1

PM-1 3½"x4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

PRECISIONSM RESOLUTION TARGETS

National Library
of Canada

Bibliothèque nationale
du Canada

Acquisitions and
Bibliographic Services Branch

Direction des acquisitions et
des services bibliographiques

395 Wellington Street
Ottawa, Ontario
K1A 0N4

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file Votre référence

Our file Notre référence

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

**CANADIAN SUBSIDIARIES OF U.S. FIRMS:
ASSOCIATIONS OF CONTROL AND COORDINATION
WITH CHANGES IN ORGANIZATIONAL STRUCTURE**

By

Daniel Mah, B.A., B.Mngt.

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfilment of
the requirements for the degree of

Master of Management Studies
Department of Business

Carleton University

Ottawa, Ontario

August 11, 1995

(C) copyright

1995, Dan Mah

**National Library
of Canada**

**Acquisitions and
Bibliographic Services Branch**

**395 Wellington Street
Ottawa, Ontario
K1A 0N4**

**Bibliothèque nationale
du Canada**

**Direction des acquisitions et
des services bibliographiques**

**395, rue Wellington
Ottawa (Ontario)
K1A 0N4**

Votre file Votre référence

Our file Notre référence

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-612-08994-0

Canada

Name

DANIEL MAH

Dissertation Abstracts International is arranged by broad, general subject categories. Please select the one subject which most nearly describes the content of your dissertation. Enter the corresponding four-digit code in the spaces provided.

MANAGEMENT

SUBJECT TERM

0454

U·M·I

SUBJECT CODE

Subject Categories

THE HUMANITIES AND SOCIAL SCIENCES

COMMUNICATIONS AND THE ARTS

Architecture 0729
Art History 0377
Cinema 0900
Dance 0378
Fine Arts 0357
Information Science 0723
Journalism 0391
Library Science 0399
Mass Communications 0708
Music 0413
Speech Communication 0459
Theater 0465

EDUCATION

General 0515
Administration 0514
Adult and Continuing 0516
Agricultural 0517
Art 0273
Bilingual and Multicultural 0282
Business 0688
Community College 0275
Curriculum and Instruction 0727
Early Childhood 0518
Elementary 0524
Finance 0277
Guidance and Counseling 0519
Health 0680
Higher 0745
History of 0520
Home Economics 0278
Industrial 0521
Language and Literature 0279
Mathematics 0280
Music 0522
Philosophy of 0998
Physical 0523

Psychology 0525
Reading 0535
Religious 0527
Sciences 0714
Secondary 0533
Social Sciences 0534
Sociology of 0340
Special 0529
Teacher Training 0530
Technology 0710
Tests and Measurements 0288
Vocational 0747

LANGUAGE, LITERATURE AND LINGUISTICS

Language 0679
 General 0289
 Ancient 0290
 Linguistics 0291
 Modern 0291
Literature 0401
 General 0294
 Classical 0295
 Comparative 0297
 Medieval 0298
 Modern 0316
 African 0591
 American 0305
 Asian 0352
 Canadian (English) 0355
 Canadian (French) 0593
 English 0311
 Germanic 0312
 Latin American 0315
 Middle Eastern 0313
 Romance 0314
 Slavic and East European 0314

PHILOSOPHY, RELIGION AND THEOLOGY

Philosophy 0422
Religion 0318
 General 0321
 Biblical Studies 0319
 Clergy 0320
 History of 0322
 Philosophy of 0469
Theology 0323

SOCIAL SCIENCES

American Studies 0323
Anthropology 0324
 Archaeology 0326
 Cultural 0327
 Physical 0310
Business Administration 0272
 General 0770
 Accounting 0454
 Banking 0338
 Management 0385
 Marketing 0501
Canadian Studies 0503
Economics 0505
 General 0508
 Agricultural 0509
 Commerce-Business 0510
 Finance 0511
 History 0358
 Labor 0366
 Theory 0351
Folklore 0578
Geography 0351
Gerontology 0578
History 0578
 General 0578

Ancient 0579
Medieval 0581
Modern 0582
Black 0328
African 0331
Asia, Australia and Oceania 0332
Canadian 0334
European 0335
Latin American 0336
Middle Eastern 0333
United States 0337
History of Science 0585
Law 0398
Political Science 0615
 General 0616
 International Law and Relations 0617
 Public Administration 0814
Recreation 0452
Social Work 0626
Sociology 0627
 General 0938
 Criminology and Penology 0631
 Demography 0628
 Ethnic and Racial Studies 0629
 Individual and Family Studies 0630
 Industrial and Labor Relations 0700
 Public and Social Welfare 0344
 Social Structure and Development 0709
 Theory and Methods 0999
Transportation 0453
Urban and Regional Planning 0453
Women's Studies 0453

THE SCIENCES AND ENGINEERING

BIOLOGICAL SCIENCES

Agriculture 0473
 General 0285
 Agronomy 0475
 Animal Culture and Nutrition 0476
 Animal Pathology 0359
 Food Science and Technology 0478
 Forestry and Wildlife 0479
 Plant Culture 0480
 Plant Pathology 0817
 Plant Physiology 0777
 Range Management 0746
 Wood Technology 0306
Biology 0287
 General 0308
 Anatomy 0309
 Biorobotics 0379
 Botany 0329
 Cell 0353
 Ecology 0369
 Entomology 0793
 Genetics 0410
 Limnology 0307
 Microbiology 0317
 Molecular 0416
 Neuroscience 0433
 Oceanography 0821
 Physiology 0778
 Radiation 0472
 Veterinary Science 0786
 Zoology 0760
Biophysics 0786
 General 0760
 Medical 0760

EARTH SCIENCES

Biogeochemistry 0425
Geochemistry 0996

Geodesy 0370
Geology 0372
Geophysics 0373
Hydrology 0388
Mineralogy 0411
Paleobotany 0345
Paleoecology 0426
Paleontology 0418
Paleozoology 0985
Palynology 0427
Physical Geography 0368
Physical Oceanography 0415

HEALTH AND ENVIRONMENTAL SCIENCES

Environmental Sciences 0768
Health Sciences 0566
 General 0300
 Audiology 0992
 Chemotherapy 0567
 Dentistry 0350
 Education 0769
 Hospital Management 0758
 Human Development 0982
 Immunology 0564
 Medicine and Surgery 0347
 Mental Health 0569
 Nursing 0570
 Nutrition 0380
 Obstetrics and Gynecology 0354
 Occupational Health and Therapy 0381
 Ophthalmology 0571
 Pathology 0419
 Pharmacology 0572
 Pharmacy 0382
 Physical Therapy 0573
 Public Health 0574
 Radiology 0575
 Recreation 0575

Speech Pathology 0460
Toxicology 0383
Home Economics 0386

PHYSICAL SCIENCES

Pure Sciences 0485
Chemistry 0749
 General 0486
 Agricultural 0487
 Analytical 0488
 Biochemistry 0738
 Inorganic 0490
 Nuclear 0491
 Organic 0494
 Pharmaceutical 0495
 Physical 0754
 Polymer 0405
 Radiation 0605
Mathematics 0986
Physics 0606
 General 0608
 Acoustics 0748
 Astronomy and Astrophysics 0607
 Atmospheric Science 0798
 Atomic 0759
 Electronics and Electricity 0609
 Elementary Particles and High Energy 0610
 Fluid and Plasma 0752
 Molecular 0756
 Nuclear 0611
 Optics 0463
 Radiation 0346
 Solid State 0984
Statistics 0346
Applied Sciences 0984
Applied Mechanics 0346
Computer Science 0984

Engineering 0537
 General 0538
 Aerospace 0539
 Agricultural 0540
 Automotive 0541
 Biomedical 0542
 Chemical 0543
 Civil 0544
 Electronics and Electrical 0548
 Heat and Thermodynamics 0545
 Hydraulic 0546
 Industrial 0547
 Marine 0794
 Materials Science 0548
 Mechanical 0743
 Metallurgy 0551
 Mining 0552
 Nuclear 0549
 Packaging 0765
 Petroleum 0554
 Sanitary and Municipal 0790
 System Science 0428
Geotechnology 0796
Operations Research 0795
Plastics Technology 0994
Textile Technology 0994

PSYCHOLOGY

General 0621
Behavioral 0384
Clinical 0622
Developmental 0620
Experimental 0623
Industrial 0624
Personality 0625
Physiological 0989
Psychobiology 0349
Psychometrics 0632
Social 0451

The undersigned hereby recommend to the
Faculty of Graduate Studies and Research
acceptance of the thesis,

CANADIAN SUBSIDIARIES OF U.S. FIRMS:
ASSOCIATIONS OF CONTROL AND COORDINATION WITH CHANGES IN
ORGANIZATIONAL STRUCTURE

submitted by

Dan Mah, B.A., B.Mngt.

in partial fulfilment of the requirements
for the degree of Master of Management Studies

Thesis Co-supervisor

Thesis Co-supervisor

Director, School of Business

Carleton University

August 11, 1995

Abstract

Globalization is having a tremendous impact on businesses in North America. Globalization has had an overarching effect of causing many companies to assume a North American focus in their market strategy; to regard the North American market as one integrated market rather than as a series of national markets. Consequently, many companies have restructured their organizations to accommodate the requirements of a singular integrated market versus several separate national markets. The central question of this study has been to examine the relationship of wholly owned Canadian subsidiaries of U.S. parent firms over the time span of 1984-1994: Have the integrative mechanisms altered as a result of this restructuring process? The findings of the study suggest that levels of control are somewhat different between 1984 and 1994. The findings also indicate that no changes have occurred for the mechanism of coordination. This study examines five cases from a larger original number of twenty three cases.

Acknowledgements

I would like to thank my thesis co-supervisors, Drs. Cray and Haines, for their wisdom, guidance, encouragement, and energies. Furthermore, I would like to thank them for generously funding my excursions to Toronto and Hamilton. I would also like to acknowledge Dr. Michael Kelly for being part of the thesis examining committee, flying in from Chicago on half an hour's notice is quite a feat.

In addition, I would like to pay tribute to all of the M.M.S. professors and my fellow students during my stay at Carleton, 1993-1994. They made learning truly an enjoyable experience. Jean Blair must also be recognized for her endless patience and for her willingness to go the extra mile during the course of her duties - she was always able to lift one's spirits during the trying process of obtaining a graduate degree.

Gord Dixon and John Rutland must be thanked for providing reference letters to the program. Mr. Wayne McLeod must also be thanked for his help in unravelling the mysteries of SPSS and Word Perfect. Ron Givis is to be credited for accompanying me on one of my fieldwork trips to Toronto. What he lacks in navigational skills, he makes up for in humour.

Dr. Irene Uchida is also to be appreciated. Without her kind assistance and encouragement in an earlier era, I would not have come this far.

Finally, I would like to express my deepest note of gratitude to my parents, Jack and Carol, for their unwavering support in this effort.

And last, but not least, I must say thank you to my wife Po Hing for her patience, faith, hope, and love. Thanks for supporting me during the time that I needed it the most. I could not have made it without you.

1. TABLE OF CONTENTS

	Page
Abstract	ii
Acknowledgements	iii
1. Table of Contents	iv
2. List of Tables	v
3. List of Appendices	v
4. Introduction	1
4.1 Overview-Globalization: Strategy, Structure & Integrative Mechanisms	
4.2 Problem Statement	
4.3 Research Questions and General Approach	
4.4 Benefits of the Study	
5. Literature Review	6
6. Mechanisms of Integration: Control and Coordination	32
7. Research Objectives	39
8. Methodology	41
9. Data Collection	45
10. Data Analysis	47
11. Findings	49
12. Limitations	97
13. Conclusions	99
14. Recommendations	104
15. References	106
16. Appendix	110

2. LIST OF TABLES

	<u>Page</u>
1. Most Common Mechanisms of Integration	8
2. Organizational Characteristics of the Transnational	28

3. APPENDIX

1. List of Interview questions	117
--------------------------------	-----

4. INTRODUCTION

4.1 Overview - Globalization: Strategy, Structure, and Integrative Mechanisms

Some authors feel that a paradigm shift has occurred in the business world. This shift is taking place on a global scale and, not surprisingly, globalization is the term that is most often used to describe this phenomenon (Bartlett & Ghoshal 1987; Yip 1992). Globalization is caused by certain forces: cost drivers, market drivers, competitive drivers, and government drivers (Yip 1992). The worldwide lowering of tariffs through the General Agreement on Trade and Tariffs (GATT), increasing levels of international competition, new technologies, and innovations in production and management are also major factors in the globalization trend (Blank & Krajewski 1993).

Globalization is the "increasing interdependence and interconnectedness of national economies including consumers, suppliers, competitors, and markets in general" (Johnston in Reitsma 1993, p. 1). In effect, a one world market for the production and consumption of goods and services is emerging. Previously, markets were delineated as national markets, and sometimes as regional markets. The emergence of a one world market is having a dramatic impact on multinational corporations (MNC - sometimes these companies are referred to

as multinational enterprises-MNE, however in this study the term MNC will be used unless the sources cited specifically use MNE). Globalization gives rise to the need for companies to achieve global efficiency, national responsiveness, and the ability to develop and exploit knowledge on a worldwide basis (Ghoshal and Bartlett 1991, p. 57). These new demands are causing MNCs to devise strategies and structures that enable them to adapt to the changing business environment and to capitalize on new opportunities (Cowhey & Aronson 1993). MNCs require a global strategy, if they are to compete successfully in the one world market (Yip 1992, pp. 1-10). A new organizational design is required to carry out the global strategy (Ghoshal and Bartlett 1991, p. 57; Yip 1992, pp. 185-192) .

Many large business firms have reacted to these macro forces by rationalizing and integrating their operations along regional lines. The Free Trade Agreement (FTA) between Canada and the U.S. and the recently signed North American Free Trade Agreement (NAFTA) is creating an integrated North American market. As a result, many North American MNEs are restructuring themselves. Blank and Krajewski (1993) state that a "North American architecture" is emerging from this restructuring process, and that firms are adopting corporate strategies and structures to accommodate the integrated market (p. 1).

Given the magnitude of the effect that globalization is having on the world business scene, it is vitally important to gain an understanding of how MNC strategies, structures, and integrative mechanisms are being impacted. It is particularly relevant to Canada; a country with a high level export-based economy and which serves as the location of numerous foreign subsidiaries, many of which are U.S. based.

In order to gain a better understanding of the repercussions that globalization is having on the strategy and structures of MNCs, it is desirable to narrow the locus somewhat so that specific aspects of this phenomenon can be researched in a practical manner. This study focuses on the relationship between wholly-owned Canadian subsidiaries (of U.S. parent organizations) and their U.S. parent firms. Relevant to this study are the integrative mechanisms of control and coordination; mechanisms that parent companies often use to bind their subsidiaries and to limit unpredictable subsidiary behaviour. While many studies have been done on the linkages between strategy and structure, no empirical studies have been performed on how integrative mechanisms are affected due to organizational re-structuring. The major theme of this study is to determine the effects that structural changes have on control and coordination mechanisms.

4.2 Problem Statement

If MNCs in North America are restructuring and adopting changes in corporate strategy, then it is possible that the levels of control and coordination have also altered with the occurrence of these re-organizing activities. This study seeks to determine if there have been significant changes in the mix of control and coordination mechanisms in Canadian subsidiaries that are wholly-owned by American firms.

4.3 Research Questions and General Approach

The general approach was to compare control and coordination data of Canadian subsidiaries gathered by Cray in 1984 to more recent data gathered in 1994.

The central questions addressed in the thesis are:

1. Has the level of control of wholly-owned Canadian subsidiaries of U.S. organizations changed?
2. Has the level of coordination of wholly-owned Canadian subsidiaries of U.S. parent firms changed?

4.4 Benefits of the Study

A study on the impact that MNC restructuring activities have on the level of control and coordination mechanisms of Canadian subsidiaries of U.S. businesses may provide useful information on the theoretical, organizational, and managerial levels. There are many theories on how changes of strategy effect changes of structure, but there has not been much research on how coordination and control change when structure changes. Another possible benefit of this study is that it might help organizations better evaluate what the most appropriate fit (design) should be for the integrated North American market. The information yielded from research in this area may also help managers determine the relative importance of organizational controls, and therefore help indicate the amount of resources and time to be devoted toward devising and implementing controls. This study may also serve as a baseline for future research in this area.

5. LITERATURE REVIEW

There have been a number of works that deal with the topic of organizational re-structuring due to modifications of corporate strategy; but, there have been no empirical studies done on how control and coordination mechanisms are altered when these organizations re-configure. The research efforts of Chandler (1962), Stopford and Wells (1972), Bartlett and Ghoshal (1991), and Yip (1992) address the effects that strategy may have on structure, but their studies do not mention how the levels of control and coordination are affected by transformations of organizational design. Cray (1984) has examined the way that U.S. based MNCs exercise control and coordination mechanisms over their British and French subsidiaries. By relating structure, technology, foreign commitment, financial performance, and nationality to various uses of control and coordination, Cray sought to establish a theory linking those integrative mechanisms to subsidiary predictability and flexibility. However, Cray's (1984) study does not deal with how changes in the mix of control and coordination are associated with alterations of organizational structure.

Emergent Patterns of Research

A review of the literature on control and coordination mechanisms indicates that there is an evolutionary pattern in the research. According to Martinez and Jarillo (1989), three major streams of research have emerged:

1. studies centred on the formal mechanisms of integration (strategy and structure)
2. research focused on the centralization of decision making and bureaucratic control as mechanisms of integration
3. studies dealing with the informal, more subtle mechanisms of integration

A fourth stream may be added to these:

4. comprehensive studies, including new organizational models or paradigms

1. Formal Mechanisms of Integration - Strategy and Structure:

The early years of the first stream are characterized by studies centred on the formal mechanisms of control and coordination (Table 1). Studies on organizational structure concentrated on finding the "right" structure for operating in the international environment. During the post World War II (WW II) era, American firms were expanding their worldwide economic activities, and it became apparent that international

business activities presented different challenges than did domestic operations (Clee and di Scipio 1959).

TABLE 1

Most Common Mechanisms of Integration*

Structural and Formal Mechanisms

1. Departmentalization or grouping of organizational units, shaping the formal structure.
2. Centralization or decentralization of decision making-through the hierarchy of formal authority.
3. Formalization and standardization: written policies, rules, job descriptions, and standard procedures, through instruments such as manuals, charts etc..
4. Planning: strategic planning, budgeting, functional plans, scheduling etc..
5. Output and behaviour control: financial performance, technical reports, sales and marketing data, etc. and direct supervision.

Other Mechanisms, more Informal and Subtle

6. Lateral or cross-departmental relations: direct managerial contact, temporary or permanent teams, task forces, committees, integrators, and integrative departments.
7. Informal communication: personal contacts among managers, management trips meetings, conferences, transfer of managers, etc..
8. Socialization: building an organizational culture of known and shared strategic objectives and values by training, transfer of managers, career path management, measurement and reward systems, etc..

*Martinez and Jarillo 1989, p. 491

Barlow's pioneer study in international management (Barlow 1953 cited in Martinez and Jarillo 1989, p. 493) signalled the first approach to integrative mechanisms. Barlow dealt primarily with structural and formal mechanisms in the home operations of twenty-two U.S. MNCs and with seventeen Mexican subsidiaries of these same firms. Barlow focused on general patterns of organizational structure (departmentalization), the degree of autonomy of the subsidiaries, the extent of formalization and output control, and the advantages and disadvantages of using national or expatriate executives (Barlow 1953 in Martinez and Jarillo 1989, pp. 495-496).

Clee and di Scipio (1959) and Clee and Sachtjen (1964) were among the first researchers to point out the need for a global structure. Clee and di Scipio (1959) suggested that American firms operating on the global scene make a departure from the norm of having an international division of a larger domestic based organization, but, instead adopt a worldwide concept of management (they do not suggest what form the new organizational structure might take). It appears that Clee and di Scipio were encouraging a shift in management's strategic perspective from a domestic orientation to a global one. Clee and Sachtjen (1964) re-affirm the need for management to maintain a strategic view when considering the appropriate design for a global enterprise. They point to the

dangers that could arise when an organization does not re-align a firm's structure to match changing conditions in the environment.

Chandler's (1962) important study is a comprehensive examination of the strategies and structures of large American industrial enterprises. Chandler's thesis is that, "structure follows strategy and that the most complex type of structure is the result of the concatenation of several basic strategies" (p. 14). He defines structure as being the design of an organization through which the enterprise is administered (p. 14), and strategy as "the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals" (p. 13). Chandler (1962) states that the design has two dimensions: the lines of communication and authority of executives and administrative officers, and the kinds of information that flows along these lines. To these aspects of design, Stopford and Wells (1972) add a third feature of processing and channelling the information (p. 10). Chandler (1962) asserts that organizational growth without structural adjustment can lead to economic inefficiencies. Therefore, it is imperative that organizations re-adjust their internal structures when they are confronting changes in the environment, pursuing new opportunities, or faced with technological innovations.

Research on structure, from the mid-1960's to the early 1970's, stemmed mainly from the Harvard Multinational Enterprise Project. The project sought to support Chandler's (1962) "structure follows strategy" paradigm in an international context (Martinez and Jarillo 1989). Among the more prominent studies were those by Fouraker and Stopford (1968), Stopford and Wells (1972), and Franko (1976).

Fouraker and Stopford's (1968) work provided general support for Chandler's thesis, but it was Stopford and Wells' (1972) exhaustive study that submitted Chandler's thesis to a thorough examination. In their 1972 research Stopford and Wells created a framework relating certain types of structures (international divisions, worldwide product and area divisions) to certain elements of a corporation's international strategy (foreign product diversity and percentage of foreign sales - Martinez and Jarillo 1989). Stopford and Wells examined the activities, structures and strategies of 187 large manufacturing firms of U.S. origin. They observe that although there is a close connection between a MNC's strategy and design, it is not clear that first a strategy is determined and subsequently, a structure is established to implement it (Stopford & Wells 1972, p. 6). The direction of influence may be the reverse. Stopford and Wells (1972) suggest that once a design has been established, it will undoubtedly influence a MNC's ensuing strategies. A

general conclusion drawn by Stopford and Wells (1972) is that the closer the fit between a MNC's strategy and structure, the better will be its economic performance. This close fit is aided by an appropriate set of controls and coordination.

More recent scholars have continued the "strategy and structure" course of research. Davidson and Haspeslagh (1982) confront the issue of how to best organize and coordinate the diverse operations inherent to MNCs. The matter addressed in their study is how the parent company can maintain an entrepreneurial spirit in local enterprises, yet retain satisfactory control over the subsidiary. This problem is potentially compounded when the organization evolves.

Daniels, Pitts, and Tretter (1984) explored the factors influencing international organization structure in 93 large U.S. MNCs. They viewed that an organization's structure is determined by the way a "typical" foreign operating unit reports vertically through each firm's corporate hierarchy. They held that company parameters which are potential influences on organization design are diversity, foreign activity, strategic emphasis, integration among facilities in different countries, and the establishment and ownership pattern of foreign facilities (Daniels, Pitts, & Tretter 1984). The purpose of their study was to develop a theoretical framework for explaining the reasons a particular

design is selected.

Egelhoff (1988) revised Stopford and Wells' model of international strategy and structure. To Stopford and Wells' original model Egelhoff added a new element, the relative size of foreign manufacturing. Egelhoff's findings generally support the Stopford and Wells model, but one point of divergence was observed (Stopford & Wells 1972). When international strategies involve relatively high percentages of foreign sales, supporting structures tend to be those which provide higher levels of coordination and information processing between a foreign subsidiary and other subunits of the corporation. The Stopford and Wells' model contends that a worldwide products structure is suitable for this situation (Egelhoff 1988). Egelhoff (1988) asserts that a more appropriate design might be the area or regional division (p. 12). This type of structure would enable the firm to be more responsive to regional and national interests. Egelhoff's overall purpose was not to challenge the validity of the Stopford and Wells model, but rather, to revise and extend it.

2. Centralization of Decision Making and Bureaucratic Control - Mechanisms of Integration:

The early research in this stream tended to measure the general extent of centralization of authority, or control

exercised by headquarters over subsidiaries (Martinez and Jarillo 1989). The results did not indicate a clear pattern on the use of these mechanisms. Some studies reported widespread use of centralization and rather strong control in the headquarters-subsidiary relationship (Dunning, 1958; Safarian, 1966; in Martinez and Jarillo, 1989), while others showed a slightly higher level of decentralization or subsidiary autonomy (Rocour 1966; Garnier et al 1979; in Martinez & Jarillo 1989). Other authors during this period concentrated their efforts on measuring the extent of centralization in marketing activities (Wiechmann, 1974; Brandt and Hulbert, 1977). More recent research efforts analyzed the headquarters-subsidiary relationship by studying the different functional areas of the MNC (Martinez & Jarillo, 1989). The following synopses are works that are representative of the research of the second stream.

Wiechmann (1974) felt that marketing could be used as an integrative device in MNCs (p. 8). The use of marketing presents the management of the MNC with the dilemma of retaining adequate control over the subsidiary while allowing the subunit sufficient freedom to respond to local market conditions (Wiechmann, 1974, p. 9). For Wiechmann it is the mix of the mechanisms that is of primary importance, not the specific devices chosen, - and the marketing function is an important dimension of this mix (Wiechmann, 1974, p. 15).

Brandt and Hulbert (1977) affirm the importance of the marketing function as an integrative device. Their study acknowledges the home-office - subsidiary dynamic, but they emphasize that the subunit perspective should be closely considered if the marketing function (and all other control and coordination mechanisms) is to be effectively utilized as an integrative tool (Brandt and Hulbert, 1977, p. 13).

Garnier (1982) examined French and Mexican subsidiaries of U.S. MNCs and proposed that the level of subunit autonomy can be predicted by four key variables: the degree of interchange of products, ownership, work flow integration, and size of the multinational group (p. 893). Because the MNC's overall objectives are to maximize profits and minimize risks, the MNC will set the level of subunit autonomy to control the degree of risk (Garnier 1982, p. 894). What is implied is that MNCs will be very reluctant to relinquish any part of ownership of their subsidiaries to host countries as this would decrease the control the MNC has over its subunit.

Baliga and Jaeger (1984) have two major objectives for their study: to identify control and delegation issues confronting MNC managers, and to develop a conceptual model to assist MNC managers in selecting the appropriate control system and determining the extent of delegation to be granted to subsidiary managers (p. 25). For Baliga and Jaeger (1984),

it is important to distinguish between bureaucratic and cultural controls. Bureaucratic controls are the formal rules and regulations of a corporation, whereas cultural controls are the system of symbols, language, ideology, rituals, images, and myths that shape the behaviour of individuals or groups in the organization (Baliga and Jaeger 1984, pp. 26 - 27).

Essentially, Baliga and Jaeger (1984) suggest that an appropriate control system and level of delegation can be achieved by finding the proper fit between these and the variables of interdependence, environmental uncertainty, and cultural proximity. The crucial element is that MNCs headquarters managers recognize the distinction between the type of control and the extent of delegation, and that subsidiaries are not treated uniformly (p. 37).

Egelhoff's 1984 study examines the type and level of control exercised by the parent headquarters of 50 U.S., U.K., and other European MNCs over their foreign subsidiaries. The patterns of control between the U.S. and European (including the U.K.) MNCs are distinctly different. These differences appear to have important implications for other characteristics of a firm's organizational design and managerial style (Egelhoff 1984, p. 73).

Egelhoff's (1984) study focuses on 2 types of control commonly used in MNCs: performance reporting systems and the assignment of parent company managers to foreign subsidiaries. He found that the nationality of an MNC has a strong influence on the type of managerial control the headquarters office will exercise over the subunit. U.S. MNCs monitor subsidiary outputs more heavily than do their European counterparts, and rely more upon frequently reported performance data than do European MNCs. European MNCs, on the other hand, tend to assign more parent company nationals to key positions in foreign subsidiaries and can thereby expect a higher level of behaviour control than that of U.S. MNCs (Egelhoff 1984, p. 81). Egelhoff's (1984) study is focused on the implications of these different patterns of control and not so much on their causes.

Gates and Egelhoff's (1986) project is a re-working of Egelhoff's (1984) earlier study of 50 MNCs from the U.S., U.K., and Europe. Their objective is to re-examine some of the conflicting relationships between centralization and the MNC contingency variables (Gates and Egelhoff, 1986, p. 73). They distinguish between company-level variables and subsidiary-level variables (see Gates and Egelhoff 1986, p. 86 for the complete list). Gates and Egelhoff's (1986) findings suggest that if MNCs introduce more product lines in foreign markets or modify products to fit different local

environments, such strategic changes are likely to require more decentralization of decision making (p. 87). Similarly, MNCs that permit substantial outside ownership of their foreign subsidiaries, or attempt to grow through acquisitions of foreign firms are also likely to decentralize decision making (Gates & Egelhoff, 1986, p. 87).

Gates and Egelhoff (1986) found that centralization also varies by the nationality of the parent company. U.S. MNCs tend to have more centralization of marketing and financial decisions than do European MNCs. U.K. firms demonstrated the most decentralized marketing and manufacturing decision making and the greatest degree of centralized financial decision making (p. 88). The study also generated differences of centralization according to size of the subsidiary. U.S. MNCs showed a strong positive relationship between the size of a subsidiary and marketing centralization, whereas European MNCs displayed a slightly negative relationship between subsidiary size and centralization (p. 88). Gates and Egelhoff believe that the relationships between centralization and subsidiary-level conditions are less clear than those observed between centralization and company-level conditions (p. 89).

Jaeger and Baliga's 1985 study views control as an instrument of strategic adaptation. They define "strategic adaptation as the successful formulation and implementation of

strategy" (p. 116, italics original). Jaeger and Baliga (1985) draw a series of relationships between various types of control (bureaucratic and cultural) environments, and technologies (p. 129). Bureaucratic control systems would be most suitable for stable environments with simple technologies as most contingencies could be programmed into the standard operating procedures. Cultural control systems would be more appropriate for complex technologies because of the more integrated, internal information networks of such control systems. For incremental strategic changes, cultural control systems would be most pertinent. Bureaucratic controls are deemed most relevant for environments where major, radical strategic changes are frequently called for. Ideally, strategic adaptation would be best achieved with an organization that could somehow alternate between bureaucratic and cultural systems as the situation warrants (p. 129). Jaeger and Baliga (1985) concede that it is very difficult to achieve a balanced mixture of the two control systems, but firms must still consider the nature of their control systems as integral parts of their strategy (p. 130).

Some authors have expressed an opinion that headquarters should not arbitrarily exercise control over their subsidiaries. Managers of foreign sub-units may perform better if they feel that they are being treated with fairness by the head office. Kim and Mauborgne (1992) suggest that

procedural justice may help MNCs achieve their worldwide strategies. The exercise of procedural justice is expected to enhance subsidiaries' compliance with strategic decisions. The equitable application of process fairness will heighten the MNC's ability to gather, interpret, and synthesize the types of strategic information that are critical to achieving the MNC's strategic missions (p. 421). Kim and Mauborgne view that the three strategic missions of a MNC are global learning, balancing global efficiency and local responsiveness, and global strategic renewal (p. 421).

Procedural justice is defined as the extent to which the MNC's strategy-making process for its subsidiary units is judged to be fair by the top management of the subsidiaries (p. 422). Kim and Mauborgne (1992) present five distinct characteristics of this process: (1) that two-way communication exists between headquarters and the subsidiaries; (2) subsidiary units can legitimately challenge the strategic views of the head office; (3) the head office is aware of the local situation of the subunits; (4) subsidiary units are informed of headquarters' final strategic decisions; (5) head office is consistent in its decision making process across subsidiary units (p. 422).

The results of Kim and Mauborgne's (1992) research provide strong support for the idea that the exercise of

procedural justice is a powerful way to organize the multinational's strategy-making process (p. 443). The two researchers conclude subsidiary performance is improved by process fairness. The MNC is better able to carry out its worldwide strategies and it can more effectively expedite the three strategic missions (p. 443).

3. Informal, more subtle forms of integration

The third stream of research, studies on more subtle, informal forms of control and coordination (see Table 1), did not become apparent until the 1970's. However, authors in earlier works did allude to these mechanisms. Chorafas (1967, 1969, in Martinez & Jarillo 1989, p. 498) wrote on the importance of training and development programs for international executives, and Brooke and Remmers (1970 in Martinez & Jarillo, 1989, p. 498) also reported on informal and subtle forms of integration.

Wiechmann (1974) considered the mix of the integrative devices chosen to be of more importance than the specific mechanisms selected. He held that the centralization of marketing devices could be supplemented, if not replaced, by other integrative mechanisms - systems transfer, personnel transfer, and corporate acculturation. Thus, integrative devices are interrelated (p. 15).

Johnson and Ouichi's (1974) study reveals that Japanese MNCs rely heavily on their corporate cultures as a mechanism of control. Japanese firms "exported" this mechanism to their offshore subsidiaries. Initially, resistance was encountered in their American subsidiaries, but American executives of Japanese MNCs gradually adapted to the new corporate culture. Jaeger (1983) examined the contrasting integrative mechanisms of two types of organization; the type A (traditional American) and type Z (modified American). Type A utilized bureaucratic methods of control, while type Z firms used organizational culture as a means of binding the subsidiary to the parent company (p. 93). The study revealed that cultural control firms transfer their corporate culture to their foreign based subsidiaries. This transmittal is accomplished by extensive use of expatriates as subsidiary managers, comprehensive training and socialization, and frequent personal contact between headquarters and subsidiary personnel (p. 103). The potential advantages of organizational cultural over bureaucratic control are lower employee turnover and more complete control over the subsidiary. Disadvantages of such an approach are high initial costs, a greater possibility of conflict with the local environment (with local government of the host country), and less flexibility for subsidiary management (p. 103).

Edstrom and Galbraith (1977) hypothesized that the transfer of managers is used by some MNCs to develop a process of control based on socialization (p. 248). This process is distinct from the transfer of personnel for the purpose of filling vacancies and management development. It is hypothesized that transfer for socialization will create a network of international verbal information networks. These networks permit greater decentralization than the impersonal bureaucratic strategy (p. 248). It is believed by Edstrom and Galbraith (1977) that executives prefer verbal information systems (through personal contact) to written, detailed, historical, information systems (p. 252). The extensive transfer of managers, especially expatriates, is thought to be the primary technique for establishing this verbal network. This strategy permits a greater degree of local discretion than the bureaucratic method, while maintaining overall integration (p. 250). However, Edstrom and Galbraith (1977) did not see the bureaucratic and socialization devices as alternate, or mutually exclusive mechanisms. They viewed the development of bureaucratic procedures, centralization of decision making, and socialization of managers as being cumulative stages. Each stage represented a higher level in the degree of integration used to cope with greater challenges of the environment (pp. 250-251).

Doz and Prahalad, in a series of articles, argue that the traditional architectural view (strategy and structure) of structuring relationships between headquarters and subsidiaries may be the wrong approach (Martinez and Jarillo, p. 499). For example, Prahalad (1976) suggests that although adopting a global matrix structure should improve the quality of the strategic decision making process for a MNC, because of the multiple views involved, the structure also has an inherent tendency to impede the development of a strategic focus (p. 67). Prahalad and Doz (1981) argue that headquarters strategic control over subsidiaries shifts over time. As the subsidiaries become less resource dependent (capital, technology, and management) on their parent firms, head offices cannot rely on their traditional control of these resources as a control strategy (p. 5). Therefore, a new conceptual framework is required to deal with the dynamics of strategic control of subsidiaries by the head office in MNCs. Creating an organizational context - a blending of organizational structure, information systems, performance and reward systems, career planning, and organizational culture - can compensate for the erosion of head office's capacity to influence subsidiaries (p. 5). They recommend that three integrative mechanisms be instilled to establish the organizational context: (1) data management mechanisms - these structure and provide data that are pertinent to the global performance of the company; (2) managers' management

mechanisms - these shift the expectations of managers and their perceptions of self-interest from subsidiary autonomy to international business performance; (3) conflict resolution mechanisms - these resolve the conflicts triggered by the trade-offs among national subsidiaries (pp. 16-17).

Bartlett (1983) also criticized the traditional approach of defining the appropriate organizational design around key strategies. Bartlett (1983) stated that the problems faced by MNCs might not even include structure: he cited examples of 10 MNCs which retained the international division but remained successful (p. 138). Bartlett (1983) states that as a matter of irony, firms that pursue re-organization may be misdirecting their efforts (p. 138). Instead, Bartlett (1983) recommends that companies concentrate on managing the decision making processes of the MNC, rather than focusing on what structure it might take (p.138). The solution to the challenges of a MNC lies in devising a complex and flexible decision making process capable of responding to the diverse demands of the international environment (p. 138).

4. Comprehensive Studies - New Organisational Models or Paradigms

The major themes of Prahalad and Doz's (1987) The MULTINATIONAL MISSION: Balancing Local Demands and Global Vision are: controlling the processes of control and coordination; changing strategic directions; and providing flexibility in a variety of businesses in a diverse set of national markets (p. vii). This book represents an in-depth study of the key management issues that confront large diversified multinational corporations (DMNC). The book is separated into two main parts; Part I deals with the analysis for strategy development - understanding and analysing the strategic options, and Part II is concerned with management responsibilities and techniques - how to actually operate a DMNC. Prahalad and Doz (1987) provide a set of premises for the building of the "ideal" organization. Superimposed on a basic formal structure (however, this structure is not specified by Prahalad and Doz) would be a set of principles that govern the process of management and conflict resolution:

1. A multiple advocacy process that allows multiple perspectives and underlying sources of tension to be examined.
2. A fluid power structure that allows any employee to challenge the current concepts of business strategy without fear of repercussions.

3. Giving a certain legitimacy to dissent. This implies that a certain measure of responsible disagreement will be accepted, and in fact, even expected.
4. Employee commitment to the "due process" corporate culture (Prahalad and Doz, 1987, pp. 268-269).

It is expected that these principles would build the decision making capabilities required by a DMNC. They form the basis for developing top management's agenda (see Prahalad and Doz, 1987, pp. 269-272 for details).

It became apparent during the 1980's that the effects of globalization had fundamentally changed the rules of competition. Companies were now required to capture global-scale efficiency, respond to national market needs, and develop worldwide learning capabilities that drive continuous innovation. Bartlett and Ghoshal (1991) noted that, although managers could understand the strategic tasks of their positions, they experienced difficulties in developing and managing the organizational capability required to implement the new and more complex global strategies (p. X). Bartlett and Ghoshal (1991) propose that a new organization is needed, the transnational organization (Table 2). Just as important as the actual structural design are the processes involved in building and managing the transnational design.

TABLE 2

Organizational Characteristics of the Transnational*

<u>Organizational Characteristics</u>	<u>Multinational</u>	<u>Global</u>
Configuration of assets and capabilities	Decentralized and nationally self-sufficient	Centralized and globally scaled
Role of overseas operations	Sensing and exploiting local opportunities	Implementing parent company strategies
Development and diffusion of knowledge	Knowledge developed and retained within each unit	Knowledge developed and retained at the centre
<u>Organizational Characteristics</u>	<u>International</u>	<u>Transnational</u>
Configuration of assets and capabilities	Sources of core competencies centralized, others decentralized	Dispersed, interdependent, and specialized
Role of overseas operations	Adapting and leveraging parent company competencies	Differentiated contributions by national units to integrated worldwide operations
Development and diffusion of knowledge	Knowledge developed at the centre and transferred to overseas units	Knowledge developed jointly and shared worldwide

*from Ghoshal & Bartlett 1991, p.65 - emphasis in original

Bartlett and Ghoshal (1991) suggest that in order to maintain morale and to provide a sense of unity at every

level, a new integrative approach should be adopted - co-option (p. 70). The challenge of this method is to obtain the personal commitment of every individual in the firm to the overall corporate agenda (p. 70). Bartlett and Ghoshal (1991) claim that this means of integration is often more powerful than those of any other structure or system (p. 70). The key to achieving co-option is to have each individual understand and share the company's purposes and values; have them identify with the firm's broader goals and objectives and accept and internalize its key strategies (p. 70).

Yip (1992) argues that most MNCs lack an adequate global strategy (p. v). Yip (1992) attempts to provide a systematic framework for evaluating which elements (of a MNC's business) of a strategy to make global and by how much (p. v). For Yip (1992), the key issue in designing the global organization is maintaining a balance between autonomy and integration (p. 179). Yip (1992) recommends a variety of integrative approaches. Cross-country integration mechanisms can range from sharing of information to the setting of direct requirements (pp. 179-200). Another integrative device that can be set up is global teams. Teams that are responsible for controlling and coordinating various business, or geographic areas, can be instituted to translate global strategies into subsidiaries' operational plans.

Summary of Literature Review

The literature reviewed on integrative mechanisms indicates that there is an evolutionary pattern to the research on this topic. The first stream of research demonstrates that structure is contingent upon strategy. The second stream of studies accentuates the importance of binding the subsidiary to the parent firm; this is expressed in terms of centralizing the decision making at headquarters, and instituting bureaucratic controls over the sub-unit. The third stream of research revealed the growing importance of informal, more subtle forms of integration. Informal means of integration were viewed as supplements, and some times as replacements, for formal systems of integration. The fourth vein of research strives to incorporate strategy, structure, and integrative mechanisms (though lesser emphasis is placed on integrative mechanisms) into new organizational models and paradigms.

It is evident, from the literature reviewed, that structure follows strategy: business organizations will devise structures that will carry out their strategies. It is also clear that MNCs implement integrative mechanisms to support the overall structure of the MNC-to bind the subsidiary to the parent firm. If changes in strategy cause organizational re-structuring, then, likewise, it seems

reasonable to expect that these structural alterations will cause changes in the integrative mechanisms. There are no empirical studies, however, on the topic of changes in integrative mechanisms due to changes in organizational structure. The lack of literature on this topic indicates that research is needed in this area.

6. MECHANISMS OF INTEGRATION: Control and Coordination

Control and Coordination:

There are a number of divisive tendencies that are endemic to large organizations: departmental interests, competing functional goals, and differential demands from the environment that lead subunits to pursue their own strategies (Prahalad and Doz 1981, p. 5). These centrifugal forces tend to be more acute in multinational corporations. Subsidiaries of MNCs located in foreign countries are subject to the laws of the host country, as well as the laws in which the parent firm is domiciled (the home country). Foreign subsidiaries must have the flexibility to confront local cultures, markets, and customs that may differ markedly from those of the home country - however, this flexibility must be accommodated with a structure that maximizes corporate performance (Cray 1984 p. 85).

A system of integration must be maintained that will minimize overlap and conflict among the varied subunits of a large organization, and yet allow the subunits the necessary flexibility to adapt to their particular environments. This system of integration becomes even more complex in MNCs, given the greater demands of their operating environment (Prahalad & Doz 1981, p. 5). The synthesis of subsidiaries into MNCs depends primarily on two processes: control and coordination.

Although there is some overlap in the usage of control and coordination, they have acquired distinct and consistent definitions. Control is viewed as a process which maintains the subunit's adherence to a goal or objective through the exercise of power or authority. Coordination is seen more as an enabling process which renders the appropriate linkage between different task units within the organization (Van de Ven, Delbecq, & Koenig 1976; Tuggle 1976 in Cray 1984, p. 86).

Control:

Tannenbaum (1968) defines control as "any process in which a person or group of persons or organization of persons determines, that is, intentionally affects, the behaviour of another person, group, or organization" (p. 5). The purpose of control is to minimize idiosyncratic behaviour and to keep individuals or groups to stated policy, thereby making performance predictable (Egelhoff 1984, p. 73). Olsen (1978, in Jaeger & Baliga 1985) states that organizations need control in order to ensure that the members of the organization direct their efforts toward the attainment of organizational objectives (p. 16). Control is also needed to secure a stable structure of internal relations and stable mechanisms for structural adaptation (Jaeger & Baliga 1985, p. 116). However, the parent firm does not use control as the sole means of integration for several reasons. It is important for subsidiaries to retain a measure of flexibility.

The subunit must have some latitude of freedom for its actions, especially when the subunit's environment is substantially different from that of the parent organization (Burns & Stalker 1961; Lawrence & Lorsch 1967 in Cray 1984, p. 86). In addition, if a subsidiary's every action had to be cleared with the parent company then reaction time would be slowed, and resources would be wasted on excessive communications (Cray 1984, p. 86). Another constraint on the usage of controls is their high cost. As the level of control in an organization increases, so do their costs. The level of control exercised over a subsidiary represents a compromise between the desire for predictable behaviour, the need for flexibility, and the costs of maintaining control (Cray 1984, p. 87).

Coordination:

Every organized human activity...gives rise to two fundamental and opposing requirements: the division of labour into various tasks to be performed, and the coordination of these tasks to accomplish the activity. The structure of an organization can be defined simply as the sum total of the ways in which it divides its labour into distinct tasks and then achieves coordination among them.

Henry Mintzberg (1979)

Lawrence and Lorsch stated that firms differentiate their functions for two major reasons. First, organizations set apart different functional areas so that each functional

department can deal with its own sub-environment. Second, the manner in which these departments are integrated must enable the organization to compete effectively in its chosen industry. In a parallel manner, MNCs must also coordinate their individual subsidiaries in a fashion that enhances the MNCs' overall competitiveness (Davidson & Haspeslagh 1982, p. 125). Therefore, the need arises for firms to implement coordinating devices as a response to the competitive demands of the environment (Galbraith & Nathanson in Schendel & Hofer 1979, p. 258).

Cray (1984) states that for preserving subunit integration in MNCs, the critical issue is not the kind of coordination utilized, but the degree or amount of coordination (p. 87). It makes relatively little difference what kind of coordination is used, so long as the subsidiary is integrated into the total organization.

Coordination mechanisms contribute to integration in two aspects. The first dimension is the number of other subunits with which the subsidiary must coordinate functions (the breadth of the coordination network). The level of integration with the parent firm is commensurate with the number of other subunits the subsidiary is required to liaise with: the greater the number of other subunits, the greater the degree of integration. The second facet of coordination

is the number of functions that the subsidiary must coordinate with a given number of subunits (the diversity of the coordination network). If a subsidiary coordinates a variety of functions with other subunits, then the subsidiary will be more enmeshed in the coordination network than if only a single function had been shared (Cray 1984, p. 87).

Integration through coordination is subject to the same cost and flexibility constraints as control. The more complex the coordination network, the less flexibility the subsidiary has to react to local events. Increased coordination efforts will incur increased costs. Effective communication is required among the coordinating subunits if the smooth flow of goods, services, and information is to be maintained. Therefore, the more extensive the network of subunits, the greater the costs of coordination (Cray 1984, p. 87; Galbraith & Nathanson in Schendel & Hofer 1979, p. 259).

Relationship Between Control and Coordination:

The mechanisms of control and coordination may provide different solutions to the problem of binding the subsidiary to the parent corporation. Control is a more direct form of intervention into the subsidiary's operations than is coordination. Control can be very specific and limited to a short term. Consequently, it has a tendency to be more costly than coordination because of the immediate forms of

communication that are required (Cray 1984, pp. 87-88). Coordination is achieved by more indirect means; it is effected by situating the subsidiary in a network of responsibilities with other parts of the firm. Coordination is generally less costly than control because the communication required is more routine and minimal. However, it is a less precise means of integration than control because a change in any part of the coordination network is likely to cause reverberations throughout that network (Cray 1984, p. 88; Scott 1987, p. 215).

Martinez and Jarillo (1989) do not differentiate between control and coordination. Instead, they state that any administrative tool used for achieving integration among the different units within an organization can be properly labelled a coordination mechanism. Therefore, for Martinez and Jarillo, the terms "mechanisms of coordination" or "mechanisms of integration" are used as synonyms (Martinez and Jarillo 1989, p. 490). Mechanisms of coordination (integration) are separated into two categories: structural and formal mechanisms, and less formal and more subtle mechanisms (Table 2).

Whereas Martinez and Jarillo use the sole term "coordination" to describe integrative mechanisms, the author will distinguish between control and coordination, and the

term "integration" or "integrative" mechanism will include both control and coordination devices (Martinez and Jarillo 1989, p. 490). In the early period of research on integrative mechanisms, no distinction was made between control and coordination mechanisms. Later authors do however, draw a distinction between these two mechanisms. For the purposes of this study, a definition of integrative mechanisms that differentiates between control and coordination will be used.

7. RESEARCH OBJECTIVES

The overall objective of the study is to ascertain if there has been a shift in the levels of control and coordination mechanisms of wholly-owned Canadian subsidiaries of American firms. The specific objectives central to the overall objective are:

1. To determine if levels of control mechanisms have altered in wholly-owned Canadian subsidiaries of American companies.

The null hypothesis is that the levels of control for 1984 and 1994 are the same:

$$H_0: U_1 = U_2$$

The alternate hypothesis is that levels of control for 1984 and 1994 are not the same:

$$H_a: U_1 \neq U_2$$

2. To determine if levels of the importance of control mechanisms have changed in wholly-owned Canadian subsidiaries of American firms.

The null hypothesis is that the levels of the importance of controls for 1984 and 1994 are the same:

$$H_0: U_1 = U_2$$

The alternate hypothesis is that the levels of the importance of controls for 1984 and 1994 are not the same:

$$H_a: U_1 \neq U_2$$

3. To determine if levels of coordination mechanisms have changed in wholly-owned Canadian subsidiaries of U.S. parent organizations.

The null hypothesis is that levels of coordination for 1984 and 1994 are the same:

$$H_0: U_1 = U_2$$

The alternate hypothesis is that levels of coordination for 1984 and 1994 are not the same:

$$H_a: U_1 \neq U_2$$

8. METHODOLOGY

8.1 Research Design

The research design is a descriptive study and incorporates an ex post facto format; it is also longitudinal, comparing data from two periods of time.

8.2 Sampling Process

The population consists of wholly-owned Canadian subsidiaries of U.S. corporations in Ontario. Data collected in 1984 is compared with data collected in 1994.

The factors that defined the 1984 sampling units were:

1. Cases were selected from the Fortune 500 Industrials U.S..
2. "Who Owns Whom" was used to determine wholly-owned Canadian subsidiaries.
3. Location: Only companies that were located in the province of Ontario were selected for the sampling unit. This restriction was made for reasons of accessibility and ease of collection. It may also

have helped to reduce effects due to regional differences.

4. Size: Subsidiaries with fewer than 50 employees were not included in the study.

5. Subsidiary functions: Subsidiaries that have only a sales dimension are excluded from the study, otherwise, there are no restrictions according to type of business.

1984 data: 23 cases were collected by David Cray by judgement sampling. Most of the firms were from the manufacturing industry.

1994 data: Information from 5 Canadian subsidiaries was to be collected by convenience sampling. These cases were selected from the original 23 cases from the 1984 list of organizations. The method was to arrange interviews with compliant companies. Therefore, there was no possibility of predicting what firms would agree to be interviewed. This smaller number of cases represents a limitation of the study, and was due to time and cost constraints. Of the original 23 companies, only 15 of them could be contacted.

8.3 Operationalization of Control and Coordination

Control:

Control is operationalized in two manners; a). by measuring the level of control, and b). by measuring the importance of those control items.

a). Levels of control are measured by assigning a figure to each of the 25 items of control (see question 22, Appendix 1). These items are rated on a scale of 1 to 5 and measure the degree of autonomy that the subsidiary has in exercising certain types of decisions. For example:

- a. Product line composition 5
- b. New product introduction 2

Items are scaled from 1-5. 5 represents the lowest level of autonomy and 1 represents the highest level of autonomy for the subsidiary.

b). The importance of controls is also measured by a rating scale. The subsidiary assigns to each of the control items a rating from 1 to 5 (see question 23, Appendix). For example:

- a. Product line composition 4
- b. New product introduction 2

5 represents the highest importance rating and 1 represents the lowest importance rating.

Coordination:

Coordination is operationalized by enumerating the number of other units that the subsidiary coordinates certain functions (see question 26, Appendix). For example:

- a. Coordinate sales programs 3*
- b. Coordinate R & D 2*

* The number of other subunits of the MNC that the subsidiary must coordinate that particular function.

9. DATA COLLECTION

Cray administered a structured interview (Appendix) to one key senior manager/executive in each of the 1984 cases. The respondents answered a number of questions with regard to their opinions on the issues of control and coordination; other questions dealt with background information of the companies. Answers to the interviews were tape recorded and coded. Coding is required because within the script of questions there are two sets of questions relating to control that use a 5 point rating system. There is one set of coordination questions that has a 6 point rating system (0-5), this also requires coding.

The same structured interview was administered to the relevant personnel of the 1994 sample. Additional questions were added; this may serve to enrich the information collected. The results were submitted to the same coding process as the 1984 cases.

Advantages of Interview Method:

Greater depth and detail of information can be obtained by the interview method than other data collection methods. It is generally accepted that more information can be procured through personal interviews than by telephone and mail

surveys. The interviewer can also enrich the quality of information received; the interviewer can note the conditions of the interview, and probe with additional questions. The personal interview method is a means by which highly qualitative information can be obtained.

Limitations of Interview Method:

When compared to other data collection methods, the costs associated with personal interviews are high. It takes considerable time and energy to arrange interviews, travel to their locations, and perform them. It was difficult to predict respondent compliance for the study because high ranking officers of companies have great demands on their time and are often reluctant to commit themselves to an interview.

10. DATA ANALYSIS

1. Pearson's r statistic (product moment) was used to assess the correlations between the 1984 data and the 1994 data.
2. A comparison of the means of the 1984 data and the 1994 data was performed (t-test).

The method used in the current study is often used in international business research. This approach is analogous to the one used by Cray (1984) in a previous study, also dealing with control and coordination. Pearson's r co-efficient of correlation was the statistic used in that study and non-random sampling was also used.

Kendall Roth and David M. Schweigher (1991) used Pearson's co-efficient of correlation in a similar manner in their data analysis: in addition, they used the F statistic (ANOVA) and an adjusted R squared statistic. Roth and Schweigher's (1991) work examined the impact of international strategy on organizational design and the influence of the organization design on effectiveness at the business unit level.

W. Chan Kim and Renee A. Mauborgue (1993) also utilized the product-moment correlation coefficient in their data analysis. Their work examines the ways in which the dynamics of the strategy making process between head office and subsidiary units influence the multinational's ability to achieve and execute its world wide strategy.

As the study is somewhat exploratory in nature, the analysis from the data will also be descriptive. Results from the data will be analyzed to ascertain the levels of control and coordination of wholly owned Canadian subsidiaries of U.S. parent organizations. Data results will be examined in the context of prevalent international business models and theory. Any findings of the study should be regarded with some tentativeness as the number of cases is rather small.

11. FINDINGS

The findings of this study are presented according to an "across the groups" comparison and a "within the group" comparison. The across the groups approach is a "matched group" approach which compares the aggregate data from five cases of the 1984 study to the 1994 data of those same five cases. The within the group approach compares the means for each individual case on a matched pair basis for 1984 and 1994. A mini-case approach is adopted for each of the cases of the study. The mini-case approach, by providing qualitative information in addition to the numerical data, will yield a richer story.

In adherence to confidentiality requests, no actual names of either individuals or business entities are mentioned. Measures have been taken to disguise the identities of the companies and executive and code names have been assigned to the companies. The five firms of the study have been code named: Alpha Company, Bravo Company, Charlie Company, Delta Company, and Echo Company.

Across the Group Aggregate Findings: 1984 and 1994

The following figures are based on the data from Cray's 1984 interviews and from Mah's 1994 interviews.

Control and Coordination Data:

Data was taken from 5 cases of 1984 and correlated to the same 5 cases for 1994. Pearson's r correlation was used to determine any correlations between these two groups:

Pearson's r for 1984 and 1994

Control functions	.48
Importance of Control functions	.55
Coordination	.01

The t statistic was calculated for the 5 cases from 1984 and the 5 cases from 1994:

t Statistic for 1984 and 1994

	<u>t statistic</u>	<u>t critical value range 2 tailed, .05 significance</u>
Control functions	-5.2	-1.98, 1.98
Importance of Control functions	-3.2	-1.98, 1.98
Coordination	-.42	-2.06, 2.06

Interpretation of Data:

Control functions:

The correlation for the control functions for the years 1984 and 1994 was .48, a moderate positive correlation.

The t statistic was -5.2. This figure lies outside of the critical value range of -1.98 and 1.98 and therefore, it can be observed that the means are significantly different for the time periods of 1984 and 1994. The levels of control for the group of five companies have changed from 1984 to 1994.

The mean value for the level of control in 1984 was 1.83, whereas it was 2.42 for 1994. This would indicate that the parent firm has assumed greater control over the various operational functions.

Importance of Control functions:

The correlation between the importance of control functions for 1984 and 1994 was .52, a moderate positive correlation.

The t statistic was -3.2, lying outside of the critical value range of -1.98 and 1.98. The means for the two groups are different for the time periods of 1984 and 1994. It would appear that the levels the importance of controls have changed

from 1984 to 1994.

The mean value for the importance of control in 1984 was 3.23, while it was 3.58 in 1994. This indicates that the importance of control has increased during this time.

Coordination:

There was a correlation of .01 for 1984 and 1994. That is, there is almost no correlation whatsoever between the two aggregate groups for 1984 and 1994.

The t statistic was $-.42$, lying well within the critical value range of -2.06 and 2.06 . The means of the two groups are not significantly different for 1984 and 1994. Therefore, it can be said that there has been no change in the level of coordination over the period of 1984 and 1994.

The mean value for coordination for 1984 was 0.77, while it was 0.85 for 1994. There is very little difference between these two figures.

Summary:

The data suggests that both the levels of controls and the importance of controls have changed from 1984 to 1994. It would seem that parent firms are assuming greater levels of control over various operational functions of their

subsidiaries. However, while subsidiary control over these functions has decreased, the importance of the decision making power regarding these functions has increased. It can also be seen that levels of coordination have not altered during the same time period.

In order to obtain a richer story on the motivations and forces behind the organizational changes a mini-cases approach has been utilized. Every company has a story to tell, and the personal interviews conducted by Cray (1984) and Mah (1994) provide the context for the data given. The following then, are five mini-cases. The 1984 data of each respective company is compared to its 1994 data. Furthermore, a considerable amount of qualitative information is gleaned from the interviews. Basically, the questions to be answered are consonant to the major theme of the study:

- Was there a change in strategy?
- Was there a change in structure?
- What were the driving forces behind any such changes?

The mini-cases approach will also provide information on why, and to what degree, the levels of control, the importance of control, and coordination have changed. The various operational functions will be assessed in order to see what changes have occurred during 1984 - 1994.

Mini Case 1 - "Alpha Company"

Background:

Alpha Company's main product lines could be described as kitchenware. Alpha Company's primary customers are large retail chains, and distributors. It began its Canadian operations in 1946 as a start up enterprise. Alpha Company has undergone some significant changes during its history in Canada, in recent years changes have intensified. In October, 1993, Alpha Company markedly altered its organizational structure by eliminating virtually all of its production facilities. All manufacturing processes would thereafter be done in the U.S. by the parent company.

Control and Coordination Data:

Levels of Control Over Specific Functions

Information regarding decision making power over specific operational functions is provided according to a five point rating scale, 1-5. 1 represents the greatest degree of autonomy for the subsidiary, and 5 represents the least amount of control over decision making (see ques. 22 of Appendix):

5. Parent makes this decision and informs subsidiary
4. Parent makes decision on advice from the subsidiary
3. Parent and subsidiary jointly make decision
2. Subsidiary makes the decision which is ratified by parent
1. Subsidiary makes the decision and informs the parent

<u>Control - Specific functions</u>	<u>1984</u>	<u>1994</u>
a. product line composition	1	2
b. new product introduction	1	2
c. pricing	2	2
d. distribution channels	2	2
e. allocation of capital budgets	2	2
f. determination of annual budgets	2	3
g. shifting funds within the budget	2	1
h. choice of suppliers	2	5
i. production specifications for suppliers	2	5
j. price of supplies	2	5
k. level of output	n/a	n / a *
l. hiring of exempt (salaried) staff	2	1
m. compensation levels for exempt staff	4	5
n. compensation levels for hourly staff	4	3
o. staff promotions	2	2
p. amount of research and design	n/a	n/a
q. content of research and design	n/a	n/a
r. acquisitions	n/a	n/a
s. legal matters	1	2
t. transfer pricing	4	3
u. advertising	2	3
v. loans (financing)	2	3
w. managing cash flow	2	2
x. dividend policy	5	4
y. reorganisation	2	5
Mean value	2.29	2.95

* Not available or not applicable

Importance of Control over Specific Functions

The importance of control over specific functions is also rated on a five point scale. 1 denotes the least importance for the subsidiary, and 5 indicates the highest level of importance for the subsidiary (see ques. 23 of the appendix):

- 5. Very important; crucial to the success of the subsidiary
- 4. Significant but not crucial
- 3. Fairly important
- 2. Not very important
- 1. Seldom important for this firm

Importance of Control - Specific functions

	<u>1984</u>	<u>1994</u>
a. product line composition	5	5
b. new product introduction	5	5
c. pricing	5	5
d. distribution channels	5	5
e. allocation of capital budgets	2	2
f. determination of annual budgets	4	4
g. shifting funds within the budget	2	4
h. choice of suppliers	2	2
i. production specifications for suppliers	3	2
j. price of supplies	5	2
k. level of output	n/a	n/a
l. hiring of exempt (salaried) staff	n/a	n/a
m. compensation levels for exempt staff	4	4
n. compensation levels for hourly staff	4	4
o. staff promotions	4	4
p. amount of research and design	n/a	n/a
q. content of research and design	n/a	n/a
r. acquisitions	n/a	n/a
s. legal matters	n/a	n/a
t. transfer pricing	5	5
u. advertising	5	5
v. loans (financing)	2	2
w. managing cash flow	4	4
x. dividend policy	1	2
y. reorganisation	3	5
Mean value	3.71	3.81

Level of Coordination

The degree of coordination is determined by how many other subunits or subsidiaries of the parent firm that Alpha Company coordinates various functions (see ques. 26 Appendix).

Coordination - Specific functions

	<u>1984</u>	<u>1994</u>
a. sales programs	1	1
b. research and development	n/a	n/a
c. purchasing	1	1
d. marketing	1	1
e. advertising	1	1
f. supply finished products	0	0
g. receive finished products	3	0
h. supply raw materials	n/a	n/a
i. receive raw materials	n/a	n/a
j. exchange personnel	0	1
Mean value	1	.714

Interpretation of Data:

Control functions:

Based on the mean values of 2.29 for 1984, and 2.95 for 1994, it can be seen that there has been a tendency for the subsidiary to lose a degree of decision making power over specific organizational functions. This is most noticeable in three functions: choice of suppliers, product specifications for supplies, and price of supplies. In each of these three functions there was a change of rating from 2 to 5. This indicates that the subsidiary has lost a considerable amount of control over the decision making process regarding these functions.

Importance of control functions:

The mean of 3.81 for 1994 compared to the mean of 3.71 for 1984 reveals that there has been only a slight increase in the importance of controls during this time period. Differences in the levels of the importance of controls were most marked in two categories: pricing of supplies and reorganization. For the pricing of supplies, the rating of importance decreased from 5 to 3. For reorganization, the rating of importance increased from 3 to 5. It is possible that the importance of the pricing of supplies decreased for the subsidiary because there has also been a loss of control over this function. It is also probable that the importance

of reorganization increased substantially because Alpha Company experienced a massive re-structuring in 1993

Coordination:

There was a slight decline of the mean value for coordination, decreasing from 1 in 1984 to .714 in 1994. Coordination levels are very similar for the two time periods.

Summary:

Of importance to this study is the notion that structure follows strategy, this has already been well established in the literature review. Also of relevance is the idea that changes in structure result in alterations to the configuration of coordination and control mechanisms. An interesting point to note is that the officer interviewed in 1994 presented some seemingly paradoxical views: globalization was not a factor in effecting the recent changes; competition has increased substantially. These views are paradoxical because one of the attributes of globalization is increased competition. However, it is apparent that Alpha Company has adopted a North American focus in its strategy, and subsequently, in its structure - the Canadian subsidiary now functions chiefly as a "warehousing" operation, whereas previously it operated as a stand alone enterprise (personal interview 1994). Perhaps the officer simply did not understand the implications of globalization.

It was previously stated that structure is determined by strategy, and it was also suggested that if an organization's structure changes then so should the configuration of its integrative mechanisms. Therefore, the levels of control and coordination should be expected to be different between 1984 and 1994. What was indicated by the data was that levels of control changed substantially, increasing by nearly one full rating (mean 1984: 2.29 to mean 1994: 2.95). The levels of the importance of controls remains virtually identical (mean 1984: 3.71 and mean 1994: 3.81). Levels of coordination are also very similar (mean 1984: 1.0 and mean 1994: .714). Coordination mechanisms have been at minimum levels and so little variability was evident. This would seem to be a reasonable explanation, for the subsidiary is not networked with other subsidiaries but coordinates its activities solely with the parent firm (personal interviews 1984 and 1994).

Part of the explanation for the change in levels of control is due to the restructuring of the firm. As mentioned earlier, all of the manufacturing processes were shifted from the Canadian subsidiary to the U.S. parent. The parent company has taken greater control over the subsidiary. The officer that was interviewed for the 1994 survey commented that there was less autonomy for the subsidiary in 1994 than there was in 1984 (personal interview June, 1994). The factors that were cited as causing the change in autonomy were

general economic conditions, increased competition. Greater controls were needed to better monitor the subsidiary's performance and to render greater accountability over the use of resources (personal interview June, 1994).

In the final question of the 1994 interview, the respondent was asked to summarize the five most important factors in the business environment that could affect Alpha Company in both the short run and the long run. In the short run, the following were viewed as being the most crucial considerations:

1. Costs - costs must be reduced wherever possible.
2. Pricing is important.
3. Foreign exchange rates, especially the U.S. dollar.
4. Customer information - sales data and electronic data interchange with major customers is vital.
5. Walmart - the arrival of Walmart is a huge and unknown factor. If Walmart carries Alpha Company's line of products then the situation will be very good, if not then it could be hurt.

In conclusion, Alpha Company appears to have experienced some changes in the configuration of its integrative mechanisms. These changes have occurred as a result of increased competitive pressures brought upon, in part, by the effects of globalization. Alpha Company has adopted a North American focus in its market strategy. As a result of this change in strategy, the structure of Alpha Company has altered. In turn, the change in organizational structure has been accompanied by an increase of in the levels of controls - the parent firm has increased its control over the subsidiary. The importance of controls and the levels of coordination have not markedly changed.

Mini Case 2 - "Bravo Company"

Background:

Bravo Company's major products are "ready to eat" cereals. The main customers are individual consumers, with some sales going to institutions such as hospitals. The company has been doing business in Canada since the early 1920's. There is a plant in Ontario that supplies all of the product to the Canadian market. The subsidiary has a fully divisionalized organizational structure. Gross sales for 1983 was \$230 million. In 1983 there were 1,570 employees, 850 of those were hourly and 720 were salaried. In 1993, gross sales were \$370 million and 920 employees. Of the total number of employees, 340 were salaried and 580 were hourly.

Bravo's parent company has undergone some structural changes in recent years, it re-organized into four major regional markets: North America, South America, Europe, and Asia/Pacific. This restructuring represents a global strategy for the parent firm. The Canadian subsidiary is part of the North American market. The president of Bravo Company states that autonomy has been reduced, and that there has been an effort to both rationalize resources and to centralize more of the decision making to the parent firm (personal interview 1994).

Control and Coordination:

<u>Control - Specific functions</u>	<u>1984</u>	<u>1994</u>
a. product line composition	1	1
b. new product introduction	2	3
c. pricing	1	3
d. distribution channels	1	1
e. allocation of capital budgets	2	3
f. determination of annual budgets	2	3
g. shifting funds within the budget	1	1
h. choice of suppliers	1	3
i. production specifications for suppliers	1	4
j. price of supplies	1	3
k. level of output	1	1
l. hiring of exempt (salaried) staff	1	2
m. compensation levels for exempt staff	2	3
n. compensation levels for hourly staff	1	2
o. staff promotions	1	1
p. amount of research and design	1	3
q. content of research and design	1	3
r. acquisitions	3	3
s. legal matters	1	3
t. transfer pricing	1	2
u. advertising	1	1
v. loans (financing)	3	3
w. managing cash flow	1	2
x. dividend policy	3	4
y. reorganization	<u>1</u>	<u>3</u>
Mean value	1.4	2.44

Importance of Control - Specific functions

	<u>1984</u>	<u>1994</u>
a. product line composition	5	5
b. new product introduction	5	5
c. pricing	5	5
d. distribution channels	5	3
e. allocation of capital budgets	4	5
f. determination of annual budgets	3	5
g. shifting funds within the budget	2	4
h. choice of suppliers	4	3
i. production specifications for suppliers	4	4
j. price of supplies	4	4
k. level of output	4	4
l. hiring of exempt (salaried) staff	4	3
m. compensation levels for exempt staff	4	3
n. compensation levels for hourly staff	4	3
o. staff promotions	3	3
p. amount of research and design	4	4
q. content of research and design	4	5
r. acquisitions	2	2
s. legal matters	3	2
t. transfer pricing	1	2
u. advertising	4	5
v. loans (financing)	4	3
w. managing cash flow	3	4
x. dividend policy	2	3
y. reorganization	3	3
Mean value	3.6	3.68

Level of Coordination

The degree of coordination is determined by how many other subunits or subsidiaries of the parent firm that Alpha Company coordinates various functions (see ques. 26 Appendix). Data on coordination was not available for Bravo Company.

Interpretation of Data:

Control functions:

The mean values of 1.4 for 1984 and 2.44 for 1994 indicate that the parent firm has been assuming greater control over the subsidiary's operational functions. The functions where a substantial shift has occurred are: pricing, choice of suppliers, product specifications for supplies, price of supplies, amount of research and development, content of research and development, and reorganization. With the exception of product specifications for supplies (three levels), the parent firm has increased its control over each of these functions by two levels.

Importance of control functions:

The mean values of 3.6 for 1984 and 3.68 for 1994 suggest that there has been little change in the importance of those control functions. In fact, only one of the functions (shifting funds within the budget) displayed a change of more than one rating level.

Coordination:

The officer that was interviewed in 1994 declined to offer any data on coordination as this information was considered to be confidential. Therefore, no calculations could be made. However, some information on coordination was

obtained through the personal interviews. In 1984, the president of Bravo Company stated that there was "very little coordination" with other units of the corporation (personal interview, 1984). This can be compared to the 1994 response of "moderate coordination" for 1994. In 1994, the president of Bravo Company also stated that there were personnel exchange programs, sharing of knowledge, and some types of strategic coordination occurring (personal interview, 1994). So although it cannot be corroborated by data that coordination is on the rise, however, it can be inferred that this might be the case.

Summary:

The parent firm of Bravo Company has assumed a global strategy, organizing a structure to accommodate four regional markets: Europe, Asia/Pacific, South America, and North America. In tandem with this current strategy is the hint of structural change: the president of Bravo Company stated in 1994 that significant changes had occurred between the subsidiary and the parent firm during 1984-1994. These changes are manifest in the centralization of resources in the parent firm. This effort is to reduce costs and to avoid duplication of activities (personal interview, 1994). Another impact of the structural change is the decline of the subsidiary's autonomy. Paradoxically, however, the president also stated in the same interview that Bravo Company had not

taken a North American focus. Perhaps this apparent contradiction stems from the interpretation of the question, the substance of the matter would indicate that there is a North American focus or strategy in place and that an appropriate structure has been raised for the implementation of this strategy.

If it has been correctly presumed that there has been a change in strategy, followed by some alterations of structure, then it is expected that the integrative mechanisms have also changed. This is borne out in the findings with regard to levels of control; the data showed a substantial difference between the means for 1984 (1.4) and 1994 (2.44). There is very little difference in the levels of the importance of controls (1984: 3.6, 1994: 3.68). There was not enough information on coordination to form any calculations, but from a qualitative viewpoint coordination appears to have increased in recent years. Increased coordination between subsidiaries is taking place in the form of employee exchanges, knowledge and information sharing, and cooperation in business activities such as advertising and marketing (personal interview, 1994).

According to the officer who was interviewed in 1994, the most important factors in the business environment for both the long term and short term are:

1. The ability to generate real sales growth
2. The ability to control costs
3. The ability of the organization and its employees to adapt, to change work styles and make improvements when they are required.

These factors mark the current intensely competitive and extremely volatile business environment.

In summary, strategy changes and structure changes appear to have also been accompanied by slight changes in the integrative mechanisms. Most noticeably, levels of control have been altered. Coordination has also undergone some changes, but this has been difficult to demonstrate given the paucity of information. The importance of controls appears to be constant.

Mini Case 3 - "Charlie Company"

Background:

Charlie Company was formed in 1975 when an amalgamation of five separate companies took place. Prior to this, the various companies had been operation in Canada since 1928. Charlie Company's major product lines are glass, paints, and chemicals. Its most important customers are industrial clients. Industrial clients comprise 80% of Charlie Company's client market base. Next in importance are wholesale distributors, these make up the remainder of the buyers (personal interview, 1994).

Since 1984 there have been some significant structural changes to Charlie Company. The parent firm of Charlie Company, like others of this study, is adopting a global strategy. A part of that overall strategy is developing a North American focus, that is, viewing North America as a single market and adopting organizational structures to match that strategy. The Free Trade Agreement (FTA) and the North American Free Trade Agreement (NAFTA) have had considerable impact on Charlie Company. In addition to consolidating a North American market, the parent company is establishing markets in Europe, South America, and Asia. The general manager of Charlie Company feels that while the parent firm is developing these other markets, the Canadian market is

regarded as the "51st" state and that since the FTA, it has become an appendage to the U.S. market (personal interview, 1994).

Autonomy for Charlie Company has been substantially reduced and there has been a considerable loss of jobs; some of these jobs have gone to the parent firm, and some of these have simply been eliminated. Some corporate functions have been ceded to the parent firm, resulting in greater control over the subsidiary. With the changes in structure, it could be expected that the configuration of integrative mechanisms would also alter.

Control and Coordination:

<u>Control - Specific functions</u>	<u>1984</u>	<u>1994</u>
a. product line composition	2	4
b. new product introduction	4	3
c. pricing	2	2
d. distribution channels	1	2
e. allocation of capital budgets	2	4
f. determination of annual budgets	2	2
g. shifting funds within the budget	1	1
h. choice of suppliers	3	1
i. production specifications for suppliers	4	1
j. price of supplies	2	1
k. level of output	1	1
l. hiring of exempt (salaried) staff	1	1
m. compensation levels for exempt staff	3	2
n. compensation levels for hourly staff	1	2
o. staff promotions	1	2
p. amount of research and design	n/a	n/a
q. content of research and design	n/a	n/a
r. acquisitions	4	4
s. legal matters	1	2
t. transfer pricing	4	3
u. advertising	1	1
v. loans (financing)	2	4
w. managing cash flow	1	2
x. dividend policy	n/a	n/a
y. reorganization	3	3
Mean value	2.09	2.2

Importance of Control - Specific functions

	<u>1984</u>	<u>1994</u>
a. product line composition	5	5
b. new product introduction	4	4
c. pricing	3	5
d. distribution channels	3	5
e. allocation of capital budgets	4	4
f. determination of annual budgets	3	3
g. shifting funds within the budget	4	2
h. choice of suppliers	2	3
i. production specifications for suppliers	4	4
j. price of supplies	4	4
k. level of output	3	4
l. hiring of exempt (salaried) staff	3	4
m. compensation levels for exempt staff	4	4
n. compensation levels for hourly staff	4	3
o. staff promotions	3	3
p. amount of research and design	n/a	n/a
q. content of research and design	n/a	n/a
r. acquisitions	1	5
s. legal matters	1	4
t. transfer pricing	2	3
u. advertising	1	2
v. loans (financing)	2	3
w. managing cash flow	3	5
x. dividend policy	n/a	n/a
y. reorganization	4	4
Mean value	3.05	3.78

Coordination - Specific functions

	<u>1984</u>	<u>1994</u>
a. sales programs	1	2
b. research and development	0	0
c. purchasing	2	0
d. marketing	0	1
e. advertising	1	1
f. supply finished products	1	0
g. receive finished products	0	0
h. supply raw materials	1	2
i. receive raw materials	1	1
j. exchange personnel	1	2
Mean value	.7	.8

Interpretation of Data:**Control functions:**

The mean value of 2.09 for 1984 and 2.2 for 1994 demonstrate that there has been only a slight shift of control in favour of the parent firm. Functions in which the subsidiary lost a marked amount of control are: product line composition and allocation of capital budgets. Both of these functions changed by a magnitude of two levels in favour of the parent firm. On the other hand, the subsidiary substantially increased its control over three functions: choice of suppliers, product specifications for supplies, and loans (financing). The subsidiary increased its control by two levels in each of these three functions.

Importance of control functions:

The mean value of the importance of control for 1984 was 3.05, and the mean value of the importance of control for 1994 was 3.78. This reveals that the importance of control for various functions has increased for the subsidiary during this period. The subsidiary placed increased importance on pricing, distribution channels, acquisitions, legal matters, and managing cash flow. Pricing, distribution channels, and managing cash flow all increased by two levels, rising from a level of 3 to 5 on the five point rating scale. Legal matters increased from a level of 1 to 4. The most dramatic change occurred in acquisitions, which increased from a level of 1 to 5. This would tend to support the general manager's assertion that Charlie Company has embarked on an aggressive acquisition spree. There was a significant decrease of importance in only one function, shifting of funds within the budget. This function decreased from a level of 4 to 2.

Coordination:

The mean value of coordination for 1984 was .7, and the mean value for 1994 was .8. These figures indicate that coordination levels have remained fairly constant over the ten year time frame.

Summary:

Although the means of control functions did not alter greatly between 1984 (2.09) and 1994 (2.2), the means for levels of the importance of control did (3.05 in 1984 and 3.78 in 1994). Coordination levels remained constant. Based on this information, it could be presumed that substantial structural change has not occurred. Yet, the general manager's statements (personal interview, 1994) are strongly suggestive that structural change has indeed occurred:

- the FTA has had considerable impact
- the Canadian market is seen as an extension of the parent firm's market
- an integrated North American market is emerging with the advent of NAFTA
- the parent firm has organized along global markets
- there is less autonomy
- certain functions have been relinquished to the parent
- jobs have been relocated to the parent firm
- down-sizing of the subsidiary has occurred.

All of the preceding statements would imply that there have been changes in both strategy and structure. The chief driving force behind the modifications in strategy and structure is the need to be competitive on a global basis. In

order to meet this challenge, Charlie Company is striving to be the lowest cost producer in its field, this will require new technological developments.

According to the general manager of Charlie Company, the five most important factors of the business environment for both the long term and short term are:

1. World trade and globalization of the industry
2. The FTA
3. Technology factors
4. The health of the auto industry, particularly in North America
5. Development of markets in third world countries.

These factors confirm that the competitive pressures of globalization are causing Charlie Company (and its parent firm) to alter its strategies and structures.

In summary, some pivotal changes in strategy and structure have occurred over the time period 1984-1994. The effects of globalization have precipitated many organizational changes. These changes have been slightly mirrored in the data findings; the means of the importance of controls have increased notably. The qualitative statements made by the general manager would clearly suggest that changes in control

have also occurred; however, this is not demonstrated in the data. Coordination appears to have remained the same. Global factors weigh heavily in the short term and long term plans of Charlie Company.

Mini Case 4 - "Delta Company"

Background:

Delta Company is a company that deals in chemical products, acrylics are its largest selling product. Delta also produces industrial and agricultural chemicals. When it began operating in Canada 1937, it was functioning as a leather tanning enterprise. It was not until 1955 that Delta Company began its chemical business. Sales for 1983 were \$125 million and the number of employees in the subsidiary were 285, 145 were hourly production and 140 were salaried. Sales figures and the staff size were unavailable for 1993 (personal interview, 1994).

Delta Company has undergone some significant changes over the last ten years. Globalization has caused Delta to re-organize itself in a number of ways. Global business units have been formed, this is in contrast to the traditional regional structure. The FTA has precipitated a change in market focus, shifting the focus from that of segregated markets to one of an integrated North American market. This has caused some major re-structuring at Delta Company. In fact, the current president of the Canadian subsidiary was transferred to Canada in 1991 to oversee this very transition. The transition has been taking place for approximately three years (personal interview, 1994).

Reporting relationships have been drastically modified. There is now more of a "direct connect" approach between the subsidiary and the parent firm. In the context of Delta Company, direct connect means that a lot of middle management positions have been phased out. Sales personnel and other personnel now report directly to someone in the parent firm. The president's position is regarded as being merely titular in nature, and in the words of the current president:

Basically, the subsidiary manager is...I hesitate to say, a paper tiger, but basically the position is becoming more of a nominal position, rather than one that is actually strategically running the business.

president of Delta Company, 1994

The parent firm now exercises greater control over the subsidiary.

The FTA has had a dramatic impact on the Delta Company. From the subsidiary's viewpoint, it has had a negative effect. The FTA has caused the parent firm to phase out entire layers of middle management. It has caused the parent firm to cancel investment plans in Canada and to relocate those investments to the U.S.. The parent company regards the FTA as a positive event. The parent company can now access the Canadian market without having to invest in additional production facilities in Canada. In effect, there is now a "seamless border" between the U.S. and Canada, and the parent firm can make use of the economies of scale in the American facilities without

having to deal with burdensome tariffs and other barriers to entry (personal interview, 1994).

Control and Coordination:

<u>Control - Specific functions</u>	<u>1984</u>	<u>1994</u>
a. product line composition	3	4
b. new product introduction	3	4
c. pricing	2	1
d. distribution channels	2	1
e. allocation of capital budgets	2	5
f. determination of annual budgets	2	3
g. shifting funds within the budget	1	2
h. choice of suppliers	1	3
i. production specifications for suppliers	1	3
j. price of supplies	1	1
k. level of output	1	4
l. hiring of exempt (salaried) staff	1	1
m. compensation levels for exempt staff	1	1
n. compensation levels for hourly staff	1	1
o. staff promotions	2	2
p. amount of research and design	n/a	n/a
q. content of research and design	n/a	n/a
r. acquisitions	4	3
s. legal matters	2	2
t. transfer pricing	5	5
u. advertising	n/a	n/a
v. loans (financing)	3	3
w. managing cash flow	1	1
x. dividend policy	3	3
y. reorganization	3	3
Mean value	2.05	2.55

Importance of Control - Specific functions

	<u>1984</u>	<u>1994</u>
a. product line composition	5	2
b. new product introduction	4	4
c. pricing	5	5
d. distribution channels	3	4
e. allocation of capital budgets	1	4
f. determination of annual budgets	3	4
g. shifting funds within the budget	2	4
h. choice of suppliers	3	3
i. production specifications for suppliers	3	5
j. price of supplies	3	4
k. level of output	2	4
l. hiring of exempt (salaried) staff	3	4
m. compensation levels for exempt staff	3	4
n. compensation levels for hourly staff	4	3
o. staff promotions	3	3
p. amount of research and design	1	1
q. content of research and design	1	1
r. acquisitions	1	1
s. legal matters	2	3
t. transfer pricing	3	1
u. advertising	2	1
v. loans (financing)	1	1
w. managing cash flow	3	3
x. dividend policy	3	1
y. reorganization	3	4
Mean value	2.68	3.00

Coordination - Specific functions

	<u>1984</u>	<u>1994</u>
a. sales programs	1	1
b. research and development	1	1
c. purchasing	1	1
d. marketing	0	1
e. advertising	n/a	n/a
f. supply finished products	1	1
g. receive finished products	1	1
h. supply raw materials	1	1
i. receive raw materials	0	1
j. exchange personnel	0	1
Mean value	.67	1.00

Interpretation of Data:**Control functions:**

The mean value of 2.05 for 1984 and the mean value of 2.55 for 1994 reveal that there has been a shift of control from the subsidiary to the parent company. Functions that displayed shifts of two or more levels between 1984 and 1994 were allocation of capital budgets, choice of suppliers, product specifications for supplies, and level of output. The functions of choice of suppliers and product specifications for supplies both increased two levels from level 1 to level 3. Allocation of budgets increased three levels, rising from a rating of 2 to 5. Level of output also increased three levels, rising from 1 to 4. None of the functions decreased more than one level.

Importance of control functions:

The mean value of 2.68 for 1984 and the mean value of 3.00 for 1994 indicate that there has been only a slight increase in the importance of controls over this time period. Functions that demonstrated an increase of two or more ratings are: allocation of capital budgets; shifting funds within the budget; production specifications for suppliers; and level of output. Only two categories indicated a decrease in two or more ratings: product line composition and dividend policy.

Coordination:

The mean value of .67 for 1984 and 1.0 for 1984 indicate that coordination has remained at minimal levels during that time frame.

Summary:

There were no significant differences in any of the categories that were examined. The means for levels of control, levels of the importance of control, and coordination were very similar for the periods 1984 and 1994.

This is in contrast to the statements made by the president of Delta Company in 1994. The president clearly articulated that there had been considerable changes in both strategy and structure on a world scale. A subset of this global corporate plan was an integrated North American market. Some of the stated effects on the subsidiary of this integrated market were:

1. The loss of control to the parent firm.
2. "Direct connect" reporting relationships to the parent company
3. Restructuring
4. The president of the subsidiary functioning only as a "titular" head or paper tiger

5. The requirement of the subsidiary to improve productivity while lacking real authority to make key decisions.

The quantitative data does not support the qualitative statements made by the 1994 president of Delta - that considerable restructuring has occurred. This is even more noteworthy when one considers that the current president was transferred to the Canadian subsidiary to phase in a massive restructuring of the organization - this restructuring has been going on since 1991 and was still continuing at the time of the 1994 interview.

The short term factors of the business environment of concern to the subsidiary are: regular product planning; product approval; and labour costs. The Canadian product approval process is viewed as being a redundant and cumbersome process. Nearly all of the products that are sold in Canada have already been approved by the Environmental Protection Agency (EPA) in the U.S.. To force them to be re-approved by Canadian agencies is a time consuming and cost incurring procedure. Sometimes this can reduce the availability of the product on the Canadian market.

Labour costs are also a weighty consideration for the company. There is greater unionization of labour in Canada

than there is in the U.S.. Because of union demands and benefits, there is an overall increase in the cost of labour in Canada. This can influence the investment decisions of the parent company. Recently, after a in-depth cost analysis, a decision was made to build a production facility in Texas instead of Ontario - the pivotal factor for the site selection were the comparative labour costs (personal interview, 1994).

The long term factors that concern Delta Company are: the high level of Canada's national debt; the composition of that debt (a large portion is foreign owned); and the high levels of taxation. The high level of national debt make Canada's business environment somewhat risky to operate in. The profits of business firms are exposed to an environment of greater uncertainty when a nation has a high level of national debt. Greater taxation can be related to extreme debt loads, but the factor that is of greater influence in the taxation levels are the extensive social programs that must be funded. On a comparative basis, excessive taxation adds to the risk that companies must face when doing business in Canada. From the parent organization's viewpoint then, it makes more profit sense to locate any new production facilities in the U.S. (personal interview, 1994).

Strategic direction and product improvement are seen as the driving forces behind strategy and structural changes.

There has been long standing tensions between the strategies of organizing along regional lines and business lines (personal interview, 1994). Recently, it is apparent that the business unit type of organization is winning out over the regional form of organization in terms of decision making power. In addition, more and more of the functional areas are being aligned and put under the control of individual business units (personal interview, 1994). Behind strategic direction and product improvement are the larger forces of globalization and its resultant effect of an integrated North American market.

2 of/de 2

PM-1 3½"x4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

PRECISIONSM RESOLUTION TARGETS

Mini Case 5 - "Echo Company"

Background:

Echo Company has been doing business in Canada since 1905. It began as a single steel foundry and in 1930, due to competitive pressures, it amalgamated with a number of other small foundries. Its only product line is cold finished steel bars. This product is used in equipment manufacturing. The major customers of Echo Company are Original Equipment Manufacturers (OEM) and service centre distributors (these could be likened to wholesale distributors of steel products).

In 1983 their sales were \$25 million and there were 125 production (hourly) workers and 25 salaried employees. In 1993, sales were \$20 million with a staff size of 49 production workers and 13 salaried. It would be an understatement to say that Echo Company has restructured. In March of 1993, Echo went bankrupt and the parent firm sold Echo to another American company (personal interview, 1994).

Globalization in general, and the FTA in particular, have had a tremendous impact on Echo Company. Globalization has lowered certain trade barriers, causing an increase in the supply of the product. As a result of increased supplies, selling prices have declined - reducing the profit margins of Echo Company. Free trade has had the effect of causing Echo's

parent firm to transfer production to the U.S. (prior to its bankruptcy). Echo Company was then forced into receivership, and it was subsequently sold off to another firm. Echo continues to face the same competitive pressures, but it has been re-organized into a leaner and more efficient business entity. It is too early to tell if Echo will endure in the current market conditions, but it has aggressively adopted a new market focus and new strategies to ensure its survival (personal interview, 1994).

Echo is in the interesting position of having been acquired purely for investment reasons by its parent company. The parent company is a diversified holding company with no other steel companies in its portfolio. Based on the fact that Echo Company has had a change of ownership and that its new owner is not in a related industry, one would have good reason to speculate that the structure and integrative mechanisms have changed between 1984 and 1994.

Control and Coordination Data:

<u>Control - Specific functions</u>	<u>1984</u>	<u>1994</u>
a. product line composition	1	1
b. new product introduction	1	1
c. pricing	1	1
d. distribution channels	1	1
e. allocation of capital budgets	2	2
f. determination of annual budgets	1	3
g. shifting funds within the budget	1	2
h. choice of suppliers	1	1
i. production specifications for suppliers	1	1
j. price of supplies	1	1
k. level of output	1	1
l. hiring of exempt (salaried) staff	2	3
m. compensation levels for exempt staff	3	5
n. compensation levels for hourly staff	1	1
o. staff promotions	1	3
p. amount of research and design	n/a	n/a
q. content of research and design	n/a	n/a
r. acquisitions	n/a	n/a
s. legal matters	n/a	n/a
t. transfer pricing	n/a	n/a
u. advertising	n/a	n/a
v. loans (financing)	1	3
w. managing cash flow	n/a	n/a
x. dividend policy	n/a	n/a
y. reorganization	<u>n/a</u>	<u>n/a</u>
Mean value	1.25	1.81

Importance of Control - Specific functions

	<u>1984</u>	<u>1994</u>
a. product line composition	4	5
b. new product introduction	3	4
c. pricing	5	5
d. distribution channels	5	5
e. allocation of capital budgets	3	3
f. determination of annual budgets	3	3
g. shifting funds within the budget	2	2
h. choice of suppliers	5	5
i. production specifications for suppliers	3	5
j. price of supplies	5	5
k. level of output	4	4
l. hiring of exempt (salaried) staff	2	4
m. compensation levels for exempt staff	2	4
n. compensation levels for hourly staff	2	3
o. staff promotions	2	2
p. amount of research and design	n/a	n/a
q. content of research and design	n/a	n/a
r. acquisitions	n/a	n/a
s. legal matters	1	1
t. transfer pricing	n/a	n/a
u. advertising	n/a	n/a
v. loans (financing)	n/a	n/a
w. managing cash flow	n/a	n/a
x. dividend policy	n/a	n/a
y. reorganization	n/a	n/a
Mean value	3.06	3.69

Coordination - Specific functions

	<u>1984</u>	<u>1994</u>
a. sales programs	n/a	1
b. research and development	n/a	1
c. purchasing	n/a	1
d. marketing	n/a	1
e. advertising	n/a	n/a
f. supply finished products	n/a	1
g. receive finished products	n/a	1
h. supply raw materials	n/a	1
i. receive raw materials	n/a	1
j. exchange personnel	n/a	1
Mean value	n/a	.90

Interpretation of data:**Control functions:**

The mean value of 1.25 for 1984 and 1.81 for 1994 indicate that the parent firm has increased its control over the subsidiary. The parent company increased its control most noticeably over the functions of determination of annual budgets, compensation levels for exempt staff, and staff promotions. Control increased by two levels for determination of annual budgets and staff promotions (from 1 to 3) and for compensation levels for exempt staff (from 3 to 5). No function displayed a decrease of the control level.

Importance of control functions:

The mean value of 3.06 for 1984 and 3.69 for 1994 signify that the importance of control over operational functions has increased during that time frame. The functions that demonstrated the most dramatic increases were product specifications for supplies, hiring of exempt staff, and compensation levels for exempt staff.

Hiring of exempt staff and compensation levels for exempt staff both increased by two levels (2 to 4). Product specifications also increased by two levels, but from a rating of 3 to 5. The increased emphasis on the hiring of exempt staff and compensation levels for exempt staff can perhaps be connected to the Vice President's assertion that it is

critical to hire and retain good people (personal interview, 1994).

Coordination:

There was insufficient data on coordination in 1984 to compute any statistics. Nonetheless, a close examination of the interview schedules reveals some meaningful information. In 1984, the interview schedule indicates that there was coordination with other subunits in only one of the ten categories (question 26 of 1984 Echo interview) - coordination of sales programs. However, the 1994 interview schedule indicates that there was coordination in six of the ten categories (question 26 of 1994 interview). This would suggest that the level of coordination was much greater in 1994 than it was in 1984. Furthermore, it could be speculated that perhaps the configuration of the coordination mechanisms are also different for those two time periods. It is also logical to assume that because the new parent company had purchased Echo only one year ago, it might want to retain tight controls over Echo for the immediate time horizon.

Summary:

It is evident that globalization and the FTA have had a tremendous impact on Echo Company. These forces have caused a re-organization of the company, which in turn have affected

the means of the levels of control and coordination mechanisms. It would seem that the firm now experiences less autonomy than it did before the 1993 restructuring. Prior to that, it operated as a stand alone enterprise (personal interview, 1984), but now it is closely monitored by the parent firm.

The FTA has caused Echo to assume a North American focus in its market strategy. Most notably, the exchange rates of the Canadian dollar and the American dollar exercise a tremendous influence on the business strategy of Echo Company. The most powerful forces behind the recent changes and strategy have been:

- the FTA
- the need for inventory control
- the need for maintaining cash flows
- high turn overs of inventory
- the need to be competitive in a changing market.

The most important factors in the business environment for Echo company in both the long run and the short run are (the short run is viewed as being most important as the firm recently emerged from bankruptcy):

1. inventory control, moving to a just in time inventory
2. increasing receivables
3. morale of the staff, maintain motivation
4. prices and available supply of raw materials
5. maintain an effective market strategy,
seek out new markets.

It can be seen that globalization, and particularly the FTA, have caused Echo to adopt new strategies and new structures. These changes in structure are reflected in changes to control and coordination mechanisms.

12. LIMITATIONS

Generalizability is the chief limitation of this study. The companies selected for the study are all based in the province of Ontario. This makes it difficult to generalize the findings of the study to the rest of Canada as there could be regional differences that influence the results. Also, the study does not have the capability of distinguishing effects that could arise from industry specific differences. For example, the mix of control and coordination needed for high technology firms may be structurally different from that required of a food processing firms.

It should also be noted that the number of cases, five, is rather small. Therefore, findings from this study should be regarded as being only suggestive in nature. A replication of the original twenty three cases would have allowed for a fuller statistical treatment of the study. The five cases of this study were a convenience sampling of Cray's original twenty three cases (obtained by judgement sampling). Therefore, the t statistic calculations should be regarded with a degree of caution as the five cases of this study do not represent a random sample.

It should be further noted that any inferences drawn from this study are limited by the fact that there is a ten year

time window of 1984 - 1994. Inferences drawn from this study may not be fairly applied to firms coming into existence after 1984.

13. CONCLUSIONS

It is clear that globalization has had a significant impact on each of the five companies of this study. These companies reacted to the pressures of globalization by designing and implementing new corporate strategies. In general, the five companies adopted a North American focus to their market approaches. This approach was hastened by the FTA between Canada and the U.S. and also by the NAFTA which includes Mexico.

The FTA drastically reduced the barriers to trade and commerce between these two countries. One of the main effects of the FTA was to make the Canadian subsidiary branch plant somewhat redundant for the parent company. In many aspects, the Canadian subsidiary's role has been transformed from one of a "stand alone enterprise" to that of a "warehousing operation." A key indicator of this is the loss of the manufacturing capacities by the Canadian subsidiary. In this study, this was most acutely evidenced in Alpha Company. Alpha Company's entire manufacturing dimension was assumed by the parent firm, the FTA had made it no longer viable for the Canadian subsidiary to perform this role.

The NAFTA has had the effect of exacerbating the impact of the FTA. The NAFTA has made an impact in two major

regards: one has been to steer future investment away from Canada towards Mexico, and another has been to relocate plants, or some of the functions of those plants, to either the U.S. or Mexico (personal interviews with senior officers of Charlie Company and Delta Company, 1994). Of the five companies, this has been most apparent in Charlie Company and Delta Company. Charlie company has lost an important share of its market to cheaper producers in Mexico. Formerly, its Canadian market was shielded by various tariff and trade barriers. The parent firm of Delta Company has foregone investing in a large plant in Ontario because it has viewed the Gulf states as being more attractive. Again, the lost protection of various trade and tariff barriers had made it unnecessary to invest in a Canadian location.

Evidence from the mini cases confirms that globalization is having a powerful impact on the strategy, and subsequently, the structure of business firms. Businesses in North America are adopting a North American focus in their strategies; viewing the North American market as a single integrated market, rather than as a series of separate national markets. Consequently, these firms are incorporating organizational structures to accommodate this strategy. It was expected then, that there would be a considerable effect on the integrative mechanisms of impacted companies.

The aggregated data for the five companies shows that the mean level of control has risen from 1.83 in 1984 to 2.42 in 1994. This increase in rating demonstrates that the parent firms have assumed a greater degree of control over the subsidiaries. This general claim is buttressed by the fact that the t statistic of -5.2 lies outside of the critical value range of -1.98 and 1.98 for a significance value of .05. The means for these two years, 1984 and 1994 can be said to be statistically different and so that :

Ho: $U_1 = U_2$ is rejected

Ha: $U_1 \neq U_2$ is accepted

In fact, in every case, there was an increase in the mean value of the level of controls.*

There has also been a profound change in the importance of controls. The composite data for the five companies shows that the mean value has increased from 3.2 in 1984 to 3.6 in 1994. The rise in level suggests that the importance of control over various functions (from the subsidiary viewpoint) has increased during this time period. This is supported by the fact that the t statistic of -3.2 lies outside of the critical value range of -1.98 and 1.98 at a significance value of .05. It is clear that the means for 1984 and 1994 are statistically different and therefore:

* The conclusions formed by the t test should be viewed with the limitations of the study in mind.

Ho: $U1 = U2$ must be rejected

Ha: $U1 \neq U2$ must be accepted.**

The conclusions drawn from this study are less definitive for the mechanism of coordination than they are for the mechanism of control. Only three of the five companies provided data that could be statistically analyzed. Based on this limited amount of information, it was found that the mean value of coordination for 1984 was .77 and .85 for 1994. It would seem that levels of coordination have remained at minimal levels. Also, the t statistic of -.42 was within the critical value range of -2.06 and 2.06 at a significance level of .05. Therefore, the mean levels of coordination for 1984 and 1994 are not significantly different and that:

Ho: $U1 = U2$ must be accepted

Ha: $U1 \neq U2$ must be rejected***

In conclusion, the findings of the study suggest that the levels of control have shifted in wholly-owned Canadian subsidiaries of American firms. The importance of controls has also altered. While control mechanisms have undergone a transformation, coordination mechanisms have not significantly varied. It is not clear what the nature of the relationship between control and coordination mechanisms is - if

** Refer to the limitations section of the study.

*** Refer to Limitations section.

coordination mechanisms vary when control mechanisms change,
or vice versa.

14. RECOMMENDATIONS FOR FUTURE STUDY

This study has revealed that changes of organizational structure can affect the configuration of integrative mechanisms: the effects were most notable in control mechanisms and not so obvious in coordination mechanisms. It is suggested that future studies pursue this research further in the following areas:

1. What is the relationship between control and coordination? If control increases/decreases what is the effect on coordination? If coordination increases/decreases then what is the effect on control?
2. What is the relationship between levels of control functions and the levels of the importance of controls?
3. What is the relationship between coordination and the levels of the importance of controls?

Perhaps all of the remaining companies of Cray'. 1984 study could be incorporated into a future study. Such an approach might provide additional information with regard to the research questions posed in the current study. Utilizing

all of the companies of Cray's 1984 study may render a more accurate account because not all of the five companies of the 1994 group answered all of the survey questions. It is possible that using all of the member companies would yield more reliable data.

15. REFERENCES

- Baliga, B.R. & Alfred M. Jaeger (1984). Multinational Corporations: Control Systems and Delegation Issues. Journal of International Business, Fall, 25-37.
- Bartlett, Christopher A. (1983). MNCs: get off the reorganization merry-go-round. Harvard Business Review, March-April, 138-146.
- Bartlett, Christopher A. & Sumantra Ghoshal (1991). Managing Across Borders: The Transnational Solution. Boston: Harvard Business School Press.
- Blank, Stephen & Stephen Krajewski (1993, May). Corporate Integration for the New North American Economic Space: Survey Questionnaire Findings. Working Paper (No. 4-Update) for the Canadian Affairs Program The Americas Society.
- Brandt, William K. & James M. Hulbert (1977). Headquarters Guidance in Marketing Strategy in the Multinational Subsidiary. Columbia Journal of World Business, Winter 1977, 7-13.
- Chandler, Alfred D. Jr. (1962). STRATEGY AND STRUCTURE: Chapters in the History of the Industrial Enterprise. Cambridge, Massachusetts: The M.I.T. Press.
- Clee, Gilbert H. & Alfred di Scipio (1959). Creating a World Enterprise. Harvard Business Review, November-December, 77-89.
- Clee, Gilbert H. & Wilbur M. Sachtjen (1964). Organizing a Worldwide Business. Harvard Business Review, November-December, 55-67.
- Cowhey, Peter F. & Jonathan D. Aronson (1993). A New Trade Order. Foreign Affairs, 183-195.
- Cray, David (1984). CONTROL AND COORDINATION IN MULTINATIONAL CORPORATIONS. Journal of International Business, Fall, 85-98.
- Cray, David (1984), personal interviews of Alpha, Bravo, Charlie, Delta, and Echo companies.
- Daniels, John D., Robert A. Pitts, & Marietta J. Tretter (1984). Strategy and Structure of U.S. Multinationals: An Exploratory Study. Academy of Management Journal, Vol.27, No 2, 292-307.

- Davidson, William H. & Philippe Haspeslagh (1982). Shaping a global product organization. Harvard Business Review, July-August, 125-133.
- Doz, Yves L. & C.K. Prahalad (1981). Headquarters Influence and Strategic Control in MNCs. Sloan Management Review Fall, 15-29.
- Edstrom, Anders & Jay R. Galbraith (1977). Transfer of Managers as a Coordination and Control Strategy in Multinational Organizations. Administrative Science Quarterly, June 1977, volume 22, 248-262.
- Egelhoff, William G. (1988). STRATEGY AND STRUCTURE IN MULTINATIONAL CORPORATIONS: A REVISION OF THE STOPFORD AND WELLS MODEL Strategic Management Journal, Vol.9, 1-14.
- Fouraker, Lawrence E. & John M. Stopford (1968). Organizational Structure and the Multinational Strategy. Administrative Science Quarterly 13, 47-64.
- Galbraith, Jay R. & Daniel A. Nathanson (1979). The Role of Organizational Structure and Process in Strategy Implementation. In STRATEGIC MANAGEMENT: A New View of Business Policy and Planning, edited by Dan E. Schendel & Charles W. Hofer. Toronto: Little, Brown, and Company, 249-283.
- Garnier, Gerard (1982). Context and Decision Making Autonomy in the Foreign Affiliates of U.S. Multinational Corporations. Academy of Management Journal, 893-908.
- Gates, Stephen & William G. Egelhoff (1986). Centralization in Headquarters-Subsidiary Relationships. Journal of International Business, Summer, 71-96.
- Herbert, Theodore T. (1984). Strategy and Multinational Organization Structure An Inter-organizational Relationships Perspective. Academy of Management Review, Vol.9, No. 2, 259-271.
- Jaeger, Alfred (1983). TRANSFER OF ORGANIZATIONAL CULTURE OVERSEAS: An Approach to Control in the Multinational Corporation. Journal of International Business Studies, Fall, 91-103).

- Jaeger, Alfred M. & B.R. Baliga (1985). Control Systems and Strategic Adaptation: Lessons from the Japanese Experience. Strategic Management Journal, Vol.6, 115-134.
- Johnson, Richard Tanner & William G. Ouchi (1974). Made in America (under Japanese management). Harvard Business Review, September-October, 61-69.
- Kim, Chan W., & Renee A. Mauborgne (1993). EFFECTIVELY CONCEIVING AND EXECUTING MULTINATIONALS' WORLDWIDE STRATEGIES. Journal of International Business Studies, Third Quarter, 419-448.
- Mah, Dan (1994), personal interviews of Alpha, Bravo, Charlie, Delta, and Echo Companies.
- Martinez, Jon I. & J. Carlos Jarillo (1989). THE EVOLUTION OF RESEARCH ON COORDINATION MECHANISMS IN MULTINATIONAL CORPORATIONS. Journal of International Business Studies, Fall, 489-514.
- Prahalad, C.K. (1976). Strategic choices in diversified MNCs. Harvard Business Review, 67-78.
- Prahalad, C.K. & Yves L. Doz (1981). An Approach to Strategic Control in MNCs. Sloan Management Review, Summer, 5-13.
- Prahalad, C.K. & Yves L. Doz (1987). THE MULTINATIONAL MISSION: Balancing Local Demands and Global Vision. New York: The Free Press, A Division of MacMillan, Inc..
- Reitsma, Steven J. (1993, May). The Canadian Corporate Response to Globalization. Report 106-93, The Conference Board of Canada.
- Roth, Kendall & David M. Schweiger (1991). Global Strategy Implementation At The Business Unit Level: Operational Capabilities And Administrative Mechanisms. Journal of International Business, Third Quarter, 369-402.
- Stopford, John M., and Louis T. Wells Jr. (1972), Managing the Multinational Enterprise/Organization of the Firm and Ownership of the Subsidiaries. New York: Basic Books, Inc., Publishers.
- Tannenbaum, Arnold S. (1968). Control In Organizations. New York: McGraw-Hill Book Company.

Wiechmann, Ulrich (1974). Integrating Multinational Marketing Activities. Columbia Journal of World Business, Winter 1974, 7-16.

Yip, George S. (1992). Total Global Strategy: Managing for Worldwide Competitive Advantage. Englewood Cliffs, New Jersey: Prentice Hall.

APPENDIX

1984 Questions - also used in 1994 MULTINATIONAL INTEGRATION STUDY INTERVIEW SCHEDULE

1. Name of subsidiary
2. Name of parent firm.
3. Location of interview.
4. Date of interview.
5. Name of interviewee.
6. Position of interviewee.
7. How long in this position?
8. How long with firm?
9. Has interviewee worked in U.S. with parent?
10. If yes, for how long?
11. In what year was the subsidiary founded?
12. How was it acquired?
13. Number of employees in subsidiary.
 - a. Production (hourly).
 - b. Non-production (salaried).
14. What were sales in 1993 for subsidiary?
15. Reporting structure:
 - a. Head of subsidiary.
 - b.
 - c.
 - d.
 - e.

16. What are your main product lines and what percentage of sales is attributable to each?

Product #1_____

Product #2_____

Product #3_____

Product #4_____

Product #5_____

17. What are the main markets for these products? What percentage of sales do each of these markets provide?

Market #1_____

Market #2_____

Market #3_____

Market #4_____

Market #5_____

18. How would you assess the market position of your firm in Canada?

5. Firm has a dominant position in the market.
4. Firm is one of several equally important firms.
3. Has a single larger competitor.
2. Has several larger competitors.
1. Has a very small position in the market.

19. What percentage of the national market does the firm hold (if a global estimate is not possible, for the most important product line)?
20. What percentage of the products the firm produces are sold abroad (either to other elements of the parent or to other customers)?
21. What percentage of the products that you sell are imported?

22. For the following types of decisions, which of the statements below best describes the situation in your subsidiary?

5. Parent makes this decision and informs the subsidiary.
4. Parent makes decision on advice from the subsidiary.
3. Parent and subsidiary jointly make decision.
2. Subsidiary makes the decision which is ratified by parent.
1. Subsidiary makes the decision and informs the parent.

- a. Product line composition. _____
- b. New product introduction. _____
- c. Pricing. _____
- d. Distribution channels. _____
- e. Allocation of capital budgets. _____
- f. Determination of annual budgets. _____
- g. Shifting funds within the budget. _____
- h. Choice of suppliers. _____
- i. Product spec'ns for supplies. _____
- j. Price of supplies. _____
- k. Level of output _____
- l. Hiring of exempt (salaried) staff. _____
- m. Compens'n levels for exempt staff. _____
- n. Compens'n levels for hourly staff. _____
- o. Staff promotions. _____
- p. Amount of R & D. _____
- q. Content of R & D. _____
- r. Acquisitions. _____
- s. Legal matters. _____
- t. Transfer pricing. _____

- u. Advertising. _____
- v. Loans (financing). _____
- w. Managing cash flow. _____
- x. Dividend policy. _____
- y. Reorganization. _____

23. For the following types of decisions, which of the statements below best describe the importance of the decision to your organization?

- 5. Very important; crucial to the success of the subsidiary.
- 4. Significant but not crucial.
- 3. Fairly important.
- 2. Not very important.
- 1. Seldom important for this firm.

- a. Product line composition. _____
- b. New product introduction. _____
- c. Pricing. _____
- d. Distribution channels. _____
- e. Allocation of capital budgets. _____
- f. Determination of annual budgets. _____
- g. Shifting funds within the budget. _____
- h. Choice of suppliers. _____
- i. Product spec'n for supplies. _____
- j. Price of supplies. _____
- k. Level of output. _____
- l. Hiring of exempt (salaried) staff. _____
- m. Compens'n levels for exempt staff. _____
- n. Compens'n levels for hourly staff. _____
- o. Staff promotions. _____
- p. Amount of R & D. _____

- q. Content of R & D. _____
 - r. Acquisitions. _____
 - s. Legal matters. _____
 - t. Transfer pricing. _____
 - u. Advertising. _____
 - v. Loans (financing). _____
 - w. Managing cash flow. _____
 - x. Dividend policy. _____
 - y. Reorganization. _____
24. Do you have a dollar limit on the amount of funds you can commit on your own signature?
25. Is your organization unionized?
26. For the following functions, with how many other units in the corporation do you coordinate?
- a. Coordinate sales programs. _____
 - b. Coordinate R & D. _____
 - c. Coordinate purchasing. _____
 - d. Coordinate marketing. _____
 - e. Coordinate advertising. _____
 - f. Supply finished products. _____
 - g. Receive finished products. _____
 - h. Supply raw materials. _____
 - i. Receive raw materials. _____
 - j. Exchange personnel. _____

27. Overall, how closely does the subsidiary coordinate its activities with other units in the corporation?
5. There is close coordination on a number of activities.
 4. Close coordination on only a few important functions.
 3. Moderate coordination.
 2. Occasional coordination.
 1. Very little coordination.
28. Could you please describe the last major decision taken which affected the subsidiary?
29. Topic.
30. When decision was taken?
31. Who was involved?
32. Where did it originate?
33. What has been the outcome of the decision?

**Additional 1994 Questions to 1984 Survey
Probing Questions-Subsidiary Viewpoint**

34. What are the effects of globalization on your firm?
35. How has the Free Trade Agreement (FTA) affected your company?
36. Has there been any significant change in the relationship between your firm and the parent company?
37. Has your firm assumed a North American focus in its strategy and structure?
38. What are the driving forces behind strategy and structural changes of your firm?
39. Has there been a change in the autonomy of your firm?
40. What are the factors contributing to change in autonomy?
41. What do you see as being the 5 most important factors in the business environment that affect your firm? In the short run? Long run?

END

0 | 5 - 0 6 - 9 | 6

FIN