ENVIRONMENT AND STRATEGY IN THE BANKING INDUSTRY

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ABSTRACT

An empirical study was conducted on the linkages between the process of strategy formulation and the general environment of the banking industry. Two variables of strategy formulation were focused on, including top management decision-making style and the long-range planning system. Data was obtained from questionnaires and a series of structured interviews of managers in seven banks in the Northeast region of the United States.

An objective analysis of the banking industry was carried out to gain an understanding of the structural, economic, political, and technological trends prevalent in the industry environment. A framework,was developed from the theoretical and empirical literature on strategy and the environment. Within this framework, two hypotheses were put forth regarding the relationships between managers' perceptions of the environment, three dimensions of top management style, and several aspects of banks' long-range planning practices.

In general, results of our analyses showed an inverse relationship between perceived environmental hostility and predictability, and the risk-taking style of top management. Managers who perceived the environment as highly restrictive and technologically complex were moderately oriented toward the optimizing style of management. A direct relationship was found between environmental hostility and the organic style of top management. A positive association was found between moderately high dynamism and predictability, and the completeness of the long-range planning process and the use of uncertainty reduction methods. Moderately high dynamism and high predictability were not associated with the use of open systems approaches in the banks' long-range planning process.

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CHAPTER I

INTRODUCTION

Strategy has been the focus of much research in the area of organizational design. Researchers have investigated the relationships between different types of strategy and other variables such as size, structure, industry and the environment of the firm. As a result, many theoretical concepts have been developed on the dynamics of the process of strategy formulation. Less work has been done empirically to test the validity of these concepts.

The purpose of our thesis is to conduct empirical tests of some of the propositions concerning the effects of the environment on strategy formulation within the banking industry of the New England region. A number of theorists [Hrebiniak and Snow, 1980; Dill, 1958; Emery & Trist, 1965] have put forth arguments suggesting that important differences exist across industries on many organizational and environmental variables. In this context, our research might be viewed as a continuation of the thesis done last year on the effects of government regulation on the financial control systems of banks, by Maryann Burke and Sarah Robinson.

CHAPTER I

This thesis begins with the premise that different types of strategy-making evolve from different characteristics of the organization's environment. Two critical variables of strategy formulation are central to our study--top management decision-making style and certain aspects of the organization's long-range planning system. Specifically, we will be testing the effects of certain environmental attributes on management decision-making styles characterized as risk-taking, organic, optimizing, and coercive. In addition, we will be testing the effects of environmental uncertainty (defined as the rate of change and the predictability of that change) on the completeness of the long-range planning process, the use of uncertainty reducing methods, and the use of open systems approaches to planning.

Chapter II of this thesis provides an analysis of the banking industry. We review the major industry dynamics which led up to the pivotal Bank Deregulation Act of 1980. The market structure, economic, technological, and political trends of the industry are an important part of this analysis. In addition, this chapter provides an analysis of the banks in our sample, highlighting the major differences in size, and strategic strengths and weaknesses of each. Industry trends unique to the New England region will also be discussed.

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Chapter III presents a survey of the theoretical and empirical works relevant to our research topics. Of particular interest to us is how strategy and the environment have been treated in the literature, and how the two concepts have been integrated.

Chapter IV develops our hypotheses on strategy formulation. A detailed discussion of how the concepts we are studying were operationalized, and the methodology used to analyze our data is provided in Chapter V. Chapter VI presents an analysis of the test results. Further discussion of the results as they relate to the theoretical literature and previous empirical studies is provided in Chapter VII. Chapter VII offers some concluding remarks about what we learned from our study and suggestions on the directions future research efforts might take.

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THE INDUSTRY ENVIRONMENT

INTRODUCTION

In their 1980 Master's Thesis, Burke and Robinson describe the evolution of banking regulation and a general history of the banking industry. Our purpose is to describe in some detail the very recent developments in the banking regulatory environment and in the banking industry itself in order to get a feel for the increasing complexity of the banking industry. For those persons interested in a more general and evolutionary description of the banking industry and regulatory environment, we refer you to Burke and Robinson, Chapter 2.

Our purpose in showing the increasing complexity of the banking industry is to demonstrate how changes in interest rate volatility, in technological and communication advances, and in the regulatory environment, have significantly changed the banking industry's environment. We will show that these environmental changes have put pressures on banks' ability to compete successfully with other

banks and other financial institutions. These changing environmental factors pose threats of increased competition and opportunities of increased market shares in various market segments for most banks. We will show the impact that a very rapidly changing environment can have on long-range planning, on managerial decision style, and organizational adaptation. Consequently, we will provide a detailed overview of the effects of environmental change, as represented by the parameters of interest rate volatility, technological change, and regulatory change. We will show these effects on the entire banking industry, and also on the North Eastern regional banking industry.

OVERVIEW

The environment of the banking industry has undergone significant change in the past 5 years or more due to at least three recent developments. These developments are: the very high and very volatile interest rates brought about by the Federal Reserve's program to combat inflation; the development of computer and communications technology; and changes in the regulatory environments affecting banks. These recent environmental changes have made it very important for banks to plan effectively for the future if they are to achieve their strategic goals. Long-range

planning is made more difficult by a more complex and unpredictable environment and it introduces greater uncertainty to bank management in developing and implementing strategic choices. Environmental instability affects both the processes by which strategies are developed and the content of those strategies. Thus, the organizational adaptation of the banking industry to these environmental changes will be critical to their long run success.

Taken independently, the three above-mentioned developments would have made it possible for financial innovations to occur. Nevertheless, the combined factors provide an opportunity to these banks who do, and a threat to those who do not, see a changed pattern of consumer and corporate perceptions and needs vis-a-vis financial services. The threat is that these banks will not be positioned to offer competitive services or perhaps not able to offer those services demanded by customers at profitable rates. The opportunity is that those banks able to offer these services will expand their market shares, profits, or volumes at the expense of those banks unable to compete effectively.

EFFECTS OF INFLATION

First, inflation has accelerated the pace of financial

innovation through its impact on interest rates. Inflation is an important determinant of the level of interest rates because the level of interest rates reflects anticipations of future inflation. Inflationary anticipations roughly follow recent experience with inflation. Inflation has continually risen in recent years, so inflationary anticipations have risen as well. Thus, rising rates of inflation have led to higher interest rates.

The interest rate environment since June 1978 to June 1980 has been unique in U. S. banking history. Rate changes became more frequent and more violent and interest rates reached heights never previously experienced. During the 47 1/2 years from 1934 through June 23, 1980, there were 209 changes in the prime rate. Of these 175 or 83.7% were made during the last 10 1/2 years, while only 34 changes occurred during the 36 years from 1934 through 1969. For the first six months of 1980, the prime changed 30 times -- a change, on average, of 5.8 days.[1] (See Table 2.1)

The prime rate changes have also become extreme as well as frequent. For example, the prime rate went from 12% on 17 August 1979 to 15.75% on 16 November 1979, a 375-basis-point change within 90 days, which was incredible for those times. By January 1980, the prime had fallen to 15%

TABLE 2.1

Prime Rate Changes 1934 to 6-23-1980

Year	# of Changes	Year	# of Changes
1934	0	1965	1
46	0	66	3
47	1	67	3
48	1	68	5
49	0	69	3
50	1	70	5
51	3	71	19
52	0	72	6
53	1	73	20
54	1	74	25
55	2	75	21
56	2	76	8
57	1	77	6
58	3	78	16
59	2	79	19
60	1	80	
61	0	6/23	30
64	0		
		TOTAL	209

but then soared to 20% on 2 April 1980, a change of 500 basis points before falling 850 basis points to 11.5% by 23 June 1980. Rates on large Certificates of Deposit, commercial paper, Federal Funds, Treasury Bills, bankers' acceptances, and other money market instruments were just as volatile as the prime.

INFLATION AND "NEAR MONEY"

Traditionally checking accounts had been the principal means of making payment. Until recently, checking accounts were immediately available for spending while other liquid claims could be spent only after being converted into coin, currency, or checking accounts, and the former was called "money" and the latter "near money".

As a result of recent innovations, instruments other than checking accounts have become "money".[2] The most notable ones are NOW accounts, transfers from savings accounts in thrifts to banks via telephone (Pay-by-Phone), and automatic funds transfer from savings to checking accounts to cover overdrafts. These latter items are interest-bearing instruments used to make payments, and are brought about by high rates of inflation and consequently, high interest rates.

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High interest rates increase the opportunity cost of holding non-interest-bearing assets. Commercial banks are required by law to hold reserves in the form of non-interest-bearing assets. The interest foregone on these reserves, and hence, the cost of holding them rises with the level of market interest rates. With high interest rates, banks try to reduce the amount of reserves required. Banks can do this by encouraging shifts in liabilities from categories like demand deposits, which have a relatively high reserve requirement, to categories for which lower, or even no reserves are required like repurchase agreements. A bank may offer to enter into repurchase agreements with customers holding demand deposits. This involves selling the customer government securities under agreement to buy the securities back at a somewhat higher price (market rate prevailing) after a set period of one to seven days. However the repurchase agreements have significantly lower reserve requirements. Thus, the bank in effect pays interest to the customer and reduces its required reserves at the same time. Thus, high interest rates provide incentives for individuals and businesses to shift out of deman deposits and into higher interest earnings assets. With high rates of inflation and high interest rates, financial institutions find a ready market for higher-interest-bearing liquid substitutes for demand deposits.

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The aggregate effect is the creation and rapid growth of highly liquid assets used by the public in the place of demand deposits and called "near" money. This rapid growth of near money complicates monetary control and the fight to lower inflation.

INFLATION AND MONEY SUPPLY

The outstanding volume of monetary assets at a given time and the rate of growth over time are important determinants of aggregate spending and inflation.[3] Two statistical measures of the monetary aggregates, M1 and M2, have played an important role in the implementation of monetary policy since 1970. M1, the measure of money narrowly defined, includes coin and currency in circulation outside the banking system and private demand deposits adjusted (which include DDA's at commercial banks other than domestic interbank and U. S. government DDA's, less cash items in process of collection and Federal Reserve float, and foreign DDA's at Federal Reserve Banks). A broader measure, M2, includes M1 and time and savings deposits at commercial banks except for large CD's.

The emergence of new types of assets that mediate transactions (serve as money) pose special monetary control

problems for the Federal Reserve System. A broadened spectrum of money and near-money assets complicates the problem of determining an appropriate working, statistical definition of the money supply. Also growth of monetary assets issued by institutions beyond the control of the Fed significantly weakens the central bank's ability to control the monetary aggregates and (sic) ultimately, inflation.

BANKING TECHNOLOGY

Technology has played an important role in the recent banking environment. Due to the high opportunity cost of holding idle demand deposits during periods of high inflation and interest rates, banks and firms have devoted more resources to cash management services. Both banks and firms minimize demand deposit balances by investing temporarily idle funds in money market instruments, and other short-term investments. This requires that both parties to the transaction be able to transfer funds on an immediately available basis by wire transfers to consolidate balances, control disbursements, speed up receipts, etc.[4]

Firms must be able to determine the amount of excess cash balances on a daily basis. This is not a simple matter for many large firms with geographically dispersed

operations and a net cash flow that varies from day to day in a random fashion. Recent computer and communications technology now allows firms to monitor balances in their various accounts and transfer balances from account to account or from bank to bank daily and at modest expense.

The increasing sophistication of many corporate treasurers have made them capable of being their own bankers and some banks have recognized this in order to retain those clients. Many cash management services are a half-way measure to making the corporate treasurer a banker. The treasurer can access his company's cash balances via terminal and shift cash to various accounts, scan investments, look for weekend investments overseas, watch foreign currency movements, etc.

Electronic banking technology has enabled many financial institutions to control costs more effectively. Many branches of big banks are very costly to operate. Citibank has calculated that the cost of operating a bank branch is $100 per customer per year, while an automatic-teller-machine costs $20 per customer per year.[5] Some small financial institutions which don't have millions of dollars of assets tied up in extensive branch systems may be in a position to keep their costs down more effectively with

automatic-teller-machines (ATM's) and one-person "kiosk" branches pioneered by Citibank.

In watching their costs, many financial institutions will have to figure out more precisely what those "costs" are. Figuring bank costs is somewhat difficult since many costs are "joint" costs. For example, the personnel and equipment used to process checks might also be used to process traveler's checks and credit cards. The process of allocating these "joint" costs among the several product lines will require many banks to modify their internal cost accounting systems to more accurately reflect the variable and fixed costs of doing business.

Up to this point, we have seen that high market interest rates, different restrictions on the payment of interest on demand deposits have, together, provided increase incentives for the market to create and use new kinds of deposit liabilities. Rapid development of computer and communications technology has also contributed to the spread of this outcome. Recently, bank regulators have allowed greater competition among financial institutions, thereby increasing the rate of financial innovation. (See the following list of recent financial innovations in Table 2.2)

TABLE 2.2 RECENT FINANCIAL DEVELOPMENTS[6]

Development	Started	Description
1. Corporate Cash Management	1960's	Includes technology permitting more efficient management of cash balances.
2. Negotiable CD's	1960's	Marketable receipts for funds deposited in a bank for a set period at a specified interest rate.
3. Savings Accts. for Govts and Businesses	1974	Offered by commercial banks, and federally chartered savings and loan.
4. Telephone Transfers from Savings	1975	Allow savings account customers to transfer by phone funds to DDA's or third parties
5. Repurchase Agreement	1969	Short-term contracts for purchase of immediately available funds, collateralized by securities.
6. Preauthorized 3rd Party Transfers	1975	Payments made from savings accounts for recurring transactions.
7. NOW	1972	Savings accounts from which payments can be made by draft.
8. P.O.S. Terminals	1974	Machines that allow a customer to make deposits and withdrawals from his savings account at stores.
9. Money Market Funds	1974	Mutual funds specializing in short-term investments from which cash can be redeemed via check.
10. C.U. Share Drafts	1974	Payments made directly from share accounts.
11. Six-Month Money Market Certificates	1978	Time deposits at S&L's, Mutual S.B.'s and commercial banks invested in government securities.
12. Automatic Transfer Services	1978	Automatic savings to checking transfers.

BANKING REGULATORY ENVIRONMENT

Much of the current regulatory framework is the result of the traumatic 1930's, when laws were implemented to restore public confidence in the banking system.[7] These laws emphasized the protection of bank depositors and the prevention of bank failure. The restriction on paying interest on checking accounts was originally designed to prevent "excessive" competition among banks.

The current regulatory framework of banking has been, in part, responsible for a decline in market share of U.S. commercial banks' total assets versus the total assets of all financial institutions from 1949 to 1979.[8] In 1949, banks had a 79.6% share of a total market of $159.5 billion. In 1964, banks had a 63.0% share of a $429.9 billion market. In 1979, banks had a 59.4% share of a total market of $1,653.4 billion. Prominent among the reasons for banking's lagging growth rate in contrast to other financial institutions was the greater legislative and regulatory restrictiveness imposed on banks as compared with other depository institutions and other financial services institutions (especially insurance companies, money market funds, finance companies, etc.).[9] (See Table 2.3 and 2.4)

TABLE 2.3

COMPETITIVE FACTORS: RESTRICTIONS ON VARIOUS TYPES OF FINANCIAL INSTITUTIONS AS COMPARED WITH FULL-SERVICE BANKS[10]

S = similar to banks
MR = more restrictive than banks
LR = less restrictive than banks
S & L = Savings and Loan
SB = Savings Bank
CU = Credit Union
REIT = Real Estate Investment Trust

	S&L's (1)	Mutual SB (1)	CU's (1)	Others (2)
Usury Ceilings	S	S	LR	LR
Deposit Rate Ceilings	LR	LR	LR	--
Reserve Requirement	S(3)	S(3)	S(3)	LR
Entry, Chartering Requirements	LR	LR	LR	LR
Branching	LR	LR	LR	--
EFT	LR	LR	LR	--
Taxation	S	S	S	LR
Asset Diversification	MR	MR	MR	LR
Special Borrowing Powers	LR	LR	Lr	--

NOTES: 1. For S&L and CU, applicable to federally-chartered institutions as basis for comparison; in case of mutual SB, state-chartered institutions is reference point.

2. Includes: Life insurance companies, private pension funds, state and local government employee retirement funds, security brokers and dealers, REIT's, Money Market Funds, finance co's.

3. Reserve requirements will be similar to banks only after the Depository Institutions Deregulation and Monetary Control Act of 1980 is fully implemented.

TABLE 2.4

	1949 Deposits	%	1964 Deposits	%	1979 Deposits	%
Banks	$ 127.0	79.0	$270.8	63.0	$ 981.5	59.4
S & L	12.5	7.8	101.9	23.7	470.1	28.4
Mutual SB	19.3	12.1	49.0	11.4	145.6	8.8
CU	.7	.4	8.2	1.9	56.2	3.4
Total	$ 159.5		$429.9		$1,653.4	

As Table 2.3 on the preceding page shows, regulation of the competitors of banks is less restrictive in most respects than regulation of banks.

U. S. banking laws have restricted the geographical expansion of banks beyond state lines, reflecting philosophies of states rights, separation of powers, and the tradition that banking was a "local" business. The McFadden Act, enacted in 1927 and the Douglas Amendment to the Bank Holding Company Act of 1956, along with a ruling in the 1970's by the Comptroller of the Currency that EFT devices were not branches, helped to enforce this tradition.

The current philosophy of bank regulation provides the

opportunity for all like financial institutions to compete on an equal basis. This philosophy permits the principles of the free market to operate, unfettered by oppressive regulation, in the most efficient way to allocate the total financial resources of the U.S.

MAJOR NEW REGULATORY CHANGE

The Depository Institutions Deregulation and Monetary Control Act of 1980 (hereafter, called the Monetary Control Act of 1980) which Congress passed in March, sets forth the gradual elimination of controls on prices (interest rates) in the banking industry.[11] The Monetary Control Act of 1980 gives mortgage lenders limited powers to make commercial loans to businesses and provides broader, new regulatory powers for the Federal Reserve. The Monetary Control Act of 1980 will bring about:

- New and lower reserve requirements for all commercial banks, savings banks, and savings and loan associations, instead of just for Federal Reserve member banks.
- "True costs" banking, requiring consumers and corporations to pay higher borrowing costs, in the short term, hopefully not in the longer term, but a more efficient way of providing money to borrowers.

- Higher mortgage rates, but a wider selection of mortgage instruments
- Higher rates paid on checking and savings deposits of consumers, with all interest ceilings abolished by 1986.
- Less differentiation between commercial banks and thrift institutions.
- Less geographic segmentation as electronic funds transfers move money and banking services across state barriers.
- More competition among depository institutions and non-banking organizations like Merrill Lynch, Sears, and American Express.

PRESENT COMPETITIVE ENVIRONMENT

Commercial banks have many other competitors now. Thrift institutions now can conduct commercial lending, credit card, consumer loans, transaction accounts, and trust operations and are becoming head-on competitors with commercial banks. And thrifts can branch easier than can commercial banks, both intra-state and (through holding companies) across state lines.

Also, there are the money market funds. Furthermore,

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Merrill Lynch is already a full-fledged bank offshore (in London) and onshore offers cash management accounts that feature Visacard privileges, overdraft privileges (loans), and checking privileges. Merrill Lynch is also about to become a national dealer in large CD's (greater than $100 thousand).

Sears Roebuck is already a nationally important credit card issuer, a nationally important insurance group (Allstate), and a multi-branch S & L in California. Sears plans to issue small demonination interest-bearing notes via its retail outlets nationally; in other words, savings certificates.

Very recently, Prudential Insurance Company bought the Bache Group, a large securities firm. Similarly, American Express bought Shearson, Loeb, Rhoades, another larger securities firm. These two acquisitions herald the beginning of financial supermarkets where customers can obtain almost all financial services that are desired.[12] Banks are presently not allowed to compete in many of these areas but they are actively lobbying to change this situation.

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FUTURE COMPETITIVE SCENARIOS

Because of these environmental changes, several bankers and other banking industry specialists envision a broad range of scenarios for the 1980's.[13] These scenarios are:

1. The big money center banks are free to range across the country swallowing large numbers of small and regional banks. This would leave about 50 to 75 big banks and 500 to 1,000 local and regional banks.
2. The big money center banks establish themselves in contiguous states; or in other major markets on a reciprocal basis (New York banks in Chicago; Chicago banks in New York), while regionals move into one or two adjoining states and combine with each other. There would also be more mergers among smaller, community banks.
3. The regionals form themselves into super-regionals, say in groups spanning six to ten contiguous states, and get much closer to the money center banks in size. Larger numbers of community banks merge, either with each other, the super-regionals, or the money center banks, which in turn establish themselves in the chief regional centers.
4. The big banks, stymied in efforts to become full-service across state lines, spin off activities

into brother-and-sister company clusters, with deposit-taking only in home states, and they become wide-angle financial service companies a-la-Merrill Lynch-cum-Sears. One might see Citicorp auto insurance, Bank of America Savings and Loan, Chase money market funds, etc.

No matter what scenario seems most probable, several things are forecast for banks in the 1980's:[14]

- The era of cheap money (like the era of cheap energy) is about over.
- Skilled asset and liability management will be a vital barometer of survival.
- Pushed by EFT, on the retail side, there will be a strong push toward self-service banking in order to raise productivity and lower costs.
- Also helped by EFT, on the wholesale side, bankers will increasingly be brokers as well as lenders of money in order to generate new funds.
- Volatile markets will accelerate the trend toward mergers in the banking industry.
- Pressure will increase to modify market barriers, especially barriers to interstate banking.

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IMPLICATIONS OF ENVIRONMENTAL CHANGE ON BANK BALANCE SHEETS

Today's financial intermediaries handle a much larger volume of business and generally serve broader geographic markets than in the recent past. They are also more competitive and offer a greater variety of services in an effort to maintain or expand market shares.

The expanding variety of services offered by financial intermediaries have been paralleled by an increased diversity of the liabilities of these institutions. Twenty years ago, the liabilities side of a typical commercial bank's balance sheet was heavily weighted with demand deposits and regular savings deposits. Today's typical bank balance sheet shows a sizeable reduction in the relative importance of such deposits and a sharp increase in purchased funds (CD's, RP's, Fed Funds, Eurodollar borrowings). Regular savings deposits have given way to time CD's.

Most banks try to keep rates flexible within a 90-day horizon. Most banks develop rate-sensitivity guidelines by monitoring rate-sensitive assets and liabilities that could change in rate within 90 days. In most bank failures and problems, much of the blame lies in the inability to match rate-sensitive assets and liabilities. In some of those

cases, the problems emerged because state usury laws prevented banks from charging higher rates on earning assets, and thus those rate-sensitive loans became fixed-rate loans as rates floated up to the ceiling, while rates on rate-sensitive paying liabilities continued upward unrestrained. Overnight, restrictive usury laws forced bank balance sheets to become mismatched as bankers found that suddenly their rate-sensitive liabilities far exceeded their rate-sensitive assets.

The cumulative effects of these above mentioned changes in the regulatory and competitive environments have presented significant threats and opportunities to commercial banks. These threats and opportunities are forcing many banks to change their competitive strategies in an effort to ensure long run success and/or survival. Currently, it is still quite difficult to determine the actual direction, magnitude, and interactions of the above-mentioned competitive and environmental changes. Nevertheless, those financial institutions best positioned to adapt most effectively, which have the most efficient product delivery systems within certain market segments, and which have strong capital positions and access to the capital markets should prosper in such a changed environment.

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IMPLICATIONS ON RETAIL (CONSUMER-ORIENTED) STRATEGIES

On the retail side, only higher return on assets will keep banks competitive. This means check truncation (not getting checks unless one asks and pays for it), ATM, self-service banking (with ATM and EFT based hardware), floating retail loan rates (mortgages, consumer loans, etc.).

The competition for NOW accounts indicates problems for retail-oriented banks that have relied on checking accounts for a large percentage of their loanable funds.[15] Some bankers calculate that annual costs of servicing a NOW account amount to about 3%. That 3%, plus 5¼ interest on the accounts adds up to 8% money which is significantly less than a money-center bank paying 19% on its CD's or S&L paying 14% on six-month certificates would be paying. However, this 8% money may be quite expensive for a retail-oriented bank that is used to 2 to 3% cost of funds money on its checking account after including service expenses. Additionally, the cost of greater competition (higher advertising expenses) will also help push costs and lower earnings for retail-oriented banks.

IMPLICATIONS ON WHOLESALE (COMMERCIAL) STRATEGIES

On the wholesale side, the central objective of in-

creasing return on assets can be achieved by reducing rate risk on fixed rate loans and settling for fee income as bankers become brokers of financial services for a fee as well as lenders of money (with a spread over the cost of funds). Fee-based income (vs. spread income) requires little or no capital outlay, and is often more readily brought down to the bottom line for such services as trust, securities trading, investment management, foreign exchange, cash management, mergers, acquisitions, divestitures, private placements, etc.

Most institutions in the wholesale banking market have a tough sell in the current borrower's market.[16] Good companies can choose from U.S. banks, bond markets, commercial paper markets, or foreign banks for credit. These competitive pressures and the unstable interest-rate environment make banks vulnerable to profit erosion and loss of market share. To offset these trends, wholesale banks have developed an array of services that customers will pay a fee for, even if these customers borrow elsewhere. These services include leveraged buyouts, project financing, advanced cash management services, sales of securities, foreign advisory services, private placements, closing of mergers, special-purpose financing, and other investment-banker-type services.

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Banks are attempting to create a demand among corporations for these skills, services, special deals, etc., because the traditional seasonal lending has been largely lost to the commercial paper market and to aggressive foreign banks. Yet, wholesale banking does not have the high consumer losses from bankruptcy and the ceilings of many state usury laws, and the expensive consumer banking technology of retail banking.

IMPLICATIONS FOR LONG-RANGE PLANNING

The demands for more profitable operations has focused senior management's attention on the operations areas because of its major share of non-interest expense. Also, with many credit/deposit customer relationships being supplemented with other services and products which are provided on a fee basis, operational support is often required and becomes an integral part of the customer relationship.[17]

Operations in banking include areas that process various types of transactions such as: deposits, credit cards, ATM's, wire transfers, letters of credit, securities, and which require a number of related support activities such as systems design, data processing, and customer inquiry systems. The organizational arrangement of these responsi-

bilities differ from bank to bank but many banks consolidate operational activities related to commercial, consumer, and correspondent banking customers in one central department. Trust and investment areas are usually "decentralized" and placed under the direct control of the line units that they service.

A growing number of bankers are revising their basic business strategies to recognize distinct customer market segments--corporate, consumer, correspondent, trust, international, etc. At the same time, many banks are facing limitations on the level of resources (funds, personnel, capital) that can be given to various market segments. This resource scarcity problem has led to the need to formalize long-range planning to clarify the business objectives that govern resource allocation decisions.[18] There is also an increasing concern about the profitability of market segments in contrast to the prior focus on revenue generation, and, accordingly, more accountability is being placed on line bank management to control both revenues and costs associated with a market. Thus, the line managers' concern for the bottom line is motivating them to control costs charged to their area for services provided by centralized support groups like operations.

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Many new products and services require some form of operational support which require interaction between operations managers, line managers, and customers. A number of new technologies permit new design options for basic transaction processing activities such as check processing, mini computers, on-line proofing equipment, and optical scanning devices. In order for operations managers to be responsive to line managers' needs, in tailoring its services to specific market needs, banks may be increasingly breaking up work streams and moving the work back to those departments that originate the transaction.

The complexity of these equipment options and the long lead times required for implementation increase the need for coordination of business strategies and of long-range planning.[19] The adoption of certain techniques and technological options represent major capital investments and commit a bank to certain service capabilities and cost structures for a period of years. These decisions affect the competitive positions of banks.

Strategic efforts to improve return on assets and profitability have begun with a determination to realize the unique potential of a particular bank. This effort begins with a realistic appraisal of where the bank stands with

respect to its markets, with respect to its strengths and weaknesses, and with respect to where it is making money in order for it to place its capital where it can get the greatest return.

THE BANKING INDUSTRY IN THE NORTH-EAST

While the national banking industry was being affected by the environmental changes brought about by inflation, computer and communications technology, and changes in the regulatory environment, the Northeast banking industry was also affected by competition from thrift and savings institutions, by a slow recovery from the 1975 recession[20] , and by declining capital ratios. These North Eastern banking industry effects also contributed to increasing environmental change and posed strategic considerations for most North Eastern banks.

INDUSTRY TRENDS IN THE REGION

The thrift and savings institutions in the North East competed with commercial banks for direct deposit funds, usually by offering free checking acounts and lower personal, car, boat, and mortgage loan rates than offered by commercial banks. Many of the thrift and savings institutions were mutual associations where "excess" profits are paid

back to investors. Thus, some thrifts and savings institutions were not overly concerned with profitability as were the commercial banks and, therefore, could justify lower loan rates. Also, with NOW accounts being offered originally in the North Eastern states and not in the rest of the country (NOW accounts are checking accounts, essentially, that pay interest), the thrift and savings institutions were able to garner a significant share of deposits from the commercial banks. In Massachusetts, for example, the thrift and savings institutions combined had 32% more assets and 55% more deposits in 1978 than did all of the commercial banks combined.[21] Thus, competition for deposits (loanable funds) was very intense between the commercial banks and the thrifts and savings institutions.

Consequently, in addition to the environmental changes occurring nationally, North Eastern banks are faced with increased competition from thrift and savings institutions and with declining capital ratios relative to most other banks. (See Table 2.6-2.9 at the end of this chapter.) Of these additional environmental factors, the declining capital ratio problem is a very significant one.[22] We claim that this latter issue highlights the problems of substantial external financings of bank capital in an inflationary period which will affect the North Eastern banks' ability to

raise the necessary capital at attractive prices to accomplish their strategic goals.[23] These North East related issues add but another layer of environmental complexity to an already rapidly changing environment.

Our data for North Eastern banks originated from the MIT Planning and Control Structured Thesis efforts in 1979 and 1980. Our sample includes 7 banking organizations for which a brief description and some selected performance statistics follow. (See Table 2.5)

BANK A

Bank A is a bank holding company and provides advice and specialized services to affiliated banks in various areas of banking policy and operations. The corporation engages in commercial finance and factoring, securities clearance, and sales of commercial paper. The corporation is primarily a wholesale bank although it has a significant retail business and concentrates on regional middle market companies.

BANK B

Bank B is a bank holding company which provides, through its subsidiaries and affiliates, domestic and inter-

SELECTED PERFORMANCE STATISTICS FOR 1978-1980[24]

	1978			1979			1980		
	Assets ($Billions)	ROA/ROE (%)	N.I. ($Millions)	Assets ($Billion)	ROA/ROE (%)	N.I. ($Millions)	Assets ($Billion)	ROA/ROE (%)	N.I. ($M)
Bank									
A	2.9	.37/7.2	10.1	3.1	.56/11.0	16.4	3.5	.55/10.9	17.4
B	11.6	.57/11.0	62.7	13.7	.66/13.7	85.0	15.9	.67/15.0	103.1
C	2.8	.76/14.3	20.2	3.2	.84/16.1	24.9	3.5	.86/16.6	28.2
D	2.0	.63/14.5	12.0	2.5	.69/16.6	16.5	2.9	.71/16/8	21.4
E	2.2	.44/7.5	8.7	2.6	.70/13.0	16.0	3.0	.90/18.0	24.2
F	2.7	.72/12.1	18.0	2.8	.84/14.0	22.7	3.2	.91/14.9	26.5
G	2.7	.33/8.8	6.6	2.6	.41/11.8	9.8	2.8	.58/14.9	13.8

ROA = Return on Assets ROE = Return on Equity N.I. = Net Income

TABLE 2.5

national financial, banking, and trust services. The company is multinationally, internationally, and domestically focused with respect to wholesale banking and much less so with respect to retail banking.

BANK C

Bank C is a one bank holding company engaged, thru subsidiaries, in general commercial banking operations, mortgage banking, factoring and commercial finance, equipment leasing, consumer finance, real estate finance, data processing and other banking and financial services. Although considered a wholesale bank, the bank has a large retail business and focuses on middle-market, international, regional, and specialized commercial customers.

BANK D

Bank D is a multi-bank holding company and, thru its subsidiaries, the company is engaged in general commercial banking services, cash management, leasing operations, trust services, correspondent services, and other specialized banking and financial services. The company is predominantly a wholesale bank and concentrates on export-oriented, regional, middle-market companies and on correspondent banking and cash management services.

CHAPTER II

BANK E

Bank E is a holding company and, thru its subsidiaries, is engaged in commercial banking, sale of commercial paper, investing in securities, mortgage banking, mutual fund service agent, expediting securities settlements in New York City. The corporation is predominantly wholesale oriented, with a small retail business and concentrates on middle market companies and on financial advisory and servicing institutions and cash management services.

BANK F

Bank F is a holding company which provides through its member banks commercial, savings, trust, foreign, and retail services. The company is predominantly retail oriented and very heavily concentrated in community consumer lending and marketing.

BANK G

Bank G is a bank holding company which through its subsidiaries engages in commercial, retail, international, trust, and other specialized financial services. The company competes in the regional middle market for commercial and export-oriented companies and is primarily a wholesale

oriented bank with a significant retail business.

CAPITAL RATIOS AT INSURED COMMERCIAL BANKS, 1969-77 (PERCENT)

End of Period	Capital-to-Total-Assets		Capital-to-Adj. Risk Assets		Capital-to Loans	
	Northeast	Rest of U.S.	Northeast	Rest of U.S.	Northeast	Rest of U.S.
1969	9.4%	8.6%	12.9%	12.5%	16.2%	15.9%
1970	9.0	8.5	12.5	12.5	16.3	16.4
1971	8.9	8.3	12.2	12.2	16.0	16.3
1972	8.4	8.0	11.6	11.6	14.9	15.3
1973	8.3	7.9	11.2	11.1	14.0	14.3
1974	8.3	7.9	10.9	11.0	13.9	14.2
1975	8.4	8.2	11.6	11.7	15.9	15.5
1976	8.3	8.3	11.5	11.9	15.1	15.7
1977	7.8	7.9	11.1	11.7	14.5	15.1
1978:2	7.9	8.1	11.3	11.4	14.4	15.3

Definitions: Capital is defined as the sum of equity capital, subordinated debt, and reserves. Adjusted risk assets are total gross assets less cash, U.S. Treasury and agency securities, trading account securities, and Federal funds sold.

Source: Federal Deposit Insurance Corporation, Asset and Liabilities of Commercial and Mutual Savings Banks, various years.

TABLE 2.6

TABLE 2.7

AVERAGE ANNUAL INCREMENTS TO CAPITAL AT NORTH EAST COMMERCIAL COMMERCIAL BANKS
($ Thousands)

	From Internal Sources	From External Sources	Total Capital Increments	Ratio of External to Total
1970-1977	$120,303	$ 44,234	$164,537	.27
1980-1990				
*Case 1	233,905	110,931	344,836	.32
*Case II	289,175	223,579	512,754	.44
*Case III	340,167	393,030	733,197	.54

*Projections

TABLE 2.8

PROJECTIONS OF AVERAGE INCREMENTS TO CAPITAL AT NORTHEAST COMMERCIAL BANKS USING EXTRAPOLATION AND REGRESSION TECHNIQUES, 1980-1990
($ Thousands)

	From Internal Sources	From External Sources	Total Capital Increments	Ratio of External To Total
Case I	$233,905	$110,931	$344,836	.32
Case II	289,175	223,579	512,754	.44
Case III	340,167	393,167	733,197	.54
Regression Techniques	222,840	225,777	448,617	.50

TABLE 2.9

EARNINGS RETENTION RATES AT COMMERCIAL BANKS, 1970-78:2 (basis points)

	Northeast	Rest of U.S.
1970	44.8	45.7
1971	28.9	46.7
1972	35.4	52.3
1973	36.3	55.2
1974	39.7	54.1
1975	31.8	50.1
1976	25.4	52.3
1977	37.4	57.8
1978:2	48.9*	71.8*

* At annual rate

Note: In this table the earnings retention rate includes net additions to loan loss reserves and is defined as the ratio of adjusted net income, less dividends, to assets, where adjusted net income is equal to net income after taxes and securities transactions adjusted to reflect actual net loan losses. The earnings retention rate does not include net additions to loan loss reserves. The ratios reported were constructed using the method developed in Peter Lloyd-Davies, Measuring Rates of Return, Research Papers in Banking and Financial Economics, Board of Governors of the Federal Reserve System, 1977.

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CHAPTER III

THEORETICAL FRAMEWORK

A. INTRODUCTION

Any serious research effort, be it in the behaviorial or natural sciences areas, must have as its basis a theoretical foundation with which to support its hypotheses. Accordingly, this chapter provides a survey of the literature on organization design which has been written by theorists in their attempts to better understand the concepts of strategy formulation and the external environment. However, before beginning this treatise, we thought it beneficial, particularly for the uninitiated reader, to digress for a moment and present a brief discussion of the historical development of organizational theory. This review is also useful in the sense that it helps to put that portion of the literature with which we are concerned in its proper perspective.

Organizational theory[1] was first developed in the early 1900's with the work of Max Weber, who founded the Bureau-

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[1] See Khandwalla, P.N. THE DESIGN OF ORGANIZATIONS. New York: Harcourt, Brace, Jovanovich, 1977.

cratic School of Thought; and Fayol, who founded the Principles of Management School. These two schools of thought viewed the organization as a very mechanistic, rigid, closed entity, and proposed a bureaucratic organizational structure which was supposedly universally ideal.

During the 1930's and on into the early 1950's, organizational theory took on a behavioral orientation with the works of Mayo, McGregor, and others who focused on the motivational aspects of people. The Human Relations School (Mayo) emphasized the importance of social relations at work and the need for self-esteem. The Human Resources School (McGregor and Argyris) proposed organizational models in which human needs, particularly the need for self-actualization, could be more fully satisfied. Also during this era, was the work of the Carnegie theorists, Simon, March and Cyert, to name a few, who investigated the organizational limitations of the individual's limited information processing and problem-solving capacity. Their work was largely in response to the economic models of the firm which were based on the assumptions of managers' ability to capture complete information for rational decision-making.

In the last two decades or so, organizational theorists have extended their research and conceptualizing beyond the

boundary of the firm, and focused on the relationship between the firm and its environment. As a result, two schools of thought have emerged to shape contemporary organizational theory--systems theory and contingency theory. Systems theorists, such as Emery and Trist, Leavitt, Katz and Kahn, and Seiler, have emphasized the importance of social, psychological, technical, and economic forces on the organization.

Contingency theorists, including Woodward, Lawrence and Lorsch, Khandwally, Quinn, Bourgeois and others, have also investigated the interactions of the organization and its environment. However, their focus has not been so much on the dynamics of the process by which an organization adapts as on the end result itself. Thus, the main contribution of contingency theory has been the identification and the postulation of the effects the differences in these variables will have on the structure and functioning of organizations.

Our thesis draws on that body of contemporary literature concerned with the dimensions of strategy and the environment. In particular, we are interested in what contingency theorists have had to say about the linkages of these two concepts. The first two sections of this chapter reviews

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the literature in terms of its treatment of strategy and the environment. The third section reviews the literature concerned with the integration of the two dimensions, both conceptually and empirically. Our intent is to develop a framework for the study of the nature of top management decision-making style and the long-range planning system in the context of the environment.

CHAPTER III

B. STRATEGY

Much of the research on strategy has focused on identifying what strategies, within different situational and organizational contexts, are most likely to yield the greatest economic success [Rumelt, 1974; Hofer, 1973, 1975; Wrigley, 1970]. This body of literature has been referred to as the "content" approach to studying strategy. These researchers have sought to both identify which variables influence strategy and specify what values for each variable are economically feasible under varying conditions. For example, Hofer, in a recent study on business strategy, offered the following proposition in reference to the maturity stage of the product life-cycle:

> "When the degree of product differentiation is low,...the rate of technological change in process design high,...buyer concentration high,...businesses should: a) allocate most of their research and development funds to improvements in process design rather than new product development; b) allocate most of their plant and equipment expenditures to new equipment purchases; c) seek to integrate forward or backward in order to increase the value they add to the product..."

In contrast to the content approach, another branch of research has developed which focuses on the analytical, political, and behavioral processes of determining an organization's strategy [Vancil and Lorange, 1975; Lorange and

Scott-Morton, 1974; Allison, 1971; Cyert and March, 1963]. Although some attention has been given to the study of strategy implementation, most of this literature has been concerned with the strategy formulation process. Hofer and Schendel (1978) defined strategy formulation as the process of deciding the basic mission of the company, the objectives that the company seeks to achieve, and the major strategies and policies governing the use of the firm's resources to achieve its objectives. Galbraith and Nathanson have stressed the importance of choosing the appropriate organizational structure in implementing a chosen strategy. They suggest that there are other design variables in addition to structure which must be considered for effective strategy implementation. These variables include the development of human resources, appropriate reward systems, and effective information systems. Galbraith and Nathanson emphasize the importance of matching these and other dimensions of organizational design to one another as well as to strategy, to achieve a congruence among all organizational dimensions.

Research on strategy has also been classified by organizational hierarchy [Hofer, 1975; Hofer and Schendel, 1978; Vancil and Lorange, 1975]. These writers have distinguished between "corporate" or "portfolio" strategy and

"business" strategy in their study of strategy formulation. Business strategy, as defined by Hofer, occurs at that level in the organization at which responsibility for formulation of a multi-functional strategy for a single industry or product-market arena is determined. Corporate strategy occurs at the top level of the organization regardless of the number of industries in which it competes. Thus, the business strategies of a multi-industry company would take place at the divisional level, while the corporate and business strategies of a single-product-line company would be the same. In banks, corporate and business strategy-making would be distinct but integrated processes, with business strategies taking place at the product-line or departmental level.

Similarly, Bourgeois (1980) specified the following hierarchical definition of strategy:

> "Domain definition strategy refers to the organization's choice of domain or change of domain that occurs when for example, a firm diversifies into or exits from particular products or markets."
>
> "Domain navigation strategy refers to competitive decisions made within a particular product-market or task environment. Thus, once a domain or competitive arena has been determined by primary strategy, the organization is subject to environmental constraints to which the contingency theorists attribute primacy."

Thus, domain definition is related to the corporate level and domain navigation is related to the business level. Additionally, since the author views domain selection and navigation as occuring in a sequential fashion, he refers to them as primary and secondary strategies.

In the context of the process/content and corporate/business dichotomies discussed above, our research is concerned with the process of strategy formulation. In addition, we are concerned with that part of strategy formulation which Bourgeois has referred to as "primary strategy" or "domain selection"; and which Hofer and Schendel have referred to as "corporate strategy."

The remainder of this section will review three empirical studies of strategy-making. In the first two studies, Quinn and Mintzberg discuss the different types of strategy formulation which they have been able to identify through their own research. These two works were chosen primarily because they deviate somewhat from the typical propositions put forth on strategy formulation; and because much of the other work related to strategy-making has been reviewed in previous theses. The third study, Wood and LaForge, investigates the long-range planning process, an important variable of strategy formulation, and its effect on finan-

cial performance.

QUINN

Quinn (1980), in his study of nine multi-billion dollar companies such as Exxon, General Mills, Xerox, and General Motors, investigated how organizations arrive at their strategic changes, and how this fits into accepted formal planning and management concepts. The study was prompted by the author's previous investigative and consulting work in the area of development and implementation of formal strategic planning structures. As a result of these experiences, the author made several observations about strategy formulation. One, the planning activity tended to become a bureaucratized, costly, paper-generating exercise which failed to stimulate creativity, innovation or entrepreneurship. Two, the formal planning structure was generally not the setting from which most major strategic decisions were made. Three, much of the management literature on planning consistently developed increasingly sophisticated, complex models which were unworkable and unrealistic.

Quinn views most organizational literature on strategy-making as falling into either of two categories--the formal planning approach, and the behavioral, power-dynamic

approach. In general, literature proposing the formal planning approach prescribes how an organization should define its strategy, stating explicitly what factors should be included and how to analyze and relate these factors, step by step. Often, the models put forth by this part of the literature place too much emphasis on quantitative analysis, and not enough on the political-behavioral factors which Quinn believes frequently determine strategic success.

At the other end of the spectrum is the behavioral, power-dynamic approach which has offered important insights on the psychological relationships in strategy formulation such as multiple goal structures and the bargaining and negotiation process. Quinn's criticisms of this literature are that "many of the studies have been conducted in settings far removed from the realities of strategy formulation," and few have offered normative guidance for the strategist.

The author argues that strategic decisions do not come solely from power-political interplays, nor from an aggregation of decision variables which can be treated quantitatively. He suggests that a synthesis of various behavioral, power-dynamic, and formal analytical approaches more closely approximates the process major organizations use in

formulating and changing their strategies. The results of his research showed that successful managers consciously and simultaneously integrate information-analysis, power-political, and organizational-psychological processes at various crucial stages of strategy development in a logical, incremental fashion.

How do managers evolve effective strategic goals within the realm of logical incrementalism? Quinn found that the most effective strategies tend to emerge from an iterative process in which the organization probes the future, experiments, and learns from a series of partial or incremental commitments, rather than through global formulation of total strategies. In his case studies, it was revealed that successful executives announced relatively few goals to their organizations. These types of announcements were generally avoided because it was felt they tend to centralize the relevant issues, reduce creative options, "rigidify" positions too soon, and provide focal points against which opposition could organize. Instead, most executives tended to develop strategic goals through very complicated, largely political, consensus-building processes which are outside the structure of most formal management systems, and which frequently have no precise beginning or end.

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MINTZBERG

Mintzberg (1978), much like Quinn, also views most of the literature and theories on strategy formulation as very abstract and incomplete. He categorizes most of the literature into three theoretical groupings or "modes." The planning mode depicts the strategy-making process as a highly ordered, neatly integrated one, with strategies implemented on schedule in a very systematic fashion. The adaptive mode describes the process as a negotiating or bargaining process which tends to produce a stream of incremental, disjointed decisions. In the entrepreneurial mode, the process is dominated by a powerful leader, who takes bold, risky steps toward his vision of the organization's future.

Mintzberg attributes what he sees as the shortcomings of most organizational literature to the general treatment of strategy as an explicit, purposefully and consciously developed plan. Instead, he suggests a two-dimensional definition of strategy which in his opinion better operationalizes the concept for the researcher. He defines intended strategy as referring to the typical definition of strategy. Chandler's definition [1962, p. 13] is offered as an example of the typical definition: "...the determination of the basic long-term goals and objectives of an

enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals." Realized strategy, the author's view of strategy in general, is defined as a pattern in a stream of decisions. That is, when a sequence of decisions in some area exhibits a consistency over time, a strategy will be considered to have been formed.

Through a series of historical studies of single organizations covering a time span of decades, Mintzberg was able to make three general observations about strategy formulation. First, strategy-making can be thought of as revolving around the interplay of three forces: 1) an erratic but constantly changing environment; 2) an organizational operating system, often a bureaucracy, which seeks stability despite the irregularities of the environment; and 3) a leadership, which serving as a mediator between these two forces, tries to simultaneously accomodate the operating system while insuring the organization's adaptation to environmental change. In this view, environmental change spurs strategic change, which in turn is aided by a leadership which buffers the constraints provided by a lethargic operating system.

Second, Mintzberg observed that strategic change mani-

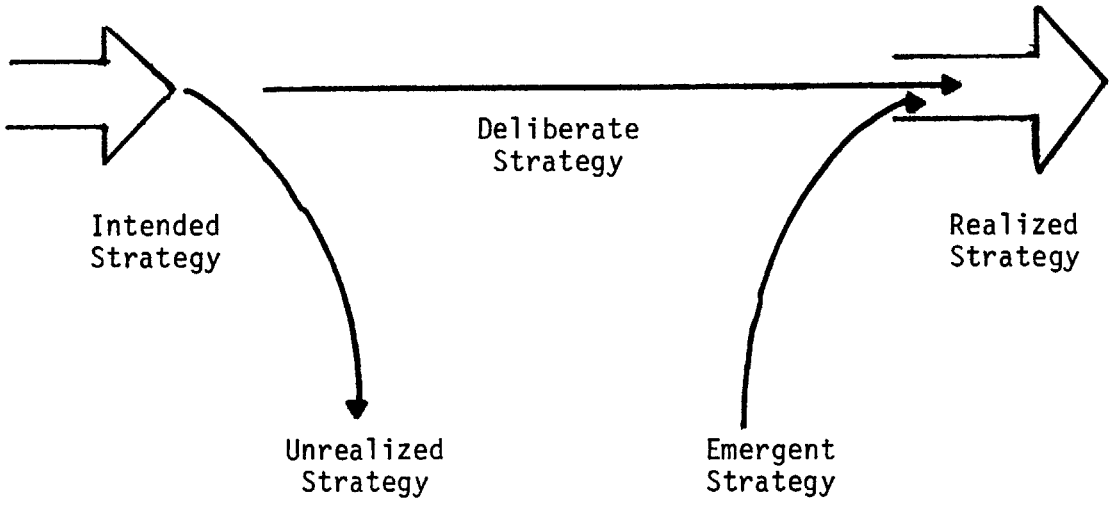
fests itself in two main patterns, one super-imposed on the other. He found that the basic pattern of overall strategy is similar to that of a life cycle. That is, strategies are conceived, developed, become operational, begin to decay, and finally die. Furthermore, evidence from the study indicated the presence of periodic waves of change and continuity within the life cycle. This suggests that strategy does not proceed in a continuous, incremental fashion, but rather occurs in spurts followed by periods of continuity.

The third conclusion which Mintzberg made is embodied in a theoretical model he developed which depicts the different types of strategies. The model, shown below in Figure 3.1, combines the two types of strategies identified earlier--intended and realized--in three ways. First, "deliberate" strategies are defined as intended strategies which get realized. Second, "unrealized" strategies are the result of intended strategies which do not get realized. Unrealized strategies may be the result of unrealistic assumptions or expectations, a lack of consensus among key decision-makers, misjudgments about the environment, etc. Third, "emergent" strategies occur when strategies that were never intended get realized.

Mintzberg's concept of an emergent strategy is quite

FIGURE 3.1

TYPES OF STRATEGIES



Source: H. Mintzberg. "Patterns in Strategy Formation." Management Science, May 1978.

similar to several observations Quinn was able to make about strategy formulation. A number of executives Quinn interviewed stated that there were no "strategy sessions" where the future of the organization was mapped out. Instead, strategies seemed to evidence themselves as the organization attempted to adapt to its environment. The statement of a General Motors Executive characterizes the dynamics of this process best:

> "When I was younger I always conceived of a room where all these [strategic] concepts were worked out for the whole company. Later I didn't find any such room...The strategy [of the company] may not even exist in the mind of one man. I certainly don't know where it is written down. It is simply transmitted in the series of decisions made." [Quinn, 1980, p. 13].

This characteristic or type of strategy formulation is what Quinn has labeled "logical incrementalism." Mintzberg would call it "emergent strategies which get realized." Thus, there appears to be a linkage between Quinn's viewpoint of strategy formulation via "logical incrementalism," and Mintzberg's viewpoint of the process via "emergent strategies." That is, both notions of strategy formulation view the process as one where strategies emerge from an iterative process and are eventually realized, but in fact were never actually intended or explicitly planned through a formal

approach.

WOOD AND LA FORGE

What is the role of formal planning? Do organizations which utilize long-range planning systems to help plot their future tend to develop more effective strategies which lead to superior financial performance? Two researchers, Wood and LaForge, investigated this relationship within the banking industry. They hypothesized that large U.S. banks that had more comprehensive planning would financially outperform those that had less comprehensive planning.

The authors used a sample of 41 large U.S. banks, categorizing them according to whether they had strategic long-range corporate planning systems; and whether they scored high or low on a scale of different aspects of formal planning practices. The banks were grouped into one of three categories including: 1) non-planners; 2) partial planners -- banks that had strategic long-range planning systems but scored low on the planning scale; and 3) comprehensive planners -- banks that had strategic long-range planning systems and scored high on the planning scale. A control group of twenty randomly selected large banks was also used. Financial performance over a five year period,

1972-1976, was determined by two measures--growth in net income and growth in return on owners' investment.

Wood and LaForge found that the comprehensive planners out-performed the other three groups of banks in their sample. Similarly, they found that the partial planners out-performed both the non-planners and the control group. These results seem to suggest that in general, large U.S. banks that utilize highly formalized, comprehensive long-range planning systems enjoy a competitive advantage over similar financial institutions which use less formalized, or no planning system.

While these results are consistent with several other studies [Thune and House, 1970; Karger and Malik, 1975] which tested the relationship of planning and performance across industries, Wood and LaForge readily admit they cannot conclude that comprehensive planning is the only reason for superior performance in banks. This admonition is borne out in the study by Norburn and Grinyer (1977) in which they attempted to determine whether the corporate planning process or other factors such as management style, technology, and organizational structure were the dominant factor in a firm's financial performance. They found abso-

lutely no basis for believing that use of the full corporate planning approach is generally associated with high financial performance. Similarly, the recent study of 61 companies by Leontiades and Tezel (1980) found no evidence to support the contention that formal planners outperform informal planners.

Because of the contradictory evidence on the value of strategic planning and its role in the very complicated process of strategy formulation, this topic is still receiving much attention by researchers. Part of our research investigates the long-range planning process and its relationship with the environment and banks' financial performance. More will be said on this later in the chapter which develops our hypotheses. We now turn to a discussion of the literature on the environment.

CHAPTER III

C. ENVIRONMENT

As mentioned earlier in this chapter, ever since organizations have been viewed as open systems, organizational theorists have investigated the relationships between the organization and its environment. Researchers have tried to answer questions such as -- To what extent are organizations shaped by their environments? Are there organizational characteristics such as strategies, technologies, structures, processes, which are more appropriate for one environment and not another? Are there linkages across these characteristics which determine organizational success? In general, organizational environment has been analyzed in three ways: 1) the objects or components of the environment; 2) the attributes of the objective environment; and 3) organizations' perceptions of the environment.

Duncan's (1972) treatment of the environment is an example of the type of analysis which falls in the first category. He analyzed the environment as the "totality of physical and social factors that are taken directly into consideration in the decision-making behavior of individuals in the organzation." He distinguished between the organization's external and internal environment, and identified the components relevant to each.

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Components comprising the internal environment were: 1) the organizational personnel component which included factors such as interpersonal behavioral styles and educational background and skills; 2) the organizational functional and staff units component which includes factors such as the technological characteristics of organizational units and the inter-unit conflict among functional and staff units; and 3) the organizational level component which includes factors such as the firm's goals and objectives.

Duncan described the external environment as consisting of five components including a customer component, a suppliers component, a competitor component, a socio-political component, and a technological component.

In the second category of literature on the environment, researchers have for the most part focused on the rate of change and the degree of heterogeneity of the environment. For example, Emery and Trist (1965) developed a typology of environments based on the level of uncertainty and the rate of change in the organization's environment. Duncan (1972) operationalized the "simple-complex" and "stable-dynamic" dimensions of the environment. These dimensions were first conceptualized by Thompson (1967). The simple-complex dimension concerns the number of relevant factors in the decision unit's environment and the extent to which these fac-

tors are homogeneous. The static-dynamic dimension concerns the rate of change of the decision unit's environmental factors and the frequency with which decision-makers must consider new and different environmental factors.

Khandwalla (1977) proposed that the environment be analyzed in terms of five attributes or properties--turbulence, diversity, technical complexity, hostility, and restrictiveness. Khandwalla defined these attributes in the following ways. A dynamic, unpredictable, expanding, fluctuating environment is a turbulent environment. Management can only make "guesstimates" about the future because the environment is so unpredictable. Information tends to be inaccessible and generally unreliable. A hostile environment is one that is risky, stressful, dominating, extremely competitive, and lacking in opportunities. It is a frustrating environment in which many barriers must be overcome to operate profitably. An environment is diverse or heterogeneous if the customers of the firm, or its markets, have diverse characteristics and needs. For example, a shoe repair shop or a beauty salon each serve customers with fairly similar needs. On the other hand, customers of an insurance company have a variety of needs and characteristics, particularly in terms of the type and amount of coverage they need. A technologically complex environment exists when technologies are ra-

pidly changing or developing and strategic decision-making requires the use of highly sophisticated technical information. A restrictive environment subjects the organization to many different constraints which must be taken into account by decision-makers. Constraints may come in the form of price regulation or the scarcity of raw materials. Constraints may also be political in nature where, for example, the organization is legally restricted from operating in certain markets.

One attribute or characteristic of the environment which is discussed a great deal in the literature is environmental uncertainty. The concept of uncertainty has been defined in a variety of ways. Lawrence and Lorsch (1967) defined uncertainty as consisting of three components: 1) the lack of clarity and reliable information; 2) the long time span of definitive feedback; and 3) the uncertainty of cause-effect relationships. Other researchers have defined uncertainty as the rapid rate of environmental change and the unpredictability of that change. For example, Khandwalla (1977) implicitly equates "turbulence", which he defines as both an unpredictable and dynamic environment, with environmental uncertainty. Miles, Snow and Pfeffer (1974), on the other hand, have argued that environmental change is not necessarily unpredictable change. Instead, they suggest that

CHAPTER III

"it is possible to have rapid but largely predictable change, and, in such a situation, the organization does not really confront uncertainty..."

Based on a study conducted in a large, manufacturing organization, Duncan (1972) identified three dimensions of environmental uncertainty; 1) the lack of information regarding the environmental factors associated with a given decision-making situation; 2) not knowing the outcome of a specific decision in terms of how much the organization would lose if the decisions were incorrect; and 3) the inability to assign probabilities with any degree of confidence with respect to how environmental factors are going to affect the success or failure of the decision unit.

Thus, Duncan's conceptualization of uncertainty is that it emanates from two sources: 1) lack of adequate information for decision-making; and 2) lack of a priori knowledge of the cost or consequences of an incorrect decision. This first source of uncertainty, as defined by Duncan, is a factor present in strategic decision-making in banks. For example, bank executives in the past few years have come to expect wildly fluctuating interest rates, which directly affects their interest margins. Their main problem, though, is that often they cannot predict far in advance the direction

of change or the degree of change in interest rates. In general, however, they are able to determine, ex ante, the consequences of a poor estimate of the future rates. From banks' point of view, then, an uncertain environment is an unpredictable environment. Therefore, we will define environmental uncertainty as a condition which exists when the nature and direction of change is unpredictable. In our analysis of the environment, we will distinguish between a dynamic or rapidly changing environment and an unpredictable environment.

The third category of environmental analysis concerns a topic which has been the subject of debate for the last five to ten years. Researchers have differing opinions on whether the best methodology for analyzing an organization's environment is from the decision-maker's viewpoint or from an objective analytical viewpoint. Some studies [Lawrence and Lorsch, 1967; Khandwalla, 1977] have relied completely on managerial perceptions in their measurements of the environment, while others [Lindsay and Rue, 1980] have tried to combine objective and perceived environmental analysis.

Theorists that view managers' perceptions as the only relevant measure of the environment argue that the organization only responds to what it perceives. This means that

different organizations may perceive and therefore react differently to the same objective environment. Researchers who criticize environmental analysis which is based exclusively on managerial perceptions have argued that this type of analysis is simply a study of the psychological state of the subject and provides no information about the environment.

As Bourgeois points out, at issue is whether managers' subjective impressions override the objective situation when critical decisions are made. If it is true that an organization only responds to what it perceives, then subjective impressions will indeed override the objective situation in strategic decision-making. Clearly, though, an organization which continuously misperceives the true environmental conditions will not be able to effectively compete in the long run. For our purposes, then, information about the objective environment (see Chapter II) and managers' perceptions will both be analyzed. We will use "objective" environmental information to predict: 1) managers' perceptions of the environment and 2) what their perceptions would suggest in terms of decision-making style and various aspects of their long-range planning system.

CHAPTER III

D. STRATEGY FORMULATION IN THE CONTEXT OF THE INDUSTRY ENVIRONMENT

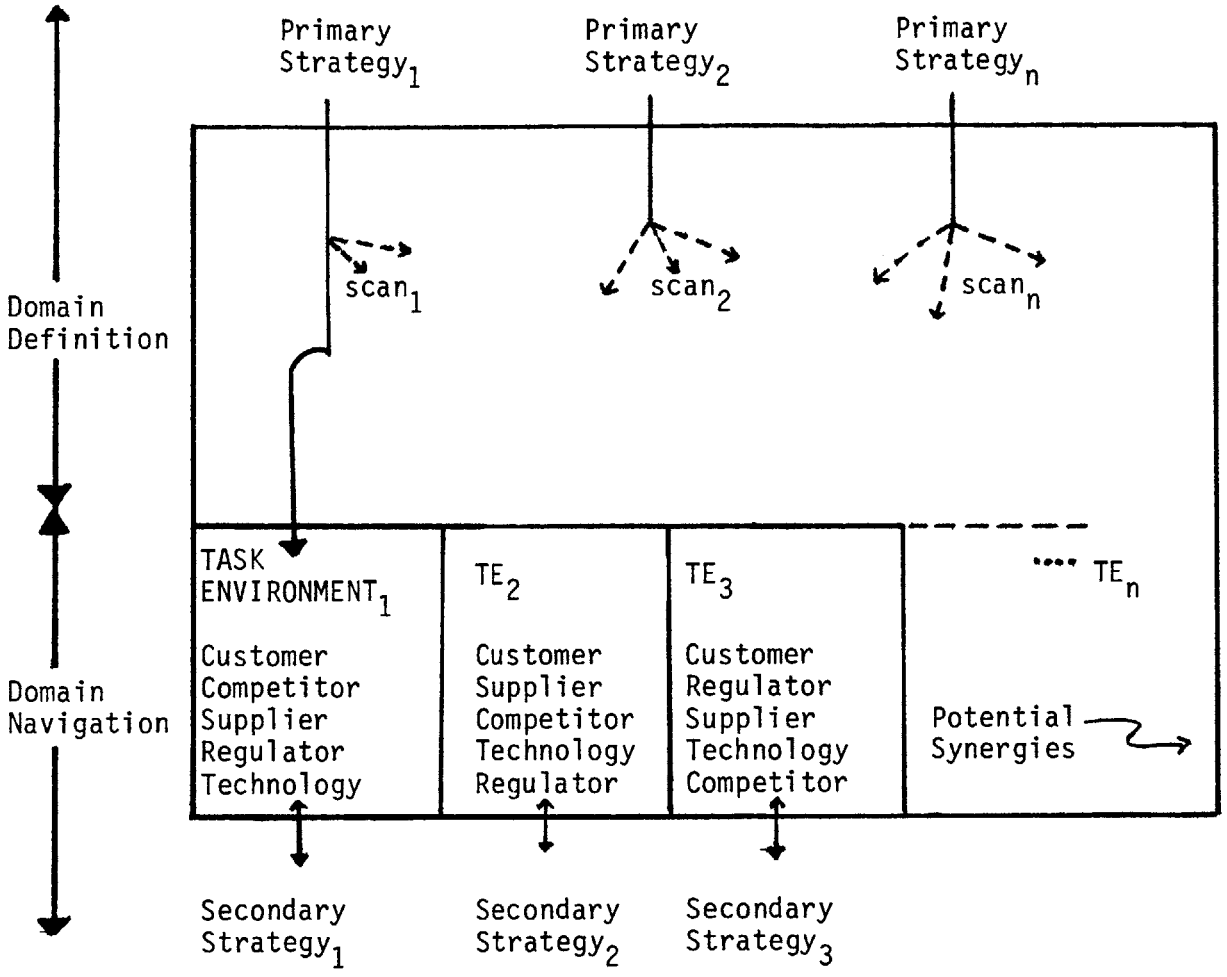
This section reviews the work of several researchers who have integrated the concepts of strategy formulation and the environment. First, a theoretical model developed by Bourgeois (1980) is discussed. Next, we review a study by Miller and Friesen (1978) in which the authors attempt to identify the common attributes and relationships which have comprised both successful and unsuccessful "coping mechanisms" within a given environment. Finally, a study by Paine and Anderson (1977) is discussed in which the authors developed and tested a model incorporating the strategy formulation problem in the context of managerial perceptions of environmental uncertainty and perceptions of the need for internal change.

BOURGEOIS

Bourgeois synthesizes the two concepts of strategy formulation and the environment by relating them at their hierarchical levels. His model is presented in figure 3.2. Bourgeois defines primary strategy, or domain definition, as a process of scanning the general environment, which is composed of multiple task environments. Through the scanning process, organizations collect information on broad

FIGURE 3.2

STRATEGY AND ENVIRONMENT



Source: L.J. Bourgeois. "Strategy and Environment: A Conceptual Integration." Academy of Management Review, January, 1980.

social, political, economic, demographic, and technological trends as they search for suitable product-markets to enter. Secondary strategies, or domain navigation, deal directly with the elements of the task environments and the changes or discontinuities they effect. Task environments are composed of competitors, suppliers, customers, and regulatory bodies with whom the organization interacts and whose actions directly affect organizational goal attainment.

How might Bourgeois' theoretical model operate within the context of the banking industry? The primary strategy of a bank would be to determine which market(s) hold the most opportunities for profitable operation. These decisions would be based on an analysis of the bank's strengths and weaknesses and the relevant environmental trends. The task environments comprising the bank's general environment would include wholesale banking, domestic and international, and retail banking. Within these broadly defined markets, a bank would want to decide whether it will concentrate on middle-market and/or large firms; which geographic locations, domestically and internationally, are most feasible; and which product-markets such as cash management, lock boxes, and trust services it can compete in effectively. Once the product-markets have been selected for entry, the bank would then be concerned with designing a set of strate-

gies to guide its operations within these markets. This process would include decisions such as the pricing of the various services offered; the best methods and facilities through which services will be delivered to customers; and how the bank will interact with the different federal and state regulatory bodies affecting its operations.

MILLER AND FRIESEN

Miller and Friesen attempt to understand the strategy-making process by examining the organizational and environmental situation in which it occurs. They look at the simultaneous association of thirty-one different variables to identify the common attributes and relationships which have comprised both successful and unsuccessful "coping mechanisms" within a given environment. The thirty-one variables were of four major types: 1) environmental (note: it appears the researchers use objective measures of the environment); 2) organizational--such as the delegation of authority and openness of information channels; 3) strategy-making--such as risk-taking and product innovation; and 4) success--measures of the degree to which firms were able to achieve their objectives. Data for the study were obtained from eighty-one case studies. Ten archetypes of strategy formulation were identified--six successful and four unsuc-

cessful--by grouping cases whose scores correlated, or moved in unison across variables.

Because of the challenges inherent in the banking industry, of particular interest to our research is one of the successful archetypes which Miller and Friesen identified called "The Adaptive Firm In a Very Challenging Environment". The modal scores (a 7 point scale was used with 1 = low and 7 = high) on the three environmental variables for this archetype were dynamism - 7, heterogeneity - 4, and hostility - 6. The authors defined dynamism as the amount and unpredictability of change in customer tastes, production or service technologies, and the modes of competition in the firm's principal industry. Heterogeneity in the environment concerns the differences in competitive tactics, product lines, channels of distribution, etc., across the firm's different markets. These differences are only significant to the extent that they require very different marketing, production and administrative practices. Hostility in the environment is evidenced by price, product, technological, and distribution competition; severe regulatory restrictions; and unfavorable demographic trends. Three organizational variables including environmental scanning, control mechanisms, and openness of information channels each received scores of "6". Control mechanisms, as defined by the

authors, monitor the internal trends and incidents relevant to organizational performance. Information channels in an organization are considered "open" when information reaches decision-makers quickly, when it is relevant and undistorted, and when communication flows readily in top-down, bottom-up, and lateral directions.

Firms in this particular archetype group were described as "organic" in nature because there was little emphasis or adherence to formal rules. Authority was broadly delegated and more a function of expertise rather than position. The firms were also described as more "proactive" than reactive and tended to be leaders in new product and technological development. Finally, the planning horizons of these firms were substantial and problems were systematically analyzed to help insure responsive and adaptive decisions.

In general, Miller and Friesen found that a variety of coping methods can be effective depending upon the nature of the environment and the assortment of complementary attributes of organization and strategy. Results of the study showed that some firms adapt to their environments by changing themselves, while others manipulate or change their environments by entering new markets or perhaps establishing new technologies. With respect to the unsuccessful arche-

types, the authors noted that firms in this group had a number of weaknesses instead of just one, and therefore no simple solution would serve as a "cure-all" to remedy their problems.

PAINE AND ANDERSON

Paine and Anderson developed a four quadrant contingency model which accounts for different kinds of strategy formulation depending on managerial perceptions of uncertainty and perceptions of the need for internal change. The model is presented in Figure 3.3. Data sources were sixty-two longitudinal case studies involving a variety of organizations and environments. Nine characteristics of strategy making were examined for each case to determine which characteristics were common to each model quadrant. The variables defined and measured were as follows:

> perceived uncertainty - perceptions of major policy-makers about the amount of relevant information required for decision-making and the availability and reliability of that information.
>
> internal change - perceptions of top policy-makers concerning the extent of competence, capabilities, and internal resources necessary to carry out desired actions.
>
> objectives - tendency of top policy-makers to accept a satisficing course of action rather than searching for actions to maximixe returns.
>
> innovation - creativity in strategy making.

FIGURE 3.3

THE PERCEPTUAL BASED STRATEGY MODEL

Perceived Need For Internal Change

Perceived Environmental Uncertainty	LOW	HIGH
	Cell 1	Cell 2
Certain	1. Fixed and Well defined	1. Need for identification and readjustment
	2. Optimization; maintenance efficenty	2. Optimization; improve economics of operation; planned change
	3. Process planning; maintenance competence	3. Process planning; integration; improve distinctive competence
	4. Closed/Stable/Mechanistic	4. Closed/Stable/Mechanictic
	5. Commitment to existing power structure; less active search for environmental information	5. Commitment to existing power structure; systematic; conservative; less active search for environmental information; integrative; entrepreneur
	Cell 3	Cell 4
Uncertain	1. Continually adjusted to feedback	1. Varied and Flexible
	2. Satisficing; maintain capacity to cope with uncertainty	2. Satisficing; survival; develop effective problem solving
	3. Adaptive or contingency planning; search for advance information; penetration	3. Adaptive or contingency planning; divestitive; merger; diversification
	4. Open/Adaptive/Organic	4. Open/Adaptive/Organic
	5. Adaptive planner; information gathering	5. Search for external information; "sharp departure" entrepreneur

Key: 1. Mission or Domain
2. Objectives
3. Strategies and Policies
4. Organization Form
5. Role Performance of Policy Maker

Source: F. Paine and C. Anderson, Journal of Management Studies, 1977.

risk-taking - bold and venturesome action in strategy-making.

futurity - length of time horizon in strategy-making.

role of policy-makers - a measure of how proactive top policy-makers are in scanning environment for information.

organizational form - a measure of how open, adaptive, and organic an organization is as compared to closed, stable, and mechanistic.

success - the extent to which the organization appears to be attaining its goals and objectives.

In general, the results of the researchers study supported their model. They found that the successful firms in each model quadrant tended to follow a pattern or mode of strategy-making appropriate for the perceived conditions. In Cell 1 [low perceived environmental uncertainty and low perceived need for internal change] top strategy-makers exhibited a mixture of the pure modes--specifically, they portrayed the adaptive planning mode. Firms in this quadrant tended toward optimizing, little risk-taking, little innovation, not much emphasis on proactive scanning, and shorter planning horizons than Cell 2 and Cell 3 firms.

Quadrant 2 organizations [low perceived uncertainty and high perceived need for internal change] exhibited the planning mode of strategy-making. Managers of the successful firms in this quadrant tended to optimize, to be innovative,

and to have greater futurity in their decision-making. The less successful Cell 2 firms tended toward the adaptive mode with shorter time horizons, were less proactive, and satisficing.

Top policy-makers of successful firms in quadrant 3 [high perceived uncertainty and low perceived need for internal change] followed the adaptive entrepreneurial mode in strategy making. They tended to have a proactive search for environmental information and to be innovative, but were not exceptional risk-takers.

Quadrant 4 managers [high perceived environmental uncertainty and high perceived need for internal change] tended toward the entrepreneurial, or what the authors called the "stress" mode. Managers in this quadrant were less successful than those in other quadrants. They tended to be mechanistic, high risk-takers, employ shorter planning horizons, and were less innovative than Cell 2 and 3 managers. The authors note that while the observations of Cell 4 managers are inconsistent with previous studies and not as predicted, perhaps different results would be achieved by extending the time period covered by the cases.

E. SUMMARY

In this chapter we have attempted to develop a theoretical framework (see Figure 3.4) with which to study the process of strategy formulation, and how it is affected by managers' perceptions of the environment. In summary, we have indicated that our research will investigate the process of strategy formulation at the corporate level, within the context of the general environment. We have reviewed a number of theoretical and empirical works which have analyzed (1) different types of strategy formulation; (2) the firm's external environment; and (3) the effects of the environment on strategy-making.

Quinn (1980) has argued that strategic decision-making is a synthesis of the various behaviorial, power-dynamic and formal analytical approaches. His research showed that managers integrate the information-analysis, power-political, and psychological processes at crucial stages of strategy formulation. This, he says, occurs in a logical, incremental fashion.

Mintzberg (1978) categorized the strategy formulation literature into three modes-the adaptive mode, the entrepreneurial mode, and the planning mode. In his view, the

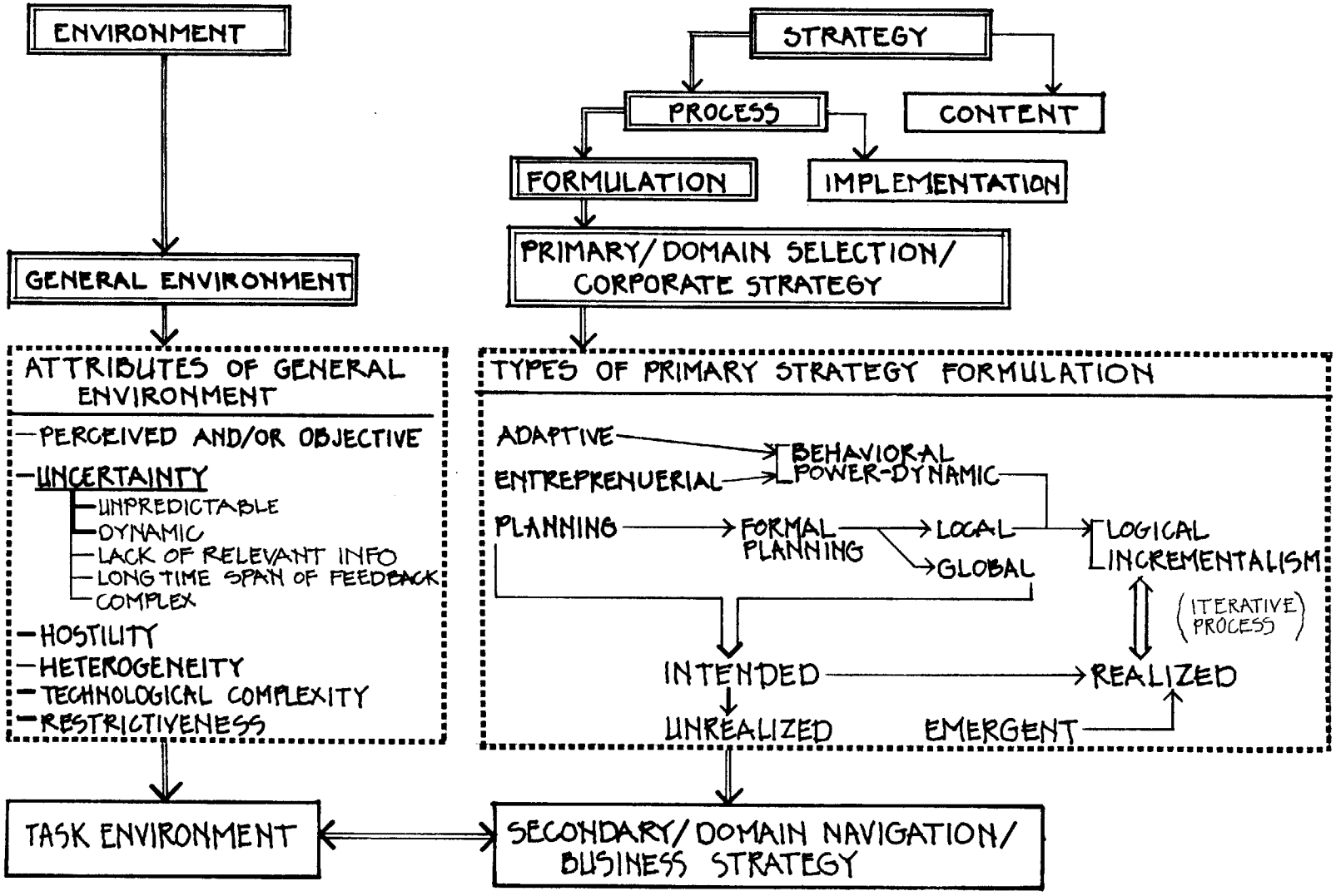


FIGURE 3.4 THEORETICAL FRAMEWORK

literature has generally treated strategy making as an explicit and deliberate process. He refers to this as "intended strategy." However, Mintzberg suggests that a second dimension of strategy formulation exists. He refers to the second dimension as "realized strategy", defined as a pattern in a stream of decisions. As a result of his empirical work, he theorized that there are intended strategies which do not get realized; and strategies that were never intended but, rather, emerge and get realized.

In comparing Quinn and Mintzberg's theories, several similarities are apparent. First, their analysis of the existing literature on strategy formulation is comparable. Quinn's "behaviorial, power-dynamic" category, which recognizes the importance of the psychological/power relationships and the political/bargaining processes, is consistent with Mintzberg's "adaptive" and "entrepreneurial" modes. The adaptive mode describes strategy formulation as a negotiating or bargaining process; and the entrepreneurial mode recognizes a process dominated by a powerful leader. Second, Quinn's theory of "logical incrementalism" is similar to Mintzberg's theory of "emergent" strategies, in that each describes strategy formulation as an interative process where strategies eventually get realized. Both Quinn and Mintzberg stress that strategies are not often deliberately

or consciously planned through formal, global approaches.

As we reviewed the literature on the environment, we saw that researchers have typically analyzed the environment in three ways: (1) the objects or components of the environment; (2) the attributes of the environment, and (3) the objective environment and/or managers' perceptions of the environment. Within the framework of our research, we analyze several attributes of the environment. These attributes include uncertainty, dynamism, hostility, techological complexity, and restrictiveness. We noted that a lot of confusion has centered around the definition of uncertainty. By our definition, the environment is uncertain when it is unpredictable.

In addition, we noted the current debate regarding the perceived environment versus the objective environment. Some researchers have argued that the environment should be analyzed based on managers' perceptions of their environment. They suggest that the organization only responds to what it perceived. Others have argued that the environment should be analyzed from an objective viewpoint. They contend that measuring managers' perceptions of the environment only provides information about the psychological states of the subjects. Still others have argued that both types of

analysis should be conducted. In our research, we will employ both types of measurement in the environment.

The final element of our theoretical framework is the relationship between the task environment and business strategy formulation. This relationship represents the second level of the environment/strategy formulation hierarchy. From a purist's point of view, some our analysis of the general environment falls within the category of the task environment, and this distinction should be made. However, due to the limited scope of our research and our emphasis on the general environment, we will not make this distinction.

In the next chapter, we develop our hypotheses within the theoretical framework. Our research is based on what Mintzberg has referred to as intended strategy. The first hypothesis derives much of its impetus from a model developed by Khandwalla regarding top management style. Khandwalla operationalizes the three modes of strategy-making which Mintzberg defined, and relates them to the perceived environment. The second hypothesis concerns the formal long-range planning systems of organizations as they are affected by the perceived environment.

CHAPTER IV

HYPOTHESES

A. INTRODUCTION

In the preceding chapters, we analyzed the banking industry at the national level, and highlighted those characteristics unique to the geographical region we are studying. In addition, we have developed a theoretical framework which will aid us in our research on the linkages between the environment and strategy formulation. This chapter presents a set of hypotheses concerning these linkages.

In Section B of this chapter, we develop a set of proposals about how we would expect bank managers to perceive the environment. Five attributes of the environment are discussed including dynamism; predictability, restrictivity, hostility, and technological complexity. Then, based on our predictions of managerial perceptions of the environment, we develop hypotheses on two important variables of strategy formulation--top management decision- making style and long-range planning. Hypothesis I, which related managerial perceptions of the environment to top management styles, is developed in Section C. Hypothesis II, which relates

perceived dynamism and predictability of the environment to long-range planning practices, is developed in Section D.

B. THE PERCEIVED ENVIRONMENT

In this section, we develop our views on how bank managers perceive the industry environment. We focus on five attributes of the environment. Proposals will be made on whether managers perceive the environment as dynamic or stable; predictable or unpredictable; restrictive or constraint free; hostile or benign; and technologically complex or simple. Our proposals will state whether we expect managerial perceptions to be at one extreme or the other on a particular dimension, or somewhere in between. All of the industry data on which these proprosals are based is contained in Chapter II.

A dynamic environment is one which is rapidly changing or fluctuating. At the other end of the scale is a stable environment where change is fairly infrequent. In the banking industry, perhaps the most volatile indicator of the economy which must be monitored by managers is the prime interest rate. During the past ten years, prime rate changes become quite frequent and extreme. For example, from the mid-1930's through 1970, the number of times the prime rate changed ranged from zero to five times a year. Since 1970, the prime rate has changed as many as 25 times in a single year. In terms of the amount of change, the

prime rate experienced a 375-basis-point change within a period of 90 days in 1979. High and volatile interest rates have made it difficult for banks to manage interest sensitive assets and liabilities. Because interest revenues are the major source of income for banks, and because prime interest rates are so volatile, we expect that managers will rate the environment moderately high on the dimension of dynamism.

Environmental uncertainty, or predictability as we have defined it, is simply the degree to which future change in the environment can be predicted. We have indicated that the prime rate is the most important aspect of change for banks. It should be noted that no professionals, including economists, bankers, or financial analysts, have been able to successfully predict on a consistent basis, the exact nature and extent of change in the prime rate. Therefore, we expect that bank managers will rate the environment low in predictability--or highly unpredictable.

The remaining three dimensions of the environment--restrictivity, hostility, and technical complexity--are analyzed using Khandwalla's typology of the environment. As mentioned in Chapter III, Khandwalla defined a highly restrictive environment as one which poses many constraints against an organization's operations. The more restrictive

the environment, the more difficult is strategy formulation because of all the constraints which must be taken into account in decision-making. The banking industry must cope with many constraints because it is so heavily regulated. The major regulatory bodies of the banking industry include the Federal Reserve System, the Comptroller of the Currency, the Federal Deposit Insurance Corporation, and the State bank regulators. Together, these agencies provide a number of constraints on a bank's operations. For example, banks are prohibited from interstate branching, and in certain states they are prohibited from state-wide branching. Banks are not allowed to pay market rates on checking accounts, and until recently, were not allowed to pay any interest on checking accounts. In addition, banks are not allowed to merge unless the target of acquisition is in serious financial trouble, or it is determined that the merger will not reduce the level of competition. These regulations and a myriad of others, were originally enacted with the interest of preserving competition and/or protecting the welfare of bank consumers. In many cases, however, the effect of the regulations has been a reduction in the ability of commercial banks to compete in the financial markets. Regulation of commercial banks is much stricter than that of other competing financial institutions. (See Figure 2.2) Thus, because of these regulatory constraints and the often

adverse effects they have on banks' operations, we would expect bank managers to perceive the environment as highly restrictive.

Khandwalla defined a hostile environment as one that is risky, stressful, dominating and lacking in opportunities. The banking industry might be viewed as stressful and lacking in opportunities because the commercial banks have faced stiff competition from other financial institutions. Banks have suffered losses in market share due to competition from non-banking institutions such as Merrill Lynch, Sears, and American Express. For example, Merrill Lynch offers cash management services that feature Visacard and overdraft privileges which are essentially loans and checking privileges. Banks have also suffered market share losses to other depository institutions such as foreign banks and thrifts and savings. Foreign banks can afford to be more aggressive in their pricing because, unlike domestic banks, they are not required to hold non-interest bearing reserves.

Managers of the regional banks we are studying, until recently, have also had to operate with a very sluggish regional economy. This has resulted in a slower asset growth for the regional banks compared to the industry average. The region was particularly hard hit with the 1970 and

1973-1975 recessions. It recovered at a much slower rate from these economic downturns relative to the rest of the country. In addition, large employment losses have occurred as the textile and leather goods industries, which were a major part of the region's manufacturing have relocated to lower wage rate areas. And finally, the "hi-tech" companies which also account for a substantial part of the region's industrial base, suffered a decline during the first five years of the seventies due to the significant reduction in aerospace and defense spending.

During the past five years, the region has enjoyed a fairly healthy expansion in manufacturing, particularly in the instrument, electrical equipment, and computer industries. Recent increases in aerospace and defense spending have also provided a boost to the high technology industries.

Overall, then, because of the adverse effects of competition, tempered by the recent favorable developments of the region's economy, we would expect bank managers to view the environment as moderately hostile.

Khandwalla defined a technologically complex environment as one where strategic decision-making requires the

use of sophisticated information; technologies are rapidly developing; and technology is extremely capital intensive, with a high level of automation. The technology of the banking industry has been developing fairly rapidly in the past five to ten years. These new technologies have affected daily operations of banks such as check processing, and enabled them to provide new services such as lock boxes and cash management. New technologies include the use of distributed data processing systems, mini-computers, on-line proofing equipment, and optical scanning devices. The adoption of these new technologies require major capital investment and long lead times. This is particularly true for capital investments associated with retail banking such as the installation of automatic teller machines. The risk associated with many of these investments is quite high because if a project turns sour, it is difficult to liquidate the investment and withdraw committed resources. Thus, because of the characteristics of banks' technologies, we expect bank managers to rate the environment as moderately high on the dimension of technological complexity.

In summary, we propose that bank managers will perceive the environment in the following ways:

- Due to the volatility and amount of change in the prime interest rate and the effect these changes have on banks' net income, managers will perceive the environment as moderately high on dynamism.

- Due to the inability of bank managers and other financial experts to accurately forecast the nature and extent of change in the prime interest rate, bank managers will perceive the environment as highly unpredictable.

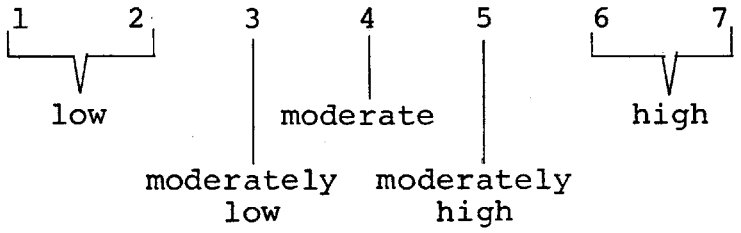
- Due to the many constraints imposed on banks by a very strict regulatory system, bank managers will perceive the environment as highly restrictive.

- Due to the adverse effects of competition from non-banking institutions and other depository institutions, tempered by the recent expansion of the regional economy, bank managers will perceive the environment as moderately high on technological complexity.

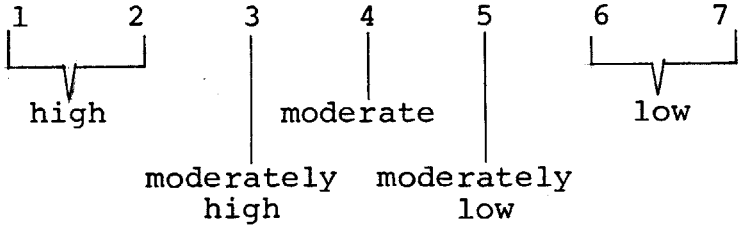
It should be noted that because of the nature of the data collection for this research project, some of the scales used to measure these and other variables were 7-point scales, whereas others were 5-point scales. Admittedly, the

terms "low", "moderate", "moderately high", and "high" are somewhat vague. However, it is difficult to predict absolute values for these variables. There is not much difference between a score of "3" or "4", or "6" or "7". On the other hand, there is a significan difference between "2" and "5", or "3" and "6". In general, the descriptive terms we have used to predict the values of these variables correspond to the scales in the following ways:

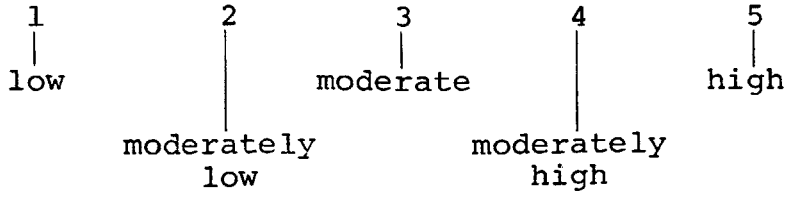
- where 1 = low and 7 = high



- where 1 = high and 7 = low



- where 1 = low and 5 = high



CHAPTER IV

In this section, we have put forth several proposals regarding managerial perceptions of the environment. These proposals were based on an "objective" analysis of the environment. Section C presents a set of proposals which concern top management's perceptions of the environment as they relate to top management style. These proposals form our first hypothesis.

C. HYPOTHESIS I

The style of top management decision-making is a very important variable of strategy formulation. Different researchers have analyzed top management style along several dimensions. Burns and Stalker (1961) proposed that management style can be flexible and organic, or rigid and mechanistic. Likert (1961) analyzed top management decision-making style as ranging from highly individualistic, to highly participative and group oriented. McGregor (1968), and Cyert and March (1972) analyzed top management style by the degree to which it is coercive and arbitrary. Lindblom (1959) defined top management style by the degree to which strategic decisions are made according to optimization principles or "seat-of-the-pants" judgment. Finally, as discussed in Chapter III, Mintzberg (1973) categorized strategy making into three modes--the planning mode, the entrepreneurial or risk-taking mode, and the adaptive mode. Although this list of authors on management style by no means exhausts the relevant body of literature, due to the focus of our thesis, we are concerned with only a few of these dimensions.

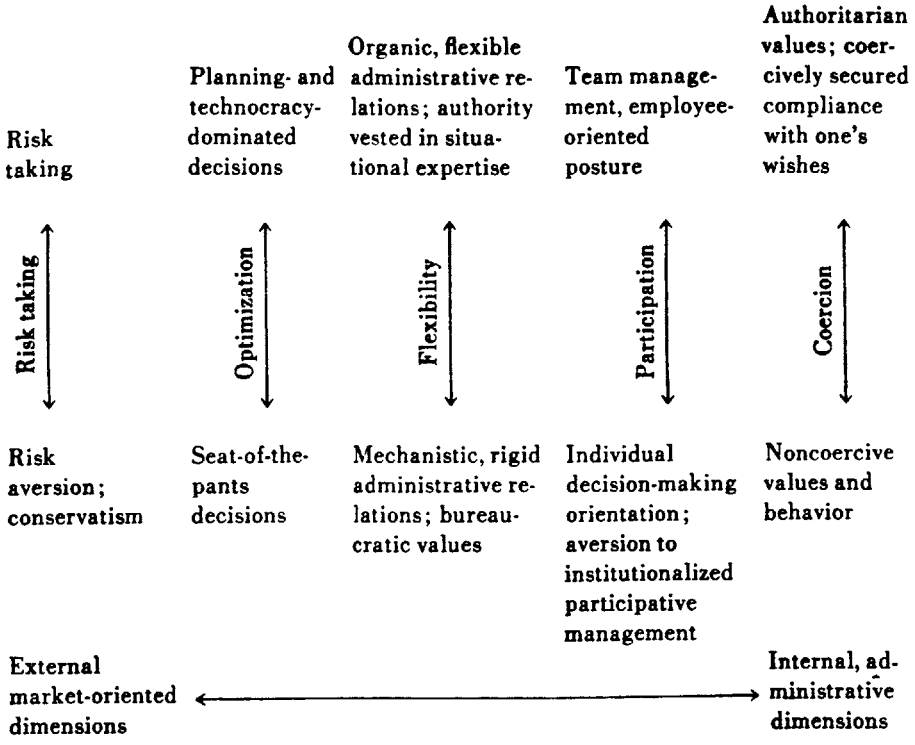
Based on the results of a cross-sectional study of 103 Canadian firms, of which about two-thirds were manufacturing

and one-third service firms, Khandwalla (1977) developed a model relating top management's perceptions of the environment to its style of decision-making. Khandwalla incorporated the five management styles discussed above into his model. (See Figure 4.1) As the model shows, Khandwalla suggested that the risk-taking and optimization styles were more externally oriented behavioral dimensions than the other three. Flexibility, participation, and coercion were suggested as being more internally directed, administrative dimensions of top management style. Khandwalla also suggested that top management style is a mixture of various combinations of these dimensions. He proposed that a characterization of top management by these five dimensions of style provides a first approximation to the organization's primary strategy.

Our first hypothesis is developed using Khandwalla's framework. In the remainder of this section we describe in more detail three of the decision-styles outlined above; discuss Khandwalla's findings as they relate to top managements decision-making style and the perceived environment; and present our proposals on banks' top management styles as they are affected by managerial perceptions of the environment.

FIGURE 4.1

THE DIMENSIONS OF TOP MANAGEMENT STYLE



Source: P. Khandwalla The Design of Organizations, New York: Harcourt, Brace, Jovanovich, 1977.

CHAPTER IV

The risk-taking mode of decision making is dominated by a very powerful chief executive whose actions are driven by his entrepreneurial style. Strategy-making in the entrepreneurial organization is focused on a relentless search for new opportunities. Bold decisions are made in the face of uncertainty. In fact, as Mintzberg explains, "the chief executive seeks out and thrives in conditions of uncertainty, where his organization can make dramatic gains." Finally, growth is a dominant goal of the risk-taking organization.

Khandwalla found in his Canadian study that the more turbulent or uncertain the environment, the more top management is oriented towards a risk-taking style of decision-making. [Recall that Khandwalla defined a turbulent environment as a dynamic, unpredictable, and fluctuating one, which suggests that dynamism and unpredictability occur together. We define uncertainty as the degree of unpredictability, and test dynamism and predictability as separate variables.] Earlier, we proposed that managers would perceive the environment as highly unpredictable. Based on Khandwalla's findings, we might hypothesize that the more unpredictable top managers perceive the environment to be, the more risk-taking their style. However, commercial banks are notoriously conservative, and it is our view that bank managers are likely to be more risk-averse than risk-taking

in the face of uncertainty. This suggests that the more unpredictable top managers perceive the environment, the more risk-averse they will be in their strategy-making style.

In addition, Khandwalla found that the more environmental hostility perceived by top management, the more risk-taking their style. Recall that earlier we proposed managers would perceive the environment as moderately hostile. Here, one might argue that as the level of competition increases and market opportunities decline, bank managers will be forced to take some bold, risky steps in order to survive and grow. In our view, then, hostility and unpredictability act differently in their influence on top management's attitude toward risk. Therefore, we propose that with a moderately hostile and highly unpredictable environment, top management's orientation toward risk will range from moderate to moderately low.

In the optimizing style of management, Lindblom characterized strategic decision-making as technocratic and planning oriented. This style of management emphasizes formal expertise and the long-term implications of decisions. Opportunities are fully investigated, and the costs and benefits of various alternatives are carefully evaluated to

determine the optimal solution to a problem. The opposite extreme of this dimension is the "satisficing" orientation of top management style. This style of management emphasizes problem-solving by rules of thumb, and decision-making by intuitive judgment. The satisficing style of management stresses the short-term implications of alternatives.

Khandwalla found that the more managers perceived the environment to be technologically complex, the more planning and optimization oriented top management decision-making style. He also found a positive correlation between perceived environmental restrictivity and the optimizing style. Recall that we proposed bank managers would perceive the environment as highly restrictive, and moderately high on the dimensions of technical complexity. In banks, heavy regulation requires that top management carefully investigate all opportunities and alternative solutions to problems. Banks must be ever aware of potential changes in the regulations and consider these changes in their strategy-making. Also, with the technological advancements in the industry, as has been pointed out, long lead times are needed for major capital investments. Banks must analyze in detail the costs and benefits of various investment alternatives. Therefore, we propose that with the environment perceived as highly restrictive and moderately high on the

dimension of technical complexity, top management will be highly oriented towards the optimization style.

Burns and Stalher defined top management style by the range in orientation from flexible or organic, to rigid or mechanistic. In the organic style of management, decision-making authority is derived from situational expertise. In addition, managers' operating styles are allowed to vary freely. Communication channels are open and information is allowed to flow freely throughout the oraganization. In terms of daily operations, emphasis is placed on getting things done rather than following formal procedures. The mechanistic style of management is characterized by structured channels of communication and restricted flows of information. Decision-making authority is restricted to formal line managers, and formal procedures are enforced. The organization is dominated by bureaucratic values and a tight control of operations is maintained through a sophisticated control system.

Khandwalla found a positive association between the level of perceived environmental hostility and the flexibility of top management style. Earlier we proposed that top management would perceive the environment as moderately hostile. With the intensity of the competitive pressures fac-

ing banks today, it seems quite plausible that banks' operating systems must be equally flexible. Flexibility allows the organization to react more quickly to competitive pressures than rigid and bureaucratic systems. Therefore, we would also expect to find a positive associaion between perceived hostility and flexibility. Specifically, we propose that if top managers perceive the environment to be moderately hostile, top management style will be moderately flexible.

In summary, we have made the following proposals which together form Hypothesis I:

- As the environment is perceived as moderately hostile and highly unpredictable, top management's orientation toward risk-taking will range from moderate to moderately-low.

- As the environment is perceived as highly restrictive and moderately-high on the dimension of technological complexity, top management will be highly oriented toward the optimization style.

- As the environment is perceived to be moderately hostile, top management style will be moderately flexible.

Thus, this hypothesis describes our views on how the perceived environment will affect top management style in banks. The first proposal is not consistent with the results Khandwalla obtained from his study. However, we have explained the underlying logic of this proposal, which is based on our knowledge and study of the banking industry. The second and third proposals are consistent with Khandwalla's findings. We now turn to a discussion of the second hypothesis which involves the effects of perceived dynamism and unpredictability on banks' long-range planning practices.

CHAPTER IV

D. HYPOTHESIS II

As indicated earlier in this chapter, the environment of the banking industry has become more complex with the changes brought on by higher inflation, new technology, and changes in the regulatory environment. These environmental changes have made it more imperative and yet more difficult for banks to be successful long-range planners. Successful long-range planning is an important key to organizational success in the banking indsutry.

Lawrence and Lorsch (1967) have argued that organizational success requires maintenance of differentiation and integration consistent with the demands of the environment. The completeness of the long-range planning process can be seen as a reflection of the degree of structuring of the decision-making tasks of the organization's internal environment, as well as an attempt to meet the uncertainty in the external environment. Further, the completeness of the long range planning process should be consistent with the nature of the environments that face an organization. Therefore, one would expect that as the dynamism and unpredictability of the organizational environment increase, the completeness of the long-range planning process would also increase. This complete planning process would be one method for

reducing environmental uncertainty.

Another way to reduce environmental uncertainty would be to use experts or sophisticated models that improve an organization's ability to plan effectively for the future. The use of outside consultants and of predictive models would be an example of this approach to uncertainty reduction.

Also, with a more uncertain, dynamic environment, the rapidity of environmental changes requires more frequent information flowing throughout the organization for decision-making and planning purposes. Burns and Stalker (1961) reported that the organic type structure, with lower centralization and formalization, is better suited to more dynamic environments. The organic structure is characterized by more participation and upward flows of information and these participatory, upward information flows would be prevalent in the decision-making and planning structures of organizations operating in a dynamic environment.

Lindsay and Rue (1980) investigated the relationships of environmental uncertainty and various aspects of organizations' long range planning processes. They used Duncan's (1972) conceptualization of environmental uncertainty (en-

vironmental complexity and instability) for their analysis. Our research on environmental uncertainty and long-range planning is modeled after Lindsay and Rue's study.

Their research started with an initial sample of 390 firms in the U.S. and Canada (30% for the latter country) in a variety of durable, non-durable, and service industries. These respondents had participated in an earlier study by Rue (1973) in which he generated responses that were used to classify the completeness of the firms' long-range planning process.

A recent questionnaire generate 198 useable responses (50.7%). This questionnaire provided data for classifying the firms according to their perceived organizational environment. Data was gathered from CEO's and/or senior corporate planning officers. Average size, industry, and financial characteristics of the respondents and non-respondents were compared to detect any biases and none were found.

For their 1980 study investigating the completeness of the planning process, Lindsay and Rue developed a questionnaire (see Exhibit 1 in the appendix to this chapter) which incorporated normative requirements for effective planning that Rue (1973) had developed from his earlier study. Re-

spondents to the 1980 questionnaire were asked to specify the existence and extent of the use of various factors in their long-range planning process by choosing appropriate responses to 14 closed-ended questions. The firms' long-range planning process were categorized into 3 planning classes:

1. No formal long-range planning process.
2. Written documented plan including specifications of objectives and goals, selection of objectives and goals, the selection of long-range and a determination of future resources required (pro forma financial statements and other quantitative projections).
3. Plan contains all of the items in Class 2 plus procedures for anticipating or detecting errors in, or failures of, the plan and for preventing or correcting them on a continuing basis, plus some attempt to account for factors outside the immediate environment of the firm.

A multiple cutoff system was used to classify a firm's long-range planning process. Under this system, a firm was placed into the next lower class if any of the requirements for a certain class were not met. (See exhibit 2 in the appendix.) Drawing on Duncan's (1972) and Harvey's (1968)

work, an environmental questionnaire was developed to measure three dimensions of the business environment. These dimensions were complexity, stability, and product volatility.

Using a method similar to that of Duncan, the dimension of complexity was measured by asking the respondents to indicate on a 4-point scale ("never" to "frequently") the relative frequency with which each of 25 items had been considered in long-range planning decisions made in the past year.

To measure the stability dimension, those factors which were identified as being "frequently" considered in the most recent planning period were tested for importance in several earlier planning periods to yield a single measure of environmental stability (lindsay 1975). Thus, the respondents checked, from several choices, those factors from earlier periods, which had also been considered important. Therefore, the environment was classified as stable to the extent that the same factors had remained important over the last several planning periods. Median splits were used to classify an organization's environment as high or low in complexity and in stability.

Additionally, an objective criterion was developed a-

gainst which to check these measures of organizational environment. The respondents were asked to indicate the number of major product changes and introductions that had occurred in the last 3 years.

Terreberry (1968) and others have concluded that the rapidity and complexity of environmental change increasingly precludes effective long-range planning. If this were true, one would expect organizations that do plan in dynamic environments to view the planning process from a relatively short-range horizon as compared to organizations that plan in a less dynamic environment.

Lindsay and Rue developed the following hypotheses to test the influence of organizational environment on the completeness of the long-range planning process:

> Hypothesis #1. As environmental dimensions of complexity and instability increase, the completeness of the long-range planning process will increase.
>
> Hypothesis #2. As environmental dimensions of complexity and instability increase, emphasis on components of the long-range planning process will change as follows:

a. use of uncertainty - reducing methods, specifically, consultants and computer models will increase;

b. use of "open systems" approaches to planning as measured by more participation of lower organizational levels, more upward flows of information, and more public information, will increase;

c. the formal long-range planning process will have been in use for a longer period of time;

d. long-range planning time span will be shorter;

e. planning review periods will be shorter;

f. planning premises will support more immediate and tangible goals, as opposed to longer-range and intangible goals.

Lindsay and Rue found that their internal environment measure, unlike their external environment measure, showed no significant relationship to completeness of the long-range planning process. One possible explanation proferred

by the authors was that companies tend to ignore internal conditions in carrying out long range planning. Another explanation suggested by Huber, O'Connel, and Cummings (1975) is that, due to the availability of information about internal environmental factors, they are considered secondary in importance. This arises because there is less perceived uncertainty arising out of the internal environmental sector than the external environmental sector.

Lindsay and Rue's Hypothesis #1 was based on the premise that a change in environment will tend to force evolution toward a more complete planning process. Although it might be argued that a more complete planning process would tend to increase managerial awareness of environmental complexity and instability, Lindsay and Rue found that there was some evidence that completeness of the planning process did not have a significant impact on the perception of complexity and stability of the environment. The number of product changes used to measure technological differences provided an objective measure of complexity and stability and served as a check on managers' perceptions of their reported environmental complexity.

Another finding of Lindsay and Rue was that the degree of openness in long-range planning processes is directly

related to the degree of environmental complexity and instability for large firms ($> \$108M^2$), but inversely related for small firms ($< \$108M^2$). This suggests that management of small firms tend to centralize planning under adverse conditions and to trust more in their own judgements, but managers in large firms tend to be more open to information from as many sources as possible. Also, it may be true that large firms have more resources to deploy for information gathering purposes than do small firms.

Additionally, Lindsay and Rue found an inverse relation between planning review frequency and organizational environment. Because of the difficulty of forecasting under complex and unstable environmental conditions, managers see less need for frequent evaluation of their long-range plans, especially so in the larger firms.

In summary, Lindsay and Rue's study suggests that large business firms in a variety of industries are attempting to "fit" their long-range planning processes to their perceived environmental conditions although frim size is a moderating variable. (See Exhibit #1 for a list of the survey questions developed by Lindsay and Rue.)

Based on the work of Lindsay and Rue (1980) and using definitions of environmental uncertainty as developed by Khandwalla (1977), we propose the following two hypotheses with respect to long-range planning practices:

1. As environmental dimensions of dynamism and unpredictability increase, the completeness of the long-range planning process will increase.
2. As environmental dimensions of dynamism and unpredictability increase, emphasis on components of the long-range planning process will change as follows:
    a. use of uncertainty reducing methods (computer models) will increase.
    b. use of open systems approaches to planning, as measured by more participation of lower organization levels and more upward flows of information, will increasingly be utilized in the planning process.

CHAPTER IV

E. SUMMARY

In this chapter, we have presented our views on how managers might perceive the environment based on our analysis of the industry environment. Two hypotheses were developed regarding the linkage between the perceived environment and top management decision style and long-range planning systems. We have proposed that as the environment is perceived as moderately-hostile, highly unpredictable, highly restrictive, and moderate in technological complexity, top management's style will be a flexible, optimizing, moderate to moderately-low risk-taking one. We have also proposed that as dynamism and unpredictability increase, the long-range planning process will become more complete and the use of open-systems approaches and uncertainty reducing methods will increase.

We will now discuss the measures and the methods used to operationalize our hypotheses in Chapter V.

EXHIBIT #1

SUMMARY OF PLANNING QUESTIONNAIRE FROM LINDSAY AND RUE

1. Does your company prepare a written long-range plan covering at least three years?

   a. If so, what time period does it cover?
   b. How long has your company prepared a long-range plan (years)?

2. Who is responsible for the long-range planning of your firm (corporate level)?

3. Your long-range plan includes quantified objectives for which of the following (financial criteria such as earnings, ROI, etc.)?

4. Does your firm employ, on a regular basis, the use of a mathematical model or the computer in any phase of your long-range planning process?

5. Does your long-range plan include one or more pro-forma financial statements?

6. Your long-range plan includes plans and budgets for which of the following (human resources, product development, corporate expansion, etc.)?

7. Does your firm employ the use of outside consultants to assist in the long-range planning process? If so, what is the primary source of consultants?

8. Does your long-range planning process emphasize:

   a. upward flow of information
   b. downward flow of information

9. Is information contained in your long-range plan:

   a. available only to management
   b. available to the public

10. Your long-range plan attempts to specifically identify which of the following factors (social, economic, and political trends and attitude changes)?

11. Does your long-range plan contain procedures for anticipating or detecting differences between your plan and

EXHIBIT #1, con't.

actual performance and for preventing or correcting these differences. If yes, how frequently is this done?

12. How long has the chief operating officer of your company held his current position.

13. Does your firm prepare formal monthly, short-range budgets including performance reviews for each cost or profit center in the firm?

14. How long has the company been in existence?

EXHIBIT #2

SCORING METHOD

A. Simple-Complex Continuum (Question 1 and Frequency of Consideration Column)

(1) Long-range planners were asked to check items in frequency of consideration column which had been included in their recent long-range planning decisions, in order to gain a measurement of complexity of the environments within which the planners make decisions.

(2) A separate score was calculated for the internal and external environments and added together for a total score.

(3) To obtain scores for the simple-complex scale, the total number of items checked as 3 ("frequently considered") in the frequency consideration column were tallied and multiplied by the square of number of different factor categories in which these items appeared.

B. Stable-Unstable Continuum (Question 2 and both columns)

(1) Long-range planners were asked to check the number of years, within the last three, in which "frequently considered" factors had been perceived as being of primary importance as a measure of the stability of the organizational environments within which decisions must be made.

(2) A separate score was calculated for internal, external, and total environmental stability.

(3) To obtain scores for the stable-unstable scale, a weighted average of the "frequency consideration" values was added to a weighted average of the "consistency of importance" column. Responses were categorized into four classes for internal, external, and total environmental "turbulence" using median splits for organizations to be classified as high/low complexity and high/low stability such that:

EXHIBIT #2, con't.

Class 1: Simple-Stable
Class 2: Complex-Stable
Class 3: Simple-Unstable
Class 4: Complex-Unstable

C. Classification of Variables Used to Test Hypothesis

Variable	Data Source and Coding Method	Hypothesis Tests
External Turbulence Internal Turbulence Total Turbulence	Long-Range Planning Environment Questionnaire Classes: (1) Simple-Stable (2) Complex-Stable (3) Simple-Unstable (4) Complex-Unstable	1 and 2
Planning Completeness	Long-Range Planning Questionnaire Q1, 3, 5, 6, 10, 11 Classes: (1) Impoverished (2) Programmed (3) Progressive	1
Uncertainty Reducing Methods	Planning Questionnaire Q 4 and 7 Classes: (1) Never use (2) Sometimes use (3) Frequently use	
Open Systems Approach	Planning Questionnaire Q 2, 8, 9 Classes: Relatively closed Intermediate Relatively open	

CHAPTER V

METHODOLOGY

A. INTRODUCTION

The preceding chapter developed the hypotheses we will test. This chapter describes the methodology used to test our hypotheses. Specifically, we describe in detail the questions used to operationalize the variables with which we will test our hypotheses; indicate the origin of the concepts and questions; and describe the analytical methods used to derive the values of the variables.

All of the data for this study were derived from a data base developed by the structured thesis group organized by Professors M. F. Van Breda and J. M. McInnes. This group was first organized in the Fall of 1978 to conduct research on the financial control practices in corporations. Data was collected during 1979 and 1980, through a series of structured interviews and questionnaires administered to the managers of companies in selected industries. The industries studied were regional banks, electronics, computer manufacturing, publishing, and petrochemicals--both "upstream" and "downstream". The managers interviewed, who also answered

the questionnaires, were the General Manager, the Planner, the Controller, the Marketing Manager, the Operations Manager and the Unit Manager. For a more detailed description of the total research project of the structured thesis group, see the thesis submitted by M. P. Burke and S. F. Robinson, 1980, p. 77-82.

In terms of the data, the 1979 and 1980 data bases overlap to a certain extent. However, they are for the most part separate and distinct. That is, the questionnaires and interview guides used in 1979 are different in scope and content from those used in 1980. This disparity dictated that a different set of questions be used to measure 1979 bank managers' perceptions of dynamism and predictability compared to the questions used to measure perceptions of the 1980 bank managers. The same is true of the questions which evaluate the banks' planning practices. Because of the nature of the data, Hypothesis I, which concerns the top management decision-making styles, tests data from the 1980 data base. Three banks are contained in the 1980 data base; four banks are contained in the 1979 data base. Hypothesis II tests data from both the 1979 and 1980 data bases.

The remainder of this chapter is divided into two main sections. Section B will discuss in detail the questions and

methodology used to test Hypothesis I. This includes the questions from the 1980 data instruments which measure top management decision-styles. Section C will discuss the questions and methodology used to test Hypothesis II. This includes the questions from 1979 data instruments which measure the perceived environment; and questions from the 1979 and 1980 data instruments which measure the planning variables.

B. METHODOLOGY - HYPOTHESIS I

ENVIRONMENTAL VARIABLES

As discussed in Chapter III, environmental uncertainty has been defined in a variety of ways. Khandwalla defined a turbulent or uncertain environment as dynamic, unpredictable, and fluctuating. Although we are using Khandwalla's framework to analyze the attributes of the environment, we have chosen to slightly modify his operationalization of uncertainty. Based on our definition of uncertainty, we are concerned with calculating two distinct values for the variables "dynamism" and "predictability". The remaining environmental attributes--technological complexity, hostility, and restrictivity--are operationalized following Khandwalla's framework.

Questions used to measure dynamism are based on Duncan's (1972) definition of this variable. He defined dynamism as the degree to which factors taken into consideration for decision-making change over time. The following three questions were used to operationalize dynamism. Question #1 was asked of the Unit Manager; questions #2 and #3 were asked of the Planner, the Controller, and the Line Manager of Marketing.

CHAPTER V

1. To characterize your general environment, please circle the number which most nearly describes your answer.

very dynamic; change is rapid.	1	2	3	4	5	6	7	very stable; change is slow, if at all.

2. Please estimate the frequency of price change for your main products.

1	2	3	4	5	6	7
often each day	daily	weekly	monthly	quarterly	semi-annually	annually

3. Please estimate the frequency of price change for your main products.

1	2	3	4	5	6	7
often each day	daily	weekly	monthly	quarterly	semi-annually	annually

A firm's score on dynamism was found by averaging the responses to each question, by bank, and dividing the sum of these averages by three, which is the number of questions. The lower the score, the more dynamic the managers perceived the environment to be.

Questions used to operationalize predictability are based in part on Lawrence and Lorch's concept of uncertainty. As discussed in Chapter III, one of the dimensions of uncertainty, as they defined it, was the lack of clarity of infor-

mation. The other questions which measure predictability test managers' prior knowledge of, or ability to predict key operating variables including price, expenses, demand, and net income. Questions #4 and #5 were asked of the Unit Manager; questions #6 through #11 were asked of the Marketing Manager, the Planner, and the firm's Controller.

4. The nature and direction of change is unpredictable. 1 2 3 4 5 6 7 The nature and direction of change is predictable. Not difficult to forecast the future.

5. Describe the clarity of the job requirements for your unit.

   Not at all clear. 1 2 3 4 5 6 7 Very clear in most instances.

6. Please estimate how closely you can predict the price for your main products three months in advance.

1	2	3	4	5	6	7
exactly no error	5% error	10% error	20% error	50% error	100% error	cannot predict

7. Please estimate how closely you can predict the price for your main products one year in advance.

1	2	3	4	5	6	7
exactly no error	5% error	10% error	20% error	50% error	100% error	cannot predict

8. Please estimate how closely you can predict demand for your product three months in advance.

1	2	3	4	5	6	7
exactly no error	5% error	10% error	20% error	50% error	100% error	cannot predict

9. Please estimate how clearly you can predict demand for your product one year in advance.

1	2	3	4	5	6	7
exactly no error	5% error	10% error	20% error	50% error	100% error	cannot predict

10. Please estimate how closely you can predict expenses for your unit one year in advance.

1	2	3	4	5	6	7
exactly no error	5% error	10% error	20% error	50% error	100% error	cannot predict

11. Please estimate how closely you can predict net income for your unit one year in advance.

1	2	3	4	5	6	7
exactly no error	5% error	10% error	20% error	50% error	100% error	cannot error

The higher the responses to questions four and five and the lower the responses to questions six through eleven, the more predictable the environment. Since the two sets of scales are the reverse of each other, to calculate a bank's score on predictability, we: 1) subtracted each of the responses for questions six through eleven from eight; 2) found the average of the responses for each question by bank; 3) added these values to the average responses for questions

four and five; 4) divided the sum by eight, which is the total number of questions. The lower the total score, the more predictable the environment as perceived by the 1980 bank managers.

A restrictive environment is one where the organization is confronted with many constraints. Khandwalla defined this variable and operationalized it with the following question.

12. To characterize your general environment, please circle the number which most nearly describes your answer:

The environment is relatively unrestricted.	1 2 3 4 5 6 7	There are severe legal, social, economic, or political constraints on the unit.

This question was asked of the General Manager, the Planner, and the Unit Manager(s) in our study. The average of the responses was calculated to determine the bank's score on restrictivity. The higher the score, the more restrictive the perceived environment.

Khandwalla defined a hostile environment as one which is extremely competitive, risky, stressful, dominating, and frustrating. The following three questions were used to

measure managers' perceptions on the degree of hostility in their general environment. The General Manager and the Planner responded to questions #13, #14, and #15; the Marketing Manager answered question #13, and the Unit Manager answered question #15.

To characterize your general environment, please circle the number which most nearly describes your answer:

13.	Markets are expanding and new ones are emerging.	1 2 3 4 5 6 7	Markets are shrinking.
14.	Rich in investment opportunities	1 2 3 4 5 6 7	Poor in investment opportunities
15.	The unit is in control and can manipulate the environment to its advantage.		The unit is dominated by its environment. Its initiatives count for little.

The total average of the responses to these questions is a bank's score on hostility. The higher the score the more hostile the environment.

The final environmental attribute tested is technological complexity. Using Khandwalla's definition, the environment is perceived as technically complex when technologies are rapidly changing, require a high degree of technical expertise by management, and are capital intensive or ex-

tremely automated. The following four questions were asked of the Production Manager, the Planner, and the Controller to measure this attribute.

To characterize the technology in your environment, please circle the number which most nearly describes your answer.

16.	Sophisticated, one needs a long, formal training to understand it.	1	2	3	4	5	6	7	Unsophisticated, specialized skills are not needed to understand it.
17.	Changes make current technology obsolete and unusable.	1	2	3	4	5	6	7	Changes make current technology obsolote and unuseable.
18.	Changes occur often	1	2	3	4	5	6	7	Changes occur rarely.
19.	Changes are very expensive requiring new capital equipment and retrained labor.	1	2	3	4	5	6	7	Changes are neither difficult nor expensive to implement.

The total average of the responses to these four questions is the bank's score for technological complexity. The lower the score, the more technically complex the environment as perceived by management.

DECISION-STYLE VARIABLES

The questions used to measure the decision-style varia-

bles were all designed by Khandwalla in his study on strategy. As discussed in the previous chapter, we are testing three of the five top management decision-making styles he identified. The following discussion shows which questions were used to operationalize each decision-making style.

A risk-taking oriented management is one which engages in entrepreneurial, risk-taking, growth-oriented decision making. The following three questions were used to measure top management's orientation toward risk-taking. The General Manager and the Controller answered questions #20 and #22; the General Manager and the Planner answered question #21.

20. Entrepreneurial mode, characterized by active search for new opportunities: large, bold decisions despite the uncertainty of their outcomes; a charismatic decision-maker at the top wielding great power and rapid growth as the dominant organization goal.

Little resemblance to style of top level decision-making unit.	1	2	3	4	5	6	7 Very great resemblance to style of top level decision-making unit.

21. We prefer future projects whose return on investment is:

high, even though the risk is high.	1 2 3 4 5 6 7	less risky, even though the return may be lower.

22. Adaptive mode, characterized by a cautious, pragmatic, one small step at a time adjustment to problems. Decisions are generally compromises between the conflicting demands of owners, unions, government, management, customers, etc. They are made locally more often than centrally, and the primary concern is with stability and steady growth.

A high answer to question #20, and low responses to questions #21 and #22 imply an orientation toward risk-taking. The score for this variable is calculated by subtracting the responses to questions #21 and #22 from eight and then averaging them with the responses to question #20. The higher the total score, the more top management decision-making style can be characterized as risk-taking.

The optimization orientation of top management is defined as a decision-making style with a strong planning orientation, a systematic assessment of alternatives, and heavy reliance on formal management training programs. The following four questions were used to operationalize this variable. The General Manager answered all four questions,

the Controller question #23, and the Planner question #26.

23. Planning Mode, characterized by systematic search for opportunities and ancitipation of problems: a systematic consideration of costs and benefits of alternatives; and a conscious attempt to integrate programs of action to achieve specified goals efficiently. The accent is on profit maximization, long-term planning, very careful screening of investments to minimize risks, and the extensive use of expertise and solid research before making decisions.

Little resemblance to style of top level decision-making in unit.	1 2 3 4 5 6 7	Very great resemblance to style of top level decision-making in unit.

24. When needed information is unavailable:

decision-makers rely on experience and intuition.	1 2 3 4 5 6 7	decision-makers try to adhere to specified methods of problem solving

25. In planning for this unit we make use of:

the experience and intuition of people who know the business. Planning is an art.	1 2 3 4 5 6 7	sophisticated, mathematical techniques. Planning is a science.

26. When making decisions under uncertainty, we plan:

even harder. We try to take every possible outcome into account and maximize the benefit of the organization.	1	2	3	4	5	6	7	less hard. We maintain flexibility and make the best of whatever happens.

A high answer to questions #23 and #24 and a low answer to question #25 implies a high orientation to optimization. To calculate a bank's score on this variable we subtracted the responses to question #25 from eight and averaged them with the responses to questions #23 and #24. The higher the score, the more optimization oriented is the top level decision style.

A flexible or organic decision-making style is one where the channels of communication are open, managers' operating styles are allowed to vary freely, authority for making decisions is rooted in situational expertise, and emphasis is placed on getting things done rather than on following formally laid out procedures. To determine if top management's style is more organic versus mechanistic, questions #26 through #29 were asked of the General Manager and the Controller; question #30 was asked of the General Manager.

27. Financial and operating information

flows freely throughout the unit. We have open channels of communication.	1 2 3 4 5 6 7	is highly restricted. We have structured channels of communication.

28. Authority for making decisions rests with those who have

situational expertise, even if it bypasses the formal lines of communication.	1 2 3 4 5 6 7	formal line management responsibility.

29. Which most nearly describes the management styles in your unit?

Managers' operating styles allowed to range freely from very formal to very informal.	1 2 3 4 5 6 7	Strong insistence on uniform managerial style throughout the unit.

30. in your firm?

Managers' operating styles allowed to range freely from very formal to very informal.	1 2 3 4 5 6 7	Strong insistence on uniform managerial style throughout the unit.

31. How much importance do you place on adherence to procedures and rules in assessing the performance of your units?

very little 1 2 3 4 5 6 7 a great deal

The average of the responses to these questions determines a bank's score on this variable. The lower the score, the more flexible top management is in its decision-making style.

To test the data from the questions discussed above, the banks' scores for each variable were summed and averaged. This enabled us to arrive at a sample mean score and standard deviation for each variable. In addition, all of the variables were correlated against each other. Columns of the three banks' scores for each of the variables were correlated against each other. As expected, due to the small sample size, only one of the correlations was statistically significant at the 0.05 level. In addition, each of the sample mean scores had a standard deviation greater than 0.5, with the largest being 1.94. Therefore, in comparing the results of our data analysis with the stated hypothesis, statistical tests were for the most part meaningless. The sample was simply not large enough, although the data which was collected does provide some valuable information. To capture this information, we had to look at the data more closely than we would with a sample of adequate size. This analysis is presented in the next chapter. Now, we turn to a discussion of the methodology used to test the second hypothesis.

CHAPTER V

C. METHODOLOGY - HYPOTHESIS II

In this section, we will discuss the questions and methodology used to test Hypothesis II. This includes the questions from the 1979 and 1980 data instruments which measure the perceived environment, and questions from both 1979 and 1980 data which measure the planning variables.

We shall test our planning variables by measuring the responses to questions concerning dynamism, predictability, planning completeness, uncertainty reducing methods, and open-systems approaches. These responses will be compared to an absolute scale and a relative scale. We will determine if a bank perceives high or low dynamic environment; whether a bank perceives high or low predictability in its environment. Additionally, we will determine whether a bank's planning system is complete or not, or uses uncertainty reducing methods, or an open systems approach.

As previously mentioned, one particular problem that we encountered in operationalizing our variables was the lack of continuity in questions among the 1979 banks and the 1980 banks surveyed. There were no questions that were asked in 1979 and 1980 for all of the banks. Consequently, the banking data is split into a 1979 data base and a 1980

data base to reflect this lack of continuity in the survey questions. Banks A, B, C represent the banks surveyed in 1980. Banks D, E, F, G represent the banks surveyed in 1979.

Questions from the 1980 data instruments measuring dynamism and predictability were presented in Section B. For 1979, the questions measuring dynamism are:

32. (General Manager/V.P. Finance)
How would you characterize the stability of the firm's total environment?
changing rapidly 1 2 3 4 5 very stable
1 = high dynamism 5 = low dynamism

33. (Marketing Environment and Competition Questionnaire)
Are the firm's markets stable or changing rapidly?
changing rapidly 1 2 3 4 5 very stable
1 = high dynamism 5 = low dynamism

34. (Marketing Environment and Competition Questionnaire)
Are the sales of particular product lines predictable?"
(a) up to a year ahead
unpredictable, cannot anticipate size or direction of changes 1 2 3 4 5 entirely predictable
1 = low predictability 5 = high predictability

(b) more than a year ahead

unpredictable, cannot anticipate size or direction of changes 1 2 3 4 5 entirely predictable

1 = low predictability 5 = high predictability

35. (General Manager/V.P. Finance)

Is it easy or difficult to predict changes in the firm's total environment (markets, technology, costs, comeptition, etc.)?

(a) up to a year ahead

unpredictable, cannot anticipate size or direction of changes 1 2 3 4 5 entirely predictable

(b) more than a year ahead

1 2 3 4 5

1 = low predictability 5 = high predictability

The responses to questions related to dynamism and to predictability were summed by individual bank and a mean score for that bank was computed. These mean scores for each bank were then summed and a mean score for that group of banks (in either 1979 or 1980) was obtained. This latter mean score, which we will call a summation mean, was used as a sample parameter to categorize the banks in that sample according to whether a particular bank's mean score was higher or lower than the sample mean score. For example, if dynamism is being measured on a Likert scale of 1 to 7

where 1 represents a highly dynamic environment and 7 represents a stable environment, with a summation mean of 3.5, a bank with a mean score of 2.0 would perceive its environment as high in dynamism and a bank with a mean score of 5.0 would perceive its environment as being low in dynamism. However, often the mean scores of the banks may be closely clustered around the sample mean and the sample mean itself may be at one or the other extreme of the 7 (or 5) point Likert scale. In these latter cases, a bank's mean score will be measured based on its absolute position on the scale. For example, if dynamism is being measure on a Likert scale of 1 to 7 where 1 represents a highly dynamic environment, 7 represents a stable environment, and the summation mean is 5.5, a bank with a mean score of 5.0 would perceive its environment as being low in dynamism and a bank with a mean score of 5.9 would also perceive its environment as being low in dynamism.

PLANNING VARIABLES

The planning completeness, uncertainty reducing methods, and open-systems approaches questions that we used as measures of the banks' planning systems were developed by the Planning and Control Structured Thesis group, and are similar to questions that were developed by Rue (1973) which

incorporate normative requirements for effective planning. To specify the completeness of the long-range planning process, a multiple cutoff system, patterned after Lindsay and Rue (1980), was used. The level of long-range planning completeness was broken up into three classes, no long-range planning, some long-range planning, and sophisticated long-range planning, or classes 1, 2, and 3, respectively. A multiple cutoff system was used to determine whether a bank's planning system fell into class 1, 2, or 3. If the bank had no written long-range plan covering at least three years into the future, then that bank feel into class 1, little or no long-range planning. If the bank had a written long-range plan covering at least 3 years into the future, and the long-range plan included (1) the specification of objects and goals; (2) the selection of long-range strategies; and (3) the determination of the future resources required; then that bank fell into class 2, some long-range planning. If a bank satisfied all of the requirements for class 2, had procedures for anticipating or detecting failures of the plan and preventing or correcting errors on a continuing basis; and made an attempt to account for factors outside of the immediate environment of the firm, then that bank fell into class 3, sophisticated planning.

Lindsay and Rue used several questions to operational-

ize their planning completeness variable and we have chosen similar questions to operationalize our planning completeness measure. In some instances the questions that were used in our surveys do not directly map into the Lindsay and Rue questions. However, we feel that our questions capture almost identical information as the questions developed by Lindsay and Rue.

For example, in the 1979 and 1980 surveys, no one asked the direct question whether a bank had a written long-range plan covering at least three years. However, the banks were asked if they had long-range planning models, the time horizon of their model, and whether the models were computerized. Banks were also asked if they had long term goals and, if so, when they were established. These questions, combined, provided sufficient data on whether a bank had a written long-range plan covering at least three years. The following discussion presents the questions from our data instruments, as they correspond to the questions developed by Lindsay and Rue. Exhibit 5.1 in the appendix to this chapter provides a brief summary of this discussion in tabular form.

The Lindsay and Rue question #1 for determining if a company had a planning system was:

"Does your company prepare a written long-range plan covering at least three years? If so, what time period does it cover? How long has your company prepared a long-range plan (years)?"

Corresponding questions from our data instruments are:

	RESPONDENT	QUESTION
36.	Planner and General Manager/ V.P. of Finance	Do you use any long-range financial planning models? Non-financial planning models? For what period do they extend? Are they computerized?
37.	Planner and General Manager/ V.P. of Finance	What are the long-term goals of the firm? When were these goals established?
38.	Planner	Do you use any long-range financial planning models? Non-financial planning models? For what period do they extend? Are they computerized.

Lindsay and Rue question #3: "Who is responsible for the long-range planning of your firm (corporate level)?"

Corresponding questions from our data instruments

	RESPONDENT	QUESTION
39.	General Manager/ V.P. of Finance	Do you involve subordinates in the formulation of long-term goals? If so, how many levels? Is the board

		of directors involved in the formulation?
40.	Planner	Does the CEO involve subordinates in the setting of long-term goals? If so, how many levels? Is the board of directors involved in the formulation of long-term goals?
41.	General Manager and Planner	Which of the following participate in and which initiate the development of these long-range goals? (Corporate officer and staff, general manager of unit, head of retail or commercial operations, functional managers, branch managers, etc.)?

Lindsay and Rue question # 5: Does your long-range plan include one or more pro forma financial statements?". Corresponding questions from our data instruments:

	RESPONDENT	QUESTION
42.	General Manager/ V.P. of Finance and Planner	Do you use any long-range financial planning models? For what period do they extend?
43.	General Manager/ V.P. of Finance and Planner	Do you use any long-range financial planning models? For what period do they extend?

Lindsay and Rue question #6: Your long-range plan includes plans and budgets for which of the following (human resources, product development, corporate expansion,

etc.?. Corresponding questions from our data instruments:

	RESPONDENT	QUESTION
44.	General Manager/ V.P. of Finance	What are the total firm's long-term goals?
45.	General Manager/ V.P. of Finance	Chart of performance measures.
46.	LLD Questionnaire	Chart of firm goals.
47.	Planner	What are the long-term goals of the business?
48.	General Manager	What are the long-term goals of the firm?

Lindsay and Rue question #10: Your long-range plan attempts to specifically identify which of the following factors (social, economic, and political trends and attitude changes)?

Corresponding questions from our data instruments.

	RESPONDENT	QUESTION
49.	Planner and LLD Questionnaire	Are you provided with information about events external to the firm?
50.	General Manager	Of these factors (which are critical to the success of the business) which of them are predominantly outside the control of the organization?

Lindsay and Rue question #11: Does your long-range plan contain procedures for anticipating or detecting differences between your plan and actual performance and for preventing or correcting these differences? If yes, how frequently is this done?

Corresponding questions from our data instruments:

	RESPONDENT	QUESTION
51.	Planner	How frequently are these goals revised? In response to what, e.g. annual planning process, quarterly results, new macroeconomic information? Are your numerical targets for these long-term goals revised more frequently?
52.	General Manager	Please relate these measures to your long-term and/or current year goals. If not related to any goals, why was that particular measure chosen? What are the measures compared against? History, competition, budget/forecast, etc.

To measure uncertainty reducing methods in our sample of 1979 and 1980 banks, we use questions that were similar to Lindsay and Rue's question #4: Does your firm employ, on a regular basis, the use of a mathematical model or the computer in any phase of your long-range planning process?

Corresponding questions from our data instruments:

	RESPONDENT	QUESTION
53.	Planner	Please describe any computerized planning or decision models you use to produce target financial control variables such as sales, gross profit, return on investment, or figures use on a budget.
54.	Planner and General Manager/ V.P. of Finance	Do you use any long-range financial planning models? Non-financial planning models? Are they computerized?
55.	EDP Manager	Do you have computerized planning models?
56.	EDP Manager	Do you employ any decision models?
57.	Planner	Do you use any long-range financial planning models? Any non-financial planning models? Are they computerized?

If a bank responded yes or if the bank listed the actual details for a question (e.g., Do you use any long-range financial planning models? We use the Ranier bank planning model), then we considered that the bank did use either a mathematical or computer model in their long-range planning process. If the bank responded "no", then we assumed that the bank did not use any mathematical or computer model in their long-range planning process.

To measure open systems approaches in our sample of

1979 and 1980 banks, we use questions in our sample which are similar to Lindsay and Rue's question #8: Does your long-range planning process emphasize: (a) upward flow of information; (b) downward flow of information? Corresponding questions from our data instruments:

	RESPONDENT	QUESTION
58.	General Manager/ V.P. Finance	Do you involve subordinates in the formulation of long-term goals: If so, how many levels? Is the board of directors involved in the formulation?
59.	General Manager/ V.P. Finance	Would you characterize the goal-setting processes as top-down or bottom-up?
60.	General Manager/ V.P. Finance	To how many levels are these company goals publicized?
61.	Planner	Does the CEO involve subordinates in the setting of long-term goals. If so, how many levels?
62.	Planner	Would you characterize the goal-setting processes as top-down or gottom-up?
63.	Planner	To how many levels are these company goals publicized?
64.	General Manager	Which of the following participate in and which initiate the development of these long-range goals? (Corporate officers and staff, general manager, head of retail or commercial operations, functional

managers, branch managers, etc.).

If the responses indicate that only the top two or three levels (down to the division head level) initiate the planning process, then we conclude that the long-range planning process emphasizes downward flows of information or top-down for short. Conversely, if the responses indicate that lower or middle levels of the organization initiate the planning process, like the branch or functional managers, then we conclude that the long-range planning process emphasizes upward flows of information or bottom-up for short.

Thus, the predictability and dynamism variables will be ranked on a 5 point or 7 point Likert scale by both individual bank averages and by group averages. The planning completeness variable will be measured by the multiple-cutoff system as used in Lindsay and Rue (1980). The uncertainty reduction variable will be classified according to its presence or absence within a bank's planning system. The open-systems approaches variable will be described by top-down or bottom-up information flows. The results of these measures are discussed in detail in the next chapter.

EXHIBIT 5.1

MULTIPLE CUTOFF SYSTEM USED TO CLASSIFY COMPLETENESS OF THE LONG-RANGE PLANNING PROCESS

CLASS	LINDSAY AND RUE QUESTION	STRUCTURED THESIS QUESTION
Class #1	Lindsay & Rue #1:Firm has no written long-range plan covering at least 3 years into the future	'79 Planner Interview Guide #28 '79 G.M./V.P. Finance #7 '80 Planner Interview Guide #23 '80 General Manager Interview Guide #4 '80 Planner Interview Guide #26
Class #2	Lindsay & Rue #1:plus Lindsay & Rue #3 Plan includes the specification of objectives and goals plus	'79 G.M./V.P. Finance #3 '79 Planner Interview Guide #24 '80 General Manager Interview Guide #5 '80 Planner Interview Guide #24
	Lindsay & Rue #5: Plan includes the determination of the future resources required plus	'79 G.M./V.P. Finance #7 '79 Planner Interview Guide #28 '80 Planner Interview Guide #26(a)(e)
	Lindsay & Rue #6: Plan includes the selection of long-range strategies	'79 LLD #7 (Chart of Goals) '79 G.M./V.P. Ginance #2 '79 G.M./V.P. Finance #12 '80 Planner Interview Guide #23(a) '80 Planner Interview Guide #26
Class #3	All of the requirements for Class #2 plus Lindsay & Rue #10: Some attempt to account for factors outside of the immediate environment plus	'79 Planner Interview Guide #16 '79 LLD #19 '80 General Manager Interview Guide #16
	Lindsay & Rue #11: Procedures for anticipating or detecting error in or falures of the plan, and for preventing or correcting them on a continuning basis	'79 Planner Interview Guide #25 '80 General Manager Interview Guide #7d '80 General Manager Interview Guide #9

CHAPTER VI

RESULTS

A. INTRODUCTION

In this chapter we analyze the data on managerial perceptions of the general environment, three dimensions of top management style, and the nature of long-range planning practices in banks. The scales or questions which measure these dimensions will occasionally be referred to by number. The question numbers are consistent with those presented in Chapter V. To preserve anonymity, the three banks in the 1980 data base are referred to as Bank A, B, and C. The banks in the 1979 data base are referred to as Banks D, E, F, and G.

Sections B and C of this chapter discuss the validity of hypotheses I and II, respectively. As they are stated, hypothesis I is concerned solely with top managers' perceptions of all levels of management. Accordingly, the results of our proposals on the perceived environment from the viewpoint of top management will be discussed in Section B. For the purpose of our research, top management is defined to include the General Manager, the Planner, the line Mana-

ger of Marketing, and the line Manager of Production. Similarly, the results of the environmental proposals, with respect to dynamism and predictability, will be discussed in Section C, without discriminating between the hierarchical levels of management.

B. HYPOTHESIS I - THE PERCEIVED ENVIRONMENT AND TOP MANAGEMENT STYLE

In Chapter V we outlined a set of proposals on how bank managers would perceive their general environment. In brief, we suggested that managerial perceptions would vary on the following dimensions:

- DYNAMISM: MODERATELY-HIGH
- PREDICTABILITY: LOW (i.e., HIGHLY UNPREDICTABLE)
- RESTRICTIVITY: HIGH
- HOSTILITY: MODERATE
- TECHNOLOGICAL COMPLEXITY: MODERATELY-HIGH

In addition, we made the following proposals on the relationship between the perceived environment and top management style:

- MODERATE HOSTILITY AND HIGH UNPREDICTABILITY IS POSITIVELY ASSOCIATED WITH A MODERATELY LOW ORIENTATION TOWARD THE RISK-TAKING STYLE.

- HIGH RESTRICTIVITY AND MODERATELY HIGH TECHNOLOGICAL COMPLEXITY IS POSITIVELY ASSOCIATED WITH A STRONG (HIGH) ORIENTATION TOWARD OPTIMIZATION STYLE.

- MODERATE HOSTILITY IS POSITIVELY ASSOCIATED WITH A MODERATE ORIENTATION TOWARD ORGANIC STYLE.

Our discussion in this section begins with an analysis of the 1980 data on top managers' perceptions of the environment and their management styles. This is followed by an analysis of the second set of proposals. Again, Hypothesis I concerns only the data from the three 1980 banks, A, B, and C.

THE PERCEIVED ENVIRONMENT

DYNAMISM

Dynamism was measured by questions #2 and #3. Although question #1 also relates to dynamism, only questions #2 and #3 include responses by top managers. The sample mean for dynamism was 3.375 (1=high) or moderately high, which is as predicted. It should be pointed out that Bank B did not respond to these questions, so this score only represents the perceptions of two sets of bank managers. Also, there was considerable disparity in the responses between the two banks. For example, when asked to estimate the frequency of price changes for their main products, Bank A said prices change on a weekly basis, while Bank C estimated that they change quarterly.

One explanation for this type of disparity may be related to the fact that Bank A has strategically positioned

itself more towards the wholesale market, while Bank C is strongly committed to the retail market. The main products of commercial banks are loans, and prices for loans in the wholesale market are largely determined by the prime interest rate. That is, commercial loan rates change with the prime, whereas the rates on car loans, mortgages, boat loans, and other such products in the retail area, are not nearly as volatile as the prime.

This explanation, in terms of the difference between wholesale and retail banking, is given further credence when we examine the responses to question #3. Bank A managers estimated that prices change almost daily for their important raw materials. Bank C managers estimated that they change somewhere between monthly and quarterly. Raw materials for banks would be translated into the cost of funds. Funds derived largely from time deposits are priced at a fixed rate. On the other hand, banks without large retail operations must purchase their funds, and the purchase price often fluctuates daily.

PREDICTABILITY

Predictability, or uncertainty, defined as the degree to which future change in the environment can be predicted,

was measured by questions #4 - #11. For the purposes of testing hypothesis 1, however, only responses to questions #6 - #11, which top managers answered, are included in the value of this variable. The sample mean for predictability was 5.156 (7=high). This means that top managers perceive the environment to be fairly predictable, which is contrary to what we expected. Responses to the six questions showed little variation between or within the banks. Within the banks, responses between managers to each of the questions never differed by more than one point, and were often identical. The standard deviation of the sample mean for predictability was only 0.118.

Top managers were asked how closely they could estimate the price of their main products both three months in advance, and one year in advance. For the three month horizon, managers estimated they could forecast price within a 5-10% error margin. This means that for a hypothetical loan priced at 12%, managers can predict the interest rate within a range of plus or minus 120 basis points. This level of predictability would be expected, because even though the prime may change frequently in a three month period, other rates are not directly associated with the prime rate on a one-to-one basis. Rather, the relationship is such that the prime interest rate generally sets the pace for other rates.

When the time horizon is increased to one year, it becomes apparent that it is much more difficult to forecast interest rates. Top managers indicated that they could only forecast interest rates within a 20-50% error margin, one year in advance. Responses to this question provide evidence in support of our proposal for this variable. However, this is the only question which does so.

Managers were quite confident in their ability to predict demand three months and one year in advance. Within a three month horizon, managers estimated they could predict demand within a 5% error margin. Within a one year horizon, they estimated that, on average, demand was predictable within a 10% error margin. Interestingly enough, each of the managers in Bank C responded differently to this last question. The Controller estimated that he could predict demand within a 5% error margin one year in advance; the Planner estimated 10%; and the Marketing Manager estimated 20%. The Controller and Planner's responses are fairly consistent with each other, but Marketing Manager's response is more of an outlier. I would venture to say that since Bank C has a one year budgeting process (to be discussed in greater detail in Section C) in which both the Planner and Controller are heavily involved, perhaps their responses are more representative of top management's ability to do

one year forecasts of demand than the Marketing Manager's response. Also, the fact that Bank C does not have a well established long-range planning system could mean that the Marketing Manager is not experienced at quantifying his views on the dynamics of the marketplace.

In general, top managers have indicated that demand is more predictable in a one year time span than price. This leads us to believe, as might be expected, that consumer demand for bank's main products is relatively elastic. Although price is relatively volatile, demand is evidently stable and predictable.

Finally, top managers were asked to estimate how closely they could predict expenses and net income one year in advance. Responses to both questions ranged from the 5-10% level. This result is quite curious considering the volatility of interest rates. Banks' expenses are in part represented by their cost of funds, i.e., the interest rates they must pay to raise funds with which to finance their loans. The other portion of their expenses are simply operating expenses. It is conceivable that the respondents interpreted this question to mean operating expenses--particularly when we consider that they were only able to predict price (i.e., interest rates) within a 20-50% error

margin. The responses to the question on net income are open to interpretation for the same reason, since banks' net income is largely comprised of interest revenues.

RESTRICTIVENESS

One scale was used to measure the restrictiveness of the environment. A highly restrictive environment is one which poses many constraints against the organization's efforts to operate profitably. Managers were asked if their external environment was relatively unrestricted, or whether it posed severe legal, social, economic, or political constraints on their firm. The sample mean for restrictiveness was 5.67 (7=high). A total of five top managers responded to this question, two in Bank A, one in Bank B, and two in Bank C. Four out of the five managers responded to this question with a score of "6". Since the firm was the unit of analysis, each bank's average score was given equal weight. However, if we treat the individual managers as the unit of analysis, the sample mean for this question is "6". From this viewpoint, then, it seems accurate to conclude that the banks view the environment as highly restrictive, which is consistent with our expectations.

CHAPTER VI

HOSTILITY

A hostile environment is one that is risky, stressful, dominating, and lacking in opportunities. Three questions were used to measure this dimension. The sample mean for hostility was 4.27 (7=high). Although this value confirms our expectation, it should be pointed out that neither the banks nor the managers within banks were in exact agreement in their views of this dimension.

When asked whether they thought markets were expanding (low end of the scale; question #13), or markets were shrinking, bank A's two managers responded with a "5", and bank C's three managers each responded with a "3". A response of "4" to this question meant the markets were not changing. Therefore, the Planner in bank A felt the markets were generally expanding, while the General Manager felt they were shrinking. Similarly, the General Manager of bank B felt the markets were shrinking, while the three managers in Bank C felt they were generally expanding.

The second question (#14) is similar in content to the first question. Managers were asked if they thought the environment was rich in investment opportunities (low end of the scale), or poor in investment opportunities (high end of

the scale). Here again, the banks were not in agreement, nor were the two managers in bank A. However, each of the managers across banks were very consistent between their responses to this question and the previous one. For example, the General Manager in bank A who felt that markets were generally shrinking, was also of the opinion that the environment was poor in investment opportunities. The same is true for the General Manager in bank B. Similarly, the three managers in bank C who felt markets were generally expanding, also responded that the environment was fairly rich in investment opportunities.

An examination of the corporate strategies of the individual banks may provide some information on the reason for the disparity in responses between banks on these two questions (#13 and #14). Bank C may tend to be relatively optimistic in its outlook because, recently, one of its goals has been to expand its wholesale operations, which are currently a small portion of its business. The customers, which it appears to have targeted, are those regional companies which are looking to expand their export base. This provides a lot of untapped opportunities for bank C. Bank B competes both nationally and internationally, placing a strong emphasis on its wholesale business. Bank B, then, is facing stiff competition on many fronts, as a number of

banks are establishing loan offices across the country and branching internationlly.

Bank A, on the other hand, has not exhibited a well defined strategy. Within the framework of Mintzberg's definition of realized strategy, no consistent pattern of decisions or actions, from an outsider's viewpoint, has become apparent. Bank A has generally referred to itself as a wholesale bank, although it is not strong in this part of the market. It suffers from a lack of focus because it places as much emphasis on retail banking as it does on wholesale banking. This seemingly lack of a clear direction may explain the difference in views between Bank A's managers.

The third question measuring environmental hostility asks top managers if they feel they can manipulate the environment to their advantage (low end of scale), or whether they feel dominated by the environment. Responses to this question ranged from "3" to "6", with no strong agreement either across banks or within banks. If we use the individual managers as the unit of analysis, the mean score on this question is 4.6. However, with such a dispersion in the responses, it is difficult to conclude one way or another, whether banks feel they can control the environment

or are dominated by the environment.

TECHNOLOGICAL COMPLEXITY

A technologically complex environment is one where strategic decision-making requires the use of sophisticated information; technologies are rapidly developing; and technology is capital intensive requiring substantial capital investments. Four questions were used to measure this dimension. The sample mean was 3.67 (1=high), which is interpreted as moderately high. This is consistent with our expectations.

Responses to the questions on technological complexity were not consistent either across or within banks, except for the first question. The first question asked managers whether they thought banks' technology was sophisticated, required extensive training to understand it; or unsophisticated, required no specialized skills. All three of the banks' top managers responded that the industry's technology was sophisticated and required a long, formal training to understand it. From an outsider's point of view, this certainly seems to be the case, as banks are continually seeking to hire individuals with advanced degrees in business, economics, and the information systems areas.

The other three questions on technological complexity concerned the patterns of change in banks' technology. Top managers were asked whether technological change occurred frequently or rarely; whether change makes current technology obsolete and unuseable or simply less desirable economically; and whether changes are expensive and difficult to implement. At least a four point spread occurred in the responses of managers within banks. As a result, we find, for example, the Controller in bank A who tends to feel changes make current technology obsolete; technological change occurs often; and change is expensive and difficult to implement. On the other hand, the Planner in bank A leans toward the opposite view on these issues.

If we look at the trend in the responses to the three questions, that is, ignore the outliers, we find that 1) top managers tend to feel change makes current technology less desirable economically, but not necessarily obsolete; 2) technological change occurs fairly often; and 3) technological change is not extremely difficult or expensive to implement. The first two trends in managers' perceptions of technological change are as we might expect. It was pointed out in Chapter II that change was occuring at a rapid pace. However, it is also true that a technology that worked ten years ago, is likely to still be functional

today. The third trend is counter to what we expected. Automatic teller machines, automated check processing centers, and other computer based technologies are expensive to implement. Perhaps the banks in our sample are not adapting to these new technologies as fast as we think they are. Unfortunately, our data provides no insights into this anomaly.

In summary, four out of our five proposals on the perceived environment were valid. We found that the bank managers perceived the environment to be moderately dynamic, highly restrictive, moderately hostile, and moderately complex technologically. In terms of environmental predictability, bank managers felt the environment was fairly predictable, which is not what we had expected. We noted, however, that there were several inconsistencies in managers' responses to questions measuring this variable, suggesting that managers may have misinterpreted at least one question. A summary of the mean scores by bank, and for the sample, on top managers perceptions of the environment is shown in Table 6.1.

TOP MANAGEMENT STYLE

Our second set of proposals concerns the top management

TABLE 6.1

MEAN SCORES ON ENVIRONMENTAL VARIABLES

	DYNAMISM 1 = HIGH	PREDICTABILITY 7 = HIGH	RESTRICTIVENESS 7=HIGH	HOSTILITY 7 = HIGH	TECHNOLOGICAL COMPLEXITY 1 = HIGH
BANK A	2.00	5.20	6.00	4.50	3.63
BANK B	*	5.25	5.00	5.00	3.00
BANK C	4.75	5.02	6.00	3.33	4.37
SAMPLE MEAN	3.38	5.16	5.67	4.28	3.67

* NO RESPONSE

decision-making styles prevalent in the bank. We will begin our discussion by analyzing the data on each of the three style variables to determine how they relate to the major decision-making processes in each bank. Then, we will analyze the different styles of each bank as they relate to top managers' perceptions of the environment. This will enable us to determine the validity of the second set of proposals.

RISK-TAKING

The risk-taking style of top management is prevalent when strategy-making is dominated by a powerful chief executive whose major goal is growth and who is not afraid to take bold steps, even in the face of uncertainty. The chief executive is an entrepreneur by nature, and thus directs the organization in a constant search for new opportunities. The sample mean was 3.28 (7=high), which is moderately low. Three questions were used to determine top management's orientation toward risk-taking. Two of the questions operationalize Mintzberg's concepts of the entrepreneurial mode and the adaptive mode; and one question measures top managers tolerance for risk in choosing projects.

Managers were asked if their style of decision-making resembled the entrepreneurial mode of strategy-making. Both

the Controller and the General Manager of Bank A indicated that there was no resemblance to their style of decision making. However, in banks B and C, the General Managers felt there was a resemblance of the entrepreneurial style in their decision-making, while the Controller of these banks said there was no resemblance. Perhaps this difference exists because general managers are forced to absorb higher levels of risk in running their organization, whereas the Controllers are more narrowly focused in their activities. On the other hand, when asked about their preferences for risk when choosing future projects, all of the managers indicated that they preferred projects with moderate to low risk, even though the return on investment may be lower. So it seems that even though some top managers are forced to accept certain levels of risk, they all prefer to minimize it whenever possible.

The third question asked bank managers was if their style of decision-making resembled the adaptive mode. Bank A managers responded that there was not much resemblance between the adaptive mode and their decision-making style. Managers of banks B and C felt there was <u>some</u> resemblance in their styles.

OPTIMIZATION

An optimizing style of strategy-making is planning oriented. Future projects are fully investigated; alternatives to problems are evaluated to choose the option which maximizes benefits to the organization; and long-term implications of decisions are emphasized. The sample mean for this variable was 4.33, which means that overall, the banks were moderately oriented toward the optimization style of strategy-making.

Four questions were used to evaluate top managers' style along this dimension. The first question operationalizes Mintzberg's concept of the planning mode. All three banks indicated that there was a great resemblance between their style of decision-making and the planning mode. The second question asked whether the decision makers rely on experience and intuition, or adhere to specified methods of problem solving when vital information is unavailable. Managers of banks A and C tended to rely on their experience while bank B tended to rely on specified problem solving methods.

The last two questions further evaluate top managers' views on planning. General Managers were asked if they

viewed planning as an "art" which thrived on the experience and intuition of people who knew the business--or if planning was a "science", involving the use of sophisticated, mathematical techniques. The General Manager of bank A viewed planning as more of an art. The General Managers of banks B and C felt planning was more of a science. Finally, the managers were asked if they plan even harder under uncertainty in an attempt to maximize the benefit to the organization; or if they plan less hard and try to maintain flexibility. There was a six point spread in the responses to this question, so there was no agreement at all among the managers.

FLEXIBILITY

The flexible or organic style of management is prevalent in organizations when decision-making authority is derived from situational expertise; managers' operating styles are allowed to vary freely; communication channels are open; and emphasis is placed on getting things done rather than following formal procedures. The sample mean on flexibility was 4.11, which means that, overall, the strategy-making of top managers in the three banks is moderately organic in style.

Five questions evaluated banks orientation toward the organic style of management. Bank A managers indicated that their organizations had open channels of information. The General Managers of banks B and C stated that information was highly restricted in their organizations, while the Controllers of these two banks indicated that the flow of information was somewhere in between the two extremes. In addition, each of the banks' managers agreed that authority for making decisions was vested in those who have formal line management responsibility.

All top managers except for the General Manager of bank B indicated that managers' operating styles were allowed to range freely from very formal to very informal in their individual units. Bank B's General Manager seemed to feel there was a strong insistence on uniform managerial style in his unit. When we consider the fact that bank B is quite large in size with many different units, it is not surprising that its two managers would respond differently to this aspect of flexibility. When the managers were asked this same question, but with respect to the overall organization, the responses were identical to those of the previous question. Here, it is more difficult to explain the different views of the managers in bank B. Again, it could be due to the size of the organization; or it may be that the managers

have different tenures with the bank and therefore different opinions of the organization.

Finally, the General Managers were asked how much importance they placed on adherence to rules and procedures in evaluating the performance of their units. The General Managers of banks A and B indicated they placed moderate to high importance on adherence to rules and procedures. The General Manager of bank C indicated that he placed a great deal of importance on rules and procedures.

A summary of top managements' orientation toward the three decision-making styles is contained in Table 6.2. In general, we found that the risk-taking style did not describe top management styles of the three 1980 banks. Managers preferred lower risk projects; there was little resemblance between the entrepreneurial mode and their decision-making styles; and varying degrees of resemblance, from moderately low to moderately high, between the adaptive mode and their decision-making styles.

Our sample of banks clustered around the midpoint of the optimization style dimension. The strategy-making style of all three banks resembled the planning mode. However, one bank characterized planning as an art, while the other

TABLE 6.2

MEAN SCORES ON DECISION-STYLE VARIABLES

	RISK-TAKING 7 = HIGH	OPTIMIZING 7 = HIGH	FLEXIBILITY 1 = HIGH
BANK A	3.17	3.75	3.33
BANK B	3.33	4.63	5.00
BANK C	3.33	4.63	4.10
SAMPLE MEAN	3.28	4.33	4.11

two characterized it as a science. In the absence of needed information for decision-making, two banks indicated that they relied on their experience and intuition, while the other bank tended to rely on specified problem-solving methods. There was no clear trend in the planning practices of the banks when making decisions under uncertainty.

The three banks also clustered around the midpoint of the organic style dimension. Banks B and C had highly restricted channels of communication, while bank A had open channels of communication. Decision-making authority rested with those who had formal line management responsibility in all three banks. In general, managers' operating styles were allowed to vary freely, from formal to informal, within the managers' individual units, and the organizations as a whole.

THE PERCEIVED ENVIRONMENT AND TOP MANAGEMENT STYLE

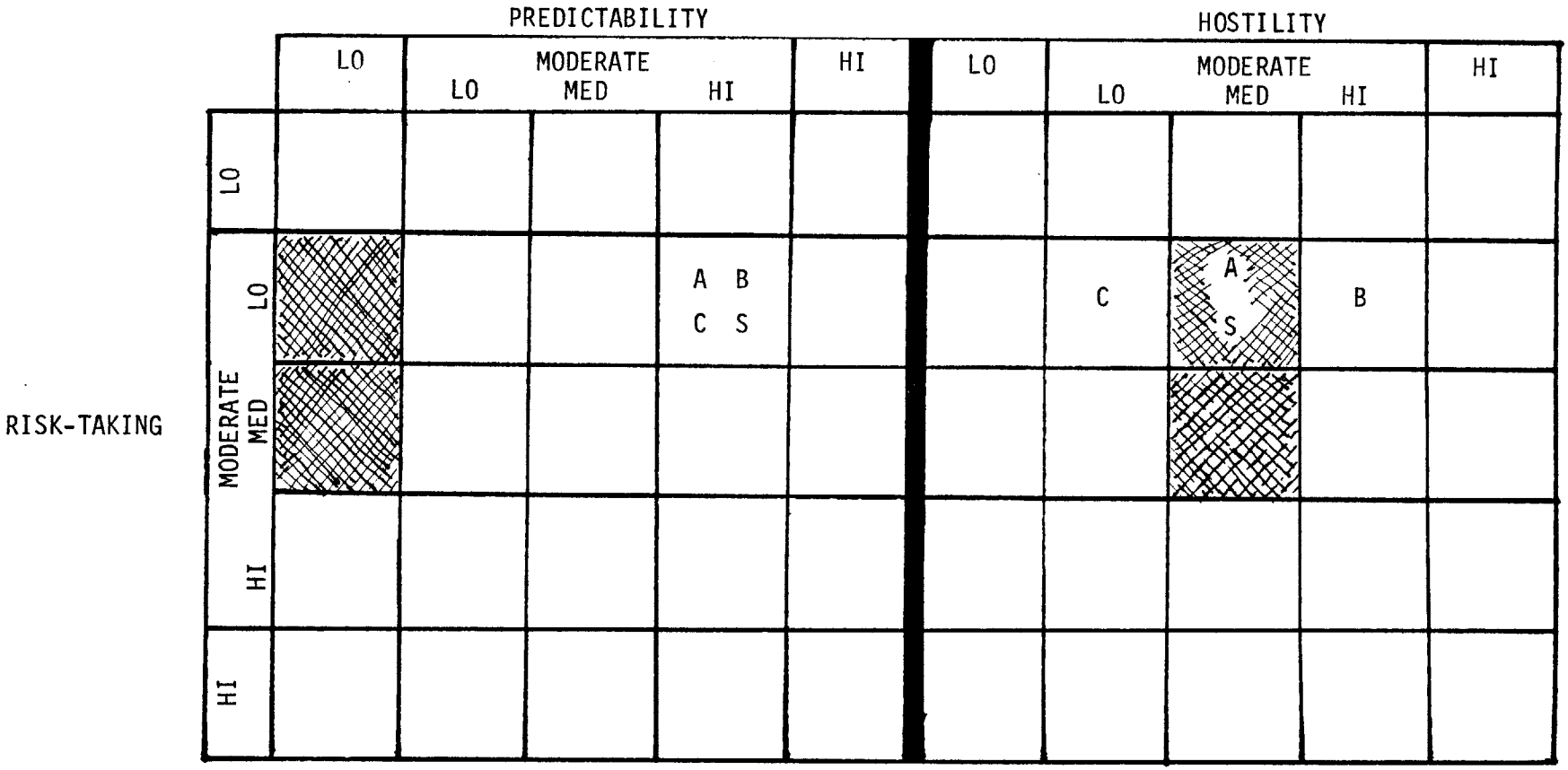
Our discussion now turns to an analysis of the proposals made regarding the relationship between top managers' perceptions of the environment and their decision-making style. The first proposal was stated as follows:

> As the environment is perceived as moderately hostile and highly unpredictable, top management's orientation toward risk-taking will range from moderate to moderately low.

Figure 6.1 shows the relationships between predictability and hostility, and the risk-taking style. The shaded areas of the chart show where the mean values for the individual banks, and the sample as a whole, should occur in the table if the proposal is valid. From the chart we can see that the hypothesized relationship between predictability and risk-taking does not hold. In other words, we expected low predictability, or high uncertainty, to be associated with a low risk-taking, or risk-averse management style. Instead, we found that the low risk-taking style occured despite the moderately-high predictability of the environment.

The hypothesized relationship between perceived hostility and the risk-taking style was found to be valid for our sample. As the table shows, banks B and C are just outside of the shaded area, but as discussed earlier, there is little significance in a one point difference. In fact, the banks are shown individually in the chart for the purpose of providing additional information since our sample is so small.

FIGURE 6.1



S = SAMPLE

One possibility which the results shown in Figure 6.1 suggest, is that the low risk-taking style may be a characteristic of the banking industry in general, and show little variation in this external environment. A review of the history of the banking industry reveals few cases of "entrepreneurial" strategy-making in banks.

One recent example of strategic decision-making which might be characterized as entrepreneurial is the case of Bankers Trust. Historically, Bankers Trust had placed equal emphasis on its wholesale and retail banking operations. This "dual" concentration resulted in a lack of "strength and focus on the commercial banking side," in the words of the bank's chairman.[1] In 1976, Bankers Trust decided to sell its 100 retail branches, which represented about 10% of the New York market, and concentrate its resources on wholesale banking. This was seen as a daring and bold strategic move by most of the banking community, because few institutions conduct a predominantly wholesale business and even fewer can afford to divest themselves of their retail banking oeprations.

What prompted Bankers Trust to make such a risky move? The bank chairman stated that "the margins were so thin that we thought it better to redeploy capital if we

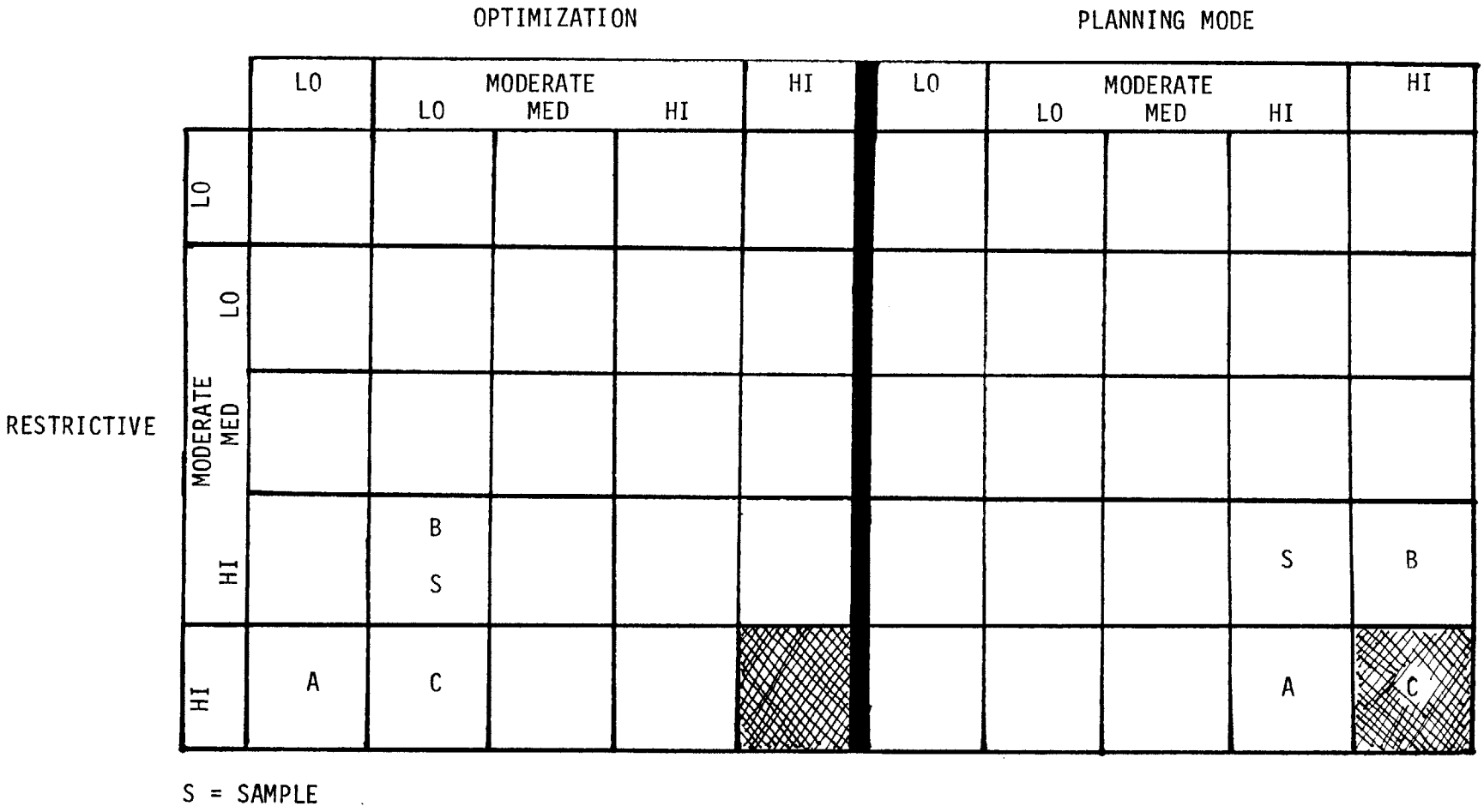
could." Mintzberg suggests that the entrepreneurial mode occurs in organizations that are in trouble and have little to lose by acting boldly, or in organizations oriented toward growth. It seems that Bankers Trust's actions were motivated by a strategy of growth through increased profitability. This is consistent with Mintzberg's categorization of the entrepreneurial mode, but again, it is a style of strategic decision-making which is rare in the banking industry.

The second proposal made on the perceived environment and top management style was stated as follows:

> As the environment is perceived as highly restrictive and moderately-high on the dimension of technological complexity, top management will be highly oriented toward the optimization style.

Figure 6.2 shows the relationship between environmental restrictiveness and the optimization style. As the chart shows, although the banks perceived the environment to be moderately-high to highly restrictive, their top management styles clustered around the midpoint of the satisficing/optimizing dimension. However, when we break out the data on the planning mode variable (see Figure 6.2), which is the most central characteristic of the optimizing style, we see that the banks cluster right around the shaded area repre-

FIGURE 6.2



S = SAMPLE

senting the proposed relationship. The same is true for the hypothesized relationship between perceived technological complexity and the optimization style (see Figure 6.3). That is, although the top managers perceived the environment to be moderately high in technological complexity, again, they clustered around the midpoint of the satisficing/optimizing style dimension. However, when we isolate the data on the planning mode, we find a strong relationship between technological complexity and the planning mode.

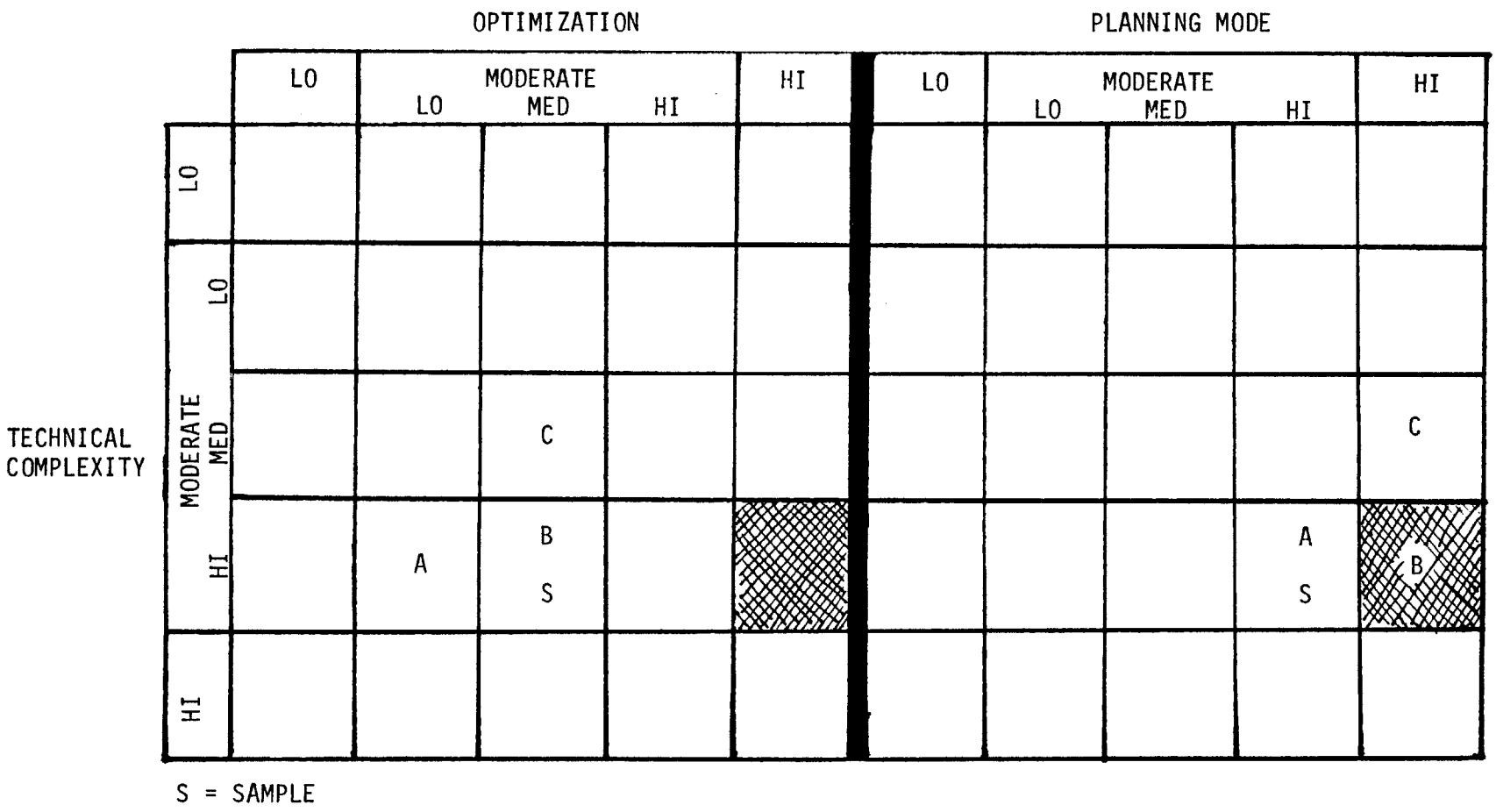
The third and final proposal on the perceived environment and top management style was stated as follows:

> As the environment is perceived to be moderately hostile, top management style will be moderately flexible.

Figure 6.4 shows the relationship between environmental hostility and the flexible, or organic, style of decision-making. From the chart, we see that the banks cluster right around the shaded area representing the hypothesized relationship, proving our third proposal to be valid.

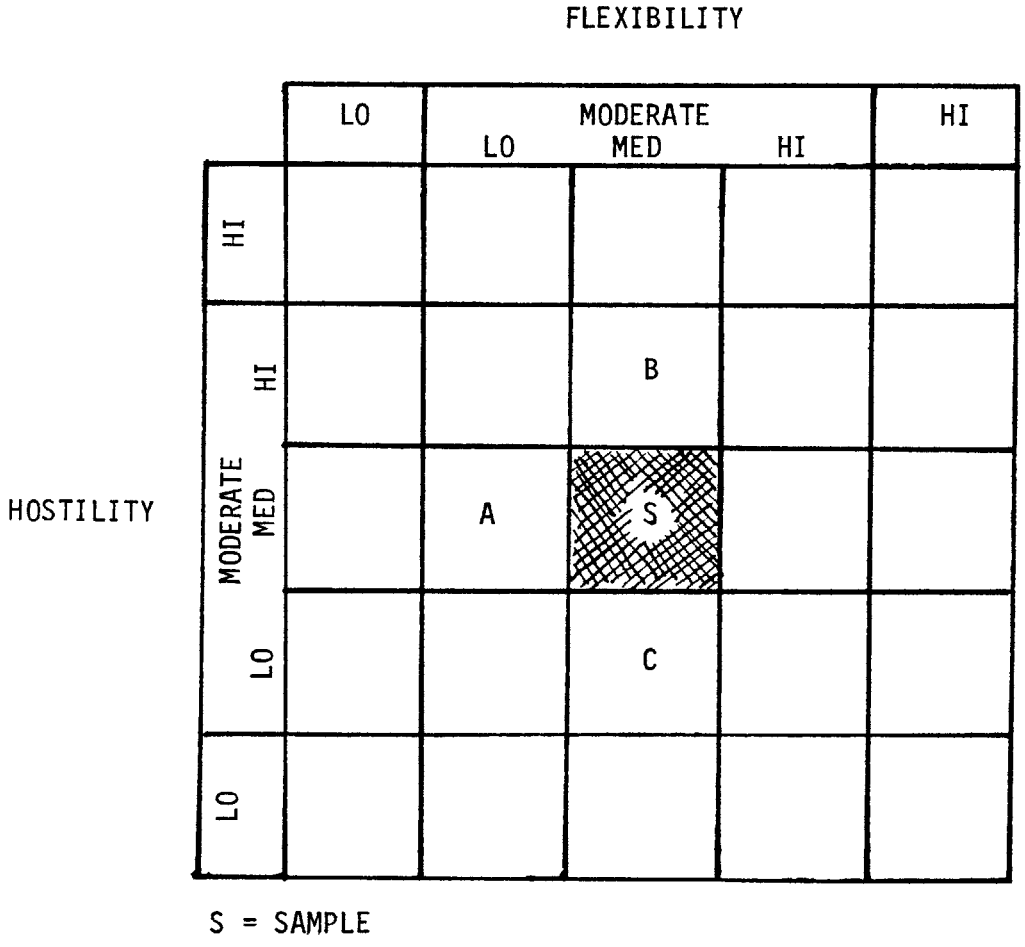
This concludes the analysis of our data relative to the first hypothesis. The next section presents our findings relative to the second hypothesis.

FIGURE 6.3



S = SAMPLE

FIGURE 6.4


FLEXIBILITY
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MODERATE
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HOSTILITY
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CHAPTER VI

C. HYPOTHESIS II

This section discusses the results of the responses to the 1979 and 1980 Structured Thesis Questionnaires and Interview Guides in relation to the planning variables set forth in Chapter V. The banks are categorized along dimensions of high, moderate, or low dynamism and predictability. Also, the banks are described by the level of completeness of their long-range planning process, of uncertainty reduction methods, and the upward or downward nature of the information flows for long-range planning in the banks.

DYNAMISM AND PREDICTABILITY

Most of the banks in 1979 and 1980 perceived the environment as dynamic. In 1979, Banks D, E, F, perceived the environment as moderately high in dynamism, while bank G perceived its environment as moderately low in dynamism. In banks D, E, and F, the respondents to the marketing questionnaire felt that the firm's environment was experi-

encing moderately high to high change. In bank D, the Planner felt that the bank's environment was experiencing a lot of change while the Marketing Manager perceived low environmental change. In bank F, the Vice-President and Treasurer felt that environmental change was very high, while the Vice-President for Software and Product Development perceived moderate environmental change. The Vice-President of Marketing perceived low environmental change.

Thus, the marketing managers perceived low environmental change while the other--product, finance, and planning--managers perceived moderate to high environmental change. The managers in bank G, largely felt the rate of environmental change to be low. Although bank G is located in a different state than are banks D, E, and F, there appears to be no particular reason why bank G's managers consistently perceived the environment to be low in change. Nevertheless, despite differences in the perceptions of dynamism by different managers, the overall mean score of dynamism appears to be consistent for both 1979 and 1980 banks, with both groups perceiving moderately high dynamism.

In 1979, the banks perceived their environment as being moderate in predictability. Most general managers

felt that they could predict changes in the environment with moderate accuracy up to a year ahead. However, most managers felt that it became more difficult to predict environmental changes more than one year ahead, with the exception of bank D. Managers of bank D felt that the environment was moderately predictable up to a year ahead, but felt it was slightly less predictable more than one year in advance.

Similarly, most marketing managers felt that sales of product lines were highly predictable up to one year ahead, but only moderately predictable more than a year ahead. Also, in bank D, the Marketing Manager perceived the environment as less predictable than did the Planner and General Manager of bank D. In bank F, the V.P. and Treasurer perceived the environment to be less predictable than did the EDP Manager or the Marketing Manager.

In 1980, the banks perceived their environment as moderately highly predictable. This represented an increase in the perception of predictability over the 1979 bank managers, who perceived the environment as only moderately predictable.

PLANNING COMPLETENESS

With respect to the completeness of the long-range planning systems, most banks employed a sophisticated planning system as indicated by the Lindsay and Rue criteria for a sophisticated planning approach.

Most banks had a written long-range plan covering at lease three years into the future. Bank C, however, responded that they did not have a long-range plan for more than one year, which is unusual given the size and the scope of services that the bank offers.

Virtually all of the managers for banks with long-range planning systems indicated that top-level corporate managers were responsible for initiating the long-range planning process. There were various levels lower in the organization that participated in formulating the budget but the initiation began at the top corporate levels.

With the exception of bank C, virtually all of the banks' long-range planning models generated one or more pro forma financial statements. Although bank C responded negatively to the use of long-range financial planning models, the Planner indicated that there is a 5 year budget

plan. The Controller indicated that budget data is gathered and monitored monthly and on an annual basis, and some budget data is compiled for 5 years forward. The Planner for bank C also stated that corporate goals are not directly translated to budget goals in order to allow the divisions to be strictly accountable for their performance. Therefore, bank C appears to have many of the elements of a formal long-range planning model although it responded that it does not have a formal written long-range financial planning model.

Nearly all of the banks' long-range planning objectives included goals for corporate expansion and for human development. Bank C emphasized product development as one of its primary long-term objectives.

All of the banks' long-range planning processes attempted to identify economic factors which were outside of the immediate environment of banks but which ultimately have a direct impact on banks. However, most of the factors that received a lot of attention were factors that were directly influenced by banks such as maintaining good financial performance in order to have access to the capital markets, getting good people who would increase the financial performance of the banks, and monitoring the competi-

tion in order to be able to set competitive prices. Furthermore, all of the banks had procedures for measuring variance against budgets and against plans. Some banks chose to carefully scrutinize variances while other banks were more lenient with budget variances. However, in no circumstances did the banks change an original budget forecast. Banks A and C compared their long-term goals to budgeted and forecasted objectives, while bank C compared their goals primarily to historical levels. Bank D continually monitored its long term goals but adjusted them rather infrequently. Similarly, banks E, F and G adjusted their goals going forward infrequently, usually annually or semi-annually.

UNCERTAINTY REDUCTION AND OPEN-SYSTEMS APPROACHES

Virtually all of the banks, except for bank C, used a computerized financial, non-financial, and/or decision model to create scenarios to help reduce uncertainty in the future. However, most of the inputs to the long-range planning process were of a top-down nature. Apparently, all of the banks felt as bank D did, that "bottom-up planning does not work." The General Manager at bank D felt that bottom-up planning resulted in a confused jumble because lower level subordinates lacked the wider perspective, the detach-

ment, and the "quality" that top management brought to the long-range planning process. However, as previously mentioned, once the long-range planning objectives were set by top management, there were plenty of opportunities for participation in the setting of budgets by lower level subordinates. But for the most part, the long-range planning and budgeting systems appeared to be separate systems integrated at the top management level.

Thus, the results of our research with respect to the planning variables seem to indicate that a top-down planning approach, using uncertainty reducing models in a complete or sophisticated planning system may be responsible for higher external environmental predictability despite moderately high environmental dynamism. As previously mentioned, the philosophy of bank D with respect to bottoms up planning may be shared by the other banks. The Vice President of Finance felt that top level managers were best suited for long-range planning due to their broader perspective, better judgment, and detachment from short-term operating results. The use of uncertainty reducing models and a sophisticated planning system, along with top-management judgment may be an effective way for bank managers to combat external environmental uncertainty.

However, it may also be true that the magnitude of the changes in the external banking environment may not have reached a "critical" level at the time that our research data was gathered. Much of the environmental changes that we described in Chapter II occurred in 1979 and 1980 but the implications may not have been apparent to many banks until the latter part of 1980. For example, our 1980 research data was gathered in the first quarter of 1980 while the Monetary Control Act of 1980 was passed in March. Therefore, the response of bank managers in our sample may not reflect the full impact of the environmental changes due to that Act. If further research on banks during the post-March 1980 period does not show that managers perceive lower external environmental predictability and use upward information flows for long-range planning purposes, then these results would indicate that the Lindsay and Rue planning variable results may not hold for banks.

CHAPTER VI ENDNOTES

1. Business Week, "Wholesale Banking's New Hard Sell", April 13, 1981.

CHAPTER VII

DISCUSSION

The focus of this study has been on the relationship between strategy formulation at the corporate level and the external environment of the firm. We have analyzed two important variables of strategy-making within the banking industry - top management style and the nature of the long-range planning process. Our results point to several observations. which can be made with respect to the theory and empirical findings on organizational design.

One important and surprising realization was the lack of an accepted, consistent definition of environmental uncertainty in the organizational literature. From our point of view, the confusion in literature regarding the definition of uncertainty makes it difficult, from a methodological perspective, to build on the understanding of the complex realities of strategy formulation. Different researchers have used different definitions of uncertainty, and some have not even bothered to define this attribute in their research [F.L. Harrison, 1977]. As a result, comparing results between two studies, which supposedly analyze the same variables, becomes virtually impossible.

This is not to suggest that we believe the elements of environ-

mental uncertainty are consistent across industries. In fact, a recent study by Hrebiniak and Snow [1980] found that industry is associated with varying levels of different types of uncertainty. The point is however, in our view, that environmental uncertainty should be defined in terms of a host of elements or categories of environmental conditions. This, of course, assumes that theorists will come to an agreement on how to chacterize environmental uncertainty. Researchers could then test for the presence of these elements in their studies on strategy or other organizational variables, and the environment. It seems that if different sources of uncertainty were systematically tested and categorized in a relatively standard fashion, researchers would be better able to compare their findings. One hopes that this would increase our knowledge of organizational processes as they are affected by this important attribute of the environment.

In terms of existing theory, one observation which can be made in the context of strategy formulation, concerns the three modes of strategy-making as conceptualized by Mintzberg [1973]. In defining the three modes -- entrepreneurial, adaptive, and planning -- Mintzberg suggested that few organizations could rely on a pure mode. His studies revealed at least three combinations of the modes including the adaptive entrepreneurial mode, the entrepreneurial planning mode, and the adaptive planning mode. The adaptive entrepreneur enjoys being in the seat of power and is reluctant to delegate authority, but is forced to do so to achieve further growth. To avoid risk, he moved in incremental

steps like the adaptive strategy-maker. The entrepreneurial planning organization takes bold decisive steps which are guided by a systematic plan for growth. The adaptive planning organization reaches a specific goal through a flexible path.

To determine if any of these mixed modes of strategy-making existed within the three 1980 banks, we put the relevant data in tabular form. (See Table 7.1) Table 7.1 shows the adaptive planning mode is prevalent in banks B and C. Bank A has a fairly strong emphasis on the planning mode with a light mixture of the adaptive mode. Thus, none of the banks are a pure mode of strategy-making, which is consistent with Mintzberg's findings.

A comparison of our results [1980 Banks] with those of Miller and Friesen [1978] did not show this kind of consistency. As discussed in Chapter III, Miller and Friesen studied the strategy-making process by examining the organizational and environmental context in which it occurs. They identified an archetype of strategy-making which they called the "Adaptive Firms in a Very Challenging Environment." Firms in this category operated with a high level of dynamism, which generally took the form of new product introductions by competitors, changes in industry- wide technology, and shifting consumer tastes. These types of environmental conditions were present in the case of the three 1980 banks we studied. (This is based on an analysis of both the objective and the perceived environment.) However, the organiza-

TABLE 7.1

THREE MODES OF STRATEGY MAKING

	ENTREPRENEURIAL MODE	ADAPTIVE MODE	PLANNING MODE
BANK A	2.0	3.0	5.0
BANK B	3.3	4.5	6.0
BANK C	2.5	4.0	6.0

NOTE: 7 = HIGH IN THIS TABLE

tional responses to the environment which we observed were different from those observed by Miller and Friesen. They found the firms to be organic because there was little emphasis on hierarchy or formal rules, and authority was broadly delegated and a function of expertise rather than position. We found that our bank managers placed a great deal of emphasis on formal rules, and authority was a function of position.

What might be the cause of these conflicting results? One possible explanation is perhaps embedden in industry differences between our sample and Miller and Friesen's sample. The banking industry is traditionally a conservative institution, which has been both protected and restricted by heavy government regulation. As a result, in the past, managers have been able to operate quite successfully with a very inflexible mode of strategy-making. Due to the increasing competition and gradual easing of regulatory restrictions, the industry is perhaps currently in a state of transition. It seems quite likely that with interstate branching on the near horizon, and future technological advancements continuing unabated, banks will be forced to adopt more flexible modes of decision-making to continue competing successfully.

We have suggested that sophisticated and flexible long-range planning is one method that banks may use for adaptation to environmental shifts. Additionally, flexible decentralized, product-oriented organizational structures such as product management may be another method of generating more information flows from organizational units closest to their markets upward and throughout the organization's decision structure. These methods could be two of several tools used to generate the information needed to help the bank to adapt to increasing levels of environmental uncertainty.

Recent articles in the banking literature have suggested that some banks are using more sophisticated planning techniques (such as asset/liability management), more uncertainty reducing models, and more upward information flows to provide more effective planning and strategy-making in an increasingly dynamic environment.[1] The planning system of the Republic of Texas Bank,[2] and the product management system at Chase Manhattan Bank[3] are two such examples of changes in organizational adaptation brought about by increasing environmental uncertainty.

Asset/liability management is an important long-range planning tool. Asset/liability management for most banks

is conducted in a much more volatile environment now than in the recent past. An approach by the Republic of Texas Bank, combines long-range asset/liability management over a 5 year time frame with annual profit planning and control, and with near-term asset/liability management on a weekly and monthly basis. The purpose of the system is to produce consistent earnings growth throughout economic cycles. This long-range planning approach is strategic in nature, involves relatively few numbers, and addresses key issues, such as primary market segments, human resource needs, operational support requirements and projected capital requirements over the next five years. The financial portion of this corporate long-range planning process defines principal asset/liability management capacities over the next five years in terms of targets for return-on-assets and earnings growth, leverage, dividend payout policy, external capital requirements, asset and liability mix relationships, interest sensitivity policy, and regulatory and usury constraints.

To develop these objectives, The Republic of Texas Bank used as benchmarks detailed peer-group comparisons for competitor banks which were in the same markets and of similar size. In order to get substantial bottom-up inputs to the planning process, these financial objectives are

negotiated with each subsidiary or sub-unit, and then consolidated for the corporation. Asset acquisitions and human operational resources are key elements of these corporate objectives. Market segmentation and market strategy are also key elements of these corporate objectives.

Within the framework provided by this long-range plan, annual profit plans serve as a major asset/liability management mechanism. During the year, actual performance of each subsidiary and sub-unit relative to plan and to previous periods is reviewed monthly and quarterly.

One key report used in the monthly and quarterly reviews is a consolidated domestic and international interest-sensitivity position. This report focuses on each earning asset and interest-bearing fund account, and on the volume of each category that is sensitive to a change in the prime or another money-market rate. This report recognizes the impact of financial futures contracts, which are used to reduce interest-rate risk by hedging specific transactions and to aid in the overall management of the interest-sensitivity position. Interest-rate futures are also used to hedge variable-rate certificates of deposits.

CHAPTER VII

The interest-sensitivity report does not insure that subunits will maintain a particular level of spreads of income over cost of funds, but it provides an opportunity by corporate or subsidiary units to negotiate a spread on a particular asset/liability combination. Also, where a maturity is involved, it allows the units to liquidate a transaction if the new spread is not acceptable.

With this interest-sensitivity report as a data base, The Republic of Texas Bank uses an automated computer model to forecast net interest income. It also uses computerized interest rate forecasts to decide whether to add incremental earning assets and interest-bearing funds, and replace maturing and repriced assets. This forecasting capability enables the bank to quantify the impact of alternative near-term asset/liability management strategies on net interest income. Thus, the real significance of this model is the better understanding of assumptions about interest sensitivity in a volatile environment. This model incorporates many of the sophisticated, uncertainty reducing techniques and upward information flows hypothesized by the Lindsay and Rue study. For example, Lindsay and Rue suggest the use of financial planning models to reduce uncertainty and The Republic of Texas Bank long-range planning

process uses several short-range and long-range forecasts to develop alternative scenarios for the future. The Republic of Texas long-range planning process also has feedback loops so that the process can be corrected or modified and used as a basis for negotiating further modifications in the long-range planning process.

Additionally, the Republic of Texas model looks at environmental factors as well as economic factors of direct consequence to short and long-term performance. Corporate management negotiates with the subsidiaries their long and short-term objectives in an attempt to incorporate information at the subsidiary level into the top-level planning process. These latter items correspond to Lindsay and Rue's suggestions of incorporating external, non-economic environmental information, having self-correcting feedback loops, and upward information flows in the firms' long-range planning system.

Product management is one tool that has recently been used by Chase Manhattan Bank as a technique for more effective management of banking services in an increasingly uncertain external environment. The product management concept is a technique used for individual product and market segmentation, pricing strategies, and market/product develop-

ment. The objectives of the product management technique are an understanding of the key determinants of product and market success, and an improved level of planning effectiveness.

At Chase, product management entails line responsibility for one overall profit-and-loss performance for the delivery of a single line, or group of products. As changes occur in the external marketplace due to technology, regulation, or inflation, the product manager becomes responsible for developing enhancements to the existing market strategies, and for maintaining or expanding the overall profitability of the products. Product management has been used by other industries but it is new to banking. Historically, banks have not been concerned with product development due to a relatively stable and uniform product base. However, with the increasing technological complexity, inflation, and environmental hostility resulting from new competition and deregulation, the major constraint facing banks is the limited capital resources for responding to changes in the marketplace.

Thus, in both the short-run and the long-run, the appropriate allocation of capital to individual products, services, and markets that optimizes long-run profitability will

be a primary concern to top-level managers. Managers at Chase are determining where their product and service strengths lie; and where there are relative competitive advantages in specific market segments. For example, market research at the product level and market-segment level has resulted in more knowledgeable product managers at subdivisional levels. This product knowledge encompasses definitions of product-families; market segments, product life cycles, present and future competitors, the development of product delivery requirements and service levels. Additionally, product managers at Chase are developing information on the possible evolution and changes in product families due to new technology, product maturation, changing costs (possible learning/experience curves) and environmental changes on product demand. This product manager technique allows more effective long and short range planning for products and services to occur at much lower organizational levels and allows for more upward information flows in the long-range planning process.

Thus, product planning and asset/liability management are examples of the types of systems we expect to see more of in the future. That is not to suggest that formal planning approaches will dominate the strategy-making processes in banks. Quite the contrary, the strategy formulation pro-

cesses must maintain flexibility--similar to the adaptive planning mode described by Mintzberg, or the logical incremental process described by Quinn. However, due to changing environmental forces, we would expect to see these kinds of "uncertainty reducing methods" play an increasingly important role in the strategy-making processes at both the corporate and business levels as banks attempt to reduce the risks inherent in the marketplace.

CHAPTER VII ENDNOTES

1. David Ahlers, "Increasing Asset-Liability Management Committee Effectiveness", The Bankers Magazine, July/August 1980, pg. 18-22.

2. Gerald Fronterhouse and Edward McPherson, "How Planning is Used to Manage a BHC's (Bank Holding Company's) Assets-Liabilities", ABA Banking Journal, March 1981, pp 82-84.

3. Francis Shea and John Shain, "How Concept of Product Manager Works in Banking", ABA Banking Journal, October 1980, pgs. 127-132.

CHAPTER VIII

CONCLUSION

This thesis involved the study of strategy formulation in the context of the general environment of six banks in the New England region, and one large bank in New York. Our research was largely based on studies done by Khandwalla (1977), and Lindsay and Rue (1980). A summary comparison of the results of our work and those of Khandwalla and Lindsay and Rue is contained in table 8.4 at the end of this chapter.

In our study, we analyzed the data on top managers' perceptions of the environment. Measurements were taken of managers' views on five dimensions of the environment. We found that bank managers perceived the environment to be moderately high on the dimensions of dynamism, predictability , restrictiveness, and technological complexity, and moderate on the dimension of hostility. In general, managerial perceptions were as we expected along the dimensions of dynamism, restrictiveness, hostility, and technological complexity. The uncertainty measure, predictability, did not produce the results we had expected.

Next, we analyzed the data on the decision-style variables. We found the top managers to be moderately low on the risk-taking dimension, and at the midpoint on the optimizing/satisficing and organic/mechanistic style dimensions. Table 8.1 summarizes the results of our analysis on the 1980 sample data in terms of the environmental and top management style variables.

Finally, we analyzed the relationships between the environmental and the style variables. We hypothesized that low predictability and moderate hostility would be associated with a weak orientation toward the risk-taking style. We found the association to be true in the case of perceived uncertainty. In the case of the predictability and risk-taking variables, we postulated two things: (1) some of the scales used to measure predictability may have been invalid; and (2) the risk-taking style of bank managers may be more a function of the competitive position of the bank than it is of the perceived environment.

We hypothesized that high restrictiveness and moderately high technological complexity were associated with a moderate orientation toward the optimization style. The data showed that high restrictiveness and moderately high technological complexity were associated with a moderate

TABLE 8.1

MEAN SCORES OF 1980 SAMPLE
ON ENVIRONMENTAL AND STYLE VARIABLES

	LO	MODERATE LO	MODERATE MED	MODERATE HI	HI
DYNAMISM				✓	
PREDICTABILITY				✓	
RESTRICTIVENESS				✓	
HOSTILITY			✓		
TECHNOLOGICAL COMPLEXITY				✓	
RISK-TAKING		✓			
OPTIMIZATION			✓		
FLEXIBILITY			✓		

orientation toward the optimizing style. However, when we isolated the data on the planning mode of strategy making, which is a key component of the optimizing style, the hypothesized relationship was found to be valid. This supports our basic assumptions that heavy government regulation of the industry and the long lead times necessary for major capital investments in new technologies requires a strong emphasis on planning in strategic decision-making.

Finally, we hypothesized that environmental hostility and the organic style of management would be positively associated. We found this relationship to be true. Banks perceived the environment to be moderately hostile, and their top management styles were moderately oriented toward the organic style.

Our results concerning the planning variables are summarized in tables 8.2 and 8.3. We proposed that the banking environment would be perceived by bank managers as exhibiting moderately high dynamism, due to changes brought about by interest rate volatility. Banks D, E, and F in the 1979 bank group and bank A in the 1980 bank group perceived their environment to be moderately high in dynamism. Banks C in 1980 and G in 1979 perceived their environment to be moderately low in dynamism.

TABLE 8.2

BANK*	DYNAMISM 1 = HIGH	PREDICTABILITY 7 = HIGH
A	2.5	5.08
B	---	5.25
C	4.43	4.63
Sample Mean	3.48	4.99
		5=HIGH
D	2	3.25
E	2	2.5
F	2	2.83
G	4.34	3.68
Sample Mean	2.58	3.06

* Data for Banks A-C are on a 5-point scale
  Data for Banks D-G are on a 7-point scale

TABLE 8.3

SUMMARY RANKINGS OF BANKS ON PLANNING VARIABLES

	DYNAMISM			PREDICTABILITY		
	LOW	MODERATE	HIGH	LOW	MODERATE	HIGH
		LOW HIGH			LOW HIGH	
PLANNING COMPLETENESS						
CLASS 1		C			C	
CLASS 2						
CLASS 3		G	D, E, F	A		E, F	A, B, D, G	
UNCERTAINTY REDUCTION						
Use Planning Models		G	D, E, F	A		E, F	A, B, D, G	
Don't Use Planning Models		C					C	
OPEN-SYSTEMS APPROACH						
Top-Down Info. Flow		C, G	D, E, F	A		E, F	A, B, C, D, G	
Bottom-Up Info. Flow						

CHAPTER VIII

We proposed that bank managers would perceive the external banking environment as being moderately low in predictability. However, bank managers D and G in 1979 and A, B, and C in 1980 perceived the external banking environment to be moderately high in predictability. Banks E and F in 1979 perceived the external environment to be moderately low in predictability. Thus, managers felt that they were able to predict, reasonably well, the external banking environment just about the time when some major shifts were occurring in that environment.

Therefore, our first proposition regarding higher perceived dynamism in the external environment of banking was supported, but our second proposition regarding lower predictability was not. Different level managers with different responsibilities within a bank perceived varying levels of dynamism, but the overall perception was of moderately high dynamism. However, the relatively high level of predictability is surprising given the dynamism in the environment. We think that the banking industry managers may be good forecasters of non-interest related expenses and of various product pricing, and even net income. However, this high predictability may be due to the focus on non-interest related expenses and the pricing of products independent of market interest rates. Since interest rates are not con-

trollable by bank managers, most managers are probably not responsible for interest related expenses. Additionally, net income is partially determined by the amount of a bank's loan loss provision which has a relatively wide range in any given year, although it may be in a consistently narrow range over several years. Thus, the moderately high predictability of net income may be due more to this accounting phenomenon (loan loss provision) than to environmental certainty.

Next, we hypothesized that the use of uncertainty reduction methods would increase due to higher environmental uncertainty. With the exception of bank C, all of the banks used uncertainty reducing planning models. Even bank C had elements of uncertainty reducing models in place. Additionally, the banks in 1980 appear to have increased their use of one type of uncertainty reducing model, that is, the formal asset/liability committee for matching of maturities of long-term assets and liabilities. According to Burke and Robinson (page 102), formal asset/liability committees at banks A and C, composed of top-level managers, were being started in 1980 with the objective of planning and influencing the future quantity, quality, and mix of various assets and liabilities. Also, bank B has had a formal, global asset and liability committee since the mid-1970's,

with roughly the same objectives as banks A and C.

Although several of the banks have had informal asset/liability committees for several years, much of the focus was on short-term management and the impact on monthly and quarterly income of various assets and liabilities. In 1979, only bank D mentioned the use of an asset/liability committee but the focus was on that bank's ability to generate monthly and quarterly income statements and balance sheets. So in 1980, we see an increase in the use of uncertainty reducing methods and a longer-range perspective, than we did in 1979, attached to formal asset/liability management.

Finally, we also hypothesized that information flows regarding long-range planning would become more bottom-up due to increasing environmental uncertainty. However, information flows regarding long-range planning was exclusively top-down. This top-down flow of planning information was in contrast to the mostly bottom-up information flow typical of the budgeting process, as reported in Burke and Robinson (pages 88-100). We hypothesize that the banks must consider top level managers the appropriate level to initiate the long-range planning process and the lower organizational levels the appropriate level to initiate planning for the budgeting process.

RESULTS OF STUDIES ON RELATIONSHIPS BETWEEN THE PERCEIVED ENVIRONMENT, TOP MANAGEMENT STYLES, AND LONG-RANGE PLANNING PROCESSES

MANAGEMENT STYLE AND PLANNING VARIABLES	RESULTS	
	KHANDWALLA(K);LINDSAY & RUE(L&R)	IRONS & ROBINSON
RISK-TAKING/RISK AVERSE TOP MANAGEMENT STYLE.	FOUND A POSITIVE CORRELATION BETWEEN ENVIRONMENTAL TURBULENCE AND HOSTILITY, AND THE RISK TAKING STYLE OF MANAGEMENT (K)	FOUND AN INVERSE RELATIONSHIP BETWEEN HOSTILITY AND THE RISK-TAKING STYLE OF MANAGEMENT. FOUND MODERATELY HIGH PREDICTABILITY POSITIVELY ASSOCIATED WITH LOW RISK-TAKING STYLE.
OPTIMIZING/SATISFICING TOP MANAGEMENT STYLE.	FOUND A POSITIVE CORRELATION BETWEEN ENVIRONMENTAL RESTRICTIVENESS AND TECHNOLOGICAL COMPLEXITY, AND THE OPTIMIZING STYLE OF TOP MANAGEMENT. RESULTS INSIGNIFICANT FOR RELATION SHIP BETWEEN RESTRICTIVENESS AND OPTIMIZATION. (K)	FOUND HIGH ENVIRONMENTAL RESTRICTIVENESS AND MODERATELY HIGH TECHNOLOGICAL COMPLEXITY POSITIVELY ASSOCIATED WITH MODERATE ORIENTATION TOWARD OPTIMIZING STYLE OF MANAGMENT.
ORGANIC/MECHANISTIC TOP MANAGEMENT STYLE	FOUND ENVIRONMENTAL HOSTILITY POSITIVELY CORRELATED WITH ORGANIC STYLE OF TOP MANAGEMENT WITHIN FINANCIALLY SUCCESSFUL FIRMS. (K)	FOUND A DIRECT RELATIONSHIP BETWEEN ENVIRONMENTAL HOSTILITY AND ORGANIC STYLE OF TOP MANAGEMENT
LONG-RANGE PLANNING COMPLETENESS	FOUND AS ENVIRONMENTAL COMPLEXITY & INSTABILITY INCREASED, COMPLETENESS OF LONG-RANGE PLANNING PROCESS INCREASED FOR LARGE FIRMS. RESULTS SAME FOR SMALL FIRMS, BUT STATISTICALLY INSIGNIFICANT. (SMALL FIRMS = SALES LESS THAN $108 Million).	FOUND POSITIVE RELATIONSHIP BETWEEN MODERATELY HIGH DYNAMISM AND PREDICTABILITY, AND THE COMPLETENESS OF THE LONG-RANGE PLANNING PROCESS OF 6 OUT OF 7 BANKS.

TABLE 8.4

(continued)

TABLE 8.4, continued

MANAGEMENT STYLE AND PLANNING VARIABLES	RESULTS	
	KHANDWALLA(K);LINDSAY & RUE(L&R)	IRONS & ROBINSON
UNCERTAINTY REDUCTION METHODS	FOUND THAT AS ENVIRONMENTAL COMPLEXITY AND INSTABILITY INCREASED, UNCERTAINTY REDUCTION METHODS INCREASED FOR LARGE FIRMS. INVERSE RELATIONSHIP BETWEEN THESE VARIABLES FOR SMALL FIRMS, BUT RESULTS STATISTICALLY INSIGNIFICANT.	FOUND POSITIVE ASSOCIATION BETWEEN MODERATELY HIGH DYNAMISM AND USE OF UNCERTAINTY REDUCTION METHODS FOR 5 OUT OF 6 BANKS. FOUND POSITIVE ASSOCIATION BETWEEN MODERATELY HIGH PREDICTABILITY AND USE OF UNCERTAINTY REDUCTION METHODS FOR 6 OUT OF 7 BANKS.
OPEN-SYSTEMS APPROACH	FOUND DEGREE OF OPENNESS IN LONG-RANGE PLANNING PROCESSES DIRECTLY RELATED TO DEGREE OF ENVIRONMENTAL COMPLEXITY AND INSTABILITY FOR LARGE FIRMS, BUT INVERSELY RELATED FOR SMALL FIRMS.	FOUND MODERATELY HIGH DYNAMISM AND HIGH PREDICTABILITY WERE NOT ASSOCIATED WITH THE USE OF OPEN-SYSTEMS APPROACHES IN THE BANKS' LONG-RANGE PLANNING SYSTEMS.

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