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**THE ORGANIZATIONAL STRUCTURE
OF TRANSNATIONAL BANKS**
A Comparative Analysis of Global Operations

By

© ~~Leslie J. Gardiner~~, B. Comm. (Honours)

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

School of Business
Carleton University
Ottawa, Ontario
April 29, 1988

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**THE ORGANIZATIONAL STRUCTURE
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*A Comparative Analysis of
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submitted by Leslie J. Gardiner, B. Comm. (Honours)
in partial fulfillment of the requirements for
the degree of Master of Management Studies.

DR. DAVID CRAY, Thesis Supervisor

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April 29th, 1988

ABSTRACT

This thesis examines how various organizational factors and external influences have created differences among the organizational structures of twenty of the world's largest banks, based in Canada, the United States and the United Kingdom. A model was constructed which relied heavily on the Chandler (1962) and Stopford and Wells (1972) research on manufacturing industries. Adaptations were made from the limited available studies on the banking industry.

The study revealed important findings. These included, 1) banks retained domestic divisions long after manufacturing firms might have evolved into multi-divisional organizations. Domestic regulation appeared to have been the primary cause of this phenomenon; 2) banks exhibited a preference for customer-based divisions not commonly found in manufacturing industries; 3) banks seemed to use a global multi-divisional structure for their international operations prior to creating an international division, in contrast to the findings of most studies relating to manufacturing industries; and, 4) most banks centralized responsibility for at least one critical function under a global functional division. A revised model was constructed which incorporated these findings.

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TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ABBREVIATIONS	xi
Chapter	
1. INTRODUCTION	
1.1 Overview - The International Banking Industry	1
1.1.1 The History of International Banking	
1.1.2 Characteristics of the International Banking Industry	
1.1.3 The External Environment	
1.1.4 The Importance of Chartered Banks in the Global Financial System	
1.2 Problem Statement	9
1.3 Research Questions and General Approach	11
2. LITERATURE REVIEW	
2.1 General	14
2.1.1 Present State of Research	
2.1.2 Relationship Between Structure and Profit-Maximizing Objectives	
2.1.3 Definition of Organizational Structure	
2.1.4 Forces Which Drive Structure	
2.2 Research Based on Formal Theories: Non-Banking Industries	22
2.2.1 Strategy/Structure Theory	
2.2.2 Contingency Theory	

TABLE OF CONTENTS (cont'd)

	<u>Page</u>
2.3 International Banking	37
2.3.1 Research Based on Formal Theories: The International Banking Industry	
2.3.2 International Banking - Prescriptive Studies	
2.3.3 Canadian, British and U.S. Banks	
2.4 Conclusions	49
 3. THEORY	 55
3.1 Structural Form	56
3.1.1 The Model	
3.1.2 The Dependent Variables	
3.2 The Driving Forces - Independent Variables	69
3.3 Extrinsic Variables	75
3.4 Hypothesized Relationships	76
3.4.1 The Thesis	
3.4.2 Hypothesized Relationships Among Variables	
3.5 Limitations	79
3.5.1 The Model	
3.5.2 The Variables Excluded	
3.6 Summary	87
 4. DATA COLLECTION	 83
4.1 Selection of Banks	83
4.2 Data Sources and Collection Methods	85
4.2.1 Secondary Data Collection	
4.2.2 Primary Data Collection	
4.3 Limitations of Data Collection	92
4.4 Summary	95
 5. DATA ANALYSIS	 97
5.1 The Dependent Variables	98
5.1.1 Structural Stage	
5.1.2 Basis of Organization	
5.1.3 Summary	
5.2 The Independent Variables and Structural Stage	108
5.2.1 Size Measurements	
5.2.2 Diversification Measurements	
5.2.3 Summary	

TABLE OF CONTENTS (cont'd)

	<u>Page</u>
5.3 The Independent Variables and Basis of Organization	118
5.4 Canada, the U.S. and the U.K. - The Environments	121
5.4.1 The Canadian Environment	
5.4.2 The U.S. Environment	
5.4.3 The U.K. Environment	
5.5 Canada, the U.S. and the U.K. - The Results	129
5.5.1 Canada	
5.5.2 The U.S.	
5.5.3 The U.K.	
5.6 Cross-Country Comparisons - The Relationships	135
5.6.1 Canada and the U.S.	
5.6.2 The U.S. and the U.K.	
5.6.3 The U.K. and Canada	
5.6.4 Summary	
5.7 Summary	142
 6. DISCUSSION	 145
6.1 Implications for Existing Theory	145
6.2 Implications for the Model	154
6.2.1 Structural Stage - The Fit	
6.2.2 Relationships Between Independent and Dependent Variables	
6.2.3 Extrinsic Variables	
6.2.4 Conclusions	
6.3 The Revised Model	159
6.3.1 Characteristics of the Revised Model	
6.3.2 The Independent Variables and The Revised Model	
6.3.3 Problems Remaining	
6.4 Summary	167
 7. SUMMARY AND CONCLUSIONS	 169
7.1 Summary	169
7.2 Limitations of the Study	170
7.3 Implications of the Study	176
7.3.1 Strategic and Policy Implications	
7.3.2 Implications for Future Research	

TABLE OF CONTENTS (cont'd)

	<u>Page</u>
APPENDIX	
1. BANKS INCLUDED IN THE STUDY	184
2. STRUCTURAL DEVELOPMENT MODELS	185
3. INDUSTRIAL ORGANIZATION MODEL	190
4. CHANNON'S TYPOLOGY FOR SERVICE INDUSTRIES	191
5. TURNER'S TRADITIONAL AND FUNCTIONALLY INTEGRATED STRUCTURES	192
6. PRODUCT DIVERSIFICATION SCORE SHEET	193
7. CUSTOMER DIVERSIFICATION SCORE SHEET	194
BIBLIOGRAPHY	195

LIST OF TABLES

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
3-1	Hypothesized Levels of Independent Variables For Regional, Product and Customer-Based Divisions	78
5-1	Divisional Descriptions and Deviations from Structural Model - In Increasing Order of Total Assets Within Structural Stage	100
5-2	Breakdown of Bases of Organization For All Banks in Stages 5, 6 and 7	105
5-3	Averages For Size and International Activity Measures - By Structural Stage	111
5-4	Averages For Diversification Measures - By Structural Stage	115
5-5	Hypothesized Relationships and Actual Relationships Between Size and Diversification and Structural Stage	119
5-6	Levels of Geographic, Product and Customer Diversification by Basis of Organization	120
5-7	Structural Stage, Basis of Organization and Average Measurements of Independent Variables For Canada, the United States and the United Kingdom	130
6-1	Structural Stage and Deviations From Model For All Banks - Revised Structural Development Model	164
6-2	Bases of Organization and Average Measurements of Independent Variables by Structural Stage - Revised Structural Development Model	166

LIST OF FIGURES

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
3-1	Independent, Dependent and Extrinsic Variables and Directions of Relationships to be Examined	57
3-2	Structural Development Model For Transnational Banks	59
6-1	The Revised Structural Development Model For Transnational Banks	160

LIST OF ABBREVIATIONS

IBF	international banking facility
IMF	International Monetary Fund
LDC	less-developed country
MNC	multinational corporation
OPEC	Organization of Petroleum Exporting Countries
TNB	transnational bank
UN	United Nations

The Organizational Structure
of Transnational Banks
A Comparative Analysis of Global Operations

1. INTRODUCTION

1.1 OVERVIEW - THE INTERNATIONAL BANKING INDUSTRY

The ability of the transnational bank (TNB) to scan the world for investment opportunities, to access global capital markets and to diversify across borders sets the transnational apart from banks which are primarily domestic. The latter have to pay the marginal cost of funds in the domestic market, rather than the marginal cost in the world system, abide by local laws and regulations, and contend with the limitations of the domestic economic cycle. TNB's have the freedom to take advantage of differences in national laws and to avoid, at times, the laws and regulations of their home countries. For TNB's, there exists no international lender of last resort, no single central bank and no international central reserve system to set credit standards, reserve requirements, discount rates, and so on. This relative freedom in international operations has major implications for both TNB's and financial regulators. The former must survive in a much more competitive and volatile environment from that which exists domestically, while the latter are concerned with how to extend the arm of control over the international operations of banks. As a result, as international operations have grown, the efficient and

effective management of banks has become increasingly important to both bankers and regulators.

This introductory chapter will begin with an overview of the history of international banking, followed by a look at the peculiarities of the industry and, finally, will examine the role of chartered banks in the global financial system. The main conclusion to be drawn from this section is the importance of efficient management of banks' international operations from the perspective of bankers, as well as society as a whole. The second section builds on this conclusion by outlining the specific management problem to be addressed by this thesis relating to the organizational structure of TNB's. The final section states the questions to be answered by the research and the general approach to be followed.

1.1.1 The History of International Banking

Although a few national banks (including those from Canada) were tentatively experimenting with international banking in the 19th century, the substantial growth in worldwide banking took place between the 1950's and 1970's. Foreign currency assets of all Canadian commercial banks increased at an annual average rate of 30% between 1967 and 1980 (Nagy, 1983: 122). This expansion was primarily a response to the growth of multinational corporations (MNC's).

A second major catalyst was the oil crisis brought on by the Organization of Petroleum Exporting Countries (OPEC) in 1973. The huge monetary surpluses generated by the OPEC members were fed largely into the Eurocurrency market where they were recycled by the commercial banks. This market grew from U.S. \$65 billion in 1970 to U.S. \$800 billion at the end of 1981 (Roussakis, 1983: 25). Faced with sharp increases in energy prices, the governments of the less

developed countries (LDC's) chose to borrow externally against balance of payments and deficit financing, rather than reduce spending and curtail their development. The commercial banks offered attractive packages devoid of the conditionality associated with International Monetary Fund (IMF) loans. Much of the excess liquidity of the OPEC countries was recycled in this way. Coupled with advances in communication and transportation technologies, as well as the lack of regulation in the international sphere, banks enjoyed an unparalleled period of high growth and profitability during the years leading up to the 1980's.

Events of the 80's have reversed this profitable trend. The anti-inflationary policies of the industrialized nations contributed to a world recession in the early part of the decade. This, in turn, was followed by the external debt crises in many LDC's in the 1982-1983 period. The deregulation of the domestic banking environment in many countries began in earnest. With falling demand for oil, many OPEC countries became net borrowers. These factors, when combined with the geopolitical actions of many states (e.g. Britain in Argentina, and the U.S. in Iran and Libya), left international bankers reeling. The resulting concern over the stability of the world financial system has focussed increasing attention on the management of international banks.

1.1.2 Characteristics of the International Banking Industry

Banks are differentiated from other financial intermediaries because they both accept demand deposits and make commercial loans. There are many definitions of international operations. Some of these include, 1) transactions in foreign currency; 2) transactions with non-residents in domestic currency; 3)

transactions with non-residents in any currency; and, 4) transactions booked from foreign offices.

Definitions of a "true" TNB abound. The United Nations (UN) defines a TNB as a bank with foreign entities in at least five countries outside its home (UN Commission on Transnational Corporations, 1981: 40).

Almost all of the world's 300 largest banks engage in international operations, however, using the narrow definition of TNB's supplied by the UN, there were only 84 TNB's in 1978 (UN Commission on Transnational Corporations, 1981: 40). The U.S., Japan, France, the U.K., West Germany and Canada are home to most of the largest banks in the world. In 1986, the top ten were geographically distributed by home country as follows: Japan: 5; the U.S.: 2; and France: 3. The assets of TNB's are approximately evenly distributed among three general locations: financial centres, developed countries and developing countries (UN Commission on Transnational Corporations, 1981: 28). The major host countries are the U.S., the U.K. and Brazil (ibid.).

The main product groups in international banking include, 1) retail services, e.g. consumer banking and branch banking; 2) wholesale services, e.g. interest-earning operations such as money market transactions, commercial banking, balance of payments and project finance loans, trade finance, etc.; and, 3) fee-earning operations, which can be either fiduciary or "on own account". These include investment banking, merchant banking, foreign exchange operations, etc.

International banks have operations which, in general, are different from those of manufacturing industries primarily due to two factors. First, the range of customers served is usually greater. The customers of bankers are both suppliers and purchasers of equity and capital. These groups include individuals, small

businesses, other banks, MNC's and governments. By corollary, if one considers the plethora of financial instruments in the markets today, it could be postulated that the range of products provided to these customers is greater than in manufacturing industries. If one uses an expansive definition of products, there are thousands of products provided by an international bank, although the level of differentiation among the products can be very low. A second difference from manufacturing industries is that bankers are constrained by heavy government regulation in their home country, the host countries in which they operate, and sometimes by the home country of their customers. Although manufacturing organizations must also face these diverse regulatory environments, bankers have historically been more highly regulated due to the repercussions of financial flows on domestic economies.

1.1.3 The External Environment

Before the rapid growth in international operations, bankers were able to enjoy the advantage of a relatively stable environment maintained by price, product and market controls set by local policy-makers. With the expansion into the less regulated international sphere, however, they were forced to adapt quickly to a volatile and fast-paced environment or lose market share. The growth and geographical diversification of the international banking industry has brought with it the effects of a diverse external environment emanating from many social, political and economic settings. Government regulation, cultural differences and geopolitical disturbances have important consequences for the strategic actions of international banks. For example, managers are often constrained in their choice among legal arrangements for establishing a physical presence in other countries.

In many developing countries, majority ownership of financial institutions must lie in the hands of locals.

Despite the numerous factors which have created a heterogeneous operating environment for TNB's, major events in the past several decades have had a "melting pot effect". The growth of the Euromarkets and breakthroughs in communication technology have eased the coordination and control problems inherent in operating on a global basis, and permitted an increase in the size and importance of interbank transactions worldwide. These interbank transactions often represent the largest single item on the balance sheets of most TNB's. For example, the volume of interbank business of Canadian TNB's was 63% of foreign assets in 1973 (Cechetto, 1979: 163). Medium-sized banks have found themselves able to compete alongside their larger counterparts by participating in loan syndications and consortium groups. This means that loans to sovereign borrowers and large MNC's are no longer the privileged domain of a handful of major banks. MNC's, previously loyal to one or two home country banks, have been reaping the benefits of increased competition in the banking industry by shopping around for the best financial packages. All of these factors appear to be contributing to the homogenization of the world market. The differences among banks attributable to country of origin, customers served, types of services offered and areas of operations appear to be diminishing as the ease of interaction in the international sphere leads to a blurring of these distinctions (Hakim, 1984).

Governments have responded to the need for control over international banking with complicated regulatory systems which attempt to cover both domestic and foreign banking operations. For many transactions, TNB's have to contend with three disparate regulatory environments: the home country, host country, and the

customer's home country. The preoccupation of governments with controlling the actions of banks is due to the major role played by banks in the domestic financial system.

1.1.4 The Importance of Chartered Banks in the Global Financial System

In the western world, chartered banks are by far the most important financial intermediary in the national payments system. They facilitate the execution of monetary and fiscal policy and contribute to the ease of interaction with other economies. In addition, chartered banks have historically been the primary conduit for the nation's savings. Credit policies, interest paid on savings, and strategic attention focussed on preferred customer groups, are just a few examples of the ways in which banks can affect the direction taken by the domestic economy.

In the international sphere, the large volume of cross-border money flows can have sharp and unwanted effects on domestic money supplies. For example, in mid-1984, total cross-border interbank claims were estimated at U.S. \$2 trillion, most of which were in U.S. dollars (World Bank, 1985: 91). In the U.S., the outflow of U.S. dollars had policy-makers spending most of the 1950's and 60's attempting to devise a successful capital control program to stem the outflow.

Another way in which banks can threaten domestic monetary policy with foreign operations is in their manipulations of foreign and domestic currency assets. For example, foreign currency assets of all Canadian commercial banks increased at an annual average rate of 30% between 1967 and 1980 (Nagy, 1983: 122). The Royal Bank of Canada recently turned over about \$6 billion (U.S.) per day in the global foreign exchange market (The Globe and Mail, October 6, 1986:

C1). G. Styles of The Royal Bank of Canada described Canadian banks as having "changed from banks with international departments to international banks with their head office in Canada" (Davidsón, 1974: 9).

In the U.S., the assets of General Motors and Exxon combined, still fall \$40 billion short of those of Citicorp (Fortune, April 28 and June 9, 1986). In Canada, the assets of the Royal Bank of Canada are five times those of Bell Canada Enterprises (Globe and Mail, July, 1986: 171). These figures serve to further illustrate the size and importance of the role played by banks in the global economy. This concern is not confined to domestic issues. Organizations such as the World Bank, the IMF, and the Bank for International Settlements have focussed particular attention on the role of banks in alleviating poverty conditions in the Third World.

The Third World debt crisis in 1982 saw twenty countries default on \$28 billion (U.S.) in loans, the largest portion of which was owed to commercial banks (Mills, 1983: 191). During the course of the "rescheduling explosion", it was discovered that a number of banks had overextended themselves in some of the troubled areas. For example, Citicorp was forced to reschedule loans totalling 230% of its equity in 1982 (Bartlett, 1986: 56). Other questions raised by the crisis related to the volume of debt which many of these countries had been able to accrue, with debt service ratios sometimes running as high as 55% of foreign exchange receipts generated by exports (Nagy, 1983: 124). The issue of the management and control of international banking from the perspectives of both policy-makers and bank managers came under intense scrutiny.

In summary, the control of banks' international operations is not a concern restricted to bank management. Public policy-makers and multilateral agencies have a deep-rooted interest in the efficiency of the banking system for both

domestic and global reasons. Home and host governments use chartered banks to facilitate the execution of monetary and fiscal policy and to ease the interaction with other economies. Globally, banks redistribute the excess supply of funds to areas where funds are needed. In most cases, it is in the interest of all societies affected that banks have internal control over the financial intermediation process.

The material presented in this section leads to the conclusion that major events have taken place recently in the international banking industry which have pervasive implications for the organizational structure of banks' international operations. Dynamic forces have been at work which have simultaneously injected both heterogeneous and homogeneous factors into the banks' internal and external operating environments. The confusion surrounding the resulting environment which has emerged from these events, when viewed in conjunction with the important role played by international banks in the global economy, suggests that the time is ripe for a research effort which specifically addresses the structural adaptations which have taken place.

1.2 PROBLEM STATEMENT

It is apparent from the above analysis that the world of international banking is characterized by dynamic forces which require a bank's managers to continually adapt their strategies to maintain optimal efficiency. Diversification, not merely geographically, but also in terms of products and customers, is essential in order to remain competitive in the global environment. The propensity and ability of managers to adapt in a timely manner is constrained by the varying political, economic and social factors which are faced in their day-to-day global

operations. One of the most challenging problems arising from this strategic heterogeneity is the issue of control and coordination of operations.

The organizational structure of banks' global operations has been the major vehicle through which both managers and regulators have attempted to control foreign activities. Managers design the parameters of the major divisions and other integration mechanisms, such as management committees, with the aim of achieving maximum coordination and control while pursuing the organization's strategic objectives. Public policy-makers can act by limiting the legal forms of organization available, limiting the range of banking services allowed and imposing other restrictions which ultimately reflect upon the organizational structure of banks' global operations.

In a study of manufacturing firms, Chandler (1962) outlined his now famous thesis that, "structure follows strategy and the most complex type of structure is the result of the concatenation of several basic strategies", (p. 14). His research provided empirical support for this relationship in the domestic operations of U.S. manufacturing firms. Stopford and Wells (1972) extended Chandler's work to focus on the internationalization strategies of manufacturing firms and their corresponding effects on organizational structure. Their research confirmed Chandler's findings but added several phases to the last stage of his structural development model in order to deal with the international expansion of manufacturing firms. In both cases, the final stage of structural development was seen to be a product-based structure or, in the case of one-product firms, a structure based on regional divisions.

Channon (1978) used the Chandler (1962) and Stopford and Wells (1972) studies as the theoretical groundwork for his analysis of British service industries. He discovered that the structural development model would require some adaptation to fit service industries. In particular, he found that a majority of service firms tended to perform certain "critical functions" which would continue to be given separate divisional status long after a firm had evolved into a product or regionally-based multi-divisional structure.

There are very few theoretically-based research efforts focussing on the banking industry. Only a handful of writers have attempted to outline a theoretical framework specifically designed to characterize the banking industry (e.g. Aliber, 1976; Grubel, 1977). Most, as with Channon, simply borrow from the extensive literature available on manufacturing industries. The conclusions suggested by Channon's study are supported by the prescriptive writings of bankers, management consultants and others (e.g. Wriston, 1966; Robinson, 1972; Lee, 1974; Rohlwink, 1985), who maintain that there are some distinct and unique aspects of service industries, and banking in particular, which create a need for a more individualized approach to the study of banking. An especially interesting revelation offered by these writers is the evidence that product and regionally-based structures in banking are giving way to customer-based structures (see Rohlwink, 1985), a form which is not commonly found in manufacturing firms. When combined with Channon's (1978) identification of the critical functions in service industries, these findings suggest that a theoretical examination of the organizational structure of TNB's is long overdue.

1.3 RESEARCH QUESTIONS AND GENERAL APPROACH

The key questions to be addressed in the thesis are,

- (1) What are the common organizational structures through which the global operations of TNB's are carried out?
- (2) What are the significant structural differences, if any, among TNB's based in different countries? What organizational factors and external influences contribute to these differences?
- (3) What are the nature and extent of the relationships which exist between, a) the common organizational structures through which the global operations of TNB's based in different countries are carried out; and, b) the organizational factors and external influences contributing to differences among these structures?

The design of this study allows comparisons of both cross-national and cross-institutional differences. In order to facilitate the former, a multi-country comparison approach is followed; the structural arrangements of global operations in Canadian, U.K. and U.S. commercial banks are compared. The banks selected for study are shown in Appendix 1. They are the largest from each of the countries of origin and all banks have international operations.

The next chapter of the thesis is an extensive literature review which is used to identify, 1) the appropriate theoretical framework and associated model to be used in the analysis; and, 2) the significant organizational factors and

environmental influences which contribute to cross-national and cross-institutional differences among the banks under study (research question number 2 above). The relationships between these variables and the structures of the organizations are then hypothesized and tested within the theoretical framework chosen.

2. LITERATURE REVIEW

The objective of this chapter is to summarize existing research, with a view to the identification of, 1) the appropriate theoretical framework and associated model to be used in this research; and, 2) the significant organizational factors and environmental influences which contribute to cross-national and cross-institutional differences among the banks under study. The first section presents an overview of the current state of research on international banking and examines how writers have approached the concept of organizational structure and its corresponding driving forces. The next section deals with research on non-banking industries based on formal theory. The emphasis is, by necessity, almost entirely on manufacturing industries. The few theory-based studies which pertain specifically to international banking are dealt with in the third section where a selection of banking-related studies are presented. The final section of the chapter presents the conclusions to be drawn from the literature review and the implications for the objective stated above.

2.1 GENERAL

2.1.1 Present State of Research

Literature relating to organizational structure pervades many academic disciplines, from sociology and anthropology, represented by such writers as Lawrence and Lorsch (1969), and Lammers and Hickson (1979), through to business and economics-based writings by such authors as Chandler (1962),

Vernon (1971, 1977), Stopford and Wells (1972), and Caves (1982). The former groups have tended to use a broad definition of an organization, which is applicable to both profit and non-profit firms of all sizes. Business and economics writers, on the other hand, have stressed large, profit-maximizing, manufacturing firms. Very few studies have addressed the peculiarities inherent in the service industries.

It is only in the last decade that the study of profit-maximizing service industries has emerged as a topic of interest separate from manufacturing industries. This is, no doubt, in response to the phenomenal growth in the role and importance of service industries in the global economy. Those studies which have given unique status to service industries have unfortunately been unable to accord similar treatment to the theoretical frameworks used. In almost every case, the theories and models originally designed to describe manufacturing industries have been molded to fit service industries, usually with some adaptation required (e.g. Channon, 1977; 1978).

On the assumption that the TNB's in this study seek profit-maximization with respect to their global operations, the literature review is confined to examinations of firms with this same objective. Due to the limitations discussed above, most of the studies relate to manufacturing firms, however, an attempt has been made to peruse a cross-disciplinary selection of studies in order to provide a solid theoretical grounding for the research to be conducted. Not all the studies relate to international business. Where key research has been completed on domestic operations of firms, subsequent attempts to relate these findings to the international sphere are cited.

2.1.2 Relationship Between Structure and Profit-Maximizing Objectives

As stated above, it is assumed that all banks included in this study have a profit-maximizing objective. This entails the pursuit of growth consistent with maintaining a prudent risk exposure. Accordingly, the basic guidelines followed by bank management in policy formulation concerning international activities are as follows (Lee, 1974, p. 50):

1. to increase or retain profitable deposit or other relationships with customers;
2. to provide the appropriate services in a competitive context at a reasonable cost to the banks;
3. to obtain the maximum gross returns on services rendered, again in a competitive context; and,
4. to hold the risk exposure of the banks within tolerable limits.

Decision-making by bank management regarding the establishment of international operations, the extent of foreign commitment undertaken by the banks, and, consequently, the organizational forms and strategies to be employed will be dependent upon this "profitability-risk" relationship (Lee, 1974, p. 50). Decisions relating to organizational structure will, therefore, be affected both directly and indirectly by the objective of profit-maximization. In the former case, structures will be chosen which provide the control and coordination necessary to ensure the guidelines are being met, while the latter case refers to the impact of strategic choices upon structural forms employed. This causal relationship is discussed in more detail in section 3.2 below.

2.1.3 Definition of Organizational Structure

In a study of multinational manufacturing organizations, Stopford and Wells (1972) provided a definition of organizational structure which they hoped would

transcend diverse organizational objectives. They divided organizational structure into three components (p. 10).

- (1) the authority and responsibility of each executive and the associated hierarchy;
- (2) the kinds of information flow among executives; and
- (3) the procedures for channeling and processing information.

In (1), the authors were referring to issues such as the basis of line authority and the existence of single or dual (matrix) reporting relationships. Component (3) included the linkage functions identified as the control function, the planning process and the coordination of direct interactions among components of the organization (p. 17). Stopford and Wells confirmed the finding of Chandler (1962) that large organizations will eventually adopt a divisionalized structure in order to provide for (1) and (2).

It should be noted that the first two aspects of Stopford and Wells' definition were taken almost verbatim from Chandler's 1962 work (p. 14). Chandler maintained that his definition stood regardless of whether or not a firm was profit-maximizing. He did concede, however, that his hypothesized relationship between strategy and structure could break down in situations of economic inefficiency. The fact that Chandler did not address the issue of linking mechanisms (item 3 above) may have been due to the state of research at the time. This was prior to the period when researchers began to study linking, or integrating, mechanisms in detail. Subsequent in-depth studies into large, divisionalized firms have resulted in considerable attention to this area.

Galbraith and Nathanson (1979) seemed to adopt a more restrictive definition of structure, although the difference may lie simply with the wording used. Their definition of structure approximated Stopford and Wells' category (1)

above and, for large organizations, could be equated with the nature of the divisionalization adopted by the firm and the levels of centralization (p. 256). Structure, however, was seen as only one component of "organizational form", the other two components being strategy and processes (p. 253 and 265). Galbraith and Nathanson's processes closely resembled category (3) of Stopford and Wells' definition. Processes included resource allocations, reward systems, integration mechanisms and performance evaluation mechanisms (pp. 262-63). In particular, integration mechanisms were seen to form a special supplementary relationship with organizational structure by "representing one of the principal means with which to implement diversification strategies *without reorganizing* into a product divisionalized structure", (p. 259, emphasis in the original).

Lawrence and Lorsch (1969) postulated two main dimensions of structure: 1) the methods by which functions are *differentiated* within an organization; and, 2) the methods by which differentiated functions are *integrated* (p. 11). A major conclusion of their study was the discovery of an inverse relationship between differentiation and the quality of integration. High levels of differentiation among divisions were associated with low levels of satisfaction with the integration of those divisions, and vice versa (pp. 47-49).

In general, definitions of organizational structure are based on the same underlying phenomena and differ mainly in the particular phenomena which are emphasized. Some researchers prefer to examine specific processes of structure such as control, coordination and authority structures, while others adopt a more generalized approach looking at areas such as differentiation and integration. It is this latter approach which is best suited to the present study. This study will examine the parts of organizational structure which most closely resemble the first

components of both the Lawrence and Lorsch (1969) and the Stopford and Wells (1972) definitions. Structure is characterized as the basis upon which divisional differentiation has been made. The omission of integrating mechanisms from this characterization should not imply the lack of importance of this component of structure. Instead, it enables the study to be kept within manageable boundaries. The implications of the use of integrating mechanisms will be reintroduced in the data analysis chapter to provide possible explanations for some of the findings. Similarly, the components of structure measured in this study are not intended to challenge the inclusion of such items as the kinds of information flow (Stopford and Wells, 1972) and levels of centralization (Galbraith and Nathanson, 1979) but, rather, simply delineate the parameters of the concept of organizational structure to be used *in this thesis*. As this section has shown, the definitions of organizational structure are very broad and not all components can be studied. The choice of divisional differentiation is consistent with the approaches taken by Chandler (1962) and Stopford and Wells (1972).

2.1.4 Forces Which Drive Structure

In general, the prominent theoretically-based views are differentiated on the basis of, 1) the number and nature of organizational strategy and structure dimensions that are included; and, 2) the particular determinant that is hypothesized to drive change, for example, age, size, or complexity (Galbraith and Nathanson, 1979: 273). The variables can be grouped under three major headings: strategic, contextual, and external.

(a) Strategic Variables

Probably the most widely-identified group of variables relates to organizational strategy. The writers in this area tend to focus on complexity as being the primary driving force in structural change. Stopford and Wells (1972) defined the crucial dimensions of strategy for manufacturing firms as follows (p. 10):

- (1) volume of activities;
- (2) geographical dispersion of operations;
- (3) involvement in research and development; and
- (4) product diversification.

Chandler's (1962) work had already found a relationship between three of these aspects of strategy and the development of organizational structure, but had not addressed the possible connection with involvement in research and development. He stressed complexity, particularly in the form of vertical integration and product diversification, as being the key determinant of structural development.

An additional strategic variable uncovered since the Chandler (1962) and Stopford and Wells (1972) studies is the type and rate of acquisitions by organizations. Pitts (1977) found structural differences among firms that pursued internal diversification strategies and those that diversified by acquisition. Channon (1978) had similar findings as well as noting that the *rate* of acquisitions affected organizational structure.

(b) Contextual Variables

The second category of independent variables identified in the research is often termed contextual variables. These include, size of organization (Pugh, et al.,

1969), technology (Woodward, 1965), dependence on other organizations (Pfeffer and Salancik, 1978), size of head office (Berg, 1965), and nature of leadership (Channon, 1978). This latter study compared the relationship between the high frequency of cross-directorships in British firms and the resulting structure, with the relationships postulated for U.S. firms, thereby introducing the concept of cultural differences to the analysis. A growing number of researchers are studying the effects of cultural variables, such as managerial attitudes and perceived power distances, on the organizational structure of firms. The proper definition of such cultural variables and their associated relationships, however, is a controversial issue. This subject is dealt with in more detail in section 2.2 below.

(c) External Factors

The third and final category of forces affecting structure relates to the external environment within which firms operate. There is no doubt that the globalization of firms in recent decades has rendered necessary the consideration of the external environment in any study of organizations operating in several diverse markets. External factors such as competition, government regulation, economic growth, and societal attitudes have different causal relationships than the variables identified in the strategic and contextual categories above, in that they can either directly affect organizational structure or act as intervening factors by affecting strategic or contextual variables. The latter effect is somewhat self-apparent. Governments can regulate size of operations and nature of activities, while strategies are formulated on the basis of the competitive environment faced by the firm. Direct effects on structure are also intuitively appealing. Galbraith and

Nathanson (1979) found that competitiveness directly affected organizational structure and process by creating a greater need for coordination and control (p. 269). Franko (1976) found that government planning in the economy and antitrust enforcement had a direct impact on the timing of structural changes. Burns and Stalker (1961) found that the rate of change in the environment determined whether a firm adopted an "organic" or "mechanistic" structure.

Thus, strategic, contextual or external variables can affect the organizational structure of a firm. The identification of such variables and their relationships with structure are dependent upon the theoretical framework within which data are to be analysed. The following section presents some of the more widely supported theories and models which are available for this purpose.

2.2 RESEARCH BASED ON FORMAL THEORIES: NON-BANKING INDUSTRIES

The research that is available on international banking has tended to render weak treatment to theoretical relationships. The theories used have usually been borrowed from applications relating to both the domestic and international operations of manufacturing firms. As a result, much of the literature covered in this section is restricted to these areas. The few theory-based studies which pertain specifically to international banking are presented in section 2.3.

This section is divided into two main parts. The first deals with an area entitled "strategy/structure theory", while the last section is entitled "contingency theory". In identifying the forces driving organizational structure, the strategy/structure theorists believe that it is the strategic actions or managerial

practices of firms which dictate the resulting structure (Stopford and Wells, 1972: 10). Contingency theorists assert that a logic of rational administration is imposed upon designers of organizational structure by contextual variables such as size of operations, technology and dependence on other organizations, and on other contingencies such as market and geographical diversification (Child, 1981: 308) and culture. A second distinction between the two paradigms relates to the treatment of structure. Strategy/structure theorists believe that firms will pass through similar stages of structural development as they grow and that strategy will both shape these structures and determine the timing of changes (Galbraith and Nathanson, 1979: 249). Contingency theorists are reluctant to recognize a formal structural evolution model and, instead, argue that structures will take the shape functionally necessary in order to achieve the survival of the organization in its particular environment (Child, 1981: 308).

It should be noted that some researchers would protest against the above delineation. For example, Child (1981: 309) argued that the strategy/structure theory belongs with contingency theory because strategy formulation is the result of an examination of contingencies. The distinction used here, however, remains the most rational and convenient one given the different treatments of structure.

A second criticism which might arise relates to the inclusion of culture-based theory under the contingency approach. Numerous writers have treated culture as somewhat of an antithesis of contingencies such as technology and organizational interdependence (Child, 1981; Roberts and Boyacigiller, 1983). The difference, however, appears to be in the weight given to culture versus other contingencies in explaining organizational structure. It would be difficult to argue that cultural factors simply do not exist among the contingencies faced by most

firms, although Harbison and Myers' (1959) "logic of industrialization" predicts that some day they will not. This issue will be addressed in section 2.2.2 below.

2.2.1 Strategy/Structure Theory

(a) Chandler's Stages of Development Model

The conclusions drawn from Chandler's (1962) research on U.S. enterprises have had a profound and continuing impact in the field of organizational behaviour. The thesis of his work is that structure follows strategy. Chandler states, "structure follows strategy and the most complex type of structure is the result of the concatenation of several basic strategies", (p. 14). Strategic growth results from an awareness of the opportunities and needs - created by changing population, income and technology - to employ existing or expanding resources more profitably (p. 15). Economic inefficiencies resulting from this growth creates the need for structural change within the organization.

Chandler summarizes this process in terms of three stages of organizational growth. His "Stages of Development Model" is set out in Chart 1 of Appendix 2. In stage one, an entrepreneur runs his or her own business with little or no formalization and a simple two or three-level hierarchy to handle his expansion in sales volume. This type of organization predominated in the 19th century. Chandler found that toward the end of the 19th century, geographical dispersion led to a second stage emerging whereby the organization evolved into functional divisions staffed by professional managers. Chandler called the strategy of expanding into new functions, "vertical integration" (p. 14). Finally, in stage 3, the economic growth spurred by World War II led many organizations to pursue a

strategy of diversification, either geographically or horizontally, with a corresponding move to product or regional divisions. The executives in charge of these divisions have authority over all the functions necessary for handling a major line of products or set of services over a wide geographical area, and have financial responsibility for the performance of the division (p. 2). It is this concept of divisionalization which is of particular interest in this study because it deals specifically with large firms.

Chandler's work has become the foundation upon which subsequent researchers have been building additional storeys, hoping to finish the edifice which describes the strategy/structure relationship in organizations. With the continual growth and diversification of today's organizations, major structural changes are taking place in order to adapt to such growth. Most importantly, the internationalization of firms, a phenomenon which began in earnest around the time of Chandler's work, has led to many research efforts designed at adapting Chandler's Stages of Development Model to international companies. The remainder of this subsection is devoted to a summary of some of the more significant studies.

(b) Stopford and Wells' Extension of Chandler's Model

Stopford and Wells (1972) examined the structural development of some of the largest U.S. companies as they expanded internationally. Their results are summarized in Charts 2 to 5 of Appendix 2. They found that most firms had adopted Chandler's Stage 3 multi-divisional structure domestically prior to becoming involved internationally (Chart 2). Expansion abroad for these companies consisted of the initial acquisition or creation of semi-autonomous foreign subsidiaries. This, in turn, created the need for an international division, usually organized on

the basis of geographic areas. Eventually, product or geographical diversification abroad and the growth of the international division led to global divisionalization on the basis of product or region.

While this was certainly the most common structural evolution taking place, Stopford and Wells also identified a number of firms that skipped the domestic multi-divisional stage (Chart 3) and, when needed, simply appended the international division to the domestic functional structure. These firms eventually adopted a global divisionalization on the basis of region. They discovered that these firms usually had a narrow product line and were highly vertically integrated.

A third group of companies stood out because they evolved from the acquisition of foreign subsidiaries to a global multi-divisional form without ever utilizing an international division (Chart 4). The authors found that in this case firms had chosen to expand with autonomous foreign subsidiaries by acquisition or merger only. No green field investments were made. Stopford and Wells' final organizational form shown in Chart 5 will be discussed below under "hybrid forms".

The Stopford and Wells study provided a crucial extension of Chandler's Stages of Development Model by focussing on the international activities of firms. The authors did not attempt to add any stages to the model, only to expand upon Chandler's Stages 2 and 3 by showing where international operations fit in. Other writers, to be discussed below, have gone beyond the extended Chandler model by specifying additional stages in the model.

(c) Hybrid Forms

Salter (1970) splits Chandler's Stage 3 multi-divisional structure into two parts: a Stage 3, composed of geographic divisions, and a Stage 4, composed of

product divisions. He thus implies that firms with geographic divisions will ultimately evolve into product divisions, although he adds that it is possible the geographically-based divisions stage could be skipped entirely. This approach has been criticized by Galbraith and Nathanson (1979: 274) who feel that a change from regional to product-based divisions does not represent a major change in the organization's "way of life" and, therefore, is not a movement to a new stage; the multi-divisional structure has not been altered. While it is certainly valid to point out that both stages are multi-divisional structures, the greatest weakness in Salter's hybrid is the implication that product-based divisions are the final stage of structural development. He does not provide evidence to support this contention.

The Stopford and Wells study (1972) mentioned above also revealed a company having a matrix structure, with dual reporting on the basis of product and geographic region. Another complexity was discovered in a structure which they simply labelled "mixed" (Chart 5 of Appendix 2). Here, firms were found with some mixture of international divisions, global product and global regional divisions. The authors noticed that the mixed structure often emerged as a direct result of mergers and acquisitions (p. 45) or as a transition phase in the dismantling of the international division.

Wrigley (1970) distinguished four growth strategies being pursued by MNC's. He divided these into, 1) single product business; 2) dominant business; 3) diversified, related businesses; and, 4) diversified, unrelated businesses. He found that the first group was always organized functionally, while the third and fourth groups (the diversifiers) were organized along a multi-divisional structure. The second group, however, presented a dilemma. Wrigley found that a dominant product line (accounting for 70% to 95% of sales) was usually organized along

functional lines, while sales of other products were controlled through a multi-divisional structure. His work thus addressed the specific case of a hybrid structural form for dominant business firms.

Both Channon (1978) and Galbraith and Nathanson (1979) discovered an additional stage in the internationalization process which they termed the "holding company structure". Their findings are illustrated in Charts 6 and 7, respectively, of Appendix 2. They noted that many firms adopted a holding company structure prior to moving from a purely functional to a multi-divisional structure. Channon (Chart 6) found that this form could be further delineated into either, 1) a functional or integrated holding company; or, 2) a pure holding company composed of autonomous units. Galbraith and Nathanson (1979) incorporated the holding company stage into a much broader model (Chart 7) which contained five organizational types. The primary features of the model are, (pp. 277-79),

- (1) no set sequence of steps exists (contrary to Chandler's model);
- (2) alternate paths are possible. The choice of paths is greatly affected by environmental issues such as patterns of population growth, economic growth, technological change, political change and wars;
- (3) an organization can come to a stop anywhere along the model or may reverse direction; and
- (4) each organizational type is a concatenation of previous steps (as with the Chandler model).

Galbraith and Nathanson's model is an attempt to overcome the rigidities built into the Chandler model, especially its sequential and single-path characteristics, and also explicitly provides for the internationalization of firms. The greatest weakness of the model, however, is the lack of empirical data to support it. While their alternate paths hypothesis (the introduction of the holding

company stage) has received some support (Rumelt, 1974; Channon, 1978), the possibility of backward movement along the model is an interesting, but unsupported notion.

Channon (1978) also produced an additional hybrid of the multi-divisional structure which he termed the "critical function" form. This case is particularly interesting because his research related specifically to service industries. He found that a large component of his sample firms exhibited a structure which was functional with respect to some critical function, but multi-divisional on the basis of product, region, or a mixture of the two, for the remaining operations. He found that this form prevailed in the global operations of the large British banks.

It was noted in the section on the definition of structure that Galbraith and Nathanson (1979) accorded a great deal of significance to the role of integrating mechanisms in the organizational structure of organizations. They stated, "integrating roles represent one of the principal means with which to implement diversification strategies *without reorganizing* into a product divisionalized structure" (p. 259, emphasis in the original). They carried this view further by outlining an additional structural form called a "simultaneous structure" which was used as a transition phase between the functional and multi-divisional structures. A simultaneous structure is a functional form combined with an increased use of integrating mechanisms. This structural form is shown in Chart 8 of Appendix 2. The step is seen as a move towards more product-oriented decision-making.

The final hybrid of Chandler's model to be discussed in this section dates back to the work of Berg in 1965. Berg found that upon reaching the multi-divisional stage, firms adopted one of two forms of structure: 1) multi-divisional conglomerate; or, 2) multi-divisional diversified "major", so

named because operations related to one dominant business line. The former is similar to the holding company stage described by Channon (1978) and Galbraith and Nathanson (1979) noted above. Support services are placed within the various divisions so there is little need for coordination among divisions. The multi-divisional diversified "major" is similar to Chandler's Stage 3 firms. There is a large corporate head office which provides support services for several divisions with a corresponding higher need for coordination. Berg associated the first form with organizations involved in many unrelated businesses, as compared with the one dominant business line of the multi-divisional diversified "major". As noted above, a similar typology was used by Wrigley (1970).

Chandler's evolutionary model has passed many tests since its inception. This analysis has shown that most strategy/structure theorists, except for Galbraith and Nathanson (1979), have extended the model without changing any of its basic precepts. Galbraith and Nathanson hypothesized that firms could move backward along the model, a view which leans in the direction of that taken by contingency theorists who accord a broad range of flexibility to the structural forms taken by business organizations. This view is expounded upon next.

2.2.2 Contingency Theory

Contrary to the strategy/structure writers, contingency theorists are reluctant to recognize a formal structural evolution model and, instead, argue that structures will take the shape functionally necessary in order to achieve the survival of the organization in its particular environment (Child, 1981: 308). They contend that a logic of rational administration is imposed upon designers of organizational structure by contextual variables such as size of operations,

technology, dependence on other organizations, and on other contingencies such as market diversification, geographic expansion, and culture.

The first two parts of this section divide contingency theorists into two main camps based upon their treatment of the external contingency, culture. The section begins with an examination of the cultural approach. This is followed by an examination of the contextual/structural approach which presents, among other things, a view known as "culture-free theory". The final part of the section briefly summarizes the industrial organization model, a paradigm originally created by economists and subsequently adapted by researchers from many disciplines. It could easily be argued that most of the theoretical frameworks used in the study of business organizations have their roots in the industrial organization model.

(a) Cultural Approach

Culture theorists take the position that where differences among organizations are discovered, these differences may largely be explained by the cultural environment of the organization - both internally, as in management/worker attitudes - and externally, as with national training and education patterns. In general, variances in organizational characteristics according to nationality are labelled "cultural".

Problems of correct identification of common variables and the indiscriminate use of the term culture have given rise to the loudest criticisms of the culturalist perspective (see Child, 1981). Hofstede (1979) identified a cultural variable called the "power-distance relationship" which he felt could explain national differences in manager/employee relations. This study was an attempt to identify a variable which might be common across all organizations and,

therefore, provide a valid and reliable measurement of culturally-related differences. Tannenbaum and Cooke (1979) attempted to measure access to power within organizations to determine whether nation X had greater equality than nation Y. In ascribing these differences to culture, however, neither study addressed the question of whether a higher-order distinction such as the system of economic relationships (capitalist vs. centrally-planned) might have had a causal effect.

The cross-cultural perspective has tended to be synonymous with national distinctiveness. Franko (1971) ascribed to culture the differences among MNC's in the propensity to enter into joint ventures. In his study of European MNC's, Franko (1976) used the term culture in an all-inclusive and indiscriminating manner when attempting to explain discrepancies in European and U.S. management styles. One critic has viewed this approach as an excuse for "intellectual laziness" (Child, 1981) because no theoretical grounding is provided for the explanation of findings.

The difficulty in identifying common variables to measure culture has exacerbated the search for a theoretical framework within which it can be studied. Indeed, scholars to date, have been unable to agree on a definition of the concept itself. Kroeber and Kluckhohn (1952) were able to identify 164 definitions of culture, which together encompassed knowledge, values, preferences, habits, customs, traditional practices, behaviour, implements and artifacts. Much of the difficulty in defining the concept originates with the problem of identifying the boundaries of a cultural unit and which of its subcomponents are relevant to organizations and their members. It is common to find confusion between societal cultures and organizational subcultures (Child, 1981: 328). Roberts and Boyacigiller (1983: 64) contend that the major deterrent to a universally

acceptable definition of culture is the inability of researchers from various disciplines to agree with one another.

A second criticism of the use of cultural theory in the study of organizations relates to the view that attention to culture lends undue weight to phenomena which are not fundamental to explaining the nature of organizations. This approach is reflected predominantly by the contextual/structural theorists discussed below. They argue that contingencies such as scale of operations, technology, task environment and dependence are fundamental variables which have similar influences irrespective of cultural setting.

Child (1981) summarized the state of cross-cultural research as follows:

"Culture has been treated as a residual factor which is presumed to account for national variations that have neither been postulated before the research nor explained after its completion. It is hardly satisfactory to continue to treat culture in this naïve manner and yet at the same time to claim that it is the primary criterion in comparative cross-national research" (p. 306).

(b) Contextual/Structural Approach

This approach contends that the relationship between contextual organizational variables, especially size of operations, technology and dependence on other organizations, on the one hand, and the structural characteristics of organizations on the other, will be stable across nations. The arguments put forth by contextual/structural theorists range from the position that culture has a noticeable, but ill-defined residual effect (e.g. the Franko studies cited above), to little or no relevance for significant organizational variables or relationships, as with the "culture-free thesis" of Lammers and Hickson (1979). Instead, they

argue that contingencies such as technological development, market and geographical diversification and interdependence with other organizations, impose a logic of rational administration which must be followed in order to ensure the survival of the organization. It is argued that this logic exists in all societies, regardless of culture, economic or political system, steadily pervading the design and management of organizations which are subject to high performance requirements either because of competitive pressures or because of external demands for their cost-effectiveness. Cultural differences are of diminishing importance as the organization evolves (Child, 1981).

This view that there are certain managerial imperatives which go hand-in-hand with the process of industrialization is epitomized by the convergence perspective set out by Harbison and Myers (1959). They emphasize the link between the logic of industrialism, "things which all societies must do if they hope to conduct a successful march to industrialism" (p. 117), and the "general logic of management development which has applicability both to advanced and industrializing countries in the modern world" (p. 117). They acknowledge that cultural factors can slow down the process but argue that they do not otherwise have any significant effects.

The "culture-free" contingency theory of organization structure is outlined by Hickson, et al. (1974, 1979), who conclude that there are, "imperatives, or causal relationships, from the resources of customers, of employees, of materials and finance, etc., and of operating technology of an organization, to its structure, which take effect whatever the surrounding societal differences" (1974: 63-64). Hickson, et al. present a similar argument to that of Harbison and Myers (1959) but do not take the extra step of equating comparable levels of industrialization with

contextual and organizational similarities. The existence of the latter does not, in their view, necessitate existence of the former.

The argument that technology molds the behaviour of organizations is usually attributed to the pioneering work of Woodward (1965). Woodward found that successful organizations utilizing similar technologies tended to have similar structures. This finding has not held up in cross-national studies, however. Gallie (1978) found that, although "the technological equipment of an oil refinery requires much the same operatives and supervisors wherever it is" (p. 64), the structures of the firms exhibited differences which could only be described as nationally specific. The technological imperative argument now has few supporters, although its importance as a contextual variable is acknowledged by most contingency theorists.

Hickson, et al. (1979) deal a heavy blow to culture theory by attributing culture-related managerial outlooks (i.e. philosophies of control, norms on authority relationships, etc.) to levels of centralization. Centralization, they argue, is a function of dependence on other organizations (Hickson, et al., 1974, 1979). These conclusions, however, do not accord with the study completed by Horvath, et al., (1976) who conclude, "there are considerable differences in the way management-control systems operate in the face of external dependence relations, pointing to a path of divergence in the countries studied" (p. 74). This appears to be an admission that some context-structure relations are *not* stable across societies.

c) Industrial Organization Model

The industrial organization model describes the determinants of a firm's environment and offers hypotheses to explain how this environment affects structure, behaviour and performance within the industry. The major difference between this model and Chandler's (1962) Stages of Development Model is that structure does not necessarily follow strategy, instead, there is a cyclical relationship between the two. Appendix 3 provides an illustration of the model. It shows how components of *market* structure, such as product differentiation and geographical diversification, can impact on an organization's performance and behaviour, including its choice of *organizational* structure, and vice versa. It is important to note that in this model, market structure refers to the characteristics of the industry, such as concentration of firms, while organizational structure refers to the internal organization of each individual firm's activities. It is the latter concept of structure which is the focus of this paper.

The model has received its most enthusiastic support in research involving cross-industry comparisons. Caves (1977) and Porter (1980) suggested that the model was an efficient tool for conducting industry analyses. Aliber (1976) and Grubel (1977) applied the model to the study of international banking. These latter studies are discussed in section 2.3 below.

The obvious attraction of the industrial organization model is its thoroughness. All of the elements of strategy/structure and contingency theories are present. It encompasses most foreseeable strategic, contextual and external variables. It is, however, a model and not a theory. It is left to theories such as those discussed above to explain the nature and extent of the relationships among the variables in this study.

2.3 INTERNATIONAL BANKING

This section reviews existing literature specifically related to international banking. The research available on the organizational structure of international banking operations is severely limited. The few sources which do exist are primarily descriptive analyses unsupported by theoretical underpinnings or primary research findings. Studies attempting cross-national comparisons are subject to similar limitations, however, their strengths lie in the analyses of the external environment faced by the international banking industry. The first part of the section outlines the few studies which have discussed international banking in a theoretical framework. This is followed by a look at views on organizational structure by bankers, consultants and other prescriptive writers. The last part of the section highlights some of the studies which relate directly to banking organizations from the countries included in this study: Canada, the U.S. and the U.K.

2.3.1 Research Based on Formal Theories: The International Banking Industry

At least two well-known writers in the international banking sphere have applied theories of industrial organization economics to the study of the international banking industry. Aliber (1976) presents two approaches which derive from the model shown in Appendix 3. His "international trade theory" emphasizes comparative costs of banking in different countries and, in particular, the barriers to trade which prevent costs from being equalized. The second approach assesses the market structure of banks in different countries through

comparisons in mark-ups or spreads between borrowing and lending rates. Grubel (1977) categorizes banks on the basis of the main services they provide and then applies price-theoretic principles to explain why they can operate profitably abroad, focussing on how these principles affect the nature and extent of their internationalization.

Both Aliber and Grubel have been chiefly concerned with explaining the expansion of banks operations abroad by scrutinizing external variables and have not directly addressed the issue of organizational structure. Their theories, by predicting such factors as geographic and product diversification, can be combined with the strategy/structure and contingency theories discussed above to make a variety of hypotheses related to organizational structure.

Applying industrial organization theory to international banking, Areskoug (1983) finds that bankers operate in essentially the same manner as manufacturing firms when choosing a structure. They seek to determine the geographic and functional structure that best suits their overall corporate goals. Areskoug (1983: 40) hypothesizes that banks will consider the components of the industrial organization model and try to balance the relative advantages and disadvantages of, a) locational concentration and functional integration (a "centralized" structure); and b) locational dispersion and functional differentiation (a "decentralized" structure) while taking into account the operating environment. The former allows for low redundancy in the use of facilities, ease of communication, and close coordination and control. The latter tends to promote better customer contacts and greater flexibility in accessing information and responding both to shifting market conditions and to changes in the socio-political environment. According to Areskoug, the optimal structure will reflect the nature

of the firm's inputs and outputs, its technology, transportation costs, and the relative attractiveness and stability of the various business climates.

Areskoug (1983) goes beyond other writers by making the point that TNB's must not only react to business climates in their home and host countries, but are also affected by the home countries of their customers. A limitation of his analysis is that he appears to be passing over the substantial role played by offshore financial tax shelters. He has a rather restricted view of foreign banking offices as, "marketing and distribution centers for host-country transactions initiated at headquarters" (p. 41).

Channon's works (1977, 1978) are among the only theory-based studies of the international banking industry which are supported by substantial primary and secondary research. Channon's adaptation of Chandler's Stages of Development Model was discussed in Section 2.2 and is illustrated in Chart 6 of Appendix 2. The critical function form of structure was particularly characteristic of the banking industry.

In his study of service industries, Channon (1978) utilized the theoretical frameworks of Chandler (1962) and Wrigley (1970) in order to identify the variables to be studied. His typology is illustrated in Appendix 4. Classification systems were defined for the analysis of corporate strategies by their degree and type of product diversification and their level of international activity. In addition, "in view of their importance as a mechanism for strategic change" (p. 25), acquisitions were treated as a third strategy variable, and classified both by type and by the rate at which they were undertaken by particular firms. Two key structural variables were also categorized and defined. The first of these, 'the formal organization of the firm', used the stages of development identified by both

Chandler and Wrigley for manufacturing firms, but added the critical function form which had specific relevance to service industry firms. His findings with respect to the critical function structural form were discussed in section 2.2. The second category, 'corporate leadership', was subdivided into three classes based essentially upon the pattern of ownership or proprietorship of the company. He found that, with respect to corporate leadership, British banks' Boards of Directors were composed mostly of non-executives who had no knowledge of the skills required to operate a bank. These findings are presented in more detail in section 2.3.3 below.

2.3.2 International Banking - Prescriptive Studies

This section has so far been confined to theoretical approaches to the study of organizational structure, excluding the numerous other writings by bankers, management consultants, academics and others. This section is devoted to a representative number of these.

Lee (1976) provides an historical account of the evolution of the international division of TNB's. In the early part of this century when trade financing encompassed the bulk of the international activities of banks, a small foreign department was all that was required for operations to be run efficiently. As the globalization process intensified, the foreign department grew into an international division based on a regional classification, with the aim of coordinating and controlling the broadening physical presence of the bank in other countries (p. 80).

Beginning in the late 1960's, the traditional geographic structure became increasingly inappropriate for many banks. The main problem areas which surfaced included, 1) an inability to deal effectively with the sophisticated

demands of MNC's whose operations spanned several regions; 2) difficulties in marketing different services effectively; and, in general, 3) an inability to provide varying services to customers in accordance with differing customer requirements. In the face of this challenge, many bankers endorsed new divisionalized forms of organizational structures.

According to Rohlwink (1985), these structures were characterized by divisionalization on the basis of a number of factors, including:

- (1) customer (both suppliers and purchasers of funds);
- (2) customer industry group or service;
- (3) function;
- (4) nature of service provided;
- (5) geographic region;
- (6) a combination of these dimensions, i.e service/customer/market matrix.

Turner (1983) highlights the relationship between the domestic operations of a bank and its international department. He finds that where there has been a historical pattern for geographic distinctions in the domestic lending areas of most banks, it is not unusual to see this divisionalization on the international side. The outcome of this approach for the early international department was what Turner referred to as a "bank-within-a-bank" unit. Chart 1 of Appendix 5 illustrates this traditional breakdown. Because most of the staff operations were duplicated in domestic areas of banking, the next change in organizational structures addressed the refining and eliminating of redundancies and communications shortfalls. This stage, which Turner refers to as a "functionally integrated structure" is shown as Chart 2 of Appendix 5. Perhaps the most striking result of this finetuning step is that many functions are no longer under the control of the head of international but, rather, are included within the domestic structure.

A second contribution made by Turner's (1983) work is the identification of factors which firms should consider when choosing the appropriate structure. Among others, he stresses that historical precedent and personnel available for staffing are important considerations. Organization charts, "reflect management's ability to fill particular assignments" (p. 620). Turner contends that a strong international management team enjoying the confidence of senior management would tend to have a structure with a wider range of direct responsibilities, as depicted in the "traditional structure" chart (Chart 1 in Appendix 5). By extension, a weak international management team would presumably require greater control by senior management and, therefore, have a structure similar to Chart 2 of Appendix 5.

Dana (1966) discusses the centralization vs. decentralization question, as well as pushing the merits of a regionally-based structure. In his discussion of levels of centralization, he makes the point that the degree of local autonomy in foreign offices is frequently influenced by competition and, even more importantly, the availability of competent personnel at the local level. This leads him to recommend "regionalization" for all large banks, which would, 1) avoid the disadvantages of highly centralized authority; and, 2) not require the breadth of personnel competence in the branch or subsidiary.

Three variations of regionalization are identified by Dana (1966), all incorporating regional headquarters. The first type provides what is essentially a duplication of head office administration in each of the regional headquarters. In this version, the least amount of autonomy rests with foreign offices and, therefore, highly competent personnel are not essential. For example, the Ford Motor Co. of Canada's head office is a miniature replication of the parent company's head office in

Dearborn, Michigan. In the second variation of regionalization, branches and subsidiaries are granted autonomy because authority is taken away from the regional headquarters who are left in a liaison and advisory capacity only. Finally, the third type affords shorter lines of communication and less overall cost by locating regional headquarters in large branches or subsidiary banks. Dana maintains that some form of regionalization is required by large banks in order to provide desired levels of coordination and control.

In contrast to Dana's conclusions, Rohlwink (1985) endorses the divisionalization of the international department along the lines of customers served. It is his view that the use of a customer-oriented planning approach will increase as the boundaries between the activities of different financial industries disappear (p. 52). He identifies the strengths of this approach as, 1) customer units tend to be relatively more independent than product-based units; 2) a bank's competitive advantage and market share tends to be more stable than other forms of divisionalization, and, 3) a manager has better control over the profitability of the unit and also, this form permits a better assessment of his/her performance.

Rohlwink's assertion that a bank's competitive advantage and market share is safer with customer-based units would be challenged by a number of writers who have been interested recently in the changing role of the MNC in a bank's environment. The tradition for MNC's to be "one bank firms" is disappearing as they begin to reap the advantages of a more competitive international banking industry (Midland Bank Review, 1973; Hindle, 1986). Secondly, MNC's are tending to obtain financing in the commercial paper markets as opposed to credit markets and can effect these transactions directly through the Eurobond system (UN Commission on Transnational Corporations, 1981; Guth, 1986). Finally, they

have exhibited a greater preference in recent years for financing foreign operations internally (Hindle, 1986). Each of these revelations challenges Rohlwink's assumption of a stable relationship between customers and their banks.

Lee's study (1976) singled out four sets of factors which, "seem to explain the wide assortment of organizational structures employed by banks" for their international operations. These were,

- (1) Size, location and extent of international commitment;
- (2) Type of management in the bank;
- (3) Domestic business of the bank; and
- (4) Offshore operations - amount, variety and location.

The most obvious shortcoming of Lee's set of factors is the exclusion of external environmental and competitive effects. For example, it was suggested in section 1.1 that home government regulations have had a profound impact on the international operations of banks and, consequently, on the structure of operations.

Lee's study also categorized international operations under four functional headings. These were,

- (1) Service functions for customers and correspondents;
- (2) Overall Asset-Liability Management;
- (3) Business development and diversification; and
- (4) Management coordination and control.

What would have been extremely interesting, but is not present in Lee's analysis, is a discussion of how these functional headings relate to the factors affecting choice of structure.

Davis (1984) estimated that key changes in organizational structure within banks now takes place every two or three years (p. 34). It is apparent that managers are struggling to keep pace with rapidly changing competitive forces by

attempting to choose the structure best suited to strategic needs and the external operating environment, but no one knows for sure what structure is best. Writers from both inside and outside banking circles are offering opinions on what constitutes the "best" structure. There is currently a debate over whether banks are (and should be) headed toward a customer-based orientation (Rohlwick, 1985) or whether bankers have concluded that geographical units offer, in the end, the most efficient structure (Searle, 1978; Davis, 1984). Some banks may have tried to combine the two approaches. Regardless of the benefits stressed by each option, it is reasonable to state that dynamic forces have been at work which have created differences in the decision-making environments of each bank. Many of these forces have been external to the firm, such as government regulation and domestic competition, and have resulted in cross-national differences among banks. Some of these national characteristics are discussed in the studies reviewed below.

2.3.3 Canadian, British and U.S. Banks

Van Vlierden and Hurst (1978) in a study of the international relationships of U.S. banks identified five major organizational aspects of international banking:

- (1) correspondent bank relationships;
- (2) the foreign department;
- (3) overseas representative offices and branches;
- (4) Edge Act subsidiaries; and
- (5) foreign subsidiaries or affiliates.

These aspects show the unique structure of U.S. banks who have evolved within a holding company pattern due to home country regulation. Under U.S. law, Edge Act corporations were, until recently, the only vehicle through which U.S. banks could open branches abroad.

Van Vlierden and Hurst discuss some of the problems U.S. banks have encountered in trying to adapt their organizational structures to a rapidly changing environment. The major concern is the development of sufficient skilled personnel to perform effectively in overseas line and staff positions. They seem to feel this problem is related to the tradition of centralized control of overseas operations by U.S. banks. This tradition, however, appears to be fading. The authors note a new trend toward decentralization with banks shifting the bulk of their administrative and credit responsibility from U.S. headquarters to regional centers overseas.

Nagy (1983) has completed a comprehensive study of Canadian international banks which briefly outlines the structural evolution of their international operations. From the end of the '60s to the early '70s Canadian banks had divided operations into regionally-based divisions, however, regional headquarters were physically located at head office. As the "seats" were moved into their respective regions, a greater degree of decentralization was achieved. He notes that the major difference between Canadian and U.S. banks is that international operations exhibit a greater degree of centralization in the former. This he attributes to the fact that most international operations of U.S. banks are conducted through separate divisions organized as separate cost centres. Nagy cautions that the interbank differences among Canadian TNB's are immense, particularly with respect to the location of decision-making. He also notes that three of the five major banks have recently adopted matrix-type structures based on customer and region.

Roussakis (1983) has completed a thorough evaluation of the effects of U.S. government policy initiatives on the international operations of U.S. banks. He finds that the U.S. capital control program during the '50s and '60s led to the

greater importance of foreign offices (versus head office) and substantially transformed the operations and structures of the banks. For example, the Voluntary Foreign Credit Restraint Program enacted in 1965 limited foreign lending of domestic banking offices. Banks were therefore forced to establish offices abroad in order to provide the foreign financing needs of its customers.

Roussakis (1983) also speculates on the possible impact on structure of the establishment in 1982 of international banking facilities (IBF's). With IBF's, banks are permitted to operate what basically amounts to an offshore financial centre out of their domestic head office. They can conduct business with non-residents free from reserve requirements and interest rate ceilings. The objective of policy-makers is to encourage American banks to bring into the United States some of the Eurodollar business that they conduct through other financial centers. The result should be that IBF's will at least partially substitute for offshore booking offices.

Auburn (1966) provides a structural analysis of British banking but, unfortunately, gives it scanty treatment. He highlights some of the major differences between British and U.S. international banking. He finds that while U.S. MNC's are accustomed to dealing with several banks because of domestic regulations, British MNC's have exhibited a tendency to stay with one bank whether or not such a decision is economically sound. There are differences in the loan-making procedures as well. British bankers have historically extended a line of credit with no minimum balance requirements, rather than advance immediately the full amount of a loan. Finally, the British banks exhibit a similarity with U.S. banks but differ from their Canadian counterparts by having utilized separate affiliates with

separate balance sheets. The first foreign banking office or branch of any British bank which was not incorporated separately was opened in 1964 (p. 560).

Channon's (1977) discussion of British banking has already received considerable attention above, particularly with respect to his description of the holding company and critical function structural forms. The major findings of his research which deal with British banking operations are highlighted below (Channon, 1977: 55-60):

- (1) the pre-1970's regulatory environment resulted in a long period without domestic competition and with officially sanctioned cartels, leading not only to stagnation in strategic development, but also to the ossification and increasing bureaucratization of the banks' organizational structures;
- (2) as mentioned in the discussion of forces driving structure, Channon focussed on leadership as a key variable in defining the characteristics of structure. He found the banks' Boards of Directors to be composed of mostly non-executive 'amateurs' who had no knowledge of the skills required to operate a bank. Members were typically recruited from the peerage, directors of industrial corporations, former politicians, and members of families historically associated with the bank;
- (3) Channon found that the operations of the banks were heavily centralized at head office with elaborate committee structures appended to the executive team and that, as a result, the decision-making process was extremely slow;

(4) operations outside basic clearing bank operations were usually handled through autonomous subsidiaries in a holding company form of structure or otherwise kept separate in a catch-all financial services division;

(5) British bank managers seem "over-bureaucratized, narrow, conservative, and short of marketing skills" (p. 60);

(6) the major effect of the above has been that British banks have moved more slowly in response to strategic initiatives than U.S. banks and that progression along the stages of development model has correspondingly lagged.

In conclusion, it would seem from the studies relating to Canadian, U.K. and U.S. banks that there are differences among the individual environments which will result in interesting cross-national comparisons.

2.4 CONCLUSIONS

It will be recalled that the objective of the literature review was to enable the identification of, 1) the appropriate theoretical framework and associated models for use in the present study; and, 2) the significant organizational factors and environmental influences which contribute to cross-national and cross-institutional differences among the banks under study (research question number 2). The relationships between these variables and the structures of the

organizations could then be hypothesized and tested within the theoretical framework chosen. Consequently, this section examines the utility of the various theories and models discussed above and their application to the present study. The detailed description of the theoretical framework used is presented in Chapter 3, where the choice of variables is presented and defended, and their interrelationships specified in hypotheses.

The strategy/structure theorists have a great deal to contribute to this analysis by providing the concept of evolutionary development of organizational structure. This concept received considerable support in the prescriptive studies as well. Lee (1976) spoke of the evolution from an international department through to divisionalization in a manner similar to that described by Stopford and Wells (1972). A second strength of the strategy/structure approach is the identification of various structural forms which an organization may take. Here, the subsequent review of prescriptive studies provided an invaluable supplement to the primarily manufacturing-based theoretical studies. Auburn (1966) outlined a movement into holding company structures by U.S. and British banks that was supported by Galbraith and Nathanson (1979). Channon's (1978) critical function form appeared to be particularly relevant in the banking industry and this was supported by the writings of Turner (1983) who described a "functionally integrated" structure in banking.

Looking at the various forms which the multi-divisional structure can take, the review of research relating specifically to international banking revealed a crucial dimension which did not surface in manufacturing industries. Among the prescriptive studies, most writers referred to the strategic emphasis in international banking on customer groups and customer-based structural divisions.

This greater degree of attention to customer service by the service industries constituted a major difference from the studies drawing from manufacturing-based theories. When studying a service industry one can no longer expect to find only product and regional divisionalization, instead, customer type or industry divisions are highly likely.

The two contingency approaches, cultural and contextual/structural, focussed limited attention on the identification of structural forms, but dealt primarily with the independent variables affecting structure. The difference between the two approaches centered around the types of variables used. With the highly formalistic features of the organizational variables measured by contextual/structural researchers, (i.e. dependence on other organizations and technology used), cultural effects usually emerge "by accident" by way of inconsistencies or apparent irrational behaviour by firms and are allotted a residual value status. These formalistic features derive their appeal from their generalizability across organizations.

Writers adopting the cultural approach take on the task of specifically addressing the cross-cultural differences among organizations. In this sense, they have perhaps gone one step further than the contextual/structural approach and the strategy/structure writers. The argument that, while doing so, they are ignoring other important variables or exhibiting "intellectual laziness", does not detract from the sophisticated outlook which they take. The ease with which other contingencies and contextual variables can be measured does not necessarily imply that cultural effects are less important, only more difficult to measure. This is the major problem faced by cultural theorists today. Roberts and Boyacigiller (1983) sum up the current state of research quite succinctly. "One gets the feeling that

mud is still being flung at a wall in hopes that some of it will stick" (p. 64). Until such time as universally applicable culturally-defined variables are identified and a satisfactory theoretical framework is developed, culture-based theory will continue to bear the brunt of criticisms such as those discussed above.

It should be stressed once more that strategy/structure theory and contingency theory are by no means mutually exclusive. Those who follow Chandler recognize the importance and validity of contextual variables such as size of operations and technology, while contingency theorists accord heavy weight to strategic relationships. The prescriptive studies tended to support this amalgamation by identifying both sets of variables in the choice of appropriate structure (e.g. Lee, 1976; Turner, 1983). New variables were uncovered as well. Turner (1983) noted that the degree of social interaction among top executives affected organizational structure and that structural adaptation to international growth was largely affected by the structure of domestic operations. This latter relationship was in agreement with Lee (1976).

A review of the industrial organization model (Appendix 3) showed that it incorporates all of the elements of both the strategy/structure and contingency approaches. However, it was noted that theory was necessary to explain the relationships among the variables. It invites researchers to hypothesize specific relationships and test them with empirical data. That has been its greatest utility in the study of organizational structure. Aliber (1976) and Grubel (1977) were two writers who had applied the model to the study of banking, although they did not specifically address internal structure. They were more concerned with the effects of the organizational environment on geographic and product diversification. These

are not the dependent variables in the present analysis, although they represent interesting possibilities for future research.

One important implication of the relationships suggested by the industrial organization model is that, unlike Chandler's (1962) now famous thesis, structure does not necessarily follow strategy. The reverse may be true. The freedoms and advantages or constraints and limitations of a particular structure can affect strategic actions. This more complex view of the world is intuitively appealing. However, although causal relationships can move in many directions, the present study will specifically be concerned with the impact of various forces on organizational structure and not vice versa. Feedback loops, although almost certainly present, will be ignored in order to keep the parameters of the study within manageable proportions.

In summary, this chapter has revealed that Chandler's evolutionary Stages of Development Model and subsequent hybrids provide a strong foundation upon which to identify the dependent variables related to the organizational structure of TNB's. In view of the manufacturing industry bias, it will be supplemented with the findings of the prescriptive studies in order to create a model which will explain and predict the evolution of international banking structures.

The greatest potential of the contingency theories for the present study lies in their ability to assist in the identification of independent and extrinsic variables affecting structure. The argument that organizational characteristics are determined by the organizational environment is a strong one. Contingency theorists also provide perhaps a useful alternative to the evolutionary characteristic of the strategy/structure models by essentially implying that any organizational structure is possible at any time provided conditions are right.

Unfortunately, it is the very strength of the approach, i.e. its flexibility, which has created its greatest weakness - the inability to formulate a structural development model within which to test all of the hypothesized relationships. Although contingency theory is flexible and wide-ranging, strategy/structure theory provides a concrete framework within which to study the structures of organizations through the concepts of, 1) similar structural stages through which all firms eventually pass; and, 2) the evolutionary characteristic of the structural development model.

3. THEORY

The theory on which this study is based was selected with the research questions identified in section 1.3 in mind. They are repeated below:

- (1) What are the common organizational structures through which the global operations of TNB's are carried out?
- (2) What are the significant structural differences, if any, among TNB's based in different countries? What organizational factors and external influences contribute to these differences?
- (3) What are the nature and extent of the relationships which exist between, a) the common organizational structures through which the global operations of TNB's based in different countries are carried out; and, b) the organizational factors and external influences contributing to differences among these structures?

The literature review chapter provided the background required to answer questions (1) and (2), as well as to generate hypotheses on the relationships referred to in (3). This chapter begins by outlining a stages of development model in the manner of Chandler's (1962) work, which provides a framework within which to answer question (1) and can be used to test the hypotheses relating to question (3). The first section identifies the dependent variables relating to organizational structure and the methods of measurement. The second section addresses question (2) by selecting certain independent variables from the

organizational factors highlighted in the literature review. The operational definitions of these variables are presented. The next section goes on to discuss a third category called extrinsic variables, which may have an effect on either the independent or dependent variables. These include the external influences of question (2). The fourth section draws the three groups of variables together by looking to theory for a set of hypothesized relationships leading to an answer to question (3). The final section reviews some variables suggested by the literature review which have not been included in the analysis and provides justification for their exclusion.

Figure 3-1 lists the three sets of variables and shows the directions of the causal relationships which have been hypothesized. It should be repeated that the relationships shown are intended to build on Chandler's (1962) research and his somewhat restrictive "structure follows strategy" thesis. Although the present study is examining the effect on structure of strategic variables, it is noted that subsequent research has discovered the strategy/structure relationship to be more complicated than Chandler had hypothesized. There are exogenous variables and other factors which can act to reverse the causal relationship between strategy and structure. Thus, by examining only the impact on structure of strategy and not vice versa, this study is simply delineating parameters for the research which are manageable in scope.

3.1 Structural Form

Chapter 2 discussed the strengths and weaknesses of the contingency and strategy/structure approaches to the study of organizational structure. The former

FIGURE 3-1**INDEPENDENT, DEPENDENT AND EXTRINSIC VARIABLES
AND DIRECTIONS OF RELATIONSHIPS TO BE EXAMINED****INDEPENDENT VARIABLES**

1. Size
2. International Activity
3. Organizational Forms Abroad
4. Product Diversification
5. Customers Served
6. Geographic Diversification

DEPENDENT VARIABLES

1. STRUCTURAL STAGE
2. BASIS OF ORGANIZATION

EXTRINSIC VARIABLES

1. Home Government Regulation
2. Domestic Competition

is flexible and wide-ranging but does not offer a comprehensive model within which to test hypothesized relationships. While the strategy/structure approach is less wide-ranging, it does provide a single model on which organizational structure can be compared. It relies upon two main assertions concerning the characteristics of organizational structure. First, there are similar stages of divisional differentiation through which all firms pass and, second, there is an evolutionary characteristic to the development of firms' structures.

The present study makes no attempt to track the evolution of banks' organizational structures over time but, rather, paints a synchronic picture of the characteristics of the structures at one point in time. Nevertheless, this study will use a structural evolution model to transform the data on banks' organizational structures into information which can be used to test certain hypothesized relationships. This choice has been made because the concept of similar structural stages provides a convenient mechanism through which to identify the structural characteristics of the banks under study. The evolutionary characteristic of the model is necessary in order to examine the relationships between levels of the independent variables and the associated structural stage. The model is based on theory which presumes a growth in volume of operations and complexity of operations between each stage, so stages are therefore presented in a sequential manner.

3.1.1 The Model

Figure 3-2 presents a model of the structural evolution of TNB's. The stages outlined in the model are meant to identify the important structural shapes taken by commercial banks as they expand and diversify internationally. These

FIGURE 3-2
STRUCTURAL DEVELOPMENT MODEL
FOR TRANSNATIONAL BANKS

stages were drawn from the literature reviewed above relating to both banking and manufacturing industries. It was therefore anticipated that the structures of all banks in this study would approximate the characteristics of one of the stages.

It is reiterated that although an order of development is implied by the model, it is not the purpose of this research to determine whether individual banks have followed the model sequentially. It may well be that certain banks have skipped stages and/or reversed direction along the way. The model is used for two main purposes:

(1) as a tool to facilitate the identification of the dependent variables related to organizational structure and, as a result, to examine whether the seven stages in the model encompass all of the significant structural forms taken by TNB's (research question (1) stated above); and

(2) to examine whether the hypothesized relationships between independent and dependent variables hold, allowing for the influence of extrinsic variables (research question (3) stated above).

Banks in the study were placed into one of the seven stages shown in the model based upon an examination of the first level of their structural hierarchies. This level is composed of operating divisions, the heads of which report directly to the chief executive officer of the organization. These divisions provide an illustration of the main preoccupations under which divisional groupings have been made. The focus of the analysis on this first hierarchical level is consistent with the methodologies followed by many other writers on organizational structure (e.g.

Chandler, 1962; Stopford and Wells, 1972; Channon, 1978). In these cases, as in the present one, the writers recognized that the definition of organizational structure has several components which are not mutually exclusive. By focussing on the basis upon which top-level divisional differentiation is made, other components are not being excluded. They are just not being specifically measured.

The first stages in the model can occur while domestic operations are still organized functionally (Chandler's Stage 2) or after they have become multi-divisional. The term "domestic" in the model simply means that except for other structural forms identified by the particular stage of evolution, all first level hierarchical divisions relate to domestic operations.

In Stages 1 through 4, evolution along the model is driven by increases in the level of foreign activity relative to domestic operations. Stage 5 introduces the element of diversification along the lines of region, product, customer or a mixture of the three. Movement beyond Stage 5 is driven by both of these factors. The various stages of the model are described below.

Stage 1 - Domestic With Correspondent/Consortium Relationships Abroad

Roussakis (1983) and Channon (1977) confirmed that both U.S. and British TNB's, respectively, had initially handled international operations abroad through either correspondent or consortium relationships with foreign banks. A similar stage did not exist for manufacturing firms in the studies reviewed. TNB's falling within this stage should have a first level of their structural hierarchy which is subdivided entirely on the basis of domestic operations.

Stage 2 - Domestic With Semi-Autonomous Foreign Subsidiaries

This stage concurs with the studies of manufacturing industries, especially Stopford and Wells (1972) and Salter (1970), and was confirmed for the British banking industry by Channon (1977). It is synonymous with the holding company stage referred to by many writers (e.g. Galbraith and Nathanson, 1979). There is a reluctance to adopt this wording in the present model, however, because the legal connotation of a holding company could confuse the issue. TNB's falling within this category should have a first level of their structural hierarchy which is subdivided entirely on the basis of domestic operations but, in addition, have one or more separately incorporated foreign subsidiaries reporting either to a domestic division head (perhaps via an international department or foreign office within the domestic division), or to the chief executive officer.

Stage 3 - Domestic With "Bank-Within-a-Bank" International Division

Turner (1983) illustrated a structural form (see Appendix 5) which purported to be the typical international division first adopted by a bank once the decision had been made to incorporate international operations into a first level division. Roussakis (1983) confirmed that some U.S. banks had utilized this "bank-with-a-bank" form. Stopford and Wells (1972) spoke of a "functionally independent" international division in manufacturing industries, but this tended to exist only when domestic operations were handled through a functional structure. The present model contains no such assertion. Indeed, Channon (1977) found that British banks tended to adopt a domestic multi-divisional structure based on regions prior to expanding internationally, meaning that functionally independent international divisions existed without domestic organization on the basis of

functions. In general, these writers suggest that banks will form functionally independent or "bank-within-a-bank" international divisions and that these divisions will be created early in the internationalization process.

TNB's falling within this category should have a first level of their structural hierarchy which includes a functionally autonomous international division. This distinction is made by examining the first level of the structural hierarchy to determine whether there are any functional divisions serving the bank's global operations. All other divisions will be domestic.

**Stage 4 - Domestic With Functionally Integrated International Division
and Global Functional Division**

This stage is synonymous with Turner's (1983) functionally integrated structure shown in Chart 2 of Appendix 5. It also equates with Channon's (1978) critical function form discovered in the service industries. As found by Channon, one or more functions become so critical that a separate division handles this function for the entire firm. The justification for this form is contained in Channon's (1978) observation that certain integral functions in the banking industry were given separate divisional status regardless of the size of the institution. This discovery appears to be supported by the opinions of bankers. Turner (1983) placed a great deal of emphasis on the importance of a number of functions and the desirability of controlling such functions on a separate and global basis.

Stage 4 can also be equated with Wrigley's (1970) hybrid for dominant business firms. Given that the dominant business of the bank is quite probably

lending, then credit risk (a function) could logically be treated separately in the organizational structure.

TNB's falling within this category should have a first level of their structural hierarchy which is composed of a functionally integrated international division, a global functional division and domestic divisions.

Stage 5 - *Domestic With Functionally Integrated International Division, Global Functional Division and Specialty Area - ('Specialty Area' includes divisions partitioned by, 1. global customer group; 2. global product group; 3. region; or, 4. mixture of two or more of these three)*

This stage reflects the need to manage diversification and is consistent with Stopford and Wells' (1972) "mixed structure". Their mixed structure was found to be a transition phase from the use of an international division to the elimination of domestically based divisions in favour of global divisions. TNB's falling within this category should have a first level of their structural hierarchy which is composed of a functionally integrated international division and a global functional division, as well as one or more global specialty divisions. This stage requires that at least one division remains which deals entirely with domestic operations.

Stage 6 - *Functionally Integrated International Division, Global Functional Division and Specialty Area - ('Specialty Area' is defined in Stage 5 above.)*

The key characteristic of this stage is that no purely domestic division remains. Although a purely international division still exists, domestic operations are handled in other integrated divisions. Again, this stage resembles Stopford and

Wells' (1972) transitional phase. TNB's falling within this category should have a first level of their structural hierarchy which is composed of a functionally integrated international division, a global functional division and other globally integrated specialty divisions, without the existence of a purely domestic division.

Stage 7 - Global Functional Division and Specialty Area -

('Specialty Area' is defined in Stage 5 above.)

TNB's falling within this category should have a first level of their structural hierarchy which is completely globally integrated, that is, there are no purely domestic nor purely international divisions, and at least one division is organized along functional lines. This stage is the closest approximation to Chandler's Stage III multi-divisional structure. Because of the prerequisite of a functional division in this stage, the model does not include a stage which exhibits the characteristics of a purely multi-divisional structure in the manner foreseen by Chandler.

3.1.2 The Dependent Variables

It was stated in section 2.1 that for the purpose of the present study, structure is characterized as the basis upon which divisional differentiation has been made. Accordingly, the dependent variables chosen to describe the organizational structure of the global operations of TNB's are set out below, along with their operational definitions.

1. **Structural Stage:** As demonstrated in the literature review, the evolutionary stages of development models provided by Chandler (1962) and others

(e.g. Channon, 1978; Galbraith and Nathanson, 1979) provide a convenient mechanism for categorizing organizational structures and facilitating research such as that being conducted in the present study. The previous section outlined a hypothetical model which might be appropriate for analysis of the international banking industry. Accordingly, the variable structural stage is identified by classifying the first level of a bank's organizational hierarchy into one of the seven evolutionary structural stages shown in Figure 3-2. The data gathered provides a picture of the first level of the structural hierarchy for the firm, as well as information on whether each division relates to domestic operations, international, or both.

Operational Definition: A chart of the first level of each bank's hierarchy was obtained from available secondary sources, with confirmation and explanation, where necessary, obtained directly from bank officials. TNB's were then placed into one of the seven stages in Figure 3-2 on the basis of the following distinguishing characteristics:

<u>STAGE</u>	<u>DISTINGUISHING CHARACTERISTICS</u>
1	All international operations are handled through correspondent banks, consortiums, and/or representative offices, with no branches or subsidiaries (wholly or partly owned) located abroad.
2	All international operations are handled through correspondent banks, consortiums, representative offices, and/or subsidiaries

(wholly or partly owned). There is no international division in the first level of the parent organization's hierarchy and no branches located abroad.

3 The first level of the organization's structural hierarchy includes an international division, but there is no functional or other division at this level connected with international operations. In order to distinguish domestic divisions from international, the operations of each first level division were examined to determine whether they covered domestic operations, international, or both.

4 Stage 4 is identified as per Stage 3 except that in this case there is at least one functional division in the first level of the organization's hierarchy connected with international operations. Functions were identified by Turner (1983) as items such as credit, funds management and loans servicing. Outside of the international division and the functional division(s) all other divisions relate specifically to domestic operations.

5 Stage 5 includes an international division, functional division(s) connected with both domestic and international operations, and at least one division relating specifically to domestic operations. Other divisions connected with both domestic and international operations are classified as either product-based,

regionally-based or customer-based, according to the operations of the division.

6 Stage 6 differs from its predecessor due to the absence of a domestic division. It includes an international division, functional division(s) connected with both domestic and international operations, and other divisions classified as either product-based, regionally-based or customer-based, according to the operations of the division.

7 Stage 7 differs from Stage 6 in that there is now no international division. The firm is completely integrated globally. All divisions handle both domestic and international operations. At least one division is functional, while others are classified as either product-based, regionally-based or customer-based, according to the operations of the division.

2. Basis of Organization: This variable refers to the most common strategic basis upon which the organization has differentiated the various divisions of the first level of the structural hierarchy.

Operational Definition: Measurements of this variable are taken only for those banks whose structures fall within the multi-divisional stages in the model (stages 5, 6 and 7 in Figure 3-2). Four categories are possible: 1) regionally-based divisions; 2) product-based divisions; 3) customer-based

divisions; and, 4) a mixture of regional, product and/or customer-based divisions. The classification is made by first ignoring all first level divisions associated with, 1) functional, staff or integrating roles; 2) purely domestic operations; and, 3) purely international operations. Only the remaining divisional groupings are analysed. Among the remaining divisions, two situations are possible:

(1) where all divisions are based on one of region, customer or product, the classification is on that basis; and

(2) where the divisions are based on more than one of region, customer or product, the structure is considered mixed.

3.2 The Driving Forces - Independent Variables

This section identifies the key forces driving structure, drawn from those identified in the literature review in Chapter 2. It deals with strategic and organizational factors. These are the independent variables in this analysis - the factors which, with changes in volume of operations and complexity of operations, cause corresponding changes in the dependent variables, 'structural stage' and 'basis of organization'. The next section identifies certain extrinsic variables which are possible explanations for inconsistencies in the hypothesized relationships between the dependent and independent variables. Again, the extrinsic forces were suggested by the literature review. All of these variables and the directions of the relationships examined were shown in Figure 3-1.

The independent variables chosen are as follows:

1. **Size:** The inclusion of size as an independent variable presumed to impact on organizational structure is easily justified by related research (e.g. Chandler, 1962; Stopford and Wells, 1972). Both the strategy/structure and contingency groups of theorists described above have found a relationship between size of an organization and its corresponding structure.

Operational Definition: This variable involves two measurements. The first is total assets, measured in U.S. dollars at the exchange rate existing at the end of 1986. The second measurement of size is total employees hired globally, also, at the end of 1986. The former definition is commonly used to rank banks by size. For example, the annual surveys of international banking in *The Banker*, *Fortune*, and *Euromoney*, all use this measurement. The latter definition has been chosen, first, because of its pervasive use in many disciplines to describe organizational size and, second, because of availability and comparability of data.

2. **International Activity:** Stopford and Wells (1972) found level of international activity to be a crucial indicator of structural evolution in manufacturing industries. This was confirmed by Turner (1983) for the international banking industry.

Operational Definition: This variable is measured by using both the proportion of international assets as a percentage of total assets, and international profit before taxes as a percentage of the total before tax profit. Assets are

measured on a taxable equivalent basis so that the distorting effects of non-taxable items are eliminated and cross-country differences therefore minimized. With a similar objective, international profits are measured before taxes and provisions for loan losses. The data are extracted from annual reports and other printed sources.

The measurement of international profit is taken in order to examine the profitability-risk relationship discussed in section 2.1. According to Lee (1974) banks choose their organizational structures with the objective of profit-maximization. Chandler (1962) confirmed that his "structure follows strategy" thesis required that a firm be a profit-maximizer. Accordingly, firms which do not adjust their structures to changes in volume of operations and complexity of operations may suffer lower profits as a result. In a purely competitive environment, the relationship between international profits and international assets should remain constant across each stage. Any discrepancies in this hypothesized relationship mean factors are at work which result in a poor match of organizational structure with operations. Thus, this variable is compared with the measurement of international assets.

3. Organizational Forms Abroad: The application of this variable is limited to providing the data necessary to distinguish which banks are associated with Stages 1 and 2 in Figure 3-2. The variable is a categorization of the organizational forms employed by banks in pursuing their operations abroad. These can include correspondent relationships, consortiums, representative offices, branches and/or wholly or partly owned subsidiaries. Both Stopford and Wells (1972) and Channon (1978), as well as others reviewed above, found that it was not just the growth of

international operations but also the organizational forms under which such growth took place that determined the structural stage of an organization. By examining these organizational forms for the banks under study it was possible to distinguish between Stages 1 and 2 of Figure 3-2.

Operational Definition: Banks were placed into either Stage 1 or Stage 2 as follows:

(1) Stage 1: representative offices, correspondent relationships and/or consortiums with *no branches or subsidiaries* handling international operations; or

(2) Stage 2: representative offices, correspondent relationships and/or consortiums, as well as wholly or partly owned subsidiaries handling international operations, but with *no branches* located abroad.

4. **Product Diversification:** Products/services provided on both a domestic and international basis have been shown by Chandler (1962) and Stopford and Wells (1972) to impact on the divisionalization of a firm's structure, as well as the basis on which differentiation is made. Increases in product diversification were found to cause the evolution of structures to a purely multi-divisional form. Also, these writers found that product diversification, in general, leads to divisionalization on the basis of product. Stopford and Wells went further by noting that it was necessary for the products carried abroad to be the same as those provided domestically in order for global product divisions to result. Accordingly, this

variable covers three aspects of product diversification: products provided domestically, products provided internationally, and overall product diversification.

Operational Definition: Two measurements of product diversification are used. The first utilizes an index to assign a value to each bank for domestic, international and total product diversification. The index has five categories of products for domestic operations and six categories of products for international operations. A Product Diversification Score Sheet was used and is reproduced in Appendix 6. The extra category under international operations includes money market operations in the major financial centres. Although U.S. and U.K. banks engage in these operations domestically (because of the presence of the New York and London financial centres), these are transactions treated by the banks as international. To include them in domestic operations would serve to distort the results for Canadian banks. The banks are assigned a score for each category as follows: a) '0' if no services in a category are provided; b) '1' if limited services are provided; and, c) '2' if a full range of services are provided. Totals are taken for domestic, international and global operations. This measurement is not intended to be a scale but, rather, an index, because equal intervals do not exist between each category score.

The second measurement of product diversification used is the level of non-interest income as a percentage of total income for each bank. The traditional services of banks have included interest-earning operations, such as corporate loans, sovereign loans, and money-market transactions. Non-interest income results from engaging in capital market activities, fee-earning transactions and

other non-interest earning operations. It is into these areas that banks have been diversifying in recent years (Stevenson, 1986). Accordingly, this measurement is intended to provide an indication of the level of total product diversification into non-traditional banking services.

5. Customers Served: Chandler (1962), Stopford and Wells (1972) and most other writers looking at manufacturing industries found that strategic emphasis on growth, product and regional diversification affected organizational strategy. The prescriptive writings, primarily by bankers (e.g. Rohlwink, 1985), emphasized strategic emphasis on customers. It is not inconsistent with the theory utilized in this study, therefore, to assume that a greater attention to customer groups by banks, and service industries in general (see Channon, 1978), indicates that the customers served both domestically and internationally can impact on organizational structure in the same manner as products.

Operational Definition: The measurement of this variable utilizes an index technique similar to the one employed to measure product diversification. Banks are assigned a value of either '0' or '1' for each of seven customer groups, depending on whether they serve these markets. Scores are taken for domestic, international and total operations. A Customer Diversification Score Sheet was used and is reproduced in Appendix 7.

6. Geographic Dispersion: The Chandler (1962) and Stopford and Wells (1972) studies were, again, among a number of studies outlined in the literature review in Chapter 2 which found that increases in geographical dispersion affect

evolutionary structure. Where this dispersion was not offset or overcome by increases in product diversification, firms tended to adopt regionally-based divisionalization. Accordingly, this study looks at the geographical dispersion of the global operations of the banks under examination.

Operational Definition: This variable is measured by the absolute number of countries in which operations are conducted either through representative offices, consortiums, branches, wholly or partly owned subsidiaries, or correspondent relationships. This particular measurement of dispersion is chosen primarily due to availability of data. It could be argued that the measurement is not meaningful without some idea as to geographical concentration by country. A measurement for such concentration, however, was not available for all banks. This approach was taken by Stopford and Wells (1972) due to a similar constraint.

3.3 Extrinsic Variables

Some of the inconsistencies between hypothesized relationships and the actual results of this study may be due to external influences. Channon (1977) found that the regulatory environment in Britain had resulted in the ossification of banks' organizational structures. Roussakis (1983) postulated that the restrictions on the services which U.S. banks could provide domestically combined with harsh reporting requirements had forced banks to keep their domestic operations separate from international. Franko (1976) found that the lack of competition in continental Europe had allowed manufacturing organizations to retain

holding company or 'mother/daughter' structures past the point at which U.S. organizations had moved to multi-divisional structures. In general, the literature review revealed that these two factors, home government regulation and domestic competition, seemed to have the greatest impact of on structural considerations. As a result, the two extrinsic variables are, 1) home government regulation; and, 2) domestic competition. These variables are defined in a descriptive manner by reviewing how the history of the regulatory and competitive environment in each of Canada, the U.K. and the U.S. has affected the evolution of the banking industry in each country.

3.4 Hypothesized Relationships

3.4.1 The Thesis

It was hypothesized that the causal relationship between strategy and structure found by Chandler (1962) would be confirmed for the international banking industry, however, the structural forms assumed by banks would differ from those of manufacturing industries. These anomalies would reflect differences in the strategic emphasis of bankers and the substantial impact of external influences.

3.4.2 Hypothesized Relationships Among Variables

Figure 3-1 above illustrated the directions of the relationships examined in this study. Each dependent variable is affected by a set of independent variables, while the extrinsic variables have a dual impact on both independent and dependent variables. The hypothesized nature of these relationships and their theoretical

roots are discussed in more detail in this section.

Structural stage is the one dependent variable which is affected by each of the six independent variables. As size, international activity, customers served, and product and geographic diversification increase, an organization's structure is hypothesized to be in a higher stage in the model. This is consistent with Chandler (1962) and Stopford and Wells' (1972) findings for manufacturing firms. The two exceptions to this expected pattern relate to organizational forms and international profit. First, the variable 'organizational forms abroad' is hypothesized to affect structural stage only insofar as the addition of foreign subsidiaries moves an organization from Stage 1 to Stage 2 of Figure 3-2. As mentioned in section 3.2, the relationship between international profit and international assets is expected to remain constant over all of the stages.

It is hypothesized that *basis of organization* is affected by levels of international activity, customers served, and product and geographical diversification. Table 3-1 sets out some of the relationships which have been suggested by the literature review in Chapter 2. For example, Stopford and Wells (1972) found that, for manufacturing firms, high levels of product and geographical diversification internationally eventually led to divisionalization on the basis of product. For the international banking industry, it was suggested that because of the greater strategic emphasis of bankers on customer groups (Rohlwink, 1985), high levels of the diversification variables would act to create customer-based divisions. This effect may be negated by high levels of specialization in particular product groups, where for a dominant product group, a separate division has been created. This is consistent with Wrigley's (1970) structural form for dominant business firms.

TABLE 3-1**HYPOTHESIZED LEVELS OF INDEPENDENT VARIABLES
FOR REGIONAL, PRODUCT AND CUSTOMER-BASED DIVISIONS**

<u>Basis of Organization</u>	<u>Independent Variable</u>	<u>Hypothesized Level</u>
<i>1. Regional Divisions</i>	Size	Medium/Large
	International Activity	Medium/High
	Product Diversification	
	- domestic	Medium
	- international	Medium
	Customers Served	
	- domestic	High
	- international	Medium/High
	Geographic Diversification	High
<i>2. Product Divisions</i>	Size	Large
	International Activity	High
	Product Diversification	
	- domestic	High
	- international	High
	Customers Served	
	- domestic	High
	- international	Medium/High
	Geographic Diversification	Medium/High
<i>3. Customer Divisions</i>	Size	Large
	International Activity	High
	Product Diversification	
	- domestic	High
	- international	High
	Customers Served	
	- domestic	High
	- international	High
	Geographic Diversification	High

The extrinsic variables, home government regulation and domestic competition, were shown in Figure 3-1 to affect both independent and dependent variables. No specific relationships can be hypothesized with respect to these variables because no measurements are to be taken. Instead, this study undertakes a descriptive analysis of how these factors have affected the evolution of the banks under study. Regulation and competition in Canada, the U.K. and the U.S. are contrasted and compared to determine how national differences might have emerged and acted to create inconsistencies in the relationships hypothesized between independent and dependent variables.

3.5 Limitations

3.5.1 The Model

The model designed for use in this study is employed to test that the individual stages encompass all of the important structural forms assumed by TNB's, and to determine whether the hypothesized relationships between independent and dependent variables hold, allowing for the influence of extrinsic variables. If the relationships do not hold, then the possibility exists that the order of the stages implied by the model is incorrect. Although it would be extremely interesting to conduct a longitudinal study which addresses this issue, the design and scope of this research does not permit such an undertaking.

3.5.2 The Variables Excluded

Chapter 2 contained references to many studies, but not all of the variables

identified by the writers have been incorporated into this analysis. The rejection of these variables is attributed to several factors.

First, it was discovered that the impact of culture on the internal structure of international operations cannot be directly measured due to a myriad of problems exemplified by the inability to define culture itself. Instead, the concept is most often treated as a residual one, in that it addresses unexplained national differences by pointing to possible explanations which seem to be country-specific. Three of the cultural variables identified in the literature review were managerial attitudes (Channon, 1978), power distance (Hofstede, 1979) and access to power (Tannenbaum and Cooke, 1979). The first, managerial attitudes, was found by Hickson, et al. (1979) to be a result of levels of centralization and unrelated to culture. The others and, in general, most of the cultural variables contained in the research to date are difficult and/or expensive to measure, and highly controversial. The present study is looking at country-specific differences but does not automatically assume they are cultural. Cross-national differences could be directly attributable to legal or economic variables, rather than cultural. The literature review showed that the indiscriminate use of the term culture in referring to cross-national peculiarities has been the source of much criticism.

Structural variables not included among the dependent variables listed above but deemed important in the literature review are integrating mechanisms, Galbraith and Nathanson's (1979) centralization levels, and Stopford and Wells' (1972) information flows among executives. These exclusions were partially justified by choosing a characterization of structure which suited the size and scope of this project. The exclusion of integrating mechanisms was not due to the lack of importance of this component of structure. The omission was based on a need to

define manageable parameters for the study. The measurement of levels of centralization requires that particular functions be examined and this would inject a greater degree of specificity into this analysis than is intended or desired. A similar situation applies to the measurement of information flows among executives, a variable which is present in a limited way in the examination of structural stage and basis of organization.

A number of strategic and contextual variables included in the literature review have been omitted from the independent variables identified above. Although Stopford and Wells (1972) found that investment in research and development had a major impact on the structures of manufacturing firms, the virtual absence of such expenditures in the banking industries provided ample justification for their omission. Because this study is limited to one global industry, it is assumed that technology (Woodward, 1965), environmental rate of change (Burns and Stalker, 1961) and dependence on other organizations (Pfeffer and Salancik, 1978) are approximately the same for all the banks in the study. The type and rate of acquisitions by firms (Pitts, 1977) would permit hypotheses on some interesting relationships, but is more suited to a longitudinal study.

3.6 Summary

In summary, there are many studies examining the impact of an organization's environment on its structure. The literature review above outlined some of the major research efforts of interest in the present study. Many of the relationships found have gone unchallenged, while others have raised additional questions to be answered in subsequent research.

Limitations on the size and scope of this thesis require that not all variables of interest can be studied. The parameters of the research were constructed by first defining the elements of organizational structure to be examined and then constructing a model to be used as a tool in identifying and measuring the dependent variables. Following from the evolutionary characteristic of the model, the forces driving structural change were drawn from theory. Some of these forces were found to be inappropriate for the banking industry or the structural development model, and others were too difficult or expensive to measure. The relationships between the driving forces chosen and the dependent variables are ones which are widely supported in the literature, both theoretical and prescriptive. It is hoped that this choice will permit valuable insight in two areas: 1) highlighting the *national* differences among the organizations under study; and, 2) providing an indication of how well the theories and models based primarily on manufacturing industries adapt to the international banking industry.

4. DATA COLLECTION

The first section of this chapter looks at the selection of banks to be included. The following section examines the data sources and collection methods used in the measurement of variables. Finally, the third section identifies some of the more important limitations of the data collection process.

4.1 SELECTION OF BANKS

The banks included in the study are listed in Appendix 1. The selection was made by identifying all banks from Canada, the United States and the United Kingdom, whose total assets exceeded U.S.\$34 billion (the smallest of the large Canadian banks) at the end of 1985. This resulted in a sample of twenty banks, including ten banks from the U.S., and five each from Canada and the U.K.

The choice of these three countries of origin was based on the following factors.

(1) *similarities*, such as size, international orientation, and technology used. This latter similarity refers to the methods through which transactions are completed which, for example, enable all banks in the study to transact large interbank operations in the major international financial centres. The similar technologies available to the banks also provide them with equal opportunities to access the various markets served, for example, through the processing of credit card transactions and automated teller machines;

(2) *differences* stemming from country of origin, such as domestic regulatory environments, industry structure and economic growth patterns. For example, the regulatory environment in Canada has resulted in a highly concentrated industry, while in the U.S. there are currently approximately 15,000 banks. The latter are heavily regulated with respect to their international operations, as opposed to nearly non-existent controls in Canada. British banks were among the first permitted to incorporate joint-stock partnerships which, combined with the former colonial power of the home country, contributed to their historical domination in world banking markets; and

(3) *availability of data*. The inclusion of banks from West Germany and Japan in the study would have provided an interesting perspective, however, the data would have been difficult and time-consuming to obtain given the geographic distances involved. Background information on the banking industries in these countries is not easily available from Canadian sources. In addition, primary data collection might have been complicated by language barriers.

Given these considerations, the banks studied had several important advantages which made them desirable for inclusion in this research. These are,

(1) the choice of these three countries provides a useful comparison given the trade dependencies among the countries, particularly Canada and the U.S.;

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(2) all the banks chosen are among the top 75 banks in the world, ranked by total assets, and studying them will represent an interesting survey of international banking issues;

(3) all of the major banks from Canada and the U.K. have been included, as well as ten of the largest banks in the U.S., providing a representative sample of international banking activities emanating from these countries; and

(4) the selection and inclusion of these banks permits the research to be conducted within the resources available.

4.2 DATA SOURCES AND COLLECTION METHODS

Chapter 3 identified the dependent and independent variables which were to be measured and provided operational definitions of those variables. This section outlines where the data was obtained. In some instances, information was available from various secondary sources while, in other cases, some primary research was required.

4.2.1 Secondary Data Collection

(a) Dependent Variables

(i) Structural stage - The data required to complete the charts depicting the first levels of the structural hierarchies of each bank were obtained by examining corporate annual reports for the years 1981 through 1986, 10-K Reports (U.S. banks only), excerpts from *Moody's Banking and Finance Manuals*,

Who Owns Whom bank histories and case studies, published interviews, bank reviews, periodical articles, and other published materials provided by the banks upon request. These included organizational structure charts, newsletters to shareholders and international telephone directories.

The operational definition of the variable structural stage entailed the identification of the logical groupings, or divisions, in the first level of the organizational hierarchies of the banks. These divisions were not necessarily separate profit centres, but represented operations, the responsibility for which were grouped together under some common characteristic such as customer or product group. Once these first level divisions had been identified, each division was separately scrutinized to determine, 1) whether operations within that division were domestic, international, or both; 2) whether the scope of such operations was defined by function, product, region, customer or some other form of delineation; and, 3) for those banks having international divisions, whether the divisions were functionally autonomous or functionally integrated. In most cases, this information was available from the printed sources listed above, however, some supplementary primary data collection was necessary (see section 4.2.2).

(ii) Basis of Organization - Banks were assigned to one of four categories on the basis of organization. These were, 1) regionally-based divisions; 2) product-based divisions; 3) customer-based divisions; and 4) a mixture of regional, product and/or customer-based divisions. This information was obtained by looking inside the operations of each division by reviewing divisional highlights in the corporate annual reports of each bank. Where necessary, additional information was obtained from other bank publications such as those listed above.

(b) Independent Variables

(i) Size - Figures for the total assets of each of the banks were obtained from the June, 1986 international banking issue of *Euromoney*. These sums represent values expressed in U.S. dollars as of December 31st, 1986. All amounts were cross-checked against the financial statements of the individual banks. The total number of worldwide employees was extracted from annual reports and other bank publications, then cross-checked against the figures published in *The Banker* and *Fortune* magazines.

(ii) International Activity - Statistics for international assets as a percentage of total assets were available in each annual report. Banks differed in the way in which international operations were defined, choosing to use either domicile of customer or location of booking office as the applicable criteria. The implications of this difference are discussed below when limitations of the data collection methods are presented.

Similarly, figures for international profits were available in all of the annual reports. In order to separate the effects of differing domestic tax and regulatory environments, the numbers represented international profit as a percentage of total profit *before taxes and provisions for loan losses*. As a result of this definition, country-specific differences in the tax treatment of certain services and the varying rates at which profits were taxed did not detract from the comparability of the data. Difficulties stemming from different requirements for reserves against loan losses were also avoided.

(iv) Organizational Forms Abroad - Annual reports, supplemented by excerpts from *Moody's Banking and Finance Manual*, disclosed whether banks had subsidiaries or branches abroad. This variable was to be used only to differentiate the structures of banks that were in either Stage 1 or Stage 2 in the model. Only one bank fit this category.

(v) Product Diversification - As outlined in section 3.2 above, the operational definition of this variable had two components. The first was a measurement of non-interest income as a percentage of total income. This information was available for all the banks in their annual reports. The second component was a score for product diversification obtained by examining five product categories provided domestically and six categories of products provided internationally and assigning to each category one of three scores. These scores were as follows: 1) a score of '0' where the bank provided no services in this category; 2) a score of '1' if a limited range of products was provided in the category; and 3) a score of '2' where a broad range of products was provided. These scores were obtained for each of domestic and international operations and then individually summed. In addition, the two totals were combined to provide a figure for total product diversification. The data required to assign the scores were obtained through an examination of bank annual reports, 10-K reports (U.S. banks only), and other published materials. In some instances, primary data collection was necessary for confirmation and clarification (see section 4.2.2).

(vi) Customer Diversification - An index was also used to measure customer diversification. Each bank was assigned a score based on whether or not it

served each of seven customer groups, either domestically or internationally. This score was '0' if the customer group was not served and '1' if it was. Scores were obtained for each of domestic and international operations, as well as a total of the two representing total customer diversification. In every instance, this data was available in corporate annual reports, 10-K reports (U.S. banks only), and excerpts from *Moody's Banking and Finance Manual*.

(vii) Geographic Dispersion - Most annual reports or bank promotional materials indicated in how many countries each bank was represented. For some banks, however, the information had to be obtained through direct contact with bank officials (see section 4.2.2).

(c) Extrinsic Variables - A synopsis of the domestic regulatory and competitive environment was obtained for each of the three countries covered by the study. Much of the background was obtained from the literature review conducted at the outset of the research. As well, most senior bank executives chose the annual reports as a forum in which to air their views concerning their respective environments. Additional insight was gleaned through sources such as journal articles and reference texts. Personal contact was made with regulatory officials and bank managers to obtain their views as well (see section 4.2.2).

4.2.2 Primary Data Collection

Primary data collection was conducted on an 'as needed', semi-structured basis. It served three main purposes: 1) to provide data which was unavailable in secondary sources; 2) to confirm data obtained from secondary sources when its

validity was questionable; and 3) to supplement data obtained from secondary sources. The forms of primary data collection utilized included personal, semi-structured interviews, telephone interviews, and mailed enquiries.

(a) Personal Interviews - As discussed in Chapter 2, the information available from Canadian sources on the British banking industry is extremely limited. The Canadian international focus tends to be concentrated on U.S. banks. Matters were complicated by the relative lack of informative data in the annual reports of the British banks. It was therefore arranged to conduct personal, semi-structured interviews with managers from the British banks under study. These interviews were conducted in the corporate head offices of the banks in London, U.K. The primary objective of the interviews was to obtain the information necessary to complete the structural charts of the banks and to determine the scope of the activities of each top-level division. Within each bank, meetings were held with a manager of an international department. These individuals were able to identify the top-level divisions and to outline the parameters of the divisional operations. In addition, they provided additional printed materials not usually available to the public. These included, for example, internal telephone directories which clearly identified top-level divisions and sub-level groupings within those divisions. Interviewees were initially contacted to request permission for the meeting. Once a date had been set, a follow-up letter of confirmation was sent which included a schedule detailing the information required from the interview. The interviewer arrived at the meeting with a copy of the schedule and each item was discussed individually.

These personal interviews were also used as an opportunity to gain insight into the bankers' views of their economic and competitive environment. Invaluable references to documented sources of information in this regard were also obtained.

(b) Telephone Interviews - Where statistical data was not available in the printed materials circulated publicly, representatives of the banks were contacted by telephone. In each case, an employee in the public/corporate relations department was contacted and asked to personally take responsibility for locating the data. The information obtained in these telephone calls was strictly defined and it was unnecessary to gain access to more senior bank officials. For example, telephone calls were needed in several instances to determine in how many countries a bank operated. Where reporting methods were not outlined in published sources, bank representatives were able to verbally confirm how figures were calculated.

Finally, a telephone interview was conducted with the Canadian Office of the Inspector General of Banks (now the Office of the Superintendent of Financial Institutions). This interview was necessary because printed sources were quite limited in dealing with the regulation of the international operations of Canadian banks. A senior programs officer was contacted and asked to describe the nature and extent of the domestic regulation of banks' international operations.

(c) Mailed Enquiries - Mailed enquiries were used in much the same manner and for the same purposes as telephone interviews. Letters were sent out on an "as needed" basis requesting additional information or confirmation of data obtained through other sources. For example, several banks were asked to confirm what

products were provided internationally because the information was either incomplete or ambiguous in printed sources.

4.3 Limitations of Data Collection

Certain problems were encountered during data collection which affect the validity and reliability of the data gathered by limiting the comparability of the figures. The collection problems included differing accounting methods and other measurement limitations such as a variety of definitions for variables. The major limitations and their implications for the usefulness of the data are discussed below.

1. Total Assets - The fiscal year end for the Canadian banks is October 31st, while the U.S. and British banks use December 31st. This difference should not detract significantly from the comparability of the statistics. Another difficulty with this measurement, however, relates to the use of U.S. dollars as the common currency in which to list the assets of all the banks. Because the U.S. dollar lost ground against the British pound throughout 1986, the figures for the British banks seem large. The relationship between the Canadian and the U.S. dollar through this period remained relatively stable. Although this factor is kept in mind when interpreting the data results, there is not a more effective way of presenting the figures in a comparable manner.

2. Size - Banks chose among four different methods to measure total employees worldwide. These were, (a) full-time employees at year-end; (b)

full-time and part-time employees at year-end; (c) total employees at year-end on a full-time equivalent basis; and (d) annual average full-time equivalent. Upon cross-checking with the total employee statistics published in *The Banker* and *Fortune* magazines, it was discovered that both journals ignored the definitional discrepancies. A number of banks published figures for both (a) and (b) and it appeared that part-time employees represented only a small percentage of the total. In these cases, the figure for total full-time and part-time employees was used in this study.

3. International Assets as Percentage of Total - Banks varied in the way in which they defined international assets. In general, the two definitions used were, (a) the residence of the customer; or (b) the location of the booking office. Thirteen banks, including all five Canadian banks, seven U.S. banks and one British bank, used the residence of the customer, while seven banks, represented by the remaining three U.S. banks and four British banks, preferred the location of the booking office. The implications of this difference are not readily apparent. One possible effect could be an understating of international operations of U.S. banks because the international transactions of U.S. corporations conducted through the domestic head offices of those corporations would be included under the domestic operations of U.S. banks.

Almost all British and U.S. banks included international operations transacted out of domestic financial centres (London, New York and Chicago) in their count of international assets, *regardless of definition used*, although how they defined these international operations is unknown. For example, many of the money market transactions conducted in London by U.K. banks are for foreign customers in

foreign funds, but those banks using location of booking office as a basis for definition would, nevertheless, identify these operations as international. This virtually eliminates the major distortions which might have been present for British and U.S. banks measuring international operations on the basis of location of booking office. Only two of these banks presented an artificially deflated value for international operations by treating these transactions as domestic ones. The banks were BankAmerica Corp. from the U.S. and Standard Chartered Bank from the U.K. Interestingly, both banks currently have reason to understate their international operations. BankAmerica Corp. has had severe financial troubles recently and much of the blame has been directed at its relatively large level of high-risk international operations. Standard Chartered Bank has recently targeted the U.K. retail market in an attempt to compete directly with the "Big Four" (Standard Chartered Bank, Annual Reports, 1985-86).

In summary, except for the statistics provided by BankAmerica Corp. and Standard Chartered Bank, the measurement of international assets as a percentage of total assets should not be significantly adversely affected by the two measurement methods used. The two exceptions noted are taken into account in the data analysis chapter.

4. International Income as Percentage of Total - The comments regarding the measurement of international assets are equally relevant here. Again, the international assets of BankAmerica Corp. and Standard Chartered Bank present the only two figures which have been significantly distorted by measurement methods. In addition, BankAmerica Corp. as well as one other bank, suffered a loss from their international operations and were assigned a value of nil under international

profit. As a result, the comparability of three measurements of this variable is impeded by definitional problems. This is taken into account in the data analysis chapter.

5. Non-Interest Income as Percentage of Total - Fifteen out of twenty banks reported non-interest income on a taxable equivalent basis. This means that any benefits available as a result of tax-exempt items were erased. Comparable figures were not available for the remaining five banks. Instead, the figures used were the actual numbers reported in the financial statements filed with the respective governments. However, approximately one-quarter of the banks included both sets of numbers and it was therefore possible to determine roughly how significant tax-exempt items were. The difference between taxable equivalent and reported bases was small and the impact on the comparability of the data should similarly be minor.

4.4 SUMMARY

The twenty banks examined in this study were selected because they are the largest from their countries of origin and they share similarities such as size, international orientation and technology used. The choice of Canada, the U.S. and the U.K. was primarily due to differences among the countries, such as domestic regulatory and competitive environments, and to availability of data.

Both primary and secondary data collection were necessary. The bulk of the data gathered was from printed sources such as corporate annual reports. Primary

data collection was conducted on an 'as needed', semi-structured basis. It included personal, semi-structured interviews, telephone interviews, and mailed enquiries.

During the data collection process, several problems were discovered which affected the comparability of the figures. There were differing accounting methods and other measurement limitations such as a variety of definitions for variables. Fortunately, none of the problems seemed to constitute a serious threat to the interpretation of data, however, the analysis of data in the following chapter keeps these limitations in mind.

5. DATA ANALYSIS

The data analysis in this chapter is primarily descriptive, not quantitative. This is a logical and necessary consequence of, 1) the present state of research in the field; and, 2) the corresponding design of the present study. The absence of a detailed theoretical model and empirical research specifically addressing the peculiarities of the international banking industry have made this study an exploratory one.

The three research questions identified in Chapter 1 are presented again below:

- (1) What are the common organizational structures through which the global operations of TNB's are carried out?
- (2) What are the significant structural differences, if any, among TNB's based in different countries? What organizational factors and external influences contribute to these differences?
- (3) What are the nature and extent of the relationships which exist between, a) the common organizational structures through which the global operations of TNB's based in different countries are carried out; and, b) the organizational factors and external influences contributing to differences among these structures?

Research question number 1 deals with the identification of the *dependent variables*, structural stage and basis of organization. Research question number 2

relates to the identification of the *independent and extrinsic variables*. Finally, research question number 3 addresses the identification of *relationships* among variables. The first section of this chapter deals with research question number 1. It describes the findings with respect to the dependent variables, structural stage and basis of organization. This is followed by two sections which analyse both research questions 2 and 3 insofar as the independent variables are concerned. Variables which were identified as a result of the literature review are examined by analysing the relationships which have emerged in the context of the structural model. Section 5.2 focusses on the relationships between the independent variables and structural stage. Section 5.3 compares the hypothesized relationships between the levels of the independent variables and the variable, basis of organization (as set out in Table 3-1). The next three sections of the chapter look at cross-national differences - the extrinsic variable component of research questions 2 and 3. Finally, section 5.6 summarizes the key findings presented in the chapter.

5.1 THE DEPENDENT VARIABLES-

RESEARCH QUESTION NO.1

Research question number 1 was: *What are the common organizational structures through which the global operations of TNB's are carried out?* To answer this question, an in-depth literature review was conducted to identify the variables which would be measured in this study. Two variables, structural stage and basis of organization, were selected on the basis of their treatment by other

researchers looking at the organizational structures of large organizations. The findings with respect to each of these variables are presented separately.

5.1.1 Structural Stage

Structural stage was operationally defined by a model, which was constructed from a review of theoretical studies relating primarily to manufacturing industries. The model was adapted to fit the international banking industry on the basis of existing research relating specifically to either banking or service industries. An organization chart depicting the first levels of the structural hierarchies of each of the banks was drawn and banks were assigned a structural stage number according to the characteristics of their first level divisions. Table 5-1 presents the findings of this variable measurement.

It was discovered that Stage 5 was the most common organizational form assumed by the banks. Seven banks fell within this category. This was followed closely by Stages 6 and 7 with six members apiece. The remaining bank was represented by Stage 2, leaving no banks associated with Stages 1, 3 and 4. It had been expected that there would be few banks in the lower stages because, given the total size of the banks under study, it was assumed that international operations would form an important contribution to total operations.

Table 5-1 includes descriptions of the first level divisions of the banks, as well as indicating the deviations from the structural model. Only seven out of twenty banks had structures with no major deviations from stages described in the model. Of the remaining banks, some of the more important deviations are outlined below:

TABLE 5-1
DIVISIONAL DESCRIPTIONS AND DEVIATIONS FROM STRUCTURAL MODEL -

IN DECREASING ORDER OF TOTAL ASSETS WITHIN STRUCTURAL STAGE						
STRUCTURAL STAGE NO.	BANK NAME	DIVISIONAL DESCRIPTIONS	DEVIATIONS FROM STRUCTURAL MODEL			
7	Citicorp	2 global customer 1 global product 1 functional	None			
	J.P. Morgan & Co.	2 global customer 2 global product 1 global functional	None			
	Royal Bank of Canada	1 global product 2 global customer 2 global functional	None			
	Chemical New York Corp.	3 global product 1 functional (realignment in 1987, to global customer)	None			
	Cdn. Imperial Bnk. of Comm.	2 global customer 1 global product	No functional division (however includes functional committees)			
6	Bankers Trust New York Corp.	4 global product 2 global customer 2 global functional	None			
	BankAmerica	1 domestic product 1 global product 1 functional	Retains a domestic division instead of international.			
	Chase Manhattan	1 domestic 2 global customer	1. Domestic div. instead of int'l. 2. No functional division.			
	Bank of Montreal	1 domestic functional 1 global functional 1 global customer 2 domestic customer 2 global product	Retains a domestic division instead of international.			
	Security Pacific	1 domestic product 2 global product 1 functional	Retains a domestic division instead of international.			

TABLE 5-1 (Page 2)

STRUCTURAL STAGE NO.	BANK NAME	DIVISIONAL DESCRIPTIONS	DEVIATIONS FROM STRUCTURAL MODEL
6 (cont'd)	Standard Chartered	7 regional international 1 global product	No functional division.
	First Chicago Corp.	2 domestic customer 1 global customer	1. Domestic div. Instead of int'l. 2. No functional divisions.
	National Westminster	1 domestic international 2 global product	No functional division.
5	Barclays	2 domestic 3 global customer 1 global product subsidiary 2 regional, international	1. Semi-autonomous global product subsidiary. 2. No functional division.
	Midland Bank	1 domestic international 1 global customer 1 global product	1. No functional division. 2. Autonomous international div.
	Manufacturers Hanover	1 domestic 2 global product 1 global customer 1 international	1. No functional division. 2. Autonomous international div.
	Lloyds Bank	1 domestic 1 international 1 global product 1 global customer	No functional division.
	Bank of Nova Scotia	1 domestic 1 international 1 global product 1 global customer	No functional division.
	Toronto-Dominion	1 domestic 1 international 1 functional 1 global product	None (N.B. Changed from Stage 4 in 1986 when global product division formed.)
	First Interstate	Semi-autonomous banking subsidiaries and 42 autonomous bkg. franchises.	None.
2			

(1) Five of the six banks falling within Stage 6 exhibited an important difference from the described characteristics of that stage. The move from Stage 5 to Stage 6 is represented in the model by the merging of responsibility for domestic operations into global specialty divisions, while retaining an international division. Instead, these banks merged their international operations into global specialty divisions, *while retaining a domestic division.*

(2) Two banks, Midland Bank PLC and Manufacturers Hanover Corp., both in Stage 5, had international divisions which were not functionally integrated. This would seem to indicate that some banks make the move toward adding global specialty divisions prior to the functional integration of international departments.

(3) One bank, First Interstate, exhibited an organizational form which had not been expected. This bank was basically a holding company with semi-autonomous banking and non-banking subsidiaries and *autonomous bank franchises*. Despite being among the fifty largest banks in the world (see Appendix 1), it had minimal international operations (international assets of 8.4% of total assets). Although this bank fits well into Stage 2 in the model, it was not expected that autonomous franchises would be utilized by bankers. Bankers are presumably greatly concerned with controlling the quality of their services and the reputation of their organizations. Poor management in one franchise could well have spillover effects for other franchises.

(4) Ten banks in Stages 5 through 7 had no functional divisions in the top level of their structural hierarchies. Although other forms of functional

integration were not specifically measured, the data collection process revealed that, 1) a majority of the banks had permanent functional committees concerned with the global operations of the banks; and 2) some banks had departments within top level divisions which performed functions for other divisions in the bank. In other words, additional forms of global functional integration, other than top level functional divisions, had been utilized. An interesting observation was that all five of the U.K. banks were included among the ten without functional divisions. These banks appeared to have elaborate functional committee structures in lieu of a functional division.

This finding also indicates that some of these banks may be using other forms of integrating mechanisms, such as committees and departments within other divisions, to substitute for movement to a new structural stage. This would be consistent with the writings of Galbraith and Nathanson (1979). In general, there seemed to be three categories of functional integration: 1) low levels, associated with "bank-within-a-bank" international divisions; 2) medium levels, characterized by international divisions integrated through committees and functional departments within other divisions; and, 3) high levels, associated with a global functional division in the top level of the structural hierarchy.

Other important observations arising out of the research into structural stages, but without serious implications for the accuracy of the model, are:

(1) Seventeen banks had major reorganizations of the top levels of their structural hierarchies between 1985 and 1986. In other words, at least one division in each of the banks' top structural levels did not exist prior to 1985 and, it is quite

probable that some of these banks would have appeared at a different structural stage had this study been conducted in 1985. This finding is remarkable. It suggests that the environment faced by international bankers, at least in recent years, has been highly volatile. It further indicates that major structural change is more frequent than every two or three years, as found by Davis (1984: 34). Finally, it emphasizes the need within the international banking industry for an on-going assessment of organizational structures.

(2) Of the nine banks with global functional divisions in the top level of their structural hierarchies, the functions performed tended to be one of, a) cheque/transaction processing; b) credit policy/control; and, c) services such as on-line information, management of data processing requirements, bank computer needs, etc. This indicates a high level of integration among the various operational divisions, ensuring a greater degree of control over those operations.

(3) Seventeen banks had global investment banking divisions in the top levels of their structural hierarchies. Where a bank had only one global product division, this division was represented by investment banking in every case. This finding suggests that managers could be particularly keen about maintaining control over their investment banking activities or that the product is strategically important enough and sufficiently differentiated from other products to accord it divisional status. A number of these investment banking divisions were semi-autonomous investment banking subsidiaries. This finding is also consistent with the recent deregulation in all three countries studied, broadening the investment banking activities permitted by commercial banks (to be discussed in section 5.4 below). The annual reports of some

banks indicated that they expanded their operations through outright acquisition of investment brokerage firms, while others had expanded from within.

5.1.2 Basis of Organization

In Chapter 3, the operational definition of the variable 'basis of organization' was set out. The structures falling within the multi-divisional categories in the model (Stages 5, 6 and 7) were to be classified as either regionally-based, customer-based, product-based, or a mixture of the three. This would be accomplished by first ignoring all first level purely domestic and purely international divisions, as well as first level divisions associated with functional, staff or integrating roles, and analysing the remaining global divisional groupings. The results of this classification process are shown in Table 5-2.

TABLE 5-2

**Breakdown of Bases of Organization for All
Banks in Stages 5, 6 and 7**

<u>Basis of Organization</u>	<u>Number of Banks</u>
Customer	2
Product	5
Region	1
Mixed	11
TOTAL	<u>19</u>

The results lead to three conclusions: 1) there appears to be a prevalence of the mixed form of structure among banking organizations which has not been found to be as common in manufacturing industries (see Stopford and Wells, 1972, pp. 44-47); 2) regionally-based divisions are not popular in large banking organizations since only one bank had organized on the basis of geographic area; and, 3) there appears to be a preference among bank managers for product-based divisions over customer-based. At least one bank, however, Chemical New York Corp., was in the process of changing from a product to a customer orientation.

An interesting phenomenon relating to the choice of product or customer-based structures pertains to the discussion in the preceding section concerning the prevalence of investment banking divisions among the banks surveyed. It was suggested that many of these product-based divisions may have been created very recently in response to deregulation in all three countries, broadening the investment banking activities permitted by banks. If investment banking divisions, which were classified as product-based divisions, were excluded along with functional, domestic and international divisions in the definition of 'basis of organization', the number of customer-based structures increases by seven banks to a total of nine, while mixed structures decrease to four. This indicates that the apparent preference for product-based structures may not be as conclusive as the figures would suggest. It also suggests that prior to deregulation, customer-based structures may have been more common.

Another observation made while analysing the bases of organization of the banks' structures was the presence of a divisional form called 'relationship management' by the bankers. These divisions are essentially customer-based, however the only service provided is relationship management. For example, the

most popular such form is the corporate division made up of account managers who provide the liaison between the bank and certain large, corporate clients. These divisions are not profit centres. They simply communicate the needs and requirements of corporate customers to other areas of the bank where transactions are recorded and processed. While attention to individual customer service is not unusual in any industry, it is an interesting phenomenon to find relationship management divisions in the top level of the structural hierarchy. This level of strategic emphasis on customer service is not common in manufacturing industries. Although these divisions have been treated in this analysis as customer-based operating divisions, an argument could be made that they are, in fact, functional divisions. This is an issue which will have to be clarified in future research on international banking.

5.1.3 Summary

In addressing research question number 1, two dependent variables were analysed, structural stage and basis of organization. The tool constructed to measure structural stage was a structural development model which described seven possible stages which banks' organizational structures might assume. Not all of the banks studied fit perfectly into this model. Instead, some important anomalies were uncovered. The most striking inconsistency resulted from the predominance of domestic divisions when it had been hypothesized banks would retain international divisions. It was also discovered that not all banks exhibited the high levels of functional integration which had been expected. Two banks had autonomous international divisions.

The second dependent variable examined was basis of organization. Three main observations resulted. First, there was a prevalence of the mixed form of structure. Second, regionally-based divisions were surprisingly unpopular and, finally, managers exhibited a preference for product-based divisions over a customer orientation. It was concluded, however, that the prevalence of investment banking divisions might be hiding a much stronger tendency towards a customer-based orientation than the measurements of 'basis of organization' would suggest.

The next section turns to research questions 2 and 3 by analysing the measurements taken of the independent variables.

5.2 THE INDEPENDENT VARIABLES AND

STRUCTURAL STAGE

Research question number 2 was stated as follows: *What are the significant structural differences, if any, among TNB's based in different countries? What organizational factors and external influences contribute to these differences?* These questions were addressed in Chapter 2 by an examination of studies based on manufacturing industries as well as a limited number of banking related research efforts. Based upon this review, the following independent and extrinsic variables were identified:

Independent Variables

- (1) total assets;
- (2) number of employees hired globally;
- (3) level of international activity;
- (4) level of product diversification;
- (5) level of customer diversification;
- (6) geographic diversification;
- (7) organizational forms abroad;

Extrinsic Variables

- (8) regulatory and competitive factors in the domestic environment.

Research question number 3 was stated as follows: *What are the nature and extent of the relationships which exist between, a) the common organizational structures through which the global operations of TNB's based in different countries are carried out; and, b) the organizational factors and external influences contributing to differences among these structures?* This section will look at the relationships between, 1) the independent variables chosen to represent the organizational factors, and 2) structural stage. The relationships between the independent variables and the variable, basis of organization, as well as the effects of external influences, will be examined in subsequent sections.

The variables measured can be conveniently divided into two groups: 1) size measures, including total assets, total employees, international assets as a percentage of total assets, international income as a percentage of total income, and number of countries operated in; and, 2) diversification measures, including non-interest income, domestic and international product diversification, and domestic and international customer-diversification. The variable 'organizational forms abroad' was used simply to determine which banks belonged in Stages 1 and 2. Only one of the banks, First Interstate Bancorp, was affected.

5.2.1 Size Measurements

Table 5-3 sets out the average measurements for total assets, total employees, international assets as a percentage of total assets, international income as a percentage of total income, and the number of countries operated in. These figures are presented by structural stage number. The relationships hypothesized in Section 3.4 were those of a positive relationship between the level of these measurements and the structural stage of the bank. Thus, the bank characterized by the highest levels of these variables would be in the highest structural stage. The one exception was that percentage of international income was hypothesized to remain consistent with percentage of international assets. Because only one bank appeared in Stages 1 through 4, it will not be included in the analysis.

From Table 5-3 it can be seen that, when measuring size by total assets, the hypothesized relationship is correct for Stage 7 banks, however, Stage 6 banks are smaller than those in Stage 5. This difference is partly attributable to the fact that both the second and third largest banks in the sample have Stage 5 structures and therefore inflate the average assets for this group. Studying these two banks more closely, one finds that both banks are of U.K. origin with a history of heavy involvement in domestic, consumer banking operations. This could explain the continued appeal of a Stage 5 structure even in the face of total asset growth. Because the banks are so integrally involved domestically, the retention of a domestic division is highly attractive. A second possible explanation could be that U.K. banks are substituting elaborate committee structures (Channon, 1978; Mallory, et al., 1983) and other integrating mechanisms for movement to a higher structural stage. The existence of this substitution effect was postulated by

TABLE 5-3

AVERAGES FOR SIZE AND INTERNATIONAL ACTIVITY
MEASURES - BY STRUCTURAL STAGE

STAGE NO.	NO. IN STAGE	ASSETS U.S.\$ BILLIONS	EMPLOYEES ('000)	INT'L ASSETS AS % OF TOTAL	INT'L INCOME AS % OF TOTAL	NO. OF COUNTRIES OPERATED IN
7	6	\$86.5	34.5	39.4	35.8	44.7
6	6	\$68.5	42.2	39.9	26.5*	41.7
5	7	\$78.2	59.9	45.8	30.6	42.7
2	1	\$55.4	35.4	8.4	5.6	21.0

* Includes two banks which incurred losses on international operations. For the two banks, international income has been entered as zero.

Galbraith and Nathanson (1979). Other possible explanations are discussed below in section 5.4 when cross-national comparisons are made.

Measuring size by total employees, it is immediately apparent that there is an *inverse* relationship between structural stage and number of employees. As banks progress from Stage 5 through to Stage 7, they employ fewer people worldwide. This would seem to indicate that the higher the structural stage, the lower the involvement in labour intensive services. In the banking industry, it is the retail and consumer banking sectors which are most labour intensive. These are areas which, due to government regulation (to be discussed in more detail in section 5.4 below), tend also to entail domestic operations. As a result, this finding suggests that banks in the higher structural stages should also be characterized by lower levels of domestic customer and product diversification. This result, if validated below, would contradict the relationship between customer and product diversification and structural development hypothesized by Chandler (1962) and Stopford and Wells (1972).

The measurements of international assets lead to an anomaly similar to that encountered with total employees. As banks progress from Stage 5 through Stage 7, the level of their international assets *decreases*. This finding is a contradiction of the studies reviewed for this research. For example, Stopford and Wells' (1972) examination of manufacturing firms found that organizations move toward a purely multi-divisional structure as the volume of international activities grows.

Upon closer examination of the figures for international assets, one finds that the four banks with the largest measurement of this variable are of U.K. origin. Three of them have Stage 5 structures. Thus, the U.K. banks have an important influence on the high level recorded for Stage 5 banks. It was also reported earlier

that two banks, one from the U.K. and the other from the U.S., had included in the calculation of their domestic operations their international transactions out of domestic financial centres (i.e. London, New York and Chicago). This had the effect of artificially deflating the figures for international assets. Both of these banks had Stage 6 structures. As a result, the true measurement of international assets for Stage 6 banks is, in fact, higher than that shown, but it is impossible to determine to what extent accuracy has been diminished. Nevertheless, it is doubtful that a more accurate figure would surpass the figure for international assets of the Stage 5 banks.

An interesting contrast is revealed by the measurement of international income. It was suggested in the literature review (for example, Lee, 1974), that lower levels of international profits relative to international assets indicated the inefficient use of those assets. One method of ensuring the efficient use of assets is the adoption of an appropriate organizational structure. Stage 7 banks, with approximately 39 percent of their total assets in international operations, generate 36 percent of total profit from these assets. In contrast, Stage 5 banks, with approximately 46 percent of their total assets in international operations, generate only 31 percent of total profit from these assets. This measurement is of particular importance when viewed in the spectrum of Chandler's (1962) work. Chandler concluded that organizations would adapt their structures to increases in variables such as international assets provided they were profit-maximizing firms. The failure to adapt brings with it an economic price: loss of profit. The three Stage 5 U.K. banks mentioned in (3) above had average international assets of 55.6%, but average international profits of only 20.6% of total profits.

In Stage 6, despite a percentage of international assets approximately equal to those of banks in Stage 7, international income is considerably lower. The two banks with net losses arising out of international operations are both in Stage 6 and, thus, draw down the international income average considerably. If these banks were excluded from the calculation, the average international profit as a percentage of total profit for the remaining four banks in Stage 6 would be 39.8%, the highest of all the stages. In addition, referring back to the two banks who omitted domestic financial centre transactions from their calculations of international operations, because these transactions are more profitable than traditional international operations such as Third World lending, their inclusion might have increased the proportion of total profits attributed to international operations.

Except for a minor decrease from Stage 5 to Stage 6, the geographic dispersion of the banks appears to satisfy the hypothesis that the larger the spread of geographic operations, the higher the structural stage. The figures are extremely close, however.

5.2.2 Diversification Measurements

Table 5-4 gives the stage-by-stage averages for domestic and international product diversification, and domestic and international customer diversification in accordance with the measurement indices described in Chapter 4. It also includes a further measurement of product diversification: non-interest income as a percentage of total income. As with the measurements of size variables, the relationships hypothesized in section 3.4 were those of a positive relationship between the level of these measurements and the structural stage of the bank. Thus, the bank characterized by the highest levels of these variables should have the

TABLE 5-4

AVERAGES FOR DIVERSIFICATION MEASURES -
BY STRUCTURAL STAGE

STAGE NO.	NO. IN STAGE	PRODUCT DIVERSIFICATION			CUSTOMER DIVERSIFICATION			NON-INT INCOME AS % OF TOTAL
		DOM.	INT'L	TOTAL	DOM.	INT'L	TOTAL	
7	6	7.3	9.0	16.3	6.2	5.5	11.7	34.6
6	6	8.2	9.0	17.2	6.8	5.5	12.3	37.3
5	7	9.0	9.3	18.3	7.0	5.4	12.4	30.0
2	1	8.0	2.0	10.0	7.0	3.0	10.0	29.1

highest structural stage. Again, because only one bank appeared in Stages 1 through 4, it will not be included in the analysis.

An analysis of Table 5-4 reveals the following:

1. Contrary to the hypothesized relationship, it was found above that Stage 7 banks had lower numbers of employees than either Stage 5 or Stage 6 banks. It was anticipated at that time that another hypothesis might be disproved in that domestic product diversification might decrease as banks moved along the structural development model. This is indeed the case. Banks have the highest levels of diversification in Stage 5 and these levels decrease with subsequent stages. No clear pattern is discernible with respect to international product diversification. Banks in all three stages appear to provide similar groups of products internationally.

2. A similar negative relationship is found between domestic customer diversification and structural stage. It appears that as banks move from Stage 5 through to Stage 7 they 'fine-tune' their domestic operations by eliminating some markets and specializing in others. Although domestic assets increase, they specialize in certain customer and product sectors. The evidence further suggests that these sectors are the less labour-intensive ones. International customer diversification reflects the same consistency of customers served among stages as was found with international product diversification.

3. The results for non-interest income as a percentage of total income are inconclusive. Although there is a marked increase from Stage 5 to Stage 6, it is followed by a decrease in the move to Stage 7. The negative relationship between

product diversification score and the non-interest income figure, suggests that there may be a serious problem with the validity of the latter variable as a true measurement of product diversification. It would appear that a high level of profit from non-traditional products may, in fact, indicate a concentration of efforts in narrower, more specialized product lines. Further, the high levels of international assets of the Stage 5 banks combined with the low levels of non-interest income suggest that the latter variable is rendered meaningless without some idea of the breakdown of non-interest income between domestic and international operations. As a result of these inconsistencies, no conclusions can be drawn from the measurement of this variable.

5.2.3 Summary

An interesting result is apparent from a comparison of the Stage 5 and Stage 6 results. Of the twelve variable measurements presented in Tables 5-3 and 5-4, Stage 5 consistently showed a higher figure in ten of the twelve measurements. One almost has the impression that the stages have been reversed. According to the supporters of the structural evolution model, increases in these independent variables will result in movement along the model. Because this study is not a longitudinal one, one has no way of knowing whether Stage 5 banks have already passed through Stage 6, or whether Stage 6 banks have yet to experience Stage 5 structures. Nevertheless, if the model has evolutionary properties, and if, as existing theory would indicate, increases in the independent variables lead to movement along the model, then Stages 5 and 6 may well be reversed. Viewed in terms of international operations, as volume of international operations and complexity of international operations grow, banks would move first to global

specialty divisions and then to purely international divisions. This scenario does not concur with either Chandler's (1962) or Stopford and Wells' (1972) conclusions, although the latter study did find a minority of firms which skipped the international division stage entirely.

The findings with respect to the relationships among the independent variables and structural stages 5 through 7 are summarized in Table 5-5. The hypothesized relationships for each independent variable and structural stage are shown alongside the actual relationships uncovered by this study.

5.3 THE INDEPENDENT VARIABLES AND BASIS OF ORGANIZATION

Table 3-1 listed the hypothesized levels of the independent variables for regional, product and customer-based divisions. In summary, it was expected there would be high levels of geographic, product and customer diversification, respectively, for each of the three bases of organization. Table 5-6 summarizes the results.

The one bank in the study which was organized along geographic lines, Standard Chartered Bank PLC, exhibited the highest level of geographic diversification, measured by number of countries operated in, of the four scores shown. This result was consistent with the relationship expected. This bank differs from all other banks in the study in that its roots are in the former British colonies. It has been predominantly international since its inception. In fact, it is only in recent years that it has been attempting to penetrate the domestic market in

TABLE 5-5

**Hypothesized Relationships and Actual
Relationships Between Size and Diversification
and Structural Stage**

<u>VARIABLE</u>	<u>HYPOTHESIZED RELATIONSHIP</u>	<u>ACTUAL RELATIONSHIP</u>
------------------------	---	-----------------------------------

Size Measurements:

Total assets	Positive	Positive
Total employees	Positive	Negative
International assets	Positive	Negative
International income	Consistent w. int'l assets	Negative
Geographic dispersion	Positive	Positive

Diversification Measurements:

Product diversification		
Domestic	Positive	Negative
International	Positive	No change
Combined total	Positive	Negative
Customer diversification		
Domestic	Positive	Negative
International	Positive	No change
Combined total	Positive	Inconclusive
Non-interest income	Positive	Inconclusive

TABLE 5-6

**LEVELS OF GEOGRAPHIC, PRODUCT AND CUSTOMER
DIVERSIFICATION BY BASIS OF ORGANIZATION**

Average Levels by Basis of Organization:

<u>Variable</u>	<u>Regional</u>	<u>Customer</u>	<u>Product</u>	<u>Mixed</u>
-----------------	-----------------	-----------------	----------------	--------------

No. of Banks (total)	1	2	5	11
No. of Countries Operated in -	62.0	46.5	33.6	44.9
Product Diversification				
Domestic -	7.0	8.5	8.8	8.5
International -	11.0	9.5	7.2	9.0
Total -	18.0	18.0	16.0	17.5
Customer Diversification				
Domestic -	6.0	7.0	7.0	6.5
International -	7.0	5.5	4.2	5.9
Total -	13.0	12.5	11.2	12.4

a major way. As a result, this bank also recorded the highest levels for international customer and product diversification in Table 5-6.

There does not appear to be similar substantiation for the hypotheses that higher levels of product and customer diversification will lead to product and customer-based structures, respectively. No definitive pattern emerged.

Among the customer-based, product-based and mixed structures, it was the former which exhibited the highest scores for all forms of diversification. This would suggest that, contrary to the result found by writers such as Chandler (1962), Stopford and Wells (1972) and Salter (1970), banks do not eventually assume a product-based structure as the diversification of operations increases. Instead, in the international banking industry the structure associated with the highest levels of diversification seems to be customer-based. In fact, the organizations with product-based structures were the least diversified in all three categories shown in Table 5-6.

5.4 CANADA, THE U.S. AND THE U.K. - THE ENVIRONMENTS

This section sketches out the banking environments of Canada, the U.S. and the U.K. by first providing an historical overview and then examining competitive and regulatory issues.

5.4.1 The Canadian Environment

The international expansion of Canadian banks began in earnest relatively early when, in 1862, the U.S. National Bank Act prohibited U.S. banks from

participating in trade finance, thus opening up a lucrative opportunity for Canadian banks. They moved into the U.S. market in order to serve the needs of U.S. corporations. These early relationships with the U.S. private sector have persisted over the years.

The international operations of Canadian banks have been concentrated primarily in the U.S., the Caribbean, Latin America and the international financial centres (Nagy, 1983). Their geographical expansion was determined by economic, geographical, social and political links. Early restrictions on the growth and activities of U.S. banks ensured a strong presence in the U.S. and a non-competitive environment in the Caribbean and Latin America. Armed with extensive experience in retail banking and trade finance, and helped by restrictions on the growth and activities of U.S. banks, Canadian banks were able to establish a strong presence in the Caribbean and Latin American countries. Most of the growth in the Caribbean took place before the independence of many of those countries and before local banks had been established or regulations restricting the entry of foreign banks proclaimed. During the period of rapid international expansion by U.S. MNC's in the 1960's, U.S. banks grew simultaneously. Canadian banks, in order to remain competitive internationally, moved into the major financial centres and concentrated on money-market and interbank activities. In recent years, Canadian bankers have been reducing their less profitable commitment to the Caribbean and Latin American countries in exchange for increased involvement in the money markets. This has entailed pulling operations completely out of many countries.

Until quite recently, Canadian bankers had a free hand in the conduct of their international operations while enjoying, 1) protection of their domestic markets from foreign competition; 2) product monopoly advantages; and, 3) in

general, a regulatory environment structured so as to promote depositor safety and effective monetary control. Thus, bankers could concentrate efforts on international growth without undue concern over loss of market share domestically. Regulations on international operations were virtually nonexistent. Indeed, when asked how foreign operations of Canadian banks were controlled, a representative of the Office of the Inspector General of Banks in Canada (now the Office of the Superintendent of Financial Institutions) replied, "through the wink and nod system".

Domestic regulation of the Canadian banking industry has historically been aimed at the objectives of depositor safety and effective monetary control, rather than competition. Entry barriers have been extremely prohibitive, allowing the five large Canadian banks to operate as an oligopoly in an uncompetitive environment. Until the early 1980's, foreign competition in the Canadian market was severely restricted. The Bank Act of 1980 loosened these restrictions, but to a limited degree. Since 1980, these restrictions have been further relaxed and it is only in the last few years that foreign banks have penetrated the Canadian market in any significant manner. In addition, regulators have broadened the range of activities permitted by the 'near-banks'. As well, at least one province now permits commercial banks to engage in securities trading activities. In general, Canadian policy-makers appear to be headed firmly in the direction of increased competition domestically and maintaining an unhindered competitive position for the banks internationally.

5.4.2 The U.S. Environment

U.S. banks did not begin their international expansion in earnest until after

World War I. Prior to that time they were not permitted to open branches overseas. The war favoured the economic growth of the U.S. by generating the necessary momentum for the growth of exports. In addition, it resulted in a large flight of capital from Europe which contributed to the rise of New York as an international financial centre. This growth in the economy, when combined with the new freedom of international banking afforded by the Edge Act of 1919, provided the impetus needed to direct bankers' attentions to the international arena.

In the 1950's and 60's, the expansion of banks' international operations was largely a response to the growth of international operations of U.S. MNC's (Roussakis, 1983). Banks followed MNC's into Central and South America, as well as many parts of Europe and Asia. Funding the foreign credit requirements of MNC's from domestic head offices led to large dollar outflows and corresponding deficits in the U.S. balance of payments. The government responded in the mid-1960's with important capital controls which were to have a strong influence on the evolution of the international operations of U.S. banks. The effect of these controls was to divert U.S. corporations to foreign markets in order to finance their growing foreign investments, leading banks to open branches abroad where foreign sources of funds could be tapped. As a result, between 1965 and 1970, there was significant growth in the foreign offices of U.S. banks. The capital control program was eventually abolished in 1974, however, one writer has summarized its effects as follows: "The U.S. capital control program... was instrumental in reversing the relative importance of head offices and branches and played a substantial role in transforming the structures of operations within U.S. international banking", (Roussakis, 1983: 14).

The U.S. banking industry has been heavily regulated, with the objective of increasing competition. Currently, there are approximately 15,000 banks in the U.S. Several pieces of legislation have been instrumental in shaping the U.S. banking industry. These regulations have tended to affect either domestic or international operations of the banks.

International operations were encouraged through the credit controls mentioned above, as well as various other legislative actions which fostered the competitive position of U.S. banks internationally. For example, in 1981, the Federal Reserve gave banks the option of establishing international banking facilities (IBF's) within the U.S. in order to conduct offshore banking operations from their domestic offices. Some writers believe that IBF's will partially substitute for purely offshore banking offices, resulting in a decrease in the number of countries in which banks operate (Roussakis, 1983: 13 and 20).

Domestically, banks have been severely frustrated by restrictive legislation which has only recently begun to be loosened. One of the most restrictive regulations affecting domestic operations of the banks was the McFadden Act of 1927 which prohibited interstate branching. It was this Act which contributed the most to the resulting structure of the U.S. domestic banking industry. Several relaxations of this Act have occurred since its inception. Currently 40 states allow some form of interstate banking (Chase Manhattan Corp., 1986: 16).

Federal Reserve Regulation Q, originating during the Depression era, imposed a ceiling on the rate of interest that banks were allowed to pay on domestic time and savings deposits. Many banks found it expedient to diversify into other product areas and to open branches abroad in order to compete effectively for funds.

It has only been in the last few years that the process of lifting the restrictions imposed by Regulation Q has been started.

One of the largest thorns in the sides of U.S. bankers emanates from the restrictions imposed by the Glass-Steagall Act. This Act prohibits banks from conducting activities such as underwriting corporate securities, mortgage-backed securities and mutual funds. This has not precluded banks, however, from providing these services from foreign offices. At the present time, the Federal Reserve Board is considering applications from a number of banks to provide these services domestically and the current momentum towards deregulation is expected to eventually abolish these restrictions completely.

A major impact of these restrictions on U.S. banks' domestic operations, has been the increasingly successful penetration of the U.S. market by foreign banks. In 1986, more than 600 offices of foreign banks (a figure which tripled in the last decade) provided 22% of loans to U.S. businesses (J.P. Morgan & Co., 1986: 16).

In summary, the domestic environment of the U.S. banks has historically been highly regulated. These regulations, however, have served to encourage the expansion of international operations and have not unduly affected the competitiveness of U.S. banks in international markets. Domestically, banks have been discouraged from pursuing consumer and retail markets because of restrictions on interstate banking and restrictions on interest rates which can be paid on deposits. The result of these regulations has been the emergence of large, internationally-oriented money centre banks in cities such as New York, Chicago, Miami and Los Angeles. The major banks which are also involved in consumer banking are those which have access to large markets in the states in which they are incorporated, for example New York and California. In more recent years, the

infiltration of the domestic market by foreign banks has increased substantially. Currently, the U.S. is in a period of deregulation and it is anticipated that within a few years most of the restrictions discussed here will have disappeared.

5.4.3 The U.K. Environment

The British banking industry is composed of approximately 300 licenced banks, 250 of which are subsidiaries of foreign banks. These banks are mainly composed of clearing banks (banks which settle cheques directly with other banks, not needing an intermediary), merchant banks and acceptance houses. The banks included in this study are the five largest clearing banks. Banks also face competition from 'non-bank' institutions including the post office, trustee savings banks and, increasingly, from building societies.

There are a number of factors in the history of the U.K. which differentiate it from the two other countries in this study. First, the U.K. was a strong colonial power and, as a result, had connections with many areas throughout the world, particularly in Africa, the Far East, and the Caribbean. Second, because of the timing of the industrial revolution, the U.K. became the main financier of the revolution. Both of these factors served substantially to foster the opportunities available to bankers, both domestically and internationally. The strength and prominence of the pound sterling in the early part of the century was a further boost.

With respect to regulation of the U.K. banking industry, "until the early 1970's the use of moral suasion and the unwritten gentlemanly codes of the City [of London] were essentially the only mechanisms utilized by the Bank of England in its policing role." (Channon, 1977: 30) Although the Bank of England was empowered

by the 1946 Bank Act to regulate the banking industry, the exercise of this power was almost non-existent until the 1970's. Indirect controls on operations, however, played an important role in the evolution of the industry.

The environment of the British banks up to the 1960's was marked by lack of competition. Through a series of mergers, four large clearing banks emerged which have dominated the domestic banking industry ever since. These banks formed an officially sanctioned cartel, setting interest rates and lending policies in their domestic operations. Banks operated free from legislation which restricted their operations either domestically or internationally, while enjoying the protective blanket of legislation restricting domestic competition.

In the late 1950's, this position of relative security began to be threatened. One of the main ways in which the Bank of England indirectly regulated the operations of domestic banks was through credit controls (Grady and Weale, 1986). These controls were prevalent from the late 1950's through the early 1980's. Until 1971, the controls tended to discourage the large banks from operating domestically. Other controls, in effect from 1971 through to 1981, were less restrictive and, since 1981, the credit control policies exercised by U.K. regulators have been abandoned.

In the 1980's, the domestic environment faced by the clearing banks has become quite competitive. Since 1979, foreign banks, formerly interested only in the London international financial centre transactions, have now extended their reach to include domestic wholesale banking and, in some cases, domestic retail banking. The services offered by the 'non-banking institutions' have expanded to include a full range of traditional banking services. The 'Big Bang' in October, 1986, permitted banks to enter the securities markets. The Building Societies Act

significantly widened the range of financial services that the societies could provide while the flotation of the Trustee Savings Bank greatly increased the capital resources available to them. The clearing banks are being forced to keep a tight reign on domestic operations in order to maintain market share.

The effect of the domestic environment on the structural evolution of U.K. banks was addressed by Channon (1977). He concluded, "the long period without competition and with officially sanctioned cartels led not only to stagnation in strategic development, but also to the ossification and increasing bureaucratization of the clearing banks' organizational structures" (p. 55).

Government controls over banks' international operations have been minimal. It was not until 1974 that banks were requested to report on their international operations. Currently, the Bank of England sets guidelines for banks' net positions in individual currencies and monitors compliance through regular consultations and discussions.

5.5 CANADA, THE U.S. AND THE U.K. - THE RESULTS

Table 5-7 summarizes the findings of this study by country. Each of the three countries under study will be analysed separately. Section 5.6 contains the comparisons of the results for each country.

5.5.1 Canada

The average size of the five Canadian banks studied was considerably smaller than their counterparts. Their average total assets were \$55.1 billion compared with \$82.0 and \$87.6 for the U.S. and U.K. banks respectively. This size

TABLE 5-7

**STRUCTURAL STAGE, BASIS OF ORGANIZATION AND
AVERAGE MEASUREMENTS OF INDEPENDENT VARIABLES
FOR CANADA, UNITED STATES AND UNITED KINGDOM**

<u>VARIABLE</u>	<u>CANADA</u>	<u>UNITED STATES</u>	<u>UNITED KINGDOM</u>
A. <u>DEPENDENT VARIABLES</u> (measured by number of banks)			
1. <i>Structural Stage</i>			
Stage 7 (total = 6)	2	4	-
Stage 6 (total = 6)	1	4	1
Stage 5 (total = 7)	2	1	4
Stage 2 (total = 1)	-	1	-
	<u>5</u>	<u>10</u>	<u>5</u>
2. <i>Basis of Organization</i>			
Product (total = 5)	1	3	1
Customer (total = 2)	-	2	-
Regional (total = 1)	-	-	1
Mixed (total = 11)	4	4	3
	<u>5</u>	<u>9</u>	<u>5</u>
B. <u>INDEPENDENT VARIABLES</u> (measured by means)			
3. <i>Total Assets (US\$billions)</i>	55.1	82.0	87.6
4. <i>Total Employees ('000)</i>	30.3	36.6	79.6
5. <i>International Assets (%)</i>	39.5	33.6	54.4
6. <i>International Income (%)</i>	35.9	26.6	29.7
7. <i>Geographic Dispersion</i>	29.8	43.5	50.8
<u>Diversification (Index measurements):</u>			
8. <i>Domestic Product</i>	7.4	8.0	9.4
9. <i>International Product</i>	9.6	7.4	10.6
10. <i>Total Product</i>	17.0	15.4	20.0
11. <i>Domestic Customer</i>	7.0	6.5	6.8
12. <i>International Customer</i>	6.2	4.5	6.2
13. <i>Total Customer</i>	13.2	11.0	13.0
14. <i>Non-Interest Income (%)</i>	23.4	38.8	33.0

difference was also reflected in the measurement of total employees. Canadian banks had the lowest average, at 30.3 thousand, or one employee for every U.S.\$1.82 million in assets. Despite their small size, Canadian banks employed 39.5 percent of their assets in international operations. This compared with only 33.6 percent by the U.S. banks. The Canadians registered the best marks for efficient utilization of international assets. International income was 35.9 percent of total income, compared with 26.6 and 29.7 percent for the U.S. and U.K. banks, respectively. The location of Canadian international operations was highly concentrated. Canadian banks operated out of an average of 29.8 countries, while U.S. and U.K. banks were in 43.5 and 50.8 countries, respectively. The Canadian banks registered the highest score for domestic customer diversification but, in sharp contrast, had the lowest score for domestic product diversification. This indicated they had access to broader markets domestically, but were providing a less diverse line of products. An additional indication of the low levels of product diversification was provided by the average level of non-interest income. Canadian banks earned 23.4 percent of their total income from non-traditional sources, while U.S. and U.K. banks earned 38.8 and 33.0 percent, respectively. Internationally, Canadian banks also showed a high level of customer diversification. They scored 6.2 compared to a 4.5 score by U.S. banks. Their overall score for customer diversification was the highest of the three countries of origin.

The structures of the Canadian banks were fairly evenly distributed among Stages 5 through 7. It was interesting to note that only one bank, The Toronto-Dominion Bank, had a pure product-based structure, while the remaining four had mixed structures. In general, the structures fit well into the model. The

smaller, less diversified banks had Stage 5 structures, while the larger banks were in the Stage 7 category.

In summary, Canadian banks, in comparison to U.S. and U.K. banks, are characterized by:

- (1) low levels of total assets
- (2) high levels of international assets as a percentage of total assets
- (3) high levels of international income as a percentage of total income
- (4) low geographic diversification
- (5) high domestic customer diversification
- (6) low domestic product diversification
- (7) high international customer diversification
- (8) good structural fit

5.5.2 United States

The U.S. banks were slightly smaller than the U.K. banks when measured in terms of total assets. They averaged \$82 billion compared to \$87.6 billion for the U.K. banks. This slight difference in size was not reflected in the number of total employees. U.S. banks employed an average of only 36.6 thousand worldwide, while U.K. banks employed a staggering 79.6 thousand. This was one employee for every U.S.\$2.24 million in assets compared to U.K. banks who hired one employee for every U.S.\$1.10 million in assets. The international operations of U.S. banks were surprisingly small. International assets were the lowest at 33.6 percent of total assets, compared with 39.5 and 54.4 for the Canadian and U.K. banks, respectively. In sharp contrast to the heavy consumer and retail banking orientation of the Canadian and U.K. banks, most of the U.S. banks are primarily 'money-centre banks' with limited branch banking networks. Indeed, two of the banks surveyed had no consumer operations whatsoever. They had specifically targeted the wholesale and investment banking markets. As a result, U.S. banks had the lowest scores for both

domestic and international customer diversification, as well as for total product diversification. On the other hand, U.S. banks earned 38.8 percent of total income from non-traditional banking services. These earnings were, in all likelihood, a result of the greater fee earning potential of wholesale and investment banking services.

In general, the organizational structures of the U.S. banks exhibited the best fit with the structural stage model and the various bases of organization which had been expected. Four banks had Stage 7 structures without any deviations from the definitions outlined in the model. Four fit into Stage 6 and one into Stage 5. The tenth bank had the most in common with Stage 2. This bank had a widely spread, domestic franchise operation, with only a minor involvement in international operations. Of the nine banks in Stages 5 through 7, three banks had global product-based structures, two had divided top level divisions on the basis of customer groups, and the remaining four had mixed structures.

In summary, the U.S. banks, in comparison to Canadian and U.K. banks, are characterized by,

- (1) Low levels of employees hired relative to total assets
- (2) Low levels of international assets as a percentage of total assets
- (3) Low domestic and international customer diversification
- (4) High levels of non-interest income as a percentage of total income
- (5) Good structural fit

5.5.3 United Kingdom

The U.K. banks were the largest in the sample with average assets of U.S.\$87.6 billion. They employed over twice as many employees as both the Canadian and U.S. banks. More importantly, they hired one employee for every U.S.\$1.10 million in assets, compared to U.S.\$2.2 million and U.S.\$1.8 million for

the U.S. and Canadian banks, respectively. The U.K. banks had the largest relative level of international assets, by a significant margin. They reported average international assets of 54.4 percent of total assets, compared with 39.5 and 33.6 percent for the Canadian and U.S. banks, respectively. On the other hand, they were able to earn profit from international operations of only 29.7 percent of the total. Although U.S. banks earned only 26.6% of total profit from international operations, they had only 33.6% of total assets invested in international operations. The international operations of the U.K. banks were widely dispersed around the world. They had operations in an average of 50.8 countries, significantly higher than the 29.8 and 43.5 figures recorded by the Canadian and U.S. banks, respectively. U.K. banks were the most diversified on the basis of product, both domestically and internationally. They also scored very high in customer diversification. Their score of 13.0 came in a close second behind the score of 13.2 by the Canadian banks. These high levels of diversification reflect the propensity by the U.K. banks to engage in all forms of banking internationally, including consumer and retail operations.

Of the three countries surveyed, the banks of U.K. origin seemed to exhibit the most resistance to fitting both the structural model and the bases of organization chosen. Four of the five U.K. banks had Stage 5 organizational structures. This finding was quite remarkable given their high levels of international activity and diversification. Three banks had mixed structures, one had a purely product-based structure, and the remaining bank was the only bank sampled which had a regional structure.

In summary, the U.K. banks, compared to the Canadian and U.S. banks, are characterized by,

- (1) High levels of total assets
- (2) High levels of employees hired relative to total assets
- (3) High levels of international assets as a percentage of total assets
- (4) Low levels of international profit as a percentage of total profit
- (5) High geographic diversification
- (6) High domestic and international product diversification
- (7) High domestic and international customer diversification
- (8) Poor structural fit

5.6 CROSS-NATIONAL COMPARISONS

THE RELATIONSHIPS

Section 5.2 addressed research question numbers 2 and 3 by looking at the measurements of the independent variables and the nature and extent of their relationships with the dependent variables, structural stage and basis of organization. This section continues the examination of research question number 3 by turning to the relationships among the extrinsic factors in the countries studied.

5.6.1 Canada and the U.S.

In terms of total assets, the U.S. banks were 49% larger than their Canadian counterparts, however, their total employees were only 21% higher. The difference in total assets is partly explained by the much larger domestic economy to which the U.S. banks have access and, in particular, their access to the global operations of the large U.S. industrial base. The correspondingly high level of employees hired by Canadian banks reflects their increased involvement in the more labour-intensive consumer and retail sectors.

Canadian banks were found to have the highest percentage of income from international operations while U.S. banks had the lowest. For the Canadian banks,

it was 35.9% of total income compared to only 26.6% for the U.S. banks. One possible explanation for this difference could be attributable not to international operations, but to profits from domestic operations. The year ending in 1986 was a difficult one domestically for Canadian banks. They faced higher competition, while in the U.S., markets were opening up. Canadian banks experienced large losses on transactions in the agriculture and energy sectors because of lower world prices for grain and oil, respectively. Although the U.S. economy suffered badly in these sectors as well, the large TNB's were proportionately less involved in these areas, leaving them in many cases to the regional banks.

The international operations of the Canadian banks are considerably more concentrated than those of the U.S. banks. The former operate out of an average of only 29.8 countries, while the latter are present in 43.5 countries. In the discussion above, many reasons were put forth for the global expansion of U.S. banks - reasons which required their presence in many countries. The Canadian banks, on the other hand, were drawn by economic, geographical, social and political links into the U.S., the Caribbean and Latin America. Their operations tended to remain concentrated in these areas because they could not challenge the U.S. banks' access to the markets created by the powerful expansion of U.S. MNC's. Instead, they moved into the international financial centres and focussed their attention on money-market and interbank activities. Further, they were precluded from entering certain markets because of the lack of reciprocity in Canada from 1967 to 1980.

The scores recorded for the domestic product diversification of Canadian and U.S. banks were very close. Although the U.S. banks, in general, offered very few retail and consumer-oriented services, this was offset by the much larger range of

wholesale banking activities offered in the U.S. In terms of international diversification, however, both on the basis of product and customer, the Canadian banks scored considerably higher than their U.S. counterparts. This was due to the fact that Canadian banks had retail and consumer operations abroad, markets rarely touched by the U.S. banks. The overview of the domestic environments of these countries suggests that this could be a result of the lack of experience of U.S. banks in retail and consumer branch banking operations. By contrast, Canadian banks are involved in all of the same wholesale and investment banking activities as U.S. banks internationally. The volume of such operations differs, but the services available are the same.

The structural evolution of the Canadian and U.S. banks is approximately parallel. Both were found to exhibit a good structural fit with the model. The explanation for this could be the historical closeness, ideologically, geographically and economically, which has existed between the two countries. Also, the structural development model used in this study was developed largely from studies examining U.S. firms (e.g. Chandler, 1962; Stopford and Wells, 1972). As discussed above, the Canadian banks have infiltrated the U.S. market to a significant extent since the late 19th century and the presence of U.S. banks in Canada was, in fact, the impetus for the protectionist measures taken in the 1967 Bank Act in Canada. Also, due to various geographical and political factors, the banks have found themselves competing in the same markets.

5.6.2 The U.S. and the U.K.

The U.K. banks were found to be the largest banks in the sample when measured by total assets. The figures are slightly misleading, however, because

they reflect a drop in the value of the U.S. dollar relative to the British pound during the period prior to measurement.

Measured by total employees, the U.K. banks were more than twice the size of the U.S. banks. This discrepancy is very interesting because its sheer volume leads to the question of how the factors discussed above could realistically account for such a large difference. For example, four of the five U.K. banks have large branch banking operations in the U.K. and three of them have similar operations internationally. As a result of this heavy involvement in the labour-intensive banking sectors, it is understandable that U.K. banks would hire proportionately more people than U.S. banks. Despite the inability to measure this effect, it does not seem possible that the entire difference has been explained. Canadian banks, who are also heavily involved in consumer and retail sectors globally, hire one employee for every U.S.\$1.8 million in assets, while U.K. banks hire one employee for every U.S.\$1.10 million in assets. A possible explanation for the remaining discrepancy could lie in the area of cultural variables. Channon (1977) found differences between U.K. and U.S. corporations in the nature of their management. These differences were set forth in section 2.3 above. In particular, he found that the presence of non-executive 'amateurs' on the Boards of Directors of the banks, elaborate committee structures with correspondingly slow decision-making, and bank managers who seemed "over-bureaucratized, narrow, conservative and short of marketing skills" (p. 60), had led to U.K. banks being less competitive with U.S. banks. When this is combined with the lack of effective competition, until the late 1960's, in the U.K. and the former territories and colonies, one is presented with a picture of organizations which do not react in a timely manner to messages of inefficiencies.

These reasons may also serve to provide some explanation for the differences between the organizational structures of U.K. and U.S. banks. While U.S. banks, in general, fit well into the structural development model, the U.K. banks seemed 'stuck' in Stage 5. Other explanations exist as well. The strategic emphasis on the domestic operations of U.K. banks would pressure them to retain the domestic division structure. In addition, it cannot be ignored that most of the research on which the structural model was based related to U.S. industries. Nevertheless, the fact that retail and consumer operations had been carried abroad would, according to existing theory, lead them to merge domestic operations into global specialty divisions.

The data gathering process uncovered another factor which may contribute to the structural differences between U.S. and U.K. banks. Although integrating mechanisms were not systematically measured, it seemed from the annual reports that U.K. banks had more elaborate committee structures at the top level of their structural hierarchies than other banks. According to Galbraith and Nathanson (1979) the use of these integrating mechanisms could substitute for movement to a new structural stage. It is possible that U.K. banks are able to sustain a Stage 5 structure longer than other banks because of a more extensive use of integrating mechanisms.

The larger scores for international product and customer diversification by the U.K. banks can be traced to the same explanations as those offered for Canadian banks. In short, U.K. banks have carried their experience in retail and consumer banking markets abroad, a move not as common with U.S. banks, probably because of their lack of experience in these sectors.

The international assets of the U.K. banks were the highest in the sample - 54.4% compared to 33.6% for the U.S. bank. These figures are somewhat misleading for a number of reasons. First, four of the five U.K. banks have included the international operations of domestic offices. Nine U.S. banks have done the same. Nevertheless, the popularity of the U.S. dollar on international money markets could mean that, if international operations of domestic offices are defined by the currency in which the transaction is completed, it is likely that a larger portion of the domestic operations of U.K. banks are termed international. Second, the U.K. figure includes the international operations of one bank, Standard Chartered, whose operations are almost entirely overseas. The U.S. figure includes the operations of one bank, First Interstate, whose operations are almost entirely domestic. The figures are somewhat polarized as a result. Thirdly, the U.K. figures are based on location of booking office, while the majority of the U.S. data is segregated on the basis of residence of customer. The latter measurement would therefore count as domestic the international transactions of U.S. corporations conducted through the domestic head offices of those corporations. Despite these measurement problems, they probably do not explain all of the difference between these two measurements of international assets. It would seem that, on average, the U.K. banks conduct a higher percentage of overall operations internationally than U.S. banks. That is, if the U.K. and U.S. banks were able to provide figures for their international activity based upon common definitions, the average for the U.K. banks would remain higher than that of the U.S. banks. The exact amount of this difference is difficult to determine.

5.6.3 The U.K. and Canada

One of the most striking differences between the U.K. and the Canadian banks is their respective measurements of geographic dispersion. The U.K. banks are, on average, in 50.8 countries while the Canadian banks are in only 29.8. The section dealing with differences between Canadian and U.S. banks looked at reasons for the high levels of concentration of Canadian banks. Turning to the broad geographical dispersion of U.K. banks, the discussion of the U.K. environment found that the colonial background of the U.K. had opened up many markets for the banks during a time when quantitative lending controls at home were discouraging competition for domestic deposits.

The score for domestic product diversification by the U.K. banks was the highest of the three countries studied. They scored 9.4 compared to only 7.4 by the Canadian banks. This difference was primarily a result of the presence of an international financial centre in London. Although Canadian banks were highly diversified in their international operations, domestically, they had restricted access to money market transactions. In addition, the 'Big Bang' in October of 1986 permitted British banks to enter the field of securities trading, an opportunity which is only now being offered to Canadian banks and only in certain provinces.

5.6.4 Summary

While similarities were found between Canadian and U.S. banks, this was not the case for comparisons between these banks and those from the U.K. The latter were unusual in several ways. It was concluded that competitive and regulatory factors could not account for the marked degree of difference. Instead, it was

suggested by the data analysis that cultural variables might have had an impact on the high levels of employees and on the structural evolution of U.K. banks.

Other differences could not be explained by the extrinsic variables. These differences directly challenged some of the theory underlining the creation of the structural development model and the choice of appropriate variables. Chapter 6 will examine the implications of these discrepancies for existing theory.

5.7 SUMMARY

This chapter has presented an analysis of the data gathered for this study and, in the process, many important discoveries have been made. The major findings are summarized below.

The structural development model which had been constructed to aid in the identification of the dependent variable, structural stage, was found to have two crucial inconsistencies. First, in Stage 6 of the model, banks had been expected to merge their domestic divisions into global specialty divisions while retaining an international division. This was not the case. Instead, five of the six banks in Stage 6 had retained a domestic division while merging international operations into global specialty divisions. A subsequent examination of the environments in the countries studied revealed that this retention of domestic divisions longer than had been hypothesized by studies relating to manufacturing industries, was due in large part to the differentiation of domestic and international operations imposed by domestic regulation.

The second inconsistency with the model related to the relationships between the independent variables and structural stages 5 and 6. It was found that the hypotheses of higher structural stages being associated with higher measurements of these variables did not hold unless one reversed the two stages. The implication of this finding was that banks may move to global specialty divisions prior to utilizing international divisions.

These two inconsistencies were extremely interesting examples of how organizational structures in the international banking industry might differ from those of manufacturing industries. Another important difference, which was incorporated into the model and subsequently tested, was the assertion that banks performed at least one critical function which would continue to be handled on a global basis by one centralized division even after adoption of a Stage 7, multi-divisional structure. This assertion proved to be correct. Five of the six banks having Stage 7 structures also had global functional divisions.

The most interesting observation to emerge from the analysis of the variable, 'basis of organization', was the importance of customer-based structures in international banks. It was discovered that the banks with the highest levels of geographic, product and customer diversification, had assumed this form of structure. Although only two banks in the study had this form of structure, one was in the process of changing over and seven more would have had customer-based structures except for one product-based division to handle investment banking.

In general, the structures of international banks seemed to be more complicated than in manufacturing organizations. There were no pure product-based structures in the form envisaged by Stopford and Wells (1972). Instead, eleven banks had a mixture of regional, product and customer-based

divisions, and the structures of the remaining banks included domestic, international and functional divisions.

In the cross-national analyses, the most interesting phenomena to emerge were the anomalies associated with the U.K. banks. They were interesting because of their similarities: all five U.K. banks had Stage 5 structures and all five did not use global functional divisions. They employed far more people as a proportion of total assets utilized than either Canadian or U.S. banks and the volume and complexity of their international operations suggested they should be in a higher structural stage than Stage 5. Some of these irregularities could be attributed to the U.K. domestic environment, but it was suggested that cultural variables might provide explanations for the remaining differences.

The effects of the U.S. regulatory environment were contradictory. Although both domestic and international operations of U.S. banks were highly regulated, much more so than in either the Canadian or U.K. environments, the net effect was to increase competition in these spheres. This was particularly evident with the international operations of U.S. banks, where heavy regulation had actually aided their competitive position globally.

In conclusion, many interesting findings have been uncovered in this chapter, many of which have implications for existing theory and for the structural development model. Chapter 6 will examine these implications.

6. DISCUSSION

In the analysis presented in the previous chapter, many interesting results were discussed. In particular, several observations were made which were not in agreement with some of the results of previous researchers and which had implications for the structural development model used in this study. This chapter begins with an examination of the implications of these anomalies for existing theory, followed by a section which looks at the implications for the model. The conclusions reached are then incorporated into a new, revised model in section 6.3.

6.1 IMPLICATIONS FOR EXISTING THEORY

In Chapter 2 an in-depth literature review was conducted which looked at the existing state of research in the field of international banking, however, most of the studies reviewed related to manufacturing industries. This approach was necessitated by a lack of studies completed on the international banking industry. Most of those which did exist had relied upon theory drawn from research based on manufacturing industries. This section will examine the findings of the data analysis chapter within the context of the literature review of Chapter 2. The objective will be to determine whether the conclusions and hypotheses offered by these writers stand up when viewed in the light of this study's results.

Chandler (1962) and Stopford and Wells (1972) postulated that firms would move toward a global, multi-divisional structure as the size of operations and the complexity of those operations increased. The present study found that Stage 7

banks were indeed larger, when measured by total assets, than banks in the other stages. A reverse relationship was found, however, between Stage 5 and Stage 6 banks. The former were substantially larger than their counterparts in Stage 6. Total numbers of employees hired were found to be higher with banks in the lower stages which retained domestic divisions, usually indicating a heavy commitment to labour-intensive retail banking operations at home. There was no definitive connection between level of complexity (measured by product and customer diversification) and structural stage.

Stopford and Wells (1972) dealt specifically with international operations. They identified four variables which drive structural evolution: 1) volume of international activities; 2) geographic dispersion; 3) growth in product diversification; and 4) investment in research and development. Because the fourth variable is not as relevant to the banking industry as it is to manufacturing industries, the present study measured only the first three.

The results reported here do not support the contentions of these writers. First, product diversification was found to have little or no effect on structural stage. Only minor differences were found among the levels recorded for Stages 5, 6 and 7. Second, it has already been mentioned that with respect to total assets, it was found that of those banks retaining domestic divisions, the ones with international divisions (Stage 5) were significantly larger than those managing international operations through global divisions (Stage 6). The Stage 5 banks also recorded a higher volume of international activities and geographic dispersion than the Stage 6 banks.

If one continued to accept the concept that a model of structural evolution exists and that increases in these variables initiate movement along the model, then

these findings would suggest that, contrary to Stopford and Wells' assertions, Stage 6 of this study's model actually occurs prior to Stage 5. That is, with initial expansion abroad of certain activities, responsibility for both domestic and international components of these activities are merged into global specialty divisions. Meanwhile, domestic divisions are retained for exclusively domestic operations. With the expansion of international activities, the international division is formed. Often, the bank has no experience in these new activities at home. Activities such as these are quite common in the international banking industry, for example, operations in offshore financial centres and Euromoney markets. Finally, with the homogenization of domestic and international activities, the divisions responsible for these areas are merged into global specialty divisions, the final stage predicted by Chandler and Stopford and Wells.

Thus, the simple Chandler model of movement from a functional to a multi-divisional form is not challenged, nor is Stopford and Wells' assertion that the multi-divisional form will be the final structural stage. The difficulty lies in the path taken to the purely multi-divisional form. The international banking industry appears to differ from Stopford and Wells' international manufacturing industries in that movement to a 'partial' multi-divisional form could be made prior to assumption of an international division. Although Stopford and Wells discovered that a small number of firms moved directly to a multi-division form without first assuming an international division (see Appendix 2, Chart 4), these firms skipped the international division stage completely. They also identified a mixed structure composed of an international division and global specialty divisions. They viewed this structure as a phase in the dismantling of the

international division (p. 45). The results of this study suggest that this structure could represent a transition phase in the *setting up* of the international division.

The question of whether firms form global specialty divisions prior to forming international divisions has been raised by other researchers. Daniels, Pitts and Tretter (1984) completed a study of manufacturing firms which concluded, "regardless of level of diversity, firms using international divisions have higher dependence on foreign sales than do those using worldwide product structures" (p. 301). That study, as with the present one, was not longitudinal and therefore did not address the structural evolution of firms. Nevertheless, it seriously challenged the relationships hypothesized by Stopford and Wells (1972) between the two independent variables, volume of international activity and product diversification, and the dependent variables relating to structural evolution.

The international division tends to be utilized by bankers when international operations are very high. According to Stopford and Wells, firms with international activities at these levels would have moved to the purely multi-divisional form. One explanation for this could be that bankers possibly use international divisions as 'catch-all' divisions. It was discovered in the literature review that banks provide a wide variety of services both domestically and internationally. Consequently, many small, differentiated services might not fit under the responsibilities of global divisions. The international division thus would act in a residual capacity.

The concepts of the existence of common structural stages through which all organizations pass and of the sequential ordering of those stages, were not unanimously accepted by all writers (see, for example, Child, 1981). The literature review discussed the views of contingency theorists who assert that

structures will take the shape functionally necessary in order to achieve the survival of the organization in its particular environment. This study found that there were sufficient similarities among the structures of the banks studied to conclude that the concept of common stages is probably valid. The sequential ordering of these stages is not as apparent, however.

One of the shortcomings of the Stopford and Wells analysis, is the assumption that as organizations grow, their international operations will also grow. Although this was not a longitudinal study, it was apparent from the five-year summary balance sheets in annual reports, that the proportion of international operations for many of the banks researched had decreased in the five years leading up to 1986. Between 1982 and 1986, the average international assets as a percentage of total assets for nineteen of the twenty banks (data for the twentieth bank was not available) decreased from 43.3% to 38.5%. Also, a majority of the banks indicated in their reports to shareholders that international operations were being streamlined and total international risk exposure reduced as a result of Third World debt problems, changes in the requirements of MNC's, and other factors rendering international operations less profitable. Consequently, these banks could well be moving in a *reverse direction* along the structural evolution model. This phenomenon might also provide a partial explanation for the lower international operations (measured by international assets as a percentage of total) of the Stage 7 banks. It would be difficult to determine whether this apparent reverse movement is long term or short term in nature. The discussion of country environments in section 5.4 found that each of the countries under study is in the process of deregulating its domestic banking industry. This could be an indication

that banks will be increasingly diverting their attention to domestic markets for some years to come.

The concept of reverse movement along the structural evolution model moves the theory a little closer to the position taken by contingency theorists, who argue that the structures of organizations will take whatever shape is necessary in order to ensure a competitive position in the market (Child, 1981). Strategy/structure theorists have also addressed the concept of reverse movement along the structural evolution model. Galbraith and Nathanson (1979) argued that, not only could firms reverse directions along a structural model, but they could take alternative paths to each stage.

Another area addressed by the literature review, which raises many interesting questions in view of the findings of this study, is that of the impact of culture on strategy and structure. Differences were found in the structural stages of Canadian, U.S. and U.K. banks, which apparently could not be explained by variations in the independent variables. Although it cannot be determined to what extent external influences such as domestic competition and regulation have had an impact, certain differences, such as the greater numbers of employees hired by British banks, suggest that cultural variables may be at play. These unexplained anomalies were particularly prevalent with the U.K. banks.

Channon's examination of British service industries found a number of culturally-related factors differentiating British firms. These were discussed in section 2.3. The present study will avoid attributing anomalies to specific cultural variables, because of the difficulty in identifying such variables, however, some conclusions can be drawn concerning the validity of the antitheses to the cultural approach - the culture-free thesis of Lammers and Hickson (1979) and the

convergence perspective of Harbison and Myers (1959). Firstly, the application of a 'logic of rational administration' fails in this case because of the differing levels of competition and regulation among the home countries of the banks studied. The contingencies examined do not, of themselves, explain the differences among banks of differing countries of origin. Other contingencies such as technological development and interdependence with other organizations may be pertinent, however, the Channon study (1977) and the findings of the present research regarding U.K. banks, suggests that cultural factors may be affecting variables such as technological development. The Harbison and Myers study (1959) acknowledges that cultural factors can slow down the organizational development of firms, but argues that they do not otherwise have any significant effects. This is an interesting notion and one which could be applicable in ~~the~~ present case, however, a longitudinal study would be required in order to examine the organizational development of firms over time.

In conclusion, this study has hinted that cultural factors may be at work, but their precise identification is impossible without first examining other contextual variables. For example, technological development may be affecting the greater levels of employees hired by the U.K. firms. Finally, the impact of the cultural variables is impossible to identify without conducting a longitudinal study which attempts to determine whether cultural variables actually change the structural evolution of organizations or simply slow down the evolutionary process.

Chandler (1962), Salter (1970), and Stopford and Wells (1972) hypothesized that multi-product manufacturing firms would eventually assume a product-based multi-divisional structure. This study found two banks with customer-based structures, a third which was changing to a customer-based

structure in the year following the data gathering, and a total of seven additional banks which, under the definition of 'basis of organization' used in this study, would have had customer-based structures if it were not for one global product division to handle investment banking. It was suggested by the review of the domestic environments of the countries under study, that recent deregulation may have prompted banks to establish investment banking divisions. Prior to the period of deregulation, these seven banks may have had customer-based organizational structures.

Finally, eleven of the banks studied had mixed structures. Although Stopford and Wells (1972) had discovered a mixed structure among manufacturing organizations, this structure referred to organizations which had assumed a product-based multi-divisional structure while still retaining an international division. As a result, two differences between manufacturing and banking organizations can be recognized: 1) banks do not appear to move toward a purely product-based structure. While this tendency does exist to a certain degree, the stronger inclination seemed to be towards a customer-based structure; and 2) the most common structure assumed by large, multi-divisional banks is the mixed structure, defined as a combination of regional, product and/or customer-based divisions.

Channon (1978) discovered a "critical-function" form of structure among a majority of British banks. Turner (1983) also wrote of the "functionally integrated" international department, where certain functions were handled by "centralized areas external to the department" (p. 618). The present study found that nine out of nineteen banks with multi-divisional stages had functional divisions in the top levels of their structural hierarchies. This finding provides some

support for Channon's results, although not as strong as had been expected. Nevertheless, only two banks had highly autonomous international divisions, suggesting that Turner's functional integration through other forms, such as committees and functional departments within other divisions, had taken place. The general hypothesis of both of these studies - that the international banking industry is characterized by a greater need for the centralization of certain functions than manufacturing industries - seemed to be confirmed.

Galbraith and Nathanson (1979) had referred to what they termed a "simultaneous structure" (see Appendix 2, Chart 8) whereby firms used integrating mechanisms to implement diversification strategies without having to change divisional structure or move to another structural stage. This study acknowledged the relevance of this tool, but elected not to include integrating mechanisms among the variables to be measured because of the need to limit the scope of the research. Nevertheless, it was observed during the course of the data gathering that the U.K. banks seemed to have far more elaborate committee structures in the top levels of their decision-making than either the Canadian or U.S. banks. This phenomenon was also discovered by Channon (1978). In addition, a study comparing U.S. and U.K. manufacturing firms found the same tendency in the latter to use committee structures with an associated longer period of time required for decision-making (Mallory, et al., 1983). Given the difficulty in justifying the stage 5 structures of the U.K. banks with their large size and high levels of international operations, it could be surmised that integrating mechanisms have been operating in the manner hypothesized by Galbraith and Nathanson. Further exploration into this possibility is left to future research.

6.2 IMPLICATIONS FOR THE MODEL

Section 5.1 above discussed the findings of this research with respect to the variable structural stage. Each of the banks had been assigned a structural stage according to a model which was constructed from a review of theoretical studies relating primarily to manufacturing industries. The model was adapted to fit the international banking industry on the basis of mainly prescriptive studies relating specifically to either banking or service industries. A number of problems were encountered when the process of matching banks' structures to the stages in the model was begun. Only seven banks had structures with no major deviations from stages within the model. Some of the more important deviations from the model were outlined in section 5.1. Section 5.2 went on to examine the hypothesized relationships between the independent variables and structural stage, highlighting considerable areas where the actual and hypothesized relationships differed. The preceding section looked at the implications of these differences for the literature review in Chapter 2. This section will take the analysis further by discussing the possible explanations and implications of the anomalies for the model.

6.2.1 Structural Stage - The Fit

It was found that five of the six banks falling within Stage 6 exhibited a major difference from the described characteristics of that stage. The characteristic which distinguishes Stage 6 from Stage 5 is that responsibility for domestic operations is merged into global specialty divisions, dropping any purely domestic divisions, while retaining an international division. It was found that these five banks had merged their international operations into global specialty

divisions, without any purely international divisions, while retaining a domestic division. The explanation for this anomaly is intuitively appealing. The examination of cross-national differences revealed that domestic regulation of the banking industry has had profound consequences for the nature and extent of the respective domestic banking activities of the banks. It is quite possible that through regulation, policy-makers have differentiated banks' domestic operations from international to such an extent that bank executives are forced to maintain a separate division for domestic activities. The effects of regulation are no doubt felt in the international sphere as well. In general, regulatory authorities throughout the world are concerned with control over their domestic financial systems and this attitude often translates into restrictions on the set-up of local, branch banking operations by foreign banks. Indeed, it was found that most banks were not involved in consumer and retail banking internationally. As a result, the division which handles these business sectors is, most often, a purely domestic division.

These findings exhibit a major difference from the manufacturing industries on which much of the existing theory-related literature is based. Manufacturing industries tend to carry the same operations abroad as those which are conducted at home (Stopford and Wells, 1972). This assumption was critical to the precepts underlying the works of Chandler (1962) and Stopford and Wells (1972), and is probably the main reason why this anomaly has appeared.

6.2.2 Relationships Between Independent and Dependent Variables

Existing theory on manufacturing industries hypothesizes that as firms enter into international operations, they will initially do so through semi-autonomous foreign subsidiaries followed by an international division and,

finally, a global multi-divisional structure (Stopford and Wells, 1972). This structural evolution is in response to increases in the volume and complexity of international operations. The present study looked at the structures of international banks at one point in time and collected no information on prior structures. Nevertheless, it was expected that the closer a bank was to a global multi-divisional structure, the higher its measurements of volume and complexity of international operations would be. This hypothesis was not supported. Instead, the stages of structural evolution assumed by the banks studied suggested that they moved to a global multi-divisional structure for some operations, while retaining domestic divisions for the remainder, *prior to utilizing international divisions*. Banks with international divisions clearly had larger, more complex international operations than those with domestic divisions and global specialty divisions. Further, they tended to be larger in overall size measured by both total assets and employees.

If banks create global specialty divisions prior to international divisions, then the findings of the present study suggest that functional integration of operations takes place at two separate stages in the structural evolution process. Since only one bank with an international division also had a global functional division, it would seem that as banks initially create global specialty divisions, the organization's global operations are functionally integrated under a global functional division. When the international division is formed, functions are divided into their domestic and international components. Finally, when both domestic and international divisions are dropped in favour of a multi-divisional structure, functional integration through the creation of a global functional division takes place once again.

6.2.3 Extrinsic Variables

The discussion of cross-national differences led to the conclusion that the international banking industry is particularly affected by external influences and, as a result, many of the assumptions and hypotheses which are valid in manufacturing industries may not be applicable. In particular, domestic regulation seems to allow bankers to retain domestic divisions long after manufacturing organizations might have merged them into global specialty divisions. Differences in the regulatory environments of various banks will cause the timing of their structural adaptation to differ. Does this indicate that a separate structural development model is required for each country to be analysed?

At the present time, this question cannot be answered in a definitive manner, but this study seems to suggest that one can make do without separate models provided these external variables are addressed. It would be easy to become confused with apparently illogical results if this were not done. This study has shown that this is particularly true with the banking industry and the findings can possibly be generalized to include other industries where regulation is an important factor. One weakness in this area is the tendency to look to external variables for explanations for all anomalies. If a single model is to be utilized, one must be able to correctly identify those anomalies which indicate a weakness in the model from those which are a result of external forces.

6.2.4 Conclusions

In general, the international banking industry exhibits some major differences from manufacturing industries. Briefly, these are, 1) a typical TNB

produces a larger volume of less differentiated products than the average multinational manufacturing organization. Thousands of different financial instruments are available for many different customer groups; 2) the range of customers served is usually greater. The customers of bankers are both suppliers and purchasers of equity and capital; and 3) bankers are heavily constrained by government regulation in their home country, the host countries in which they operate, and sometimes by the home country of their customers.

Because of these differences, models designed to explain and predict the behaviour of manufacturing organizations must be adapted if they are to be used in the banking industry. The model used in this study had been adapted in this way, but nevertheless, certain deficiencies were uncovered. In summary, the three major areas which must be addressed by the revised model are as follows:

1. The sequencing of stages should be changed given that banks appear to move to global specialty divisions prior to the development of an international division. Further, in the transition to the use of international divisions, banks do not appear to separate all operations into their domestic and international components. Instead, some operations continue to be handled through global specialty divisions. Thus, a stage in which the organization has only purely domestic divisions and purely international divisions does not seem to exist.

2. The characteristics of the stages should be changed to reflect that banks appear to retain domestic divisions until the fully multi-divisional stage is reached.

3. The impact of functional integration in the new model should reflect the tendency for banks to functionally integrate operations at two stages in structural development. The first occurs after global specialty divisions have been formed. Then, when international operations are separated into an international division, functions are 'de-integrated' and divided into their domestic and international components. Finally, when all domestic and international operations are combined under global specialty divisions, functional integration again takes place.

6.3 THE REVISED MODEL

6.3.1 Characteristics of The Revised Model

Figure 6-1 on the following page contains the revised structural development model. This model has the following characteristics:

1. Stages 1 and 2 remain the same.
2. The formation of an international division has been shifted to the later stages and, instead, Stage 3 reflects the movement to the handling of international operations through global specialty divisions. The results of this study suggest the hypothesis that, as international operations grow, the semi-autonomous foreign subsidiaries, which have previously reported directly to senior management, are placed under the control of certain domestic divisions, thereby creating global specialty divisions.

FIGURE 6-1

THE REVISED STRUCTURAL DEVELOPMENT MODEL
FOR TRANSNATIONAL BANKS

3. In Stage 4, organizations react to the duplication of functions in the new multi-divisional form by integrating functions into global functional divisions. It should be noted that both Stages 3 and 4 of the revised model replace Stage 6 of the old model. They improve upon the old approach by, (a) showing the formation of global specialty divisions to occur prior to the formation of an international division; (b) provide for the functional integration of the multi-divisional form through the formation of global functional divisions.

4. By Stage 5, international operations have grown to the extent that an international division is required. The nature of these operations has also changed. Instead of concentrating mainly on the international operations of domestic customers, banks are taking on foreign customers and increasing their presence in international financial centers. As a result, domestic and international operations become increasingly differentiated on the basis of both customer and product. As hypothesized by Stopford and Wells (1972) and Turner (1983), domestic and international operations are initially differentiated and the international division is set up as a semi-autonomous "bank-within-a-bank" division. The global functional divisions are dismantled and separated into their domestic and international components. Stage 5 of the revised model replaces Stage 3 of the old, however, with one important difference.

Although a "bank-within-a-bank" international division has been formed to handle international operations, certain operations which are homogenous in both domestic and international market sectors continue to be handled through global specialty divisions. Theoretically, there may be a stage assumed by some banks occurring prior to Stage 5 wherein they completely separate domestic and

international operations. Global specialty divisions disappear entirely. This stage was not discovered among the banks surveyed in this study, however.

5. As banks grow, their operations become increasingly homogenized. Experience abroad is carried into the domestic sphere and vice versa. With the continued growth of international operations and the homogenization of products and customers served both domestically and abroad, functional integration again becomes economical. However, banks do not appear to go so far as to set up functional divisions again. Of the nine banks in this study with international divisions, only one had a functional division in the top level of its structural hierarchy. In Stage 6, the international division is functionally integrated with other divisions through the formation of functional committees or departments within other divisions.

Given the results of this study, it appears quite possible that a bank may skip Stage 5 entirely and move to Stage 6 if the international division is initially functionally integrated. This formulation is particularly appealing intuitively given that the bank may already be functionally integrated when the international division is formed. The present study does not address this issue because longitudinal measurements were not taken. There are clearly two categories of international divisions among the banks studied: semi-autonomous and functionally integrated. The stage which incorporates the semi-autonomous division seems to appear before the functionally integrated division because the volume and complexity of international operations of the latter are higher. This sequential ordering is in accordance with Turner (1983) and Channon (1978).

6. Stage 7 is unchanged in the revised model. In this stage, firms react to continuing homogenization of operations and complete integration takes place. Domestic and international divisions disappear, and global functional divisions are set up to handle global operations.

Between Stage 6 and Stage 7 of this model, it is possible that other stages could exist. Specifically, it is possible that firms might continue to maintain either a domestic or international division to handle those operations which are highly differentiated and are not conducted on a global basis. These divisions would handle operations which do not fit neatly into global specialty divisions. In fact, it is very important to note that some of the firms in Stages 3 and 4 of the revised model, may correctly be in the transformation process from Stage 6 to Stage 7. In general, however, the existence of a purely domestic or international division in the *top level of the hierarchy* assumes responsibility of that division's managers over a substantial proportion of total operations and these residual operations usually appear as smaller departments within one of the global divisions. Also, the average measurements of both size and diversification variables for these banks place them in the earlier stages.

The final impact of the new structural stage assignments is that a total of seventeen banks now fit the model without major deviations. This compares with only seven in the original model. Table 6-1 shows the new structural stage assignments and their deviations.

TABLE 6-1**STRUCTURAL STAGE AND DEVIATIONS FROM MODEL FOR ALL
BANKS - REVISED STRUCTURAL DEVELOPMENT MODEL**

<u>STAGE</u>	<u>BANK</u>	<u>DEVIATIONS FROM MODEL</u>
2	First Interstate Bancorp	None.
3	First Chicago Corp.	None.
	Chase Manhattan Corp.	None.
4	Security Pacific Corp.	None.
	Bank of Montreal	None.
	BankAmerica Corp.	None.
5	Manufacturers Hanover Corp.	None.
	Midland Bank	None.
6	Toronto-Dominion Bank	Has a functional division.
	Bank of Nova Scotia	None.
	Standard Chartered Bank	No domestic division.
	Lloyds Bank	None.
	Barclays Bank	None.
	National Westminster	None.
7	Bankers Trust New York Corp.	None.
	Cdn. Imperial Bank of Commerce	No functional division.
	Chemical New York Corp.	None.
	Royal Bank of Canada	None.
	J.P. Morgan & Co.	None.
	Citicorp	None.

6.3.2 The Independent Variables and The Revised Model

Table 6-2 shows the independent variable measurements for the stages in the revised structural development model. The most important difference which can be observed between the relationships which now exist and those which arose out of the previous model, is that international operations now show an increase in both volume and complexity between the lower and higher stages. Some anomalies still exist, particularly in Stages 3 and 7. First, Stage 3 records a relatively high level of geographic diversification and international product and customer diversification. Because there are only two banks in this category it is unlikely these measurements are strong enough to invalidate the general trend evident elsewhere. Second, because Stage 7 has not been changed in the revised model, it continues to reflect an apparent reversal of many of the trends evident from the earlier stages. Total employees, international assets, geographic diversification and international customer diversification reach a peak in Stage 6 and then decrease in Stage 7.

6.3.3 Problems Remaining

The difficulty with the relationships between the independent variables and Stage 7 could be an indication that a much larger problem exists, namely, the implied evolutionary characteristic of the model. The present study has made no attempt to validate the sequential ordering of the stages in the model. This ordering, however, is implied by the theory upon which it is based. Although a change was made in the order of stages in the revised model, this change was initiated only on the basis of the measurements of the independent variables and not on the basis of any actual data concerning the structural evolution of banks. Two of the banks in

TABLE 6-2

**BASES OF ORGANIZATION AND AVERAGE MEASUREMENTS OF
INDEPENDENT VARIABLES BY STRUCTURAL STAGE -
REVISED STRUCTURAL DEVELOPMENT MODEL**

<u>INDEPENDENT VARIABLES</u>	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
<i>No. in Stage</i>	2	3	2	6	6
<i>Ave. Total Assets (U.S.\$billions)</i>	\$67.0	\$76.5	\$76.6	\$73.7	\$86.5
<i>Ave. Total Employees ('000)</i>	30.7	45.5	48.9	62.8	34.5
<i>International Assets (as % of total)</i>	35.8	35.2	46.4	48.4	39.4
<i>International Income (as % of total)</i>	11.0	25.0	33.5	34.9	35.8
<i>Geo. Diversification (no. of countries)</i>	46.5	31.7	40.5	46.7	44.7
<i>Product Diversification (index measurements)</i>					
Domestic	8.5	8.3	9.5	8.5	7.3
International	9.5	8.0	8.0	10.0	9.0
Total	16.3	18.0	17.5	18.5	16.3
<i>Customer Diversification (index measurements)</i>					
Domestic	7.0	7.0	7.0	6.8	6.2
International	5.5	5.0	4.0	5.2	5.5
Total	12.5	12.0	11.0	13.0	11.7
<i>Non-Interest Income (as % of total)</i>	39.2	36.1	39.7	27.9	34.6
<i>Basis of Organization</i>					
Mixed	0	1	2	3	5
Product	0	2	0	2	1
Customer	2	0	0	0	0
Regional	0	0	0	1	0

Stage 7 have no consumer or retail operations whatsoever anywhere in the world. Another two banks have historically been wholesale, money centre banks whose domestic operations entered the retail market only when they began credit card operations. Both groups of banks are unlikely to have passed through each of the stages leading to Stage 7. By contrast, five of the six banks in Stage 6 are heavily committed to domestic, branch banking operations and are unlikely to divest themselves of their domestic divisions unless branch banking operations are carried abroad. As stated above, most governments still restrict access by foreign banks to domestic consumer and retail markets, although a movement towards global deregulation is under way (Stevenson, 1986). The possibility exists that a separate structural development model is required for each of wholesale-oriented and consumer-oriented banks. This is a question for consideration in future research and will be discussed in the next, and final, chapter.

6.4 SUMMARY

This chapter began by examining the implications of the study's findings for existing theory. Because much of the available theory relates to manufacturing industries, the result was that several important differences between manufacturing industries and the international banking industry emerged.

It was concluded that banks probably assume global specialty divisions prior to utilizing an international division. This finding did not challenge the concept that organizations eventually evolve into multi-divisional structures, only

that the path to this structure differs. Movement to a 'partial' multi-divisional form appears to take place prior to assumption of an international division.

The similarities among the structures of the firms studied suggest that the concept of similar structural stages through which all firms pass is probably true for the international banking industry, as well as manufacturing industries. The sequential ordering of stages did not appear to be the same, however. The possibility exists that reverse movement along the structural evolution model may be common in the international banking industry as banks cut back on the volume and complexity of international operations.

The assertion put forth in Chapter 3 that the international banking industry is characterized by a greater need for the centralization of certain functions than manufacturing industries, seemed to be confirmed by the predominance of global functional divisions among the banks' structures.

A revised structural development model was constructed incorporating these observations, as well as several others. Only three banks had structures with major deviations from the stages in this model, compared to thirteen with the original model. This new model should constitute an important contribution to future research in the field of international banking. It is essentially based on theory relating to manufacturing industries, but has been adjusted for the major peculiarities inherent in the international banking industry uncovered by the findings of this study. Chapter 7 will look at how this study can contribute to decision-making by bank managers and government regulators, and to future research in the field of international banking.

7. SUMMARY AND CONCLUSIONS

This chapter begins with a brief summary of the study. The next section will look at some of the limitations of the research. These limitations affect the extent to which the findings of the study can be utilized to gain insight into the field of international banking. The third and final section of the chapter turns to the strengths of the study - the contributions made toward strategic and policy decisions by bankers and regulators and, finally, the implications for future research.

7.1 SUMMARY

This study set out to identify the organizational factors and external influences which affect the structures of TNB's and to identify what causal relationships exist. It was necessary first to formulate a theoretical framework in which the analysis could be conducted. A structural evolution model was designed from studies of manufacturing industries (eg. Chandler, 1962 and Støpford and Wells, 1972). The objectives of this model were twofold. First, it would be used as a tool to identify the dependent variables related to structure. Second, through use of the model, the hypothesized relationships between independent and dependent variables could be tested.

An examination of the structures of the twenty banks in the study revealed two important discoveries. First, these structures exhibited many common features, indicating the presence of similar stages through which banks pass. These

stages, however, differed in many respects from the ones hypothesized by the model. In particular, the banks were found to retain domestic divisions long after manufacturing firms might have evolved into multi-divisional organizations. Domestic regulation seemed to be the driving force leading to this phenomenon. Second, in several instances, the relationships between the independent variables and the structural variables were not consistent with the hypotheses. A closer examination of the anomalies suggested that if two of the structural stages were reversed, most of the inconsistencies would disappear. The implication of the reversal was that banks would now move to global specialty divisions *prior to the creation of an international division*. A revised model was formulated incorporating these two discoveries. The result was a substantial improvement: only three banks had deviations from the model, compared with thirteen in the original model.

The next section of this chapter will identify some of the limitations of the analysis. This will be followed by a final section which discusses the implications of the study, both for managers and policy-makers, and for future researchers.

7.2 LIMITATIONS OF THE STUDY

The parameters of this study were limited by a number of practical considerations. These included limitations on the physical size of the study, time constraints, and availability of financial resources. The results are accordingly affected by these constraints. Some of the limitations are as follows:

1. In the discussion of definitions of organizational structure, many different components were uncovered. The variables to be measured in this study were taken from those of Lawrence and Lorsch (1969) and Stopford and Wells (1972). In particular, the two components of structure examined were, 1) the methods by which functions are differentiated within an organization; and 2) the authority and responsibility of executives and the associated hierarchy. Several components of structure were excluded. For example, the kinds of information flow among executives and the procedures for channeling and processing information were included in the Stopford and Wells definition but excluded from the present analysis. The latter mentioned procedures included linking or integrating mechanisms, a component viewed by Lawrence and Lorsch and Galbraith and Nathanson (1979) as having important implications for organizational structure. Indeed, Galbraith and Nathanson felt integrating mechanisms represented "one of the principal means with which to implement diversification strategies *without reorganizing*" (p. 259).

The implications of excluding other components of organizational structure from the measurements taken in this study are twofold. First, the evolutionary character of the structural development model comes into question. If managers are able to use integrating mechanisms in lieu of structural reorganizations, then they may well be adapting to their environment in the way hypothesized by the contingency theorists. This possibility is discussed in more detail further on in this section. Second, the appropriateness of the independent variables chosen could be threatened. It is no longer valid to assume a positive relationship between a variable like growth of international operations and structural stage, because firms

may be utilizing other methods of adjusting to change, such as integrating mechanisms.

2. In the literature review in Chapter 2, writers such as Hofstede (1979), Child (1981), and Roberts and Boyacigiller (1983) provided a very interesting perspective of the cultural approach to the study of organizations. This study concluded that the state of research in the field was, however, too ambiguous, and that the correct identification of cultural variables for use in this research would have been a major task in itself. It was unfortunate that this decision was necessary because the results of the data analysis revealed several discrepancies which cannot be explained by the variables chosen and could, perhaps, be attributable to cultural factors. For example, it was found that the U.K. banks employed large volumes of personnel worldwide, compared to the Canadian banks who had similar commitments to the labour-intensive, retail and consumer sectors. Although the U.K. banks were only 59% larger than Canadian banks in terms of total assets, they employed 163% more employees, or more than two and one-half times as many employees as the Canadian banks. Channon (1977) suggested this difference could result from cultural variables such as interlocking directorates and greater loyalty to employees, causing the British banks to be less profit-maximizing.

3. In defining the parameters of the study, banks from Canada, the U.S. and the U.K. were included. This specification unfortunately eliminated some very interesting comparisons, such as the case of the Japanese banks. It is difficult for anyone interested in international banking not to have a fascination with the rapid growth in the domination of Japanese banks in recent years. They have been

successful in almost completely displacing the U.S. banks from the worldwide 'top ten', albeit helped along by the declining U.S. dollar. Nevertheless, it would have been very interesting had physical and financial resources been available to include Japanese banks in the study.

4. A final limitation imposed on the study by time and financial constraints, was the inability to look at the longitudinal development of banks' organizational structures. Several perplexing discrepancies between hypothesized relationships and actual results appeared which could not be addressed without longitudinal data. For example, Stage 7 banks recorded lower levels of international assets than the other multi-divisional stage banks. This difference could have resulted from a change during the transition from Stage 6 to Stage 7, or it could have been that the Stage 7 banks had bypassed Stage 6. The explanation can only be uncovered in a longitudinal study. A longitudinal study would also address the questions of what factors trigger structural change and how quickly firms react to such triggers.

There are other aspects of this study, not directly related to the constraints imposed by financial and other considerations, which limit its usefulness and practical application to issues in the international banking industry. One limitation was discussed in Chapter 6 above relating to the choice of the strategy/structure approach to organizational structure over the contingency approach. The greatest weakness of the former approach uncovered by the findings of this study, is its reliance on an evolutionary concept of organizational structure made up of sequentially ordered structural stages. The contingency approach suggested that firms would adapt their structures in accordance with certain contingencies

existing at the time, and the assumption of similar stages through which all firms pass was probably not valid.

♦ Strategy/structure models fell into a trap whereby growth and diversification of operations were assumed to continue increasing and no adaptation to the structural evolution model appeared to be available in the event that they did not. The results of this study suggested that in the international banking industry, managers have, for a variety of reasons, been cutting back on both the volume and diversification of their international activities. The implication of this finding for the structural development model was that some reverse movement along the model might have taken place. The extent of such movement was indeterminable because of the static nature of the study.

Nevertheless, despite the weakness created by the evolutionary character of the strategy/structure approach, it does provide the strongly supported concept of similar stages through which firms pass. This study found such similarities among the firms examined. If the strategy/structure approach were modified by incorporating some of the concepts of the contingency approach, the weakness would diminish. For example, a structural development model could recognize reverse movement and alternate paths in accordance with the Galbraith and Nathanson (1979) approach. This would provide the flexibility needed to account for firms which are reducing international operations or taking other strategic action which effectively moves them in a reverse direction along the structural development model.

Another factor limiting the reliability of the study relates to the discovery that the variable non-interest income as a percentage of total income did not provide an accurate measurement of product diversification. As a result, the only

measurement taken of product diversification was the index which assigned a value of '0', '1' or '2' to each bank, depending on whether a specific product group was provided, a) not at all; b) to a limited extent; and, c) to a full extent. A more exacting measurement of product diversification might have revealed a greater association between diversification and structural evolution.

Finally, there were limitations imposed on the study by the availability of data. In particular, the measurements taken of international assets and profits as percentages of totals were subject to problems of comparability. It was discovered that banks defined international operations either on the basis of residence of customer or location of booking office. In addition, not all banks included under international operations the international transactions of domestic money centres such as London and New York. For banks using location of booking office as the yardstick for measurement, this resulted in distorted data. Also, it was unclear as to how the 'international transactions of domestic money centres' were defined. There was no pattern to these differences. Each bank seemed to have its own method of calculation, regardless of its country of origin. Future researchers may be able to overcome this problem because current efforts to regulate the international banking industry are concentrating on homogenizing the reporting methods of the banks.

Despite the limitations described above, strategy/structure theory, on which this research design was based, was superior to contingency theory because it provided a framework within which a model could be developed enabling the identification of the dependent variable, structural stage. Indeed, the findings of the study showed strong similarities among the structural stages of the banks studied

supporting the strategy/structure theorists' concept of similar stages through which all organizations pass.

Although a longitudinal study would have answered a number of additional questions, this study has prepared the necessary groundwork which will permit such research to be completed in the future. It has uncovered differences between the international banking industry and manufacturing industries which are crucial to an understanding of the theoretical framework within which international banks must be examined.

7.3 IMPLICATIONS OF THE STUDY

7.3.1 Strategic and Policy Implications

The data gathered in this study cover ground which has, for the most part, been left untouched by other researchers. Valuable information has been obtained relating to the structures of TNB's and the forces which shape those structures. The study places some of the world's largest banks alongside their most important foreign competitors, highlighting not only organizational, but also national differences. This comparative approach can contribute to effective decision-making by bank managers and to policy-making by government bodies by providing information on how different banks have adapted structurally to their environments.

For bank managers, probably the most useful insights from the study will lie in the increased understanding of how their major competitors have structured their operations in response to internal and environmental factors. Bankers are able to compare their organizations with the structural adjustments made by their

competitors to factors such as levels of international operations, product diversification, etc. They will be able to look at the relationship between profit levels and this structural adjustment, to see how the various structural options available work.

Another opportunity afforded bankers by the study, is the ability to learn how their actual reactions to strategic factors relate to existing theory on international banking. Although most managers acquainted themselves with some theoretical background during their training, it was probably based on manufacturing industries and not directly related to international banking. This study has identified some major deficiencies with the use of manufacturing-based theory to explain the international banking industry. Managers can now examine how closely their actions conform to the hypotheses suggested by theory and use this examination to provide insight into profit levels attained.

From the point of view of regulators, this study has looked at how the history of the domestic regulatory environment has affected the current characteristics of the banks, as well as how the current trend towards deregulation might affect the banks in the future. A number of important points were identified.

First, it was apparent that an unregulated domestic environment will not induce high competition unless entry barriers are eliminated. In the U.K. and Canada, banks were able to operate relatively uninhibited by regulations governing their activities, but protected by regulations limiting entry into the industry. As a result, the domestic industry was largely non-competitive. Second, credit control measures are relatively ineffective as long as the extraterritorial application of those measures cannot be enforced. In the U.S., banks were able to overcome limitations on their dealings in U.S. dollars by conducting transactions with

overseas offices. Finally, the current trend towards deregulation of the banking industry will probably contribute to the homogenization of banks' global operations. Services formerly provided only domestically or internationally will now be provided globally. Regulators in Canada can expect U.K. banks to carry their domestic experience into retail operations in Canada, while U.S. regulators can expect the same form of infiltration by Canadian banks. This movement is already apparent with the acquisition by Lloyds Bank PLC of the Continental Bank of Canada, and the purchase by the Bank of Montreal of Harris Bankcorp Inc. in the U.S.

Finally, this study has uncovered some overall trends in the international banking industry which are of interest both to bankers, for knowledge of competitors' actions and formulation of their own, and to regulators, for monitoring how banks are proceeding, particularly in the face of increased deregulation. In general, the strategy followed by banks in the past, which essentially conformed to the motto that 'big is beautiful', appears to have changed. Instead, banks are finetuning their global operations by decreasing their presence in many countries and focussing on being bankers for some, not bankers for all. The new credo appears to be, 'quality, not quantity'.

7.3.2 Implications for Future Research

Very few studies have been completed on the international banking industry and on the organizational structures of service industry firms in general. Because this study has entered largely uncharted territory, many questions have been raised relating both to the choices made in defining the research design and to the anomalies presented by the study's results. Some of these questions are presented below.

1. It was discovered that seventeen of the twenty banks in the study had made major changes in the top levels of their structural hierarchies in the past year. How often do major reorganizations take place in the international banking industry? This study suggests that changes are far more common than in the manufacturing industries, but what is the extent of that difference? Is this difference common among all service industries?
2. The case of the heavily franchised operations of First Interstate Bancorp in the U.S. is very interesting. It challenges two common assumptions. First, that the largest banks in the world also have high levels of international operations and, second, that bankers do not utilize the franchise form of organization due to the theoretically hypothesized lack of control inherent in this form. Perhaps First Interstate has other means by which it exercises control over its franchises. It would be very interesting to look more closely at how First Interstate manages its large domestic operations. It is highly likely that, no matter what framework is used and what assumptions are made, this bank will be a thorn in the side of most future researchers and any insight gained into its operations will be very useful.
3. Towards the beginning of this study, it was hypothesized that the results would show a tendency by bankers to use customer-based divisions, rather than the more popular product-based divisions used in the manufacturing industries. Rohlwink (1985) felt that the use of a customer-oriented planning approach would increase as the boundaries between the activities of different financial industries disappear (p. 52). In fact, only two banks in the study had purely customer-based

divisions although a third was in the process of converting. The relationships between the independent variables and 'basis of organization' showed that customer-based structures were characterized by higher levels of product and customer diversification than product-based structures. What is unknown is whether or not there is an evolutionary process governing banks' bases of organization, i.e. do banks evolve from product-based divisions to customer-based divisions and, if so, under what conditions?

4. The study found that domestic regulation of the banking industry had affected the growth and diversification of the operations of all of the banks studied and consequently their organizational structures. However, in each of the three countries examined, major steps toward deregulation had either been completed or were in the process of taking place. The effects of deregulation should have important consequences for the structures of banks and, because this study coincides with much of the deregulation, it is likely that a similar study completed within the next few years might have very different results. For example, it was found that regulation had maintained the differentiation between domestic and international operations leading banks to retain domestic divisions. The revised structural development model took this finding into account. With increasing deregulation, however, the reasons for retaining domestic divisions could slowly disappear.

5. Upon completion of the literature review, a structural development model was formed on the basis of theory drawn from studies relating to manufacturing industries and adaptations suggested by banking-related studies. Upon completion of

the data analysis, a revised model was created which differed in many significant respects from the original. It has been stressed that this study was successful in identifying the weaknesses of the first model and that the changes incorporated into the revised model were suggested by these weaknesses. Further empirical testing of the revised model is a task left to future researchers. In particular, in section 6.3, the question was raised of whether a separate model was required for each of wholesale-oriented and consumer-oriented banks. It was found that the Stage 7 banks employed fewer people and were less diversified on the basis of product, primarily because they were wholesale, rather than consumer-oriented banks. Future research could address the issue of the paths taken by the two types of banks prior to reaching the multi-divisional stage.

6. The question of the evolutionary character of the structural development model has been raised already on several occasions. This is an important issue for future research. Essentially, two questions are paramount: 1) Do banks pass through similar stages of structural evolution? and, if so, 2) In what directions does movement occur, i.e. is a reverse direction possible?

7. One final question related to the model requires that the issue of movement through the stages first be addressed. If it is found that banks do pass through similar stages of structural evolution, does the model incorporate all such stages? In other words, what comes after Stage 7? Is one really witnessing backward movement along the model or progression to a stage beyond Stage 7?

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8. Banks from the U.K. had, perhaps, some of the most distinctive characteristics of all banks in the study. These characteristics stemmed from both similarities and differences. For example, the 'Big Four' were remarkably similar. Four of the five were in the same structural stage; all were very close in terms of total size and levels of international activity and diversification; all had heavy committee structures in lieu of global functional divisions. By contrast, the differences among banks from Canada and the U.S. were abundant. This observation could be due to a cultural acceptance of lack of competition or a cultural variable such as prevalence of interlocking directorates or some other factor which essentially reduces the level of competition among the banks. Many other cross-national similarities and differences were identified in this study. These findings suggest that the inability to address cultural variables was unfortunate. Difficulties with the delineation of measurable cultural variables and even with the definition of culture itself, forced the exclusion of this consideration. It is hoped that future researchers will find some way to overcome these difficulties so that a greater understanding of cross-national differences can be obtained.

9. During the data gathering process, it was revealed that banks were utilizing other forms of functional integration other than global functional divisions. These included permanent functional committees and functional departments within top level divisions. When combined with the observation that international banks have a need to centralize certain important functions, it is apparent that it would be very interesting to conduct further research into the ways in which banks functionally integrate their operations.

10. The most important implication of this study for future research, is that researchers should no longer consider studies of manufacturing industries to be the sole foundation for research on the international banking industry. This study has found some major differences between the two sectors. Bankers have, at least in recent years, faced a much more volatile environment than manufacturers did in the 1960's and 1970's. The structural shapes which they assume differ from those of manufacturers and the timing of structural change is also different. Bankers cannot be expected to react to strategic factors in the same manner as manufacturers because they are heavily influenced by external variables, such as government regulation. These findings open up a crucial area for future research.

As in any field or discipline, a theoretical framework in which to study a subject is a prerequisite to the generation of meaningful results. In the field of international banking, such a theoretical framework is urgently needed. This study has laid some of the foundation for development of a theory. It has raised many questions and identified some of the main problem areas which should be addressed. It is left to further research to translate these problems into solutions.

APPENDIX 1**BANKS INCLUDED IN THE STUDY***

<u>BANK</u>	<u>TOTAL ASSETS</u> <u>(U.S.\$bn)</u>	<u>1985 WORLD</u> <u>RANKING</u>
<i>Canadian Banks:</i>		
1. Royal Bank of Canada	\$67.232	32
2. Bank of Montreal	57.216	40
3. Canadian Imperial Bank of Commerce	52.425	45
4. Bank of Nova Scotia	42.702	58
5. Toronto-Dominion Bank	34.765	73
<i>British Banks:</i>		
6. National Westminster Bank	104.677	11
7. Barclays Bank	94.169	15
8. Midland Bank	83.886	20
9. Lloyds Bank	63.279	35
10. Standard Chartered Bank	41.649	62
<i>U.S. Banks:</i>		
11. Citicorp	167.201	1
12. BankAmerica Corp.	114.751	9
13. Chase Manhattan Corp.	87.685	18
14. Manufacturers Hanover Trust Co.	74.359	26
15. J.P. Morgan and Co.	67.611	31
16. Chemical New York Corp.	54.381	43
17. Security Pacific Corp.	52.285	46
18. Bankers Trust New York Corp.	48.074	49
19. First Interstate Bancorp	48.036	50
20. First Chicago Corp.	38.042	67

* Source: Euromoney, June 1986, pp. 206-208

APPENDIX 2 - STRUCTURAL DEVELOPMENT MODELS

CHART 1: Chandler's Stages of Development Model*

CHART 2: Stopford and Wells' Most Common Structural Evolution**

* Derived from review of Chandler's 1962 study in Galbraith and Nathanson (1979)

** Derived from review of Stopford and Wells' 1972 study in Galbraith and Nathanson (1979)

APPENDIX 2 - PAGE 2**CHART 3: Stopford and Wells' Structural Evolution
(no Stage 3 domestic)*** **CHART 4: Stopford and Wells' Structural Evolution
(no international division)***

* Derived from review of Stopford and Wells' 1972 study
in Galbraith and Nathanson (1979)

APPENDIX 2 - PAGE 3

CHART 5: Stopford and Wells' Mixed and Matrix Structures*

* Derived from review of Stopford and Wells' 1972 study
in Galbraith and Nathanson (1979)

APPENDIX 2 - Page 4

CHART 6: Channon's Holding Company Stage*

CHART 7: Galbraith and Nathanson's Alternative Paths Holding Company Structure**

* Derived from Channon (1978)

** Taken from Galbraith and Nathanson (1979), p. 279

APPENDIX 2 - Page 5

CHART 8: Galbraith and Nathanson's Simultaneous Structure*

* Derived from Galbraith and Nathanson (1979), pp. 249-283

APPENDIX 3 - INDUSTRIAL ORGANIZATION MODEL*

* Adapted from Berg, et al. (1982), p. 6

** Market structure of industry, i.e. concentration, vs. organizational structure of individual firms, i.e. internal organization of operations.

APPENDIX 4

CHANNON'S TYPOLOGY FOR SERVICE INDUSTRIES*

STRATEGIC AND STRUCTURAL VARIABLES

1. **Product Diversification**
 - single business.....at least 95% of sales
 - dominant business.....second major product line
 - related business.....no less than 70% of sales in one line
 - unrelated business.....no more than 70% of sales in one line
2. **International Operations**
 - high international activity.....international=at least 40% of sales
 - medium international activity.....international=at least 10% of sales
 - low international activity.....international=less than 10% of sales
3. **Acquisition Type**
 - horizontal.....same product or customer group
 - integrated.....vertical integration backward or fwd
 - related.....related product/customer groups
 - conglomerate.....unrelated businesses
4. **Acquisition Rate**
 - aggressive acquirers.....10 or more in one decade
 - moderate acquirers.....3 or more (<10) in last decade
 - passive acquirers.....less than 3 in last decade

FORMAL ORGANIZATION STRUCTURE**

1. **Functional Structure**
2. **Holding Company Structure**
 - (a) Functional Holding Company
 - (b) Holding Company
3. **Multi-Divisional Structure**
 - (a) Geographic Divisional
 - (b) Product Divisional
 - (c) Mixed Divisional
 - (d) Critical Function
4. **Leadership**
 - (a) Entrepreneurial...founder still main decision-maker
 - (b) Family.....top positions held by descendants of founder
 - (c) Professional.....no lineal descendency in top positions

* Derived from Channon (1978), pp. 11-25

** See also Chart 6 of Appendix 2.

APPENDIX 5

TURNER'S TRADITIONAL AND FUNCTIONALLY-INTEGRATED STRUCTURES*

CHART 1: TRADITIONAL STRUCTURE

CHART 2: FUNCTIONALLY-INTEGRATED STRUCTURE

* **Source:** Charles F. Turner, "Internal Organization and Personnel", in William H. Baughn & Donald R. Mandich, Eds. *The International Banking Handbook*, (Homewood, Ill.: Dow Jones-Irwin, Inc., 1983)

APPENDIX 6**PRODUCT DIVERSIFICATION SCORE SHEET****BANK:** _____

(Possible Scores: '0'=no operations,
 '1'=limited range of operations, '2'=
 full range of operations in category.
 One score for each of dom. & int'l.)

<u>Category</u>	<u>Description</u>	<u>Domestic</u>			<u>International</u>		
Personal Branch Banking	Savings and chequing accounts; ATM's Branch banking, etc. Products for consumers	0	1	2	0	1	2
Retail Banking	Credit cards Small business loans Consumer loans Mortgages, etc. Products for small-medium businesses and individuals	0	1	2	0	1	2
Private Banking	Stock brokering Investment management Trust and agency, etc. Products for high net worth individuals	0	1	2	0	1	2
Capital Markets Banking	Issuing and underwriting securities and bonds Eurobonds, swaps Eurocommercial paper Government bonds Loan syndication Commercial banking, etc.	0	1	2	0	1	2
Money Market Transactions	Foreign currency dealing Precious metals trading Treasury Financial futures, etc.	-	-	-	0	1	2
Other	Leasing and factoring Real estate Insurance, etc.	0	1	2	0	1	2

APPENDIX 7**CUSTOMER DIVERSIFICATION SCORE SHEET****BANK:** _____

(Possible Scores: '0'=customer group not served; '1'=customer group served. One score for each of dom. & int'l.)

<u>Category</u>	<u>Domestic</u>		<u>International</u>	
<i>Consumer Households</i> (<i>'day-to-day' branch banking</i>)	0	1	0	1
<i>Entrepreneurs and Small Business</i>	0	1	0	1
<i>Individuals</i> (retail banking needs, e.g. credit cards, loans, mortgages, etc.)	0	1	0	1
<i>High Net Worth Individuals</i>	0	1	0	1
<i>Medium-Large Corporations</i>	0	1	0	1
<i>Banks and Other Financial Institutions</i>	0	1	0	1
<i>Governments and Public Agencies</i>	0	1	0	1

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