategic context; the second illustrates a more radical vision that clearly challenged the corporate position on key markets (and with successful results, it should be noted):

> "Essentially when we got a new president of the company, he set up what was then called a North American task force. He put together a task force of his key officers and their task was to try and craft a future vision and operating plan for 3M Canada, in the light of free trade. That was the mandate given to that group."

> "..And I thought: if I analyze what it is that will help Canadian companies become successful as world leaders, it was quite plain to me that the pulp and paper industry was one of them and oil & gas was another. We had already penetrated the pulp and paper industry quite successfully but in the case of oil, corporate had decided that was not a target market and therefore there would be no product development of any kind, and in fact they wanted to shut down all activities in that industry. Now we had some very substantial clients in Canada and I decided I was not prepared to accept the corporate mandate in this respect, and I went down to corporate and told them so..."

It should be added that the companies in this research were unusual in the degree to which their contexts facilitated the pursuit of initiatives. Many of the companies interviewed during the exploratory phase of research had structural contexts that offered few degrees of freedom to subsidiary management, for example through the use of "direct connect" reporting relationships with parent company managers. As discussed in chapter 3, the study of subsidiaries in which initiative is absent represents an important future line of inquiry, but the evidence collected from the current sample suggested that structural context is a major determinant of the presence/absence of initiative.

Conception

Conception is the *recognition, by a subsidiary manager, that a business opportunity exists that could potentially be pursued by the subsidiary.* Often the lead respondent for a given initiative was able to identify in fairly clear terms the event that triggered the identification of the opportunity. In one case, a subsidiary vice-president was on a routine business visit to head office during which he heard --informally-- that a new investment was being planned for a major product line. The Canadian subsidiary was one of the active producers of that product, so he returned to Canada with a view to look into the investment being placed in Canada. In other cases the lead respondent was able to trace the business initiative back to a memo that crossed his desk, or an E-mail message from a U.S. plant. Note that in all these cases the *original* business opportunity was identified some time previously in the parent company, but it was the recognition of the

opportunity by a subsidiary manager that triggered the initiative.

A slightly different scenario was the more gradual realization of the need for action, brought on by changes in the business environment. In such cases the subsidiary's stance was more proactive, as the following quote illustrates:

> "I think it was the fact that we saw the free trade agreement coming. The business was starting not to make as much money, and we were looking for ways to distinguish ourselves as a plant, because we are quite small versus the US plants. And I think this is where the idea started to grow that we wanted to be the specialty manufacturer for this division, Monsanto plastics, because we had smaller equipment, better flexibility, we had some strengths, so we said we'd better capitalize on what we do better than others right now."

The third type of triggering event was the recognition of a market need, typically through conversation with a customer. The Calgary product development centre case, described in chapter 5, was typical in this regard. The opportunity was identified by the district sales manager through his interactions with oil and gas companies, and relayed to the Canadian president.

There is a methodological dilemma associated with this stage of the initiative process, namely that failed initiative conception can not be assessed. Absence of initiatives could mean two things: (1) there were no opportunities that could be exploited commensurate with the subsidiary's capabilities; or (2) the context limited the subsidiary's degrees of freedom, making exploitation of opportunities infeasible. From the evidence collected during the exploratory study both interpretations are valid. The preference here is to suggest that both are indeed important, but given a greater variance in parent-subsidiary structural contexts than in local business opportunities, it seems likely that the degrees of freedom in the subsidiary is a more critical factor.

Definition

Definition refers to *the assessment by subsidiary managers of the feasibility of the initiative*. This had three elements: (a) brainstorming and discussion within the subsidiary

of the pros and cons of the initiative, (b) preparation of a proposal that identified the financial and strategic justification for the initiative; and (c) sounding out of influential managers in the parent company with whom subsidiary managers were well connected. Of these elements, the sounding out process occurred in every case, and the brainstorming and proposal preparation occurred in approximately 75% of cases. This stage saw the emergence of the champion and the sponsor. The champion was typically the individual who first conceived the initiative; the sponsor was a top subsidiary manager (often the CEO) who was fully in support. The essence of the definition stage was that these two individuals had to convince everyone at the subsidiary level that there was a viable project that should be taken further. The following two quotes illustrate the definition stage.

> "So we started to talk about this in conceptual terms, like 'what if?' Could we run this business from Canada? Wouldn't it make sense to do so? So we started to lay out the theoreticals. The one factor that allowed the decision to be made was that the incumbent business manager was re-assigned, so the position became open. And I, being a key member on the business team that runs this business, representing Canadian sales primarily, jumped in and said 'here's our chance. If we're going to make a play for this business, the opening is there'. So we moved it to the Canadian president saying 'why don't you make some inquiries at your very senior level?'. I could not lobby beyond a certain point. So we had basically done some pre-selling, the company was ready, the opening presented itself, and we decided to make a play for it, and ultimately were able to pull it to Canada as a result."

> "I put together a proposal of what we could do, and management here thought it was very attractive, and at that point they decided to go and re-look at the proposal, assuming we had all the business. In other words, if we built the switch, this is what we could do for you. And we put together a full proposal, in a book, all the cost sheets, the quality checks, how we were going to maintain our quality levels, what expenditure we would make to meet those, and we even had a mocked up line here, how we proposed on building the switch."

With regard to failure, only one initiative in the sample did not make it through the definition stage, and it was abandoned. A combination of poor strategic fit, poor timing, and lack of communication with the parent company were thought to be

responsible for the lack of success, as the quote below suggests:

> "The problem was I had assumed that the guys in the States had already bought in, that this was a brilliant idea, and that we just needed to look at it. The trouble was that no-one had told anybody in the States we were doing this, so I went down to do a presentation and his first reaction was "Do what?" Who the hell told you to do this? and the project went down from there. And I thought: you don't know anything about this project? We've spent umpteen thousand dollars doing this, never mind my time and everyone else's time. It just blew me away!"

As with the conception stage, identifying and recording failure at such an early stage in the life of an initiative is hard. Abandonment suggests a failure to think through the feasibility of the project, and this reflects poorly on the manager in question. Thus, such initiatives were not represented in the sample in quite the proportion that they probably existed. In sum, the definition stage is a best understood as a "sounding-out" process, in which some early effort is put in to decide if the initiative is worth pursuing any further.

Commitment

Commitment consists of *an implicit recognition at all levels that the initiative is a viable business concern.* Essentially it is a selling process, whereby the conviction of the sponsor and champion is transferred to individuals in the parent company. The target of the selling process was the key decision-makers who had the authority to approve or reject the proposal. These individuals were parent company managers in 29 of 39 cases, and subsidiary top management in the remainder. Here, the process was akin to Bower's (1970) concept of impetus, in that the initiative built upward momentum through the efforts of more and more senior managers. The following quote exemplifies the building of commitment among parent managers:

> "To me the personal interface [with the U.S. Director] was key. I remember one incident... We had an operator in the polymerization

> department who, during the [director's] visit gave his pen to the director, and said "sign [here] .... because we need that investment. Just take my pen and sign for the project, because we can make it work". And the Director was pretty well impressed by the attitude and commitment shown. A few weeks later he said "I'm glad to approve the project, and by the way I used your pen", he said to that person..."I did follow up on your request, and I used your pen to sign the contract".

A minority of cases required a much more involved and broadly-based selling process, because the initiative in question needed buy-in from more than just the key decision-maker to succeed. The following quote is indicative of the commitment process in these cases:

> "Well you have to get plans of this sort accepted. So the communication and selling part took a full 6 months. The Canadian president had to get approval from the operations committee, the people who report directly to the chairman. A relatively small group; sector heads, VP finance, there's about 8 or 9. Our president presented it to them, and they accepted it. Then he had to go to sector meetings, and at the sector meetings you had the division VPs of all the divisions in the sector. The group VPs are there, and also the sector VP. So he was able to get two levels down from the Chairman in one fell swoop: he had three sector meetings. That's where he ran into some pockets of opposition. Two of the sector heads strongly endorsed the plan. One gave very lukewarm endorsement, and had two of his VPs questioning whether the plan made sense for their businesses..."

This stage of the initiative process was in most cases the longest. Negotiations with parent company managers often went back-and-forth for months, not because there were substantive problems with the proposal but because there was an element of change inherent in the initiative that parent management needed time to adjust to.

> "It was so slow. We had a project ready, but nobody was making a decision. You see the management were comfortable [with the status quo], this was a change for them. It had benefits for the company, but our plant was new to them, "What? We're going to make material in Canada? For export to the US?" They were not ready mentally. The business manager and the manufacturing manager responsible for that business, were saying "That's fine but this is like a big change for us. You know,

> you have to have U.S. labels...." More excuses were coming than answers. And we filled every excuse with; "Well, this is what we'll do," or "this is what can be done".

In two cases the initiative was sound in principle but was subject to a major delay because the timing was poor. In both cases the initiative was eventually approved, but only after modifications, such as changing the proposed location of a production facility or targeting a different business unit. The following quote is indicative of the level of patience that was sometimes necessary.

> "The original plant manager spent much of his time trying to get a product mandate, trying to get volume for the plant, trying to tap into the U.S. market. And, he tried various different avenues but he was really not very successful. And the reason was that everyone had their own manufacturing capacity in the U.S., and the cost structure to them was favourable to keep it that way. So, it wasn't any reflection on his ability that he was unsuccessful. We really didn't get an opportunity until a division without a vested interest in any particular plant it owned required more capacity, and had to choose which plant to go to. They chose to [come to us] because we were already making some of their product, and we had a reputation for cost, quality and service."

Approval

Approval is the *explicit or implicit endorsement of an initiative by senior parent company management.* Reconfiguration and competitive bid initiatives were characterized by an explicit endorsement process, involving an operating committee or similar agreeing that the proposal should receive their support. In such cases the final approval was typically a formality, in that support had already been built:

> "I think [the approval] was preceded by a lot of discussion that was in some formal forums, business meetings and so on, as well as informal conversation. And at some point in time it was subsequently discussed at a business board meeting and 'boom' all you guys, you go do it...There is a nodding of heads, and what is conceptual becomes understood by the organization to be real and then people look to a specific business leader."

Two of the 3M cases came down much more clearly to a final meeting, at which presentations were made by opposing parties and the decision-maker approved one or the other. The extent to which he had already made up his mind is, of course, open to debate but this represents one extreme on the approval spectrum.

At the other extreme is the implicit approval process that was typical in local market and mandate extension initiatives. Here the subsidiary president or general manager had complete authority to make the investment or pursue the market in question, but with a clear understanding that he was being held accountable for those actions. The procedure by which parent management became aware of these initiatives varied enormously, but it was typically informal. Approval, where necessary, was of the rubber-stamp type.

Failure to achieve approval resulted in rejection. This eventuality was exclusive to competitive bid initiatives where two or more entities were fighting for the same investment. Reconfiguration initiatives, as a general rule, could not have gone this far unless approval was expected, and local market and mandate extension initiatives essentially bypassed this stage in the process.

Post-Initiative Context

Consistent with Burgelman (1983a), initiatives often represented a challenge to the existing structural and strategic context of the Canadian subsidiary. Often the subsidiary's role needed to be re-assessed in the light of the new product line or business, which in turn had the potential to lead to changes to the structural context of the subsidiary. Together, these changes reflected a new shared understanding --between subsidiary and parent managers-- of the corporate strategy.

The first few reconfiguration initiatives in 3M were typical in this regard. Plant managers in the Canadian subsidiary had recognized the need to manufacture on a regional or global scale, and pursued opportunities in U.S. businesses commensurate with their capabilities. Once the first few successes had been achieved, subsidiary top management were able to craft a vision of their future, and eventually to convey that to

the business directors in the U.S. This led to the subsequent pursuit --and attainment-- of more significant manufacturing mandates, which respondents felt was accompanied by a corresponding change in status in the minds of parent managers. In a somewhat different fashion, Honeywell's NAPR and 3M's North American Plan both stimulated a high-level re-assessment of both the strategic and structural contexts of the respective company. In both cases the role of the subsidiary was re-thought, and substantial changes in reporting relationships and responsibilities were enacted. Note that the 3M manufacturing operations' context change was achieved incrementally through the actions of plant managers (i.e. from the bottom up), whereas the latter two were driven relatively quickly by the actions of subsidiary top management.

Where full-scope mandates were involved, some very major changes in context were observed. HP's Calgary business was set up as a non-aligned unit, contrary to the company's standard organizational model. Panacom, likewise, survived as an independent entity for several years. In Honeywell industrial the emergence of three major product mandates in Canada was central to the development of the "global product house" concept, a major structural change that will be described in the following chapter. Finally, the evolution of a full-scope mandate was always accompanied by periods of self-analysis along the lines of "What exactly is our mandate?" or "What business are we / should we be in?". Such questions are symptomatic of the rationalization process that typically results in a realignment of the strategic and/or structural context of the subsidiary. As noted above, this represents the end of one initiative but also the start of the next.

PROCESS ANALYSIS BY INITIATIVE TYPE

This section offers an analysis of the initiative process as it varied by type. While the framework above provides an overview of the process, there was considerable variance in the relative emphasis of each stage, and the influence of the strategic and structural contexts. That strong commonalities in process existed within the initiative

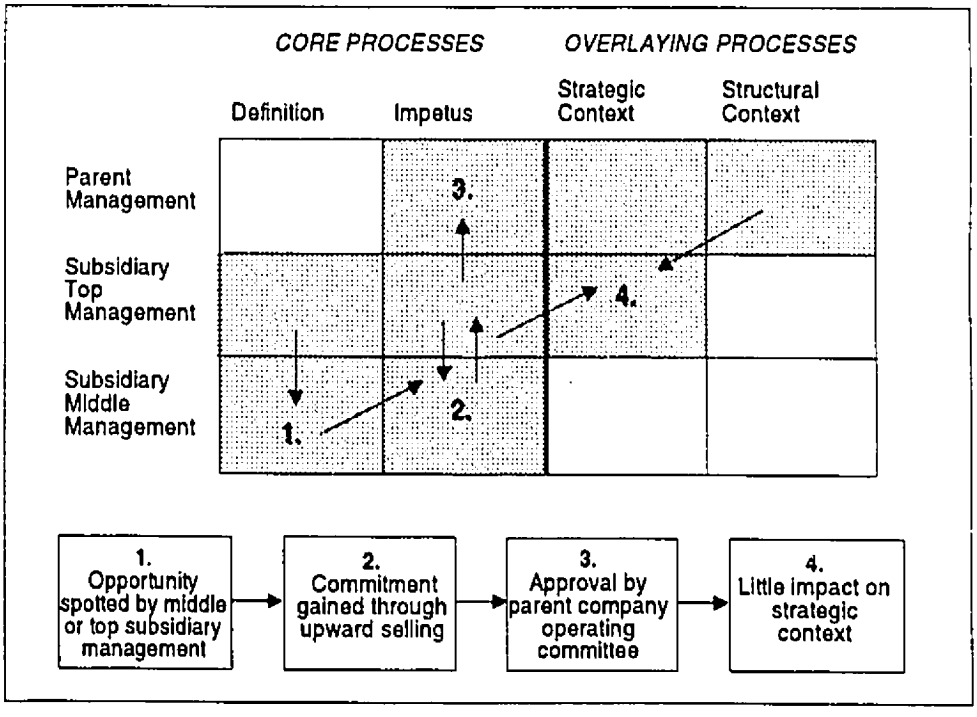
types identified in the chapter 5, lends further validity to the typology. It was, however, necessary to break reconfiguration and local market initiatives down into two sub-types.

Reconfiguration Initiative Process

The process analysis showed that two sub-types of reconfiguration initiatives could be identified, specifically (a) those conceived exclusively by subsidiary managers, and (b) those conceived with parent involvement. This proved to be critical both in terms of impact on context and type of selling required.

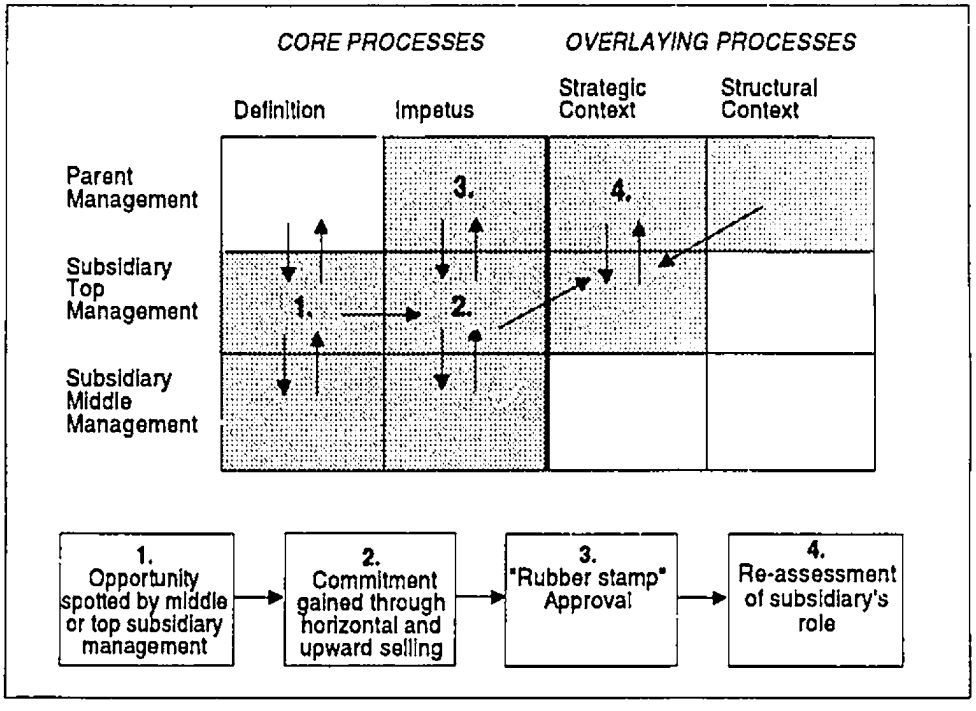
Reconfiguration initiatives conceived exclusively by subsidiary management. These were conceived at a variety of levels within the subsidiary, often by plant or division managers. Most of the 3M manufacturing initiatives, the Honeywell homes fan & limits initiative, and Monsanto's Triax initiative were all of this type. The context provided

Figure 7-3
Reconfiguration Initiative, Conceived Exclusively by Subsidiary



sufficient operational discretion to pursue initiatives; to some extent initiatives were also driven by the vision or expectations of the subsidiary president. The process closely followed the generic model discussed above, with conception and definition occurring within the subsidiary, commitment building through the upward selling efforts of the initiative champion, and approval being granted by an operating committee in the parent company. The whole process was typically drawn-out, with some iterations between management levels at the early stages of definition and commitment. These initiatives mostly fell within the accepted role of the subsidiary, so were consistent with the strategic and structural context. Figure 7-3 illustrates this process in graphical terms.

Figure 7-4
Reconfiguration Initiative with Parent Involvement



Reconfiguration initiatives with parent involvement (Figure 7-4). This type consisted of the 3M North American Plan and Honeywell homes' North American Product Rationalization. These began at the interface between parent and subsidiary management. While driven by the subsidiary president or general manager, there was -

-at the outset-- implicit buy-in to the initiative from the parent company, in terms of what was being proposed, where the subsidiary was heading etc. Essentially the strategic context of the subsidiary was being questioned at the conception stage, which obviously cleared the way for a successful context re-definition on completion of the initiative.

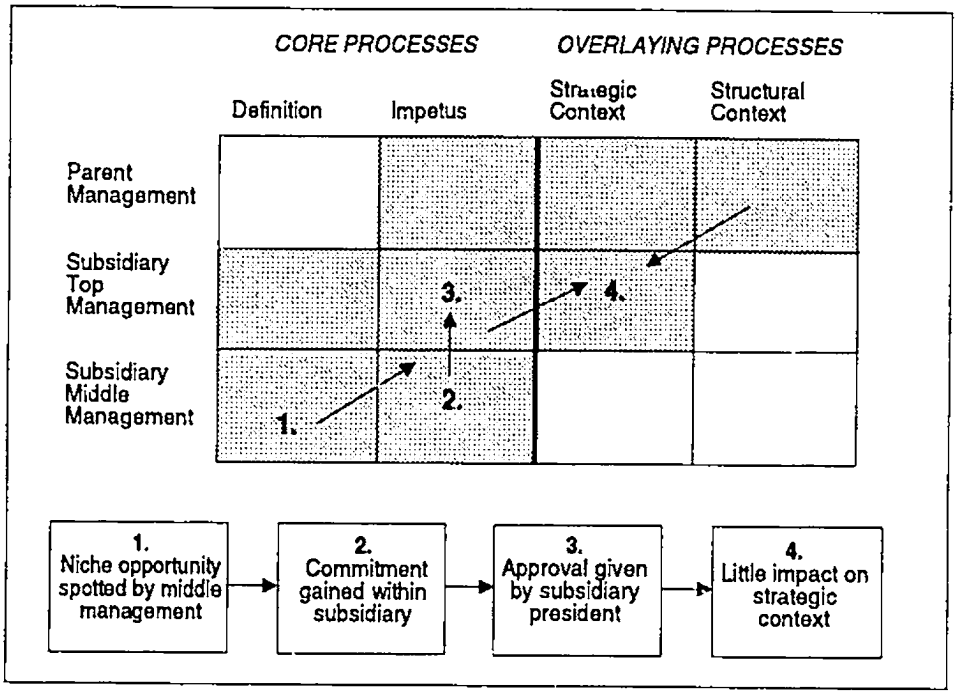
The conception and definition stages, then, were iterative and they involved all three levels i.e. middle management, subsidiary top management, and parent management. The commitment stage, rather than being a bottom-up selling process was more of a middle-out process (Bartlett and Ghoshal, 1993). The three cases in question all required buy-in from multiple parties within parent and subsidiary, rather than the approval for a capital expenditure, for example, which one person can authorize. 3M Canada's president, for example, had to champion the North American plan in large forums of U.S. senior managers. Finally, the approval stage was of the rubber-stamp variety, in that buy-in had been achieved along the way. Subsequently these initiatives led to a re-interpretation of the strategic context, i.e. in terms of the relationship of the Canadian subsidiary with the parent company. These were accompanied, in the 3M case, with substantive changes to reporting relationships and measurement mechanisms.

Local Market Initiatives

In similar fashion to the above, two sub-types of local market initiatives were identified in the course of the process analysis, namely: (a) autonomous initiatives on the part of subsidiary middle managers; and (b) initiatives developed within the integrated corporate system.

Local initiatives conceived autonomously by subsidiary management (Figure 7-5). These were typically small, conceived at the middle-management level, and involving very little investment (at least at the outset). Good examples were Monsanto's EZ Ject, 3M's Self Check, and Honeywell Industrial's PCNM. While the context provided sufficient discretion for the champion in question to act, these initiatives were not part of any master-plan. They were opportunistic, with limited downside risk but the prospects

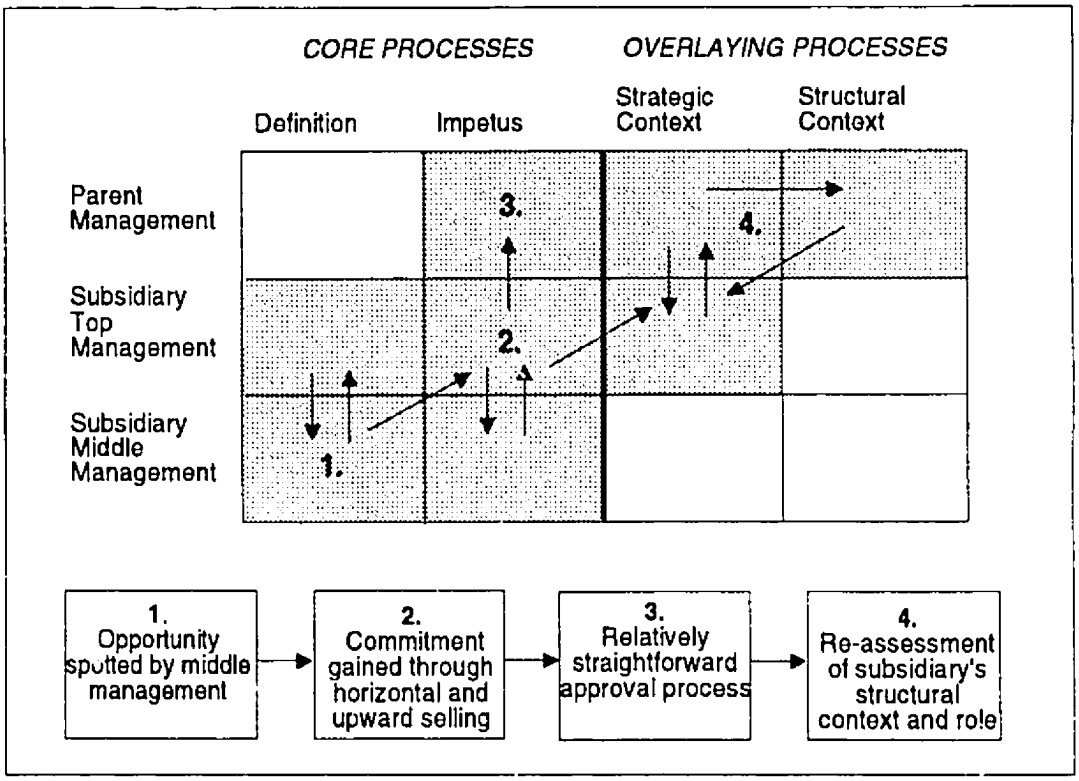
Figure 7-5
Local Market Initiative conceived autonomously by subsidiary



of a solid niche-type business. These initiatives followed the standard conception-definition-commitment trajectory, but approval was within the authority of the subsidiary president so parent-company buy-in was unnecessary. Furthermore, the niche-nature of these initiatives meant that they were consistent with the strategic and structural context of the subsidiary, and consequently did not lead to any contextual changes.

Local initiatives developed within an integrated system (Figure 7-6). These initiatives were typically larger, involved greater capital investment, and had strong strategic linkages with the MNC's existing portfolio of businesses. As such, a greater level of contextual readiness was required, in terms of subsidiary top management and parent company recognition, so that the subsidiary could pursue the business opportunity in question. Examples of this process were found in HP's original Panacom initiative, Amazon's ELD initiative, and the Honeywell industrial OM&S system. While conception typically occurred at the middle-management level, the definition and

Figure 7-6
Local Market Initiatives Developed Within an Integrated System



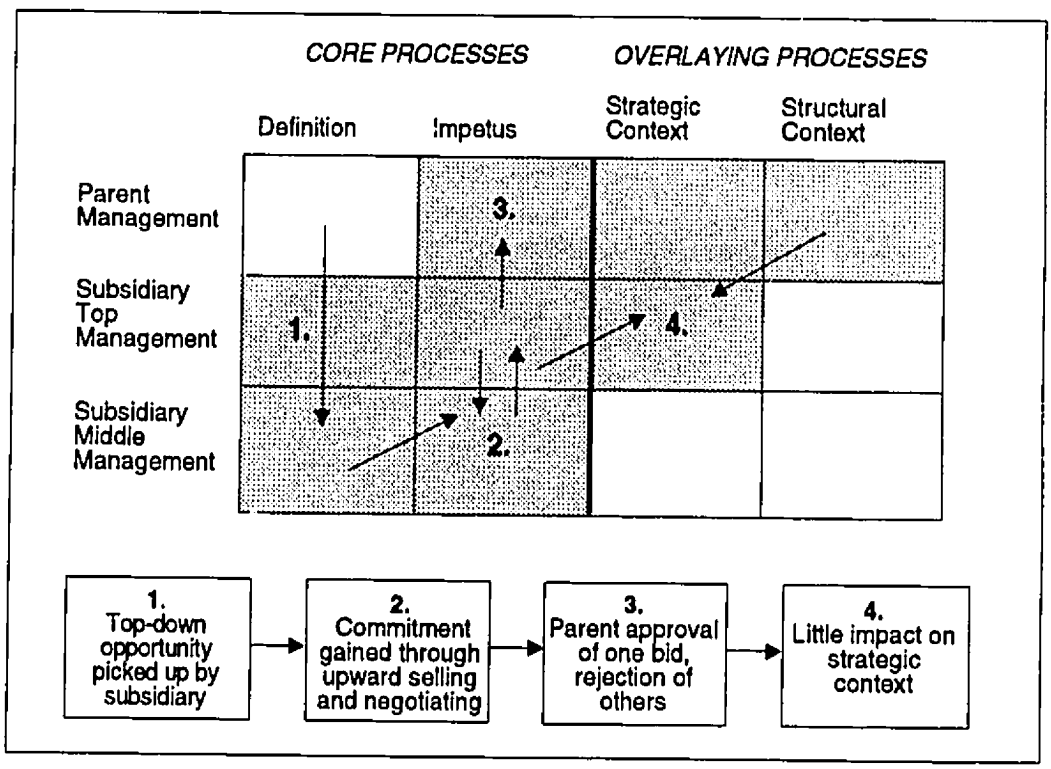
commitment stages featured heavy involvement from all three levels, often in an iterative fashion. For the Panacom acquisition, for example, the HP Canada president took an active role in creating support within the parent company. Explicit approval was necessary, but the earlier selling efforts made it a formality in most cases. Successful implementation of these initiatives frequently led to a re-assessment of the subsidiary's context. For example, HP's Panacom acquisition was made without the usual divisional sponsorship because the Canadian president had made a very strong case; and Honeywell Industrial Canada's OM&S project sparked a major re-thinking of the funding mechanisms for all subsidiary development activity around the world.

Competitive Bid Initiatives

Unlike all the others, the competitive bid process had a large component of top-down involvement from the parent company. Initiatives were actually conceived by subsidiary managers but for the opportunity to transpire, the structural context of the MNC as a whole had to allow for the solicitation of bids for global corporate investments. The presence of an appropriate structural context, and a strategic vision on the part of the subsidiary president / general manager, were thus important preconditions to initiative conception. For example, Monsanto's Scripsets and Dry Glyphosate initiatives both transpired in a corporate environment that was actively promoting subsidiary investment.

With such a system in place, competitive bid initiatives then followed the standard course, with the initiative champion ascertaining the appropriateness of the opportunity

Figure 7-7
Competitive Bid Initiative



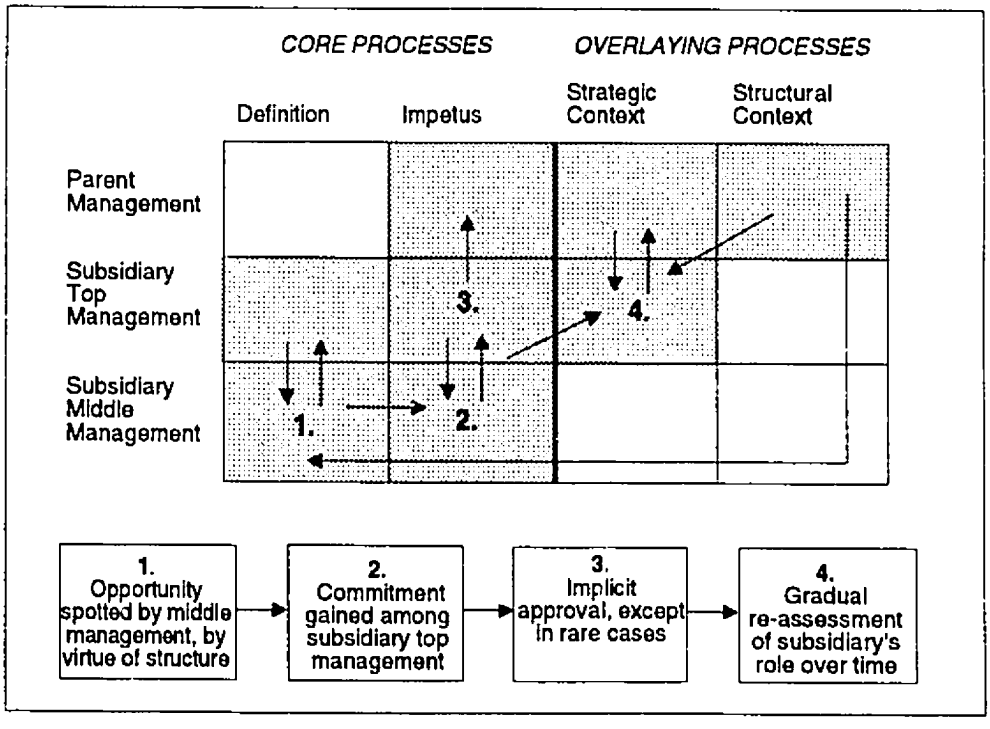
for the subsidiary, and then building support and commitment within the subsidiary and the parent company. Approval, however, was more uncertain than in most other cases because the opportunity was being actively sought by several corporate entities (Figure 7-7).

Mandate Extension Initiatives

Given that mandate extension initiatives occurred in subsidiaries that already had international responsibilities, the appropriate structural and strategic context for further international efforts was already in place. This context was referred to as a "mandate" by Amazon and Hewlett Packard, and a "mission" by Honeywell homes.

The process followed the standard path from conception through definition to commitment. However, the level of championing appeared to be somewhat less intense

Figure 7-8
Mandate Extension Initiative



than in the other cases, probably because there was no need to sell the opportunity beyond the subsidiary. The subsidiary president or general manager had the responsibility to approve new initiatives without deferring to his corporate superiors in all except the latter two Amazon cases. In these two the subsidiary had international responsibilities but without a commensurate level of discretion so parent company approval was necessary (Figure 7-8).

The subsidiary's context as a mandate-holder was either reinforced or challenged as a result of these initiatives. Where the initiative activity was not consistent with the strategic context, such as Panacom's shift into the X terminal technology, some form of rationalization and questioning (of the "what is our mandate?" type) occurred, leading to the gradual evolution of the subsidiary's mandate. Usually, however, no change in context was expected or observed. Amazon's gradual extension into related technological areas, for example, represented no change in the subsidiary's mandate, broadly defined.

To summarize this section, figure 7-9 depicts the six processes and sub-processes on a framework that is very close to the one used in chapter 6. While the three "market" types have been retained, the horizontal axis now represents the level of parent

Figure 7-9
An Organizing Framework for Initiative Processes

	Low Parent Involvement	High Parent Involvement
Local market opportunity	**LOCAL MARKET INITIATIVE** (Autonomous)	**LOCAL MARKET INITIATIVE** (Integrated)
Global market opportunity	**MANDATE EXTENSION INITIATIVE**	**COMPETITIVE BID INITIATIVE**
Internal market opportunity	**RECONFIGURATION INITIATIVE** (without Parent Involvement)	**RECONFIGURATION INITIATIVE** (with Parent Involvement)

involvement in the process. Note that this is presented not as an alternative to the prior framework but as a different perspective on the same phenomenon. Thus, the level of parent involvement is critical to understanding the initiative process, just as contestability is critical to understanding the substantive content of the different initiative types.

IMPLICATIONS AND EXTENSIONS

Departures from the Process Model

The above analysis treated the initiative process as a single discrete phenomenon, with the acknowledgement that there are sometimes iterations within stages and also periods of inaction. This section looks more closely at the peripheral cases that do no readily fit the basic model in an attempt to better understand the realities of the process.

The key observation is that initiatives rarely occur in isolation. There is either an explicit or implicit development process underway --as the next chapter will show-- and a specific initiative can be best understood within that process. If the objective function of the subsidiary is to add value through international responsibilities, then it is important to recognize that the initiative is the most common -- but by no means the only-- method of delivering on that objective. Put another way, value-added growth over time is achieved in revolutionary and evolutionary phases. The revolutionary phases are initiatives; the evolutionary phases sit in-between[2]. This thesis was built around the observation that the revolutionary phases could be studied as separate entities, but it would be amiss not to spend some time discussing the limitations of that conceptualization, specifically in terms of the interplay between revolutionary and evolutionary phases of growth.

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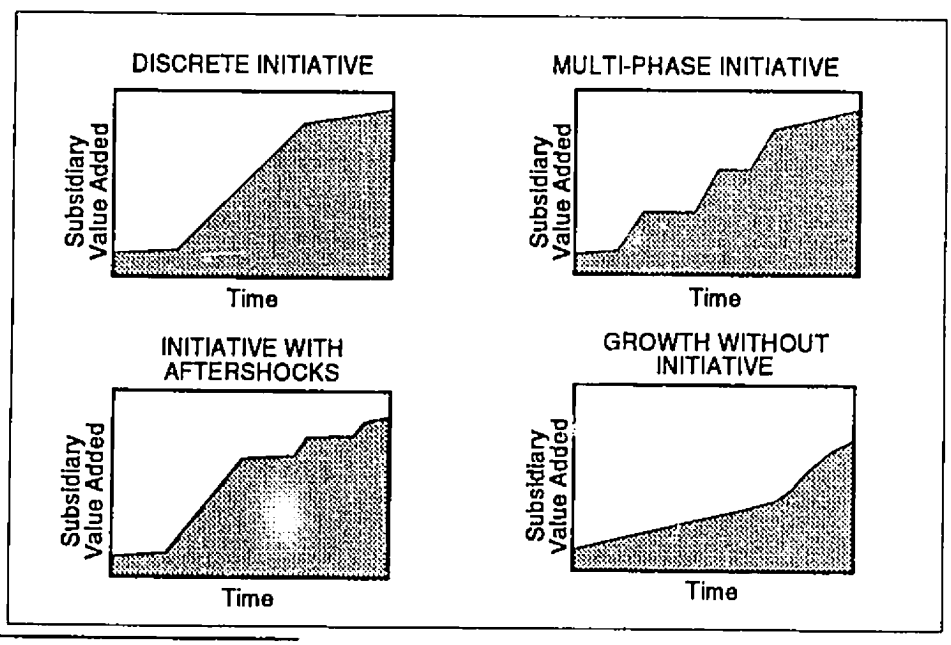
[2] The phenomenon of parent-driven investments in the subsidiary, such as acquisitions, is relatively rare. This point, and several other issues related to profiles of subsidiary growth, will be discussed at greater length in chapter 8.

Four plots of subsidiary value-added over time[3] are depicted in figure 7-10. These are labelled "discrete initiative", "initiative with aftershocks", "multi-phase initiative" and "growth without initiative". Each will be briefly described.

Discrete initiative. This is the standard initiative, characterized by: (a) a relatively static level of value-added prior to the initiative; (b) a period of focused effort --the initiative itself-- resulting in a substantially higher level of subsidiary value-added; and (c) a relatively static level of value-added after the initiative.

Initiative with aftershocks. In approximately five of the 39 sample cases the initiative (as studied) represented the first stage in what became a fairly drawn-out development process. HP's Calgary development centre, for example, was established through an initiative in the 1986-1988 time frame, but it took until 1993 before the

Figure 7-10
Four Plots of Subsidiary Value-Added Over Time



[3] The "value-added" vertical axis does not equate exactly to measures of value-added such as exports, because there is inevitably a lag between the granting of the "right" to export and actually filling the orders. These figures, consequently,should be viewed as conceptual only.

business achieved full legitimacy within the HP corporate system. In such cases, the initiative was defined as the original value-adding growth phase, but the business' overall development was much longer.

Multi-phase initiative. Three cases in the sample consisted of several closely-linked mini-initiatives all within a short period of time. In the case of Monsanto's Scripsets business, for example, three separate incremental investments were made in a four year period, all championed by the same individual and all linked to the same market need. This was defined as a single initiative.

Growth without initiative. Several examples of significant value-added growth without an associated initiative were found in the course of the study. The best case was a Canadian division that had developed its local market far more effectively than its American counterparts, such that it became acknowledged (in a very evolutionary sense) as a centre of excellence in that product-market. Eventually the global business manager in the U.S. handed over responsibility for the U.S. market to the Canadian team on account of their proven excellence. Note that this was not a "parent-driven" phenomenon either, because all the hard work was put in by the Canadian managers building up their expertise. The action of the U.S. manager who gave the Canadian team international responsibility for the business simply legitimized and formalized a development that had already taken shape.

Antecedents to the Initiative Process

One of the methodological problems in the study of initiatives is that the visible (and hence study-able) parts of the process may not be the most critical. All of the initiatives in the sample, with one exception, made it through the conception and definition stages, and 34 of 39 were eventually implemented. The implication of this high success rate is that the original screening of potential initiatives occurs in the very early part of the process, so that only initiatives that have a good chance of being approved are

brought forward for consideration[4]. Notwithstanding the dedication and effort involved in pushing a project through to completion, the stages described in this study --and in all previous studies-- are relatively straightforward. The hard part, accordingly, is the behind-the-scenes activity that results in the bringing together of a latent champion with a latent initiative. The distribution of initiatives across subsidiaries and even within subsidiaries suggests that there is a complex array of factors at work.

The standard argument developed in the literature is that corporate entrepreneurship (manifested as initiatives) is most readily found in an organizational context that promotes creativity, risk-taking, and personal responsibility (e.g. Burgelman, 1983a; Burns and Stalker, 1961; Kanter, 1985; Pinchott, 1986). Such a context includes tangible systems such as the easy availability of seed money for new projects, and intangible factors such as an entrepreneurial culture. The role of top management in this conceptualization is to shape the context in such a way that entrepreneurial action by individual managers is encouraged[5].

An interesting new perspective on this argument was developed recently by Ghoshal and Bartlett (1994), who argued that organizational context and managerial action develop interactively (rather than the former facilitating the latter). Using the case of a corporate turnaround they showed how a series of concrete actions by top management shaped the key behavioural attributes of trust, stretch, discipline and support, which in turn fostered initiative and cooperation[6]. The implication of their study for the current research problem is that subsidiary and parent company executives can more actively

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[4] This screening process is also very hard to research. Managers were asked about projects they considered but rejected, but they were either unable to recall them or were dismissive of their relevance ("we thought about that, but it was obviously a non-starter"). This issue needs a real-time study to be effectively researched.

[5] There are also personality traits that are more likely to result in entrepreneurial activity such as need for achievement (McClelland, 1967) and resilience (Kets de Vries, 1977). This goes some way towards explaining why one individual takes the initiative while the next (in the same setting) does not.

[6] Ghoshal and Bartlett's unique contribution here is their conceptualization of context as a set of behaviour-framing attributes. The observation that context and managerial action interact can be traced back to Bower (1970), though in far less explicit terms.

encourage initiative in their management ranks than a traditional structural / strategic context model would allow.

The need, then, is for research to more effectively trace the initiative process back to its source. This could only be done in a real-time setting, because the interesting question is why one specific opportunity (and not others) inspired action by one specific individual (and not others). Consistent with Ghoshal and Bartlett's (1994) study, it seems reasonable to predict that a semblance of order can be discerned in what currently appears to be a serendipitous process, and also that there probably is a valuable and active role for subsidiary top management.

Unfortunately, no assessment of these various antecedent conditions and actions can be made here, because the issues only arose as a result of the current study. Further understanding of the initiative process can most usefully be directed towards these issues.

The Subsidiary as a Unique Context

By studying initiatives in the Canadian subsidiaries of U.S. MNCs there were certain elements of the process that differed --more by degree than by kind-- from what one would expect in a single-country setting. The objective of this section is to discuss those elements. Note that the idea here is not to suggest that the Canadian subsidiary is a special case, but that certain aspects of the process are accentuated or made more salient as a result of the international context. By the same logic, it would be expected that the differences would become even greater as the cultural and/or geographic distance between parent and subsidiary increased. This is an issue for future research.

Substantive content. In cases of high contestability, the Canadian setting had both positive and negative ramifications for the viability of the initiative. The cost-structure of an investment in Canada was often lower, in terms of labour rates, cost of energy, and allocated overhead, though this was offset by increased distribution costs and tariffs. In addition, Canadian plants frequently offered greater flexibility and more rapid service on account of their historical expertise in small-run production. In cases of low

contestability, the Canadian context was often the *raison d'etre* of the initiative, in terms of government support, local customers or other reasons.

The initiative process. Regardless of the facts of the Canadian proposal, subsidiary managers were frequently faced with U.S. managers who needed to be educated on the advantages of giving international responsibilities to their Canadian affiliates[7]. The initiative process is inherently political, meaning the project's approval is as closely tied to the credibility of the sponsoring manager as to its substantive content. In this respect, Canadian subsidiary managers were generally at a significant disadvantage vis-a-vis their U.S. counterparts. Related to this, the role of U.S. middle management in the process was often substantial: sometimes they were allies that helped to sell the initiative in the upper echelons of corporate management; sometimes they were obstacles, more entrenched and parochial than their superiors. Unfortunately, Burgelman's model could not be readily adapted to incorporate the parent-company middle management level.

The context. The structural and strategic context was probably the most uniquely Canadian aspect of the phenomenon. Over the last five years of study all six corporations had shifted (or were shifting) towards structural forms in which global business units had greater power. These changes led to a great deal of ambiguity over the role of the subsidiary. In most cases this actually enhanced the opportunity for initiatives because there were concerns around those MNCs' Canadian presence. However, it was the transitional nature of the context that created opportunities: those subsidiaries that have been integrated with their U.S. parent face a context now that is not markedly different from that of a normal U.S. division.

Overall, the subsidiary setting for this research offered an interesting perspective on the initiative process in that it accentuated many of the issues that may not always be apparent in a single-country setting. The Bower-Burgelman model proved robust, but it was not able to capture the nuances of what is clearly a very complex process. Their

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[7] This is not solely an international affiliate concern. Regional differences in the U.S. (and in other countries) are sufficiently large that a regional affiliate may face some of the same parochial biases from head office management that the Canadian affiliate faces. The suggestion here is simply that the differences are exacerbated by the existence of a national border.

model has recently been extended by Bartlett and Ghoshal (1993), whose contention is that large complex MNCs cannot afford to rely on vertical information processing systems for resource allocation, so there is a trend instead towards horizontal systems. This creates, in turn, a very different selling process for new projects, that "..requires intensive interaction with and support from managers at all levels of the organization" (1993: 34), rather than just an upward-oriented thrust.

Bartlett and Ghoshal's extension to the Bower model helps to shed some light on the processes observed here. In most cases there was an upward-selling process very close to the Bower model, but there was also evidence of some horizontal selling as well. In particular, all cases with high parent involvement tended to require a broader-based selling process involving multiple layers of U.S. managers. Several cases also had a joint U.S. - Canada taskforce whose job was to generate a mutually-acceptable plan that would then be "rubber stamped" by corporate management. Finally, the matrix structure adopted by some companies (e.g. Honeywell industrial) necessitated a dual-focused selling effort, to both country and divisional management. In sum, there was some evidence of horizontal as well as vertical information processing systems at work in the sample companies. Bearing in mind that Bartlett and Ghoshal claimed only to be studying a few leading-edge organizations, these results are consistent with their analysis.

SUMMARY

This chapter examined the initiative process from a variety of directions. First, the generic process was described, using Burgelman's (1983a) model as a theoretical anchor. Second, the process was broken down by initiative type, and it was shown that there was significant differences between, and even within, types. Finally, the initiative process was examined in a broader context, in terms of those cases that did not fit the basic model, the antecedents to the process, and the specific international issues.

CHAPTER 8
SUBSIDIARY LEVEL FINDINGS: CASE ANALYSIS

The objective of this chapter and the next is to examine initiatives in their broader context, both in terms of how they fit with the other activities of the subsidiary and the corporation, and how they change over time. As noted in chapter 3, this analysis represents an extension of the primary research objective (i.e. understanding initiatives), and in that respect it should be viewed as more exploratory than the previous three chapters. The research question driving this investigation was "How do initiatives develop and link over time?" Implicit in this question were the assumptions that (a) the subsidiary's value-added contribution to the MNC increases over time, and (b) the subsidiary's growth is in part attributable to initiatives. One of the aims of chapter 9, then, was to assess the validity of these assumptions by considering the drivers of subsidiary growth.

This chapter represents an analysis of the six companies that comprised the sample. Each analysis is deliberately very short, for space reasons. Full-length case studies for each company are in Appendix 2. This section begins with an explanation of the analytical tools used to facilitate the description.

Analytical Tools

Consistent with the resource based view of the firm (see chapter 2), the subsidiary-level analysis focused on the development and application of resources over time. Four "resources" or attributes were considered to be key: Physical resources, technological or human resources, reputation or credibility, and learning of the initiative process. Each initiative built on, or applied, the existing resource base of the subsidiary to a new opportunity, and in so doing further developed those resources. As suggested by Dierickx

and Cool (1989) it is the pool of resources that is built up over time (or "asset stock accumulation") that creates a sustainable competitive advantage for the firm. This research focuses on the mechanisms by which the resource base is enhanced.

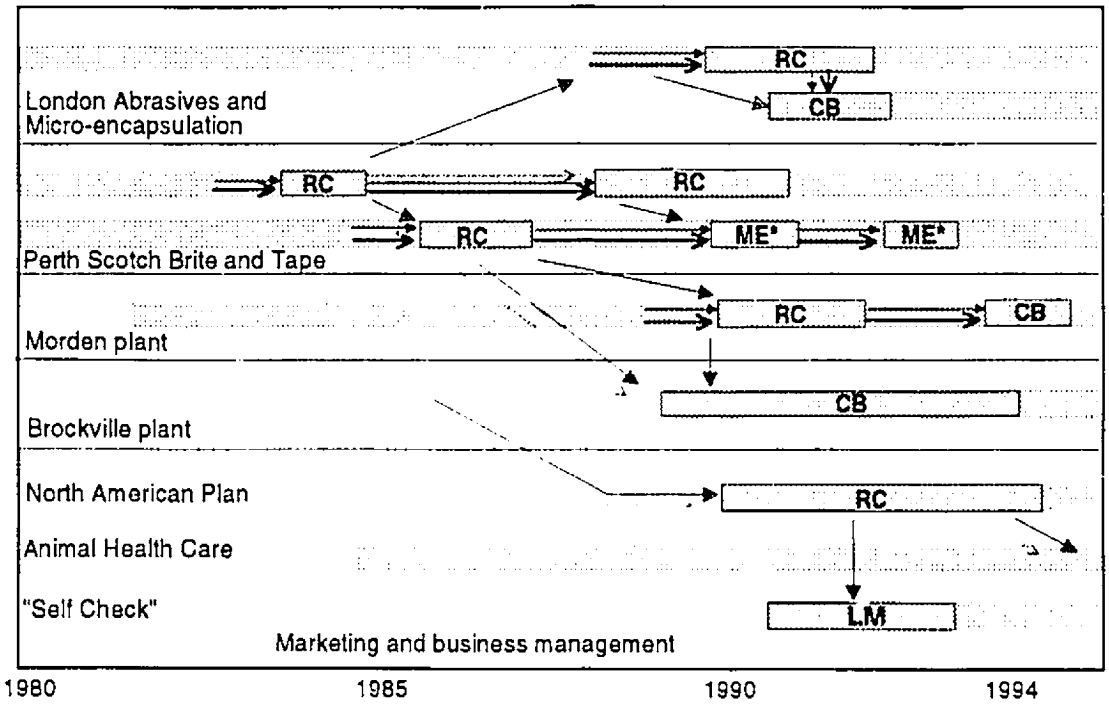
The methodology for the subsidiary level research was described earlier, but will be briefly reiterated. Each initiative was analyzed according to: (a) the prior initiatives that drove it (if any); (b) the specific resources involved in that process; and (c) other internal or external factors that had a major impact. The set of initiatives were then plotted over time, with the resources flows superimposed on top, to build a comprehensive understanding of the nature of the development process in each company. These figures are reproduced below. This analysis was conducted by the lead researcher, but verified through (a) the work of the research assistant who replicated the analysis and worked with the lead researcher to sort out inconsistencies; and (b) the responses from managers, who were asked specific questions about prior and subsequent initiatives in each case. The latter part of this chapter also includes the results of the questionnaire survey that was sent to the general managers of each company.

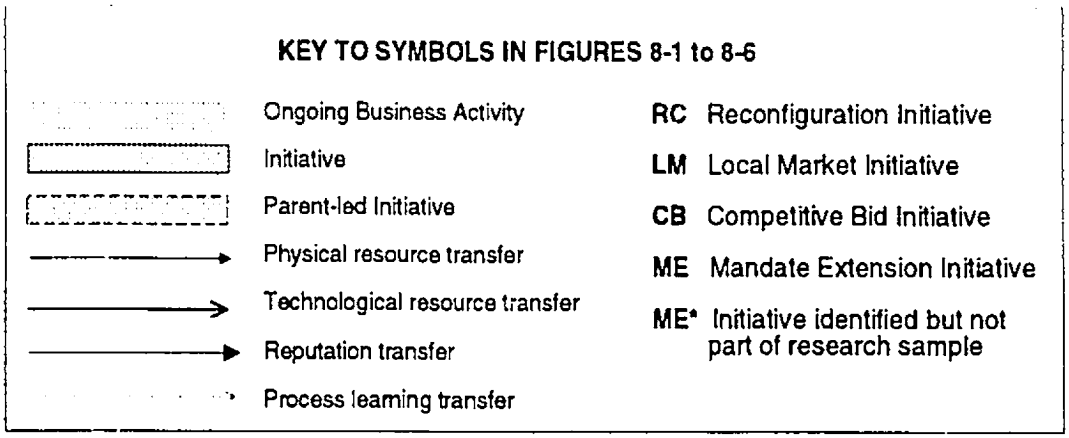
3M Canada

Overview of Subsidiary development. 3M Canada was founded in 1951 and achieved sales revenues of $590 million in 1993. The company is split in two, with the "upstream" manufacturing operations producing a range of products for global distribution and the "downstream" sales and marketing operations serving Canadian customers with the full scope of 3M products.

The manufacturing operations began in 1951 in a branch plant mode, producing strictly for the Canadian market. In 1972 a Canadian plant was given swing-production responsibility for a U.S. business, and this led to extensive rationalization (of that plant) in the mid-seventies. Driven by a recognition that rationalization would eventually be necessary in all the manufacturing operations, 3M Canada's management began to actively pursue mandates. While much of the early effort was aimed primarily at building relationships with U.S. divisions, there was a spate of successful initiatives in the late-

Figure 8-1
3M Canada initiatives and resource flows





eighties leading to several regional or global mandates. The rationalization process was essentially complete by 1989. Subsequently, two additional initiatives of the competitive-

bid variety led to new global-scale investments in Canada. There have also been a number of small mandate-extension type activities at one of the plants, utilizing the local development and engineering resources to create product extensions.

The sales and marketing side of 3M Canada was less actively developed until 1989 when a new president took the helm in Canada. He pushed for a radical re-thinking of the relationship of the Canadian downstream business activities with their American counterparts. Subsequently called the North American Plan, this initiative made a number of substantive changes to the organizational structure but more importantly led to an increased level of interdependence and mutual recognition on both sides of the border. Around this time, and in part fuelled by the North American Plan, several small local-market initiatives were taken by Canadian managers looking for ways to actively develop the local market. While these were all niche products at this stage, there was the opportunity for the sales and marketing side of 3M Canada to take international responsibilities to an extent that was not possible before.

Nature of internal processes facilitating / hindering growth. 3M Canada's manufacturing operations are at four separate physical locations, and are further sub-divided into "focused factories" at the larger locations. This arrangement promoted flexibility and responsiveness, which has been a key selling point to the U.S. business units. By the same token, however, it limited the opportunity to leverage existing physical resources. The transfer of technological capabilities, too, was limited in that each site typically served a different U.S. business unit.

As figure 8-1 shows, the development process at 3M was, instead, driven by the collective learning and reputation of the manufacturing group. A formula emerged whereby the Canadian plant first undertook swing production and then took an unwanted product off the hands of the U.S. operation. By exceeding cost, service and quality expectations for that product, the Canadian plant built a strong reputation with the division, so that when the time was right for a capacity expansion they won the contract.

This process was enhanced by the existence of a tightly-integrated manufacturing team in Canada, who facilitated the learning and reputation-building through a number of mechanisms: (1) a common vision, to guide purposeful action on the part of the plant managers; (2) discussion of strategies, and hence the development of a tried-and-tested process for winning mandates; (3) the build up of personal relationships with U.S. managers; and (4) a build-up of enthusiasm and commitment that is associated with being on a winning team. All the plant managers were aware of their reputation for service and cost-competitiveness, which inspired greater effort and even higher standards.

External (to subsidiary) processes facilitating / hindering growth. The growth of 3M Canada was almost exclusively an internally-driven phenomenon. The first rationalization of a plant back in the mid-seventies was in large part driven by the relevant U.S. division, but thereafter the initiative always came from the Canadian plant manager. Even free-trade was not a real factor, because the rationalization process was finished about 1989.

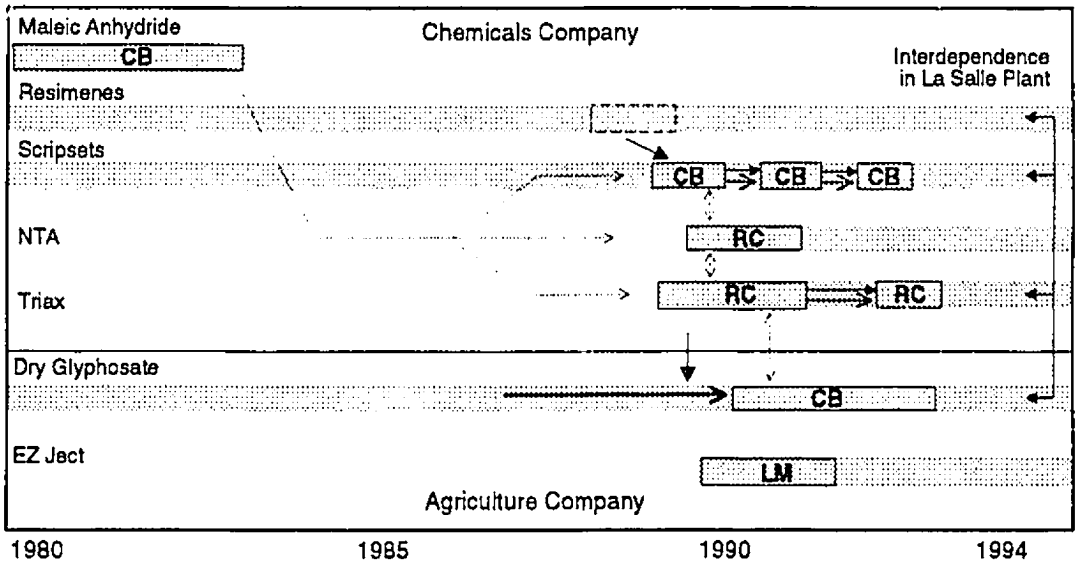
The North American Plan, while driven by the Canadian president, appeared to receive a little more impetus from the U.S. 3M had just restructured its European operations, so the new president's decision to rethink the North American regional structure was well-timed. His initiative was sponsored by the VP, international operations, but more importantly it needed the genuine support of all the U.S. business managers to work. That it succeeded is in part testament to the excellent championing of the Canadian president, but also to the openness of 3M managers in general to new ideas. 3M has a reputation for innovation and creative thinking, and the evidence suggests that it is well-deserved. The host of small initiatives taken by Canadian managers in the last few years, for example, appeared to be facilitated as much by 3M's entrepreneurial culture as by the Canadian president's North American Plan.

Monsanto Canada

Overview of subsidiary development. Monsanto Canada was founded in 1932 and in 1993 had sales revenues of $460 million[1]. It grew as a "market access" subsidiary, first selling U.S. - manufactured products and then producing a portion of them in branch plant facilities such as La Salle, Quebec. Several of these operations were closed in the sixties and seventies because they were not internationally competitive. This led to a feeling that new growth opportunities should be pursued that were integral to the worldwide operation. The strategy adopted was to look for "big hit" investments in the $20 million + range, but despite several interesting possibilities nothing was forthcoming.

In 1984 a new president was appointed, who decided to pursue a more incremental approach to investment. His philosophy was "nothing is too small" as long as the project was strategically aligned with the parent company. This led to a number of small focused

Figure 8-2
Monsanto Canada initiatives and resource flows



[1] This study focused on the chemical and agriculture companies; Monsanto also has Searle (pharmaceuticals) and the Nutrasweet company.

R&D projects in collaboration with universities and some acquisitions, but most importantly it spurred a series of business initiatives in the 1988-1992 period. Three of these led to niche mandates in the Chemical company: manufacturing responsibility for Scripsets (a speciality resin); management of NTA (a detergent product made in Texas); and full-scope responsibility for Triax (a specialty plastic). The fourth resulted in the mandate for Dry Glyphosate, a leading-edge technology for the Agriculture company.

Nature of internal processes facilitating / hindering growth. The Monsanto Canada case spanned a long period of time, but only in the past five years have they been successful in winning international responsibilities. The primary driver here was a gradual learning process, that first led management to aim for a big-hit investment and, after that did not work out, to pursue multiple small investments (i.e. very similar to 3M Canada). Management learned what the parent company was looking for and targeted accordingly. As part of this, subsidiary top management's focus on strategic alignment with corporate businesses was important. They also developed a unique set of technological capabilities in the case of Monsanto Agriculture company. Of the other resource flows in the model, reputation has only been substantially enhanced in the last couple of years, and technological resources are not shared across businesses. Physical resources have been an important driver to the extent that all the products made at La Salle share the same overhead. Incremental investment was relatively inexpensive but, by the same token, when a product line was divested (as happened a few times) the overhead burden on the other products went up.

In summary then, the recent spate of initiatives can be attributed more to the efforts of subsidiary management to identify and pursue opportunities than to the existence of a developmental process *per se*. The interesting question for Monsanto is whether the new mandates will lead to further opportunities, or whether they will remain as niche businesses.

External processes facilitating / hindering growth. Free trade was certainly a defining event for Monsanto Canada. Although much of the ground work had been done

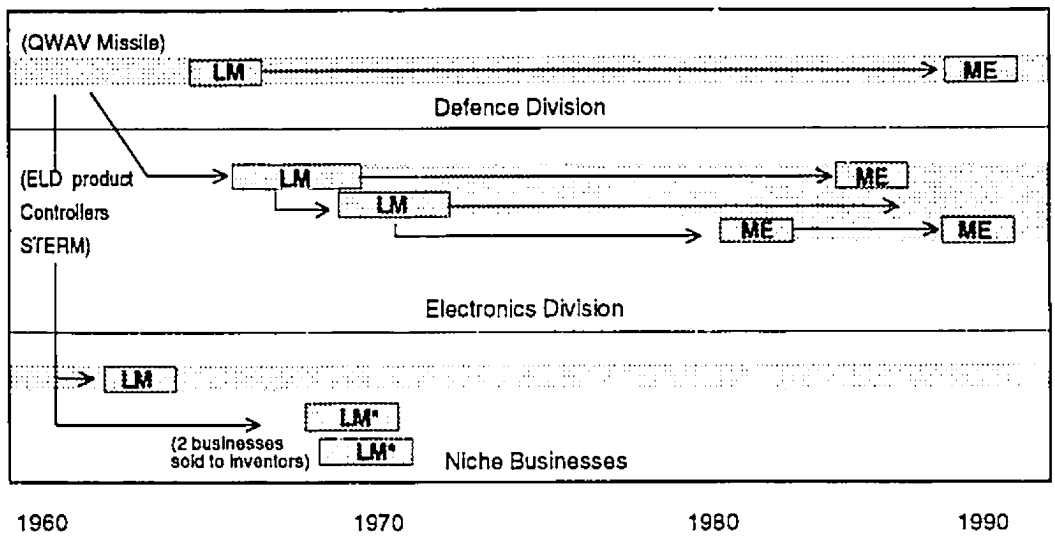
earlier, the initiatives themselves all occurred in the 1988-1992 period. In three of the four cases, there was also a precipitating action by the U.S. company: an explicit statement of intent to invest in Canada for the Agriculture company; a change in management in the detergent business; and a U.S.-inspired rationalization of the speciality resins business that led to one business being given to Canada to manufacture. The fourth case, Triax, was driven entirely by Canadian initiative. Interestingly, it was also the case that fostered the least immediate support among head-office managers. It seems likely that the Monsanto system did not (in 1988-1992) lend itself very readily to subsidiary initiative, so successful ventures relied on a combination of external facilitation and internal action. Furthermore, there were notable differences between the Agriculture and Chemical head offices in their openness to subsidiary initiatives, with the former proving more ready to embrace such ventures.

Amazon Canada

Overview of Subsidiary development. Amazon Canada was incorporated at the turn of the century, and had revenues of about $500 million in 1993. This case centred on the electronics division of Amazon Canada, which emerged in the early sixties as a provider of terminals, controllers and network solutions for the air travel industry. Growth was slow at first but boomed in the late-seventies and early-eighties to create a highly-profitable $40 million business. Since 1985 revenues have fluctuated around the $40 million mark. The division had a high degree of autonomy for most of its history, but the buyout of Canadian minority shareholders (in 1989) and increasing financial constraints on growth resulted in much closer operating control from the U.S. parent division in San Diego. As a result, the last few years have seen a marked slowdown in business development initiatives

The growth of the information systems division occurred in three main phases. In the early sixties efforts were focused on identifying commercial applications for the company's defence technologies. Multiple small initiatives occurred, leading eventually to a consolidation around display terminals and terminal-controllers in the air-travel

Figure 8-3
Amazon Canada initiatives and resource flows



industry. The second phase (mid-seventies to mid-eighties) saw extensive growth in the division's core products, leading to global leadership in sales to the air-travel sector. Initiatives in this phase were focused on related products such as network solutions. The rapid growth of the computer industry in the eighties then created an array of opportunities and threats which again led to diversification attempts by the information systems division. With only partial success, there was a re-focusing in the late eighties around the division's core competencies, which were identified as data communication, software, logistics, and project management. The last five years have seen no revenue growth, some selective pruning of business activities, and few new business initiatives.

Nature of internal processes facilitating / hindering growth. Unlike the other cases studied during this research, the Amazon electronics division had international responsibilities almost from the start. After the first few local-market initiatives, they were all of the mandate extension type. Growth was fuelled primarily through the transfer of technological capabilities, and to a lesser extent, physical resources. Neither learning of the initiative process nor reputation with the parent company had much

bearing on growth, because the division was largely autonomous. Especially during the high-growth years (ending in the mid-eighties), there was a feeling among Canadian and U.S. management that the division should be given a high level of discretion to manage their business without interference.

Many respondents also attributed the growth of the division to the entrepreneurial and creative capabilities of the employees. The division built a strong reputation (with customers) for its ability to manage complex projects and for finding innovative solutions to technical problems. Divisional management was also very effective, in their ability to capitalize on opportunities as they materialized.

External processes facilitating / hindering growth. The lack of close linkages between the information systems division and the rest of Amazon Corporation had advantages and disadvantages. During the "golden era" when the division was an industry leader, the high level of autonomy facilitated rapid response and hence growth. Unfortunately, this also led to a shift away from products or technologies in which the parent company had a position. The division became disconnected from the strategic priorities of Amazon. When divisional alignment was mandated by corporate management in 1989, the Electronics Division was a misfit. It subsequently received a very limited share of the corporation's scarce financial resources for development.

This is an example in which the structural and strategic context of the subsidiary changed for reasons entirely beyond its control. Internal growth was fuelled by a build up of technological and market-related capabilities that were applied to successive generations of products. The high level of autonomy was justified by the proven expertise of divisional management. Financial problems in the corporation as a whole then led parent management to take a firmer grip on the activities of their subsidiaries. The capital allocation process was recentralized, and the high level of autonomy that had served the electronics division well for so many years became a liability, because neither the managers nor their businesses were well-known in the U.S.

Finally, the division's early successes were at least in part attributable to Canadian government support. The diversification away from defence was triggered by the

cancellation of some major defence projects in the late-fifties. Rather than shed a large number of defence-sector jobs, the government provided funding to support projects that developed commercial applications from defence technologies. The electronics division was one of the most successful outgrowths from that scheme.

Hewlett Packard Canada

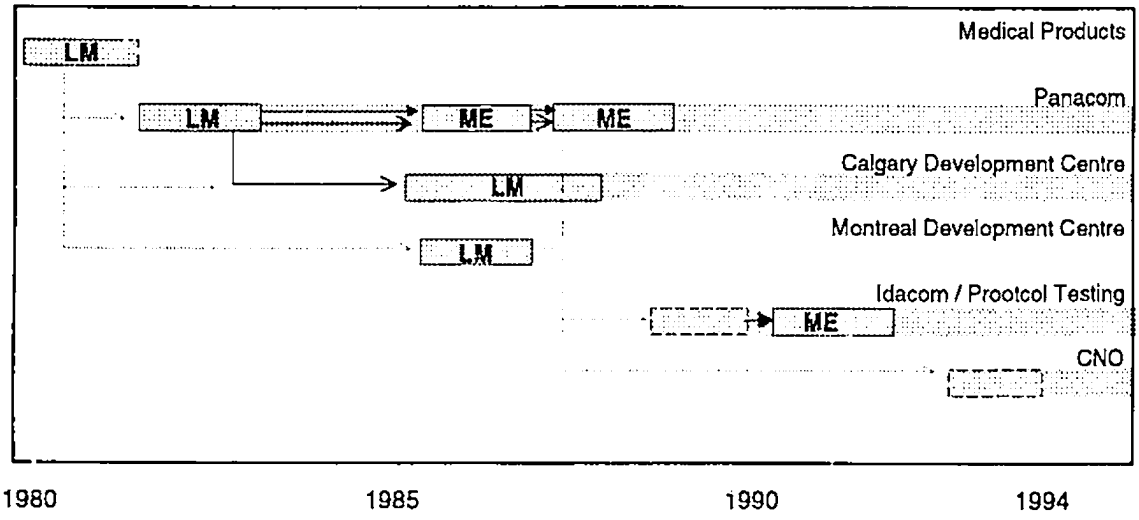
Overview of Subsidiary development. Hewlett Packard (HP) Canada was established in 1961, and by 1993 had revenues of $800 million. Through the sixties and seventies, HP Canada existed as a market-access subsidiary, importing product from the U.S. to be marketed and sold to Canadian customers. The first attempt at manufacturing occurred in 1973, but the plant in question was a classic "branch plant" facility that simply assembled products for the Canadian market rather than creating value for HP as a whole. It was shut down in 1977.

By the early eighties, HP's lack of value-added presence in Canada had become a significant concern to HP Canada top management, and also to the Canadian government. While HP's corporate management were sympathetic, the company's decentralized structure meant that decisions on investment were made at the business or division level, so an investment in Canada could not be easily mandated from above.

Rather than solicit opportunities from the divisions, HP Canada put together a series of initiatives based around the oil and gas sector[2]. They acquired Panacom, a company that made remote terminal units for oil well data acquisition, and started a small Calgary-based development group to build the complementary software. Neither of these ventures was sponsored by a corporate division; the acquisition was funded by and linked into the closest division for reporting purposes, while the software group was tied in to HP Canada, using funding from local sales. In part because of the lack of alignment, both ventures struggled for a long time to make a profit. Panacom quickly exited the

[2] In another proactive move, development centres were also started in Montreal and Toronto around this time (mid-eighties). Again, there was no alignment with divisions in the U.S. Both centres were phased out, Toronto very quickly and Montreal about three years later.

Figure 8-4
Hewlett Packard Canada initiatives and resource flows



remote terminal business, and eventually ended up making X Terminals very profitably. The software business persevered, and in 1993 found a strategic home in the test and measurement organization (within HP).

The difficulties associated with these two ventures led Canadian management to realize that other ways of building value-added activities in Canada would encounter less resistance. U.S.-based divisions acquired two Canadian companies in 1990 and 1993 respectively, and assigned them world mandates on the basis of their proven expertise. The former had Canadian HP management involvement; the latter was exclusively american. There was a clear recognition among respondents that U.S.-sponsored initiatives are far more likely to succeed than Canadian initiatives, because the strategic alignment is already in place. Furthermore, the local-funding mechanism has also been closed off, which makes projects like the Calgary software group very difficult to start. The best opportunities for local initiatives now are: (a) through the existing mandates such as Panacom which are self-sustaining; and (b) acquisition searches in collaboration with U.S. management.

Nature of internal processes facilitating / hindering growth. Panacom and the Calgary software group were inspired by the entrepreneurial efforts of the Canadian president and his colleagues. There had been an increasing understanding of what would be viable as a result of the branch-plant episode but essentially these two initiatives, and the associated Montreal and Toronto development centres, were based on gut feel (by the Canadian president) and a desire to build value-added in Canada. Subsequently both businesses evolved and grew, in part through the tenacity of management, but also through the accumulation of technological resources and learning (in terms of how to achieve alignment and win a mandate). Learning was, however, also responsible for the lack of any additional ventures of similar ilk, and the shift towards actively supporting U.S.-sponsored initiatives.

Overall, HP Canada provides evidence of (a) entrepreneurship, both in terms of agenda-setting and initiating by the subsidiary president, and (b) tenacious championing at the subsidiary middle-management level. The growth process was not facilitated through the accumulation of resources to the same degree as most other cases, though there was a strand of learning that drew all the initiatives together.

External processes facilitating / hindering growth. The Canadian government stimulated the initial Panacom investment by offering HP involvement in the government contract industry. The dynamism of the oil and gas industry in Canada was also a facilitating factor that led HP Canada to pursue its development vision in the mid-eighties. These factors helped initiate growth, but had little or no impact as the specific initiatives progressed.

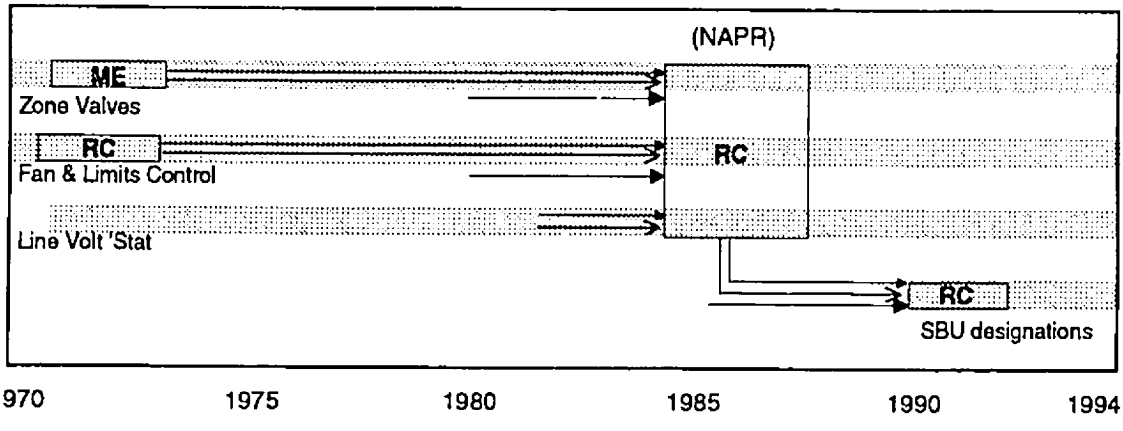
More importantly, the HP corporate context proved to be both a facilitator of, and a detractor from, growth. The divisional nature of the company is so strong that close alignment is necessary for a product to achieve a significant "mind share" (an HP term) with the salesforce. Now that all the Canadian value-adding operations are aligned, their future is relatively secure. In the mid-eighties Panacom and Calgary struggled to cover their costs because they were short of development funding and there was no parent division pushing their products.

Honeywell Homes Canada

Overview of Subsidiary development. Honeywell homes Canada was established in 1930, and in 1993 had sales revenues of approximately $190 million[3]. The subsidiary was set up initially as a distributor of Honeywell products in Canada but it rapidly developed a full range of value-adding activities. Most important was the establishment of a branch plant manufacturing operation in Scarborough, Ontario that made a full range of products for the Canadian market.

Until the mid-eighties only two products in the Scarborough plant had significant international sales. The first was the Zone Valve, for which there was a large export market in Great Britain. The second was the switch component in the Fan and Limits control device, which was manufactured in Scarborough and shipped down to a U.S. plant for installation (into the control device). Both of these products were brought to Scarborough in the early seventies through the initiative of engineering managers. The former was gained by identifying an un-met market need in Great Britain; the latter involved the Scarborough operation challenging (and defeating) the existing switch manufacturer which was a wholly-owned subsidiary of Honeywell.

Figure 8-5
Honeywell Homes Canada initiatives and resource flows



[3] Honeywell Canada had approximately $420 million in sales. $190 million refers to the division that was studied for this research.

In 1985 there was a sense among Honeywell homes managers in the U.S. that efficiency gains were needed, and a recognition in Canada that the branch-plant Scarborough operation needed to be consolidated with its sister plants in the U.S. Canadian management proposed a rationalization plan that involved dedicating Scarborough to Zone Valves and the Fan and Limits control[4], while the U.S. plant in Minnesota took everything else. While there was top-level agreement in principle, the details of the plan required extensive negotiation. Eventually buy-in was achieved, the shift was made, and Scarborough was left with two "mission" products (i.e. mandates).

Subsequent to the manufacturing rationalization, Canadian management began to push for control of the associated marketing and business-management activities. This was part of the original vision, along the lines that business management responsibility is required to sustain or adapt an existing manufacturing mission. Accordingly, in 1990 two strategic business units were established in Canada, one for electric heat and the other for water management. These SBUs were responsible for worldwide coordination of their respective product groups.

Nature of internal processes facilitating / hindering growth. The Honeywell homes case exhibits a well-defined growth process around four discrete initiatives. The first two initiatives (Zone Valve exports, the Fan and Limits switch) were opportunistic in motive but effectively executed: they also built on the subsidiary's existing engineering and manufacturing strengths. The latter two initiatives were part of a clear vision that was masterminded by a group of Canadian managers in the early-to-mid eighties. Stage one was to rationalize production in Scarborough by focusing on the products they did well; stage two was to revolutionize the manufacturing operation through computer integration, MRPII and other systems. Stage three was to ensure continuity by bringing business-management responsibility for the mission products up to Canada.

These stages of development were predicated on a build-up of physical and

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[4] There was a third line in Canada as well, making Line-volt thermostats. This product was sold predominantly in Quebec, with minor sales elsewhere in the world.

technological resources specific to the core products. A strong reputation with parent management was also felt to be a prerequisite. The nature of the change proposed in 1986, the heart of which was the transfer of an assembly line from the U.S. to Scarborough, required absolute confidence among U.S. management that the move made sense in both hard financial estimates and gut feel. Interestingly, there was little need for shared learning about the initiative process in Honeywell homes, because the nature of the initiatives changed over time.

External processes facilitating / hindering growth. While the processes described above were all led by Canadian management, they were only made possible through the remarkable openness of parent management to subsidiary initiatives. At every stage, managers in head office appeared to facilitate the initiative process by considering what made most sense for the company as a whole. This was stimulated in the case of NAPR by an identified need to reduce costs, but it could still have been played out a number of ways, most of which would *not* have led to Honeywell homes Canada winning two product missions.

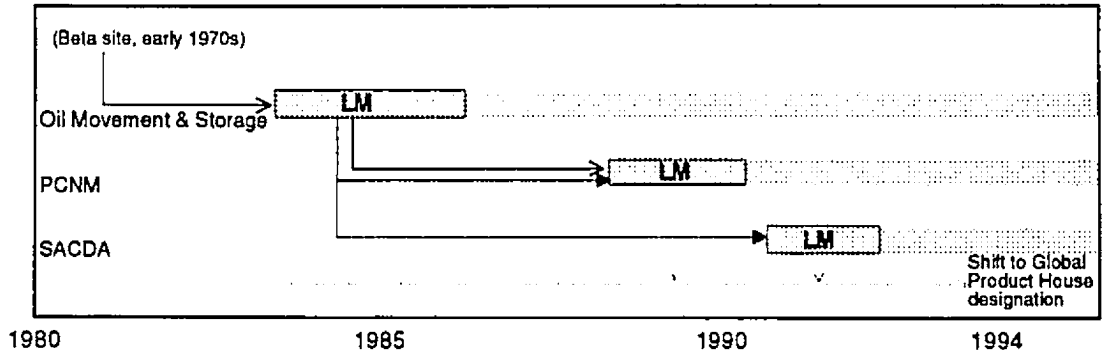
Honeywell Industrial Canada

Overview of Subsidiary development. Honeywell Industrial Canada's sales represented about 5% of the worldwide total in 1993. Honeywell Industrial sells large control systems to industrial customers such as oil refineries and pulp and paper mills that require integrated monitoring, analysis and feedback components. Many of the system components are standard worldwide, but there is always a high level of localized engineering support needed. Thus, through the sixties and seventies, Honeywell Industrial Canada developed as a local sales and service subsidiary, providing engineering support for U.S.-developed products. Strong customer relationships were developed during this period.

Honeywell Industrial Canada's first involvement in corporate product development came in 1974, when an Ontario oil refinery was used as the Beta (test) site for the

corporation's new integrated control system. Subsequently, when development work began on the second-generation control system in 1983, regional offices (including Canada) were invited to take responsibility for part of the work. Canada elected to develop an "Oil Movement and Storage" (OM&S) module, because the need for that system had become apparent through customer meetings. There were some initial concerns in the U.S., but HW Canada persevered and by 1990 OM&S had become an integral part of the control system. At its peak OM&S had international revenues of about $25 million, not including the associated hardware sales.

Figure 8-6
Honeywell Industrial Canada initiatives and resource flows



Honeywell Industrial Canada had two more major initiatives. The first was a software product called PCNM (personal computer network manager) that provided a PC interface with large industrial control systems. Again inspired by discussions with local customers, PCNM was developed in 1988-1989 in Canada, tested locally, and subsequently sold on a worldwide basis. PCNM remained as a niche product with about $2 million in sales. Currently PCNM is being phased out and a second-generation product is being developed. The new product will probably be made in Canada as well. The second initiative was the acquisition of SACDA, a local company that made process simulation systems. Honeywell Industrial had worked with SACDA for many years, selling complementary systems to industrial customers. In 1991 Honeywell Industrial's Canadian management arranged a friendly takeover that was completed 18 months later. SACDA is now a semi-autonomous entity within the Honeywell Industrial system, and

provides revenues of about $20 million.

An interesting recent development in Honeywell Industrial was the designation of OM&S, SACDA and one European venture as "Global Product Houses". On this basis they were cost centres, nominally attached to one country (i.e. Canada) but funded centrally by the world regions. This system was intended to make regions accountable for the development work from which they were benefitting, because the Global Product House systems often pulled through a large volume of associated hardware sales.

Nature of internal processes facilitating / hindering growth. The three initiatives pursued by Honeywell Industrial Canada were all of the local market type, in that they were driven primarily by the identification of business opportunities through interactions with customers and other local entities. No clear developmental process could therefore be discerned. There may have been an overall guiding vision, but the three initiatives all emanated from different sources, and each involved different technological and/or physical capabilities. The only subsidiary attribute that clearly linked the three initiatives, in the opinion of respondents, was the growing reputation of Honeywell Industrial in the U.S. The success of OM&S, in particular, made the subsequent approval of PCNM and SACDA relatively straightforward. Likewise, winning OM&S in the first place could be attributed at least in part to Honeywell Industrial Canada's successful work as a Beta site in the seventies. Learning (about the initiative process) was also developed over the course of Honeywell Industrial Canada's growth, but only to the extent that strong relationships were forged in the U.S. head office.

External processes facilitating / hindering growth. The decision by Honeywell Industrial corporate management to involve foreign affiliates in their new product development in the mid-eighties suggested an open attitude towards subsidiary initiative. In part this is a function of the industry, which by its nature requires a high level of local customer interaction. However, there also appeared to be a genuine desire at head office to create capabilities outside of the U.S. The subsequent shift towards global product houses is a further manifestation of the desire to become a truly global organization. This

shift was accompanied by a wholesale change in the structure that pushed much more power into the hands of regional general managers.

Overall then, Honeywell Industrial Canada's growth has been achieved in large part through the openness of parent management. There have been some frustrations for Canadian management, such as the decision to build the successor to PCNM in the U.S., but the climate for subsidiary initiatives has been very positive.

SUMMARY

This chapter has provided brief case analyses of the six sample companies based around the premise that there is an evolutionary process at work. Specifically, a resource-based approach was used in which the resource flows between initiatives were described. The internal and external contributors to subsidiary growth were also analyzed.

CHAPTER 9
SUBSIDIARY-LEVEL FINDINGS: CROSS-CASE ANALYSIS

The objective of this chapter is to bring together the case analyses in chapter 8 to present a picture of the subsidiary development process. Data is drawn from the case studies and from the questionnaire that was completed by all the company general managers. The findings are tied back into the theoretical model that was developed in chapter 3. Obviously with only 6 companies, all such findings must be interpreted with caution. On the other hand, the quality of the data was very rich. All findings were subsequently discussed with the managers in question, and their feedback was very helpful in fine-tuning the thinking behind this chapter.

What is the evidence for growth and development among the sample companies?

Table 9-1 lists estimates of annualized revenue growth and export growth for the six companies in the period 1984-1994. The company names are disguised. It also lists export sales as a percentage of the total (in 1994), and the general manager's perception of the value-added of the subsidiary[1].

This data highlights a number of important facts about the sample companies. The first two columns show that all companies --with the exception of Amazon Canada-- have grown substantially over the past decade, and all have seen their export sales grow more rapidly than their overall revenues. The third and fourth columns provide some sense of

[1] General managers were asked to estimate how characteristic each of the following was: "We make a significant value-added contribution to the corporation as a whole" and "We are regarded by the parent company as a strategically important subsidiary" on 7-point scales (1 = not characteristic, 7 = extremely characteristic). Cronbach's Alpha for the two questions was .88.

the value-added that the subsidiaries provide to their parent companies. Exports as a percentage of revenues is a good reflection of the value-added in intermediate and finished goods (i.e. manufacturing mandates); the perceived value added measure gets at the less tangible elements as well, such as product management or full-scope mandates. Again, Amazon Canada is unusual, because it operates a largely autonomous but non-core business.

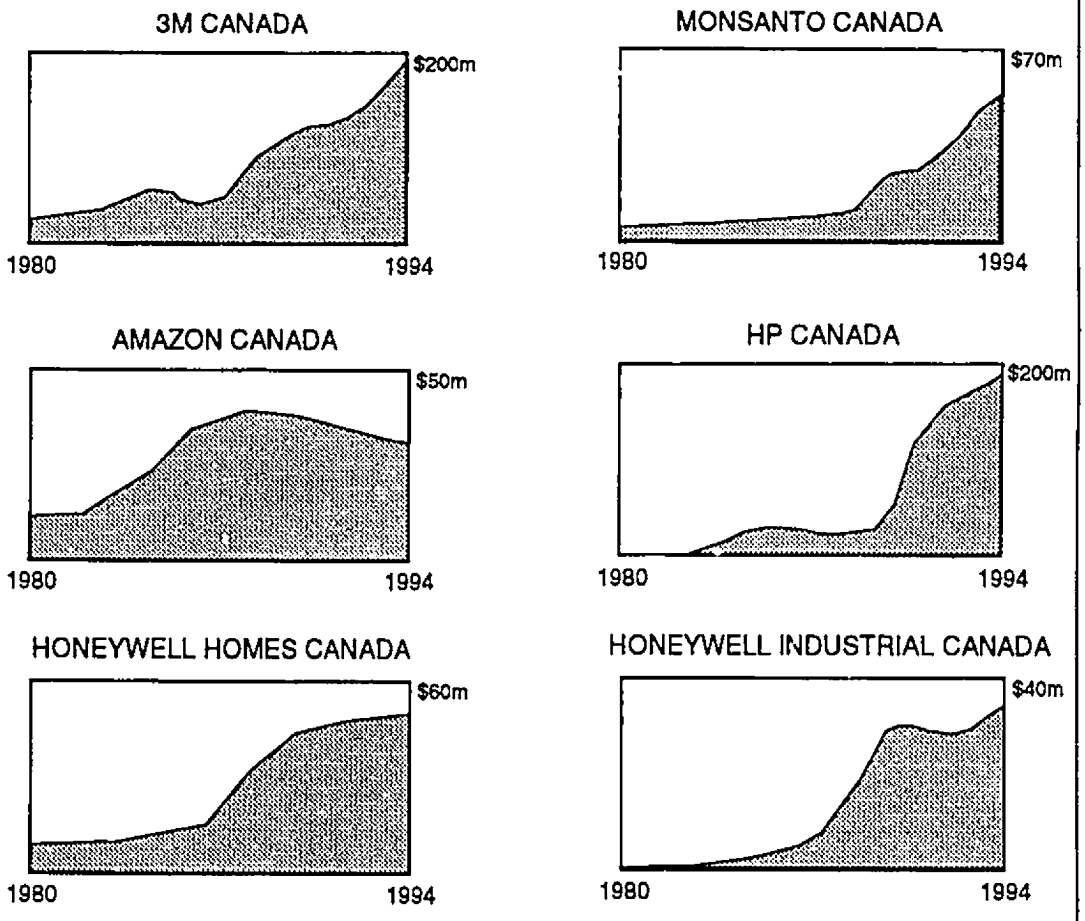
Table 9-1
Approximate growth data for sample companies

	Annual sales growth '84-'94	*Annual export growth '84-'94*	*1994 Exports / revenues*	*Perceived value-added*
Company A	7.5%	20%	34%	6.5
Company B	6%	35%	11%	3
Amazon Canada	1%	5%	86%	2
Company D	11%	50%	25%	5
Company E	2.5%	3.5%	29%	5.5
Company F	2.5%	50%	35%	6

Figure 9-1 provides a graphical representation of the export growth profiles for each company. This highlights the fact that international responsibilities are a relatively recent phenomenon. Bearing in mind that all of the sample companies were founded as market-access subsidiaries, predominantly in the 1930-1960 period, we can look at the last decade as the period in which they shifted from a local orientation to a regional or global orientation. Only Amazon and Honeywell homes had significant levels of international sales prior to 1984.

Given this evidence, the next question must be: Through what processes did growth occur? The following section will re-iterate and elaborate on some of the earlier findings, before moving on to discuss the mechanisms by which growth was achieved.

Figure 9-1
Subsidiary export growth profiles



Note: The charts plot subsidiary exports (inter-subsidiary and final product) over time. Vertical axes vary from $50 million to $200 million depending on the company. Absolute values are not disclosed for confidentiality reasons.

The Growth Process

In chapter 3 it was observed that international responsibilities in subsidiaries can result from the efforts of subsidiary management, parent management, or some combination of the two. While the companies studied in this research are not necessarily representative of the population of Canadian subsidiaries, they provided tentative evidence

that subsidiary-driven initiatives are the more common form[2]. The exceptions were Hewlett Packard Canada, with two relatively small world-mandate businesses gained through parent-led acquisitions, and Monsanto Canada and 3M Canada which had examples of early manufacturing mandates that were conferred rather than earned. In all other cases, representing in excess of 90% of the total value-added, subsidiary management were the prime movers. It is reasonable, then, to deduce that the engine of subsidiary growth lies inside the subsidiary, notwithstanding the important facilitating role of exogenous factors in the organizational context and the environment.

Another premise on which this research was built was the concept of an initiative, which was a self-contained business development effort with both a beginning (when the idea was conceived) and an end (when the project was explicitly or implicitly approved). The initiative is put forward here as the basic building block in the growth process. Certainly there were cases of circularity and incremental growth, as identified in chapter 7, but the large majority of cases were readily identified by management, and were validated through the subsequent multi-stage analysis.

The process, then, consisted of occasional bursts of initiative interspersed with phases of routine business during which growth occurred at a slower rate. It is tempting to view the process as an example of "punctuated equilibrium" (Gersick, 1991; Tushman and Romanelli, 1985), but to the extent that this theoretical framework has any bearing on the current research phenomenon, subsidiary initiatives can best be understood as occurring within an equilibrium period in organizational development. That is, they conform to the "rules of the game" as defined by the existing subsidiary -parent relationship, even if those rules *do* involve change and entrepreneurship. As observed by Gersick (1991: 16) "the stable integrity of the field and the rules and, thus, the game itself does not mean that the play is uninteresting, or that every match is the same"[3].

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[2] Evidence from the exploratory study and previous case studies in Canada (e.g. Science Council of Canada) confirm that parent-driven initiatives are relatively rare.

[3] The more interesting question, in fact, is whether revolutionary periods, as defined by the punctuated equilibrium model, can be discerned in the subsidiary setting. Revolutionary periods are "short periods of discontinuous change where strategies, power, structures and systems are fundamentally

THE MECHANISMS OF SUBSIDIARY GROWTH

Given the basic process of *initiative-driven* growth, the next stage of analysis is to understand the broader scope of mechanisms by which growth is achieved in the subsidiary. This is, of course, a restricted form of the generic issue of firm growth, the theoretical aspects of which will be considered in the next chapter. For the moment, it is important to recognize that growth is achieved through the matching of internal resources with market opportunities, and that both sides of the equation can fuel and constrain growth. The internal resources component of the growth equation can best be analyzed through the resource based view of the firm, and in particular the landmark work of Penrose (1959). From this perspective the subsidiary is modeled as a bundle of resources that are accumulated over time through the efforts of management. Initiatives represent special opportunities for generating new resources which can, in turn, be applied to subsequent opportunities. The market opportunities component of the growth equation can best be analyzed through the trichotomy introduced earlier, namely internal, local, and global markets. Market opportunities are also shaped (positively or negatively) by the structural and strategic context of the subsidiary.

Several types of data were collected during this study that shed light on the subsidiary growth process. Qualitative case-study data was the primary source of insight, but in addition a questionnaire survey was conducted of the general managers of the six companies, and a quantitative analysis was undertaken of the key success factor data. On

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transformed" (Tushman & Romanelli, 1985: 73). If a broad historical perspective is taken --and the Amazon case is probably the only one in this sample that allows for such a perspective-- it would be reasonable to hypothesize that the transformation of the subsidiary from a domestic focus to an international focus is a period of revolutionary change. This period of change would involve many discrete initiatives, but would also involve a re-conceptualization among subsidiary and parent management of the subsidiary's role. Amazon went through this stage of growth in the late-sixties and early-seventies, and subsequently settled down as a world mandate division. Using the same logic, the other sample companies are either currently undergoing, or just emerging from, such a period of revolutionary change. 3M's North American Plan, for example, appears to have led to substantial changes in the operating relationships between 3M Canada and 3M U.S., but it is too soon to be certain. This hypothesis requires substantial additional research.

the assumption that these different types of data offer different perspectives on the growth process, they will be analyzed separately. The final section of this chapter will then attempt to bring them together.

Integrated Case Study Analysis

The company-by-company analysis above suggests that resource flows are a major element of subsidiary development, linking specific initiatives and also driving the entire growth process. Specifically, four types of resource flows were identified, as follows:

(1) Resource complementarity[4]. The existing stock of physical resources (i.e. plant, equipment, administrative infrastructure) can be applied to the current initiative to reduce its incremental cost. A good example of this was Monsanto's Scripsets initiative, which consisted of three incremental investments, each one building on the existing manufacturing operations in La Salle, Quebec. Likewise, 3M's micro-encapsulation mandate was awarded in part on the basis of the existing infrastructure in London. Initiatives in which cost is a key component benefit particularly from resource complementarity. These are the Reconfiguration and Competitive Bid types.

Resource complementarity can also drive the entire growth process. Monsanto Canada's chemical mandates are all located in La Salle, and rely on one another to share the sizable overhead of the plant. Honeywell homes Canada's development over the past two decades has been dependent on the successive changes that have occurred in the Scarborough plant. And 3M Canada's growth has been in large part a result of the resources of existing plants:

> "I think that growth isn't an objective just for the sake of growth. I think we do want to continue to look for opportunities so the Canadian operations can add value and we can do a good job for the shareholder and

[4] Resource complementarity is equivalent to the concept of economies of scope, though clearly such economies only become apparent after the initial investment.

> for the U.S. business. We would look at the resources we have in our existing plants, and each plant has a definition what its about. This is the kind of thing we do. We would look for things, first of all that are complementary, where the focus of that particular plant would meet a corporate requirement. So I think there will continue to be that kind of investment take place, where there is an opportunity that may be a vertical integration or it may be an expansion of capacity but it fits very well with the existing infrastructure. So use the infrastructure and use the skills that are at the plant but don't destroy the focus."

(2) Application of a proprietary capability. A proprietary capability or core competence (Hamel and Prahalad, 1990) is applied to market opportunities, such that the subsidiary is uniquely positioned to meet the opportunity. There were many cases of this in the study. HP Canada's Panacom division, for example, leveraged its key strengths in terminal development in pursuit of the rugged terminal and the X-terminal opportunities. 3M Canada built a proprietary capability around the "focused factory" concept which improved its flexibility, quality and cost levels. This resource flow had general applicability to all four types of initiative, in that it built on the Canadian subsidiary's unique strength, but it was particularly valuable in mandate extension initiatives. Amazon Canada, for example, built its entire *raison d'etre* on a proprietary capability in air travel products. While the technology evolved and the emphasis changed, the string of mandate extension initiatives in Amazon over the years was based entirely on their proprietary expertise.

(3) Reputation growth. The success of prior initiatives enhances the reputation of the subsidiary with key parent company managers, which improves the chance of future initiatives being approved. This concept is self-explanatory, but its importance should not be understated. For example, 3M Canada's most recent initiative was approved in large part because of the company's track record in delivering new projects on schedule and on budget. Likewise, Honeywell Industrial's three initiatives had little to link them, other than the fact that it was the same management team seeking approval in head office on each occasion. As with resource complementarity, reputation growth appears to be particularly valuable when initiatives are contestable (i.e. reconfiguration and competitive

bid types).

The entire growth process can also be driven by reputation growth. The best case of this was 3M Canada's manufacturing group, who moved from being an "unknown quantity" in the early seventies to a leading-edge group today. This was achieved through careful nurturing:

> "What you do is build each new program on the success of your previous programs, so that when we were trying for example to get the hardware trade market in the U.S. to come to London and [give] us their masking tape [business], we asked the people we were dealing with to go and talk to the people in abrasives about whether the London plant was a good supplier, what the quality was, the type of service and so on."

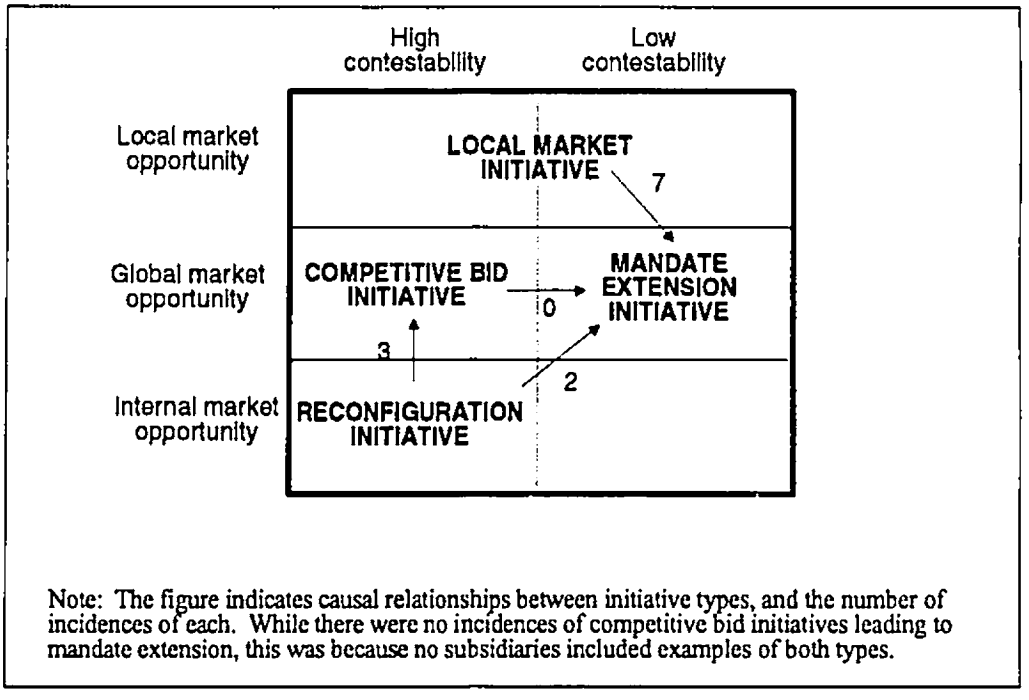
(4) Learning of the initiative process. Subsidiary managers appeared to gain an appreciation for their organizational context through trial and error, and learned to pursue opportunities in certain ways to maximize their chances for success. This very broad concept was observed (in various guises) in most companies. It is also a much more macro-concept, in that it is hard to observe at the level of a specific initiative. Monsanto Canada, for example, pushed for a big-hit initiative in the seventies. When that did not transpire they began to look for multiple small initiatives, with much more success. Hewlett Packard Canada went from a branch plant investment in the seventies to a series of autonomous initiatives in the eighties, to a policy of working closely with parent management on acquisitions in the nineties. Both of these evolutions reflected what appeared to be a lack of satisfaction with earlier initiatives, and a subsequent adaptation to more viable processes. The learning process has application at the more micro level as well, insofar as managers figure out a process that works for a specific initiative type. In 3M Canada, for example, the manufacturing group developed a standard approach to U.S. divisions:

> "We basically use the same approach in all of the products where we've got the North American or world mandate for. Our plant managers have the responsibility of going south of the border and searching out these opportunities. Finding the products that are really not the good fits or

finding the products that people are not really interested in making and then looking at whether that fits with us in terms of, can we offer them something, and if it does, doing some homework and then getting into that kind of business."

Taken as a whole, the case study analysis suggested that initiatives rarely occur in isolation. In the vast majority of cases there was either a direct linkage to a prior initiative, or a broader fit with the accumulated stock of capabilities and learning in the company. Interwoven with that observation was the realization that there was an somewhat predictable sequence of initiatives in any given subsidiary. The most obvious example was that mandate extension initiatives always followed one or more of the other three types. Also, competitive bid initiatives frequently followed reconfiguration initiatives, but never the reverse, presumably a result of the heavier burden of proof (e.g. a track record of success) in competitive bid situations. Furthermore, no direct links between either of these two types and local market initiatives were found. Figure 9-2 illustrates the identified sequence graphically.

Figure 9-2
Sequencing of subsidiary initiatives



Note: The figure indicates causal relationships between initiative types, and the number of incidences of each. While there were no incidences of competitive bid initiatives leading to mandate extension, this was because no subsidiaries included examples of both types.

The Role of Subsidiary Management in the Growth Process

If the subsidiary's stock of resources and capabilities is the fuel for growth, then the entrepreneurial efforts of subsidiary management are its spark plugs. Given the focus on initiatives in this research, such an observation is not surprising, yet the reality is that many other subsidiaries have apparently *not* pursued initiatives, and yet they have been blessed --presumably-- with comparable levels of resources.

The case study analyses suggested that one of the subsidiary president or general manager's key roles is to communicate a vision of the company. At Honeywell homes there was a very clear plan set out in the early-eighties that led to NAPR, the subsequent manufacturing changes, and finally the designation of two SBUs in Canada. Likewise, at HP Canada the president's vision back in 1981-1982 was to develop a capability around the oil and gas sector, and this inspired both the Calgary and Panacom initiatives. Finally, 3M Canada had a well-defined approach to its manufacturing business, though in this case it emerged gradually rather than as a preconceived notion. Other cases exhibited less specificity in their strategy, but this was in part a reflection of their situation. Monsanto Canada, for example, had an overarching vision of growth through small increments, but it was the responsibility of middle management to identify the appropriate business opportunities to deliver the vision.

The Monsanto case also illustrates another part of the subsidiary president's role, which is to generate enthusiasm and involvement around the vision such that managers go to the trouble of pursuing the opportunities they identify. In that individual's own words,

> "How do you get that initiative? First of all you get someone [like me] that says we can do it, you show examples or symbolism that we can change and that we are capable of doing things. You provide the tools, those tools being either information or capability to be able to do it, you provide the support, you get the best possible people in there focused on the challenge."

This is consistent with the findings on the initiative process in the previous

chapter. Initiative in middle management is fostered through the creation of a supportive context, and through the specific actions of top management that interact with that context (Ghoshal and Bartlett, 1994). Middle management's role, according to this logic, is to seek out new market opportunities according to the parameters laid out by the subsidiary president. On a related note, the subsidiary president had to take the initiative himself, by redefining his own role:

> ".. And let's change [my responsibilities] a little bit from selling products to local market to doing that plus looking at opportunities in terms of research and development, looking at opportunities in terms of investment and manufacturing, looking at opportunities in terms of bringing very talented people through and turning them into the global talent pool. So now you've got 6 or 8 different balls whereas before you had this single ball that you threw up in the air, and what's interesting is initially people don't understand it: there wasn't any push from the U.S. to say, you have to juggle 8 balls. So that's the real challenge, how do you get people who feel very comfortable juggling a simple ball, evaluated in many cases on juggling a simple ball, take a risk to start throwing around eight."

The subsidiary presidents and general managers in the sample mentioned a variety of other roles as well. Much of their time was spent dealing with immediate concerns, and managing the interface with their bosses in the U.S. Some of this effort had long-term implications, such as fostering strong relationships, broadcasting Canadian achievements, or negotiating budgets, but it all centred around facilitating development. The driver of growth, by contrast, was the president's ability to define a vision, foster enthusiasm for it (both in the subsidiary and at headquarters), and take specific actions himself.

This analysis begs an additional question, which is "What motivates individuals in the subsidiary to take initiative and further the development process?" A strong argument can be made that the subsidiary president is furthering his/her career advancement by encouraging subsidiary growth, but the same case can not be easily made for the individuals working for him, many of whom have little interest in being promoted

to head office or an affiliate company. Tangible rewards in the form of bonuses or promotions are the spur in some cases, but the intangible satisfaction of building something new, or of bringing investment to Canada, appears to be at least as significant a driver. The current study is unfortunately not able to shed much light on the drivers of individual initiative. It is, however, an important issue that has recently received some research attention (e.g. Ghoshal and Bartlett, 1994) and deserves more.

The Role of Parent Management in the Growth Process

It was proposed in chapter 3 that the subsidiary development process would lead to a gradual enhancement of the subsidiary's role and an increase in its strategic autonomy (Burgelman, 1983a) through the increasing enlightenment of parent management. Evidence supporting this proposition was mixed.

3M Canada exhibited a 20-year development process that was matched by a corresponding increase in openness and respect from parent management. While no tangible changes in the structural context were observed, respondents in both parent and subsidiary organization spoke of the record that 3M Canada had established. The two top 3M Canada manufacturing managers both observed that the level of openness to their initiatives at head office had markedly improved in the period 1983-1993. Parent manager interviews verified this finding. In more dramatic fashion, Honeywell Industrial Canada's growth was accompanied in 1992 by a radical re-thinking of the organization which put the Canadian mandate products under global control. One of the triggers for the change was the success of Honeywell Industrial Canada in building world-mandate businesses. Unlike 3M Canada, where the change in the parent-subsidiary relationship was subtle, Honeywell Industrial Canada's shift in role was achieved through substantive changes to its structural context.

No apparent shift in the relationship with parent company management was observed at Monsanto Canada or Honeywell homes Canada. In the former case, parent management were slow to recognize the value of the proposed initiatives to the corporation, and did not change their position significantly. In the latter case, the parent

company was relatively open to initiatives in the seventies, and has maintained this perspective.

Finally, the cases of HP Canada and Amazon are interesting in that they actually exhibited a shift the other way i.e. towards a less open attitude to subsidiary initiative. Amazon's "golden years" of initiative and growth were in the 1965-1985 period. In the late eighties the parent company lost substantial amounts of money. Several divisions were sold off to remove some of the debt from the balance sheet, and in other divisions the availability of capital investment funds was severely curtailed. During this period the parent company also bought out the minority shareholders of Amazon Canada, a move which reduced Amazon's autonomy further. These changes, coupled with the lack of strategic fit between Amazon's business and the parent companies operations, effectively prevented any further initiatives from gaining approval. On two occasions proposals were put to the parent company in the U.S. for standard mandate-extension investments, and on both occasions the requests were turned down.

HP Canada pursued its growth goals around the oil and gas industry, and achieved development funding through a tax on sales to the Canadian organization. In 1991 a major corporate re-organization was crafted that sought to better control the ad-hoc development activity occurring in various subsidiaries around the world. Essentially, the mechanism that allowed value-adding activities to be locally-funded was withdrawn. This meant that the world mandates already in existence in Canada had to find an organizational home with a U.S. division and, further, that no new initiatives could be undertaken unless they had the prior blessing of the appropriate U.S. division.

In both of these cases the subsidiary, through events beyond its control, had its development curtailed. In the case of Amazon the trigger was poor corporate results; in the case of HP Canada it was a re-organization that attempted to better coordinate global development activities. The implication is that the role of parent management has to be understood in its broader context. Subsidiary context management is one of many functions fulfilled by the MNC's structures and systems. When important changes are required elsewhere, one ramification may be the curtailment of the subsidiary's development plans. With regard to Burgelman's model, it is necessary to extend the

relevant organizational context to include the external environment and the corporate strategy because they can have a profound influence on the attitude towards the subsidiary.

Questionnaire Data Analysis

The seven[6] general managers or subsidiary presidents were asked questions in a number of different areas, two of which will be discussed here. First, they were asked about the changes from 1984 to 1994 in four factors: strategic autonomy, parent openness to initiatives, specific capabilities, and international responsibilities. The results are listed in table 9-2.

Table 9-2

Changes in subsidiary characteristics over time

	Mean responses on 5-point Likert scales*	
	1984	1994
Strategic autonomy	2.29	2.43
Parent openness to initiatives	2.86	3.86
Specific capabilities	3.29	3.71
International responsibilities	2.57	4.14

* 1 = very low, 5 = very high. The non-parametric sign-test indicated that the figures for 1984 and 1994 were significantly different at $p < .05$ for "openness to initiative" and "international responsibilities".

The clearest change evident from this data is that international responsibilities increased significantly over the 10-year period (the critical period of growth for all except Amazon). Interestingly, though, respondents did not indicate any significant increase in

[6] There were seven respondents because the Monsanto agriculture and Monsanto chemical general managers responded separately. Given the independent reporting structure of the two companies, separate responses were necessary.

specific capabilities. The implication is that the learning, from their perspective, was mostly through their newly-found international orientation. While strategic autonomy was essentially unchanged over the period of study, respondents did feel that their parents' openness to initiatives had increased. This suggests some level of role-change in the minds of parent management; however, it also suggests that autonomy is not the mechanism by which such a role change is enacted. It might be that changes in the organization's psychology, rather than its physiology or anatomy (Bartlett and Ghoshal, 1989) are what matter here.

Second, they were asked a number of questions relating to the internal capabilities of the subsidiary and the relationship with the parent company. Five constructs were identified: Global value-added, decision-making autonomy, relationship with the parent, entrepreneurial capability, and historical development. Where possible, standard measures were used for these constructs. A discussion of the measures used can be found in chapter 4. Global value-added was considered to be the key dependent variable, on the basis that all the subsidiaries in the sample started out with little or no international responsibilities. Also, table 8-1 showed that global value-added was closely related to other measures of growth.

Table 9-3 lists the results of the analysis, specifically the Spearman correlation coefficients between global value-added and the five dependent variables. Scale reliability measures are also listed. While the small sample size means that all these results should be interpreted with caution, some general observations can still be made.

First, the analysis lends some support to the importance of historical development as a driver of subsidiary value-added, and reasonable support to the role of entrepreneurship. Both of these constructs are concerned with internal growth and development. By contrast, the relationship of the subsidiary with the parent had no discernible impact on value-added, and decision-making autonomy had a somewhat negative impact. The latter relationship was surprising, but reflects the fact that close integration does not preclude growth.

Table 9-3

Correlations between global value-added and five independent variables

	Reliability of scale and number of items	*Correlation with global value added*
Decision making autonomy	.74 (8 items)	-.625
Relationship with parent	.90 (2 items)	.22
Entrepreneurship	.95 (5 items)	.67
Historical development	.83 (4 items)	.90**

** P <.05

Taken as a whole, the questionnaire data provided some additional evidence that there is a clear developmental process (in terms of international responsibilities), and that it is related more to internal factors (such as entrepreneurship and historical development) than contextual factors (such as autonomy or relationships with the parent company). This suggests that Burgelman's (1983b) model of context and strategic behaviour has its limitations in this setting, a point which will be discussed at the end of the chapter.

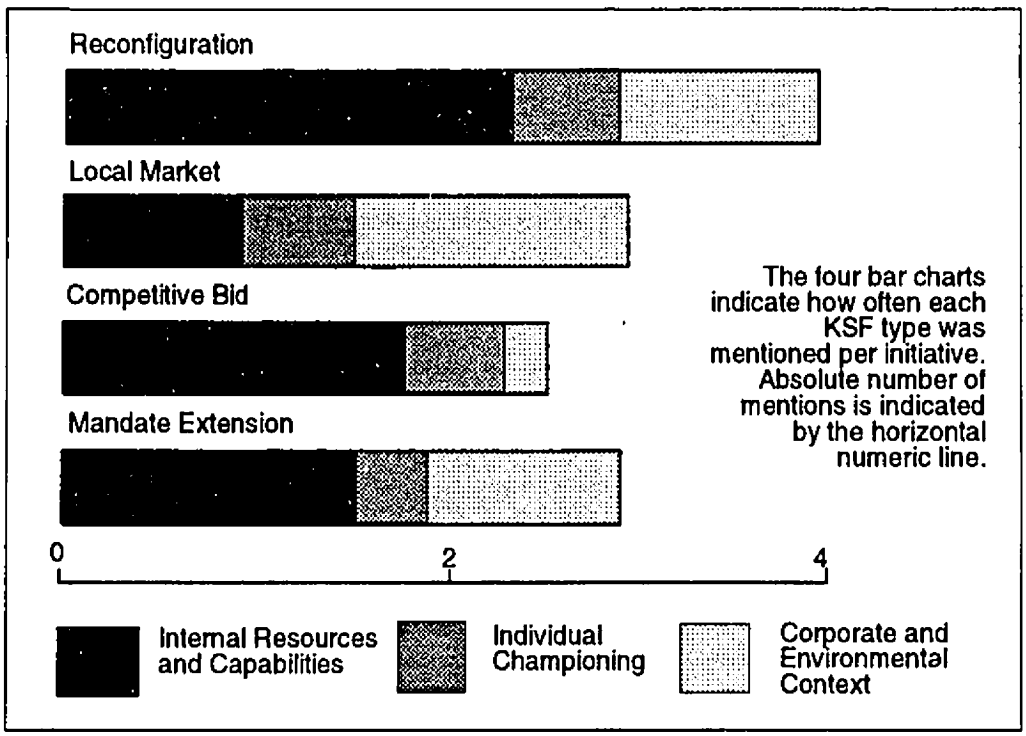
Key Success Factor Analysis

A slightly different cut at the drivers of growth was obtained through further analysis of the key success factor data described earlier. Using the standardized data, the frequency of KSF responses was summed and broken down by initiative type. This gives an approximation of the perceived relative importance of the various KSFs by initiative type. Figure 9-3 provides a graphical illustration of these results. As it indicates, KSFs 2, 4, and 6 relate to internal capabilities of the sort discussed above. KSF 1 relates to the internal drivers such as middle and top management championing. KSFs 3,5, 7, and 8 relate to various aspects of the organizational context and opportunity set.

Figure 9-3 highlights one clear finding that had been suggested earlier, namely the

perceived importance of subsidiary resources and capabilities as drivers of the growth process. When combined with KSF 1 (the personal championing), a total of 67% of all key success factors could be attributed to internal drivers rather than market opportunities or contextual factors. Not surprisingly this percentage was lowest (57%) in cases of local market initiatives that rely heavily on market opportunity, and highest in competitive bid initiatives that depend more than the others on internal approval. This picture of internal resource-driven growth[7] is consistent with the qualitative findings presented earlier.

Figure 9-3
Frequency of KSF response by initiative type



[7] An issue which this data failed to shed light on (because it was not considered in advance) is the fact that subsidiary resources can themselves represent a context that is conceptually distinct from structural or strategic context as defined here.

Discussion

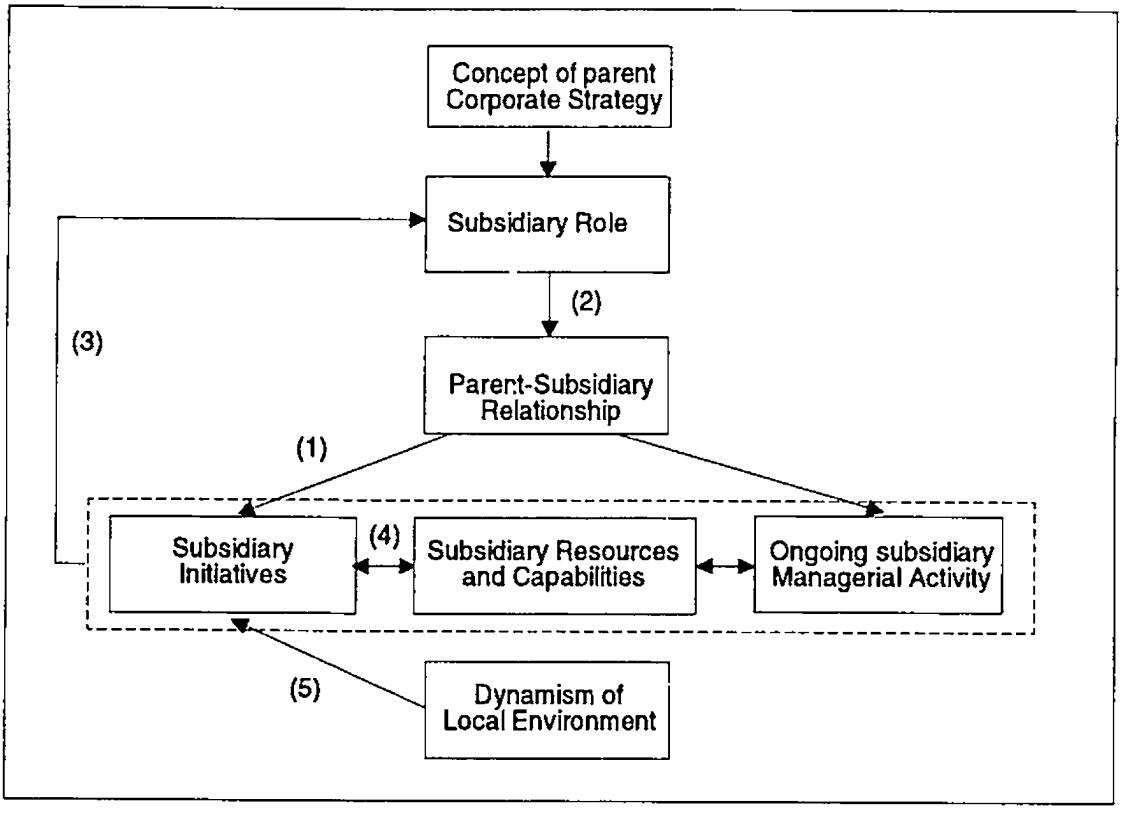
To bring this analysis together it is worth revisiting the original framework that was used to guide the research. It is reproduced in figure 9-4, with the proposed relationships numbered. How accurate was the framework in its portrayal of the development process? The answer is mixed. Some evidence was found for the circular relationship between subsidiary role, subsidiary context and initiatives (propositions 1, 2, and 3), but in most cases the relationship was uni-directional. That is, subsidiary context was shaped by subsidiary role which in turn impacted the volume and type of initiatives pursued, but there was little evidence of change to subsidiary role even where initiatives were successfully pursued. Only Honeywell Industrial Canada exhibited a clear "enhancement" in role, and it is arguable whether that was entirely to its benefit, in that its world mandate activities were essentially put under a global jurisdiction.

The reason for the lack of manifest changes to subsidiary role and subsidiary context may be related primarily to the subtlety of the changes that occurred. From the parent manager interviews there was typically a strong recognition of the capabilities of the Canadian subsidiary and a feeling that they were involved in worthwhile projects. This had not always been the case, so there was a strong sense that changes had occurred in the minds of individual managers, but that they had not been translated into structural shifts. Further evidence for this interpretation comes from table 9-2, which suggested a marked increase in openness to initiatives (as perceived by subsidiary general managers) but without any change in autonomy. Also, table 9-3 suggested that autonomy may even be negatively associated with value-added in subsidiaries.

The conclusion to be drawn here is that a simplistic characterization of structural context in terms of variables such as autonomy is not appropriate. Bartlett (1979) and many others have observed that it is the subtle processes that are often the most powerful in shaping behaviour in large complex MNCs. The evidence collected in this study is consistent with that finding.

Somewhat more contentious was the observation that in HP and Amazon changes were made to the structural context that essentially prevented any subsequent initiatives.

Figure 9-4
A model of subsidiary development (from chapter 3)



Both these changes were the result of corporate and/or environmental changes that had little or nothing to do with the Canadian subsidiary. In terms of Burgelman's model, it is a reminder that subsidiary role is a function both of the "corporate concept of strategy" and the activities in the subsidiary, so when sweeping changes in strategy occur they tend to smother the nuances of the parent-subsidiary relationship.

Proposition 4 in the theoretical framework was wholeheartedly supported and enhanced as a result of the research. Both qualitative and quantitative evidence supported the notion that subsidiary initiatives are driven by the stock of resources and capabilities in the subsidiary. Furthermore, the nature of the relationship was elaborated, in terms of the specific resource flows that link specific initiatives and the guiding role played by the subsidiary president. Much more will be said on this issue in the next chapter.

Finally, proposition 5 on figure 9-4 related to the importance of the local market as a driver of subsidiary initiatives. This was confirmed, insofar as 13 of the 39 initiatives in the sample were of the local-market type, but it was also shown to be incomplete, because opportunities arose in the internal and global markets as well. It should in fact be hypothesised that the volume of initiative in a given subsidiary is associated with the vibrance of the local, internal *and* global markets.

SUMMARY

This chapter examined the issue of subsidiary development over time, and specifically the role played by initiatives in fuelling that development. Multiple sources of evidence were analyzed (in this and the preceding chapter) including case histories of the six companies, factual data on the growth of the companies over time, and questionnaire data from the subsidiary presidents. It was shown that internal drivers were the critical determinants of growth, including the specific resource and capability stocks of the subsidiary and the active entrepreneurial efforts of subsidiary managers. Changes in the corporate strategy outside of the control of the subsidiary were observed to have a detrimental impact on subsidiary growth in two of six cases.

CHAPTER 10
THEORETICAL IMPLICATIONS

The objective of this chapter is to examine the theoretical implications of the research. In the first part, the theoretical insights from the study are assessed in relation to the existing theories of the multinational enterprise. In the second part they are used as a departure point for an extension to the network theory of the multinational. Other bodies of literature are also introduced and incorporated. This chapter is somewhat speculative, in that it was based on a sample of just six subsidiaries and 39 initiatives. It is best interpreted as a set of research hypotheses that will help to shape a research agenda for subsequent projects.

EXISTING THEORIES OF THE MULTINATIONAL CORPORATION

The purpose of the theory of the multinational corporation (or multinational enterprise) is to "explain the level and pattern of the foreign value-added activities of firms" (Dunning, 1994). This involves an understanding of the original decision to invest internationally, but also an understanding of how international activities have subsequently been configured. As shown by Kogut (1983), the predominant share of foreign direct investment flows since the seventies have been incremental investments in already established subsidiaries, and not *de novo* investments, so a valid theory should shed light on both phenomena. Furthermore, an effective theory should recognize the heterogeneity and multidimensionality of the MNC (Doz & Prahalad 1991). It should also address the dynamic facets of the MNC, that is how activities are created, divested, grown, and amalgamated over time.

Two dominant theories exist. The longer-established of the two is the "economic" theory of foreign production, which centres around the insight that imperfections in

intermediate markets provide the opportunity for the foreign firm to build competitive advantage over its domestic counterpart (Buckley & Casson, 1976; Dunning, 1980; Hymer, 1976; Rugman, 1981). This theory pulls together various strands of economic theory to suggest that the MNC's propensity to engage in international production depends on three necessary conditions: (a) ownership-specific advantages over incumbent domestic competitors; (b) location-specific advantages that favour investment in the focal country; and (c) intermediate market failure that favours "internalization" over other forms of contractual arrangement. The interconnectedness between these three factors has prevented a consensus opinion on their relative importance, such that certain academics have focused on internalization (e.g. Buckley 1988) while others have focused on ownership and location advantages (e.g. Kogut & Zander, 1994). Little effort has been made in applying the theory to the configuration of activities in already-international firms. Rugman and Verbeke (1992) is a recent exception.

The second theory can best be termed the "network" approach, in that it models the MNC as a geographically-dispersed set of value-adding activities, each activity of which can be viewed as a semi-autonomous entity, with ownership ties, normative links and certain obligations to head office. This theoretical approach has its roots in the work of Prahalad (1976), Bartlett (1979), Hedlund (1986), White & Poynter (1984) and others. It has recently been invigorated through the application of network principles from other disciplines (e.g. Forsgren & Johanson, 1992; Ghoshal & Bartlett, 1991). The strength of the network approach is in its ability to deal with complex, large MNCs where multinationality is already a given. Its weakness is, correspondingly, its limited applicability to internationalizing or smaller firms. The economic theory of the MNC, by contrast, is strongest in its portrayal of newly-internationalizing firms. As observed by Rugman and Verbeke (1992), the economic theory of the MNC has traditionally been built on two implicit assumptions: (a) that ownership advantages arise in the home country, and (b) that location advantages can only be applied locally. Neither of these assumptions is appropriate in large mature MNCs so, as Rugman and Verbeke showed, extensions to the economic theory of the MNC are necessary.

In sum, it is best to view the two theories as complementary, providing insights

into different facets of the MNC though with some overlap. It should be immediately apparent that the current research project, and its findings, are closely allied to the network approach. The fact that the investigation occurred at the subsidiary level, for example, meant that the implicit assumptions noted above were very unlikely to apply. Nonetheless, it is valuable to explore the commonalities and the discrepancies between the economic theory of the MNC and the findings from this research to see what insights can be gained.

THE "ECONOMIC" THEORY OF FOREIGN PRODUCTION

As discussed by Buckley (1988), the "general theory" of internalization can be used to generate "special theories" relating to particular markets or conditions. Such a "special theory" is needed here, namely an explanation for the location of an internationally-focused value-adding activity (i.e. a world mandate) in a subsidiary. This would include an explanation for the decision to make the investment in the subsidiary, and also the decision to divest or shift the same activity (Boddewyn, 1983). The challenges with applying a "theory of the MNC" to the location decision for a single activity, however, are several. First, the extensions to traditional theory recommended by Rugman and Verbeke (1992) have to be adopted. These are: (a) firm-specific advantages are non-location bound, meaning they can originate in the subsidiary; and (b) country-specific advantages can be leveraged internationally. Second, Dunning's (1980) three factors (ownership, location, internalization) cannot be rigorously applied because they reinforce and interact with one another. When the subsidiary has interdependencies with the parent company and other subsidiaries, it is not possible to disentangle, for example, the internalization and location-advantage rationales for investment (Dunning, 1988). Finally, the investment decision is often made in large part by subsidiary management, whereas in traditional theory it would be a home-country decision.

The subsidiary investment decision. With these caveats in mind, the decision to locate a value-adding activity in the subsidiary can be modeled as follows. Parent

management have to perceive that the subsidiary location will offer (1) competitive advantage over the next-best internal site, either a sister subsidiary or the home country, *and* that it will offer (2) competitive advantage over an independent producer in the subsidiary's country. The former is the equivalent of Rugman and Verbeke's leverageable country specific advantage, in that the advantage is embedded in the Canadian context (for example) but can be leveraged to other countries. The existence of leading edge suppliers or cheap factor costs, for example, would constitute a country-specific advantage. The latter is the equivalent of Rugman and Verbeke's "Non location bound firm specific advantage", in that it is proprietary to the firm but it may have originated outside the home country and it may be applied internationally. A proprietary technology or the company's organizational culture would be firm-specific advantages[1]. Figure 10-1 represents the country-specific and firm-specific sources of advantage as independent dimensions. This suggests four generic situations for any given value-adding activity. Where there are both firm-specific and country-specific advantages, the Canadian[2] subsidiary would be chosen as the preferred location for investment. Where there is a firm-specific advantage but no Canadian country-specific advantage the preferred location would be a sister subsidiary in a more advantageous country. Where there is no firm-specific advantage, but Canada does offer country-specific advantages the activity should be sourced from Canada by another company. Finally, when there are neither country- or firm-specific advantages, the activity should be sourced from a separate company somewhere else in the world.

Evidence from the research was largely in support of this model, though the criteria of firm-specific and country-specific advantages were often implicit. In the cases of reconfiguration and competitive bid initiatives, the firm-specific advantage was

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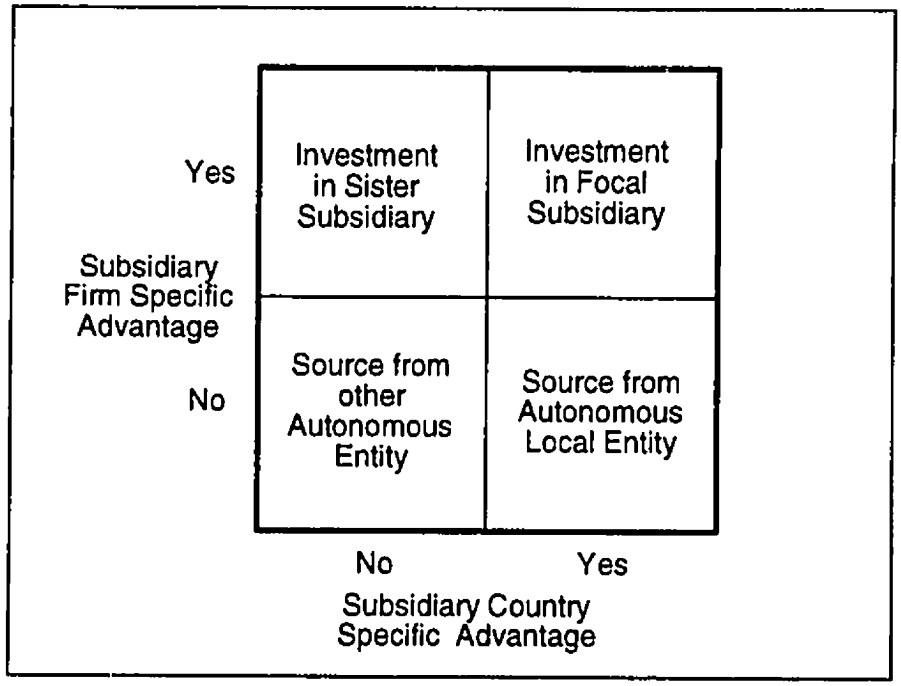
[1] Note also that the firm-specific advantage is, in part, a result of internalization. In other words, if the parent company chose to outsource the focal activity locally, they would be acknowledging: (a) that the subsidiary had no firm-specific advantage; *and* (b) that a market-based contractual arrangement was preferable to an internalized arrangement.

[2] To improve clarity, this section will refer to the Canadian subsidiary as the focal subsidiary, although the intent of this analysis is that it should have general application.

essentially taken as a given and the question c ntred around which country the activity should be located in. Where the Canadian subsidiary won the mandate it was because it had a tangible country-specific competitive advantage (e.g. cheaper labour or energy costs than the alternative location) or it had an intangible advantage arising from its Canadian heritage (e.g. a short-run production capability).

Figure 10-1
Country-specific and firm-specific advantages for a value-adding activity



Local market initiatives fitted the firm-specific and country-specific advantage criteria almost as a matter of definition, in that the business opportunity was typically unique. The interesting cases were those initiatives where the advantage was only fleeting, so that an alternative location quickly became more attractive to the parent company. In these cases the activity was phased out (see the next section). There were also a few cases of local acquisitions, in which a small Canadian company was integrated into the corporate system. The logic here was that the synergies in the acquisition were sufficient to create a firm-specific advantage that could not be accessed before the deal. In the case of SACDA, for example, Honeywell Industrial applied its global marketing

clout to SACDA's products.

Finally, mandate extension initiatives provided the weakest test of country-specific and firm-specific advantages, in that the subsidiary was usually entitled to make the investment without explicitly showing that Canada was the optimum location. In such cases, the interconnectedness between the new investment and the existing activities was sufficient to make Canada the most efficient location, even if it may not have been on a stand-alone basis.

Divestment decisions. An important corollary of this analysis is the conditions under which divestment occurs. If the Canadian subsidiary is perceived to have lost its country-specific advantage, the value-adding activity in question should be transferred to a sister subsidiary or the parent company's operations. Likewise, if the MNC as a whole is perceived to have lost its firm-specific advantage in this area, the activity should be divested, and/or sourced from an independent provider.

There were six cases in this study where the initiative was successful but the mandate was subsequently lost. Four involved a transfer of the activity to the parent company, because the country-specific advantage that enabled the subsidiary to win them proved to be transient. The other two resulted in the abandonment of the business in question, presumably because there was no firm- *or* country-specific advantage. No cases were found of outsourcing to an autonomous local entity. This may have been bad luck, or a reflection of the small sample size, but it may also have been indicative of a more complex process than Figure 10-1 suggests. Several issues are pertinent here. First, the specificity of a capital asset such as a manufacturing plant is such that divestment may have a different hurdle rate than investment. Second, firm-specific advantages tend to be dispersed throughout the firm, which makes it very difficult to isolate a single activity and suggest that it has lost its competitiveness. As a result the fortunes of a single activity tend to get tied up with the fortunes of the entire business group with which that activity is associated. Individual entities are not subject to "market testing". Finally, and related to this, there are firm-specific advantages that arise by being part of a multinational system. These raise the hurdle rate on a divestment candidate.

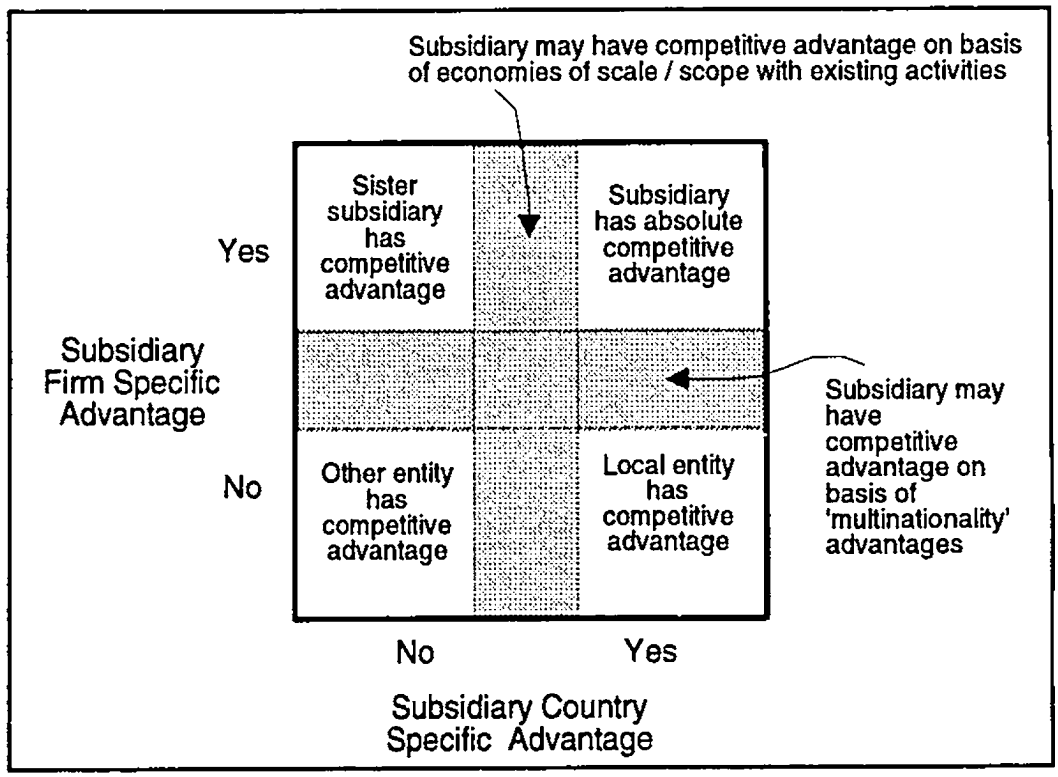
Extensions to the Model

Figure 10-1 suggests a fairly straightforward analysis of the factors impacting the investment / divestment decision. However, the discussion has hinted at a number of limitations in the analysis, and these should be explored in greater detail.

The first problem was intimated in the discussion of divestment. The key issue here is that certain firm-specific advantages are asset-based, such as proprietary technology, while others are gained by virtue of multinationality (Dunning, 1988). The ability to sell a product line through the MNC's global salesforce, for example, may be a firm-specific advantage that is a function of multinationality rather than special capabilities.

Assuming, for the moment, a country-specific advantage on the part of the

Figure 10-2
Country-specific and firm-specific advantages: A revised model



subsidiary, the decision to invest in the subsidiary thus comes down to the potential relatedness of the activity to the existing corporate system. Consider two examples. Monsanto's EZ Ject was a business that had limited connections to the corporate system. It had to prove its competitiveness as a "stand-alone" entity. Honeywell Industrial's OM&S project, by contrast, was fully integrated with the company's key product, so its approval "hurdle" was substantially lower. Put another way, the more closely integrated the activity is with other corporate activities, the easier it is to achieve a satisfactory level of competitiveness.

This analysis suggests a "grey area" rather than a solid line between activities that offer a firm specific competitive advantage and those that do not. Figure 10-2 illustrates this point. Cases that fall into the grey area do not offer competitive advantage as stand-alone entities, but they do when they are integrated into the corporate system.

The second problem was identified in the discussion of mandate extension initiatives. These are, as a matter of definition, extensions of current Canadian business activities. It is assumed that there is a firm-specific advantage inherent in the mandate in question, but what is less obvious is the existence of a country-specific advantage that would necessitate siting the additional investment in Canada. Amazon's A300 and A400 initiative, for example, led to investment in Canada without other countries being considered. What this suggests is another "grey area" in which the country-competitiveness of the activity depends on the level of relatedness with other subsidiary activities. If the activity is independent, it must demonstrate absolute competitiveness (vs. rival sites). If it is linked to existing subsidiary activities then the hurdle rate for acceptance is much lower, primarily on account of the economies of scale and scope between the related activities. Figure 10-2 illustrates this point.

Unfortunately this analysis raises a further problem, which is that it becomes increasingly difficult to disentangle firm-specific and country-specific sources of competitive advantage. Rugman and Verbeke (1993) observed the limitations of traditional economic theory, by showing that firm-specific advantages could emanate from the subsidiary, and that country-specific advantages could be leveraged internationally. *The current analysis suggests once that extension is made the two types collapse into a*

single category of "subsidiary-specific" advantages. The competitive advantage of the subsidiaries in this study was achieved through a long-term development process, involving the transfer of resources and capabilities from the corporate system, and the application of local (Canadian) learning. To attribute this competitive advantage to firm- or country-specific factors would be very difficult, and probably beside the point. The interesting question is not whether competitive advantage was more a function of firm- or country- advantages, but *whether the capabilities in question can be applied through the corporate system while being protected from local imitation* (Kogut and Zander, 1992). This is an important question, but it lies beyond the immediate scope of this research. See the endnote for some provisional analysis on the issue.

This insight makes Figure 10-2 appropriate only when the firm-specific and country-specific sources of advantage can be separated. This will occur far more often in certain cases than others. Competitive bid initiatives, for example, require an explicit recognition of the country-specific factors and their expected benefits. All other types of initiatives, to lesser degrees, also require a clear understanding of the sources of putative competitive advantage. Where the disentanglement of the two sets of factors becomes impossible is in divestment situations. Some of the problems were identified above, and others are examined in the endnote.

"NETWORK" MODELS OF THE MULTINATIONAL CORPORATION

The abundance of writing that falls under the "network" banner has a number of common characteristics: it is focused on process issues; it is primarily inductive; it considers multiple levels of analysis within the MNC; and it embraces a variety of intellectual traditions. In terms of the current research, and in marked contrast to the economic theory discussed above, the core feature of the network model is its recognition of the subsidiary[3] as a semi-autonomous entity. This insight makes it possible to model

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[3] The definition of "subsidiary" varies enormously between authors: The key point is the repudiation of a monolithic conception of the MNC.

the MNC as an interconnected constellation of entities, different only by degree from the networks of individuals, groups, and firms modelled in other disciplines. Rather than undertake a broad-based review of the MNC network literature, this section will focus on two themes: first, the commonalities between the current study and the existing body of research; and second, the gaps that this research addresses.

Commonalities Between This Study and the Existing Network Literature

The first point, which is central to this thesis, is that national subsidiaries develop specialized or unique resources over time (Kim & Mauborgne, 1993; Prahalad & Doz, 1981) which leads to a differentiation of their roles (Ghoshal, 1986). Furthermore, rather than simply being assigned a role, the subsidiary is in a position to shape its own role through autonomous action (Burgelman, 1983a; Etemad & Dulude, 1986; Hedlund & Ridderstrale, 1992; White & Poynter, 1984). Second, and related to this, is the recognition among some authors of the need to ensure that all subsidiaries have some "creative" capacity. Hedlund and Ridderstrale (1992), for example, argued that it is very easy for the MNC to concentrate on the exploitation of existing capabilities rather than the creation of new ones, but to be effective the two activities should occur in close proximity. This means that each and every subsidiary should have the capacity to identify and exploit new opportunities, rather than certain subsidiaries being given exclusive R&D mandates. In Hedlund's (1986) terminology this is achieved through a "redundancy of functions" rather than a "redundancy of parts". The link to the current research is obvious, in that the sample subsidiaries all had an entrepreneurial or "creative" capability on top of their "exploitative" capability.

The third key feature of the network conceptualization is the positioning of the subsidiary as one node in a complex network of internal and external entities. The subsidiary has relationships with suppliers, customers, competitors, and regulatory bodies in the local market, with head office and sister subsidiaries inside the MNC, and with "global" entities as well (Ghoshal & Bartlett, 1991). A variety of governance forms (market, hierarchy, joint venture) are used to mediate these relationships (Forsgren &

Johanson, 1992; Ghoshal & Bartlett, 1991). This conceptualization suggests that the subsidiary's position in the network is closely related to its role within the MNC, so that strong local linkages are indicative of local responsiveness while strong corporate links are indicative of an integrated role. As this study has suggested, however, there should at least be latent linkages to local, global *and* internal entities.

Finally, the network literature has recently begun to explore issues of knowledge transfer in some detail (Hedlund, 1994; Kogut & U. Zander, 1994; Solvell & I. Zander, 1991). This research is concerned with the transfer of proprietary MNC capabilities, particularly those which are tacit or "uncodifiable", across geographical boundaries. Kogut and U. Zander (1994) for example, argued that the MNC's *raison d'etre* is its ability to transfer knowledge effectively across boundaries; Solvell and I. Zander (1991; 1994), by contrast, argued that the MNC is *not* particularly well equipped to transfer knowledge across nations. The key point, which is central to the current work as well, is that an understanding of the resources and capabilities of the MNC, and their potential for transfer to other entities, is essential to a comprehensive network model.

Gaps in the Existing Network Literature

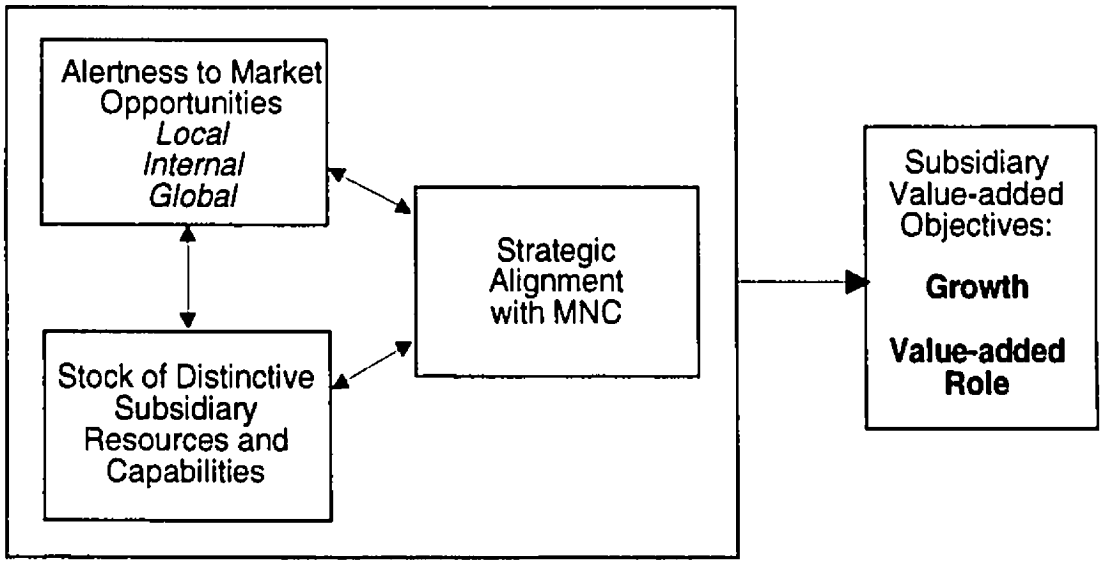
This review has suggested a number of areas where there is scope for enhancing the existing theory of the MNC. The first, as noted by Hedlund and Ridderstrale (1992) is the lack of attention that has been given to "creation" in the MNC. They reviewed the literature from a variety of perspectives, and concluded that all of it concentrates on the "exploitation of givens rather than the creation of novelty" (1992: 5). The second gap is in the area of knowledge, resource and capability transfer across boundaries and in host countries. While much has recently been written in this area, it comes across as a nascent field of exploration with great potential for new insight. Finally, there is still a preponderance of writing at the parent-company level, much of which does justice to the roles and activities of the subsidiary but without actually studying them as a focal entity. Thus, there is scope for theoretical contributions building on the subsidiary as the unit of analysis.

This analysis of gaps is not intended to be comprehensive. Rather, it is a statement of the perceived limitations of existing theory as it relates to the phenomenon of subsidiary initiatives. The following section will take the first steps towards filling these gaps.

A THEORETICAL EXTENSION

The theory development proposed in the following pages draws on the ideas that were brought out in the course of the thesis. The objective of the theory is twofold: to model the *role* of the national subsidiary and to model the *growth* of the national subsidiary. Clearly the two objectives are closely related, the former being directed more towards the subsidiary as it relates to the MNC as a whole, the latter being more internally-focused.

Figure 10-3
The theoretical model



The theory has three components, as illustrated in Figure 10-3: (1) the market opportunities faced by the subsidiary; (2) the internal resources of the subsidiary; and (3) the alignment of the subsidiary with the MNC's strategy. These three components

provide a comprehensive explanation for the role and the growth of the subsidiary. It should be observed that the alignment of market opportunities and internal resources is in fact the essence of strategic management (e.g. Andrews, 1971; Porter, 1980; Barney, 1991). The current conceptualization is distinct from the general case for three reasons: (1) the focal organization, the subsidiary, is a component of a larger organization rather than an autonomous firm; (2) the international dimension makes it necessary to explicate the different opportunities in "local" and "global" settings; and (3) the focus is on new activities rather than the existing portfolio of products and markets. Note also that while all three elements are necessary to achieve the subsidiary's value-added objectives, the driver in this model is the subsidiary's stock of distinctive resources. In this regard, the current study conforms more to the resource-based view of strategy than that based on market position.

Market Opportunities

The so-called "Austrian" school of economics is based on the writings of Carl Menger, and includes key works by Hayek (1937), Mises (1949), and Kirzner (1973)[4]. Austrian Economics is centred on the notion of "market process", in sharp contrast to the neoclassical economic tradition in which the market is in equilibrium. As explained by Kirzner (1973), market equilibrium is a theoretical abstraction that is reached when all buyers and sellers decisions are "dovetailed" together. If, however, it is assumed that there is a certain level of ignorance among market participants, a competitive process would be expected in which buyers and sellers continually revise their positions in search of greater returns. Opportunities for above-normal profit exist, on account of the initial ignorance of market participants, but these are gradually lost as competitors become aware of the opportunities and profits are competed away. Over time the system trends towards equilibrium.

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[4] See Jacobson (1992) for a review of the Austrian literature as it applies to strategic management.

Kirzner then postulated that market opportunities are not static, so that the competing away of above-normal profits becomes a never-ending cycle rather than a one-off event. The essence of the market process, under this scenario, thus becomes the search for previously unnoticed opportunities, as the major source of above-normal returns[5]. Kirzner introduced the notion of the entrepreneur as the driver of this process. He further suggested that every decision-maker has both a managerial role as a market price-taker and an entrepreneurial role that arises "out of his alertness to hitherto unnoticed opportunities" (1973: 39).

While this is a much simplified and incomplete portrayal of the market process, it captures the essence of Kirzner's argument. The key issue from the perspective of this study is the recognition that every individual has (potentially at least) an entrepreneurial role that entails alertness to market opportunities. The suggestion is that market opportunities do not present themselves in an orderly or predictable fashion, so for a firm to be effective the entrepreneurial function has to be latently present in all individuals. Certainly the evidence from the current study is consistent with this approach, in that initiatives were conceived in a multitude of different settings, frequently in the course of a manager's normal duties.

When Kirzner's view of entrepreneurship is combined with the classification of market types discussed earlier, the subsidiary's opportunity set can be broken down into three parts. Figure 10-4 illustrates the point.

Local market opportunities. These arise through ongoing interactions with local customers, suppliers or other entities. The local market initiatives in the study were all of this type. From the MNC's perspective this is a key subsidiary activity because it capitalizes on opportunities that may not exist anywhere else in the global system. Of particular interest are the leading-edge markets, such as Canada for hydro-electric power

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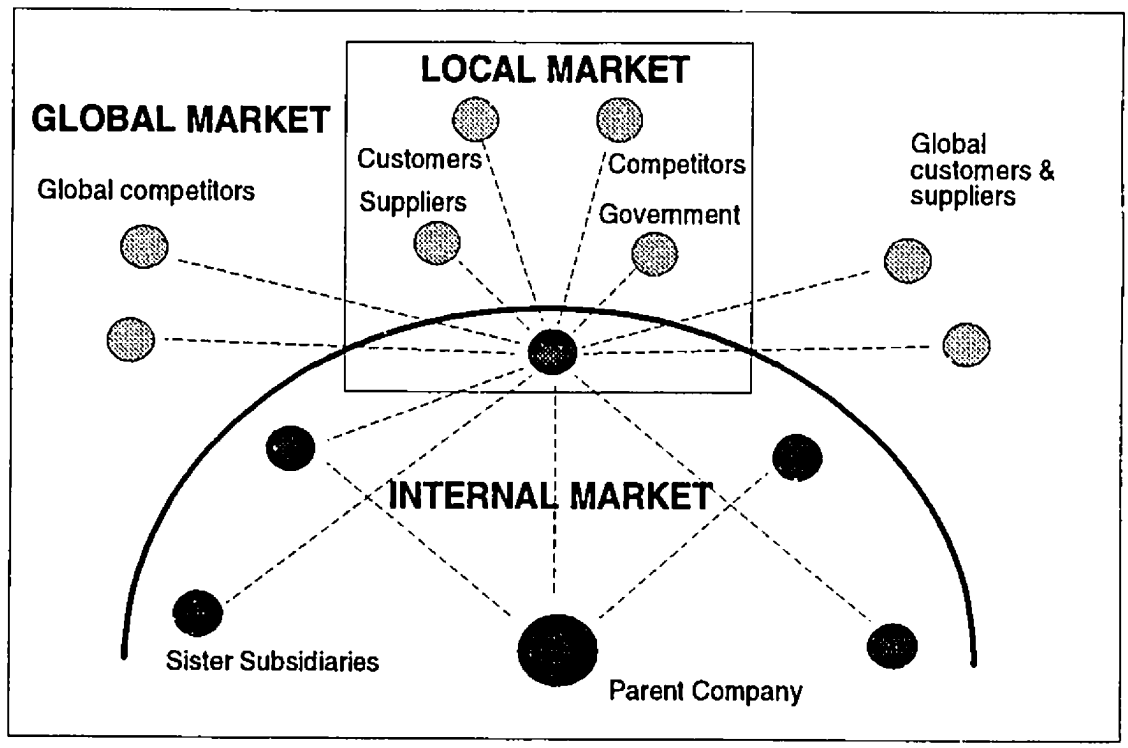
[5] It is important to note that the principle difference between Schumpeter's (1934) concept of entrepreneurship and Kirzner's is that Schumpeter saw innovation / entrepreneurship pushing the system out of equilibrium (and thus into a new equilibrium), while Kirzner saw it pushing the system in the direction of an ever-receding equilibrium.

or the pulp and paper industries. Lesser markets, however, can still be a great source of opportunities, if only in terms of the diversity that they offer.

Figure 10-4
Local, global and internal markets of the national subsidiary



Internal market opportunities. These arise because subsidiary managers, in the course of their dealings with the corporation, identify inefficiencies in the system. By proposing a reconfiguration of activities, or by challenging an existing producer's efficiency, the subsidiary can help to ensure the competitiveness of the whole system. This is a particularly valuable role because many of the MNC's activities are not "tested" for efficiency vis-a-vis the external market. The creeping inefficiencies of a large corporate system can go undetected for years, and make the entire product portfolio uncompetitive. That is why many MNCs foster internal competition (e.g. Hewlett Packard) or institutionalize a challenge mechanism (e.g. Dow; reported in White & Poynter, 1990).

Global market opportunities. These arise when subsidiary managers are involved in business activities beyond the local or internal markets. As business becomes more global, opportunities are increasingly of this type. The more common situation is that in which the subsidiary already has some form of international responsibility. Using that responsibility as a window on the global market, subsidiary managers identify additional opportunities in related areas. In the second situation, the opportunity is first identified by corporate management, typically a global business team, and subsequently awarded to the subsidiary. These situations refer to mandate extension and competitive bid initiatives respectively.

In sum, the subsidiary's opportunity for growth and for value-added responsibilities depends in the first instance on the identification of market opportunities. These can occur in any or all of the local, internal and global markets that the subsidiary interfaces with. Subsidiary managers need to be alert to these opportunities (through their entrepreneurial role) but they also have to evaluate them against the capabilities and priorities of the subsidiary. These additional constraints will be addressed next.

Internal Resources

Resource-based theory, at a very general level, views the firm as a heterogeneous bundle of resources and capabilities which combine to yield competitive advantage (Barney, 1991). If the essence of strategy is understood as the matching of firm resources to market opportunities, resource-based theory focuses predominantly on the former as the source of competitive advantage, while Industrial Organization economics (e.g. Porter, 1980) focuses on the latter.

The primary objective of most literature in the resource-based tradition is to understand how resources generate competitive advantage. For example, Barney (1991) proposed that a resource has to be rare, valuable, imperfectly imitable (by a competitor) and non-substitutable to be a source of sustained competitive advantage. Rumelt (1987) identified a set of isolating mechanisms that make the firm's resources hard to copy. And

Reed and DeFilipi (1991) suggested tacitness, complexity and specificity as determinants of causal ambiguity, and hence inimitability. While these contributions, and others, have provided a much-needed theoretical foundation for the field, there is a concern that empirical testing is lagging, and consequently that the applicability of the theory may be limited in certain field settings.

One such setting is the subsidiary, or in fact any unit within a large heterogeneous organization. Clearly the subsidiary can be modelled as a bundle of resources and capabilities, which offer the potential for competitive advantage if they meet the criteria identified above, but imperfect imitability is a double-edged sword: The same attributes that preclude imitation (tacitness, complexity etc.) can also prevent wilful transfer within the corporation (Kogut and Zander, 1992). And if wilful transfer cannot be achieved, the full value of the subsidiary as an internalized corporate entity cannot transpire. Resource based theory does not deal effectively with this paradox[6].

Another problem with the subsidiary unit of analysis is that certain resources are no longer under the direct control of subsidiary management. Financial resources are typically held centrally, and many managerial or organizational resources are pooled. Thus, if we are concerned about the growth of the subsidiary, Penrose's (1959) resource-based approach must be modified. She concluded that the growth of the firm was dictated by its stock of managerial resources. In the case of the subsidiary, growth is constrained by other factors as well, principally those resources controlled by the parent company.

The subsidiary context thus represents an interesting application of resource-based theory. The evidence cited in the previous chapter showed that a resource perspective has great validity, but at the same time there are some obvious problems. The next section elaborates this conceptualization in some detail.

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[6] This paradox is explored briefly in the endnote to this chapter. While it is critical to resource-based theory, it is tangential to the current study.

The Subsidiary as a Bundle of Resources

Consistent with the resource-based view of the firm, the national subsidiary is modelled here as a bundle of resources and capabilities. Resources can be categorized into physical (plant, equipment), technological, human, reputational, organizational, and financial resources (Grant, 1991). Capabilities are applied resources: for example, a "small-lot production capability" is an application of physical, human and technological resources to a specific task.

The resources of the subsidiary can best be understood as a "stock" that is developed or depleted over time as a function of the inflows and outflows from that stock (Dierickx and Cool, 1989). The stock is developed through three principal mechanisms. First, in the "normal" course of business sales growth will occur, which enhances the financial resources, develops managerial skills, and enhances the reputation of the subsidiary. Second, resources are transferred to the subsidiary from the parent company. This can be in the form of new managers, a proprietary technology, or funding for a capital investment. To some extent these resource inflows are matched by an outflow e.g. a transfer payment for the rights to a new technology, but this is not a zero-sum game, and both parties typically benefit from such flows. Finally, and most critically, the stock of resources can be enhanced through subsidiary initiatives. These short bursts of action offer the potential for a far more rapid and extensive enhancement of the resource stock than "normal" business, for several reasons. First, a successful initiative gives the subsidiary the licence to pursue a new area of business, in which the early stages of development will offer the greatest learning; second, the initiative is often accompanied by new investment in technological and/or physical resources; third, the pursuit of the initiative is a learning process that enhances the organizational and managerial resources of the subsidiary; and fourth, the reputation of the subsidiary in the eyes of parent management is liable to be enhanced by a successful initiative.

The stock of resources can also be depleted. Parent management may "poach" top managerial talent or it may shift a subsidiary business to another location. Resources or capabilities that are not used may atrophy over time. But these outflows are typically

small compared to the inflows. As observed by Penrose (1959: 25), "it is never resources themselves that are inputs in the production process, but only the services the resources can render". The more that certain resources are used, in fact, the more they grow (e.g. managerial skills).

It is suggested, then, that *initiatives are the principal source of resource stock accumulation*, while existing resources are maintained through the ongoing activities of the subsidiary. Equally, the resource stock is the major reason why subsequent initiatives are successful. The previous chapter identified four specific mechanisms by which "initiative A" promoted "initiative B". These were based on physical, technological, reputational and organizational resources respectively.

Given this analysis, it is now possible to more precisely define the entrepreneurial role of subsidiary managers that was alluded to in the last section. Their role is not only to be alert to market opportunities, but to target the opportunities that the subsidiary's specialized resources and capabilities can be applied to. In other words, of the entire "opportunity set" identified by subsidiary managers, only a small fraction will require a set of capabilities that the subsidiary can actually deliver.

Note that it is not sufficient just to have the appropriate set of capabilities if they are also present in rival subsidiaries or other local firms. Resource based theory shows that competitive advantage is only attainable when the resources in question are "imperfectly imitable". This means that the subsidiary should ideally have a unique set of relevant capabilities so that the market opportunity can best be exploited by it. This capability set is a combination of firm-specific and country-specific advantages (as the earlier analysis suggested), both of which need to be present for the subsidiary to succeed with its initiative.

This analysis also suggests a clearer definition for the world mandate concept that is heavily used in the literature. *A world mandate is essentially a licence to apply the subsidiary's distinctive competencies* (or its "imperfectly imitable capabilities") *to a specific market opportunity*. If either the subsidiary loses its distinctive competency, or

the market opportunity changes, the mandate should at very least be re-assessed. Also, if the mandate is defined more broadly than the competence base of the subsidiary, the net result is liable to be a less-than-competitive product. Interestingly, a number of the managers in this study commented on their dislike of the term "mandate" because it sounded too permanent. According to the logic developed here, the retention of a mandate should be a function of the ability of the subsidiary to upgrade its relevant capabilities faster than its competitors. The challenge, for MNCs, is to create a corporate system that monitors and evaluates this upgrading process so that mandates can be re-assigned when they are no longer competitive.

Subsidiary Growth. What additional insight does this analysis bring to the modelling of subsidiary growth? First of all, the mechanisms by which resources are enhanced and/or depleted is key to understanding growth. Consistent with Penrose (1959) the rate of growth is dependent on the stock of managerial resources, but there is an additional constraint that Penrose either did not face or did not address which is the need to align the growth strategy with the requirements of parent management. Evidence collected in this study suggests that the single biggest constraint on growth is, in fact, the stance of parent management (towards subsidiary growth). This, of course, has both positive and negative ramifications which will be explored in the next section.

To conclude, the resource-based theory of the firm provides a solid foundation for a model of subsidiary growth, and it also meshes very nicely with the "market opportunities" logic taken from Austrian Economics. Indeed the notion of a "dynamic" resource based view that is more concerned with changes in resource flows than static analysis is currently being developed (e.g. Roberts, 1994) and is hinted at in much of the resource based literature, including Penrose (1959).

Alignment with the MNC's Strategy

The third strand in this theoretical model is an explicit recognition of the position of the subsidiary in the MNC. Simply put, the subsidiary is heavily dependent on the parent company for its continuing viability, so its autonomous behaviour (e.g. the pursuit of initiatives) has to be closely aligned with the strategic priorities of the parent company to be successful. There *are* cases where the subsidiary is given a "free hand" by the parent company, but they would either be exceptional circumstances (e.g. Amazon in the 1960s) or to develop a local market. If the subsidiary is serious about winning international responsibilities, strategic alignment is very important. Note also that in some cases alignment may in fact mean no autonomous behaviour at all. This was the situation in a couple of the exploratory study companies.

Strategic alignment can be best understood as a filtering device, that takes the viable opportunity set (i.e. where market opportunities are matched with distinctive competencies) and subjects it to a further test, namely: which of these opportunities fit with the strategic priorities of the corporation? "Strategic priorities" is deliberately broad, because the MNC is not a homogeneous entity. Typically there are several major divisions, any one of which might be a potential sponsor of the initiative in question. One of the major challenges facing subsidiary management is to identify the most appropriate division. HP Canada's Calgary Development Centre and Panacom business scraped by as "orphans" for many years by virtue of their Canadian location, before they finally achieved a strategic alignment.

The *growth* of the subsidiary is governed to a large degree by strategic alignment. Where alignment was strong, as in the case of Honeywell Industrial, growth was relatively rapid and was constrained primarily by the resources and capabilities of the subsidiary. Where alignment was poor, as in the case of Amazon, growth was very slow (in the latter years), and was constrained by the parent company's stance towards the subsidiary. In such situations the parent company essentially manipulates the structural and strategic context of the subsidiary to gain greater control over the subsidiary's

resources. This reduces the degrees of freedom open to subsidiary management in pursuit of growth.

Subsidiary roles. This model suggests that the traditional approach whereby subsidiaries are assigned roles by the parent is wrong. The major problem here is that the assignment of a role assumes parent management understands the nature of the opportunities within the subsidiary's jurisdiction better than subsidiary management. This is extremely unlikely and, in fact, contrary to the basic laws of economics which rely on the "invisible hand" (i.e. the process of entrepreneurial discovery (Kirzner, 1973)) to achieve an efficient allocation of resources. A better approach is to build a set of systems that create a market-like self-regulating process so that subsidiaries only exploit those opportunities for which they can offer competitive advantage *and* strategic alignment with the MNC. This means assigning a standard role to all subsidiaries, something like "to identify and exploit market opportunities commensurate with your distinctive capabilities and the corporate strategy". Note that this does not imply a standard set of organizational contexts, because the context for each subsidiary will evolve with its capabilities and its international responsibilities. It *does*, however, imply that certain systems need to be in place to ensure the integrity of the value-adding process depicted in Figure 10-4. For example, there should be a competitive bid mechanism in place so that any subsidiary has the opportunity to bid for a planned global investment. Likewise, there should be a challenge mechanism to facilitate the transfer of a value-adding activity from a non-competitive location to a competitive one.

The organizational model implied by this discussion is largely self-regulating. Corporate management defines a strategic direction and a set of mechanisms to regulate the entrepreneurial efforts of the subsidiaries. The rest is up to the subsidiaries themselves. Efficiency in existing operations is promoted by internal market activities; country-specific opportunities are catered to and leveraged through local market activities; and transnational integration is achieved through global market activities. Interestingly, subsidiary top management (the president and general managers) have virtually no role to play in this system because it is the front line managers who are identifying and

pursuing market opportunities. Subsidiary top management's role becomes apparent only through the process model described below.

This model of MNC organization is consistent with much of the recent thinking on the MNC, particularly Hedlund (1994). New ground has, however, been broken in two directions: (1) the identification of the four types of subsidiary initiative, and their relationship to market opportunities; and (2) the use of a resource-based approach to growth and development in the multinational subsidiary. Both of these insights have substantial implications for MNC strategy and structure.

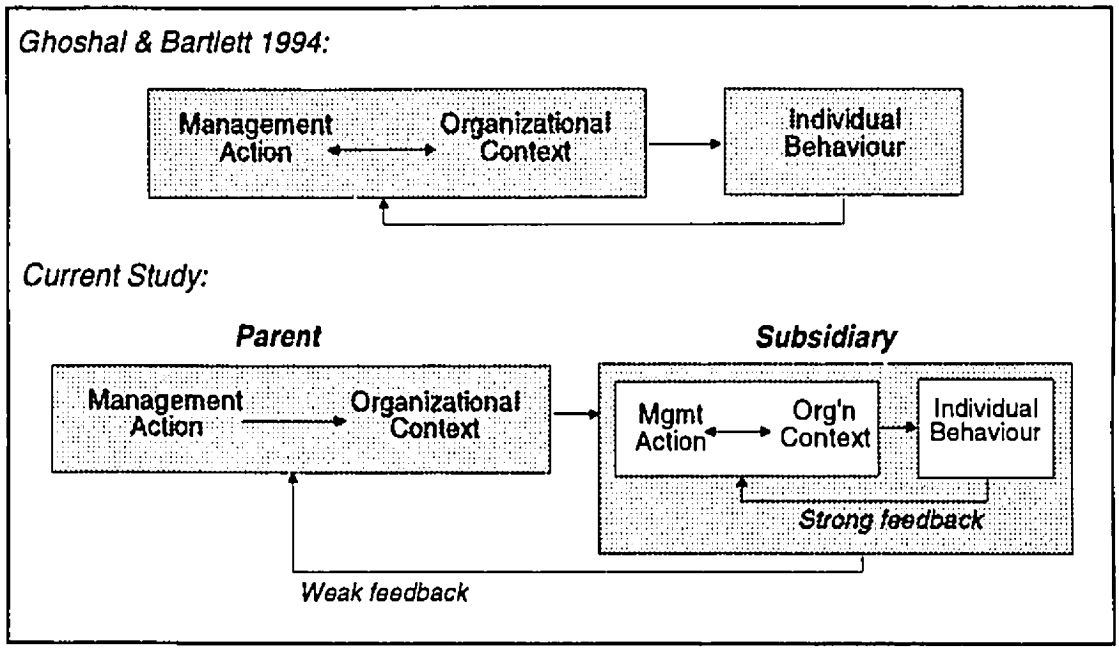
Process Models of Strategy and Decision Making. While the Canadian setting gave this research an explicit international dimension (and hence a perspective on the theory of the MNC), it has implications for more general models of strategy process as well. In particular this research builds on the most recent work of Bartlett and Ghoshal (1993, 1994)

In their simplest form, models of the strategy process (e.g. Bower, 1970; Burgelman, 1983a) suggest that managerial action defines an organizational context which then prescribes individual behaviour. This is uni-directional in terms of causality. Ghoshal and Bartlett (1994) refined this by suggesting that the actions of management interact with the existing organizational context to create a continually-evolving context, which in turn shapes individual behaviour. Furthermore, they proposed that context should be understood in terms of the behaviour-framing attributes of discipline, support, stretch and trust, rather than the more concrete notions of impetus and definition (Bower, 1970). This formulation is an appropriate lens through which to view the phenomenon of subsidiary initiatives. In fact, one of the individual behaviours that Ghoshal and Bartlett focused on is "distributed initiative", so their model applies directly to the current research.

The problem is that the subsidiary's organizational context is very complex, created in part by parent company management and in part through the internal activities of the subsidiary. In fact, an initial assessment would suggest that there were elements of both the uni-directional model and the refined model (of Bartlett and Ghoshal) at work.

Figure 10-5 depicts graphically the process at work in the subsidiary, with Ghoshal and Bartlett's (1994) basic formulation as a comparison.

Figure 10-5. Process Models of Subsidiary Strategy



Two nested processes are envisaged. (1) Parent company management, through their assessment of the capabilities and opportunity set of the subsidiary, define an appropriate context in terms of lines of reporting, budgets, head count and areas of accountability, and this circumscribes the behaviour of the subsidiary. (2) Subsidiary management then take whatever degrees of freedom they have and through their own actions they shape the internal organizational context which in turn influences the behaviour of individual subsidiary employees.

The point is that Ghoshal and Bartlett's interactive process occurs far more readily and far more effectively at the subsidiary management level. If distributed initiative is the desired individual behaviour, then subsidiary management, through a series of tangible and intangible actions, can create a context to support or select that behaviour. Managerial action and context interact, and the feedback loop, from individual behaviour back to action, is strong (Weick, 1979). The outer process, involving parent management

action and macro organizational context, is by contrast uni-directional. There is very little interaction between context and managerial action, and the feedback loop from individual behaviour to context is weak. The reason for this is twofold: first, geographical and cultural distance prohibit frequent personal interaction and hence they stifle the development of a vibrant, fertile context. Second, the subsidiary's macro-context is impacted by more than just the behaviour inside the subsidiary. Changes in the business environment or corporate strategy can derail the finely-balanced subsidiary-specific development process.

To summarize, Ghoshal and Bartlett's process model sheds new light on the subsidiary initiative phenomenon, but it is more appropriate at the intra-subsidiary level. A complete understanding of the subsidiary context involves two nested processes, the outer of which involves very limited feedback from individual behaviour to organizational context. The contribution of this research, therefore, is its demonstration of the need to apply two distinct process models simultaneously to fully understand the multi-faceted nature of organizational context. Either one in isolation leads to an unsatisfactory conceptualization of the phenomenon.

The implication of this analysis (for practice) is that subsidiary top management, who had virtually no role to play in the model described earlier, suddenly have a critical role, namely the development of a vibrant organizational context that is capable of fostering initiative. Several of the cases in this study showed evidence of subsidiary-level context development, notably 3M Canada, Honeywell homes Canada, HP Canada and Monsanto Canada. Given the recent strong shift away from country management in Canadian subsidiaries, this is potentially an important finding. The process model is thus complementary to the content-oriented model, with the latter suggesting the hard structural components needed to institutionalize the initiative process, and the former indicating how the softer elements of context and culture can be encouraged.

Bringing the Model Together

The objective of this section has been to model the subsidiary in terms of its internal resources, its market opportunities and its alignment with the MNC's strategy. This is a very different theoretical model from the one described at the outset that was based around Burgelman's (1983a) research on internal corporate venturing. It is therefore important to understand how the two models fit together.

Burgelman's research focused on understanding how new categories of opportunities came to be incorporated into the corporate concept of strategy. As in the present study the emphasis was on the pursuit of new market opportunities, but with the important difference that Burgelman studied only new opportunities that emanated from the "new venture division". As a result, the opportunities were typically much more dependent on combinations of technologies and product innovations than on the broader set of "initiatives" under scrutiny here. A matching of resources and opportunities was required, but given that both were relatively constrained in scope it became a relatively simple exercise. It is thus not surprising that Burgelman gave little emphasis to the generation of a viable opportunity set on the basis of the company's resource profile.

The second major difference between the two theoretical models was the link to corporate strategy. For Burgelman, the successful implementation of a new venture impacted the strategic context of the division and hence the concept of corporate strategy. In this study, the emphasis was more on achieving alignment with the existing strategy before an initiative could be realized. This is in large part a recognition of the limited impact the Canadian subsidiary can expect to have on the MNC's strategy. Rather than thinking in terms of identifying new businesses, it is more beneficial to look at new opportunities within existing businesses. Changes to the corporate strategy may be possible at the margin, but for the sake of the theoretical model the strategy can be considered fixed. Note that the situation for a Canadian subsidiary is markedly different from what one might expect for a Japanese or American subsidiary where the potential investment has greater strategic significance. Hypothetically the need for strategic alignment would be lower in the latter situation.

One more point that should be added here is the observation that the resources of the subsidiary proved to be an important element of its context, and hence as a driver of initiative. This finding arose in the course of the study, and should be considered more carefully in future research.

Burgelman's model, then, may in fact be more appropriate in a legitimated new venture division in which: (a) the relevant resource and opportunity sets are relatively narrow and well defined, and (b) the opportunity to effect significant changes in corporate direction is substantial. The model developed above may be better suited to an existing division or subsidiary in which: (a) the relevant resource and opportunity sets are broad-based and ill-defined; and (b) there is very little likelihood that any substantial changes in corporate strategy can be effected. This assessment is, of course, consistent with the research sites used in each case, but it is important because it highlights the limitations of each model.

SUMMARY

This chapter examined the theoretical implications of the research in detail. The findings from the research were first assessed in relation to the existing economic theory of foreign production. It was shown that the theory can be stretched to accommodate issues of investment and divestment in established subsidiaries, but that it becomes increasingly difficult to disentangle firm-specific and country-specific advantages at this level of analysis.

The current research was shown to have much more in common with the "network" theory of the MNC. Issues of subsidiary growth, subsidiary entrepreneurship, and resource transfer are germane to the network theory of the MNC, as they are to this study.

Finally, using a combination of the resource based view of the firm and Austrian Economics a new theoretical model was proposed to explain the subsidiary's value-added role and its growth. The three contributing factors were: (a) alertness to market opportunities; (b) the stock of resources and capabilities; and (c) strategic alignment with

the parent. The new model was contrasted with Burgelman's model of internal corporate venturing which was used at the beginning of this study.

Endnote

As observed in the text, the creation of effective isolating mechanisms (around resources) prevents imitation by competitors, but it also hinders wilful transfer to internal affiliates (Kogut and Zander, 1992). At the heart of this paradox is the observation that certain resources or capabilities are "tacit", so that "we know more than we can tell". This means that an effective operation may be so "causally ambiguous" (Reed and DeFillipi, 1991) that even its creators do not fully understand it. Consequently its replication, either by competitors or by collaborators, may be impossible.

The text suggested that subsidiaries should focus their initiatives on those resources and capabilities that offer the potential for sustainable competitive advantage. Such resources are a combination of firm-specific and country-specific advantages. Indeed, it is this unique combination that makes the subsidiary's position attractive. Theoretically at any rate, it can take key technologies and skills from the MNC and apply them in its local market context to come up with a unique product / market offering. Once again though, the attributes of the resources that give the subsidiary its competitive advantage are the same attributes that make wilful dissemination difficult. If these "isolating mechanisms" are truly effective, the subsidiary's capabilities become opaque, and any advantage that could potentially exist in internalizing the subsidiary is lost.

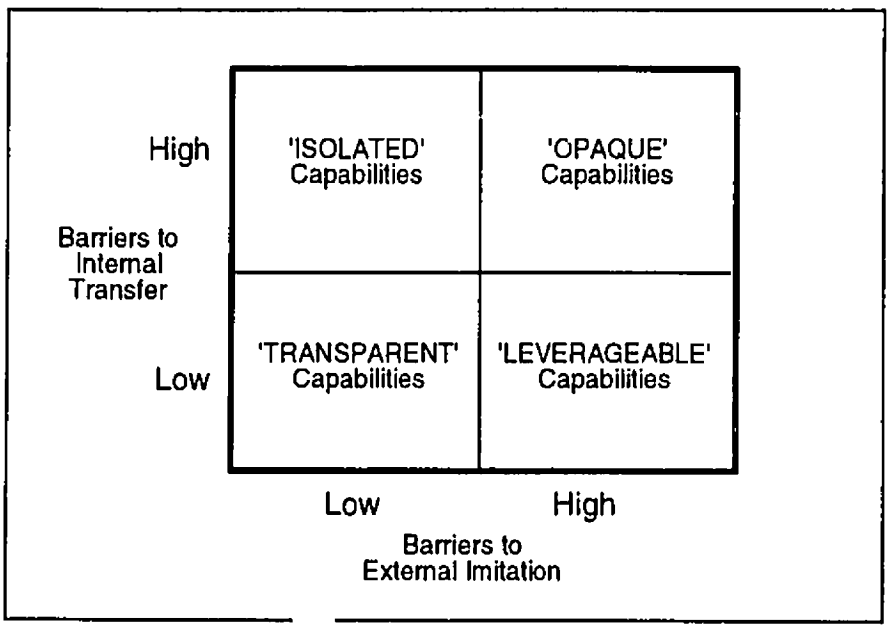
From the MNC's perspective, the ideal situation would be a set of subsidiary capabilities that are opaque to external entities but transparent to affiliates. Patented technology, for example, can be transferred internally but resists (to a certain degree) imitation by competitors. Likewise, certain key individuals can be used in multiple locations within the MNC and can be prevented from sharing their expertise with other companies. Unfortunately, the reverse situation can also exist, whereby resources and capabilities are more easily transferred to external entities in the local country than back to head office or affiliates in other countries. The reason why this is possible has to do with geographical and cultural distance. Papers by Kogut (1991) and Solvell and Zander (1994) both identify factors that promote the *local* transfer of learning and capabilities ahead of their *international* dissemination, regardless of ownership ties. For example, local collaborative relationships can promote shared learning on the basis of geographical proximity, a common language and trust. This learning may be very hard to "translate" back to head office if it is geographically or culturally distant. In fact, the stronger the local "isomorphic pressures" (Westney, 1993) on the subsidiary, the more it will conform to the norms and expectations of its immediate competitive environment, and the less it will conform to those of the MNC. Such a subsidiary may become "isolated", potentially a source of rare and valuable capabilities, but unable to disseminate them to the rest of the corporation.

Figure 10-6 illustrates this argument by means of a two-by-two matrix. The "ideal" situation from the MNC's perspective is a subsidiary with "leverageable" capabilities, with high barriers to external imitation but low barriers to internal transfer. From the subsidiary's perspective, there are liable to be mixed opinions about the preferred type of capability. If the barriers to internal transfer are low, the implication is that there is no country-specific advantage, and consequently that the subsidiary has no sustainable position vis-a-vis its sister subsidiaries. This means that any mandates won by the focal subsidiary could potentially be "poached" by, or transferred to, another subsidiary at the parent company's choosing. Such a shift might be in the parent's interest, but for a subsidiary that is attempting to develop a unique value-added role it is disillusioning. for example, in the course of this study there were a number of cases of mandates that were phased out, and the activity in question relocated in head office.

At this stage figure 10-6 is conjecture. Testable hypotheses could be developed, along the lines that the sustainability of a mandate is a function of the barriers to transfer and imitation. Equally equivocal

is the performance issue, in that sustainable mandates help to develop the subsidiary, but they may detract from an effective internal resource transfer process. This remains an area with research potential.

Figure 10-6
Barriers to internal transfer and external imitation



CHAPTER 11
MANAGERIAL IMPLICATIONS

The objective of this chapter is to consider the managerial implications of the research, for both the subsidiary company and for the MNC as a whole. The intention is not to be prescriptive, but to crystallize and elaborate on those findings with clear managerial relevance. In so doing, it will be necessary to re-iterate some of the principal findings of the research. As with chapter 10, it is important to recognize that the small sample size limits the generalizability of the findings to other contexts. These implications should therefore be viewed as provisional.

SUBSIDIARY LEVEL IMPLICATIONS

A common theme among respondents, when asked about the subsidiary's strategy, was the desire to add value to the corporation[1]. Loosely translated, this meant engaging in activities consistent with the corporation's strategy that resulted in greater revenues or lower costs. While increasing local revenues and/or margins certainly met this objective, the focus in this research was on the internationally-oriented activities of the subsidiary, some of which were referred to as world mandates.

World mandates are predominantly gained through subsidiary "initiatives". This research identified the key success factors associated with each initiative type, and the situations in which each is most likely to be found. Table 11-1 summarizes these results.

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[1] Subsidiary growth is essentially a by-product of value-added. While a study of the drivers and constraints of subsidiary growth is an appropriate research topic, it is of less interest to managers. It will not be discussed further in this section.

Table 11-1

Summary of situations and key success factors for initiative types

Initiative type	*Situation typically found*	*Key success factors (in order)*
Reconfiguration	Conversion of branch plant to globally-competitive manufacturer. Mostly capital intensive industries.	Timing Championing Credibility with parent Compelling proposal
Local market	Interactions with local customers, suppliers etc., where some local responsiveness is needed. All industries.	Autonomy and/or local presence Fit with parent's strategy Entrepreneurial spirit
Competitive bid	New greenfield global-scale investment. Mostly capital intensive industries.	Competitive proposal Credibility with parent Championing / selling
Mandate extension	Enhancement of an existing full-scope mandate. More commonly found in low capital intensity industries.	Autonomy Strong business plan Strategic fit

This typology is maybe a useful checklist for subsidiary managers looking for value-adding opportunities. Certainly the context of the specific situation means that only certain initiative types will be applicable in each case, but it is important to recognize the breadth of potential initiatives to be pursued. Note also that this list excludes all parent-company sponsored efforts, which are in isolated incidences very important, but explicitly beyond the scope of this study.

It was also shown in chapter 6 that the opportunities for pursuing each initiative type vary by industry. Capital intensive industries, such as heavy engineering or chemicals, appear to be more conducive to competitive bid and reconfiguration initiatives, while technology-intensive industries such as computers favour local market and mandate extension initiatives. Furthermore, the stage of globalization of the industry is also a

factor. During the transition from a multidomestic to a pure-global industry structure there should be good reconfiguration opportunities; pre-transition, more opportunities are liable to be of the local market type; and post-transition competitive bid and mandate extension initiatives should predominate. Clearly these relationships are speculative at this stage, but they do provide a framework for thinking through the opportunities open to a given subsidiary.

The Role of Subsidiary Top Management

Given that the initiative process is typically conceived and pursued by middle managers, what role does subsidiary top management play? Or, put another way, how can subsidiary top management most effectively encourage the initiative process?

The first and most important role of subsidiary top management, as illustrated by the HP Canada and Monsanto Canada cases, is to focus the entrepreneurial efforts of middle managers. This is achieved through an informal evaluation of the subsidiary's capabilities, its potential opportunity set, and the priorities and objectives of the parent company, and thus a realistic assessment of the value-added contribution the subsidiary can make. By broadcasting this vision to the subsidiary employees, efforts can be more effectively targeted towards worthwhile opportunities. More tangibly, subsidiary top management can also prioritize the use of their discretionary resources towards the most promising initiatives.

The second role of top management in the subsidiary is as an active sponsor of important initiatives. In the case of reconfiguration and competitive bid initiatives in particular, credibility and familiarity at head office are key success factors. Typically it is only the senior subsidiary managers who have the network of contacts and the track record to deliver on these factors. In some cases, such as 3M's North American Plan, the initiative was actually championed by the subsidiary president. More typically, there is a middle management champion and a more senior sponsor who provides the "impetus" to get the initiative approved.

Finally, subsidiary top management have the important but more subtle

responsibility to develop the subsidiary's context. This refers first of all to the multitude of systems and reporting relationships that shape the subsidiary's role in the corporation. Budgets have to be defended, strategic plans drafted, new responsibilities sought and so on. At a time when many Canadian subsidiaries are gradually losing their autonomy, the president's ability to maintain (for legitimate reasons) some strategic discretion is critical. Once again, such efforts must be focused on realistic value-added objectives otherwise the subsidiary president will appear to be subverting corporate goals.

A related aspect of the subsidiary's context is the internal systems that encourage or suppress initiatives. The accepted wisdom is that certain structural forms are more conducive to entrepreneurial behaviour than others, including Burns and Stalker's (1961) organic structure, and Kanter's (1985) integrative form. Top management's role is to shape an appropriate structure, which then facilitates initiatives. More recently, Ghoshal and Bartlett (1994: 108) proposed that structural context can be "created and renewed by a variety of management actions", which suggests a much more dynamic role for subsidiary top management. Using the results from their study, "distributed initiative" arises from the three organizational attributes of stretch, discipline, and trust, which are themselves shaped by a set of relatively direct actions by top management. The suggestion is that subsidiary top management can actively promote the initiative process through their actions, rather than assume a passive "facilitation" role.

CORPORATE LEVEL IMPLICATIONS

A working assumption in this study was that subsidiary initiatives are valuable to the MNC. While there is considerable evidence in favour of that assumption, the reality in many MNCs is a notable absence of initiatives of the type described here. The purpose of this section, then, is threefold: (1) to offer a strategic rationale for MNCs to encourage initiatives, and to suggest ways this can be done; (2) to discuss the drawbacks of subsidiary initiatives, and hence why they often end up being discouraged; and (3) to consider how subsidiary and parent company attitudes to initiatives (and mandates) shift over time.

Strategic Implications of Subsidiary Initiatives

A popular expression of the MNC's strategic objective is its ability to simultaneously deliver global integration, local responsiveness and worldwide learning (Bartlett and Ghoshal, 1989). Much of the recent writing on global strategy has recognized the important role of value-adding subsidiaries in reconciling the apparent trade-offs in these imperatives (e.g. Bartlett and Ghoshal, 1989; Hedlund, 1994). The intention here is to show how subsidiary initiatives, specifically, can impact all three.

Global integration is an efficiency-based imperative, concerned with making maximum use of global economies of scale and scope to reduce costs. Both reconfiguration and competitive bid initiatives directly contribute to this objective, the first by challenging less-than-efficient existing activities and the second by putting forward the best possible package for new global investments.

Local responsiveness is concerned with meeting specific customer needs on a country or regional basis. This imperative is central to local market initiatives which typically arise through customer interaction. Note that certain local market development efforts stay at the local level, while others end up being leveraged internationally. The focus in this research was on the latter, but the mechanisms in the early stages of development are identical. As an aside it should also be noted that 3M's North American Plan, while really a reconfiguration initiative, was explicitly focused on enhancing Canadian customer service.

Finally, worldwide learning is concerned with transferring resources and capabilities between corporate affiliates. Local market initiatives that end up serving a global market are a form of this, in that local learning is being applied worldwide. All the other initiative types also encourage international resource transfer to the extent that they entail greater communication and networking between affiliates. The drawback, if there is one, is that autonomous subsidiary mandates do not easily promote worldwide learning because of their lack of operational relatedness to other MNC activities.

In sum, subsidiary initiatives have a strongly positive influence on the strategic imperatives of global integration, local responsiveness and worldwide learning. They also

have several important side-benefits, three of which will be mentioned here. First, the human resource implications of a vibrant subsidiary organization are sizable. New employees see the opportunity for career progression within the subsidiary, into areas like R&D, marketing, and general management. Even subsidiary top management becomes a role with opportunities for value-added input, unlike may of the figurehead roles in other subsidiaries (Birkinshaw, 1995; Quelch, 1992). If good employees can be brought in through subsidiary organizations, the MNC gains access to a greater diversity of skills and ideas than would be available through the home country alone. Second, local corporate citizenship is impacted by the level of local value-added in the subsidiary. Government officials or key customers, for example, want to see manufacturing and R&D work being done locally as a sign of the MNC's commitment to the country[2]. A failure to convince them can impact local sales, government contracts and a host of intangibles benefits associated with corporate citizenship. Finally, and related to both the above, there is the intangible issue of morale. The respondents in the sample companies exhibited an enthusiasm for and involvement in their work that went beyond the basic expectations of their job. Intuitively, this was strongly related to the success the subsidiary was having in taking initiatives and winning international responsibilities. This is a hard concept to tie down, but relates to the sense of involvement that being on a "winning team" engenders. Ghoshal and Bartlett (1994) observed a similar phenomenon.

If the MNC is positively disposed towards initiatives, what can it do to encourage them? Table 11-2 lists by initiative type some of the systems and structures identified during the research that were considered beneficial. The list is certainly not exhaustive, but it captures the essence of the organizational design issues facing corporate management. Note that the list does not include such "cultural" attributes as a geocentric attitude, which impact all initiative types.

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[2] What they really want to see, at least in Canada, is full-scope world mandates. As observed in this chapter, however, limited-scope mandates are a far more likely eventuality.

Table 11-2

Corporate systems that foster subsidiary initiative

Initiative type	*Corporate systems and structures that foster initiative*
Reconfiguration	■ A "challenge" mechanism (e.g. Dow Chemical in White & Poynter, 1990). ■ Use of multiple sources for manufacturing. ■ Global business teams with subsidiary representation.
Local market	■ Country business development managers, responsible for identifying and pursuing opportunities. ■ Discretionary funds for small initiatives and for "skunkworks" projects.
Competitive bid	■ Global business teams with subsidiary members. ■ A "Request for proposal" mechanism to give subsidiaries the opportunity to bid on new investments.
Mandate extension	■ "Mandate" system whereby subsidiary management is given. responsibility for developing a given product or market.

Note that with these systems in place, corporate management has a limited role to play in the management of the MNC. Internal efficiency is regulated through reconfiguration initiatives; new business opportunities are identified and pursued all around the world; and new global investments are located in their optimum global location. The key role, in fact, would appear to be defining the strategic objectives of the MNC, in terms of business and market priorities. This sense of direction can then be incorporated into the systems identified above to focus future initiatives[3].

The Drawbacks to Subsidiary Initiatives

Subsidiary initiatives can be damaging to the MNC if they are ill thought out or applied to the wrong ends. Evidence in the exploratory study for this research suggested

[3] While apparently simplistic, this notion of decentralized control is reasonably close to Hewlett Packard's divisional structure. See Deutschman (1994).

that a few MNCs had had their fingers burnt in the past, primarily as a result of empire-building subsidiary managers, and as a result they were reluctant to promote the use of initiatives. Concerns can be broken down into two categories.

The first category is associated with a paternalistic attitude among parent managers, along the lines that "we know what is best for the subsidiary". One subsidiary in the exploratory study took the position that "If the German parent company has not already thought of [this new idea] its not worth pursuing". If the key activities are concentrated at the centre, the subsidiary becomes an implementer rather than a decision-maker. Initiatives, in such a system, are viewed with suspicion by parent managers. Subsidiary managers, it is perceived, don't understand the strategic objectives of the MNC, they don't have the ability to implement their proposal, and they are probably re-inventing the wheel by doing something alone that "should" be done at head office. Some of these concerns may be well-founded, but they are a result of an overly-centralized corporate system rather than a fault of subsidiary management per se.

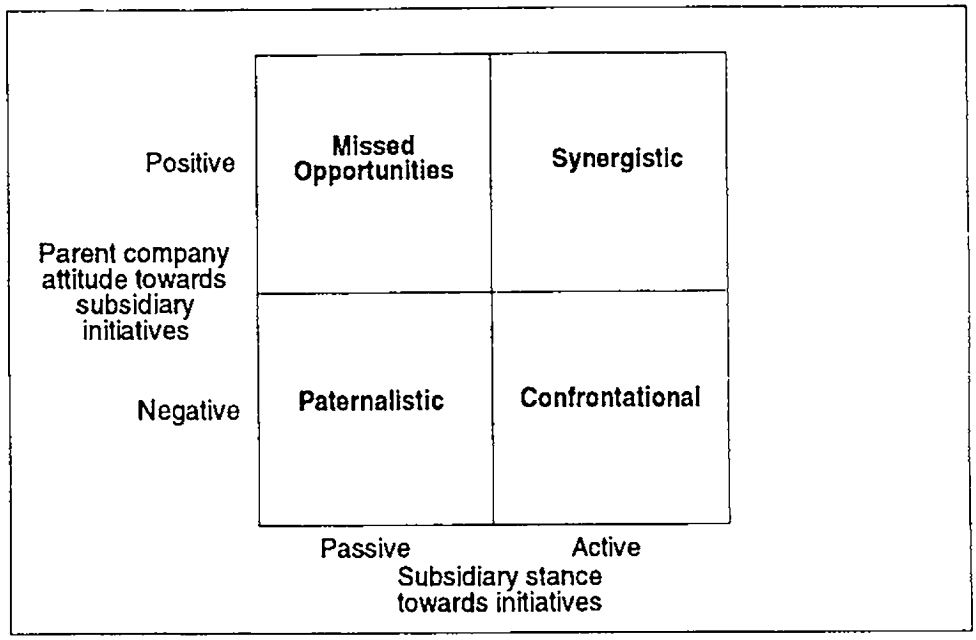
The second category of concerns represents a more suspicious, and even cynical attitude to subsidiary initiative. In one exploratory-study scenario the subsidiary manager in question was deemed to be subverting the corporate strategy by building local businesses and the associated infrastructure in the name of local responsiveness. From parent management's perspective this was empire building, and contrary to the strategic objectives of the MNC; from the subsidiary manager's perspective it was a way of enhancing the MNC's presence in that country. This concern is further fuelled by the realization among parent management that subsidiary initiatives cannot be effectively monitored, even with a strict approval process

.

The essence of this latter set of concerns is a shortage of trust between parent and subsidiary management. Given complete trust, subsidiary managers would be expected to act, without consultation, in accordance with the goals and expectations of the corporation. In trust's absence, other control mechanisms that monitor output, behaviour, or both are needed. There has been considerable academic writing on the importance of normative integration or socialization (e.g. Ghoshal & Nohria, 1989), one facet of which

is trust.

Figure 11-1
Parent and subsidiary attitudes towards initiatives



Shifting Parent and Subsidiary Perspectives on Initiatives

Given the mixed attitudes towards subsidiary initiatives among parent managers, the final issue that will be addressed here is the shifts that can be expected over time, and the drivers of those shifts. In simplistic terms sceptical parent managers need to either ncrease the level of trust between themselves and subsidiary managers, or increase the capabilities and decision-making power in the subsidiary. Realistically, however, they need a convincing reason to do this, and the impetus is more likely to come from below than above. What this boils down to is a potential mismatch between the subsidiary and the parent's attitude towards initiatives. Figure 11-1 captures the four basic permutations, in terms of two dimensions: the stance of the subsidiary and the parent company's attitude to subsidiary initiatives. In the course of the research, examples of all four main types were encountered, and they will be briefly discussed.

(1) Where the parent company's attitude to subsidiary initiatives was negative and the subsidiary's stance was passive the relationship was paternalistic. The subsidiary managers' stance was typically a learned response to the parent company's negative attitude. The situation was "harmonious" in that there was a common understanding of the subsidiary's role, but the global reach of the corporation was liable to be constrained.

(2) Where the parent company's attitude was negative but the subsidiary was entrepreneurial the relationship was confrontational. There were a few cases of this relationship identified during the exploratory study. In one case the subsidiary was eventually able to win a world mandate, but only after an "exhausting and frustrating process". The parent company's attitude to initiatives was negative, but in this case the subsidiary was convinced that it had developed an important product, and was prepared to go to great lengths to get it approved.

(3) A passive subsidiary coupled with a parent company that was positively disposed towards subsidiary initiatives could best be characterized by missed opportunities. While the two prior scenarios could also lead to missed opportunities (in the eyes of a neutral observer), this was the only situation in which the absence of subsidiary initiative was evident to the parent company. One respondent in an exploratory interview pointed to a number of opportunities that he and others had spotted, but that senior subsidiary management had passed by because they were focused on trying to turn the business around, and were interested only in projects with immediate financial returns. Several interesting opportunities were thus squandered, not because the parent company was closed to initiatives, but because the Canadian management were not prepared to take the lead.

(4) Finally, in the situation where the subsidiary was entrepreneurial and the parent was positively disposed, the relationship was synergistic. This was the predominant situation encountered in this research project. It represents the most effective arrangement, because the latent potential within the national subsidiary is being exploited.

The framework also helps to illustrate the dynamic issues involved in the parent - subsidiary relationship. Quadrants 1 and 4 represent a level of balance between

subsidiary stance and parent company disposition, that is a common understanding of the subsidiary's role in the corporation. Quadrants 2 and 3, by contrast, are indicative of disharmony, meaning that the two parties have different perspectives on the subsidiary's role. Intuitively, the disharmonious quadrants are liable to be transitional states: over time either parent or subsidiary will shift its stance so that it is brought in line with the stance of the other party. Thus, a confrontational relationship will eventually lead to the subsidiary admitting defeat (and not pursuing any more initiatives) or the parent acknowledging the subsidiary's capabilities and giving it greater discretion. Equally, the missed opportunities relationship will cause the parent to close down its openness to subsidiary initiatives (on the assumption that the subsidiary has no entrepreneurial capability) or it will encourage the subsidiary to become entrepreneurial.

A further insight that can be gained from this framework is that the shift from quadrant 1 (paternalistic) to quadrant 4 (synergistic) must typically occur via quadrant 2 or 3, because it is very unlikely that parent and subsidiary will change simultaneously. Thus, a confrontational relationship may appear frustrating, but it may be an important staging post on the way to a synergistic and creative relationship, assuming the parent company reacts favourably to the subsidiary's overtures. Equally a status of "missed opportunities" may in fact represent the parent company trying to induce the subsidiary to become more entrepreneurial. In one case encountered during this research, for example, a new business manager in the U.S. parent company was far more open to subsidiaries taking international responsibilities than his predecessor. His positive disposition was capitalized on by Canadian subsidiary managers, who were quickly able to convince him that they should be granted the world mandate for a major product line.

SUMMARY

This chapter drew out the major managerial implications from the research. At the subsidiary level, the key success factors for the four initiative types were summarized. There was a discussion of the relative merits of different types of world mandates, along

the lines that certain types of mandates are inherently more sustainable than others. Also, the role of subsidiary top management was discussed.

At the parent company level, the various mechanisms that can be created to promote subsidiary initiatives were summarized and discussed. The reasons why some MNCs do *not* promote subsidiary initiative was also analyzed.

Finally, the different stances of subsidiary and parent towards initiatives were explored. The implication of this analysis was that subsidiary management must be prepared to endure a somewhat confrontational relationship if they are to shift (for the better) parent company management's stance towards initiatives.

CHAPTER 12
SUMMARY AND CONCLUSIONS
(A) RESEARCH FINDINGS

Research Question 1: What Forms do Subsidiary Initiatives Take?

Four types of initiatives were identified, namely reconfiguration, local market, competitive bid, and mandate extension. The typology was inductively derived and verified through an inter-rater reliability test and a discriminant analysis on questionnaire data. For each initiative type a set of key environmental and strategic drivers and key success factors was identified. This data is summarized in table 12-1.

Based on the observation that the subsidiary lies at the interface between the local market, the internal corporate market, and the global market, a conceptual integration of the four types was proposed. This model was then used to test a number of specific hypotheses concerning the differences between the four initiative types. The key findings from these tests were: (1) Parent company openness to initiatives was highest for the competitive bid type; (2) Local market initiatives had the lowest level of proven capabilities; (3) The existence of personal relationships with parent managers was higher for competitive bid than for local market initiatives; (4) The involvement of the subsidiary president was higher in reconfiguration initiatives than local market or mandate extension initiatives; (5) Mandate extension initiatives had the highest level of strategic autonomy; and (6) Competitive bid initiatives were the least "specific" to Canada.

Table 12-1

Summary of initiative types

Initiative type	*Environmental and/or Strategic Drivers*	*Key success factors (in order)*
Reconfiguration	Free Trade Desire to consolidate operations on a North American basis	Timing Championing Credibility with parent Compelling proposal
Local market	A local product / market opportunity Pressure from government for local value-added	Autonomy and/or local presence Fit with parent's strategy Entrepreneurial spirit
Competitive bid	Business proposal identified by parent company	Competitive proposal Credibility with parent Championing / selling
Mandate extension	An international product / market opportunity	Autonomy Strong business plan Strategic fit

A number of other tests were also conducted. First, there was an industry effect, with capital-intensive industries (chemicals, industrial products) accounting for almost all the competitive bid and reconfiguration initiative types and technology-intensive industries (software, computers) accounting for local market and mandate extension types. Pooling the four types, initiative failure was positively associated with lack of prior successes and low parent company openness, and subsequent mandate loss (i.e. after the initiative was successful) was associated with a lack of proven capabilities and a lack of country specificity.

Research Question 2. What is the Initiative Process?

A generic initiative process was identified and verified through a multi-stage methodology involving two researchers. The process model was built around four stages: conception, definition, commitment, and approval. The structural and strategic context

of the subsidiary was seen both to shape initiative conception and to be shaped by the initiative outcome.

It was also observed that each initiative type exhibited a somewhat different process, depending on the level of parent company involvement and the type of market pursued. In particular, the approval stage was implicit in most mandate extension and local market types, and the earlier stages were driven by a mixture of subsidiary middle managers, subsidiary top managers, and even parent managers.

Finally, it was shown that not all initiative conform to the generic model. Three variants were identified and explored: multi-phase or circular initiatives, single initiatives with aftershocks, and "non-initiatives". The chapter also included a discussion of the antecedents to the initiative process and an assessment of the importance of the subsidiary setting for the study.

Research Question 3: How do Initiatives Develop and Link Over Time?

Case histories of the six sample companies were presented to show that there was a discernable developmental process at work. In four of the six cases initiatives had enhanced both the capabilities and the reputation of the subsidiary, leading to opportunities for subsequent initiatives. In the other two cases events beyond the control of the subsidiary had actually reduced initiative opportunities.

In terms of specific linkages between initiatives, four mechanisms were identified through a mixture of responses to interview questions and inductive reasoning. The four mechanisms were: resource complementarity, application of a proprietary technology, enhanced reputation, and learning of the initiative process.

The initiative development and linkage question was also tackled from a somewhat different angle, namely an investigation of subsidiary growth. The data showed that 5 of the 6 sample companies had grown dramatically in the past decade, and careful analysis of questionnaire responses demonstrated that this growth had occurred largely as a result of internal drivers. In particular, the development of the stock of resources and capabilities was shown to be the major driver of growth. Parallels were drawn with

Penrose's (1957) theory of the growth of the firm, the major difference in this case being the parent-imposed constraint on growth.

Implications From the Study

The research was consistent with the network model of the multinational corporation but also extended that theory in a number of directions. Specifically, a model of subsidiary growth and value-added was proposed based on three components: (a) alertness to market opportunities (Kirzner, 1973); (b) the stock of resources and capabilities in the subsidiary; and (c) strategic alignment with the parent company. This theoretical model was reconciled with the widely-recognized economic theory of the MNC, and with Burgelman's (1983) model of internal corporate venturing.

Finally the managerial implications of the findings were discussed from the perspective of subsidiary and parent management. For subsidiary managers the initiative concept offered a set of strategies that could be pursued to increase the subsidiary's value-added to the MNC. It also suggested the role and tasks of subsidiary top management. For parent management the study suggested a set of mechanisms that could be employed to encourage subsidiary initiatives. Chapter 11 finished with an assessment of the advantages and drawbacks to subsidiary initiatives, and a discussion of how shifts in subsidiary and parent attitude can be effected over time.

(B) LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This was an inductive study, so many of the limitations around sample size and measurement are unavoidable. Using the approach recommended by Parkhe (1993) the research embraced the literal and theoretical replications phases of an inductive project, leaving the large-sample testing for a future study. Having said that, it is still important to be clear on the restrictions that were placed on the study so that its generalizability can be assessed.

The study focused on the Canadian subsidiaries of U.S.-owned industrial

multinational companies. Six companies were selected on the basis of their proven interest and success in winning world mandates. The most obvious limitation was the focus on success stories, in that the phenomena under investigation were simply not evident in a large number of subsidiaries. The logic was that before one can understand why a phenomenon (the initiative) exists in one setting and not in others, it is first necessary to understand the phenomenon. Now that a good understanding of the initiative process and different types of initiative has been gained, a follow-up study looking at the factors predicting the presence or absence of initiatives can be undertaken.

The focus on Canadian subsidiaries of U.S. multinationals was partly because they appeared to be exemplars in the initiative process, and partly for reasons of convenience. The next stage will be to broaden the sample to consider all Canadian subsidiaries, and following that subsidiaries in other countries will be studied. The expectation is that the theory developed here will stand up to scrutiny in a large sample of Canadian subsidiaries, largely because there is a wealth of information on Canadian subsidiaries in the literature that helped to drive the findings. More uncertain at this stage is the transferability of the theory to other locations such as the U.S., Europe, or Asia. Canada represents a distinctive location for foreign direct investment, particularly for U.S. MNCs, because it is (a) relatively unimportant from a strategic perspective; and (b) Canadian subsidiary operations are typically well-established and successful (Bartlett and Ghoshal, 1986). This is very different to the situation in Japan, for example, where the country is of great strategic importance but subsidiary operations tend to be relatively poorly-developed. In this situation investment in Japan is likely to be pushed by the parent company for strategic reasons, whereas in Canada it can be expected that subsidiary management will have to take more proactive role. In other words, there is good reason to believe that the Canadian focus of this research limits the generalizability of the findings. The level of initiative and the need for strategic alignment are two variables that can be expected to differ across locations, and there are presumably others as well.

In terms of the case-research methodology, two limitations were evident. The first was the difficulty of identifying and collecting data on failed initiatives. For a variety of

reasons (discussed in the body of the report) managers were reluctant to dwell on their less-auspicious moments, so there was probably a selection bias in terms of the initiatives that were studied. This problem could potentially be mitigated by spending longer in the company, gaining the confidence of managers and digging deeper into the poorly recorded events. There are clear trade-offs in that strategy, in terms of diminishing returns and potentially alienating time-constrained managers. A real-time study would also solve this problem, but would be very time intensive. Equally problematical are those initiatives that die out before they take off. Rather than being failures per se., such initiatives simply do not register as important in the mind of the subsidiary manager. Again, a real time study would be the only way to circumvent this concern.

The second limitation was the mixed quality of data from parent company respondents. While 15 of the 100 interviews were done with parent company managers, it was sensed that the richness of the data was not as great as with the subsidiary managers. There were two reasons for this. First, the interviews were conducted by phone rather than face-to-face, which made it very difficult to strike up a rapport with the respondent. Second, the researcher's principal point of entry into the company was the subsidiary not the parent company, so there was a potential concern (among parent company managers) that what was said in the interviews could get back to subsidiary management. Both of these factors meant that a more diplomatic response was gained from the parent manager interviews, unlike the subsidiary manager interviews which appeared to be very frank. It is hard to see how this limitation could be completely eliminated. Certainly in-person interviews would help, but the researcher is still likely to be seen as working on behalf of the subsidiary.

The limited parent company input has broader implications as well. This study was built on the premise that subsidiary initiative is desirable, but it clear that not all managers --particularly not those at head office-- find this premise acceptable. As noted at the outset, there is a dark side to subsidiary initiative that can subvert the MNC's strategic objectives. Future research needs to examine initiative from a parent-company perspective to generate a clearer understanding of the positive *and* negative aspects of the phenomenon.

The quantitative methods in this research were limited, consisting of two questionnaires, certain data about the subsidiary initiatives and the coding of the key success factor data. This was not a limitation as such, again because the inductive nature of the study precluded hard measurement, but it is certainly an opportunity. Future research in this area will be able to more effectively use quantitative methods because the key constructs are now much better understood. In fact the subsidiary-level questionnaire (see appendix 2) represented an important step in the direction of quantitative testing by using several accepted measures for the independent variables. A large sample follow-up study will be able to directly apply most of these measures.

Future Research. This study has indicated the need for additional research in two directions. The first thrust should be towards a comprehensive understanding of the initiative phenomenon in other MNC settings. The findings need to be tested on a large sample of Canadian subsidiaries; then they need to be extended and/or tested in other countries. Subsequent to that there are a number of related areas that are begging additional research: The sustainability of world mandates, for example, and how they relate to the imitability of the subsidiary's resources; the impact of industry globalization on the types and volumes of subsidiary initiatives; and the parent-controlled systems that encourage or suppress initiatives. There is clearly a need for a parent-focused study to complement the explicit subsidiary perspective adopted hete.

The second research thrust should be directed towards the conception phase of the initiative process. While the current study modelled the initiative process carefully, it essentially took as a given that individuals within the subsidiary are both motivated and able to provide that initial spark of creativity or energy that set the whole process in motion. A follow-up study is now needed to trace initiative back to its root causes. Note that this would not necessarily require a multinational subsidiary context, because the phenomenon under investigation is germane to management in its broadest sense.

APPENDIX 1

DATA COLLECTION AND ANALYSIS MATERIALS

This appendix contains all the materials used to collect and analyze the data. The materials are arranged as follows:

(1) Initial letter of introduction to subsidiary company president.
(2) Letter of introduction to specific interview respondent.
(3) Cover letter for initiative-level questionnaire.
(4) Cover letter for subsidiary-level questionnaire.
(5) Initiative-level interview protocol.
(6) Subsidiary-level interview protocol.
(7) Initiative-level questionnaire.
(8) Subsidiary-level questionnaire.
(9) Summary sheet for initiative-level factual data.
(10) Summary sheet for subsidiary-level factual data.
(11) Data analysis worksheet
(12) Key Success Factor Analysis

(1) Introductory Letter to Subsidiary President

Julian Birkinshaw
Western Business School
University of Western Ontario
Phone: (519) 661 2111 ext.5174

24th November 1993

Dear Mr _____

Your name was given to me by Professor _____, with whom I am conducting a research project on world product mandates. From my reading on the subject, _____Canada is one of the best examples of a subsidiary that has effectively pursued a world product mandate strategy. Thus, I am very interested in getting some first-hand insights into the reasons for your success.

I am currently studying for my doctoral degree at Western Business School. The focus of my thesis is broadly speaking on world product mandates: why subsidiaries attempt to win them; their impact on the subsidiary's future role in the multinational; and the factors influencing the success or failure of their attempts. The enclosed document provides a more complete description.

I would be very interested in meeting with you, to discuss the possibility of conducting some of my research at _____Canada. Participation in this project would ensure that you received copies of my research papers, which hopefully would be of interest to you and your colleagues. Confidentiality, of course, would be provided unless you directed me otherwise.

I will call you in the next few days, and hopefully we can arrange an opportunity for me to meet with you.

Yours sincerely,

Julian Birkinshaw

(2) Introductory Letter to Specific Interview Respondent

Julian Birkinshaw
Doctoral Candidate
Western Business School
University of Western Ontario
London, Ontario
519 661 2111 ext.5174

Dear Mr _____

This letter is with regard to a research project that I am undertaking as part of my PhD studies at Western Business School. I am studying world product mandates in Canadian subsidiaries, and _____ Canada is one of six companies that I am studying in depth. The attached sheet provides an outline of my research.

Your name was given to me by _____, who suggested that you may be a suitable person to talk to as part of my research. I understand from my discussion with him that you have played a major role in the evolution of the _____facility in the past few years. I would be very interested to hear your story.

I wonder if you would be prepared to set aside maybe an hour at some point in the next few weeks to answer some of my questions? I am interested primarily in the evolution of the _____plant into a north american manufacturing mandate facility, and particularly any initiatives that you or others took that helped to generate a mandate.

I should point out that I am very sensitive to the issue of confidentiality. I have signed an agreement of confidentiality with _____Canada, which ensures that I do not divulge any company-specific data without the written consent of the company. Furthermore, I would like to emphasize that your participation in this research is voluntary, and that anything we discussed would be held in confidence if you so desired.

I will call you in the next few days in the hope that we can set up a meeting.

Yours sincerely,

Julian Birkinshaw

(3) Cover Letter for Initiative-Level Questionnaire

Julian Birkinshaw
Doctoral Candidate
Western Business School
University of Western Ontario
London, Ontario
519 661 2111 ext.5174

Dear Mr _____

This letter is with regard to my PhD thesis research project "Business development initiatives in Canadian subsidiaries". You have already been very generous with your time in discussing the changes in _____ Canada, but I have one follow up request, namely that you fill out the enclosed questionnaire.

I have deliberately kept the questionnaire short. There are less than four pages of questions, so it should take no more than 15 minutes to complete. It will, however, provide me with some invaluable additional data for my analysis of the changing roles of Canadian subsidiaries.

I will ensure that the questionnaire data is kept confidential. In the next few months I will be putting together a set of "aggregate" findings, which I will share with you. These findings will not reveal company-specific or initiative-specific data in any way.

I would like to thank you in advance for your continued support of my PhD research.

Yours sincerely,

Julian Birkinshaw

(4) Cover Letter for Subsidiary-Level Questionnaire

Julian Birkinshaw
Doctoral Candidate
Western Business School
University of Western Ontario
London, Ontario
519 661 2111 ext.5174

Dear Mr _____

This letter is with regard to my PhD thesis research project "Business development initiatives in Canadian subsidiaries". You have already been very generous with your time in discussing the _____ initiative, but I have one follow up request, namely that you fill out the enclosed questionnaire.

I have deliberately kept the questionnaire very short. There are only 24 questions, so it should take no more than 10 minutes to complete. It will, however, provide me with some invaluable additional data for my analysis of the different types of initiatives pursued by Canadian subsidiaries.

I will ensure that the questionnaire data is kept confidential. In the next few months I will be putting together a set of "aggregate" findings, which I will share with you. These findings will not reveal company-specific or initiative-specific data in any way.

I would like to thank you in advance for your continued support of my PhD research.

Yours sincerely,

Julian Birkinshaw

(5) Initiative-Level Interview Protocol

INTERVIEW DOCUMENT 1

This document asks questions about the specific mandate

Company name: _____

Mandate name: _____

Interview subject: _____

1. Can you give me a little personal background first. What is your current position, and what previous positions have you held? What was your position at the time of this mandate? Also, can you tell me whether you have worked in the head office, or had any other international experience?

2. Consider the business in which the mandate occurred. Use the two figures on **exhibit 1** to describe which functions were undertaken in Canada before and after the mandate. Also indicate whether the Canadian business was focused solely on the domestic market, or whether it had North American or global scope.

Any comments on these changes?

3. In terms of the changes that the mandate made to the Canadian business unit (rather than the Canadian organization as a whole), can you try to estimate the following:

	Before	After
Sales volume to internal (corporate) customers	$_____	$_____
Sales volume to external customers	$_____	$_____
International sales volume (internal & external)	$_____	$_____
R&D expenditure	$_____	$_____
Total employees in Canadian business	_____	_____

Total new capital investment made as a result of the mandate: $_____

Any comments on these figures?

4. Can you describe the mandate in your own words. I would like you to consider, in particular, (a) where did the mandate come from in the first place? (i.e. who, when); (b) How did the mandate develop over time? and (c) How, if at all, was the mandate agreed-to by the business managers at the parent company?

The framework below is for the researcher to to ensure that the key points are discussed. It should not be shown to the interviewee until he/she has told his/her story.

	Initial Idea	Development, building	Approval / Endorsement
Key individuals; from sub; corporate			
Time period			
Key events, meetings etc			
Changes to mandate?			

Any additional comments?

5. Consider the individuals other than yourself who played a key role in this mandate. Can you give me your perspective on (a) their contribution; and (b) why they took that role.

6. Focus on the key events that you mentioned above. Can you just describe briefly what occurred at those meetings; i.e. who was there, why they happened, and their outcome.

7. What were the circumstances surrounding the approval (if it occurred) by the business / division head? e.g. were there competitors? had that individual come across the project before?

8. Prior to this mandate, what experience did your business have: (a) in similar projects? (b) in internationally-oriented activities?

9. In terms of outcomes, the mandate obviously received the go-ahead from the parent / division / business, so it was successful in that regard. I would like to take a wider perspective, and ask you to elaborate on the *measures against which you felt it was a success.* Can you also suggest any measures against which it was a failure.

10. The success of the mandate can be attributed to a lot of things, but I would like you to elaborate on the *three factors that, in your opinion, had the greatest impact on its success.*

11. I would like to ask you about the Canadian business environment. Were you involved with the federal or provincial government at any time during this mandate? Also, were the local competitors or customers a factor in any way?

14. Consider the business in which the mandate occurred, and its broad industrial environment. How would you characterize that industry? Consider factors such as the degree of global integration, the level of competition, any re-structuring in the industry, and so on.

That completes the questions specifically relating to the mandate. Do you have any additional comments you would like to add? Anything I have overlooked?

EXHIBIT 1

Describe which functions were undertaken in Canada before and after the initiative. Also indicate whether the Canadian business was focused solely on the domestic market, or whether it had North American or global scope.

BEFORE INITIATIVE

	Canada	North America	World
R&D			
Manuf-acturing			
Mark-eting			
Sales, Service			
Mana-gement			
Support function			

AFTER INITIATIVE

	Canada	North America	World
R&D			
Manuf-acturing			
Mark-eting			
Sales, Service			
Mana-gement			
Support function			

(6) Subsidiary-Level Interview Protocol

INTERVIEW DOCUMENT 2

This document asks questions about the changing role of the national subsidiary over time

Company name: _____

Interview subject: _____

1. Subsidiary strategy & tactics.

Has there been a driving vision, from you (the subsidiary CEO) or your predecessors, in terms of what you want this subsidiary to become? ..Or in terms of what role you think the subsidiary should play in the corporate system? Given the objective / goal of the subsidiary, what strategy or tactics have you adopted to help the subsidiary realize that goal?

2. Changes over time: subsidiary strategy, corporate strategy, environment.

Can you think back over the past 10 years, or as long as you have been associated with the Canadian organization, and describe how you think the subsidiary's role has evolved? How do these changes relate to changes in the corporation? What are the major environmental factors that have driven this change? *(Prompt for changes in strategy, structure, relationship with HQ; also corporate structure changes)*

3. World mandates and initiatives.

I am interested in understanding the extent --if at all--to which world-mandate type operations have been pursued in your company (ie the subsidiary). I have collected some data in this area, but I would appreciate it if you could list the major mandates that your subsidiary has gained over the years. For each, can you describe briefly how the mandate was obtained. Also, are there any clear cases where your attempts to win a world mandate were frustrated? *(Prompt for dates, head office vs. subsidiary initiation, scope, success, stimulus).*

4. Mandate development.
Taking this set of mandates as a whole, can a pattern be discerned? Do the initiatives that led to these mandates develop and link over time? What are the major influences on this pattern?

5. Corporate strategy & structure; parent-sub relationship.
Can you give me some background on the strategy and structure of the parent corporation. Specifically, can you outline the basic organization structure, how subsidiaries relate to the parent company, the role of country management, etc.? What is the stance of the corporation towards international subsidiary activities like world mandates?

6. Government stance.
What has been, and is, the government's position towards the activities of your subsidiary specifically?

(7. Questions to be answered through public-source documents)
Ownership by parent. Current, historical
Size of subsidiary: revenues, profitability
Size of subsidiary market
Nationality of home & host
Industry: global integration & national responsiveness measures

(7) Initiative-Level Questionnaire

BUSINESS DEVELOPMENT INITIATIVES IN CANADIAN SUBSIDIARIES

Western Business School Research Project

Principal Investigator: Julian Birkinshaw

Company name: _____

Initiative name: _____

Respondent: _____

This questionnaire asks a number of specific questions about the Canadian business initiative noted above, with which you were involved from the U.S. side. *The questions are designed primarily for Canadian respondents, but I would appreciate if you could give me your 'best-guess' estimates, from your knowledge of the Canadian organization.* There are only 24 short-answer questions, so it should not take more than a few minutes to complete. Please return the completed questionnaire in the enclosed envelope.

I would like to reassure you that complete confidentiality is assured in all of this work. Also, you will be sent a copy of the aggregate findings from this research when it is available in the fall. Thank you, in advance, for your help in this research.

Julian Birkinshaw
Doctoral Candidate
Western Business School
London, Ontario, N6A 3K7
519 661 2111 ext. 5174

PART A: SITUATION AT THE TIME OF THE INITIATIVE

Please think back to the time when the initiative was conceived (i.e. about _____), and answer the following questions. For each question circle one number between 1 and 5.

Q1.	What level of strategic autonomy did the Canadian subsidiary have (i.e. ability to make decisions without U.S. involvement? . .	very limited autonomy 1	2	3	4	very high autonomy 5
Q2.	How open was the U.S. parent to initiatives of this type?	parent was very closed 1	2	3	4	parent was very open 5
Q3.	To what extent did the Canadian Sub. have previous relevant international responsibilities (e.g. in overseas sales)?	no relevant prior international experience 1	2	3	4	very strong relevant prior international experience 5
Q4.	What was the extent of personal relationships between the U.S. parent and Canadian subsidiary management?	very limited personal relationships 1	2	3	4	very strong personal relationships 5
Q5.	To what extent did the Canadian sub.'s management have a record of success at getting projects approved by U.S. parent management?	no prior success at getting projects approved 1	2	3	4	extensive track record of success 5
Q6.	To what extent was the pursuit of this business opportunity specific to Canada?	Business opportunity could easily have been undertaken by a number of other affiliates 1	2	3	4	Business opportunity was unique to the company's Canadian location 5

Q7. To what extent were the required capabilities (e.g. technical skills, management experience, quality standards) to pursue this initiative already proven in the Canadian subsidiary?

1	2	3	4	5
All required capabilities were proven		Initiative required a relatively minor extension of proven capabilities, into a new product or process		Initiative required a major extension of proven capabilities, into a new business

PART B: THE INITIATIVE PROCESS

Consider the process that was followed by Canadian management in pursuit of this initiative. Please try to estimate the following (Circle one number for each).

Q8. What was the extent of the 'selling' process (to the U.S. parent) followed by Canadian subsidiary management?	very limited selling effort 1	2	3	4	extensive selling and championing 5
Q9. What was the Canadian president's involvement in the initiative?	no personal involvement; disinterest 1	2	support but limited personal involvement 3	4	wholehearted and active personal involvement 5
Q10. How was the initiative conceived and developed in its early stages?	reactive e.g. to parent proposal 1	2	proactive, with some stimulus from parent 3	4	proactive; pure entrepreneurial spark 5

PART C: THE DRIVING FORCES BEHIND THE INITIATIVE

Consider the environmental and corporate factors that triggered this initiative in the first place. Please try to estimate the importance of each the following (Circle one number for each).

Q11. Desire to consolidate subsidiary operations with those of parent (e.g. to deliver economies of scale)	not a factor 1	2	moderate factor 3	4	critical factor 5
Q12. Creation of a North-American free-trade environment	1	2	3	4	5
Q13. Routine product or business upgrade on existing product	1	2	3	4	5
Q14. Business opportunity defined by parent company e.g. a a request-for-proposal	1	2	3	4	5
Q15. A product / market opportunity arising through interaction with local (domestic) customers	1	2	3	4	5
Q16. A product / market opportunity arising through interaction with international customers	1	2	3	4	5
Q17. Desire by subsidiary management to enhance local value-added	1	2	3	4	5
Q18. Pressure from parent or from local government to enhance local value-added	1	2	3	4	5
Other_____	1	2	3	4	5

PART D: OUTCOME OF THE INITIATIVE

Q19. What was the immediate outcome of the initiative? i.e. in _____ (circle one number)

1 Formally approved by parent management
2 Implicitly / informally approved by parent management
3 Rejected by parent management
4 Modified or abandoned before it reached approval stage
5 Other _____

Q20. How rapidly was the initiative brought to fruition, relative to your expectation for a project of this type? . . . . . 1 (much slower than expected) 2 3 4 5 (much faster than expected)

Q21. What role did the Canadian federal and/or provincial government play in the outcome of the initiative? . . . . . 1 (government had a negative (i.e. harmful) role) 2 3 (government had a neutral role) 4 5 (government had a positive (i.e. beneficial) role)

Q22. Which of the following best describes the business activity associated with this initiative? (circle one number)

1 Manufacturing mandate (or mission)
2 Product management mandate (i.e. no mfg, R&D)
3 Autonomous business mandate (R&D, mfg, marketing, sales)
4 Business mandate (as for 3) but without sales responsibility
5 Other _____

Q21. What is the overall value-added (to the Canadian sub.) of the business activity associated with this initiative? . . . . . 1 (negligible value-added) 2 3 4 5 (very significant value-added)

Q23. Estimate the strategic importance of the business activity to the parent division or group to which it is accountable. . . . . 1 (very low strategic importance) 2 3 4 5 (very high strategic importance)

THAT IS THE END OF THE QUESTIONNAIRE. THANK YOU FOR YOUR HELP. PLEASE RETURN IT TO JULIAN BIRKINSHAW IN THE ENCLOSED ENVELOPE.

(8) Subsidiary-level questionnaire

VALUE-ADDING STRATEGIES IN CANADIAN SUBSIDIARIES

WESTERN BUSINESS SCHOOL RESEARCH PROJECT

Principal Investigator: Julian Birkinshaw

Globalization and North American free trade have forced Canadian subsidiaries to reconsider the role they play in the corporate system. This research program seeks to understand the changes that have occurred in the operating environment and internal structure of Canadian subsidiaries, and the extent to which international responsibilities or "world mandates" have been given to these companies.

We would be grateful if you would complete this questionnaire. To recieve a copy of the results please note your name and mailing address in the space below. Please note that all information will be held in the strictest confidence, and results will be reported in aggregate form only. Thank you in advance for your help.

Respondent name: _____

Mailing address: _____

_____

Research project coordinator: Julian Birkinshaw, Western Business School, London, Ontario, N6A 3K7. Phone: (416) 690 9706

SECTION 1. this section asks questions about the general characteristics of your subsidiary company and its relationship with the parent company.

Q1. Which level in your business units has the authority to make the following decisions? Circle the appropriate decision level based on the following:

1. Decision made in the subsidiary company
2. Decision made at the sub corporate level
   (e.g. international division, worldwide product division, or regional headquarters)
3. Decision made by corporate headquarters

		Decision level		
1.	Changes in product design 1	2	3	
2.	Hiring top management in the subsidiary 1	2	3	
3.	The decision to subcontract out large portions of the manufacturing instead of expanding the subsidiary's own facilities 1	2	3	
4.	Entering new markets within the country 1	2	3	
5.	The approval of quarterly production schedules and plans 1	2	3	
6.	Introduction of new products 1	2	3	
7.	Changes in subsidiary organization 1	2	3	
8.	The decision to switch to a new manufacturing process 1	2	3	

Q2. What percentage of your subsidiary's products are also produced by the parent?

_____ %

Q3. What percentage of your subsidiary's sales are made to entities within the corporation as intermediate products?

_____ %

Q4. Approximate percentage of your subsidiary's purchases from entities within the corporation?

_____ %

Q5. For the last fiscal year, please indicate the subsidiary's approximate:

_____ International sales as a % of total (include exports *and* sales to affiliates)
_____ R&D expenditure as a % of sales

Q6. Was the initial formation of your subsidiary (circle number):

1 Started as a greenfield operation
2 Acquired from another company

Q7. Which of the following best describes the reporting relationships in your subsidiary? (circle number)

1 Functional managers report directly to their counterparts in the parent company
2 Functional managers report to a Canadian business manager, who reports to a parent company boss
3 Functional managers report to a Canadian business manager who reports to a Canadian boss
4 Functional managers report to a Canadian business manager who reports to Canadian *and* parent company bosses
5 Other _____

Q8. How often do senior managers, on average, communicate with their counterparts and bosses in the parent company? (circle one number)

Daily	Weekly	Every second week	Monthly	Less than once a month
1	2	3	4	5

Q9. How often do senior and middle manager, on average, make business trips to head office? (circle one number)

twice a month or more	once a month	3-8 times a year	once or twice a year	Less than once a year
1	2	3	4	5

Q10. This question is about the relationship of your company to the parent company. Indicate how characteristic each of the following statements is in describing your subsidiary.

		Not characteristic						Very characteristic
1.	There are strong working relationships between subsidiary and parent company managers	1	2	3	4	5	6	7
2.	Parent company managers are confident that the subsidiary will achieve what it sets out to do	1	2	3	4	5	6	7
3.	Subsidiary managers share information on a frequent basis with parent company counterparts	1	2	3	4	5	6	7
4.	The subsidiary's capabilities are typically well understood by parent company managers	1	2	3	4	5	6	7
5.	The credibility of subsidiary top management is high	1	2	3	4	5	6	7

SECTION 2. *This section asks questions about the company and its distinctive abilities*

Q1. This question is about the relationships *within the subsidiary company*. Indicate how characteristic each of the following statements is in describing your subsidiary.

		Not characteristic						Very characteristic
1.	There are strong working relationships between managers within this subsidiary	1	2	3	4	5	6	7
2.	Subsidiary managers interact frequently and share ideas with one another	1	2	3	4	5	6	7
3.	The subsidiary CEO or president works with managers to focus their efforts towards the subsidiary's objectives	1	2	3	4	5	6	7
4.	There is a strong sense of community within this subsidiary	1	2	3	4	5	6	7
5.	There is top management sponsorship of entrepreneurial activities	1	2	3	4	5	6	7
6.	Top management has experience with innovation	1	2	3	4	5	6	7
7.	Individual risk-takers are recognized whether successful or not	1	2	3	4	5	6	7
8.	There is encouragement for calculated risks	1	2	3	4	5	6	7
9.	'Risk-taker' is considered a positive attribute	1	2	3	4	5	6	7

Q2. Listed below are several areas relating to your subsidiary's capabilities. Indicate your capability or distinctive competence in the following areas *relative to other subsidiaries*.

		Far below average						Far above average
1.	Product or process R&D	1	2	3	4	5	6	7
2.	Manufacturing capability	1	2	3	4	5	6	7
3.	Sales force coverage and quality	1	2	3	4	5	6	7
4.	Marketing capability	1	2	3	4	5	6	7
5.	Managing international activities	1	2	3	4	5	6	7
6.	Managing the interface with the parent company	1	2	3	4	5	6	7
7.	Innovation and entrepreneurship	1	2	3	4	5	6	7

Q3. This question is concerned with the historical development of the subsidiary company. Indicate how characteristic each of the following statements is for your company.

		Not characteristic						Very characteristic
1.	The subsidiary has a history of strong, internationally-respected leaders	1	2	3	4	5	6	7
2.	The subsidiary has a lot of experience with selling products to international customers	1	2	3	4	5	6	7
3.	The subsidiary has actively developed its key capabilities over time	1	2	3	4	5	6	7
4.	The subsidiary has a history of delivering what it has promised to the parent company	1	2	3	4	5	6	7
5.	The subsidiary's international sales have grown substantially over the last decade	1	2	3	4	5	6	7
6.	The subsidiary's strategic autonomy has increased over the last ten years	1	2	3	4	5	6	7
7.	The parent company's openness to initiatives from this subsidiary has increased over the last ten years.	1	2	3	4	5	6	7

Q4. Subsidiary companies can have a variety of objectives. Assess how characteristic each of the following is of your company.

		Not characteristic						Very characteristic
1.	We make a significant value-added contribution to the corporation as a whole	1	2	3	4	5	6	7
2.	We are globally competitive in our areas of operation	1	2	3	4	5	6	7
3.	We are regarded by the parent company as a strategically important subsidiary	1	2	3	4	5	6	7
4.	We have the potential to be regarded by the parent company as a strategically important subsidiary	1	2	3	4	5	6	7
5.	The local government views this subsidiary as an important contributor to the local economy.	1	2	3	4	5	6	7
6.	This is a dynamic, interesting place to work	1	2	3	4	5	6	7
7.	The standing of the subsidiary in the national business community is high	1	2	3	4	5	6	7

Q5. Assessments of subsidiary company performance are typically based on a variety of factors. Indicate the company's performance relative to the corporation as a whole over the past 5 years, according to the following measures:

		Worse than corp. as a whole				Better than corp. as a whole		
1.	Return on investment	1	2	3	4	5	6	7
2.	Profit	1	2	3	4	5	6	7
3.	Productivity	1	2	3	4	5	6	7
4.	Sales growth	1	2	3	4	5	6	7
5.	Market share	1	2	3	4	5	6	7

SECTION 3. This section asks questions about the business environment.

Q1. Indicate the extent to which the following statements are characteristic of the Canadian business environment *relative to that in other subsidiaries*

		Not characteristic				Very characteristic		
1.	Local customers have exacting standards	1	2	3	4	5	6	7
2.	The government is actively looking to support investment and industrial growth	1	2	3	4	5	6	7
3.	The competition in this country is extremely intense	1	2	3	4	5	6	7
4.	The capabilities of suppliers are very high	1	2	3	4	5	6	7
5.	Relationships between suppliers and buyers are very strong	1	2	3	4	5	6	7
6.	Speed of product innovation by competitors is high	1	2	3	4	5	6	7
7.	Market demand is growing rapidly in our business(es)	1	2	3	4	5	6	7

Q2. Considering only the major industry in which your subsidiary competes, indicate how characteristic each of the following statements are in describing your industry:

		Not characteristic				Very characteristic		
1	Buyer/customer needs are standardized worldwide	1	2	3	4	5	6	7
2	Competitors exist in all key markets	1	2	3	4	5	6	7
3	Domestic competition is intense	1	2	3	4	5	6	7
4	International competition is intense	1	2	3	4	5	6	7
5	Business activities are susceptible to global scale economies	1	2	3	4	5	6	7
6	Product awareness exists worldwide	1	2	3	4	5	6	7
7	Production technology is standardized and available worldwide	1	2	3	4	5	6	7
8	Transportation costs is an important element in final cost	1	2	3	4	5	6	7
9	Competitors market a standard product worldwide	1	2	3	4	5	6	7
10	New product intros. occur in all major markets simultaneously	1	2	3	4	5	6	7

Q4. Many Canadian subsidiaries are currently experiencing a shift from "country-centred" competition to "global" competition, brought about in part by free trade. Which of the following statements most accurately describes your situation (circle number) ?

1	2	3
The industry in which we compete has been through a transition and operates on a "global" basis.	The industry in which we compete is currently going through a transition from "country-centred" to "global".	The industry in which we compete operates primarily on a country-centred basis.

Q1. Does your subsidiary company have any international responsibilities or world mandates? (That is, does it undertake any activity such as manufacturing, research & development or product management on behalf of the corporation as a whole?)

No ↙ Yes ↘

Q2. If No, please circle all of the following statements that apply to your company.

1. International responsibilities are not assigned in our corporation.
2. International responsibilities are not appropriate for the Canadian subsidiary at this stage.
3. The Canadian subsidiary used to have international responsibilities but they were phased out or divested.
4. We have attempted to win international responsibilities, but the right opportunities have not transpired.
5. It is very difficult to win international responsibilities because of the high level of centralization in the corporation.
6. Our company is focused exclusively on meeting the needs of Canadian customers / clients.
7. Other _____

Q2. If Yes, please estimate the approximate percentage of your subsidiary company's revenues that are gained as a result of your international responsibilities

____ ____ %

Q3. In simple terms, international responsibilities can be "given" by the parent company or "earned" through the efforts of the Canadian subsidiary. Please estimate —in aggregate— the relative input of subsidiary and parent.

Percentage of international responsibilities "given" by parent company _____%
Percentage of international responsibilities "earned" through subsidiary efforts _____%
(should total 100%)

Q4. To what extent have the following activities occurred in your subsidiary as *sources* of international responsibilities?

	No Evidence				Plentiful Evidence
1. New products developed in the Canadian market and then sold internationally	1	2	3	4	5
2. Significant extensions to existing international responsibilities	1	2	3	4	5
3. Successful bids for corporate investments in Canada	1	2	3	4	5
4. Proposals to bring activities to Canada from elsewhere in corporation	1	2	3	4	5
5. Acquisitions of Canadian companies, led by subsidiary management	1	2	3	4	5
6. New international business activities that were first started in Canada	1	2	3	4	5
7. Enhancements to product lines which are already sold internationally	1	2	3	4	5
8. Attraction of corporate resources to Canada for new investments	1	2	3	4	5
9. Reconfiguring of Canadian operations from domestic to international orientation	1	2	3	4	5

Q5. What success rate has your subsidiary had in its pursuit of international responsibilities? (circle number)

1 Almost always successful
2 Mix of success & failure
3 Limited success

↓

That is the end of the questionnaire. Thank you for your time. Please mail the questionnaire back to the Western Business School in the enclosed envelope.

(9) Summary Sheet for Initiative-Level Factual Data

Initiative: _____

1. Date initiative was concieved _____

   Date initiative was approved / abandoned _____

   Other significant dates _____

2.

	Before	After
Sales volume to internal (corporate) customers	$_____	$_____
Sales volume to external customers	$_____	$_____
International sales volume (internal & external)	$_____	$_____
R&D expenditure	$_____	$_____
Total employees in Canadian business	_____	_____

Total new capital investment made as a result of the mandate: $_____

BEFORE INITIATIVE

	Canada	North America	World
R&D			
Manuf-acturing			
Mark-eting			
Sales, Service			
Mana-gement			
Support function			

AFTER INITIATIVE

	Canada	North America	World
R&D			
Manuf-acturing			
Mark-eting			
Sales, Service			
Mana-gement			
Support function			

(10) Summary Sheet for Subsidiary-Level Factual Data

COMPANY: _____

1. Total sales revenue 1994 _____
   Total sales revenue 1984 _____
   Export volume 1994 _____ % parent-inspired WPMs _____
   Export volume 1984 _____ % parent-inspired WPMs _____

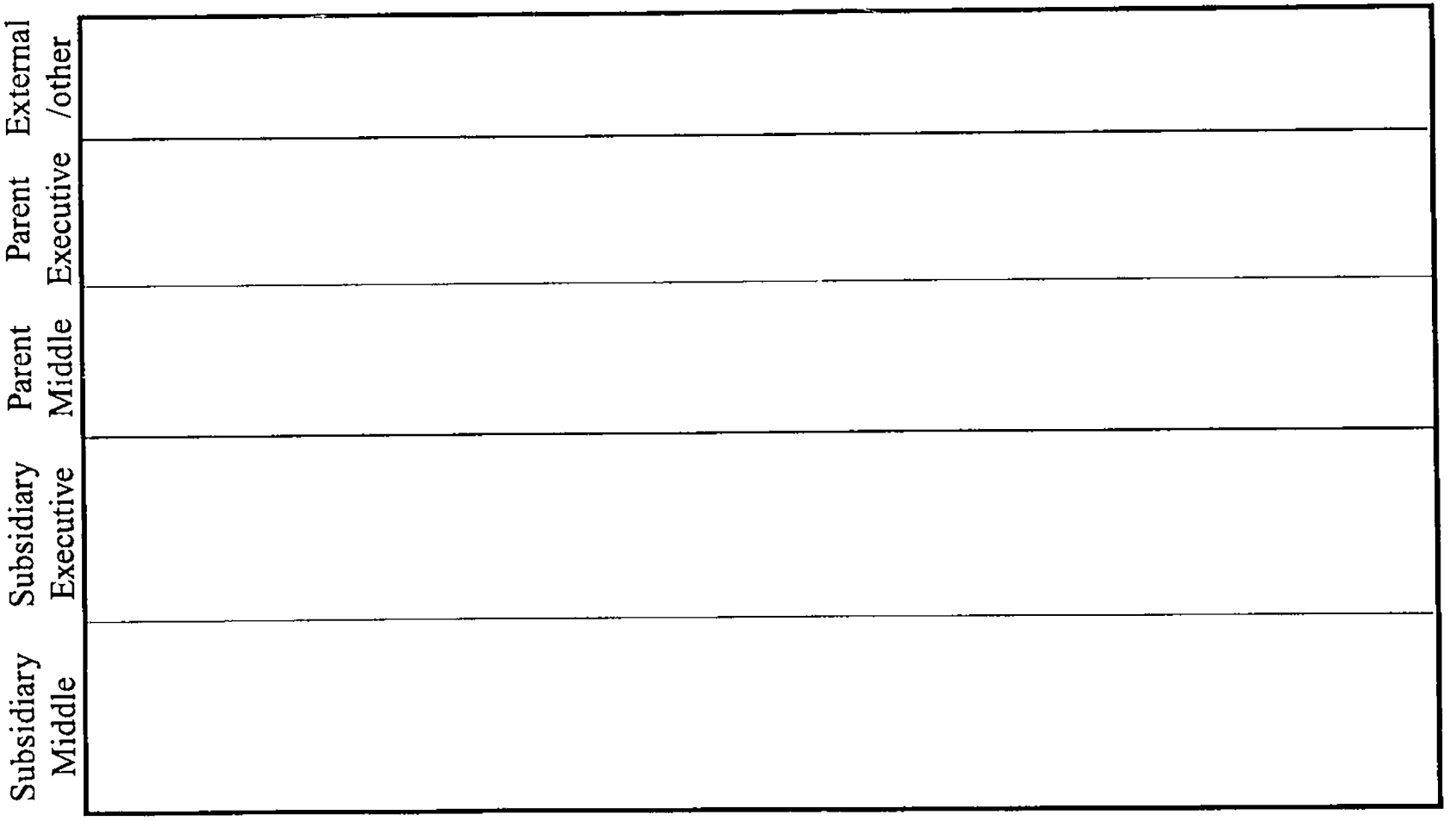
2. Process. Draw stylized VA over time: Episodic or gradual?

3. Drivers & mechanisms of growth

Initiative and year	Driven by which prior inits? (& type)	Which resource flows?	Other internal drivers (vision, etc)	External drivers (local market, context, etc)

THESIS ANALYSIS WORKSHEET
PAGE 1 -- *PROCESS TIMELINE*

Initiative Name: _____



--- Time (define an appropriate scale, depending on initiative) ---

'ACTION' WORDS (for initiative process analysis)

abandoning
adapting
analyzing
approving
authorizing
bootlegging
(capability) building
bullying
championing
committing
competing
conceiving
consensus-building
convincing
cooperating
creating
decreeeing
defending
defining
demanding
(product) developing
differentiating
door-opening
doubting
educating (parent)
enthusing
evaluating
exploiting
exploring
(competence) extending
fighting
(bottom-line) focusing
formulating
helping
idea-testing
identifying (needs)
implementing
inducing
initiating
innovating
integrating
(early) involving
judging
justifying (existence)
learning
linking
mandating
measuring
modifying
negotiating
networking
opportunity seeking
paradigm-breaking
participating
persuading
placating
planning
politicking
presenting
pressuring
problem-solving
promoting
promoting
proposal-writing
providing (slack, autonomy)
rejecting
relationship-building
researching
resisting
restructuring
(customer) satisfying
(site) selecting
selling
sounding-out
sponsoring
supporting
tailoring
team-selecting
thinking (globally, locally)
weighing options

THESIS ANALYSIS WORKSHEET
PAGE 2 -- Inductive causal model

Instructions: Using the timeline overleaf, (1) define the key processes that were in evidence; and (2) map them in the space below. e.g. championing --> buying-in --> approving.

(1) The key processes (in my opinion) were:

(2) Their causal relationship is approximately as follows:

HOW DO INITIATIVES DEVELOP AND LINK OVER TIME?
PRIOR / FUTURE INITIATIVES

Specific Initiatives cited by respondents as impacting this one:		*Specific Initiatives cited by respondents as following from this one:*
Which of the following capabilities / resources [gained from prior initiatives] impacted positively on this initiative? Physical assets Financial assets Technological capabilities Human capabilities Credibility w/ parent 'Process' skills Other	→ Focal Initiative →	*Which of the following capabilities were demonstrably enhanced through this initiative [in respondents mind]?* Physical assets Financial assets Technological capabilities Human capabilities Credibility w/ parent 'Process' skills Other

KEY SUCCESS FACTOR ANALYSIS

For this initiative, write out below (verbatim where possible) the factors that respondents believed to be key to the success of the initiative [or key to its failure].

NB Note who mentioned each factor e.g. *'Strong championing (Smith)'*.
If KSF is heavily implied, rather than a direct response, make this clear.

KEY SUCCESS FACTOR ANALYSIS
Instructions to Research Assistant

Enclosed are the responses of interviewees to the question: "What were the key factors responsible for the success / failure of the initiative?" It was suggested that three factors would be an appropriate number, but no attempt was made to limit it to that number. Between 1 and 9 factors were given for each initiative; in some cases multiple respondents were used.

The analysis procedure

Below are eight broad categories into which *most* of the key success factor responses can grouped. For each interviewee response, decide which broad category it most closely fits and put it in that pile. There are approximately 130 interviewee responses. At the end of the analysis these 130 responses should be sorted into eight piles. There will probably be a few that do not fit any broad category; these should be set aside.

The eight categories

Consider: To what did the interviewee attribute the success or failure of the initiative?

1. The personal drive / championing / sponsorship efforts of key subsidiary managers.

2. The capabilities of the subsidiary organization. This would include its areas of competitive advantage and its specific product characteristics.

3. The openness (or lack thereof) of the parent company to subsidiary initiatives. This would include the extent of strategic discretion granted to the subsidiary organization.

4. The reputation or credibility of the subsidiary with the parent company.

5. The 'fit' of the initiative with the parent company's strategic or operational needs. This includes timing.

6. The quality of the 'proposal'; the management of the initiative process.

7. The strength / fertility of the local market, links or relationships with entities in the local market.

8. The business environment as a whole, e.g. increasing competitiveness, worldwide recession, free trade as a promoter of international trade etc.

APPENDIX 2
CASE STUDIES

This appendix consists of six detailed case studies, one per company. These cases are outlined very briefly in the first part of chapter 8. The appendix is intended to provide background data for both specific initiatives and subsidiary histories. All the material in this chapter has been read and verified by at least two individuals in each subsidiary. The material has also been "released" for use in this thesis by the president / general manager in each subsidiary.

CASE 1. 3M CANADA

Overview of the Corporation

3M is a St Paul, Minnesota-based multinational corporation with sales in excess of $14 billion (U.S.). With its origins in mining, 3M has evolved into a diversified manufacturing company, with interests in tape, abrasives, health care, electronic media and graphic technologies. The company has approximately 60,000 different products (industrial and consumer) and sells into 57 countries worldwide. Outside-the US (OUS) sales comprise half the total revenues.

3M's organizational structure is complex, a result in part of its multi-country, multi-business scope. Foreign subsidiaries, including Canada, were largely autonomous until the mid-1960s, but since have become increasingly integrated into the US operations: first through the "international division" and then more recently through the rationalization and consolidation of the manufacturing and R&D functions. The dominant lines of accountability are by "sector" and "business", but regional and country managers

still have considerable power. Essentially 3M is structured as a "business-dominated matrix".

3M Worldwide is known for its "entrepreneurial" culture. There is a heavy emphasis on R&D (total expenditure of about $1 billion), and employees are encouraged to pursue their own new product and process ideas. However, the entrepreneurial spirit is more deep-rooted than that. As the following pages will suggest, employees are always alert to new ways of doing things and opportunities to build the business. This is matched by --for the most part-- an openness to change, and a relative lack of adherence to tradition, on the part of senior managers.

The Early Days of the Canadian Subsidiary: 1950-1970

3M Canada Inc. was founded in 1951 with its headquarters in London, Ontario. A plant was built in London that made coated abrasives and tapes (the major product lines at the time) for the Canadian market, and a sales & marketing operation was established to offer the entire range of 3M products within Canada. As one respondent commented, 3M Canada was a classic "miniature replica" subsidiary in this period, producing short-runs of the major lines in a branch plant. Management had considerable autonomy to develop the market as they saw fit, but very little opportunity to develop new products.

The subsequent growth of 3M Canada saw a marked shift away from the miniature-replica form towards a much more integrated North American structure. However, the nature and speed of that shift differed markedly between the "upstream" manufacturing operations and the "downstream" sales & marketing functions. The two will thus be discussed separately. In the final section the commonalities and links between them will be considered.

Manufacturing: The First Export Opportunities: 1970-1980

In 1972 the abrasives division in the U.S. was suffering from capacity constraints. It had plants in St Paul, Detroit and London, each of which was making a full line of

products. However, the London plant was not at the same level of capacity as the sister plants in the States, so it was put into service as a "swing producer", i.e. making product for the U.S. at peak periods. Once this had proved successful, the suggestion was made, by the U.S. abrasives management, that greater efficiency (and hence, higher output) could be achieved if the three plants specialized in certain grades of abrasives, rather than all producing all the different grades. By 1976 this rationalization had occurred, and London was making all of the light-grade abrasives for Canada and the U.S. The efficiency savings more than offset the import/export tariffs that were incurred in this shift.

While the abrasives rationalization was inspired by the parent company, it nonetheless provided a model for the Canadian manufacturing division to work towards. One respondent commented that the attitude at the time was "Isn't this really the way we've got to run all of our operations?" Free trade was still 15 years away, but the undeniable logic of manufacturing on a North-American basis was already guiding the strategies of the 3M Canada operations managers.

Growth and Rationalization of Canadian Manufacturing: 1980-1988

Three major new plants were established in the early 1980s: two in Perth, Ontario (1981 & 1982) and one in Morden, Manitoba (1982). While they were built to service the Canadian market in the first instance, there was an understanding, in the subsidiary and in St Paul, that "they had to make sense in the light of North America very likely becoming a rationalized manufacturing environment." The disparity between the short-run and long-run functions of these plants provided an interesting strategic dilemma for the respective plant managers. It is worth describing each plant separately to understand how they evolved.

The first Perth plant was built in 1981 to make "Scotch-Brite", a non-woven fibre-based abrasive. The choice of Perth was made for a number of reasons, including access to raw materials, a stable community, and a desire to establish new smaller focused operations. It was built to service the Canadian market, but with enough capacity to act

as a swing producer for the U.S. Unfortunately, the plant was just coming on stream when the North American 1981-2 recession hit, so product volumes were nowhere near the target levels, and export opportunities to 3M (U.S.) rapidly evaporated. Instead, the plant manager started looking for alternative manufacturing possibilities, mostly in the U.S. He described his strategy as follows:

> "...what always happens is you go and canvas for the things that other people really don't want to do. So its a matter of getting to know your peers in the U.S. and finding out what are the products they really don't want to do for various reasons. Either its not ideally suited [to them] or the change overs are too long and the volume is too small or something of this nature. And then you peck away at those things and say "gee, can I do this for you, I'll take these problems off your hands" and this is how we started building the volume in Perth. That was the export volume. Then of course once you get one or two products, the next challenge is to do them well enough that you end up with an equivalent or lowering of cost."

This formula proved successful, so that by 1986 the Perth "Scotch-Brite" plant was integrated with its sister plants in the U.S. Perth made all the hand scouring pads for North America, as well as a number of other lower-volume lines. The conversion process, whereby the "jumbo" rolls were cut up and packaged, still took place in the States though.

The "sister" plant in Perth was established along similar lines in 1982, to manufacture tape products for the Canadian market. In the period 1982-5 the plant manager was actively pursuing export opportunities with U.S. divisions but, apart from some volume with the packaging tape division in 1984 met with little success. In 1985, however, the disposable products division (manufacturer of diaper tapes) was looking to increase its volumes substantially, and on the basis of (a) the excellent service Perth provided to the packaging tape division in 1984; and (b) Perth's experience in making diaper tape for the Canadian market, the Canadian location was chosen for the expansion. The Perth plant provided a very high level of service to the Disposables division, leading to an additional major expansion in 1987.

The Morden plant was established in 1982 to manufacture fusion-bond epoxy resin which is used primarily to coat underground pipes. The plant was justified on the basis of an expected increase in demand for oil pipelines. Morden was chosen because it was midway between pipe coating plants in Ontario, Alberta, and (later) in Saskatchewan. As with Perth, the intention was for the facility to focus primarily on Canadian sales, with some exporting; and as with Perth, as soon as the plant was built, demand plummeted, on this occasion because the Mackenzie pipeline was cancelled. The plant struggled for a few years. In 1985 some health care converting operations were moved into the plant so that the plant became a viable concern. During the following years both product lines began to pick up sporadic export opportunities to the U.S., much along the lines of the Perth operations.

Emergence of Full Mandates & World-Scale Investments: 1988-1993

The increasing reputation of the Canadian manufacturing group in the U.S., coupled with the promise of Free Trade, led to a further wave of rationalization in the late 1980s and early 1990s. The Perth "Scotch-Brite" plant, after a couple of false starts, put together a convincing argument that the conversion and packaging of its industrial hand pads should be undertaken in Perth. The London Abrasives plant, in similar fashion, extended its operation to include the cutting and packaging of the light-grade abrasives as part of a $12 million investment that included a major upgrade of the making process. An increase in worldwide demand for "ScotchKote" epoxy resin resulted in Morden winning a $11 million upgrade to its operations, and a recognition that it would share worldwide production capacity with its sister plant in the U.S., rather than being the subordinate "swing producer". Finally, the Perth tape plant took the initiative to develop two new products (one in 1989, the other in 1992) that were highly successful in the U.S. market.

This series of investments essentially completed the rationalization process in Canada. It should be pointed out that the investment in the product lines discussed above was matched by the elimination of a large number of short-run product lines that could

be more efficiently made in the U.S. This was critical to the Canadian rationalization strategy, because it ensured that the process became an "exchange" rather than a "loss" to the U.S. division in question. Nonetheless, overall Canadian manufacturing revenues rose dramatically through this period, from about $230 million in 1985 to $415 million in 1993.

Two further investments were made in this period, a $4 million development in London for a micro-encapsulation technology (for insecticides), and a $25 million investment in Brockville for a leading-edge tape facility. While of very different scales, these two investments were similar in that they were not incremental to existing facilities, and both had world mandates from day one. The Vice President, Manufacturing saw these as a model for future growth.

The Brockville investment opportunity presented itself to the VP manufacturing while on a routine visit to St Paul. Learning that the tape division was planning to undertake several capacity investments, he asked for Canadian participation on a couple of the teams that were being formed to develop scope and locations for the processes. One of the teams studied U.S., Mexican and Canadian locations. Canada offered Brockville as a location which was well located with respect to raw material supply and markets, and had the added advantage of a well-suited building available for well below replacement cost. As observed by the President of 3M Canada, the cost estimates put Brockville marginally ahead of the U.S. location, but the reputation of the Canadian group for customer service and quality was what swung the decision their way. The tape division had a long -standing relationship with the Canadian manufacturing people, so they knew first-hand that the Brockville option would meet or better its cost, service and quality estimates.

The Micro-encapsulation mandate, by contrast, was given to the London plant by a division, Animal Health Care, that had had no prior dealings with the Canadian business. This division was looking to invest in a dedicated micro-encapsulation facility for its animal insecticides, as manufacturing was spread over several plants at that time. An E-mail message was sent out to all plants worldwide, inquiring if any wanted the investment. London responded promptly and enthusiastically, put together a feasibility

study, and presented a convincing logic for putting the investment in London. The key arguments were: (a) a commitment to service and quality; and (b) the existence of a large infrastructure in London to deal with engineering, environmental issues etc. The investment was approved, and the whole process, through to full-scale production, took just 18 months.

Summary: The Changing Role of the Manufacturing Operations

The growth of the Canadian manufacturing division, particularly over the last 15 years, has been spectacular. The description above has suggested a three phase process, namely (1) initial swing production opportunities; (2) the development of niche product mandates, typically for lines that U.S. plants did not want; and (3) comprehensive rationalization, the development of a number of significant mandates, and a couple of global competitive investments. Naturally this is an *ex post facto* explanation for what was an incremental, often haphazard process. However, there are reasons to believe that there was a pattern to this series of investments and reconfigurations, the principal one being that the Canadian manufacturing group (the vice president, the manufacturing director, the plant managers) is well integrated -- that is, they interact frequently and they have often worked in multiple locations. This close interaction has facilitated a genuine developmental process through a number of mechanisms: (1) a common vision, to facilitate purposeful action on the part of the plant managers; (2) discussion of strategies, and hence the development of a tried-and-tested "process" for winning mandates; (3) the build up of personal relationships with U.S. managers, to alleviate any parochial biases that might otherwise exist; and (4) a build-up of enthusiasm and commitment that is associated with being on a "winning team". All the plant managers are aware of their reputation for service and cost-competitiveness, which inspires greater effort and even higher standards.

One important element in 3M Canada's success is the use of the "focused factory" concept. This is a conscious decision to keep every plant below about 150 employees, such that they can all be focused on delivering a single product line or technology.

Greater size offers certain economies of scale, but breeds functional specialists who are accountable to their function rather than to customer service. This philosophy has led to the establishment of about 10 "factories" each of which is dedicated to a single product and/or technology (Note that London has four distinct focused factories, that are under the same roof but are otherwise independent). An interesting avenue for growth in the future is through these dedicated factories. The Perth tape facility, for example, has sufficient development and engineering capability associated with it that it can actually develop new products without much outside support. This led to a couple of new products recently, and the prospects of more in future years.

A number of other common threads were also noted by respondents. These included: (a) treating the internal customer with the same respect and attention as if they were an external customer; (b) giving the plant manager total authority over the plant, "to run the operation as if it is his/her own business"; and (c) a continuous improvement philosophy, fuelled by a system in which process improvement proposals are received much more favourably than one-off capital investments. The overall impression is one of alertness to opportunities, both in terms of winning new products and improving the ones that have already been won.

The Sales & Marketing Side of 3M Canada in the 1980s

Through the 1980s the sales & marketing operations were a "miniature replica" of the U.S. operations. While there were certain product lines sold exclusively in the U.S. but not in Canada, the reverse was not true. There was some variation across the border, in terms of distribution methods, pricing strategies, and even product characteristics, but there was no scope for substantially different strategies. When the U.S. organization exited the copying business in the mid-1980s, the Canadian organization did likewise. Interestingly, the Canadian operation was actually outperforming its parent over the latter part of this period. Central administrative costs and salaries were substantially lower in Canada, and market share was typically higher. This proved to be very important as moves were made to bring the two organizations closer together.

Free Trade and The North American Plan: 1989-1993

When Dr.William Coyne[1] took over as President of 3M Canada in late 1989, one of his first initiatives was a "North American Task Force" whose role was to craft a future vision and operating plan for 3M Canada in the light of free trade. For the first nine months this task force studied 3M Canada through various theoretical lenses, a process that underlined the superior cost position of the company vis-a-vis the U.S. operations, but did little to shape a future vision. The second line of pursuit was a "best practices" study of a sample of divisions. This research proved more beneficial, in that it highlighted those aspects of the Canada-U.S. relationship that were important, such as mutual respect, a joint North American Plan, excellent communications and resource sharing. It also uncovered a number of specific changes that could be made, such as 3M Canada not reporting to 3M International any more, and the need for a St Paul - London air shuttle. Armed with these findings, Coyne and his team put forward the "North American Plan" that essentially proposed the retention of a substantial Canadian organization, on the understanding that each Canadian division would equal or better the results of its U.S. counterpart (on certain comparable operating measures), and that the two entities would move closer together along the lines of the "best practices" identified during the research.

It should be emphasized that the North American Plan is a unique concept. At a time when many Canadian subsidiaries are losing autonomy or being shut down altogether, Coyne's proposal essentially secured the continued existence of 3M Canada as long as it remained cost-efficient. Rather than wait for St Paul to drive costs out of the system, Coyne's proactive strike ensured that the integration process transpired according to his agenda.

Coyne's boss, the VP, International, approved the plan in principle and agreed to make the substantive changes identified above, such as a London - St Paul shuttle.

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[1] **Names of specific individuals are used sparingly in this case and in all others. Some names may be disguised.**

Implementing the plan, however was the responsibility of the Canadian organization. Coyne began by selling it to the H.Q. sector heads on the operating committee, and then to a number of large meetings of senior technical and sales & marketing managers in St Paul and Austin. With a couple of exceptions there was widespread agreement that the plan should be pursued. Coyne then presented the plan to the Canadian business managers, gave them a set of overheads and brochures, and told them to go and sell it to their U.S. counterparts. Through 1992 and into 1993 the implementation job was undertaken, with overall very impressive results. Businesses have improved on the seven "best practices" identified in the plan, and moved towards a more coordinated North American network. There have been some "hold-outs", typically from U.S. business managers for whom Canada is an insignificant market. The approach taken in Canada is that these few hold-outs are not worth pursuing: management's time can better be spent on other initiatives.

The emergent North American organization is loosely based on Bartlett and Ghoshal's notion (1989) of the *Transnational*, whereby formal structure is much less indicative of action than the "matrix in the mind of the manager". While the formal line of contact to the U.S. is through the business unit, the emphasis is on coordination of activities rather than accountability to a U.S. manager. What this also means for North American operations is that --at least in theory-- activities occur where the resources and capabilities are resident, rather than at the locus of power. These are referred to in the plan as "centres of excellence". The two examples below are cases where Canadian "centres of excellence" have emerged.

An Integrated North American Organization: Two Cases in Point

The *animal health care business* was started in Canada in 1984, three years after its initiation in the U.S. The key product was a flea-control insecticide based around 3M's micro-encapsulation technology; it also sold bandaging material, stethoscopes, and surgical tapes for animals, all adopted directly from the medical-surgical business.

The Canadian business manager made the decision early on not to follow the U.S. practice of selling to distributors. He felt that direct sales, whereby the 3M representative would call directly on the veterinarian, would provide greater control and a better understanding of the market. Six salespeople were hired in Canada in 1985 and 1986, and they succeeded in developing a strong Canadian business, based primarily around the insecticide product (around 50% market share). In contrast to Canada, the U.S. animal health care business was struggling through the late 1980s and early 1990s. Their market share in insecticides was running at about 10%, and this discrepancy was felt to be a function of the different distribution systems. Compounding this problem, two competitors were bringing 'Insect Growth Regulators' (IGRs) to market around this time (1992), that offered substantial safety benefits over insecticides. 3M's comparable product was not expected to become available until 1995. Finally, there were also profitability problems within the U.S. business.

In 1993 a new H.Q. manager was brought in to turn the animal health care business around. Following a 6-month assessment of the business, he created four separate divisions, one of which (insecticides) was managed by a business team comprised of both U.S. and Canadian personnel with the team leader and marketing being represented by Canadians. This was in recognition of the Canadian personnel talent and the strong market share the Canadian group had achieved in the insecticide market. Another contributory factor was the shift of the micro-encapsulation technology to the London plant in 1992 (described earlier). While this shift had occurred independently, the net result was that the key business activities for insecticides (business management, marketing, manufacturing and logistics) were now in Canada.

The animal health care business essentially gave 3M Canada its first 'business mandate', as distinct from the 'manufacturing mandates' discussed earlier. The irony is that this mandate was never sought in a proactive sense: It arose because the insecticide marketing capabilities of Canadian management were recognized by an enlightened

business manager in the U.S. It is probably not irrelevant to note that this business manager had just returned from managing 3M's Chilean subsidiary.

The *"Self-Check" business* represents a somewhat different set of conditions, and a very different end result. The opportunity arose back in 1986, when a market development manager in Canada recognized that the natural extension to the library security systems sold by 3M was a "self-check" system whereby people signed out their own books. She presented this idea to her counterparts in the U.S., who did not perceive the same market need. Undeterred, she pursued the project anyway, bootlegging some R&D time through the Canadian labs, and gradually putting together a prototype. Around the same time, and unknown to the Canadian team, 3M Australia was putting together a similar product. Thus, at the "American Library Association" meeting in 1992, librarians were faced with two new 3M "self-check" products. The Australian one had been installed in a few libraries; the Canadian one was still a prototype. There were strengths and weaknesses to both, but the consensus opinion was that the Australian product, with its "hands-free" design, was superior.

Overall the response from librarians was enthusiastic, so at that point 3M (U.S.) became involved. The Canadian product was scrapped, and the Australian product became the 3M standard. The Canadian market development manager, who had championed self-check through this whole period, was assigned responsibility for the product on a worldwide basis. She spent some time in St Paul and Australia, developing her knowledge of the business and the product, and she now manages it globally from London, Ontario. Production shifted to St Paul from Australia, primarily to reduce transportation costs. The Australian group retained production and business development rights in Australia and New Zealand.

A number of other examples also exist within 3M Canada, where one individual has been given a mini product-mandate. There is a dental products marketing manager who develops plans for North-America; another individual does sports events marketing worldwide; and a third is responsible for "text service" in Canada and the U.S. Like self-check, these are cases where the most-knowledgeable individual happens to be in

Canada. Rather than bring those individuals down to St Paul, it is recognized that they can function just as well --and probably better-- if left in their own environment.

Summary: The Changing Role of the Sales & Marketing Organization

While all 3M's product divisions continue to be based in the U.S. (in St Paul and Austin, Texas), the North American plan has legitimized 3M Canada's value-added role in the corporation. Indeed, the Plan specifically states that divisions should "Consider whether 3M Canada's structural cost advantages and leaner structure make Canada an ideal location in which to centre a small, growing business (or part of a business) to be run for all of North America." The Insecticide and Self-Check products are early examples, but the intention is clearly to attract more of these activities.

One line of development is through the Canadian R&D labs. These are small by corporate standards, but they include mini centres-of-excellence in plastic additives and coating technology. Furthermore there are "technical support" activities associated with some of the manufacturing sites, that work on applied product development. Both activities could lead to the development of new international products based in Canada. The new diaper tape product (mentioned above) is a case in point.

A further source of potential advantage for 3M Canada is that its smaller size (vs. 3M U.S.) facilitates interaction between the manufacturing and the sales & marketing sides of the company. The Canadian VP, Life Sciences, for example, has worked closely with the Morden plant manager to upgrade their health care mandates in a way that would probably not happen in the U.S. (for size reasons). Furthermore, the Canadian senior management are all located together, which facilitates teamwork and communication. The North American Plan and the manufacturing rationalization, while distinct in a lot of ways, are philosophically very similar, and the opportunities for the leaders of both to learn from one another are considerable. Where the linkage is weak is in terms of the transfer of reputation in the U.S. The 3M organization is large and complex, so while 3M Canada has a good reputation, the opportunities for personal referrals are limited.

The increasing number of personnel exchanges, and Canadians in senior management positions in St Paul, are helping to increase the familiarity between the two organizations.

In terms of specific initiatives, a progression can be clearly discerned on the manufacturing side, from rationalization in the early eighties through to new investment in the late-eighties. The Perth tape plant even shifted from rationalization through to new product development. On the sales & marketing side the initiatives have occurred much more recently so it is too soon to discern any trends. If all goes according to plan, the North American Plan should spawn a number of product mandate opportunities, in line with the distinctive capabilities of the Canadian organization.

CASE 2. MONSANTO CANADA

Corporate Background

Monsanto Company was a U.S.-based Multinational Corporation with sales revenues of $8 billion (U.S.) in 1993. With a historical expertise in bulk chemicals, Monsanto had refocused its interests in the 1980s by building a large agriculture and biotechnology group, and acquiring Searle Ltd. (a pharmaceutical company) and the Nutrasweet company (selling artificial sweeteners). The corporate product mix continued to evolve, towards higher value-added chemical products that could meet a target of 20% return on equity. Geographically, Monsanto was a dominantly American company with just over half its sales volume and substantially more of its business activities in the U.S. Efforts had been made over the previous decade to broaden Monsanto's geographical scope, principally in Europe and Japan.

Monsanto Canada had been in existence since 1932, and in 1993 had sales of $460 million. Like its parent, Monsanto Canada's historical expertise was in Chemicals and Agricultural products, but a growing percentage of its revenues was coming from the higher value-added units, Searle and Nutrasweet. For the purposes of this report, only the Chemicals and Agricultural divisions will be considered, primarily because they have a more extensive history in Canada.

In terms of structure, Monsanto was a matrix organization, with four operating companies and five world regions. The world region presidents had historically held a high level of autonomy, with all of the division managers reporting in to them directly. The Canadian subsidiary, by virtue of its long history in Monsanto, had the status of a world region, along with Europe, Asia-Pacific, and Latin America. More recently, the divisional line of reporting had been strengthened, so that divisional managers in Canada now reported officially to the Canadian president *and* a boss in the U.S. More importantly, however, the reality for Monsanto since the late eighties had been a period of "fractious change", which meant a massive overhaul of the philosophy, organization, and operating systems of the worldwide corporation. The case study documented here represents Monsanto Canada's evolving role in the context of a rapidly-changing economic and corporate environment.

Monsanto Canada's Evolution, 1931 - 1988

Monsanto Canada started in the 1930s as a "market access" subsidiary, selling U.S. products into Canada. Manufacturing was established first in La Salle, Quebec, and subsequently in Sarnia, Oakville, Woodbridge (all Ontario), and Vancouver. R&D facilities were built in Montreal. All of these activities were focused on the Canadian market, on account of the tariff barriers between the U.S. and Canada. The chemical division sold a range of locally-made products that were consistent with those of the parent company. The agricultural division was still operating in Canada on an export basis.

Through the sixties and seventies the decision was made to sell a number of the Canadian operations, and to close the R&D "branch plant" facility. As noted by one Canadian manager ".. we became much smaller, but we became strategically aligned with the parent". This led to a feeling that new growth opportunities should be pursued that were integral to the worldwide operation, that is with sales opportunities beyond the Canadian market. The strategy adopted was to look for "big hit" investments, along the lines that "if it wasn't $50 million we were not really interested." The best opportunity

was a proposed greenfield Maleic Anhydride plant in Sarnia. Canadian management worked for several years to win this investment, but the plant was eventually located in Florida in 1982. The company chairman's perspective was that "yes, we want to invest in Canada, but I don't believe this is the right opportunity." A number of other world-scale investments were also pursued around this time, but none was realized.

Around 1984 a new president was appointed, who decided to pursue a more incremental approach to investment. His philosophy was "nothing is too small" as long as the project was strategically aligned with the parent company. In research and development, for example, the company began working with Universities across Canada on small focused research projects, rather than on "branch plant" developments. A number of small acquisitions were also made, in Searle and the Agricultural group. Most notably, however, this espoused strategy, coupled with the emerging reality of free trade, led to a recognition that opportunities had to be sought out and pursued by Canadian managers wherever they could be found, a recognition that eventually led to a series of substantial initiatives in the late eighties and early nineties. The next two sections will describe in detail the initiatives that transpired in this period, first in Chemicals and then in the Agricultural division.

The Chemicals Division, 1988 - 1994

Changes in Speciality Resins

Speciality resins are chemical additives for automotive paints and industrial products that affect the surface properties of the product. For example, Scripset® resins are used in fine paper to repel water, toughen the surface, and improve printing quality. These resins are made in bulk by Monsanto, in powder or liquid form, and sold to industrial customers in the paper industry.

In the late eighties the speciality resins business worldwide was having profitability problems. The team developed a "breakthrough" strategy that involved rationalizing production on a North American basis, shutting down some capacity in the U.S., and

raising prices. The strategy was successful. One important result was that La Salle was essentially "given" a manufacturing mandate for some Resimene® resins (used to create high durability attractive finishes in automotive paints). This was effectively the first manufacturing mandate at La Salle, and it set an important precedent.

In mid-1991, the market for Scripset® resins began growing rapidly, on account of the shift in North America from acid to alkali paper-making technology. Scripset® was "the only game in town" for sizing and coating alkali paper, so Monsanto was faced with a tremendous opportunity for growth. At the time Scripsets® were being produced in liquid form in La Salle and in powder form in the U.S. The Canadian business manager, as a member of the Scripsets® global business team, proposed a $3 million capacity expansion in La Salle. While there were some discussions about the merits of putting the expansion into Canada, the numbers showed unequivocally that La Salle would be the low-cost option, primarily because the investment was incremental to the existing operation. There was also a high level of confidence in the proposal on account of the close working relationships that had been built over the years between Canadian and U.S. managers.

This expansion gave La Salle a *de facto* manufacturing mandate for liquid Scripsets®, in that it was in a leading-edge strong cost position for that particular technology. There were two subsequent investments in Scripsets® (at La Salle) in 1991 and 1993, to increase capacity on the original investment base. Furthermore, Canadian management were able to secure funding for a research manager based in Canada, on the basis that the Scripsets® technology investment needed to be "protected". The speciality resins continues to be managed out of the U.S., but the Canadian group's profile on that business team was now very high. Furthermore, the success of the speciality resins turnaround gave the business team (as a whole) quite a high profile within the Monsanto Chemical Company.

The Plastics Business: Triax®

Plastics had been one of the mainstays of Monsanto's business for many years. In the early eighties parent company management decided to exit the commodity-like monomer and polystyrene businesses and focus their efforts on higher value-added plastic products. These were ABS and, later, plastic alloys that offered a desirable combination of hardness, flexibility etc. Alloys were sold in pellet form to industrial customers such as automotive manufacturers.

The strategic shift towards higher value-added products was well received by Canadian management, because it played to the strengths of the La Salle plant. As observed by the Chemicals general manager,

> "...to manufacture these things you need to have capabilities that are specialty-based, that are short run, that are fast turnaround and that need an awful lot of product tuning. And so in the midst of a lot of the change going on in the U.S. which was of course 'how can we strip costs, and how can we make ourselves more competitive as our margins shrink?' the Canadian organization went back and said 'well we've got a plant in La Salle that has been handling short run [products]. We are good at change over, and we have about 6 or 7 best practices in the company, in terms of how we manufacture these things."

In addition to the strategic fit, the atmosphere in La Salle at this time was very conducive to new ideas. The Scripsets® investment had just been made; the plant was in the midst of a total quality program along the lines of the speciality chemicals "breakthrough"; and Free Trade was a continual reminder to think globally.

In 1990 the Canadian plastics group started to look at possible product lines that could fit in La Salle, and they settled on Triax®, an ABS-Polycarbonate alloy. Triax® was being manufactured at the time by a toll manufacturer in the U.S. for Monsanto. Permission was obtained (from the U.S. business manager) to run trials of Triax® in La Salle, and the results showed that some significant cost savings could be made if the switch to Canada were made.

No action was taken, though. Canadian respondents felt that U.S. management were comfortable with the status quo, and that they were concerned, for obvious reasons, about shifting production outside of the U.S. In order to demonstrate the commitment

to, and enthusiasm for, the project in La Salle, Canadian management approached the business director in the U.S., and asked him to come up in person. The business director agreed, because he was actively promoting the shift towards speciality resins. He came up for a day in November 1990, and was very impressed by the trial results and by the enthusiasm of the employees for the Triax® product. As one respondent in La Salle noted:

> "To me the personal interface was key. I remember one incident that reflects the kind of impression that was made at that time. We had an operator in the polymerization department during the visit, who asked some questions to these visitors. He gave his pen to the business director, and said "sign, sign.. Because we need that and want that here, just take my pen and sign the project, because we can make it work". And the director was pretty well impressed by the attitude and commitment shown. And I remember a few weeks after he said "I'm glad to approve the project, and by the way I used your pen, he said to that person...I did follow up on your request, and I used your pen to sign the contract!"

The business director was convinced by his visit, and his high-level sponsorship was sufficient to get approval for the transfer of Triax® to Canada. Production started in 1991, and shortly thereafter a second product in the same family was also transferred to La Salle. The following year the Triax® business manager in the U.S. was re-assigned, and Canadian management were able to convince the parent company that the new business manager be located in Canada. Triax® is now a full "product mandate". It relies on the central R&D labs for development work, and on regional sales resources in the U.S. and in Europe. Sales worldwide in 1994 were about $17 million.

NTA

The third major initiative in the Chemicals division during this period arose through an odd set of circumstances. The product, NTA, was a "non-phosphate detergent", thought to have major commercial potential when it was introduced back in the 1970s. Unfortunately, New York State came out with regulations based on water

quality concerns which restricted NTA use. The concerns were removed by subsequent research but the restriction remained. The result was a movement by U.S. detergent makers to liquid detergent products which utilized alternatives to NTA. Despite attempts by Procter & Gamble to introduce detergent powders with NTA, the markets had shifted to wanting liquid products instead. Thus, despite all Federal U.S. regulations supporting NTA's use, the market disappeared. In Canada the story was different, in that the market was predominantly based on powder detergent and NTA was introduced with no problems. Monsanto was thus left with a product being made in Texas, and run out of head office in St Louis, for a dominantly Canadian market.

Once again, 1988-1992 proved to be a critical period. Canadian management were looking for opportunities to add-value at home, and NTA had obvious potential in that regard. At the same time U.S. management were recognizing the need to improve the effectiveness of their internal operations. The opportunity for action presented itself in late 1991 when the current business manager of NTA was re-assigned. The Canadian business manager (a member of the NTA global business team) and the Canadian president both took the initiative to build support for the idea of moving NTA business management to Canada. Notwithstanding some initial concerns, reaction to the proposal in St Louis was positive, and the change was approved. This was a significant event for the newly-appointed Canadian president. He actively supported the NTA initiative, but at the same time he shut down production of a non-competitive product being made in La Salle. The message was clear: Monsanto Canada's strategy was to add value to the corporation, both by taking on additional responsibilities and by divesting non-competitive activities.

The shift was made at the end of 1991. The Canadian business manager was given the enlarged job of managing NTA on a worldwide basis. Manufacturing stayed in Texas, but gradually a number of related functions were transferred up to Canada from St Louis, most notably Environment, Health and Safety (EHS) and logistics. The shifts were justified both in terms of closer interface with the business manager and also the absolute cost of the activities in Toronto vs. St Louis. Sales volume worldwide is now

about $25 million. The medium-term objective is to push for greater international acceptance of NTA, in part through EHS stewardship.

Current Status of the Chemical Division

While Monsanto Canada's chemical division has had some successes in winning manufacturing and business mandates, its future is not secure. As explained by the Vice President and General Manager of chemicals, the plastics business is "in the throes" of devising a global strategy, in which speciality products like Triax® may or may not play an important role. The speciality resins group is currently very successful but there is a perceived need to create a solid-form Scripsets® for sale to Europe, which will involve additional R&D work and potentially a move away from the liquid product currently manufactured in La Salle. NTA, interestingly, has a relatively secure future in Monsanto because its feedstock is a fibres by-product, and the fibres business is a central plank in Monsanto's corporate strategy. However, NTA is not made in Canada, and never will be, because the plant needs to be integrated with the fibres plant.

In other words, the chemical division has three or four mandates in niche products. This is a reflection of the intended strategy in the late eighties, when the objective was to pursue any business opportunity that Monsanto Canada had a realistic chance of winning. It is also a reflection of Monsanto Corporation's historical reluctance to yield control of any of its strategically-critical businesses to entities outside the U.S. The challenge facing the local chemical division, then, is to identify ways it which it can most effectively add value given the current distribution of assets and capabilities in the U.S. and Canada. One option is to continue the "niche" strategy, capitalizing on the proven flexibility of La Salle and the entrepreneurial skills of the Canadian managers. This involves further developing the existing mandates, but also seeking out new ones. It also recognizes that as the corporate strategy shifts some of the niche products may end up being divested. A second alternative, not wholly incompatible with the first, is to purse a "strategic" mandate, presumably by building up a valued centre of excellence in Canada around an existing competence base. The problem is that the La Salle plant has

limited potential for large-scale new investment, and development activity is focused in the U.S. For both these strategic options, there is a clear recognition that future Canadian initiatives have to be "peninsulas" that build out from the corporation's competence base rather than "islands" of expertise that are unlinked to the core business areas.

Compounding these concerns is the cost-structure of a capital-intensive plant like La Salle. As it stands, two of the products at La Salle are still for local sale only, and are inherently uncompetitive from a cost perspective. If one is shut down, the overhead burden on the remaining products rises, which potentially makes the next product uncompetitive. In a worst-case scenario, Monsanto could divest Triax® or one of the other large products, and put the entire plant's competitiveness in jeopardy. One avenue being pursued by the Canadian management at the moment is to essentially "lease" some of the La Salle capacity to an outside company as a means of spreading the fixed cost.

Notwithstanding these concerns, the business managers in Canada are continuing to look for opportunities to build on their mandates and add value to the corporation as a whole, while keeping one eye firmly on the strategic intentions of the parent company. As one respondent noted, the situation is very similar to that faced by an entrepreneur, because one is continually accessing resources over which one have no control, and getting things done on networking ability and personal relationships. While this can be very "efficient" it is also very hard work. In the opinion of the general manager the success of the Canadian subsidiary owes a lot to the tenacity of the three individuals managing the business mandates.

The Agricultural Division, 1988 - 1994

The recent development of the Canadian agricultural company is markedly different from that of the Chemical company. Historically, the Agricultural Company had been a leading producer and marketer of herbicides worldwide. The Canadian division accounted for around 7% of its sales, which in 1993 totalled almost $2 billion. The

Agricultural company exported to Canada in the sixties and seventies, primarily its triallate and glyphosate products. In the 1980s, however, the Canadian subsidiary was actively developed: A liquid "Roundup®" facility was put in place at La Salle and the high-potential prairie market received considerably more attention. Glyphosate sales grew by a factor of four through the eighties.

Notwithstanding the sales growth in Canada, the lack of local value-added activity (i.e. research, development, and manufacturing) was a real concern. The liquid Glyphosate plant in La Salle sold only into the Canadian market, and represented a fraction of the total sales. Almost all research and development work occurred in St Louis, the head office. Canadian management, and in particular the newly-arrived head of the Canadian Agricultural division, recognized that the company's commitment to Canada was not being manifest in its investments, and sought to identify possible ways of bringing in world-scale facilities within the Canadian Division. Federal and provincial government bodies were strongly in support of this strategy. St Louis also recognized that investment in strategic markets (of which Canada was one) was a priority for future growth. The agricultural company's president (a Belgian), had stated, "I'm not opposed to making an investment anywhere in the world, but it has to be competitive, it has to be the right business decision in a global context." Free trade made the chances of locating such an investment in Canada higher.

The Dry Glyphosate Opportunity

In June 1991, Canadian management identified an interesting opportunity in the company's long-range strategic plan. The company was developing a "dry" formulation of its glyphosate technology, through collaboration with a Japanese affiliate. The plan was to bring this product to market around 1996. This would require a pilot plant in the first instance, but a full-scale manufacturing facility shortly thereafter. The dry technology was available through a contract manufacturer in the States, but given that the potential market was worldwide, there was no pre-specification as to where the manufacturing facility would be built. Canadian management recognized that Canada was

a possible site for the dry glyphosate plant, for all the reasons identified above, but the proposed date for the investment was still five years away. They were, however, able to convince management in St Louis to bring forward the investment, on the basis that glyphosate had recently lost patent protection in Canada, thus increasing the benefits from a greater presence in western Canada.

The first stage in developing a proposal involved scoping out the optimum site for the facility. An engineering consulting company out of Regina, Saskatchewan, was hired to choose a Canadian "candidate". They looked at about 40 different sites in western Canada, and eventually came up with Morden, Manitoba, on the basis of labour and energy costs, distance from market, and the support of the local community. The second stage of the selection process required the Morden location to be compared with alternative sites: one at an existing facility in Luling, Louisiana; and one with a contract formulator in Des Moines, Iowa. A team was put together in June 1992 to undertake this task, consisting of four members of the Canadian division and four head-office managers. Their mandate was to make an objective assessment and ensure that the selected site was economically competitive. This was normal procedure for all capital investment projects within Monsanto.

The selection process took six months. The biggest issue facing the Canadian team members during this period was a lack of understanding of the Canadian business environment by the other team members. As explained by one manager, "People didn't know anything about Canada. Early on, one of the manufacturing people said, "how are we going to get the materials shipped out of there in winter?" Their impression was that the roads frequently become impassable in winter! We laughed, and maybe that's a silly example, but those little perceptions add up collectively to your disadvantage over time. Another thing was that there was a perception that Canada was a socialist country where all the costs would be prohibitive. It turned out that Morden's labour rates and productivity were better than in the U.S. Absenteeism was non-existent."

A key role played by the Canadian team members was to educate their colleagues on the realities of doing business in Canada, so that for each cost factor they understood where the Morden numbers had come from. There were also the questions "why are we

doing this anyway?" Why dc 't we just add it on to the Luling facility? The division manager (of the Canadian operations), an American himself, was careful to avoid any nationalistic arguments. He made it clear that the bottom-line economics were what would drive the decision: "If we're not competitive, we don't want the plant, pure and simple." After six months of analysis, the Des Moines, Iowa sites worked out more costly, and Morden and Luling came out within a couple of hundred thousand dollars of each other. At that point they started looking at other factors, such as how quickly they could get moving, and enthusiasm. Morden won on both these counts, so the team recommended to the president that the investment be made in Morden.

How was Morden able to compete on a cost basis with Luling, which was an existing Monsanto facility with infrastructure in place? The key factor was the style of plant that the Canadian project team came up with. As the Canadian project manager explained, "We had to build a very different plant. We had to break some paradigms to build it. If we had used traditional Monsanto methods, we would not have built it here." The team read extensively on self-directed work teams, empowerment, "high performing organizations" and a number of other revolutionary management methods. The facility they designed required the smallest possible increase in head-count, extensive outsourcing of services, and multi-skilled workers. Unlike Luling, which was encumbered by the systems already in place at that facility, Morden's designers were able to start with a clean sheet of paper.

While it was necessary to gain the support of all the project team members, the senior executives in St Louis also had to be convinced of the merits of the Morden option. The president and the Glyphosate manufacturing manager were the final arbiters of the investment decision, so the team kept them abreast of their progress, and at one point managed to get the manufacturing manager to visit the proposed Morden site. The reception he received from Monsanto employees and Morden residents was a very positive experience, and helped to ameliorate any concerns he felt about investing outside of the States. Around the end of 1992 an appropriation request was signed by the division president, committing Monsanto Agricultural Company to making the $5 million investment in Morden. On the signing of the AR, the project team disbanded and one of

the key members of the team was put in charge of actually building the Morden facility. The whole implementation process took just over a year, and was completed in early 1994. In June 1993 the plant manager was hired. He worked with the project manager for a time, and then took over sole control of the facility. Production began, at pilot plant levels, in April 1994. While the capacity of the facility is only 5 million pounds, the opportunities for expansion at the same site are very good.

Comparison with the Chemical Division

The Dry Glyphosate investment is similar to Triax®, Scripsets® and NTA in sales volume and levels of investment. However, it differs markedly in terms of its strategic importance. RoundUp® is still the Agricultural company's premier product, so the first facility for the new dry formulation is an important investment. If it is handled effectively, there is every chance that it will lead to further investment in future years.

How was the Canadian agricultural division able to pick up such a substantial mandate when its sister division was only able to win niche products? Respondents pointed to two key factors. First, Canadian management was more proactive in its quest for a mandate. Research farms had been put in place in the prairies several years prior to the Dry Glyphosate initiative, and a number of R&D contracts in herbicides and biotechnology had been granted to Canadian universities. Canadian management were pushing hard to make the prairies into a "centre of excellence" for agriculture, and were persistent in broadcasting this message down in St Louis. By identifying the Dry Glyphosate opportunity early, they were able to push it forward in accordance with their objectives. The second key factor was the recognition in St Louis that the company "should" invest in Canada because it was a major market. This was a facilitating condition rather than an active ingredient in the initiative, but it would be possible to speculate that the level of commitment to Canadian investment in the Chemicals division was not as high.

EZ Ject

A separate smaller initiative that occurred in the same time frame deserves mention here. The product is called "EZ Ject" and it is a hand-held lance that is used to inject Roundup® (in capsule form) into trees. The opportunity presented itself to a Monsanto product development representative out in British Columbia in 1989, who observed that the traditional method of slashing the tree and spraying Roundup® on the exposed wood was both inefficient and potentially deleterious (e.g. if the forest was in a catchment area).

The Monsanto employee, and a colleague quickly found the local inventor of a lance to inject trees with Roundup®. Monsanto's central R&D labs created the capsule to be injected, but were unable to come up with an injecting mechanism. After $1 million of expenditure by the R&D labs, the salesman-turned-entrepreneur took the product back to B.C. and with the help of a local company was able to build an injecting mechanism, at a cost of $80,000. The product was commercialized quickly, and sold at first into Monsanto's big Canadian customers, such as MacMillan Bloedel. Sales have now been made in the U.S. as well, and trials have been done in Asia. Latin America and Europe. 1993 sales were only $4 million, but the growth of the business is rapid. Manufacturing is currently being done in existing factories, but if sales steadied at perhaps $10 million, it would be worth building a dedicated facility, maybe in Morden.

Unlike the other cases noted here, the parent company ultimately gave a free hand to the Canadian subsidiary to pursue the opportunity. The relatively small size, and consequently the small risk, were a key factor in this regard. Another factor was the close links with local customers that made the EZ Ject possible. St Louis wisely recognized that this initiative would be best pursued without interference.

Conclusions and Current Issues

Much has changed in Monsanto Canada over the last decade. These changes have been driven by a complex set of factors, including the emergence of Free Trade in North America, the evolving strategy of the parent company, and the efforts of the Canadian organization. It is clear that the current portfolio of value-adding activities in Canada,

with the possible exception of Resimenes®, is the result of the entrepreneurial efforts of Canadian management. Unlike some companies, where mandates have been "given" to Canadian subsidiaries, the model in Monsanto consists of careful opportunity-spotting and extensive selling in head office.

Several interesting strands of subsidiary "development" can be discerned here. First, there was the recognition in the early eighties that the "big hit" approach had so far failed, and consequently that multiple small initiatives should be pursued. This approach *has* yielded a number of mandates, but there is now a sense that larger investments should also be considered again. This is reasonable because Monsanto Canada has shown its expertise in managing mandate products, and St Louis is better acculturated to the idea of moving business activities north of the border. The "learning" has been occurring in both subsidiary and parent.

Second, the four major initiatives all occurred in the same 1988-1992 time frame. It was not clear what drove this co-incidence of activity. Some respondents commented on Free Trade as a catalyst; others felt that it was indeed a coincidence, because each initiative had distinct origins in different businesses. Whatever the reason, this phase of business development activity was of great importance to Monsanto Canada's employees. Their reputation in St Louis increased substantially, and there is now a strong recognition within Monsanto Canada of the company's relative strengths. There is also a much greater presence of Canadian managers in St Louis, as members of world business teams and on project committees. This presence has been growing steadily over the last ten years, so its relationship with the recent initiative success is probably both cause and effect.

Finally, the role of physical and technological resources cannot be overlooked. The La Salle plant, despite its urban setting and its constrained physical size, has certain very valuable capabilities, and these were critical in the cases of Triax® and Scripsets®. In a capital-intensive global industry such as Chemicals, the comparative advantages of a country such as Canada are limited. World-scale investments can only be achieved as increments on existing assets (as with Scripsets®) or by novel approaches (as with the

Morden plant). The "branch plant" focus of La Salle in the seventies and earlier was actually an important asset to Monsanto Canada in its pursuit of mandate products.

From the Canadian president's perspective, the role of Monsanto Canada in the coming years is to "add value" to the corporation in whatever way is most effective. In terms of industry demands, the opportunities to add value in Searle (the pharmaceutical division) are enormous because there is high government regulation and many local issues. The chemical company does not require the same level of Canadian input, so the opportunities for adding value have to be much more carefully sought out. The prospective "centre of excellence" in agriculture is one example; the niche chemical opportunities are another; a third is the "soft" side of chemicals, such as the environmental stewardship that is being pursued for NTA. The challenge (for the Canadian president) is to assess the future potential of these options, and apportion the subsidiary's (scarce) resources to them in such a way that the Canadian value-added is maximized.

CASE 3. AMAZON ELECTRONICS DIVISION

The Defence Origins of the Electronics Division: 1951- 1969

Amazon corporation moved in to Canada around the turn of the century. By 1950, Amazon Canada Inc. was one of the larger manufacturing operations in the country. Electrical products, consumer products, and power systems comprised the major business areas of the company. In 1951 the electronics division, the focus of this study, was started up in Montreal, as a supplier of defence-oriented electronic equipment to the Canadian government. The formation of the division was strongly encouraged by the Canadian government, who recognized the need to re-develop a domestic defence industry following the outbreak of the Korean War. The division was assigned contracts in a wide variety of applications, most notably in airborne electronics. Most of these products were adaptations of U.S. and British designs. Connections to the Canadian government

were very strong, so that by the mid-fifties the Amazon electronics division was one of the biggest electronics supplier to the Department of National Defence.

The decision in 1958 by Diefenbaker's new government to terminate the Avro Arrow fighter aircraft program signalled a major change in Canadian defence policy. From Amazon's perspective the Arrow cancellation had an immediate impact on a number of major contracts. More importantly, the change in policy left management with a very uncertain future. One of the management team at the time, recalled:

> I remember that day quite vividly. The general manager and I talked through the night about how we should respond to this. And he, in his infinite wisdom, decided not to take any precipitous action. He wrote to the minister, saying 'we understand the reasons you did this; we will hang tough, we won't lay anybody off, but we will be seeking some kind of assistance from you once you have decided what to do with this highly skilled group of people.' And the Canadian Government really appreciated that kind of cooperative attitude. They quickly came up with some money to give to our design engineers to do anything they wanted to do, and it didn't have to be defence-related.

This was a defining period for the electronics group, because it stimulated management to look towards commercial opportunities as a means of diversifying out of the declining defence industry. The shift was slow to occur, however. Marketing literature through the 1960s was targeted towards "both defence and commercial customers", but the division still thought and acted like a defence contractor. A number of new applications were being developed in this period, as will be described below, but the first significant commercial products only transpired at the end of the decade.

Management's planned shift into commercial markets was slow and difficult because it necessitated a new set of products, new target markets, and a very different customer-orientation. However, most respondents felt that the division also had some important assets that made the shift possible: A management group that were intent on moving into new areas; some proprietary technology with commercial potential; and a strong relationship with the federal government, who provided substantial R&D funding

through a business development program. Furthermore, as noted by one manager, the division had a strong group of entrepreneurially-minded individuals:

> "What we had going for us, I think, was really a group of people who were pretty talented, engineers coming out of the defence business. Very talented, very inventive. Also there were marketing people, who really administered contracts, excellent negotiators, so you could put them into a business negotiation and you knew they would do well".

The electronics division operated with a high degree of autonomy. Amazon Canada Inc. (ACI) "never really understood what we were doing", according to the ex-divisional manager, and consequently gave them a lot of latitude to pursue new development opportunities without much central meddling. Amazon Corporation (the U.S. parent company), was only a 65% shareholder of ACI during this period, and focused its efforts on those Canadian divisions where there were significant opportunities for integration. The electronics division, with its defence orientation, had a tenuous relationship with the parent's electronics group in San Diego, and did a small amount of development work for them in the early days of the division. Gradually, however, the Canadian group built up its own portfolio of Canada-specific designs, such that there were few commonalities between the two groups. Opportunities for collaborative design work continued in sporadic fashion over the years, but to all intents and purposes the electronics division was independent. This high level of autonomy was considered by the individuals involved as an asset, in that the division had a free hand to pursue business opportunities wherever they transpired. The lack of strategic linkages was, however, a mixed blessing through the years.

The Entrepreneurial Shift Into Commercial Markets: 1969 - 1977

The basic shift of the division from defence to information services occurred during the period 1969 to 1977, though much of the groundwork for the shift was done prior to 1969. By the late seventies more than half of the division's revenues came from

terminals, controllers and other products for the airline industry, while a further 10% came from other non-defence products. The transition occurred in a somewhat haphazard fashion, through a mixture of technological breakthroughs, good business judgement, and good fortune. At the heart of the shift, however, were the entrepreneurial efforts of the divisions engineers and managers, who took it upon themselves to seek out new products and markets.

The first major commercial product was the Electro-Luminescent Display (ELD) product, which was essentially a means of displaying alpha-numeric data on a TV screen. The inspiration for ELD can be traced back to the technology used on a major defence project. Several individuals subsequently worked with the Canadian government on electro-luminescence research, and were involved in putting together a display for a process control system in conjunction with a group from Amazon Corporation. The learning from these projects, coupled with some technological innovations, led to the idea of the TV screen display.

The ELD product quickly found its way into a variety of commercial applications. In the period 1969-1971 sales were made to airports (for airline departure and arrival information), Stock Exchanges (for stock data), and several European clients. The emphasis was on high-reliability custom products, with relatively small volumes. One of the biggest contracts during this period was with the British company responsible for providing Betting Shop information. This was inspired by the commercial products manager while on holiday in Britain. Despite the division's lack of international sales experience, he pursued this opportunity very forcefully, and persuaded the general manager to invest in the project:

> "There were a number of people like myself who felt we should be exploiting opportunities, and there were others, including the division manager and controller, who had to take a more cautious view. I explained that we had stumbled on something very important [i.e. the betting shop display opportunity], and I convinced them to some degree. We made a model, a prototype, for the client. A risk on our part, but we went to London to set it up, showed them how to operate it, and how it could

> substitute for what they had. So that was successful, and made a lot of money for everyone concerned".

The American Airlines Connection. The next significant contract came from American Airlines. A couple of one-off engineering projects had been undertaken by the electronics division, as a result of which some engineers got to know American Airlines' chief engineer very well. Through this relationship, Amazon were invited to bid on a major contract of 400 new terminals. Division management initially chose not to bid, presumably because of the perceived risk of moving too quickly into an unknown market, but the key engineer on the project was able to persuade them. Amazon got the contract, American Airlines was very satisfied with the new terminals, and an important business relationship was formed. Soon after that initial contract, Amazon were given the opportunity to bid for a contract to upgrade American Airlines' controllers, the devices that coordinate data switching within the local network. At that time American Airlines was using a very bulky controller made by a competitor, so some engineers decided to experiment with a recent innovation, the microchip, as a means of miniaturizing the controller:

> "We took the approach that, we would use the 8080's. It was in the very early days of Intel and 8 bit processors, but it seemed the right way to go to me. We even had two of our management people go to California just to make sure Intel was really there. So, I used one of the first experimental 8080's from Intel models, and at that time it was probably one of the first developments ever using multi processors. So we developed our own bus, completely un-standard. Anyway we built the controller, and it had better performance so American Airlines were quite pleased with that. It took over the role of all their data switching within the American Airlines Network and it still is".

ITAWA and world markets. This Controller gave Amazon a very strong name within American Airlines, because it was genuinely leading-edge technology. Fortuitously, one of American Airlines key executives had just been elected to serve as chairman of ITAWA, which is the international telecommunications body for the world's airlines. ITAWA's role was to provide network services and reservation systems to those

airlines that needed them. When the American Airlines manager took over the helm, he was quick to push special projects in Amazon's direction, in particular one that required a local controller to be installed in South America. The success of that project, and a number of others, eventually led to Amazon winning the contract to upgrade ITAWA's entire network of controllers. This gave them a very high profile in the industry, and a lot of endorsements from the ITAWA executives, resulting in contracts for terminals and controllers from scores of other airlines.

Other products. While the air travel industry quickly became Amazon's primary source of revenues, there were many other products developed and commercialized during this period, some of which were quite successful, and others of which were not. In the defence business, the QWAV missile was developed in the mid-1960s for the Canadian airforce and sold into a number of markets in Europe. It is recognized as one of the best missiles of its type in the world, and it has proved to be the defence business' bread-and-butter product, providing a steady flow of revenue through to the late-eighties. The defence group also sold a number of related products in smaller quantities. Whereas the QWAV missile work was undertaken by the Electronic division autonomously, other products were developed in fairly close collaboration with a government division and the parent company in San Diego.

Several other notable product developments, with tenuous links to display systems or defence, occurred during this time period. While they had some commercial viability the decision was made by Amazon management not to invest in them. Two were sold off to their inventors, and both became significant businesses in their own right. The third stayed within the electronics division as a niche business.

Financial and organizational considerations. The financial performance of the electronics division during this period was mixed. Income before tax averaged approximately 5% of sales for the period 1969-1977, with the exception of a couple of loss-making years. These results were far from spectacular, but the division was developing new markets and sinking up to 10% of revenues per year into R&D.

The electronics division continued to be highly autonomous through this period. Linkages to San Diego became weaker as the division moved away from the defence business, and Amazon Canada continued to manage its divisions through financial, rather than strategic, control. With the exception of 1971-2, the division was making more money than the rest of the Canadian operations, so corporate management were content to leave the relationship as it was. The division had moved out of the Montreal (east) plant in 1969, into its own facility on the west isle. This move helped to foster an independent identity for the division.

Consolidation of the Mandate: 1978 - 1986

The period 1978-1986 was the most successful in the electronics division's history, with sales exceeding $40 million at the end of the period and consistently high returns. The electronics group was the best performing division in Amazon Canada's portfolio in this period. This success could be attributed primarily to the division's market-leadership position in air travel communication products. Through the seventies much of the division's earnings were invested in product and market development, but the process of consolidating this position was much less costly, so the division started to reap the rewards of international success.

Terminal and controller sales were responsible for the bulk of the division's revenues, gained through the ITAWA connection in the first place, and subsequently through reputation. The division also had an informal network-services capability, that essentially provided one-off solutions to data communication network problems. The best example of this was the Shared Terminal Equipment (STERM) product. The origin of STERM was the Los Angeles olympics, for which one terminal of the LA international airport was made available to the olympics organizers. ITAWA was asked to help coordinate the inflow and outflow of aircraft from this terminal, and they quickly realized that the density of traffic was going to be so high that there would not be enough gates or terminals for each airline to have its own (as was customarily the case). One of the Amazon engineers, on a routine visit to London, heard about this dilemma:

> "I used to have a lot of meetings in London with ITAWA; afterward we would go to the bistro next door, where we would have a few beers, chatting all evening with ITAWA people. A few of us eventually came up with the idea of this shared terminal equipment. So we met with the LA airport people in New York. We discussed the problems, worked half the night on it and came up with some ideas as to what we could do. ITAWA then wrote the proposal and two weeks later we went to LAX to meet the airline users committee, because there were a number of bidders on this. We made a presentation, and a few hours later we were told that we'd got the job".

STERM essentially allowed terminals to "emulate" the characteristics of each airline's proprietary system. The system provided Amazon with the opportunity to do software emulation work for many of the airlines using the system, and to sell large volumes of its related hardware (terminals and concentrators).

Through the seventies, the defence business continued to be profitable, though with a diminishing percentage of the division's revenues. A large missile contract for the department of national defence was won in 1977, and in 1981 the Spanish government placed a significant order for the same product. The QWAV missile continued to be the bread-and-butter of the defence group through this period.

Structural changes. In 1977 the decision to divest a Canadian division had the effect of further increasing Amazon Corporation's shareholding in ACI to over 90%. At around the same time Amazon Corp. moved towards a "matrix" organization structure, with the result that Canadian operations became accountable to the corresponding division in the U.S. as well as to the Canadian president. The defence side of the electronics group, in particular, became more accountable to its San Diego parent division. In addition the ACI president began to formalize many of the international activities going on in Canada. To his credit, he recognized the limitations of a branch-plant mentality, and he sought to promote the designation of "world product mandates" to the Canadian divisions, as a means of building a viable export-oriented subsidiary. To build on these mandates, in the 1979 annual report the president set a goal of 50% sales outside of Canada by the late-eighties.

This was a visionary position for a Canadian subsidiary president to take, bearing in mind that branch-plant subsidiaries were the norm at this point, and academic writing had only just begun to pick up on the world product mandate concept. While most writing has been strongly in favour of world mandates, in the case of the electronic systems group at Amazon the impact was mixed. This is because the division already had a *de facto* mandate that flourished as an independent entity. By increasing its visibility at head office, Canadian management were able to enhance their reputation as a valuable Amazon subsidiary, but they opened themselves up to greater scrutiny from those divisions in the States that saw growth opportunities in the electronics division's sphere of operations.

Another example of the increased head-office involvement was the decision to build a manufacturing subsidiary in Barcelona. The electronics group had been increasing its sales in Europe and wanted a greater presence there. Head office, in San Diego, recommended that a facility be built in Spain. As the division general manager commented, "I quickly got the message that if we were going to establish a European sub, it was going to be in Spain". There were some good reasons for going to Spain, including a very enticing government incentive program that essentially meant that no tax would be paid for 10 years, but a number of respondents felt that the location decision was made by San Diego without enough involvement from the electronics division. A number of other Amazon divisions had already invested there. The general manager agreed to go to Spain, but he insisted on using locals from top to bottom. The success of the operation, he felt, was in large part due to the use of local managers rather than American imports.

Overall, then, the period 1978-1986 was one of great financial success for the electronics division, but it was characterized by less initiatives, less new product developments, and greater involvement from the Canadian and American parent companies. There was a considerable amount of reorganization occurring in ACI through this period, in the form of consolidation and break-up of divisions, but the electronics division continued, more-or-less, as an autonomous entity. It seems quite likely that a lack of understanding of the division's operations --on the part of ACI and Amazon Corp-

- was the main reason why they were allowed to stay independent, given that the other Canadian divisions all became much more integrated during this period.

Re-assessment and Renewal: 1987 - 1994

The final phase of the electronic division's history is in many ways the most interesting. At a time when many Canadian subsidiary operations were striving to win mandates, the electronics division was already operating a largely-independent international business. There were essentially no operational linkages to other Amazon entities, with the exception of the defence group, so division management's strategic imperative centred around the development of the air travel products business as if it were an autonomous $40 million business. With a very successful decade of growth behind them, the electronics division's prospects in 1987 looked good. Then, in the period 1987-1989, two abrupt changes occurred in the business environment, challenging the basic raison d'etre of the division.

The first major change was in computer technology, with the rapid growth in popularity of the personal computer (PC) and the shift towards open architecture for computer systems. This shift first hit the Electronics Division in 1987, as the marketing manager, explained:

> "When I came here the division was in a situation where terminals had been 60-70% of air travel products. Primarily through American airlines. I came in February 1987. In 1987 IBM announced the PS2, and there were 5 launch customers for the PS2: Delta, United, American, Eastern, and one other. So there our market went! Did we have any inkling of this in advance? Well, the working folk had known because the market had been telling them, but senior management were terrified because they did not know what to do. It meant that our niche had gone. They were selling these PCs at the same price as we were selling our terminals.
>
> So we went off site and talked about putting together an architecture, and the elements of this architecture should be transitioning people from terminals to PCs. We had strength in terminals, so we should ship the last terminal ever; we should win the end game in that market, mine it, and

> use the money we get from it to invest in the transition. So that transition then would be that we build *cost-effective workstations*. Second plank was that we *integrate terminals and PCs* (PC Services) and the third platform was to link LANs and WANs, something I called *network services*".

The next few years saw divisional management implementing this strategy. They built a low-cost terminal, the A300 which was very popular in the declining terminals market. They developed a product called A400, which provided terminal emulation in PCs as a means of integrating the two. They also moved into the PC business, first as a supplier of PCs, then in collaboration with a Toronto manufacturer. This latter strategy proved misguided, as one manager commented: "a whole series of drivers began to take over, that we did not understand. One-day service, for example. The whole basis of competition changed. Service and value, not the product. It was quite an experience for us." Essentially, the electronics division's bases of success in the early terminals market, namely high-reliability and customized solutions, were not well-matched with the commodity-like PC market.

The third part of the strategy, network services, received no attention for a couple of years because all efforts were being channelled towards the PC business. When the opportunity to do the systems integration for a new airport facility arose, however, Amazon decided to bid for the contract. "The division, historically, was a very entrepreneurial group who kept it alive by following up projects and acting decisively. So when it came to this airport contract, we decided we wanted the business. We did not know anything about airports, but the customer gave it to us because he thought we understood the technology. But we were willing to guarantee it, and we were confident enough in our abilities that we took it on. And we managed to install it on time, and the thing was a roaring success."

Changes in reporting relationships. During the same period of time, major changes occurred in the relationship between the electronics division, the Canadian organization, and Amazon Corporation. In the late eighties the decision was made by the parent company to buy out the minority shareholders of ACI, and to more fully integrate

them with the U.S. organization. They opted for what is known as a "direct connect" model, whereby each division in Canada reported in to its counterpart in the States, rather than into a Canadian head office. For most divisions this was a logical process. For the electronics division, however, the choice of alignment with the "Electronic Systems Group" in San Diego (i.e. the defence division) was logical only from a historical perspective, because the mainstay of the Canadian business was now air travel products, which had no natural affiliations to San Diego or anywhere else.

This "one size fits all" organizational model did not serve the electronics division well, because it meant that the divisional parent had control over their resource allocation but without complete understanding of their business activities. As described by the engineering manager at the time, "..There was a series of presentations and meetings that took place over a two-year period, to make sure they understood our capability. And when other things demanded management attention in San Diego it was easy for them to say, whatever they are doing in Canada, let them continue to do that. Part of the secret of retaining some autonomy was the fact that we were responsible for sales and had the engineering capability."

Rather than acting as an autonomous business under the Amazon umbrella, the electronics division now found itself as an ill-fitting division, subject to the corporate standards for return on investment, head count ratios and planning cycles. There were suggestions made by Canadian management during this change, and subsequently, that the electronics division would be better off as an independent entity, reporting directly into head office, or to Canadian country management. However, its small size relative to the Canadian business (around $800 million) meant that it was never a priority to them, let alone to US corporate management.

The poor fit was ameliorated for a time by corporate management's decision to diversify San Diego away from its dependence on defence. Thus, a commercial systems group was established, consisting of the electronics division and five other small commercial electronics divisions (mostly gained through acquisition), whose mandate was to grow into non-defence markets. This strategy never picked up stream, though, so the

espoused belief that the electronics division and its sister divisions were strategically important to San Diego never reached critical mass.

In 1991, Amazon Corporation's fortunes hit an all-time low, due primarily to losses in its financial services division. In an attempt to shore up the corporate balance sheet, a number of major divisions were sold, and the remaining activities were re-focused into five major groups. Most importantly, however, very strict controls were placed over capital expenditure. These changes exacerbated the electronics division's uncomfortable position within the Electronic Systems Group in San Diego, because it meant that access to capital resources was more tightly constrained than before.

Strategic Moves 1991-1994. The 1991-1992 period saw a second re-positioning of the electronics division in terms of its product-market scope. Divisional management identified four core competencies that were germane to the division: (a) data communication; (b) software; (c) logistics, i.e. international sales & service; and (d) project management. On this basis, they exited the PC business and shifted their strategic position to "data communications". This meant a short-term consolidation around the terminals business and a medium-term move into the network technology business. It also meant that a 30% downsizing of the organization was necessary to keep the division's head count in line with its revenues.

Subsequent business initiatives fell within this broad strategic plan, but also within the financial constraints imposed by corporate management in San Diego. The division general manager was faced with the daunting task of re-positioning the division while still meeting strict quarterly financial targets. For this reason, most new initiatives were incremental in nature, and built on proven strengths such as the airline and airport market. One manager mentioned a number of small initiatives: the wide-area network business, a local-area network service for airports; and projects with software developers to service the airline data communications market. A recent initiative for a communication product was also mentioned. For this project, extra-ordinary development funds were requested from San Diego, but were turned down, along the lines that the

proposed investment was not a strategic priority. Instead, the project was developed slowly through standard development funding.

In the last couple of years, in fact, all new projects have been funded through the standard development budget, in recognition of the limited availability of new resources from the central budget. Despite these limitations, the electronics division is currently operating profitably, and with strong positions in its chosen market sectors.

CASE 4. HEWLETT PACKARD CANADA

Corporate Background

Hewlett Packard (HP) was founded as a test and measurement company in 1939, but diversified to become a major player in the world computer industry with interests in computer products, computer systems and services, analytical products, medical products and components. For the past two decades, HP had been one of the strongest performers in the computer industry, growing profitably at a rate of about 20% per year. In 1993 HP had sales revenues of $21 billion (U.S.).

HP Canada, formed in 1961, had grown at a similar rate, and in 1993 had sales revenues of approximately $800 million. Similar to many other Canadian subsidiaries, HP Canada started out as a market-access company, selling HP products into the Canadian market. The first attempts to build a manufacturing presence in Canada occurred in the mid-seventies, but they only picked up steam in the mid-eighties. This account describes the development of HP Canada's "value-added" operations (i.e. research, development and manufacturing) through this period, and into the present day.

A distinctive feature of HP's global organization is the autonomy of its operating divisions. Each division is responsible for the profitability of its product line on a global basis, and for its own internal growth and development. The divisions do not have their own salesforces. Instead the sales and marketing operation is organized on a country-by-country basis, and product is transferred to it at a standard price. This arrangement has two important implications. First, the value-adding activities in a given country are the

"property" of the division, not the national subsidiary. New investment, correspondingly, is primarily the concern of the division. Second, attractive new business opportunities are frequently pursued by more than one division, because each one is attempting to maximize its own growth and profitability. This leads to situations in which HP divisions have to compete internally for a product charter before a product can be brought to market. As will be discussed below, this organizational system has evolved somewhat over the years, with significant consequences for the value-added Canadian operations.

HP Canada in the Seventies

Once sales had begun to grow in Canada, there was a recognition that some local manufacturing or development would be beneficial, both to reduce import duties and also as a mark of corporate citizenship. To this end, a medical products division was established in Canada in 1973, to build certain products for the Canadian market. However, no development work was done in Canada, and there was no attempt made to export any of the output to the U.S. or abroad: it was a classic "branch plant".

The venture was shut down in 1977. The operation, while apparently profitable, was adding very little value. A much better solution, HP executives felt, was to build value-added operations in national subsidiaries according to the world mandate concept, whereby the unit would be given the right to serve the world market for its particular product. This model had been tried in a number of foreign subsidiaries and had worked well. However, it relied on an existing HP division "giving up" one of its products for foreign manufacture, so it could not always be arranged. Given that most divisions in the late seventies were running well below capacity, there were very few opportunities for HP Canada to pick up any new value-added operations.

The Panacom Acquisition

Derek Holmes became president of HP Canada in 1977 and, like his predecessor, he was keen to grow the business. His strategy was to identify an emerging business area

where HP Canada could develop a distinctive capability, and the area he settled on was the oil and gas sector. Canada had a strong oil and gas industry, so the potential for interaction with leading-edge customers was high. In addition there were several recent corporate initiatives that suggested an increasing interest in that sector: an oil and gas industry marketing group, an industrial sales force focused on process applications, and a U.S. division that was putting together an industrial controller product.

The HP Canada business development group undertook a study to identify possible acquisition candidates in Canada that could launch HP Canada's involvement in the oil and gas sector. They eventually identified Panacom, a Waterloo, Ontario company that was a significant player in the Scada industry (supervisory control and data acquisition: concerned with the monitoring and control of oil and gas from well to refinery). Panacom was putting together "turnkey" systems for Scada, and had also developed a couple of products, including a remote terminal and an automatic gas dispenser called Petrocard.

At the same time, HP Canada pursued a political route, by arranging a meeting between John Young (president of HP at the time) and Herb Gray (federal industry minister). The intention here was first to build John Young's commitment to a value-added presence in Canada, using the carrot of access to government contracts, and second to demonstrate that commitment to the federal government. Subsequently, when the Panacom acquisition was proposed, it proved relatively straightforward to get it approved. HP corporate recognized the fit with the embryonic industrial products division. The federal government understood that the acquisition was part of HP's goal to build a world mandate operation in Canada, so it was fast-tracked through the FIRA process.

The Panacom acquisition was announced in May 1983. While there were only 37 employees, HP's plan was to build a large division ("700 jobs", according to The Globe and Mail, 1983). It was given a mandate to serve the Scada industry, and specifically to develop a remote terminal unit (RTU). Panacom reported into the industrial products division in the U.S.

Within a couple of years the carefully-orchestrated strategy had fallen apart. At HP corporate, the industrial group recognized that they did not have the experience base

to compete with established competitors like ABB and Allen Bradley in factory floor automation and process control. The industrial salesforce was disbanded, and the industrial controller business was sold. In Canada, the National Energy Program led to major cutbacks in the oil and gas industry, and consequently a reduced demand for Scada products. While the RTU product was still a going concern, there was no salesforce to sell the product. A number of individuals commented that Panacom would probably have been sold as well, had it not been the only value-added operation in Canada.

Panacom focused its efforts in three directions. One group worked on getting the RTU to market, a second started to develop a "high-end" RTU called Panorama, and a third group worked on the Petrocard product, which was being undertaken in conjunction with Petro Canada (the nationalized gas retailer). By 1986 none of these had developed into viable products, and Panacom's managers were actively looking for new opportunities.

Software Development Centres

While the Panacom acquisition was working its way through, the HP Canada development group began looking for additional opportunities in the oil and gas sector, to complement Panacom. One such opportunity arose in Calgary in 1985, when Johan Stich a district sales manager came across a need for a computer system to communicate effectively with remote-access data acquisition devices, such as RTUs. Stich noted that a few small, customized packages had been written for the oil industry, but they were very company- and geography-specific and "no big player existed." He put together a proposal which was enthusiastically received at HP Canada's head office, because the fit with Panacom was obvious.

While Stich was putting together a detailed marketing plan, Holmes was talking to a number of the major oil companies, in Calgary and Houston, about buying the software system. Shell oil committed itself to purchasing the system, and several others were interested, so the decision was made to proceed. The problem was that, as with Panacom, there was no obvious HP division to which the development group could be

linked. Instead, they decided to use a mechanism whereby HP Canada could generate development funds by uplifting local sales prices by 1%. This system had just recently been put in place to give national subsidiaries a way of addressing unique local needs without divisional sponsorship. In essence it meant that the Calgary operation was affiliated to HP Canada, rather than an HP division.

In 1986 Stich put together a team and began developing a product. They quickly realized that a generic system, rather than one that was not unique to the oil and gas, industry would be more appropriate. The name RTAP (Real Time Application Platform) was selected. By the middle of 1988, they started to release components of the product to local customers, primarily as "beta" (test) sites. During this phase, however, Stich discovered that an HP product division in California was working on a very similar product. While his "skunkworks" group had been working on a shoestring budget up in Calgary, this Californian group had 60 people, five times the budget, and --most importantly-- the official "blessing" of the corporation. There were significant differences between the products, most notably that the Californian product was designed for internal lab use while the Calgary version was built for harsh environments. Stich's group were also about 6 months closer to completion. Nonetheless, the feeling among corporate management was that the Californian product had been given the official charter, and that the Calgary version should be killed.

Stich and Holmes worked hard to persuade corporate management that the Calgary product should be given corporate approval. They were able to make a very strong case, on the basis of the their advanced stage of development and their "guaranteed" sale to Shell Oil. The rival product group was disbanded, and Calgary received official recognition. What they still lacked, however, was a salesforce that was knowledgeable about or interested in the RTAP product. Through the period 1988-1990 the Calgary operation was turning a small profit, but only by virtue of direct sales, typically generated by Stich himself.

Fuelled in part by the emergence of the uplift on sales funding mechanism, two more development centres were started in 1986, in Montreal and Toronto. These were initially very small groups (less than 10) that were given small development mandates.

The Toronto concept was "Flexnet", a software module for flexible manufacturing. It was developed to a prototype level, and then presented to the various divisions for sponsorship and commercialization. No buyers could be found, though, primarily because the project was too ambitious. The Montreal centre lasted somewhat better. It undertook a few small systems, then spent a couple of years building up an expertise in french language translation (called "localization"). It never reached critical mass, however, and was closed in 1990. One respondent felt that it only survived that long on account of the political sensitivities surrounding HP's limited presence in Quebec. These were placated when the Protocol Test Centre (see below) was established in Montreal.

Changing Mandates at Panacom

Following the poor sales performance of the RTU, Panacom's managers began searching for new products. They recognized that they had a proven capability in manufacturing "rugged" products for use in hostile environments, as well as microprocessor and communications expertise. On that basis they came up with the idea of a "rugged terminal" in 1986, to be sold into factories or other places where a standard terminal could easily be damaged.

The rugged terminal was put together, but the design proved so complex that they ended up listing it at 60% higher than the target price. At roughly eight times the cost of a basic terminal, the rugged terminal was too expensive for anything but the most hostile environments. It sold at around 50 units a month, but this was way below expectations, and not sufficient to maintain the division as a self-supporting entity. During this period Panacom was aligned to a variety of divisions in the U.S., none of which offered a strategic link to Panacom's competence base. Equally, however, there was no immediate urgency to divest Panacom. It was a modest drain on resources, but there were a number of senior executives in HP corporate that were prepared to take responsibility for its continued search for a suitable mandate.

Once again, the search was on for a suitable product line for Panacom. Learning from the mistakes of their first two product offerings, Panacom's management decided

to limit their search to products with high growth prospects and a large potential market. They were less concerned about Panacom's specific competency base, on the basis that many technologies and resources could be bootlegged from other HP divisions.

They eventually settled on "X" which is essentially a graphics protocol used in local area networks. Some Panacom engineers had originally come across X as a protocol to use with the rugged terminal. X was generating a lot of interest in the industry, and it struck management in early 1988 that there were considerable business opportunities, both in the X software and in the associated hardware (the terminal). The general manager of Panacom began sounding out his divisional bosses in the U.S. about the possibility of Panacom developing an X product. At the same time, however, an independent company (NCD) approached HP with a view to selling its X terminals to them on an OEM basis. A couple of other HP divisions were also expressing an interest, along the lines that X fell under their existing charter.

On this occasion, Panacom's lack of charter worked to its advantage. In August 1988 Panacom's general manager told the divisional executive that Panacom would have a working prototype of the X technology in 4 months. This was impossible for the other interested divisions to match, because they had existing portfolios of products to service. For the "lean and hungry" Panacom, however, it represented a phenomenal opportunity. In the fall of 1988 they licensed the basic technology from a small software company in the U.S. Then, using bootlegged software and peripheral devices from other HP divisions, they put together a prototype in time for the divisional meeting in January 1989. The divisional executives were impressed, and gave Panacom the mandate they had been seeking. It was called "low end X -server solutions" which initially meant the X software card, but soon after became the X terminal as well. Even at this point there were challenges from other HP divisions, along the lines that Panacom had encroached on their mandate. This drew no sympathy from the divisional manager who had been mentoring Panacom through this period. His comment was "if you people had been minding you business, this wouldn't be an issue. You let the ball drop." In other words a mandate is good only as long as the mandate holder retains technological or market

leadership. In this case, Panacom was able to move more swiftly, and build itself a mandate on a new technology.

By September 1989 Panacom was shipping its first X terminal. Initial market reaction was lukewarm because the Panacom terminal had only 16 colours, against the competitor's 256 colours. Changes were made and a 256-colour version was brought out in 1990, which was followed a year later by a much faster model based on a RISC chip. Finally, Panacom had a winning product. Sales grew from $9 million in 1990 to $32 million, $98 million, and $110 million in successive years. Panacom was the computer systems organization "division of the year" in 1992, for beating all of its performance estimates. The number of employees grew from around 60 in 1990 to 130 in 1993.

Panacom's success led to a significant change in its role in the HP system. While still relatively small, Panacom was now large enough to be considered a division in its own right. This meant it had to be self-funding for future development. If the X technology got eclipsed by a new technology, Panacom would have to re-position itself accordingly. The current general manager commented that there is now a group actively seeking out a second mandate for the division, to lessen their dependence on X. Just as Panacom "stole" the X mandate from another division, it could lose out in the future if it does not actively pursue new opportunities.

The Need for Strategic Linkages

The Panacom saga, and the mixed success of the development centres in the mid-eighties, underlined an important point for HP Canada's development team. Value added operations, in Canada and elsewhere, need to be strategically aligned with a U.S. division or group. That is, they have to be part of a group with complementary products and/or technologies, and they have to be an important enough part of that group that they are taken seriously by the sales force. As stated by one respondent, Panacom now has a "big megaphone in speaking to the sales force", where they used to be marginal. The Toronto and Montreal development centres never gained strategic alignment, and never grew beyond an embryonic level. The Calgary development centre, despite its success at

bringing a product to market, was essentially non-aligned through to 1992, with the result that it could grow only as fast as it could build its direct sales. Its sales volume in 1992 was $16 million including associated hardware.

On the issue of strategic alignment, corporate management decided in 1992 to close down the "uplift" funding mechanism by declaring standard world prices for all of its products. There were two principal reasons. First, there was a desire to more effectively control the development work taking place around the world, which could not happen while the uplift system was in use. Second, there had been a lot of "grey market" sales on account of price differences between neighbouring countries. Obviously the move to standard global pricing would eliminate this concern. A form of uplift was still retained, but it had to be with corporate management's approval and it could not occur in a country like Canada with a very "porous" border.

The immediate impact of this change was that the Calgary product development centre needed to find a "proper home". Through much of 1993, Stich explored his options, which consisted of (a) finding a parent division in the States; (b) pursuing a management buy-out of the business; or (c) scrapping the business. Eventually he found a willing "parent", the "Lake Stevens Instrument Division" (LSID). This group, based near Seattle, WA, was part of the "Test and Measurement Organization" and sold signal analysis equipment and machine monitoring devices. LSID's management saw an immediate fit between their product portfolio and RTAP, most notably in terms of industrial sectors. Furthermore, their salesforce, being industrially-oriented, were much more suited to selling product like RTAP that required high customer interface. The match was made, and from November 1993 the Calgary operation was officially linked to LSID.

Of greater long term significance, the loss of the uplift mechanism meant that opportunities for additional value-added operations in Canada were somewhat more restricted. However, given the very limited success of the uplift initiatives, business development management felt that this was no great hardship. The more effective model, they felt, was U.S.-sponsored acquisitions, of which two feature prominently in HP Canada's recent past.

The Acquisition Model

The acquisition route had been actively pursued by HP Canada for a number of years, often in collaboration with the Department of Regional Industrial Expansion (DRIE). In 1990 HP Canada bought Idacom, a small Edmonton-based firm that specialized in communication network protocols. The origins of that acquisition went back a number of years, as the business development manager explained:

> "Idacom was one of many companies submitted to us by DRIE in the mid-eighties. What happened with Idacom was Derek Holmes actually went and visited with their CEO, just to kind of get a feel for the place. They were actually a competitor in some senses and not in others. They were complementary maybe. And he kind of liked the look of the place and the feel of things and wound up making an introduction between the Idacom CEO and the group general manager (in the U.S.) that had responsibility for that product --- and about 18 months later we bought them. So I guess in that sense the Canadian company did some ground work and then passed the baton to the corporate buying group who then carried it from there."

Interestingly, the Idacom acquisition led very rapidly to the development of a Protocol Testing Centre in Montreal. This was an idea that Idacom had been working on for several years, but the HP takeover stimulated them into action. The HP group that Idacom reported to was quick to confirm that the Protocol Testing Centre would be a worthwhile investment, and it began operation in 1992.

The second recent acquisition was the "Canadian Networks Organization" (CNO), which was part of a Toronto-based division of Alcatel doing R&D on fibre-channel switching. This was "a complete surprise" to the Canadian team. In 1993 Alcatel decided that they wanted to exit the fibre channel business so they put the company up for sale. HP's California-based Information Networks Division, which had informal linkages with Alcatel's fibre optics research through standards committee work, saw an immediate fit. Negotiations began in March, were concluded in July, and by October the company was in a new facility. One respondent commented "I've never seen anything happen so fast in my life". The important issue here, however, is that with the strategic

alignment in place integration can be extremely rapid. CNO is already a value-adding HP entity after less than two years, whereas Calgary may only now be contributing significantly to HP Canada's trade balance.

The clear implication of the last few years developments is that new value-added operations in Canada will arise through two mechanisms. One is the corporate acquisition, as with CNO and Idacom, which will typically involve Canadian help in identifying suitable candidates. The other is the further development of existing mandates, Calgary and Panacom being the obvious case of operations that would like to extend their mandates. A third possibility, that has not transpired in Canada yet, is that a U.S.-based division could choose to site a new manufacturing or development activity in Canada because it is the "optimum global location". It is not, in fact, unreasonable to think this could happen, because Canada is one of the lowest cost locations in the developed world for R&D. To this end, one of HP Canada's initiatives is to push for a "request-for-proposal" process for large new investments, so that at least they can be part of the division's consideration set. Finally, business development management felt that there were opportunities for HP Canada to make a value-added contribution in the consulting services division. This is a relatively new business for HP, so there is considerable scope for the Canadian group to make an impact.

Conclusions

The HP Canada case offers a variety of perspectives on the issue of subsidiary development. Of the six companies studied, it is one of two where there was no branch plant legacy that had first to be re-configured. This created an unusual set of circumstances for the subsidiary to negotiate. On the positive side, corporate management were very positively disposed in principle to Canadian investment, and government pressure was effectively brought to bear. On the negative side, the lack of an existing resource base made it very hard to convince any division to consider transferring an operation to Canada. Even a branch plant, it seems, represents a basic level of proven capability, not to mention a bargaining chip.

In terms of linkages between initiatives, there was a clear development process underway within Panacom, and a less-well developed process in the Calgary operation. Of greater interest, however, was the transfer of learning that occurred over the history of the study. In the seventies a branch-plant operation was established and then shut down, as a result of which HP Canada's management decided to pursue only world-mandate type investments. In the eighties a number of world-mandate operations were established, but all suffered from a shortage of strategic linkages to corporate divisions. The result of this mixed success was a conscious decision (by HP Canada) to focus on acquisitions with existing corporate sponsors. So far this strategy has proven successful. To some extent corporate management appear to have followed the same learning process, moving away from branch plant operations when the Canadian "experiment" failed, and more recently cutting back the uplift mechanism that allowed local development. The extent to which experiences in Canada have influenced corporate action is unclear. It seems likely that other countries have had similar experiences, and that the changes are reflective of the collective corporate experience. Nonetheless, it would be fair to conclude that HP Canada's role has changed over the past 15 years, in terms of the sorts of initiatives it is able, and willing, to pursue. The HP organization, as noted at the outset, does not lend itself to "country management" activities as they have been observed in other companies, but there is still a role for a business development function along the lines currently pursued.

A key factor at work here is the nature of the industry. The computer industry is close to being a "pure global" industry, with a high need for integration (particularly R&D) and a low need for local responsiveness (because many computer standards are global). There is thus very limited need for a "local" Canadian presence, as there would be in an engineering firm. This makes the global division structure very effective. A related facet of the computer industry is that key resources are intangible not physical, and transient not enduring. Having a world mandate division essentially offers no guarantee that the subsidiary will have a world mandate 3 years later. Successful divisions are the ones that are continually taking the initiative, both to defend their existing mandates and to search for new ones.

CASE 5. HONEYWELL CANADA HOME & BUILDING CONTROLS

Overview of the Corporation

Honeywell Home and Building Control (hereafter "Honeywell homes") is the largest division of Honeywell Inc., with 1993 operating revenues of $2.4 billion. Honeywell homes manufactures and markets "control solutions" worldwide: Products included heating controls, ventilation and air conditioning, radiator valves, security systems, and comfort management systems. The company is based in Minneapolis, Minnesota with almost half of operating revenues coming from outside the U.S.

Honeywell homes Canada was established in about 1930, initially as a distributor of Honeywell products but subsequently with a full range of value-adding functions. Manufacturing operations and the head office are both in the Toronto area (Scarborough and North York respectively). The company operated in "branch-plant" mode through the seventies, making a full range of products primarily for the Canadian marketplace. In the 1980s, as the account below will describe, a successful shift was made to a rationalized globally-competitive operation.

A relatively unusual feature of Honeywell homes is the high degree of autonomy still given to national subsidiaries. The Canadian "country manager", David Larkin, has a full range of functional and business managers reporting to him, and is accountable for Honeywell homes Canada's results. While "dotted line" relationships exist between business managers in Canada and the U.S., the principal line of authority is still through Larkin. Honeywell homes can be characterized as a "country-dominant matrix" structure. The trend is towards greater business unit integration worldwide, but not at the expense of the country managers' authority.

One possible reason for Honeywell homes's country-focused organization is concerned with the economics of its industry. Home and building controls vary substantially from country to country, according to the type of heating (water, air), source of energy (electric, oil, gas), climate, sales and distribution infrastructure, and so on. Furthermore, the large installed base of control systems impedes progress towards

common global standards. Thus, each national subsidiary has historically adapted its products to local needs, and taken a very different approach to marketing. While attempts are being made to exploit commonalities between markets, and integrate operations, the process takes time due to local market differences.

Interestingly, Canada and the U.S. are two of the most similar markets worldwide for control systems. Both use mainly forced air, have basements that make it possible to run ductwork, and use gas as an energy source. They also have common OEM companies, such as Lennox and Carrier, who are increasingly looking to sourcing their North American products on an integrated basis. For these reasons, Honeywell homes Canada has moved rapidly towards integration with the U.S.. Much slower progress is being made in Europe and the Far East.

Honeywell Homes Canada in the 1970s: The Early Initiatives

As stated above, Honeywell homes Canada's Scarborough operation was a classic "branch plant" through the 1960s and 1970s, manufacturing about a dozen products for the Canadian market, all of which were also produced in Minneapolis. Local production was undertaken to reduce distribution costs, to cater to unique customer needs, and also to avoid tariffs. However, the additional cost of coordinating activities across plants, and undertaking short-run production detracted from the competitiveness of the Scarborough plant. One respondent commented that he spent his time in the early eighties "assessing conformance material coming from affiliate plants for local assembly" rather than engaging in value-added work.

Where Scarborough was somewhat unusual was in its high level of local engineering capability, which gave Canadian management a certain amount of flexibility in product design. This led to the development of a number of distinctive products, three of which proved to be of great significance.

The first was the Zone Valve, a product that controlled the flow of water through central-heating radiators. Honeywell homes Canada had sold a trickle of zone valves into Great Britain in the 1960s --maybe 500 units per year-- primarily because of the

preferential tariff rates between commonwealth countries. In 1970 an engineering manager was sent from Scarborough to investigate additional export opportunities in Great Britain. He observed that the British market was going through a phase of upgrading on its central heating systems, and that there was need for a 3-way valve (to divert hot water for heating, for hot water, or for both). He was able to get the Scarborough engineering group to design and build a 3-way valve, and he then took on the role of international sales manager to build a market for the product in Great Britain. Export volumes rose steadily through the 1970s, so that by the early-1980s Scarborough was producing 600,000 zone valves per year, compared to 200,000 in Minneapolis. This volume was secured primarily through exports to Great Britain.

Why was Honeywell homes Canada able to develop this product and sell it in Great Britain? It seems that the Scarborough factory back in the early 1970s was one of the most efficient at making zone valves, certainly in comparison to its British counterparts. There were also relatively few safety standards for the zone valve, so the costs of getting the product approved for international sale were small. Furthermore, head office management were reputed to be "globally minded" and open to activities of this type. Most important, however, was Canadian management's willingness to take the initiative. The project was essentially uncontested from within, so approval was readily achieved (in that the market need had already been demonstrated).

The second product line was the Fan & Limits control device, or L4064. This is used in furnaces, both to start up the fan and also to shut off the system altogether. It was made in Scarborough to U.S. design, just like the zone valve. However, the Switch, which was the most complex component of the device, was put together in Freeport, Ill. by *Microswitch*, a wholly owned subsidiary of Honeywell, and shipped up to Scarborough for assembly. In 1970 a couple of the engineering managers from Canada were on a plant tour in Freeport, and it occurred to them that there was considerable opportunity for improving the switch manufacturing process. On return to Scarborough they started putting their ideas together, and came up with a simpler, more efficient design. They reckoned there could be about a 20% cost saving if they made the switch in Scarborough using their new process.

The engineering group put together a comprehensive proposal, detailing how Scarborough would take on responsibility for the switch worldwide with a lower cost, and still meet safety standards, maintain quality levels and so on. Canadian management were easily convinced, because it meant substantially higher volumes in the Scarborough plant. Parent company management in Minneapolis were less easily convinced, but the extent of the savings (and the product enhancements) being proposed were compelling. It turned out that Microswitch had been serving its external customers very well, but had been taking for granted its internal (i.e. Honeywell) business. This initiative from the Scarborough plant was therefore quite well received. As a matter of broader interest, there was a pervasive recognition among Honeywell homes managers that a mandate is only as good as the effort that goes into maintaining it. They felt that internal competition, as exemplified here, was healthy. Indeed, they disliked the term mandate for the reason that is sounds "god-given": their preference was to talk about their "mission" products. The net result of the L4064 switch initiative was that Scarborough was given permission to proceed. Production of the switch was phased out in Freeport, and by 1980 Scarborough was producing 100% of Honeywell homes's switches worldwide as well as 17% of the Fan & Limits control devices (i.e. for the Canadian market).

The third important product line for Scarborough was the Line-Volt Thermostat. This is a thermostat that is used for electric heating, a common form of heating in parts of Europe and in Quebec, but less popular in the rest of North America because gas is a much cheaper form of energy. The original line-volt thermostat was designed in the U.S. and produced in Minneapolis, Scarborough and Scotland. Over time, however, the geographical distribution of markets led to the product being phased out in Minneapolis. Scarborough undertook a series of minor redesigns and product improvements, so that by the 1980s they had a *de facto* North American mandate. Production was still occurring in Scotland, but to specifications that had diverged from those in Canada.

The North American Plant Rationalization

In the early-mid 1980s there were the first signs of a shift towards rationalization of Honeywell homes"s North American operations. In Canada, the senior management had begun to realize that the branch plant operation was uncompetitive. As noted by the engineering manager at the time:

> "We developed a conviction here. We knew that there was no future in being a Branch plant operation. We had made gains as far as the line voltage thermostats were concerned and zone valves, and Fan and Limit controls. And we had a tremendous appetite to achieve dramatic improvement in productivity in the factory. We knew that we were not going to be able to succeed by having the factory do everything for everybody. Numerous little product lines, organized into a branch assembly operation was not the formula for long-term success. We had to improve ourselves --dramatically improve ourselves-- to survive. The strategy was to focus on some key things that we were extremely good at. Hence the initiative from Canada to U.S. on a high management level."

At around the same time (1985) top management in the States were facing a number of challenges worldwide. North America had just emerged from recession, so many plants were running well below capacity and earnings were poor. Furthermore, prices for control products had taken a downturn. There was thus an openness to innovative cost control solutions, and some form of manufacturing rationalization was high on the agenda.

It was in this environment that Canadian management put together its long term Computer Integrated Manufacturing (CIM) plan, the first stage of which was the North American Product Rationalization plan (NAPR). This document essentially proposed that Scarborough would be given North American production rights for the Zone Valve and Fan & Limits products, and would retain the Line-Volt Thermostat business. All other products (ten in total) would be made on a North American basis from Minneapolis. Zone Valves, they argued, had design control and were already produced in greater numbers in Canada than in the States. For the Fan & Limits device, the technical core of the product, the switch, was designed and made in Canada, so to move final assembly up to Scarborough would be a logic consolidation. NAPR was critical to the CIM plan,

because without it in place the subsequent investment could not be justified. As such, it was part of a very clear vision for the Scarborough facility

The combination of this plan and the Canadian general manager's personal relationships in the U.S. resulted in buy-in, in principle, from the general manager of the operating division (in the U.S.). This was, in retrospect, a major step forward, because the division general manager fully understood the benefits of the proposed plan. The next stage was for U.S. and Canadian manufacturing management to sit down and work out the viability of NAPR. The economic justification for the proposed changes was a major issue here, but the greater concern was achieving buy in from the U.S. team to a plan which involved moving an entire production line from Minneapolis to Scarborough. There were some concerns expressed by the U.S. manufacturing management, both in terms of the disruptions to production and the possible reaction of the U.S. Teamsters Union if jobs were lost.

A team of 3 U.S. and 3 Canadian representatives was put together to work through the rationalization process. From the Canadian team's perspective, Zone Valves were a non-issue because the Canadian product was both more technically advanced and produced in greater numbers than its U.S. equivalent. $2.5 million was the projected saving if the line was consolidated in Scarborough. The Fan & Limit device argument was "a lot more intense" according to the head of the Canadian team. Scarborough was producing the Switch, the key component, but Minneapolis had the production line. The economics pointed towards Scarborough, but the proposed shift represented a major change for the Minneapolis plant. The U.S. manufacturing director agreed to the shift through the persuasive efforts of one of his own colleagues. All the other lines, as a matter of course, were pencilled in to be consolidated in Minneapolis. The estimated net impact was savings of about $10 million over five years. While the Fan & Limits line represented the single biggest shift, the overall savings, and staff reductions, were split more-or-less equally between the two plants.

Final presentations of the plan occurred in Minneapolis in January 1987. Despite the recent departure of the project's original sponsor, the project had received such visibility in Minneapolis that its approval was achieved without difficulty. While active

sponsorship by the former general manager was critical in the early stages of the initiative, once it had been pushed into the spotlight it took on a life of its own.

Through 1987 and 1988 the rationalization plan was implemented. For Scarborough the move involved about 50% of its operations; for Minneapolis it was significantly less. The smaller changes were all made first. The latter 6 months were devoted exclusively to moving the Fan & Limits line to Scarborough. For the Canadian organization, the net result of the rationalization process was a major increase in exports (50% to 85% of total sales volume), three manufacturing mandates (or "missions"), and a much lower cost base. Work began on enacting the CIM plan, but over time thinking evolved and factory management shifted towards other tools such as JIT, self-directed workteams and process simplification. More important than the actual techniques, however, was the opportunity that rationalization gave to management. As the current factory manager commented, "Rationalization made us effective; it helped us to do the right things. Now we are learning to be efficient; we are doing things right." Indeed, since the rationalization program's completion the Scarborough plant has made startling improvements in a number of areas, most notably around educating and empowering their mostly-immigrant workforce. Productivity continues to increase commensurately.

The Creation of North American SBUs in Canada

The manufacturing and engineering rationalization served to underscore some of the inefficiencies in other functional areas. Marketing, purchasing, and administrative functions were all still being done in duplicate, either side of the border. Certainly, there were good reasons in some cases, in terms of the different product-market foci, but there was a growing recognition, in Canada and the U.S. that the rationalization program needed extending beyond operations.

In Canada, the push for further rationalization, particularly of the marketing and business management functions, was driven by a concern for the future viability of the Scarborough operations. As explained by one respondent:

> "We had a factory that was making product on an existing basis, but unless you have the infrastructure for selling, for marketing, its ultimately going to fold in on itself and die. New products will come from someplace else to replace those and unless you are the one that's doing the replacement its not going to happen, so you need a marketing organization and a business development organization to focus on that particular business."

The vision, in essence, was to support the manufacturing activities in Scarborough with full business-management mandates, so that future product enhancements or changes would be orchestrated from Canada, and better coordination and cost benefits would be realized in the affiliates. A key driver was the recognition at an operational level that there were duplicate activities either side of the border, and hence inefficiencies.

In the U.S. the stimulus for further rationalization was less clear-cut. However, in the period 1990-1992 corporate management had embarked on a series of structural changes that consolidated the homes and buildings divisions. Part of this process involved re-organizing the customer interface, and in doing that management became aware of the need for greater coordination with Canada. It was in this environment that the head of marketing in Canada started discussing business rationalization with his counterparts in the U.S. There was openness on the part of U.S. management to consider alternatives, so the discussions took place on a very "rational" basis (i.e. free from parochial or narrow-minded biases).

The proposal put forward was very straightforward. The Canadian entity would be assigned "strategic business unit" management of the "electric heat" and "water management" businesses for North America. The electric heat market was primarily in Quebec, and served by the Line-volt thermostat and a couple of other products. Water management was based around the zone valve which Scarborough made exclusively. The Fan & Limits control product was not associated with a business mandate because it was widely recognized that it would be phased out over the next 10 years, and replaced with an electronic product. It was thus in "harvest" mode. Note however, that the demise of the Fan & Limits device was exactly the reason why the Canadian organization wanted business management mandates. Hypothetically, if the business mandate for the

Fan & Limits device had already been in Canada they might have been able to win development of the successor product.

The Canadian proposal received no serious challenges. The "loss" of product management roles in the U.S. was expected to be small, and would be mitigated by the gradual phase in of the change. Furthermore, the move made good business sense, in that it allowed Honeywell homes to coordinate its pricing, promotion and distribution activities, and cut duplication costs out of the system. The first stage of the changeover took place in October 1992 when the two SBUs were formally announced. However, the intention was not to push too fast so 18 months later the companies were still working through the practicalities of the shift.

The two Canadian SBU managers are currently faced with a complex array of issues. They are, first of all, attempting to direct their business activities in the U.S., which understandably involves a good deal of negotiating and compromising. Second, they are getting to grips with the next major shift, globalization. In electric heat, for example, a "world business team" has been established to look at growth opportunities worldwide for a fan coil product. A separate initiative involves streamlining and rationalizing half-a-dozen line-volt thermostat operations around the world. The overall picture is one of a global network of Honeywell homes entities, in which a number of the key decision makers happen to be based in Scarborough, Ontario. The series of locally-sourced initiatives that were described above is thus an unsuitable model for future development in Scarborough, or elsewhere in Canada. Future initiatives are likely to be of the "mandate extension" type, based around the core capabilities of the two SBUs. They are also likely to transpire through the "world business team" concept, in recognition of the subordination of national / parochial interests to the global needs of the corporation.

Summary: The Development Process in Honeywell Homes Canada

The Honeywell homes case provides an excellent example of the subsidiary development process, in that every step was a logical consequence of the prior one. The

SBU designations could not have occurred without the NAPR, which itself owed its success to the earlier zone valve and Fan & Limits initiatives. The linkages in each case were substantial: Complementary physical resources; technological and human capabilities that could be applied from initiative to initiative; and a build up in reputation with management in the U.S., both at the individual level and with regard to the Canadian entity as a whole.

The analytical challenge here is to understand the extent to which this process was "planned" by the leadership of Honeywell homes Canada. The CIM and NAPR plans, and the subsequent marketing rationalization, were all part of the same strategic thrust, and clearly involved a great deal of foresight back in the mid-eighties. If the most recent ten years were driven by a strategic vision, however, the two initiatives in 1970-1972 surely were not. It is difficult to surmise what drove those two efforts twenty years ago, but it is undoubtedly the case that the NAPR would have worked out very differently without them. Furthermore, even with a broad strategic vision initiatives have to be pursued as opportunities present themselves, rather than according to a pre-specified plan. As the architect of the more recent initiatives noted, "I try to look at things on a very broad scale in terms of where is the low hanging fruit, what can be picked quickly to get the lion's share of the benefit. In the long term strategic nature of things, how can you reinforce what you do, build on it, and make the next success out if it."

An important but "passive" factor in this whole story is the enlightened attitude of Honeywell homes' senior management in the U.S. Honeywell homes Canada was given the discretion to pursue exports, the opportunity to challenge Microswitch's L4064 switch production, and the responsibility to propose a North American rationalization program on their own terms. The shift of an entire production line from the U.S. to Canada is almost unprecedented in the history of North American consolidation, and its occurrence can be attributed --in large part-- to the open-minded U.S. executives who recognized that this really was the right thing to do. The contrast with many other companies, in which rationalization means shutting the Canadian operation, is stark, and it underscores the critical role played by the facilitating actors in the initiative process.

CASE 6. HONEYWELL INDUSTRIAL AUTOMATION & CONTROL

Organizational Context and Early Development Work

Honeywell Industrial Automation and Control (hereafter Honeywell industrial) is one of three divisions of Honeywell Inc., a U.S. multinational. The division had annual sales in 1993 of $1.7 billion. The division sells large control systems to industrial customers that require integrated monitoring, analysis and feedback components. Customers include oil refineries, pulp and paper mills and other large manufacturing plants. While many of the components of these systems are standard worldwide their application is always unique to the plant in question: consequently, a feature of the process control industry is a high level of localized engineering support.

Honeywell industrial Canada had its origins as a "market access" subsidiary, providing local engineering support to U.S.-developed products. Most customers in the sixties and seventies were in the primary sector, primarily pulp & paper and oil refining. As noted above, however, it was necessary to provide skilled engineering support locally. This resulted in Honeywell industrial Canada developing very good relationships with its local customers, and a strong understanding of their requirements.

In the early seventies the U.S. parent company designed a product called "TDC 3000" which broke new ground in systems control, primarily in terms of its digital technology. The product very quickly became the industry standard and leapfrogged Honeywell industrial to industry leadership worldwide. The development work was done exclusively in the U.S. but the Canadian subsidiary took an active role by providing the beta (test) site, the Imperial Oil refinery in Sarnia, Ontario. The Honeywell industrial Canada general manager at the time commented, "...we were able to convince the refiner in Ontario to test the system.. [so] we were part of the project team that installed the system, and we had service people, and engineering people, part people to monitor it and work together on it." The success of this beta site, and the early exposure of the Canadian organization to the TDC 3000 were very valuable to Honeywell industrial Canada in the long term. In the opinion of the current general manager they gave the

Canadian entity a high level of visibility and credibility south of the border, and resulted in the subsequent development opportunities it was given.

The Oil Movement and Storage (OM&S) Development

The origins of the "oil movement and storage" (OM&S) product can be traced back to 1978-1979, when Honeywell industrial Canada lost a contract to IBM for the Imperial Oil refinery in Sarnia. IBM won the contract in part because it had an "offsite" application that monitored and optimized the blending process. The project manager at the time wrote a report suggesting that this loss "would probably be the precursor to more losses in the same area," because the offsite side of the system had always been a neglected area. The report was circulated, but there was very little receptivity to the idea. In the project manager's opinion, the decision makers in Phoenix (head office) still saw TDC 3000's value added in terms of hardware not software. They were also, presumably, much less concerned about the loss of an account in Ontario than the Canadian project managers were.

The opportunity to address this latent market need came in 1983, when the parent company started planning the next generation TDC 3000. The worldwide business team that provided strategic direction for Honeywell industrial had taken the decision that development of the next generation product would *not* be undertaken solely in Phoenix. Each region was to be offered the opportunity to participate, either by providing manpower to Phoenix or by taking responsibility for a part of the system. This somewhat enlightened decision was in part attributable to the global mindset of the U.S. executive, but it was also brought about by pressure from the other world regions to get some development or manufacturing work.

Honeywell industrial Canada's response to this opportunity was to propose the Oil Movement and Storage application, which was essentially a set of software modules designed to optimize the various stages of oil flow from well to refinery. Both IBM and FOXBORO (the major competitors in Canada) had systems that provided this service,

though there was --in the opinion of Canadian management-- space for a Honeywell industrial offering, particularly if it was well integrated with TDC 3000.

The proposal was championed by the TDC 3000 program manager and the software development manager, but with strong support from the Canadian general manager. The idea had to be sold in two directions. First, the Canadian President (responsible for all three separate Honeywell industrial divisions in Canada) had to be convinced, because the development would be financed through the Canadian entity's profit & loss account. Second, the worldwide business team in Phoenix had to approve the project, and its coordination with the new TDC 3000. As it turned out, both approval processes were very straightforward, because the Canadian president was keen to see some genuine development work in Canada, and the worldwide business team was being offered a complementary application with no downside financial risk.

During the period 1984-1986, Honeywell industrial Canada put together a product development team and started building modules of the OM&S system. They worked closely with a beta site in Ontario, the Nanticoke refinery, and quickly focused their efforts specifically on the oil refining industry (the original specification had not been industry specific). Because of its modular nature, they were able to start selling the product before all the peripheral components had been finished. Sales volume began to pick up in 1989, and has grown ever since. By 1994 OM&S had grown into a $10 million business, which translates into $50 million for Honeywell industrial because of the hardware that is leveraged off the software. Employees worldwide specific to OM&S number about 100, of which 70 are resident in Canada and the rest are dispersed through the regions to provide local engineering support.

While the OM&S system is a major success story for Honeywell industrial, and for the Canadian subsidiary in particular, its evolution has not been straightforward. Questions have arisen on the merits of leaving OM&S in Canada (rather than consolidating it in Phoenix), on the level of integration with regional activities, and on the best way of funding future development. These issues will all be picked up later.

The Personal Computer Network Manager (PCNM) System

The second major product development originating in Honeywell industrial Canada took shape in the period 1987-1989. As with OM&S, the origins were a combination of market-driven demand and the proactive pursuit of opportunities by the Canadian development group.

The market demand in this case was the need to provide access to the TDC 3000 system for multiple users at the same time. Thus, if an engineer wanted to optimize the system, he or she would be able to do so through a PC interface, rather than by temporarily displacing the operator from the system. Honeywell industrial Canada's development group became aware of this latent need through their ongoing relationship with major customers in the oil and pulp & paper industries. They had begun putting together some ideas for a PC platform, but the product really took shape in 1987 through a relationship with Scott Paper, a Nova Scotia -based customer. Scott Paper had developed one component of a PCNM system, namely the user interface. Honeywell industrial negotiated to purchase this component, use Scott as a beta site, and in return provide them with copies of the complete system. A further spur was provided by Bailey, a competitor company that had already developed a rival product. Honeywell industrial Canada's lack of a PC interface was --just as with OM&S ten years earlier-- resulting in the loss of system sales.

The PCNM development was a much more guarded affair than OM&S. A business plan was written, and approval was gained from the Canadian president in 1988. This allowed the Canadian development group to proceed. However, the decision was made not to let head office know until the product development was much further advanced, primarily because of concerns that the work would have been transferred to Phoenix. Despite the success of the OM&S development, there was still at this point a perception at head office that all new development work should be done in Phoenix. Thus, approval was sought --and gained-- for the PCNM product to be sold internationally, but Canadian management were careful with the timing of their proposal.

PCNM has also been a considerable success, with annual sales of about $2 million leveraged to $6 million worldwide. There are about 20 employees dedicated to development and marketing of PCNM on a global basis. As with OM&S, however, the complexities of running a global business from Canada have led to a number of recent changes in PCNM's status. This issue will be picked up in a later section.

SACDA: A Local Acquisition

The third major initiative taken by Honeywell industrial Canada took the form of a local acquisition. SACDA ("systems analysis control and design activity") was a small high-technology company making "simulators" for process control systems, on the basis that operators could learn to cope with an oil spillage, for example, in a simulated risk-free environment. SACDA was formed in 1973 as a spin-off from the University of Western Ontario engineering department. The initial concept was to transfer university technology to industry, but under the direction of two business-minded individuals SACDA quickly developed a process simulator for the pulp and paper industry that brought in enough revenues to be self-sustaining. Through the seventies and early-eighties SACDA developed a strong niche business in the pulp and paper industry, but they were constrained in what they could do by University ownership. After much discussion, SACDA separated from the University in 1985, and became a private company.

As an independent company, SACDA grew steadily, achieving revenues of about $5 million in 1991. The mainstay of the business had been in Pulp & Paper, but when that industry went into recession in 1990 SACDA began to focus more on other sectors, including oil & gas and the chemical industry. The opportunities for growth in these and other sectors appeared to be substantial, but as a private company SACDA had limited financial resources. The directors considered public ownership, but a much more attractive alternative became available when Honeywell industrial approached SACDA as a possible acquisition target.

Honeywell industrial Canada had become familiar with SACDA in the late eighties because they sold complementary products into many of the same industries. Often a plant would purchase TDC 3000 or a competitor's product and then identify the need for a process simulator. Honeywell industrial Canada recognized that they could potentially leverage additional hardware sales if they could offer a simulator up-front, so they approached SACDA (with whom they had a good relationship already) about taking an equity stake in the company. SACDA's directors expressed some interest, primarily as a means of fuelling their growth ambitions.

While the strategic fit of SACDA with Honeywell industrial was clear to the Canadian management, the initiative had to be sold in three directions: to the Canadian President, to the Industrial Division headquarters in Phoenix, and to the corporate headquarters in Minneapolis. In the words of the Canadian general manager the selling job was "pretty smooth", the biggest obstacle being the financial people in Minneapolis who had ROI requirements for all acquisitions that SACDA did not quite meet. Honeywell industrial Canada, with active support from Phoenix, were able to convince Minneapolis on the basis of anticipated synergies.

The acquisition of SACDA was concluded on June 1st 1992, 18 months after the initial approach. Honeywell industrial decided to leave SACDA as an autonomous entity within the corporation, because SACDA had strong name recognition, different channels to market, as well as existing relationships with Honeywell industrial's competitors. Thus, SACDA's head office remained in London, Ontario. Honeywell industrial's worldwide salesforce was encouraged to promote SACDA products, with help from the SACDA sales team, and Honeywell industrial financed SACDA's growth plans. In all other respects SACDA continued as an independent company. The acquisition proved beneficial to both parties, with SACDA's sales more than doubling by 1994, excluding the leveraged hardware sales.

The Designation of Global Product Houses

The success of Honeywell industrial Canada in developing these three "world mandate" products, along with similar activities in Europe and the Far East, brought a number of pressing issues to the attention of the world business team. One issue was the need to develop global controls products (to gain the maximum economies of scale in development) while simultaneously delivering locally-engineered solutions (because no two oil refineries are identical); a second was the recognition among the world business team that the global development work should be situated at the optimum global location, which was not necessarily Phoenix. The existing organization, with its emphasis on country accountability, was ill suited to address either of these issues. OM&S, SACDA and PCNM, for example, were "Canadian" products that were sold to other Honeywell industrial affiliates at a profit. Honeywell industrial Canada was responsible for pricing these products, and funding future investments, but the ramifications of those decisions on other Honeywell industrial affiliates were substantial, particularly in terms of the leveraged hardware sales they gained from software sales.

On account of these concerns, and to encourage further regional development work, the world business team developed the "Global product house" concept in 1992. The three Canadian products, and one European one, were designated as "Global product houses" meaning that they became cost centres (rather than profit centres) owned collectively by the five regional Honeywell industrial entities (Asia-pacific, U.S., Canada, Europe, Latin America). Funding was to be provided by the five regions, pro-rated to anticipated sales in the coming year. Thus, if Asia-Pacific was expecting to sell ten OM&S systems in 1993, they would be expected to contribute $x million to OM&S's operating budget. The basic objective was to make the global product houses into a central resource from which the regions could draw, and hence minimize transfer-price discussions. In addition to the global product houses the world business was re-structured as a 3-dimensional matrix, with five world regions, five market sectors (pulp & paper, oil & gas etc.), and three business groups ("products", "systems" and "services"). While it sounds complex, the primary dimension remained the world regions, and the latter two were essentially set up to aid "coordination". Philosophically the plan owed much to

Bartlett and Ghoshal's (1989) "Transnational Solution" whereby the global orientation of the employees was more critical than the lines of accountability *per se*.

The success of the global product house concept has been mixed. While most respondents felt that it was better than the prior system, it also had major shortcomings. SACDA, for example, still sold most of it's simulators in 1993 directly, rather than through the Honeywell industrial regional salespeople, simply because the product is complex and requires a much higher level of customer education than was typically the case with Honeywell industrial products. What that meant, however, was that the regions received no margin for the direct sales, despite the fact that they had contributed investment funds to SACDA at the start of the year. OM&S suffered similar, though less substantial, problems primarily because the regional sales support teams were understaffed and could not deliver the sales volumes they were budgeted to. PCNM, being a more-or-less standard product, did not have these concerns, but its relatively small size meant that the additional accounting complications of being a global product house (e.g. running 3 separate books) could not be justified. PCNM reverted to being a Canadian-funded product in 1994. For OM&S, SACDA, and the European global product house the systems were modified slightly, but more importantly there was a better understanding among the world regions of how the new structure worked. While the concept is still at the trial stage, the Canadian general manager was confident that they were heading in the right direction. He also felt that they were experimenting with a leading-edge organizational form which had the potential to offer Honeywell industrial competitive advantage in the years ahead.

Other Current Issues

While the global product house concept went a long way towards addressing the global-local dilemma, it was perhaps less successful at fostering regional (i.e. outside Phoenix) development. The OM&S marketing group, for example, was slated to move down to Phoenix in 1993, so that it would be more closely linked to the oil & gas industry group. While this never happened, it was symptomatic of the general perception

among Phoenix management that they should be the focal point of all strategic decision making. Along similar lines, a Phoenix development group began work in 1992 on a successor product to PCNM, but this has been assigned to the Canadian group and work is being transferred from Phoenix to Toronto.

Both these cases illustrate the difficulty of implementing a global strategy. While top management are "looking forward" to the future model, middle management are still "looking to the past" and operating from a much more parochial perspective. Some of the Canadian respondents felt that the "not invented here" syndrome was very much in evidence in Phoenix, and consequently that they had to work very hard to retain their strategic autonomy in Canada. As observed by the Canadian general manager, there is a compelling logic to siting a global product house in a subsidiary organization, both because it often represent leading-edge thinking, and because it offers a greater degree of flexibility than the head -office. The general manager of SACDA, for example, commented that his continued success is in part due to his ability to act quickly, often in conflict with Honeywell industrial's standard operating procedures.

Implications and Conclusions

The Honeywell industrial case offers some very interesting perspectives on subsidiary initiatives and on the development process in general. First, all three initiatives were inspired primarily by local opportunities, a fact that is partly a function of the industry (with its high need for local responsiveness), but also a function of the entrepreneurial efforts of Canadian management. The fact that three of the four pilot "global product houses" were Canadian is indicative that there was an abnormally-high level of opportunity-seeking within Honeywell industrial Canada. A second, but related, observation is that there were linkages between initiatives over time, though mostly through the transfer of reputation. OM&S relied in part on the relationships and credibility developed through the beta site work in the seventies; PCNM was developed by the same group as were working on OM&S; and the SACDA acquisition, while not related to OM&S or PCNM on a product basis, was approved in part on account of the

Canadian subsidiary's prior successes. Interestingly, several of the senior managers in Phoenix had begun their careers in Honeywell industrial Canada, so they were more comfortable with the idea of dispersing strategic decisions away from head office.

A third finding, that is actually quite rare, is that there was an observable change in the Canadian subsidiary's role, at least in part as a result of its success at winning world mandates. To be more specific, the OM&S, PCNM and SACDA initiatives highlighted the limitations of the existing structure, which led the world business team to make changes that were more in keeping with the global demands of the industry. Thus, over a twenty-year period Honeywell industrial Canada's role changed from being a "market access" subsidiary to being a global provider of products to the Honeywell industrial organization worldwide. Bearing in mind that all of the initiatives identified were subsidiary-driven, it would be fair to conclude that the efforts of Canadian management were instrumental in re-shaping the subsidiary's role.

Finally, the Honeywell industrial case offers some unusual perspectives on the subsequent development of world mandates. By 1994 PCNM had essentially been through an entire life-cycle and evolved to the next level of technology. OM&S was still going strong, despite repeated efforts by head-office to pull activities down to Phoenix. SACDA, by contrast, was still at a fairly early-stage of development, in that it was not even fully integrated into the Honeywell industrial system. While the issues raised by these developments go beyond the current study, it is fascinating to speculate that there is a second phase of subsidiary development, once international responsibilities have been secured, that is more concerned with rejuvenating the current stock of mandates and maintaining a balance between independence (and isolation) and integration. This is an important issue that needs to be addressed in future work.

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HONOURS AND AWARDS

Third prize award, The 24th International Management Symposium, University of St Gallen, Switzerland, May 1994.
Best Paper award, Management Education and Development Division, Administrative Sciences Association of Canada (ASAC), annual conference 1993.
Honourable mention award, International Management Division, ASAC, annual conference 1992.
'Ten best papers' award, Academy of International Business, North-East USA division, annual meeting 1992.
Ontario Graduate Scholarship: 1994-5.
Graduate Research Fellowship, University of Western Ontario: 1994-5.
Industry Canada research contracts, 1994 and 1995.
Suncor Doctoral Fellowship: 1993-4.
Special University Scholarship, University of Western Ontario: 1991-2, 1992-3, 1993-4.

PUBLISHED ARTICLES

Birkinshaw, J.M. and Morrison, A.J. 'Configurations of Strategy and Structure in Subsidiaries of Multinational Corporations.' Accepted for publication with *Journal of International Business Studies*.
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Birkinshaw, J.M. 'The entrepreneurial subsidiary manager: A critical role in the multinational corporation' Published in the proceedings of the *24th International Management Symposium*, University of St Gallen, Switzerland, May 1994.

Birkinshaw, J.M. 'World mandates: More a means than an end', *ASAC conference proceedings: international business division,* Halifax, June 1994.

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Birkinshaw, J.M. 'The International Business Domain. Managerial implications of a new conceptualization', *ASAC conference proceedings, international business division,* Lake Louise, June 1993.

Birkinshaw, J.M. 'Wellington Insurance: designing the adaptive organization', *ASAC conference proceedings, Organization theory division,* Lake Louise, June 1993.

Birkinshaw, J.M., Rush, J.C. and Evers, F.T. 'Management competency development: an empirical test', *ASAC conference proceedings, Management Education Division,* Lake Louise, June 1993.

Birkinshaw, J.M. 'MNE-host government relationships: a resource-dependence perspective', *Academy of International Business, North-East USA conference proceedings*, Baltimore, May 1992.

Birkinshaw, J.M. 'The multiple facets of global competition', *ASAC conference proceedings: international business division,* Quebec City, June 1992, pages 11-20.

CONFERENCE PRESENTATIONS (In addition to above)

Birkinshaw, J.M., Morrison, A.J., Egelhoff, W.G., and Hood, N. 'The changing role of the national subsidiary', Chairperson and member of panel, presented at the *Academy of International Business annual meeting*, Boston, November 1994.

Birkinshaw, J.M. 'Business development initiatives in Canadian subsidiaries', presented at the *Academy of International Business annual meeting*, Boston, November 1994.

Birkinshaw, J.M. 'Global Centres of Excellence', presented at the *Academy of International Business annual meeting*, Boston, November 1994.

McLellan, K.S., Birkinshaw, J.M., and Beamish, P.W. 'Alliance networks in the U.S. banking industry: A response to hypercompetition.' Presented at the *Whitemore Conference on Hypercompetition*, The Amos Tuck School, Hanover (NH), September 1994.

Birkinshaw, J.M. 'Entrepreneurial behaviour in multinational subsidiaries,' Presented at the *Academy of Management Annual Conference*, International Management division, Dallas, August 1994.

Birkinshaw, J.M. 'An inductive model of world mandate development and decline', Presented at *London Business School Doctoral Conference*, April 1994.

Birkinshaw, J.M. and Morrison, A.J. 'Configurations of Strategy and Structure in Multinational Subsidiaries'. Presented at the *Academy of International Business annual meeting*, Hawaii, October 1993.

Birkinshaw, J.M. 'Is the Country Manager an Endangered Species?'. Presented at the *Academy of International Business annual meeting*, Hawaii, October 1993.

WORKING PAPERS

Birkinshaw, J.M. 'Value adding strategies for Canadian Subsidiaries.' Western Business School, Working paper series No. 95-01.

Birkinshaw, J.M., Morrison, A.J. and Hulland, J. 'Industry globalization: An analysis of the fit between structural and competitive determinants'. Western Business School, Working Paper Series No. 92-26.

Birkinshaw, J.M. 'Entrepreneurial Behaviour in Multinational Subsidiaries'. Western Business School, Working Paper Series No. 93-07.

Birkinshaw, J.M. 'The Changing Role of the Multinational Subsidiary: Some Canadian and British Evidence'. Western Business School, Working Paper Series No. 93-08.

OTHER WORK IN PROGRESS

McLellan, K.S., Birkinshaw, J.M., and Beamish, P.W. 'Alliance networks in the U.S. banking industry: a response to hypercompetition.' Under revision with *Organization Science.*

Birkinshaw, J.M. 'Entrepreneurship in multinational corporations: The characteristics of subsidiary initiatives'. Under review with *Strategic Management Journal.*

Birkinshaw, J.M. 'A process model of organizational context evolution and initiative'. Under review with *Strategic Management Journal.*

TEACHING CASES

Wellington Insurance (A) (With M. Crossan), Western Business School teaching case 9-93-M001.
Wellington Insurance (B) (With M. Crossan), Western Business School teaching case 9-93-M002.
The G.E. Energy Management Initiative (A), Western Business School teaching case 9-94-G005.
The G.E. Energy Management Initiative (B), Western Business School teaching case 9-94-G006.
Volkswagen in North America. Under revision.

Federal Industries (With J.N. Fry and R.E. White) Western Business School teaching case (awaiting release from company).

TEACHING EXPERIENCE

Business Policy (MBA level), four half-course equivalents, University of Toronto. Fall semester, 1994; winter semester, 1995.
Active participant in three semesters of teaching-group meetings, Western Business School (Business Policy and Environment of Business).
Attended 'Teaching With Cases 3-day workshop, Western Business School.

EDITORIAL

Reviewer: Journal of International Management, Journal of International Business Studies, Business Quarterly, The International Executive, Administrative Sciences Association of Canada conference (1993 and 1994).
Editorial assistant, dissertation abstracts, Journal of International Business Studies, 1992-1994.

PROFESSIONAL AFFILIATIONS

Academy of Management
Academy of International Business
Administrative Sciences Association of Canada

CONFERENCES ATTENDED

Administrative Sciences Association of Canada annual meeting, 1992, 1993, 1994.
Academy of International Business, North-East USA, annual meeting, 1992.
Academy of International Business annual meeting, 1992, 1993, 1994.
'Learning in Organizations' workshop, University of Western Ontario, June 1992.
Academy of Management annual meeting, 1993, 1994.
Strategic Management Society annual meeting, 1993.
Organizational Studies first doctoral conference, 1993.
Doctoral student conference, London Business School, April 1994.
24th International Management Symposium, University of St Gallen, May 1994.

Attended the Doctoral Consortia at the Administrative Sciences Association of Canada annual meeting 1993, and the Academy of Management annual meeting (1993 & 1994).

NON-ACADEMIC WORK EXPERIENCE

Business Analyst - ICI Chemicals & Polymers, Runcorn, England, 1990.
Systems Analyst - Price Waterhouse Consultants, Leeds, England, 1987 - 1989.
Proprietor - JMB Mapping, 1984 - 1987.

ACTIVITIES AND INTERESTS

Western Business School Ph.D. Program President 1993-4.
Member of the British 1991 World Orienteering Championships squad.
Coach to the British Junior Orienteering Team 1988-1991.
Winner of United States Long-Distance Orienteering Championships 1991.
Fourth place, North American Orienteering Championships, 1994.
Regular pursuit of cross-country running, marathon running, golf, squash, piano, guitar.