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Strategic posture analysis and financial performance of the banking industry in United Arab Emirates: A strategic management study

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United States International University, 1987

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STRATEGIC POSTURE ANALYSIS AND FINANCIAL PERFORMANCE OF THE BANKING INDUSTRY IN UNITED ARAB EMIRATES: A STRATEGIC MANAGEMENT STUDY

A Dissertation

Presented to the

Graduate Faculty of the

School of Business and Management

United States International University

In Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

---

by

Tamer Tamer Salameh

San Diego, 1987

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Tamer Tamer Salameh

Approved by:

H. Igor Ansoff, Chairman — April 23, 1987 (Date)

Frederick W. Dow — Frederick W. Dow, Dean

Milton H. Stavenga

DEDICATION

To my father and my mother

with my love

for the past, present, and future.

ACKNOWLEDGEMENTS

This dissertation is resultant from significant contributions of members of my committee Dr. H. Igor Ansoff, Dr. F. W. Dow, and Dr. M. H. Stavenga.

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Chapter 1

THE RESEARCH PROBLEM

Over the past ten years strategic management studies have attempted to measure the extent to which the levels of environmental turbulence, the strategy, and the capability can account for variations in performance of environment serving organizations (ESO's). Various studies have contributed to knowledge through strategic management observations and/or experimentations, which have been valuable to practitioners of business, management, and other related disciplines. Nevertheless, the issue of concern has yet to be researched further.

Previous research has been oriented toward investigating the strategic behavior of firms located in industrial market economies in developed countries. Furthermore, previous studies have been oriented toward examining the three variables, levels of environmental turbulence, aggressiveness of strategy, and openness of capability, by using a mixture of one or two of them, and their relationships with financial performance measures. It was the first aim of this study to examine levels of environmental turbulence, aggressiveness of strategy, openness of capability, and financial performance, of firms in a high income, developing, and oil exporting country.

The overall framework of the study was based on a model developed by H. Igor Ansoff (1984 215:238) as an extension of the original model. The original model was established by Chandler (1962). The model

employed in this study is relatively new, and little empirical research has been established. The model used is entitled "Strategic Posture Analysis." The second aim of this study was to investigate the applicability of the model in a new setting (Middle East).

Strategic posture analysis is a multidimensional investigation of the strategic behavior of firms. To be specific, it places great emphasis on methodological and paradigmic relevancy and accuracy. Furthermore, strategic posture analysis is based on the simplest principle of "requisity variety" in which the minimum requisity variety is applied to respond to complexity. The third aim of this study was to provide an epistemological investigation of the strategic behavior of banks in terms of strategic posture analysis.

The purpose of this study was to examine the banking industry of a high income, oil exporting country. The questions were directed to assess the following: top management's perception of the levels of environmental turbulence, outside observers' perceptions of the level of environmental turbulance, top management's perceptions of the aggressiveness of strategy, top management's perceptions of the firm's capability, the financial performance of the banks, and the relationship between the level of environmental turbulence, aggressiveness of strategy, capability, and financial performance measures. To determine the focal points of this study, seven research questions were formulated.

1. To what extent do top managers in banks differ in their perceptions of the levels of turbulence in the environment in which they operate, from outside observers perceptions of the levels of turbulence in the banking industry?

2. To what extent do top managers in banks differ in their perceptions of the aggressiveness of strategy of all of the banks as compared to:

2.1. Outside observers' perceptions of the environmental turbulence?

2.2. The levels of environmental turbulence as perceived by top managers of all banks?

3. To what extent do top managers in banks differ in their perceptions of the capability of all the banks as compared to:

3.1. Outside observers' perceptions of the environmental turbulence?

3.2. The level of environmental turbulence as perceived by top managers of all banks?

3.3. The aggressiveness of strategy as perceived by top managers of all banks?

4. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, and openness of capability?

5. What are the relationships between the financial measures of the bank's performance, in terms of:

5.1. Other financial measures?

5.2. Independent variables drawn from banks' strategic posture?

5.3. Financial performance measures as a function of bank groupings?

6. What are the correlations between the eight financial performance measures and each of the following:

6.1. Eight elements of the strategic posture?

6.2. Twenty-nine sub-elements of strategic posture?

6.3. Five strategic gaps?

6.4. Banks' size and five strategic business areas (SBA)?

7. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, openness of capability, and the financial performance measures of the banks?

Delineation

The study focused on determining the perceptions of top managers in banks, of the difference in the levels of environmental turbulence, the aggressiveness of strategy, the openness of capability, and their relationships to the financial performance. The banks that were studied are in the Emirate of Abu Dhabi in United Arab Emirates (UAE), for the past three years (December 31, 1981 - December 31, 1984).

The research encompassed three independent variables, eight dependent variables, two moderating variables, and five intervening variables.

The three independent variables were as follows:

1. Level of environmental turbulence (LET) which consisted of two elements:

   1.1. Complexity.

   1.2. Cognition of issues.

2. Aggressiveness of strategy (AS) which contained two elements:

   2.1. Aggressiveness of bank's innovation strategy.

   2.2. Aggressiveness of bank's marketing strategy.

3. Openess of Capability (OC), which contained three elements:

3.1. Managers' profiles.

3.2. Management climate profiles.

3.3. Management competence profiles.

The eight dependent variables which measured financial performance were encompassed in three categories, as follows:

1. Overall financial performance measures.
2. Strategic financial performance measures.
3. Operating financial performance measures.

The two moderating variables were as follows:

1. Size of bank.
2. Strategic business areas.

The intervening variables were represented by the following:

1. Strategy Less Capability.
2. Observer's Environment Less Strategy.
3. Observer's Environment Less Capability.
4. Observer's Gap.
5. Observer's Total Gap.

The data was gathered from the most senior, assistant to most senior, or executive in charge of a major division, of twenty-five banks in the Emirate of Abu Dhabi. Financial data originated from official records.

The limiting of the data source to Abu Dhabi was used in order to provide a sample, which is homogeneous, with respect to the variables which are included in the study. This provided further homogeneity in

terms of cultural, economic, political, educational, religious, and social variables which were not included in this study.

Theoretical Perspective

This study was based on the basic hypothesis of strategic management. The basic hypothesis states that "an organization will be successful if environment, response, culture, and capability match each other" (Ansoff:1979:3). The theory of strategic management is an applied theory which attempts to provide insights into managerial issues such as: behavioral patterns of environment serving organizations (ESO's), causes of behavioral differences in ESO's, success and failure contributing agents in ESO's, choice of specific prevailing style of behavioral causes in ESO's, processes of transition by which ESO's shift and/or drift from one prevailing style to another, and matching the ESO's environment, culture, response and capability to each other in order to be successful. The theory of strategic management is a blend of other disciplines, and Ansoff (1979:3) describes it as follows:

> The theory is multi-disciplinary in the sense that it seeks an optic appropriate to the problem and not to a particular scientific discipline. There are two paths to such an optic. One is to attempt an integration of the available disciplinary insights into a coherent whole. The other is to work back from the "real world" problem, abstract the features which appear critical to explanations of behavior, and then selectively borrow from theoretical insights which may be available.

The second path was followed to construct the theory. The constructor was H. Igor Ansoff in his book Strategic Management

(Ansoff,1979). The theory of strategic management deals with a wide scope of possible association among and/or between seven elements. The elements were environmental turbulence, strategic thrust, culture, competence, power structure, strategic behavior, and strategic leadership. For the purpose of this study, the emphasis was placed on "strategic posture analysis" (Ansoff:1984:Chapter 3.4), whereas the analysis maintains that whenever "environmental turbulence," "aggressiveness of strategy," and "openness of capability" match each other on a "five point scale of matching triplets," optimum performance would occur. The research hypotheses for question seven were based on strategic management theory as it applies to environmental turbulence, aggressiveness of strategy, capability, and financial performance.

Research Hypotheses

For research question seven, this study investigated two research hypotheses. The first hypothesis was stated as follows:

> Optimum overall financial performance will occur when the level of environmental turbulence, the aggressiveness of strategy, and the capability match each other.

The second hypothesis of this study, was stated as follows:

> Banks which are not strategically myopic will perform better than banks which are strategically myopic.

The two hypotheses were hypothesized for the overall performance measures. Ansoff (1984:201-202) maintains that the optimum performance (occurs when LET, AS, and OC match each other) is for the profitability measures, namely Return On Equity (ROE) and Return On Assets (ROA).

This study investigated the eight financial measures, with special emphasis on the examination of the above stated two hypotheses which are based on Ansoff's theory of strategic management.

Variables and Relationships

Four types of variables were considered in this study. There were three independent variables, eight dependent variables, two moderating variables, and five intervening variables. The first independent variable was the computed mean of the five characteristics of the level of environmental turbulence. The second independent variable was the computed mean of the ten attributes of the aggressiveness of strategy. The third independent variable was the computed mean of the ten components of capability. The dependent variables were the two year (1983-1984) examination of each of the financial measures. The two moderating variables (MV) were size, and strategic business area (SBA). The five intervening variables (IVV) were used as a result of interactions between the independent variables.

The categorization of variables is explained as follows:

Independent Variables

The three independent variables are:

1. Levels of environmental turbulence.
2. Aggressiveness of strategy.
3. Openness of capability.

Dependent Variables

The eight dependent variables were classified into three types of measures. The three types of measures were overall financial measures (#1 and #2), strategic financial measures (#3,#4, and #5), and operating financial measures (#6, #7, and #8) as follows:

1. Return on Equity (ROE).
2. Return on Assets (ROA).
3. Equity Utilization (EU).
4. Assets Utilization (AU).
5. Loans to Deposits (LD).
6. Profit Margin (PM).
7. Expenditure to Net Income (EI).
8. Equity Multiplier (EM).

Moderating Variables

According to Emory (1980:97), a moderating variable (MV) "is a secondary independent variable which is chosen because it is believed to have a strong contingent or contributory effect on the original IV-DV relationship." The two moderating variables required for this study were the bank's size and the strategic business area(s) (SBA). The two variables were defined as follows:

1. Size: Refers to the total assets over period. This combination provided a measure of determining the bank's size, whether the bank was small, medium, or large.

2. Strategic Business Area: Refers to "an area of business opportunity defined by a distinctive demand-technology life cycle curve"

(Ansoff 1984:483). This study emphasized on five banking strategic business areas as follows:

2.1. Investment banking.

2.2. Assets based banking.

2.3. International group banking.

2.4. Corporate banking.

2.5. Retail banking.

Intervening Variables
(Strategic Gaps)

Each of the strategic gaps is treated as an intervening variable (IVV), because it is a conceptual mechanism through which the independent variables effect the dependent variables, (Emory 1980:99). The five intervening variables were as follows:

1. Strategy Less Capability.
2. Observer's Environment Less Strategy.
3. Observer's Environment Less Capability.
4. Observer's Gap.
5. Observer's Total Gap.

The relationships among variables are as follows:

1. The IV's determine the DV's.
2. Size and SBA may have a relationship with DV's.
3. IVV's are resultant of a combination of two or three IV's, and do impact the DV's.

Each of the eight dependent variables were measured for the last two available years. The computation consisted of the average value over

period. The data was gathered from the most senior executive, assistant to most senior executive, or the executive responsible for a major division (Irvine 1985), of twenty five banks in the Emirate of Abu Dhabi. The total population of banks in Abu Dhabi amount to thirty-five, therefore, the sample of this study consists of 71.42% (twenty-five banks) of the population (Central Bank Annual Report 1981). Financial data originated from income statements and balance sheets published at local newspapers in Abu Dhabi for the most recent two years.

Operational Definitions

The seven research questions of the study required seven definitional paradigms, as follows:

The first research question required the examination of top management's perception of the level of environmental turbulence. An instrument containing four characteristics of the level of environmental turbulence was developed based on an instrument developed by Ansoff (1984). Each of the characteristics of the "level of environmental turbulence" were demonstrated through tabular analysis on Illustration 1. The horizontal axis consisting of a five point scale containing five descriptive factors of the element, repetitive, expanding, changing, discontinuous, and surpriseful. They were measured respectively by 1, 2, 3, 4, and 5 on an interval scale, whereas the characteristics were the logical representation of the scale. The perpendicular axis consisted of the five characteristics. The five characteristics were familiarity of

Illustration 1. Levels of Environmental Turbulence

Level of Growing Environmental Turbulence	STABLE	REACTIVE	ANTICIPATING	EXPLORING	CREATIVE
1.Familiarity of Events	Very familiar	Repetition of experience	Understood if thought of historical development	Discontinuous understood if thought of experience	Not experienced before
2.Rapidity of Change	Much slower than bank's response	Slower than bank's response	Comparable to bank's response	Shorter than bank's response	Much shorter than bank's response
3.Visibility of Future	Reoccurring	Forecastable by extrapolation	Foreseen by analysis of treats & opp.	Difficult to predict	Unpredictable surprises
4.Business Scope	Abu Dhabi	United Arab Emirates	Arab and developing countries	Developing and developed countries	Global
5.Decision Making in terms					
5.1.Economic Changes	Not important	Low importance	Medium importance	High importance	Very high importance
5.2.Technological Changes	Not important	Low importance	Medium importance	High importance	Very high importance
5.3.Socio-political Changes	Not important	Low importance	Medium importance	High importance	Very high importance
1+5 = Complexity					

Source: H. Igor Ansoff "Implanting Strategic Management," (1984:12)

events, rapidity of change, visibility of future, complexity, and cognition of issues. The elements were defined as follows:

1. Level of Environmental Turbulence --- refers to five characteristics. Each characteristic was distributed on a five-point scale, as "stable," "reactive," "anticipating,""exploring," or "creative," as follows:

1.1. Familiarity of events --- or the events which occur in the bank's environment. The events were either "equivalent to not much change," "repetition of experience," "changes were understood if thoughts were oriented toward historical development," "changes were discontinuous but explainable if thoughts were oriented towards experience," or "changes were new and not experienced before."

1.2. Rapidity of change --- or the speed of change occurring in the firm's environment and the bank's response to it. The change was either "much slower than the bank's speed of response," "slower than the bank's speed of response," "comparable to the bank's speed of response," "shorter than the bank's speed of response," "or much shorter than the bank's speed of response."

1.3. Visibility of future --- or the bank's predictability of events to occur in its environment. The visibility of events was either "recurring," "foreseeable by extrapolation," "foreseen through analysis of threats and opportunities," "difficult to predict," or "unpredictable surprises."

1.4. Complexity --- or the extent to which the bank's share of the market is complex, whether the extent of complexity was "limited to national and economic boundaries," "limited to national + economic and

regional boundaries," "limited to national + economic + regional and technological boundaries," "limited to national + economic + regional + technological and global boundaries," "limited to national + economic + regional + technological + global and socio-political boundaries."

1.5. Cognition of issues --- or the extent to which the quantity and quality of strategic issues were perceived (how may). The quantity was either "narrow," "very narrow," "medium," "wide," or "very wide." The extent to which the quality of the strategic issues were perceived was either very unfocused, focused, moderate, focused, or very focused.

The second research question required the examination of top management's perception of the aggressiveness of strategy. An instrument of the two elements of the aggressiveness of strategy was developed. These elements were based on an instrument developed by Ansoff (1984).

These elements were as follows:

1. Aggressiveness of bank's innovation strategy.
2. Aggressiveness of bank's marketing strategy.

Each of the elements of the aggressiveness of strategy was demonstrated through tabular analysis on Illustration 2. The horizontal axis consisted of a two point scale containing five descriptive factors of the five elements,"stable," "reactive," "anticipatory," "exploring," and "creative." The elements were measured respectively by 1, 2, 3, 4, and 5 on an interval scale, whereas the attributes of the elements were the logical representation of the scale. The perpendicular axis

Illustration 2. Aggressiveness of Strategy

Aggressiveness of innovation strategy	STABLE	REACTIVE	ANTICIPATING	EXPLORING	CREATIVE
1.Responsiveness to customers	Neglect	"Our product is what the customer wants"	Anticipation of needs	Identification of unfilled needs	Identification of latent needs
2.Focus of research	None	Service imitation	Service improvement	Adoption of novel services	Pioneering of new services
3.Market development	"Stick to our customers"	"Follow competitors"	Expand to familiar markets	Expand to foreign markets	Create new markets
4.Frequency of new service introduction	Rare	Low	Moderate	High	Very high
5.Role of R & D department	"Seen but not heard"	"Called in when necessary"	Support of marketing	Source of new products	"The elite"
Aggressiveness of marketing strategy	**STABLE**	**REACTIVE**	**ANTICIPATING**	**EXPLORING**	**CREATIVE**
6.Sales aggressiveness	Very low	Low	Moderate	High	Very high
7.Responsiveness to competition	"We do not compete"	"We will respond to aggression"	"We will not be undersold"	"We lead the pack"	"We are our own competitors"
8.Market share	"Grow with the market"	Defend	Increase	Control	Dominate
9.Promotion/ advertising	"Our services speak for themselves"	Reactive	Aggressive	Advanced	Creative
10.Role of marketing department	"To sell what the firm produces"	"To covince customers that our services are sup	"To serve the customers"	"To establish the bank as a marketing leader"	"To establish the bank as a marketing innovator"

Source: H. Igor Ansoff "Implanting Strategic Management'" (1984:225-226)

consisted of five attributes for the first element, and five attributes for the second element. The elements were defined as follows:

1. Aggressiveness of bank's innovation strategy --- refers to five attributes. Each attribute was distributed on a five-point scale, whether the attribute was "stable," "reactive," "anticipatory," "exploring," or "creative" as follows:

1.1. *Responsiveness to customers* --- or the strategy used for responding to customer's needs. The strategy was either "neglecting customers," "the service is what the customer wants," "anticipation of customers needs," "identifying unfulfilled needs," or "identifying latent needs."

1.2. Focus of research --- or the focal point in the firm for the purpose of developing new services. The focus was either on "no service development," "imitation of emerging new services," "improvement of existing services," "adoption of developing services," or "pioneering new services."

1.3. Market development --- or the strategy for developing the bank's market share. The strategy was either "sticking to customers," "following competitors," "expanding to familiar markets," "expanding to foreign markets," or "creating new markets."

1.4. *Frequency of new service introduction* --- or the frequency of introducing new services from the bank to the market. The frequency was either rated as "rare," "low," "medium," "high," or "very frequent."

1.5. Role of research and development department --- or the activities initiated by the research and development department of the bank. The role was either "no research and development," "called in when

necessary," "supporting the marketing department," "source of new products," or "the elite."

2. Aggressiveness of bank's marketing strategy --- refers to five attributes. Each attribute was distributed on a five-point scale, the attribute was either "stable," "reactive," "exploring," "anticipatory," or "creative" as follows:

2.1. Sales aggressiveness --- the intensity of selling the bank's services. The intensity was either "very low," "low," "medium," "high," or "very high."

2.2. Responsiveness to competition --- or the strategy used from the bank to respond to competition. The strategy was "not to compete," "responding to aggression," "neither aggressive nor pack leaders," "pack leading," or "we are our own competitors."

2.3. Market share --- or the strategy used by the bank to expand the market share. The strategy was either "growing," "defending," "increasing," "controlling," or "dominating the market share."

2.4. Promotion/Advertising --- or the strategy used by the bank to disclose the available services to customers. The strategy was either "that the bank's promotion and advertising spoke for itself," "reactive," "aggressive," "advanced," or "creative."

2.5. Role of marketing department --- or the activities commenced by the marketing department of the bank. The activities were either "making services available at the market place," "convincing customers that the bank's services were superior," "to influence service development to be responsive to customer needs," "to establish the bank

as a marketing leader," "or to establish the bank as a marketing innovator."

The third research question required the examination of top management's perception of the capability. A paradigm of the three elements of the capability was developed. These elements were based on an instrument developed by Ansoff (1984). These elements were as follows:

1. Manager's profiles.
2. Management climate profiles.
3. Management competence profiles.

Each of the elements of the capability were demonstrated through tabular analysis on Illustration 3. The horizontal axis consisted of a five point scale containing five descriptive factors of the three elements. The elements were "custodial," "production," "marketing," "strategic," and "flexible." The elements were measured respectively by 1, 2, 3, 4, and 5 on an interval scale, whereas, the components of the elements were the logical representation of the scale. The perpendicular axis consisted of four components for the first element, three components for the second element, and three components for the third element. The elements were defined as follows:

1. Managers profiles --- refers to four components and each component was distributed on a five-point scale. The component was either "custodial," "production," "marketing," "strategic," or "flexible," as follows:

1.1. Risk propensity --- or top management's risk propensity. The propensity was towards either "rejecting risk," "accepting familiar

Illustration 3. Openness of Capability

Managers profiles	CUSTODIAL 1	PRODUCTION 2	MARKETING 3	STRATEGIC 4	FLEXIBLE 5
1. Risk propensity	Reject	Accept familiar risks	Seek familiar risks	Seek unfamiliar risks	Seek novel risks
2. Problem solving	Trial/error	Diagnostic	Optimization	Alternative search	Alternative creation
3. Knowledge	Internal politics	Internal operations	Traditional market and competitors	Global opportunities	Emerging environment
4. Model of success	Stability/ repetition	Service efficency	Balance of internal efficiency and market responsiveness	Investement in most profitable available opportunities	Creativity
Management climate profiles	**CUSTODIAL 1**	**PRODUCTION 2**	**MARKETING 3**	**STRATEGIC 4**	**FLEXIBLE 5**
5. Attitude toward change	"Don't rock the boat"	"Roll with the punches"	"Plan ahead"	"If it's new it's good"	Create the future
6. Change trigger	Crisis	Unsatisfactory results	Threats	Threats and opportunities	Continued search for change
7. Initiative	"Don't volunteer"	"Follow the rules"	"Run with the ball"	"Be a careful self-starter"	"Be a self-starter"
Management competence profiles	**CUSTODIAL 1**	**PRODUCTION 2**	**MARKETING 3**	**STRATEGIC 4**	**FLEXIBLE 5**
8.Problem solving process	Hierarchical	Hierarchical and compartmentalized	Hierarchical and firm wide	Firm wide and problem centered	Problem centered
9. Information system	Informal precedents	Past performance	Extrapolative forcasting	Some environmental	Environmental surveillance
10. Rewards & incentives	Length of service	Past performance	Contribution of growth	Contribution to innovation	Contribution to innovation

Source: H. Igor Ansoff "Implanting Strategic Management," (1984:227-229)

risks," "seeking familiar risks," "seeking unfamiliar risks," or "seeking novel risks."

1.2. Problem solving --- or top management's way of solving problems. Problem solving was through either "trial and error," "diagnosis," "choosing among existing alternatives," "searching for new alternatives," or "creating alternate solutions."

1.3. Knowledge --- or the knowledge required by top management for conducting business. The knowledge was either "internal politics," "internal operations," "traditional markets + competitors behavior and processes concepts," "global opportunities," or "changes in the environment."

1.4. Model of success --- or top management's model of success. The model was either "stable/repetitive," "service efficiency," "balance of internal efficiency and marketing responsiveness," "investment in most profitable available opportunities," or "creativity."

2. Management Climate Profiles --- refers to three components. Each component was distributed on a five-point scale, as either "custodial, " "production," "marketing," "strategic," or "flexible," as follows:

2.1. Attitude towards change --- or management's attitude towards change. The attitude was either to "reject change," "react to change," "seek familiar change," "seek novel change," or to "create change."

2.2. Change trigger --- or management's change trigger in the bank. The trigger was either "crisis," "unsatisfactory results," "threats," "threats and opportunities," or "search for change."

2.3. Initiative --- or management's initiative in the bank. The initiative was either "don't volunteer," "follow the rules," "run with the ball," "be a careful self-starter," or "be a self-starter."

3. Management Competence Profiles --- refers to three components, each component was distributed on a five-point scale. The component was either "custodial," "production," "marketing," "strategic," or "flexible," as follows:

3.1. Problem solving process --- or management's problem solving process. The process was either "hierarchical," "hierarchical and compartmentalized," "hierarchical and firm wide," "firm wide and problem centered," or "problem centered."

3.2. Information system --- or the base of the bank's information system. The base was either "past issues," "past performance," "extrapolative forecasting," "extrapolative forecasting and some environmental surveillance," or "environmental surveillance."

3.3. Rewards and incentives --- or the system of rewards and incentives in the bank. The system was either "length of service," "past performance," "contribution of growth," "contribution of growth and contribution to innovation," or "contribution to innovation."

The fourth research question required the examination of relationship among the independent variables. The operational definitions are the same as those for research questions one, two, and three.

The fifth research question required the examination of the difference in financial performance. The measures used were derived from Ansoff (1971), Weston and Brigham (1981), Sinkey (1983), and Troy (1985).

The computations could be found in most financial texts. The measures were divided into three categories. The eight variables of the three categories were operationally defined as follows:

1. Return on equity (ROE) --- This "measures profits per dollar of bank capital" (Sinkey 1983:202). The following equation demonstrates the computation of ROE:

$$ROE = \frac{\text{Net income}}{\text{Equity}} \times 100 = ROA \times EM = \%$$

2. Return on assets (ROA) --- This "measures profits or net income per dollar of assets" (Sinkey 1983:204). The following computation demonstrates the computation of ROA:

$$ROA = \frac{\text{Net income}}{\text{Total assets}} \times 100 = PM \times AU = \%$$

3. Assets utilization (AU) --- "AU measures a bank's ability to generate per dollar of assets." (Sinkey 1983:207). AU is computed by the following equation:

$$AU = \frac{\text{Revenue}}{\text{Total assets}} \times 100 = \%$$

4. Equity utilization (EU) --- This measures "the rate of turnover of the owner's investment" (Troy 1985:XV). This measure is computed by the following formula:

$$EU = \frac{\text{Revenue}}{\text{Equity}} \times 100 = \%$$

5. Loans-to-deposits (LD) --- refers to the bank's liquidity "or the extent to which deposits have been used to meet loan requests. A high ratio is supposed to indicate a bank that is loaned up or relatively illiquid, whereas a low ratio indicates a liquid bank with excess lending

capacity" (Sinkey 1983:242). This is measured by computing the following formula:

$$LD = \frac{\text{Loans}}{\text{Deposits}} \times 100 = \%$$

6. Profit margin (PM) --- refers to the margin of the bank's profitability. This measure determines low performance banks from high performance banks (Sinkey 1983:202-204,230). This is computed by the following equation:

$$PM = \frac{\text{Net income}}{\text{Revenue}} \times 100 = \%$$

7. Equity Multiplier (EM) --- refers to total assets divided by total equity capital. This measures "the dollar amount of assets pyramided on a bank's equity base" (Sinkey 1983:5). The equation is as follows:

$$EM = \frac{\text{Total Assets}}{\text{Equity}} \times 100 = \%$$

"In banking, financial leverage is referred to as capital adequacy and commonly measured by a bank's capital-to-assets ratio or its reciprocal, the equity multiplier (EM)" (Sinkey 1983:410).

8. Expenditures to net income (EI) --- This measure refers to the rate of expenditure divided by net income. Expenditures included all costs, bad and doubtful debt, and any other liability incurred by the firm. This measure is computed by the following formula:

$$EI = \frac{\text{Expenditures}}{\text{Net Income}} \times 100 = \%$$

The sixth and seventh research questions were operationally defined as a mixture of all of the above operational definitions.

Definitions

Aggressiveness of Strategy --- or "strategic aggressiveness", refers to the "degree of discontinuity between successive strategic projects" (Ansoff 1984:475).

Anticipating --- refers to an environment that is changing incrementally fast, yet it is forecastable (Ansoff 1984).

Climate --- refers to "the part of capability which determines the firm's predisposition for a particular type of behavior" (Ansoff 1984:476).

Competence --- refers to "the part of capability which determines the firm's ability to make effective a particular type of behavior" (Ansoff 1984:476).

Discontinuity --- refers to "an event which does not follow from extrapolation of a series of preceding events" (Ansoff 1984:477).

Epistemology --- "the theory or science that investigates the origin, nature, methods, and limitation of knowledge" (Webster's Dictionary 1983:614).

Extrapolative --- refers to "planned management based on extrapolation of alternatives used in the past" (Ansoff 1984:480).

Financial Performance --- refers to the bank's financial performance in terms of three categories, which are: 1. overall performance measures, 2. strategic performance measures, and 3. operating performance measures.

Level of Environmental Turbulence --- "the level of turbulence in an industry is the state of knowledge at which environment serving

organizations in the industry must start response in order to respond effectively to environmental changes" (Ansoff 1979:56).

Myopic --- refers to Ansoff's maintaining "that an environment serving organization is myopic if its perception of the environment is narrower than needed to capture the full scope of the environmental turbulence" (Ansoff 1979:145).

Operating Performance Measures --- refers to the firm's operating financial efficiency. The three variables used for this measure were profit margin, equity multiplier, and expenditures to net income.

Overall Performance Measures --- refers to firm's strategic financial effectiveness and operating financial efficiency. The two variables used for this measure were return on equity, and return on assets.

Reactive --- refers to "management which procrastinates beyond the initial impact and responds only when a challenge begins to have a serious impact on the firm's performance" (Ansoff 1984:480).

Requisity Variety --- "an organizational response to the environment whose complexity matches the complexity of the environment" (Ansoff 1984:482).

Stable --- refers to an environment that is repetitive with no anticipated change (Ansoff 1984).

Strategic Performance Measures --- refers to the firm's strategic financial effectiveness. The three variables used for this measure were assets utilization, equity utilization, and loans to deposits.

Strategic Posture --- refers to "a combination of portfolio strategy with competitive postures in the firm's (bank's) strategic business areas (SBA)" (Ansoff 1984:485).

The Research Approach

A descriptive elemental research approach was utilized for questions 1, 2, 3, and 4. This approach expanded upon the qualities of the two elements of the levels of the environmental turbulence, the two elements of the aggressiveness of strategy, the three elements of the openness of capability, and the eight financial performance measures. A descriptive correlational research approach was utilized for questions five, six and seven, to determine the relationships between the independent variables, dependent variables, moderating variables, and intervening variables of this study. In this study, all statistical analysis are at a 0.05 confidence level or less.

Criteria for Data Sources

The data sources consisted of two types. The first was identified as top management and the second as outside observers.

Criteria for the First Data Sources

Criteria for selecting top management data sources were as follows:

1. All available banks, amounting to thirty-five banks. (Annual Report of the Central Bank of United Arab Emirates, 1981).

2. The location of the banks was Abu Dhabi, the capital of United Arab Emirates.

3. Subjective data originated from the highest executive officer of the firm.

4. Objective financial data originated from the financial statements of all the banks from December 31- 1981 / December 31-1984.

5. Banks selected were in operation for the last three years December 31-1981/December 31-1984.

Criteria for the
Second Data Sources

The criteria for the second data sources refers to outside observers as follows:

A sample of twenty outside observers (not directly involved with any of the banks), such as executives at the central bank, executives at the ministry of planning, executives at the ministry of finance and industry, financial, economic and management consultants, columnists, and public accountants, who have been involved in activities of that nature for three years or more. The emphasis for selecting outside observers, was placed on quality rather than quantity, and their accessibility to first hand information regarding banks in United Arab Emirates.

Background

Strategic management studies have mainly focused on the behavior of firms located in industrial market economies. By contrast, this study

sought to explore a new dimension related to a high income and oil exporting country. There are four high income and oil exporting countries (World Development Report, 1982). They are Kuwait, Libya, Saudi Arabia, and United Arab Emirates. The country selected by this study was United Arab Emirates, as this country has been incurring decreases in oil exports and prices, which have resulted in lower oil revenues since 1981 (Annual Report of the Central Bank of United Arab Emirates, 1983). The banking industry is the center of all economic activities in terms of financial transactions, therefore, U.A.E.'s world position as an oil exporter has increased international commercial transactions nationally and abroad. A study such as this could be a step toward the understanding of strategic behavior of banks in a high income and oil exporting country. As one witnesses the emergence of a turbulent and novel global environment, studies of this nature might be of aid in the perception of the environmental turbulence, and as a consequence, better management might emerge.

Strategic posture analysis is a part of the strategic management theory. The epistemological background of the theory was categorized by investigating the origin, nature, methods and limits of a phenomenon to provide a better understanding of complexity, and in turn, results in creating solution(s) (requisity variety) to "real world" problems, if creation is necessary. For example, H. Igor Ansoff (1984:455) maintains that:

> The major aim of an effort to understand a previously unstudied part of reality is to reduce the complexity of the real world to a model which is comprehensible and manipulable by man.

The previously mentioned aim is demonstrated in Ansoff's contributions, specifically his two books Strategic Management (1979) and Implanting Strategic Management (1984). The former elaborated on 11,250 strategic behaviors and their applicability, and the latter elaborated on selecting the strategic behavior which matches the environment, specifies the objectives, and allocates the resources.

Other strategic management studies have investigated issues similar to those in the area of concern, but not necessarily identical. For example, Wood and LaForge (1979) examined the association between "comprehensive planning" and "financial performance" in American large banks, and Smart and Vertinsky (1984) examined four types of strategies which were used to respond to environmental challenges in ninety-four firms engaged in various functions.

Contributions to the area of concern by researchers have been fruitful to practitioners. Contributions such as Chandler (1962), Bougeois (1980 a and b), Leontiades and Tezel (1980), Miller and Frigsen (1983), Robinson and Pearce (1983), and others have emphasized the need for further research. It seems, therefore, that further research is needed to examine the behavior of environment serving organizations, especially research which would elaborate on the

role of the strategic behavior, and its relationship with financial performance.

Summary

This chapter presents the purpose of tnis study, which was to examine the banking industry of a high income, oil exporting country. The examination was by comparing top management's perception of the level of environmental turbulence, comparing top managements's perception of the aggressiveness of strategy, comparing top management's perception of the openness of capability, comparing the financial performance of the banks, and determining the relationship between the level of environmental turbulence, the aggressiveness of strategy, the openness of capability, and the financial performance of banks in Abu Dhabi. Seven research questions were presented. Variables and relationships were described and their origins were sighted as the foundation for the framework of the study. A descriptive-elemental research approach was used for questions 1, 2, 3, and 4. For question 5, 6, and 7, a descriptive-correlational research approach was utilized. The criteria for selection of data sources was presented. A brief background was the conclusion of this chapter.

Chapter 2

REVIEW OF SELECTED RELATED LITERATURE

The purpose of this chapter is to illustrate that very little work has been directed to examine the relationships between levels of environmental turbulence (LET), aggressiveness of strategy (AS), openness of capability (OC), and financial performance. This chapter consists of three sections. The first section contains a review of the evolution to strategic management. The second section consists of selected publications on various types of work on strategic management. The third section reviews previous strategic management studies and articles related to levels of environmental turbulence, aggressiveness of strategy, openness of capability, and financial performance.

Evolution to Strategic Management

Herman Kahn (1979:7) stated that "excluding great religious events, there are two great watersheds of civilized history" They are:

1. The agricultural revolution in the fertile crescent of the Middle East.

2. The industrial revolution in Holland and England.

The first watershed was characterized by slow changes. It took about eight thousand years to circulate around the world. The second watershed,

the industrial revolution, has been around for approximately the past two hundred years, and could be characterized by moderate change.

Recently a new event is taking place, the "post industrial era" (Daniel Bell:1973). This era is characterized by rapid changes, innovations, severe competition, internationalization, cultural intermixes, and competitive economic, social, technological and political complexities. The focal point is that the speed of change (Ansoff 1979) is much faster than the speed of change of the agricultural and industrial revolution. Contemporary events show that previous ways of responding to these changes are not applicable anymore. This, in turn, places fundamental concerns on the need for new sets of guidelines for providing direction and reducing complexity in such a turbulent environment. A relatively new way of addressing these changes is called "strategic management."

Attention of immense magnitude has been given to strategic management applications. This is due to the prevalence of strategic management as a gap narrowing, applied theory between practical technology and theoretical insights of "the behavior of complex organizations in turbulent environments," see Ansoff (1979:1). H. Igor Ansoff (1984:584) defined strategic management as follows:

> A process for managing the firm's relationships with its environment. Consists of STRATEGIC PLANNING, CAPABILITY PLANNING, AND MANAGEMENT OF CHANGE.

Ansoff (1983) provides four models for strategic behavior. Each of the models is divided into two change processes, incremental and discontinuous. An illustration of the model is provided on Illustration 4. The horizontal axis represents two change processes and the vertical

Illustration 4. Four Models of Strategic Behavior

MODEL of SUCCESS \ CHANGE PROCESS	INCREMENTAL	DISCONTINUOS
ORGANIC MANAGEMENT	Serendipitous Evolution Simon and March	Crisis Mutation
REACTIVE MANAGEMENT	Reaction to Dysfunctions J. Thompson Cyert & March	Crisis Mutation Alfred D. Chandler
AD HOC MANAGEMENT	Episodic, local Extrapolation B. Quinn	Trial & Error Search H. Mintzberg
SYSTEMATIC MANAGEMENT	Periodic Comprehensive Extrapolation G. Steiner	Comprehensive Periodic Anticipation H. Igor Ansoff

Source: H. Igor Ansoff 1983

axis provides four models of success. The description is as follows:

1. Organic --- refers to two change processes as follows:

1.1. The incremental refers to serendipitous evolution which is emphasized by Simon and March, 1958. They placed emphasis on the organization and the human factors involved. They maintained that the organic part of the organization is the main influence on it. Furthermore, they investigate relationships among members and groups and explore ways of resolving conflicts.

Whenever changes in the environment occur, structure was considered that part of the organization which remains stable. Innovation was considered a link to the aspiration level of the individuals. Innovation and aspiration are influenced by environment.

1.2. Simon and March, (1958) could be referred to as incremental as well as discontinuous. They are discontinuous in the sense that they emphasize "crises mutation." Crisis mutation refers to the idea that when problems occur, actions at the right time might allow the organization to stay in business.

2. Reactive --- refers to two change processes, which are described as follows:

2.1. The incremental refers to "reaction to dysfunctions," which is emphasized by Cyert & March (1963). They emphasized a model of 3 moving elements of development: 1. administrative, 2. sociological, and 3. psycho-sociological. They placed emphasis on the administrative part of decision-making, as it is influenced by sociological and psycho-sociological elements. Furthermore, major emphasis was placed on planning as a focal function of decision-making to reduce environmental

uncertainty. They maintain that there are four factors in the decision making process:

1. Quasi-resolution of conflict.

2. Uncertainty avoidance.

3. Problematic search.

4. Organizational learning.

J. Thompson, 1967, investigated what and how do organizations transact. He placed emphasis on the application of strategies to openness and closeness of the organizational system. Furthermore, he elaborates by pointing out that the critical problems in evaluating the firm's position are:

1. The organizational realization of optimum achievement.

2. The determination of the organization's suitability for future endeavors. Thompson examines structure in accordance with its relationship with the openness and closeness of the system, and as determined by members individually in the organization. Furthermore, decision making processes is examined through a 2x2 matrix, which is cause and effect on the one hand, and certainty and uncertainty on the other hand.

2.2. The discontinuous refers to "crisis mutation" which is also emphasized by A.D. Chandler, 1962. Chandler provided historical descriptions of firms, finding the significance of the environment as a fundamental issue. If a survival crisis occurs, incrementaly discontinuous environment manifests. Therefore, a new strategy is deployed to produce acceptable performance. As a result of discontinuity of the firms historical strategy/structure composition, a mismatch of

strategy occurs, leading to an adoption phase in order for strategy/structure to evolve and gain balance. This in turn, leads to success.

3. Ad Hoc --- refers to two change processes which are described within the context as follows:

3.1. The incremental refers to "episodic," "local," and "extrapolation," which is emphasized by B. Quinn (1980) in his descriptive investigation of logical incrementation. Quinn maintains that "when well-managed" firms change their strategy, the processes utilized are, most of the time, not similar to the logical analytical systems described in the literature. Therefore, Quinn postulates a strategy development process characterized by logical incrementalism, for strategic changes which are not resultant from crises. When the firm is confronted by crises during normal day-to-day operations, rational analysis are recommended for utility.

3.2. The discontinuous refers to "trial and error search," which is emphasized by H. Mintzberg (1979) in his examination of the firms organizational structure. He examined peripheral concepts to organizational structure, some of the concepts are: decision making groups, organizational design, power, span of control.

Mintzberg hypothesizes that when complexity increases, decentralization of the structure increases also. (Mintzberg 1979:187). For Mintzberg a 4 x 4 Matrix represented environment and structure. Environment is categorized by four attributes, namely - "stable, dynamic, complex, or simple." Structure is categorized by four attributes also, "centralized, decentralized, organic, or bureaucratic."

4. Systematic refers to two change processes, as follows:

4.1. The incremental refers to "periodic comprehensive extrapolation," which is emphasized by G. A. Steiner (1979:16-30), and H. I. Ansoff (1965, 1984) in their "strategic planning" conceptualization. They maintain that firms are better off with a comprehensively explicit and formally preplanned strategy. They fundamentally stress the anticipation of the future, rather than "reacting" to it's outcome. Furthermore, the strategic decision-making process materialized through examining a chain of cause and effect (what if?).

4.2. The discontinuous refers to "comprehensive periodic anticipation." H. I. Ansoff elaborated on this in his invention of "strategic management." The theory of strategic management deals with a wide scope of possible association among and/or between seven elements. The elements are environmental turbulence, strategic thrust, culture, competence, power structure, strategic behavior, and strategic leadership. The theory provides "how to" guidelines for improving the firm's performance at different levels of environmental turbulence (Ansoff:1979). The core of the theory is focused on management of change by anticipating the future environmental turbulence, developing the required strategy (if the current strategy is not appropriate), and having the capability to support the strategy. During the process of matching environment, strategy, and capability, management of resistance must be applied, if resistance is evident.

Various Works in Strategic Management

The theory of strategic management is an applied theory. It attempts to provide insights into managerial issues, such as, behavioral patterns of environment serving organizations (ESO's), causes of behavioral differences in ESO's, success and failure contributing agents in ESO's, choice of specific prevailing style of behavioral causes in ESO's, processes of transition by which ESO's shift and/or drift from one prevailing style to another, and matching the ESO's environment, culture, response and capability to each other in order of being successful. The theory of strategic management is a mixture of other disciplines, as described by Ansoff (1979:3):

> The theory is multi-disciplinary in the sense that it seeks an optic appropriate to the problem and not to a particular scientific discipline. There are two paths to such an optic. One is to attempt an integration of the available disciplinary insights into a coherent whole. The other is to work back from the "real world" problem, abstract the features which appear critical to explanations of behavior, and then selectively borrow from theoretical insights which may be available.

The second path was followed to construct the theory. The constructor was H. I. Ansoff in his book Strategic Management (Ansoff,1979).

Chandler (1962), in his examination of a large sample of industrial firms in the United States of America, provides generalizations about growth and management of these firms. He maintains that the fundamental purpose of structure is to unite all activities of the firm in meeting market demands. Chandler (1962) examined the strategy - structure relationship. This study is based on Ansoff (1979 and 1984), which originated from Chandler's "strategy - structure.

Changes in the nature of American industry have occurred during the past fifty years, and change will continue to occur, as maintained by Johan K. Galbraith (1963,1967, and 1969). Galbraith emphasizes that traditional economic models are not applicable anymore, therefore, new developments are required to respond to these changes.

Galbraith (1969:30-35) advanced that firms face technological consequences. These consequences result from technological innovations, which impact the relationships between other organizations, customers, and the state. He added that six consequences are of urgent nature. They are:

1. Longer time from innovation to production of products.

2. More investment for production.

3. Inflexibility in committing time and money.

4. The need for specialized human resources, which direct the firm after anticipating the future.

5. The need to control and coordinate specialists, due to organizational complexity

6. Due to all the above, the necessity for planning is emphasized.

Edgar H. Schein, (1980:252) places emphasis on "organizational effectiveness." He maintains that "good communication, flexibility, creativity, and genuine psychological commitment," are the background for effectively organizing the firm, and coping with environmental changes.

R. Rummelt analyzed the behavior of the 1949, 1959, and 1969 Fortune 500 companies. The strategy for success was the companies' diversification for growth. Although Rummelt (1974:33) maintains that structure consists of " systems of control, planning information flow,

methods of reward and punishment and degree of delegation," he examined structure more as the organism of the firm.

D. Channon (1973) centralized on the sequence of strategy and structure to execute normative performance. Upon completing a survey on the British enterprise, Channon wrote that the adoption of the new strategy, due to the changes of the environment, also brought a dramatic change in the administrative structure of the large corporate enterprise. The multidivisional structure provided the administrative mechanism to control, consolidate, and institutionalize the new strategy (Channon, 1973:238).

Thorelli covered the issues of strategy, structure and performance (1977). He discussed performance, but did not mention how the performance is effected when changes of strategy and structure occur. He also spoke of bargaining power, and/or "politics," to achieve the goals of the firm. Thorelli distinguished between the environment inside and outside the firm.

AcKoff (1981) emphasized four basic traits in planning:

1. Reactive - refers to those who avoid change, respect history, and preserve tradition. They are neither satisfied with the past nor the future. They want things the way they are at present.

2. Inactive - refers to those who have stability and survival as their objectives. They delay responding to crises until their objectives are threatened. They want things the way they were in the past.

3. Proactive - refers to those who anticipate the future, are prepared to minimize the impact of predicted threats, and capitalize on predicted future opportunities. They seek change and abhore the past.

4. Interactive - refers to those who create the future, learn new developments, and adapt to fast changes. They possess the best traits for responding to high levels of environmental turbulence.

H. Igor Ansoff's work (1965, 1979, 1984) contains an analysis of the relationship of capability, strategy, environment and performance. Included in his work are theoretical propositions, whereby for different types of environments, different solutions are applied.

There are various studies which examine the relationships between strategic planning and performance. The results divide them into two groups:

1. Those who found that strategic planning does contribute to better performance (Ansoff, Brandenburg, and Radosevich, 1971; Herald, 1972; Rug, 1973; Kager and Malik, 1975; Burt, 1978; Wood and LaForge, 1979, Rhyne, 1986; and others).

2. Those who found that strategic planning does not contribute to better performance (Norburn, 1975; Kudla, 1980; Leontiades and Tezel, 1980; and others).

Greenly (1986) points out five weaknesses in studies concerning strategic planning and performance. The weaknesses are:

1. Not identifying other variables associated with the implied relationships.

2. Subjectivity in paradigmic conceptualization.

3. Personal and methodological bias.

4. Uncommon parameters of assessments were evident.

5. Statistical significance of results varied, and was not reported in some cases.

Furthermore, it seems that great emphasis has been placed on strategic planning, while it is a part of the components of the "Management Competence Profiles," which is one of the four elements of capability. (See Ansoff 1979,1984). Therefore, Greenly's first critique is in order (the other four are in order also), except he did not explicitly emphasize the other variables, which may impact performance. These variables could be environment, strategy, and capability. This study maintains that they are the variables which determines financial performance.

Environment, Strategy, and Capability

Contemporary firms are confronted by high levels of environmental turbulence, which may cause extinction, or limited, growth, if any. The fundamental ability of top management's accurate anticipation or perception of future turbulence, will enhance the firms ability to survive in such turbulent environments. This section of the chapter is directed towards exploring the works of a selected collection of sources concerning levels of environmental turbulence, aggressiveness of strategy, openness of capability, and performance.

The environment was identified by Aguilar (1967) as an important variable for a firm's survival. Adapting to the environment is the core of survival. Aguilar divides the environment into four elements, social, economic, political, and technological.

The environment of a firm constitutes both physical and social elements as defined by Duncan (1972). He adds that these two elements are directly considered when decision-making materializes in the firm. Duncan

maintains that the environment is further divided into internal and external components. The internal refers to the social and physical elements inside the firm, and the external refers to the same two elements outside the firm. Duncan concludes by emphasizing the importance of the environment when decisions are made. He maintains that as the turbulence of the environment increases, the uncertainty increases, and as the environmental turbulence decreases the uncertainty decreases, as well.

Raymond E. Miles, Charles C. Snow, and Jeffrey Pfeffer (1974:263), in their article on organizational environment, addressed the extent to which the environment shapes the organization. They maintain that "we have no doubts that organizations must, and do adjust their strategies, technologies, structures, and processes to meet changing environmental demands." They further add on page 264, that managerial perceptions of the environment are a key variable in deciding how to adjust to the environment.

Porter (1979:137-144) maintains that the five forces which determine the nature and degree of competition in any industry are :

1. Threats of new comers.
2. Customers' bargaining power.
3. Suppliers' bargaining power.
4. Substitution of product/service.
5. Fluctuation of supply.

Understanding of the workings of the above as they relate to the firm, is an important factor in adjusting to them.

The environment is "often uncertain, bewildering, complex, and rapidly changing " according to Ellis (1982:3-12). He provides responses to such an environment by suggesting practical, active, flexible, and sensitive actions.

The relationship between strategic planning and environmental perception was examined by Javidan (1984:383-392). His results implied that perception of the environment is a strong moderator for responding to the environment.

Smart and Vertinsky (1984:199-212) said that modern organizations exist in turbulent environments which cause survival and growth threats. They examine the relationship between strategy and environment. Their findings emphasized that perception of the environment, and the cost to respond, are crucial elements of success.

Ansoff (1965) proposed one of the first detailed procedures for analyzing the economic dimensions of strategy formulation processes. He placed emphasis on the content of strategy, with further emphasis on synergy as a major factor of the strategic choice.

Business strategy placement in the context of the contingency theory was elaborated on by Hofer (1975:785-805). Hofer emphasized the need for a conceptual framework for strategy. He interrelated propositions of strategy formulation processes, and strategy content propositions, from the normative literature. His conclusions are twofold:

1. The contingency theory development for business strategy is important. It should at least improve productivity, regardless of the firm's size, which will lead to the betterment of society as a whole.

2. Such theories might be impactful in terms of the antitrust regulations, specifically calculations (reasonably precise calculations) of economic costs, when antitrust is applied to an industry. It would help in reducing the amount of economic resources wasted by the nation.

One of the tools of strategic management is the "company mission," which is emphasized by Pearce II (1982:15-24). He elaborates on a framework for developing a company mission, and emphasizes further on the importance of stating it. This should aid in highlighting the demands placed on the mission internally, as well as externally. His conclusion maintains that the mission statement is derived from specifying the firm's ultimate aim. This, in turn, should result in sustained survival, growth, and profitability.

Miller and Friesen (1983:221-235) investigated the relationship between strategy and environment among two distinct samples. They emphasized that an increase in environmental change should be positively correlated to the strategy. Their findings imply that positive correlations between strategy and environment are stronger in successful firms. In their words, "a third link, that between strategy-making and environment, must also be carefully managed."

Gluck, Kaufman, and Walleck (1980:154-161) maintain that the best firms are firms which plan their future formally and explicitly. They stress that their "findings indicate that formal strategic planning does indeed evolve along similar lines in different companies." Furthermore, extrapolations of past trends, and attempting to anticipate future political, economic, and social events, is of great significance in order to provide the most suitable future strategy.

An examination of the impact of environment and strategy, on short term success of 358 large business firms over a 45 year period, was conducted by Jauch, Osborn, and Glueck (1980:49-63). Their findings imply that short term success occurs when environment and strategic change are linked in the organization.

Hall (1980:75-85) studied the strategic choices which offer the best probability for survival, growth, and ROI in a hostile environment. His study encompassed 8 industries, which amounted to 64 large firms. His findings emphasize perceptions of emerging hostilities in the environment and early strategic repositioning as keys for success.

The examination of capability is relatively new as a factor encompassing four diagnostic elements: 1) managers, 2) climate, 3) competence, and 4) capacity (Ansoff 1979,1984). The literature provided is using "structure" as an element by itself, while for this study, structure is a part of general management capability (Ansoff 1979:79).

Lenz (1980:209-226), in his empirical field study of fifty savings and loan associations, found that high performing organizations significantly differ in their "environment, strategy, and organization structure" than low performing organizations. He maintains that each of the factors individually (environment, strategy, and organization structure) are not sufficient to explain the difference in performance.

As could be seen from the above reviews, contributors to strategic management have elaborated on environment, strategy, and capability, by using a mixture of two only, at best, and their relation with performance. Very few have examined the three variables together (environment, strategy, and capability) and their relation with

performance. Ansoff (1979,1984) provides a conceptual framework for the integration of the three and their relation with performance. Furthermore, Ansoff (1979:79) incorporates structure as an attribute of "general management competence," which is a part of capability.

The only study which examines such relationship is Hatziantoniou's (1986). He examined the strategic posture of fifty-nine firms in the United States of America. The study concluded that optimum financial performance occurs when the environment, strategy, capability gap is smallest. Furthermore, firms which had no gap are significantly different, in terms of their financial performance, from firms which have a gap, and they outperformed the firms with gap. Hatziantoniou's results were manifested in firms engaged in different strategic business areas.

Summary

Three sections were contained in this chapter. The sections reviewed selected literature related to strategic management. Section One contained a review of the evolution to strategic management. Section two consisted of selected publications on various types of work on strategic management. Section Three reviewed selected articles and studies related to levels of environmental turbulence, aggressiveness of strategy, and openness of capability in terms of their relation to performance. The chapter concludes by emphasizing that there is little research done on the relationships between environment, strategy, capability, and performance.

Chapter 3

METHOD

Methods and procedures of the study are presented in this chapter. They were comprised of descriptions of the research design, data sources, instrumentation, procedures, analysis of data, and research hypothesis, research assumptions, and delimitations.

The study contained a twofold contemporary field survey design, utilizing a personal interview for subjective data, while objective data was gathered from financial statements. The purpose of the study was reflected by the survey method, which in return, emphasized the appropriateness of the survey method. The purpose of this study was to examine the banking industry of a high income, oil exporting country. The questions were directed to assess the following: top management's (TM) perception of the levels of environmental turbulence, outside observers' (OO) perceptions of the level of environmental turbulence, top management's perceptions of the aggressiveness of strategy, top management's perceptions of the firm's capability, the financial performance of the banks, and the relationship between the level of environmental turbulence, aggressiveness of strategy, capability, and financial performance measures. To determine the focal area of the study, seven research questions were formulated.

1. To what extent do top managers in banks differ in their perceptions of the levels of turbulence in the environment in which they

operate, from outside observers perceptions of the levels of turbulence in the banking industry?

2. To what extent do top managers in banks differ in their perceptions of the aggressiveness of strategy of all of the banks as compared to:

2.1. Outside observers perceptions of the environmental turbulence?

2.2. The levels of environmental turbulence as perceived by top managers of all banks?

3. To what extent do top managers in banks differ in their perceptions of the capability of all the banks as compared to:

3.1. Outside observers perceptions of the environmental turbulence?

3.2. The level of environmental turbulence as perceived by top managers of all banks?

3.3. The aggressiveness of strategy as perceived by top managers of all banks?

4. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, and openness of capability?

5. What are the relationships between the financial measures of the bank's performance, in terms of:

5.1. Other financial measures?

5.2. Independent variables drawn from banks' strategic posture?

5.3. Financial performance measures as a function of bank groupings?

6. What are the correlations between the eight financial performance measures and each of the following:

6.1. Eight elements of the strategic posture?

6.2. Twenty-nine sub-elements of strategic posture?

6.3. Ten strategic gaps?

6.4. Banks size and five strategic business areas (SBA)?

7. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, openness of capability, and the financial performance measures of the banks?

Data Collection

Data sources, sample of data sources, instrumentation, and procedures which were utilized for the study are specifically described in this section of the chapter. The pilot study was described in this section as well. The data collection lasted approximately four months while the interviews lasted from one to five hours each.

Data Sources

Data sources' selection commenced from specific criteria. The criteria were as follows: thirty-five banks located in Abu Dhabi, interval (subjective) data originated from top managers, cardinal (objective) financial data originated from official financial records, and banks were in operation for the last three years (December 31, 1981 - December 31, 1984). Illustration 5 demonstrates the type of data collected and the data sources. The data for levels of environmental turbulence was collected from outside observers and top managers. The

Illustration 5. Types and Sources of Data

data for aggressiveness of strategy and openness of capability was collected from top managers only. Financial data was collected from published newspapers in United Arab Emirates between 1981 and 1984. The financial data was not included in the references cited, due to promised confidentiality to top managers. The publications were "Khaleej Times," "Al-Bayan," "Al-Ittihad," "Al-Fajer," and "Al-Khaleej."

The total population of banks in United Arab Emirates amounts to 49 banks (Central Bank Annual Report 1981). In this study, 35 of these banks were selected for interviews, because they operate in Abu Dhabi, which allowed maximum homogeneity. Twenty nine of the banks were interviewed, four banks did not cooperate at all, and two did not have top managers meeting the required criteria. Furthermore, 25 out of the 29 responses were used, because the remaining 4 had incomplete data. The revenue for one bank out of the 25 was not available, however the bank was included in the sample. Due to that, assets utilization, equity utilization, profit margin, and expenditure to net income were analyzed on 24 data points. Therefore, this study utilized 25 banks only, which represents 51% of the banks in United Arab Emirates, and 71% of the banks in Abu Dhabi.

Criteria for Data Sources

The data sources consisted of two types. The first was identified as top management and the second as outside observers.

Criteria for the
First Data Sources

Criteria for selecting data sources were as follows:

1. All available banks, which amounts to thirty-five banks. (Annual Report of the Central Bank of United Arab Emirates, 1981).

2. The location of the banks was Abu Dhabi, the capital of United Arab Emirates.

3. Subjective data originated from the most senior executive, assistant to most senior executive, or the executive responsible for a major division.

4. Objective financial data originated from the financial statements of all the banks from the most recent two years between, december 31-1981, and december 31- 1984.

5. Banks selected were in operation for the last three years (1981-1984).

Criteria for the
Second Data Sources

The second data sources refers to the outside observers. The emphasis was placed on the quality of respondents rather than the quantity , and accessibility to first hand data on the banking industry in United Arab Emirates. The criteria was as follows:

For question 1, a sample of twenty outside observers (not directly involved with any of the banks), such as executives at the central bank, executives at the ministry of planning, executives at the ministry of finance and industry, financial, economic and management consultants,

public accountants, and columnists who have been involved in activities of that nature for three years or more.

Instrumentation

The instrument consisted of five parts, and was included in Appendices B and C.

The first, second, and third part of the instrument contained two sections each. The first section advanced an unstructured questionnaire. The second section encompassed a structured questionnaire, as did the third. The fourth part and fifth part had no sections. The questions used were developed with Ernest Dichter's (1983:Chapter XXXVI) "Interview guides and their pitfalls," as a prime reference for constructing the unstructured sections, and conducting the interviews.

Instrumentation for First Data Source

Part One: This part was organized into two sections, as follows:

The first section consisted of an unstructured question. The question sought to provide descriptive insight of the level of environmental turbulence.

The second section consisted of five structured questions of the level of environmental turbulence. The five questions were the characteristics of the "level of environmental turbulence" (questions 1-5). These questions consisted of five levels: stable, reactive, anticipating, exploring, and creative. The questions were measured on a five-point scale, which was the match of the five levels. Each of the

respondents chose one of the levels. This section of the instrument was developed as a logical parallel of an instrument created by Ansoff (1984:12).

Part Two: This part was organized into two sections. The first section consisted of two unstructured questions. The first question sought to provide descriptive insight of the "aggressiveness of strategy." The second question sought to provide descriptive insight of strategy comparison between subjects, and one or two of the nearest competitors.

The second section consisted of ten structured questions of the "aggressiveness of strategy." The ten questions were the attributes of aggressiveness of strategy. Five of the ten questions were the attributes of the "aggressiveness of the bank's innovation strategy" (questions 1-5) and five were of the "aggressiveness of the bank's marketing strategy" (questions 6-10). These ten questions consisted of five levels: stable, reactive, anticipatory, exploring, and creative. All of the ten questions were measured on a five-point scale, which was the match of the five levels. Each of the respondents chose one of the levels for each question by circling the most appropriate level to his/her bank. This part of the instrument was developed as logical parallel of an instrument created by Ansoff (1984:225-226).

Part Three: The first section consisted of two unstructured questions. The first question sought to provide descriptive insight of the "capability." The second question sought to provide descriptive insight of "capability" comparison between subjects, and one or two of the nearest competitors.

This part was organized into two sections. The second section consisted of ten structured questions of the "capability." The ten questions were the components of the "managers profiles" (questions 1-4), "management climate profiles" (questions 5-7), and "management competence profiles" (questions 8-10). These ten questions consisted of five levels: custodial, production, marketing, strategic, and flexible. All of ten questions were measured on a five-point scale, which was the match of the five levels. Each of the respondents chose one of the levels by circling the most appropriate level to his/her bank. This part of the instrument was developed as a logical parallel of an instrument created by Ansoff (1984:227-229).

Part Four: An instrument was developed for collecting demographics of outside observers and top managers. The demographics required were based on position, age, sex, length of service, level of education, background, experience, and the strategic business area. This instrument was included in Appendix A, Part IV. This instrument was used to determine the appropriateness of including or not including respondents.

Instrumentation for Second Data Source

The instrumentation utilized for second data sources were the same instruments used for data gathering. Hence, for question one, the instrument was rephrased to suit the criteria of the outside observers. The rephrased instrument was included in Appendices D and E. In addition, the researcher utilized the same tool to examine the environment. This allowed the researcher to set a point of reference for the analysis.

Pilot Study

A pilot study was conducted to determine the validity of the instrument, and the appropriateness of the data to be gathered. The pilot study was conducted in San Diego, utilizing a sample which consisted of five banks and two outside observers. The pilot study resulted in errors which were corrected, then the instrument was retested. Positive affirmation of the instrument's validity, and the type of data to be gathered for the purpose of the study was established.

Procedures for Gathering First Data Sources

Upon the researcher's arrival to United Arab Emirates, the Governor of the Central Bank of United Arab Emirates, His Excellency, Abdul Malik Yousef Al Hamar, was contacted. His Excellency issued a letter of introduction which was very helpful when contacting potential respondents. A copy of the letter and its translation is included in Appendix A.

Subjective data was collected through a personal interview, using the following procedure:

1. Identify the bank and the name of the potential respondent.

2. Call the potential respondent and set an appointment for an interview.

3. The interview began with the presentation of the transmittal letter (Appendix A), and the survey instrument (Appendix B) to the top management respondent.

4. During the interview, the researcher would go through the questions with the subject, without any interference except for explanations, should the need arise.

For the unstructured questions, a recorder would be used, if the subject allows it.

5. If the previous attempts fail to achieve a 51% rate, go back to step 1, above, and repeat the procedure, using a supplementary sample.

6. Objective financial data was collected from the records of the Central Bank, where all records are kept.

Procedures for Gathering Second Data Sources

Procedures for gathering data for validating the data source commenced as follows:

1. For question one, the procedure was as follows:

1.1. The name, address, and telephone number for each outside observer was identified.

1.2. Each outside observer was contacted and an appointment was scheduled,

1.3. The interview began with the presentation of the transmittal letter (Appendix C), and the survey instrument (Appendix D) to the outside observer respondent.

1.4. An interview commenced with each outside observer, similar to step 4 in the above procedure.

Research Hypotheses

For the purpose of this study, the emphasis was placed on the theoretical perspective of the "strategic posture analysis" (Ansoff:1984:Chapter 3.4). The theory maintains that whenever "environmental turbulence," "aggressiveness of strategy," and "openness of capability" match each other on a "five point scale of matching triplets" optimum performance would occur. The first hypothesis was:

> Optimum overall financial performance will occur when level of environmental turbulence, aggressiveness of strategy, and openness of capability match each other.

The second hypotheses was based on Ansoff (1984:328 and 1979:144-147). The emphasis was placed on the "environmental surveillance technique," which stipulates that accurate perceptions of the level of environmental turbulence do contribute to better performance. Inaccurate perceptions can contribute to low performance. The second hypothesis was:

> Banks which are not strategically myopic will perform better than banks which are strategically myopic.

The two hypothesis were hypothesized for the overall performance measures only. Because Ansoff (1984:201-202) maintains that the optimum performance (occurs when LET, AS, and OC match each other) is for the profitability measures, and that Return On Equity (ROE) and Return On Assets (ROA) are profitability measures while the remaining six measures are not. All of the eight financial performance measures were tested since this was the first research project in this area.

This study investigated the eight financial measures, with special emphasis on the examination of above stated two hypotheses based on Ansoff's theory of strategic management.

Analyses of Data

The methods for analyzing data, and validity and reliability of measures are reviewed below. The analyses of the unstructured sections for parts two and three of the survey instrument were not included in this dissertation due to the length and magnitude of the responses. Furthermore, it has been decided that these results will be published as a further study.

The method of analysizing data progressed from the general to the specific. General, in the sense that questions 1,2,3,4, and a part of 5, provided answers to questions concerning descriptions of the study's dimensions in terms of it's variables. Specific, in the sense that questions 5,6, and 7 provided answers to questions regarding the nature and limitations of the relationships.

Methods for Analyzing Data

For question one, two, and three the data was analysed by comparing the mean of the distributions of top management's perceptions of the independent variables with the mean of the outside observer's perception. Results were demonstrated through percentages, and illustrated on a diagram. At the end of each question, t-tests were performed to determine the significance of the difference between the means of the distributions.

For question four, a discriminant analysis was used for grouping the banks, based on the concept of the total gap. Then relationships between

the independent variables were examined utilizing Pearson Product-Moment Correlations.

For question five, descriptive statistics, and Pearson Product-Moment correlations were used for examining the relationships between the IV's and the financial performance measures.

For question six, Pearson Product-Moment correlations was used to determine the linear association between the dependent variables and all other variables.

For question seven, oneway analysis of variance was used. The dependent variables used in the analyses of variance were the financial performance variables. The independent variables were grouped on the basis of the total gap.

The analysis of variance was chosen for the statistical analysis for several reasons. The first reason was that the dependent variables were metric data, and could therefore be handled quantitatively. Secondly, the independent variable had more than two levels, which made the analysis of variance appropriate for handling these levels. The third reason is that the analysis of variance is considered as one of the most powerful of the statistical methods for this type of data (Clarke & Schkade, 1979). The last reason was that the analysis of variance allowed clear testing of the hypotheses that had been advanced.

Following a significant difference in the analysis of variance, a posteriori test was used. Posteriori tests are used in order to determine which groups, or levels, of the independent variable significantly differ from each other. Due to its a posteriori nature, these tests use an error rate (the chance of making an incorrect decision based on chance alone)

that takes into consideration the number of comparisons being made (Kerlinger, 1986).

For this present study, Fisher's Least Significant Difference test was used. This test generated the greatest likelihood of identifying significant differences among groups. It was chosen since it would provide the most information about the differences among the groups (Hamburg,1970). Based on this analysis, the effects across the groups would be the most apparent.

For additional analysis, multiple regression was used where the dependent variables were again the financial performance variables, while the independent variables (the predictor variables) were the measures of environment, strategy and capability.

This current effort was to analyze the relationship between a single dependent variable (financial performance) and several independent variables (LET, AS, and OC). This analysis was appropriate for several reasons. First, the data from both the independent and dependent variables were interval type. Secondly, since there were more than one independent variable, which precluded the use of a Pearson correlation, multiple regression was appropriate.

Thirdly, the determination of the relationship of the independent variables (LET, AS and OC) and the dependent variables (financial performance) was important to this current study because regression analysis detailed the prediction of financial performance by the strategic postures.

In order to meet the requirements of the multiple regression analysis, certain assumptions must be met. In this study, to adjust for

the skewness of the independent variables they were transformed into their natural algorithms and ROE was transformed into its square root (SPSS PC+, 1986:B 207-215).

Concerning ROA, assets utilization, equity utilization, loans to deposits, profit margin, equity multiplier, and expenditures to net income, the results seem to be unreliable, because violations of regression assumptions occurred. The data was such that even after various data transformations, it was non-normal and variances were not consistent.

Reliability and Validity of the Measures

To estimate the reliability of the measures of strategic posture, the standard error of the mean was used. Kerlinger (1986:413) stated that the standard error of the mean was one of the best estimates one could have for the accuracy and precision of the measuring instrument. The standard errors of the mean for the strategic posture measures (LET, AS and OC) appear below, on Table 1. As can be seen, these standard errors were relatively small and reflect that the instruments appeared to be reasonably accurate for their purpose.

The strategic posture measures appeared to be valid for the following reason. The support for their validity was derived from their content validity. The items themselves were developed from the scales described by Ansoff (1984:215-238).

Table 1. Estimate of the Reliability of Ansoff's Strategic Posture Instrument

Variable	Standard Error of the Mean
Familiarity of Events	.1645
Rapidity of Change	.1815
Visibility of future	.1973
Business scope	.2828
Changes in terms of decision making	.1706
Economic changes	.1155
Technological Changes	.2613
Socio-political changes	.2400
Complexity	.1551
Levels of Environmental Turbulence	.0921
Aggressiveness of innovation strategy	.1241
Responsiveness to customers	.2272
Focus of Research	.1583
Market development	.2471
Frequency of new service introduction	.1451
Role of research and development department	.2000
Aggressiveness of marketing strategy	.1667
Sales aggressiveness	.1800
Responsiveness to competition	.2400
Market share	.2059
Promotion/advertising	.3137
Role of marketing department	.2380
Aggressiveness of Strategy	.1328
Managers profiles	.1121
Risk propensity	.1833
Problem solving	.1925
Knowledge	.1922
Model of success	.2104
Management climate profiles	.1723
Attitude toward change	.2160
Change trigger	.2676
Initiative	.2166
Management Competence Profiles	.1304
Problem solving process	.2160
Information system	.1915
Rewards and incentives	.2023
Openess of Capability	.3464
Maximum	.35
Minimum	.09
Mean	.1970

Using Ansoff's outlines and details, the questions for each scale were generated, which were later examined and validated by Ansoff (1985). The measures, therefore, appeared to have good content validity.

Research Assumptions and Delimitations

Certain assumptions were presented, and delimitations of the study were elaborated upon. These are provided for in this section of the chapter.

Assumptions

During the commencement of this study the assumptions were made as follows:

1. For the purpose of the study, validity of the research approach, method of data gathering, and data analysis were adequate and accurate.

2. Validity of the questionnaire was established through a pilot study and consulting the experts. The standard error was then examined, which emphasized the applicability of the questionnaire.

3. Each respondent understood the instructions provided and responded accordingly and honestly.

4. Practitioners of business and management, as a result of this study, will be given insight in strategic posture analysis and its relationship with financial performance of the banking industry in United Arab Emirates.

Delimitations

This study was limited to the strategic posture of 25 banks in United Arab Emirates for three years. The financial performance measures were limited to the most resent two years between December 31, 1981 and December 31, 1984. Respondents were distributed according to their occurrence in the "Annual Report of the Central Bank of United Arab Emirates (1981).

Summary

This chapter consisted of descriptions and discussions of the research methods utilized in this study. Whereas the following took place: description of the sample of data sources, which consisted of four specifications, the instrument was explored, which consisted of three parts, data collection procedures and data validation were highlighted and elaborated upon, data analysis and hypothesis testing were explicitly explored, assumptions amounting to three in number were emphasized, and delimitations were presented.

Chapter 4

FINDINGS

This chapter presents findings of collected data for the purpose of the study. The purpose of this study was to examine the banking industry of a high income, oil exporting country. The questions were directed to assess the following: top management's perception of the levels of environmental turbulence, outside observers' perceptions of the level of environmental turbulence, top management's perceptions of the aggressiveness of strategy, top management's perceptions of the firm's capability, the financial performance of the banks, and the relationship between the level of environmental turbulence, aggressiveness of strategy, capability, financial performance measures. Seven research questions were formulated.

1. To what extent do top managers in banks, differ in their perceptions of the levels of turbulence in the environment in which they operate, from outside observers perceptions of the levels of turbulence in the banking industry?

2. To what extent do top managers in banks differ in their perceptions of the aggressiveness of strategy of all of the banks as compared to;

2.1. Outside observers perceptions of the environmental turbulence?

2.2. The levels of environmental turbulence as perceived by top managers of all banks?

3. To what extent do top manager in banks differ in their perceptions of the capability of all the banks as compared to;

3.1. Outside observers perceptions of the environmental turbulence?

3.2. The level of environmental turbulence as perceived by top managers of all banks?

3.3. The aggressiveness of strategy as perceived by top managers of all banks?

4. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, and openness of capability?

5. What are the relationships between the financial measures of the bank's performance, in terms of;

5.1. Other financial measures?

5.2. Independent variables drawn from banks strategic posture?

5.3. Financial performance measures as a function of bank groupings.

6. What are the correlations between the eight financial performance measures and each of the following:

6.1. Eight elements of the strategic posture?

6.2. Twenty-nine sub-elements of strategic posture?

6.3. Five strategic gaps?

6.4. Banks size and five strategic business areas (SBA)?

7. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, openness of capability, and the financial performance measures of the banks?

Responses of top managers (TM's) in banks represent 71.43% of the entire population of the banking industry in Abu Dhabi, which represents 51.02% of the entire population in United Arab Emirates. To explore the environment from another perspective outside observers (OO's) were sought, and amounted to 19 in number. The OO's could be viewed as an " environmental surveillance " (Ansoff 1984: 326) method for filtering strategic information. Since firms are "environment serving organizations" (ESO) (Ansoff 1979:10), then it is of great importance to view the environment from a different perspective. The findings are presented in the respective order of the research questions on the following pages.

Question One

To what extent do top managers in banks, differ in their perceptions of the levels of turbulence in the environment in which they operate, from outside observers perceptions of the levels of turbulence in the banking industry?

Top Managements vs. Observers' Perceptions of the Levels of Environmental Turbulence

This section presents findings for questions 1. Table 2 presents top managers (TM's), and outside observers (OO's) perception of the level

of environmental turbulence elements respectively. The findings are as follows:

Familiarity of Events: Neither Level 1 (Very Familiar) nor Level 2 (Repetition of Experience) was chosen by any respondents. Five TMs (20%) and 3 OOs (15.79%) chose Level 3 (Understood If Thought of Historical Development). Three TMs (12%) and 2 OOs chose Level 4 (Discontinuous But Understood If Thought of Experience). Seventeen TMs (68%) and 14 OOs (73.68%) chose Level 5 (Not Experienced Before).

Rapidity of Change: One TM (4%) selected Level 1 (Much Slower Than the Bank's Response), and 1 TM (4%) selected Level 2 (Slower Than the Bank's Response), but none of the OO's chose either Level 1 or 2. Level 3 (Comparable to the Bank's Response) was selected by 14 (56%) TM's, and 2 (10.63%) OO's. Level 4 (Shorter Than the Bank's Response) was chosen by 6 TM's (24%), and 6 OO's (31.58%). Level 5 (Much Shorter Than the Bank's Response) was selected by 3 TM's (12%), and 11 OO's (57.89%).

Visibility of Future: Level 1 (Reoccurring) was selected by 1 TM (4%), and none of the OO's. Level 2 (Forecastable by Extrapolation) was selected by 4 TM's (16%), and none of the OO's. Thirteen TM's (52%) and 5 OO's (26.32%) chose Level 3 (Foreseen By Analysis of Threats and Opportunities). Four TM's (16%) and 9 OO's (47.37%) chose Level 4 (Difficult to Predict). Level 5 (Unpredictable Surprises) was selected by 3 TM's (12%) and 5 OO's (26.32%).

Business Scope: One TM (4%) and 1 OO (5.26%) chose "Abu Dhabi". Ten TM's (40%) and 5 OO's (26.32%) chose "United Arab Emirates". "Arab and developing countries" was chosen by none of the TM's and 4 OO's (21.05%).

Table 2. Top Managers' vs. Outside Observers' Perceptions of the Levels of Environmental Turbulence

Level of Growing Environmental Turbulence	STABLE	OO %	TM %	REACTIVE	OO %	TM %	ANTICIPATING	OO %	TM %	EXPLORING	OO %	TM %	CREATIVE	OO %	TM %
1.Familiarity of Events	Very familiar	.00	0.	Repetition of experience	.00	0.	Understood if thought of historical development	15.79	20.	Discontinuous; understood if thought of experience	10.53	12.	Not experienced before	73.68	68.
2.Rapidity of Change	Much slower than bank's response	.00	4.	Slower than bank's response	.00	4.	Comparable to bank's response	10.53	56.	Shorter than bank's response	31.58	24.	Much shorter than bank's response	57.89	12.
3.Visibility of Future	Reoccurring	.00	4.	Forcastable by extrapolation	.00	16.	Forseen by analysis of treats & opp.	26.32	52.	Difficult to predict	47.37	16.	Unpredictable surprises	26.32	12.

Key:
TM = Top Managers
OO = Outside Observers

Table 2. (continued)

Level of Growing Environmental Turbulence	STABLE	OO %	TM %	REACTIVE	OO %	TM %	ANTICIPATING	OO %	TM %	EXPLORING	OO %	TM %	CREATIVE	OO %	TM %
4.Businass Scope	Abu Dhabi	5.26	4.	United Arab Emirates	26.32	40.	Arab and developing countries	21.05	0.	Developing and developed countries	21.05	24.	Global	26.32	32.
5.Decision Making in teras															
5.1.Economic Changes	Not important	.00	0.	Low importance	5.26	0.	Medium importance	5.26	4.	High importance	26.32	52.	Very high importance	63.16	44.
5.2.Technological Changes	Not important	5.26	16.	Low importance	26.32	20.	Medium importance	47.37	32.	High importance	21.05	16.	Very high importance	.00	16.
5.3.Socio-political Changes	Not important	.00	16.	Low importance	15.79	4.	Medium importance	21.05	40.	High importance	26.32	24.	Very high importance	36.84	16.

Key:
TM = Top Managers
OO = Outside Observers

"Developing and developed countries" was selected by 6 TM's (24%) and 4 OO's (21.05%). "Global" was chosen by 8 TM's (32%) and 5 OO's (26.32%).

Decision Making: The responses were divided into three sub-elements orthogonal matrix, the distributions are described as follows:

a. Economic Changes. None of the respondents chose "Not Important". None of the TM's chose "Low Importance" and 1 OO (5.26%) chose it. "Medium Importance" was selected by 1 TM (4%) and 1 OO (5.26%). "High Importance" was chosen by 13 TM's (52%) and 5 OO's (26.32%). Eleven TM's (44%) and 12 OO's (63.16%) selected "Very High Importance".

b. Technological Changes. Four TM's (16%) and 1 OO chose "Not Important". "Low Importance" was selected by 5 TM's (20%) and 5 OO's (26.32%). Eight TM's (32%) and 9 OO's (47.37%) chose "Medium Importance". "High Importance" was selected by 4 TM's (16%) and 4 OO's (21.05%). "Very High Importance" was chosen by 4 TM's (16%) and none of the OO's.

c. Socio-political Changes. "Not Important" was chosen by 4 TM's (16%) and none of the OO's. One TM (4%) and 3 OO's (15.79%) chose "Low Importance". "Medium Importance" was selected by 10 TM's (40%) and 4 OO's (21.05%). "High Importance" was chosen by 6 TM's (24%) and 5 OO's (26.32%). Four TM's (16%) and 7 OO's (36.34%) selected "Very High Importance".

Cognition of Strategic Issues: The responses were divided into two sub-elements orthogonal matrix, the distributions of the responses are illustrated on Table 3 and the descriptions are as follows:

Table 3. Characteristics of the Levels of Environmental Turbulence, in United Arab Emirates, as Perceived by Outside Observers' and Top Managers'

	STRATEGIC ISSUE	Top Management #	Top Management %	Outside Observers #	Outside Observers %
1	Appearance of oil in non-OPEC countries ie. United Kingdom	2	8.0	7	36.8
2	Agency Law	1	4.0	4	21.1
3	Central Bank Legislation	11	44.0	17	89.5
4	Competition	9	36.0	14	73.7
5	Completion of the infrastructure	5	20.0	9	47.4
6	Customer Relationship	2	8.0	8	42.1
7	Development in neighboring countries	0	.0	2	10.5
8	Decline in gross national product	3	12.0	9	47.4
9	Decline of growth averages in developed countries	4	16.0	6	31.6
10	Decline in government revenues	4	16.0	14	73.7
11	Decline in government expenditure	9	36.0	15	78.9
12	Dependence on foreign human resources	1	4.0	3	15.8
13	Dependence on foreign technology	1	4.0	1	5.3
14	Dependence on oil	0	.0	12	63.2
15	Drop in oil prices/revenues	18	72.0	18	94.7
16	Decline of projects	7	28.0	15	78.9
17	Decline of re-export	6	24.0	11	57.9
18	Delay in government repayment	0	.0	5	26.3
19	Deficit in UAE budget	1	4.0	3	15.8
20	Flow of funds abroad	3	12.0	4	21.1
21	High interest rates	2	8.0	4	21.1
22	Increase of strategic oil reserves in the west	0	.0	4	21.1
23	High risk for foreigners (No Mortgage)	2	8.0	0	0
24	Iraq/Iran war	15	60.0	13	68.4
25	Ineffective Central Bank Laws	1	4.0	0	0
26	Interest rates (Islamic Law which prohibits interest)	0	.0	1	5.3
27	Kuwait stock market collapse	2	8.0	1	5.3
28	Limited trade activities	0	.0	10	52.6
29	Mismanagement of banks	4	16.0	16	84.2
30	Non flexible relationship between U.A.E. Dirham and U.S.A. Dollar	0	.0	2	10.5

Table 3. (continued)

Table 3. (continued)

STRATEGIC ISSUE	Top Management #	Top Management %	Outside Observers #	Outside Observers %
31 Non-flexibility of economy	0	.0	1	5.3
32 Outstanding loans of South American countries	0	.0	2	10.5
33 Recession	16	64.0	17	89.5
34 Risk bureau formation	1	4.0	4	21.1
35 Rent went down	3	12.0	9	47.4
36 Strategic surprises (over-flow of oil in the International Market)	2	8.0	10	52.6
37 Strategic resource substitution (new sources of energy ie. nuclear)	1	4.0	3	15.8
38 Social Economic Changes	2	8.0	0	0
39 Sacking of expatriates	1	4.0	1	5.3
40 Trends in the global market (saturation of demand for oil)	0	.0	9	47.4
41 Tendency to support local banks	2	8.0	5	26.3
42 Unworthy customers (Loan assessment from banks)	8	32.0	13	68.4
43 Widening of petrol substitution research	0	.0	2	10.5

Most Significant Characteristics	Top Management #	Top Management %	Outside Observers #	Outside Observers %
Central Bank legislation	2	8.0	2	10.5
Drop in oil prices/revenues	11	44.0	12	63.2
Iraq/Iran war	7	28.0	2	10.5
Recession	2	8.0	2	10.5
Social Economic Changes	2	8.0	0	0
Unworthy customers (Loan assessment from banks)	1	4.0	1	5.3
Total	25	100	19	100

a. Characteristics. The upper part of Table 3 presents TM's and OO's descriptions of the characteristics of the levels of environmental turbulence. TM's emphasis are placed on 32 characteristics, while OO's emphasizes are placed on 40 characteristics. Both respondents emphasized on 43 strategic issues.

b. Most Significant Characteristics. As could be seen at the bottom part of Table 3 both respondents (TM's and OO's) emphasized that the "drop in oil prices revenues" is the most significant characteristic.

Based on the above TM's perceptions of level of environmental turbulence (mean = 3.47) is less than OO's perceptions of the level of environmental turbulence (mean = 4.15). The researcher's own analysis of the level of environmental turbulence tend to support the perceptions of OO's. The detailed analysis of the researcher are included at the end of this question. Therefore, the OO's perceptions of the level of environmental turbulence will be used as a point of reference for conducting further analysis, in the form of a constant.

Student's t-Test

At this stage of the analysis a t-test was used to determine if a significant difference existed between TM's and OO's perceptions of the level of environmental turbulence. Table 4 presents the results of the t-test. As could be seen on Table 4, the t-test was computed to determine whether the TM's perceived the LET as the OO's did. The test reveals that TM's averaged 3.46, while the OO's averaged 4.15. These measures emphasize that TM's perception of the LET was significantly less than the OO's perception of the LET ($t=-7.41$, $DF=24$, $p<0.0001$).

Table 4

Student's t-test for Top Managers' and Outside Observers' Perception of the Levels of Environmental Turbulence

Variables	N	Mean	S.D.	t	Significance
Top Manager's Perceptions	25	3.467	.461	-7.41	p = 0.000a
Mean of Outside Observers Perceptions	25	4.150	.000		

aSignificant at p < .05.

Researcher's Analysis of the Environment of the Banking Industry in United Arab Emirates

This section contains descriptions of the LET of the banking industry in the UAE in general, and Abu Dhabi specifically. The instrument used to obtain data for the descriptions is the same as the one used to collect research data, and is included in Appendix C. The data for this part originated from the Annual Reports of the Central Bank of United Arab Emirates for the years 1980 - 1984.

The analysis begins by stating what the LET is not. The LET is not stable, reactive, or anticipating. The reasons for that are as follows:

1. The LET is not repetitive.
2. Change/s is anticipated.
3. The LET is not changing incrementally.

The above implies that things which were happening yesterday will not be happening tomorrow: the future is not an extrapolation of the past, and the predictability of future events using traditional methods (forecasting) is not possible. The previously stated description of what the LET is not, represents the first three levels of the scale of turbulence, which are stable(Level 1), reactive(Level 2), and anticipating(Level 3). Therefore, what is the LET? and Why?

The early inclination was towards the LET being either on Level 4 or 5. Level 5, labeled as creative, can be eliminated. It is possible, however, to argue that the LET is at Level 5, but the real LET is probably just a bit above Level 4, because of the following:

1. The events are discontinuous, but could be explained if thought of in terms of experience.

2. The speed of change in the environment was shorter than the banks' speed of response to it.

3. While future events are difficult to predict, they are not entirely unpredictable.

4. Economic changes, technological changes, and socio-political changes fluctuate between high, and very high importance in terms of decision making.

To exemplify how the LET could have been anticipated, historical events preceding and including the year 1981 are placed in the context of the instrument which measures turbulence.

Familiarity of Events: Experience tells us that whenever there is a new entrant into a market, the market share of the presently existing organizations will most likely decrease. An example, was the discovery of North Sea oil in the United Kingdom, which meant an increase in the supply of oil, accompanied by a reduction in its price. An added issue which effected the price of oil, were Nigeria's policies of reducing oil prices, which started a price war among the Organization of Petroleum Exporting Countries (OPEC).

An observer utilizing the current scale of turbulence could have easily anticipated the impact of fluctuations in oil prices on the banking industry.

Rapidity of Change: In 1980, the Currency Board was replaced by the Central Bank to further organize and develop the banking sector in the U.A.E. In order to accomplish that, the newly formed Central Bank had to

introduce new legislation directed toward the improvement of the banking environment. These new policies, regulations, and procedures covered three general areas. The first was directed toward the improvement of local banks, the second was directed toward the reduction of the spread of foreign banks, and the third was directed toward improving the effectiveness and equitability of the banking system in the Emirates.

An observer utilizing the scale of turbulence could have anticipated these changes. Since these changes occurred over a period of four years (1980-84), the most appropriate level for the rapidity of change would have been Level 4. Furthermore, the formation of the Central Bank should have been looked at as a strong signal that change was coming.

Visibility of Future: The visibility of the future, as of 1981, was difficult to predict, because it was not known what kind of change was going to take place. It was known, however, that change was coming from at least two sources. The two sources were fluctuation of oil prices and Central Bank legislation.

Business Scope: The business scope is looked upon in terms of whether it is National, Regional, or International. Regardless of what the business scope may be, the impact of the drop in oil prices would effect all of the banks. Another issue of concern is the decline of growth averages, nationally, regionally, and internationally (with some exceptions).

Changes in Terms of Decision Making: The changes are discussed in terms of the extent of the importance of economic changes, technological changes, and socio-political changes as they effect the banks' decision making. Examples follow:

1. Economic changes could be rated as highly important or very highly important, because of the following:

1.1 A general drop in property rents.

1.2 Reduction in government expenditures.

1.3 Severe competition among banks.

1.4 Decline of major construction projects.

1.5 Decline of re-export business activity.

1.6 Reduced local trade activities.

An observer utilizing the turbulence scale in 1981, could have anticipated the above economic changes, by anticipating the drop in oil prices. Furthermore, since the U.A.E. depends mainly on oil exportation, the price level is the most important strategic issue which an observer should monitor.

2. Technological changes could be rated as highly important or very highly important as well because of the following:

2.1 Introduction of automated teller machines.

2.2 Introduction of electronic banking.

2.3 The increased use of the personal computer.

2.4 The availability of a multitude of different software package.

3. Socio-political changes could be rated as highly important or very highly important also, because of the following:

3.1 The Iraq/Iran War.

3.2 Islamic Law which prohibits earning or payment of interest.

3.3 Semi-completion of the national infrastructure.

3.4 Economic development in countries neighboring the U.A.E.

3.5 The increase in the general level of education.

3.6 Cultural differences due to the various nationalities in U.A.E.

The previous analogy illustrates the turbulence levels in the banking environment in the U.A.E. in general, and Abu Dhabi specifically. The analogy did not use actual numbers to illustrate the turbulence, because there was no need to overstress the fact that the environment of the period under study was turbulent.

Question Two

2. To what extent do top managers in banks differ in their perceptions of the aggressiveness of strategy of all of the banks as compared to;

2.1. Outside observers perceptions of the environmental turbulence?

2.2. The levels of environmental turbulence as perceived by top managers of all banks?

Aggressiveness of Strategy

The second research question required TM's perception of their aggressiveness of strategy. Aggressiveness of strategy is divided into two lower level strategies namely - Aggressiveness of innovation strategy (AIS) and Aggressiveness of marketing strategy (AMS). The responses are demonstrated in the following section.

Table 5. Top Manager's Perceptions of the Aggressiveness of Innovation Strategy

Aggressiveness of innovation strategy	STABLE	TM N	TM %	REACTIVE	TM N	TM %	ANTICIPATING	TM N	TM %	EXPLORING	TM N	TM %	CREATIVE	TM N	TM %
1.Responsiveness to customers	Neglect	0	0.	"Our product is what the customer wants"	11	44.	Anticipation of needs	6	24.	Identification of unfilled needs	4	16.	Identification of latent needs	4	16.
2.Focus of research	None	0	0.	Service imitation	2	8.	Service improvement	17	68.	Adoption of novel services	3	12.	Pioneering of new services	3	12.
3.Market development	"Stick to our customers"	3	12.	"Follow competitors"	4	16.	Expand to familiar markets	9	36.	Expand to foregin markets	5	20.	Create new markets	4	16.
4.Frequency of new service introduction	Rare	1	4.	Low	2	8.	Moderate	15	60.	High	7	28.	Very high	0	0.
5.Role of R & D department	"Seen but not heard"	6	24.	"Called in when necessary"	6	24.	Support of marketing	10	40.	Source of new products	3	12.	"The elite"	0	0.

Key:
N = Number
TM = Top Mangement

Aggressiveness of Innovation Strategy

AIS is divided into five sub-elements, the responses to these elements are illustrated on Table 5 as follows:

Responsiveness to Customers: None of the respondents chose Level 1 (Neglect), 11 (44%) chose Level 2 (Our Product is What the Customer Wants), Level 3 (Anticipation of Needs) was selected by 6 (24%), Level 4 (Identification of Unfulfilled Needs) was selected by 4 (16%), and Level 5 (Identification of Latent Needs) was selected by 4 (16%).

Focus of Research: None of the top managers chose Level 1 (None), 2 (8%) chose Level 2 (Service Imitation), 17 (68%) chose Level 3 (Service Improvement), 3 (12%) chose Level 4 (Adoption of Novel Services), and 3 (12%) chose Level 5 (Pioneering of New Services).

Market Development: Level 1 (Stick to Our Customers) was selected by 3 (12%), Level 2 (Follow Competitors) by 4 (16%), Level 3 (Expand to Familiar Markets) by 9 (36%), Level 4 (Expand to Foreign Markets) by 5 (20%), and Level 5 (Create New Markets) by 4 (16%).

Frequency of New Service Introduction: One TM (4%) chose Level 1 (Rare), 2 (8%) chose Level 2 (Low), 15 (60%) chose Level 3 (Moderate), 7 (28%) chose Level 4 (High), and none of the TM's chose Level 5 (Very High).

Role of Research and Development Department: Six TM's (24%) selected Level 1 (Seen But Not Heard), 6 (24%) selected Level 2 (Called When Necessary), 10 (40%) selected Level 3 (Support of Marketing), 3 (12%) selected Level 4 (Source of New Products), and none of the TM's selected Level 5 (The Elite).

Aggressiveness of Marketing Strategy

AMS is divided into five sub-elements. The responses to these elements are illustrated on Table 6 as follows:

Sales Aggressiveness: None of the respondents chose Level 1 (Very Low), 4 (16%) chose Level 2 (Low), 12 (48%) chose Level 3 (Moderate), 6 (24%) chose Level 4 (High) and 3 (12%) chose Level 5 (Very High).

Responsiveness to Competition: One of the TM's (4%) selected Level 1 (We Do Not Compete), 6 (24%) selected Level 2 (We Will Respond to Aggression), 10 (40%) selected Level 3 (We Will Not Be Undersold), 2 (8%) selected Level 4 (We Lead the Pack), and 6 (24%) selected Level 5 (We Are Our Own Competitors).

Market Share: Level 1 (Grow With The Market) was selected by 4 TM's (16%), Level 2 (Defend) by 5 (20%), Level 3 (Increase) by 12 (48%), Level 4 (Control) by 3 (12%), and Level 5 (Dominate) was selected by 1 (4%).

Promotion/Advertising: Thirteen TM's (52%) chose Level 1 (Our Services Speak for Themselves), 3 (12%) chose Level 2 (Reactive), 1 (4%) chose Level 3 (Aggressive), 5 (20%) chose Level 4 (Advanced), and 3 (12%) chose Level 5 (Creative).

Role of Marketing Department: Level 1 (To Sell What the Firm Produces)was chosen by 3 TM's (12%), Level 2 (To Convince Customers That Our Services Are Superior) by 12 (48%), Level 3 (To Serve The Customers) by 5 (20%), Level 4 (To Establish The Bank As A Marketing Leader) by 2 (8%), and Level 5 (To Establish the Bank As A Marketing Innovator) was chosen by 3 (12%).

Table 6. Top Manager's Perceptions of the Aggressiveness of Marketing Strategy

Aggressiveness of marketing strategy	STABLE	TM N	TM %	REACTIVE	TM N	TM %	ANTICIPATING	TM N	TM %	EXPLORING	TM N	TM %	CREATIVE	TM N	TM %
6.Sales aggressiveness	Very low	0	0.	Low	4	16.	Moderate	12	48.	High	6	24.	Very high	3	12.
7.Responsiveness to competition	"We do not compete"	1	4.	"We will respond to aggression"	6	24.	"We will not be undersold"	10	40.	"We lead the pack"	2	8.	"We are our own competitors"	6	24.
8.Market share	"Grow with the market"	4	16.	Defend	5	20.	Increase	12	48.	Control	3	12.	Dominate	1	4.
9.Promotion/ advertising	"Our services speak for themselves"	13	52.	Reactive	3	12.	Aggressive	1	4.	Advanced	5	20.	Creative	3	12.
10.Role of marketing department	"To sell what the firm produces"	3	12.	"To covince customers that our services are sup	12	48.	"To serve the customers"	5	20.	"To establish the bank as a marketing leader"	2	8.	"To establish the bank as a marketing innovator"	3	12.

Key:
N = Number
TM = Top Mangement

Student's t-Test

At this stage of the analysis two t-tests were used to determine if significant differences existed between TM's and OO's perceptions of the level of environmental turbulence, as compared to TM's perception of the aggressiveness of strategy. Table 7 presents the results of the t-test. As could be seen on the top part of Table 7, the t-test results emphasized that there is a significant difference between TM's perceptions of the LET and TM's perceptions of the aggressiveness of strategy ($t=3.78$, $DF=24$, $p<0.001$). As could be seen on the bottom part of Table 7, the t-test results emphasized that there is a significant difference between OO's perceptions of the LET and OO's perceptions of the aggressiveness of strategy ($t=-9.35$, $DF=24$, $p<0.0001$).

Question Three

3. To what extent do top managers in banks differ in their perceptions of the capability of all the banks as compared to;

3.1. Outside observers perceptions of the environmental turbulence?

3.2. The level of environmental turbulence as perceived by top managers of all banks?

3.3. The aggressiveness of strategy as perceived by top managers of all banks?

Table 7

Aggressiveness of Strategy Students' t-tests for Top Managers and Outside Observers' Perceptions of the Levels of Environmental Turbulence

Variables	N	Mean	S.D.	t	Significance
Aggressiveness of Strategy	25	2.908	.664	-9.35	p = 0.000a
Mean of Outside Observers Perceptions	25	4.150	.000		
Top Manager's Perceptions of Levels of Environmental Turbulence	25	3.467	.461	3.78	p = 0.001a
Aggressiveness of Strategy	25	2.908	.664		

aSignificant at $p < .05$.

Openness of Capability

The fourth research question required the examination of TM's capability. openness of capability is divided into three elements namely - Managers profiles, Management climate profiles, and Management competence profiles. The responses are demonstrated in the following section.

Managers Profiles

Managers profiles contains four sub-elements, Table 8 illustrates the responses which are responded to as follows:

Risk Propensity: Level 1 (Reject) was selected by 1 TM (4%), Level 2 (Accept Familiar Risks) by 14 (56%), Level 3 (Seek Familiar Risks) by 6 (24%), Level 4 (Seek Unfamiliar Risks) by 3 (12%), and Level 5 (Seek Novel Risks) was selected by 1 (4%).

Problem Solving Process: None of the TM's selected Level 1 (Trial/Error), 3 (12%) selected Level 2 (Diagnostics), 11 (44%) selected Level 3 (Optimization), 6 (24%) selected Level 4 (Alternative Search), and 5 (20%) selected Level 5 (Alternative Creation).

Knowledge: Level 1 (Internal Politics) was selected by 1 TM (4%), Level 2 (Internal Operations) was selected by none of the TM's, Level 3 (Traditional Markets and Competitors) was selected by 13 (52%), Level 4 (Global Opportunities) was selected by 6 (24%), and Level 5 (Emerging Environment) was selected by 5 (20%).

Model of Success: One TM (4%) selected Level 1 (Stability/Repetition), 4 (16%) selected Level 2 (Service Efficiency), 12 (48%) selected Level 3 (Balance of Internal Efficiency and Market

Table 8. Top Managers' Perceptions of Managers' Profiles

Managers profiles	CONTROLLER 1	TM	TM %	PRODUCTION 2	TM	TM %	MARKETING 3	TM	TM %	STRATEGIC 4	TM	TM %	PLANNER 5	TM	TM %
1.Risk propensity	Reject	1	4.	Accept familiar risks	14	56.	Seek familiar risks	6	24.	Seek unfamiliar risks	3	12.	Seek novel risks	1	4.
2.Problem solving	Trial/error	0	0.	Diagnostic	3	12.	Optimization	11	44.	Alternative search	6	24.	Alternative creation	5	20.
3.Knowledge	Internal politics	1	4.	Internal operations	0	0.	Traditional market and competitors	13	52.	Global opportunities	6	24.	Emerging environment	5	20.
4.Model of success	Stability/ repetition	1	4.	Service efficiency	4	16.	Balance of internal effi- ciency and market resp- onsiveness	12	48.	Investment in most profitable available opportunities	4	16.	Creativity	4	16.

Key:
N = Number
TM = Top Management

Responsiveness), 6 (16%) selected Level 4 (Investment in Most Profitably Available Opportunities), 4 (16%) selected Level 5 (Creativity).

Management Climate Profiles

Which contains three sub-elements, Table 9 illustrates the responses which are as follows:

Attitude Toward Change: Level 1 (Don't Rock the Boat) was not selected by any of the TM's, Level 2 (Roll With the Punches) was selected by 4 (16%), Level 3 (Plan Ahead) was selected by 14 (56%), Level 4 (If It's New, It's Good) was not selected, and Level 5 (Create the Future) was selected by 7 (28%).

Change Trigger: Two TM's (8%) chose Level 1 (Crisis), 3 (12%) chose Level 2 (Unsatisfactory Results), 1 (4%) chose Level 3 (Threats), 7 (28%) chose Level 4 (Threats and Opportunities), and 12 (48%) chose Level 5 (Continued Search for Change).

Initiative: Level 1 (Don't Volunteer) was not selected, Level 2 (Follow the Rules) was selected by 8 (32%), Level 3 (Run With the Ball) was selected by 1 (4%), Level 4 (Be a Careful Self-Starter) was selected by 13 (52%), and Level 5 (Be a Self-Starter) by 3 (12%).

Management Competence Profiles

These profiles contained three sub-elements, Table 10 illustrates the responses which are as follows:

Table 9. Top Managers' Perception of Management Climate Profiles

Management climate profiles	CUSTODIAL 1	TM : N : 0.	PRODUCTION 2	TM : N : 16.	MARKETING 3	TM : N : 56.	STRATEGIC 4	TM : N : 0.	FLEXIBLE 5	TM : N : 28.
5.Attitude toward change	"Don't rock the boat"	0	"Roll with the punches"	4	"Plan ahead"	14	"If it's new it's good"	0	Create the future	8
6.Change trigger	Crisis	2	Unsatisfactory results	3	Threats	1	Threats and opportunities	7	Continued search for change	12
7.Initiative	"Don't volunteer"	0	"Follow the rules"	8	"Run with the ball"	1	"Be a careful self-starter"	13	"Be a self-starter"	3

Key:
N = Number
TM = Top Management

Table 10. Top Managers' Perceptions of Management Competence Profiles

Management competence profiles	CUSTODIAL 1	TM N	TM %	PRODUCTION 2	TM N	TM %	MARKETING 3	TM N	TM %	STRATEGIC 4	TM N	TM %	FLEXIBLE 5	TM N	TM %
8.Problem solving process	Hierarchical	0	0.	Hierarchical and compartmentalized	4	16.	Hierarchical and firm wide	5	20.	Firm wide and problem centered	8	32.	Problem centered	8	32.
9.Inf. system	Informal precedents	0	0.	Past performance	5	20.	Extrapolative forcasting	3	12.	+Some environmental	14	56.	Environmental surveillance	3	12.
10.Rewards & incentives	Length of service	1	4.	Past performance	6	24.	Contribution of growth	5	20.	Contribution to innovation	12	48.	Contribution to innovation	1	4.

Key:
N = Number
TM = Top Management

Problem Solving Process: Level 1 (Hierarchical) was not selected, Level 2 (Hierarchical and Compartmentalized) was selected by 4 (16%), Level 3 (Hierarchical and Firm Wide) was selected by 5 (20%), Level 4 (Firm Wide and Problem Centered) was selected by 8 (32%), and Level 5 (Problem Centered) was selected by 8 (32%).

Information Systems: None of the TM's chose Level 1 (Informal Precedents), 5 (20%) chose Level 2 (Past Performance), 3 (12%) chose Level 3 (Extrapolative Forecasting), 14 (56%) chose Level 4 (Extrapolative Forecasting and Some Environmental Surveillance), and 3 (12%) chose Level 5 (Environmental Surveillance).

Rewards and Incentives: Level 1 (Length of Service) was selected by 1 (4%), Level 2 (Past Performance) was selected by 6 (24%), Level 3 (Contribution of Growth) was selected by 5 (20%), Level 4 (Contribution of Growth and Contribution to Innovation) was selected by 12 (48%), and Level 5 (Contribution to Innovation) was selected by 1 (4%).

Student's t-Test

At this stage of the analysis, three t-tests were used to determine if significant differences existed between:

1. TM's perceptions of the level of environmental turbulence vs. TM's perceptions of the openness of capability.

2. OO's perceptions of the level of environmental turbulence vs. TM's perception of the openness of capability.

3. TM's perceptions of AS vs. OC.

Table 11 presents the results of the t-test. As could be seen on the top part of Table 11, the t-test results emphasized that there is no

Table 11

Openness of Capability Students' t-tests for Outside Observers' and Top Managers' Perceptions of the Levels of Environmental Turbulence and Aggressiveness of Strategy

Variables	N	Mean	S.D.	t	Significance
Openness of Capability	25	3.432	.556	-6.46	p = 0.000a
Mean of Outside Observers Perceptions of Levels of Environmental Turbulence	25	4.150	.000		
Top Manager's Perceptions of Levels of Environmental Turbulence	25	3.467	.461	.29	p = 0.771b
Openness of Capability	25	3.432	.556		
Aggressiveness of Strategy	25	2.908	.664	-5.02	p = 0.000a
Openness of Capability	25	3.432	.556		

aSignificant at $p < .05$.
b Non-significant at $p < .05$.

significant difference between TM's perceptions of the LET and TM's perceptions of the openness of capability (t=0.29, DF=24, p<0.771). As could be seen on the middle part of Table 12, the t-test results emphasized that there is a significant difference between OO's perceptions of the LET and TM's perceptions of the openness of capability (t=-6.46, DF=24, p<0.0001). As could be seen on the bottom part of Table 12, the t-test results emphasized that there is a significant difference between TM's perceptions of the aggressiveness of strategy and TM's perceptions of the openness of capability (t=-5.02, DF=24, p<0.0001).

Question Four

4. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, and openness of capability?

Research question four required the examination of the relationships between level of environmental turbulence, aggressiveness of strategy, and openness of capability. The relationships was examined in two ways as follows:

Strategic Gaps

There are five types of strategic gaps divided based on OO's perception of the level of environmental turbulence. Each of the gaps is a intervening variable (IVV), because it is a conceptual mechanism through which the independent variables affect the dependent variables, (Emory 1980:99). The computations of the strategic gaps are based on the following equations:

1. Strategy less Capability gap

   = AS - OC.

2. Observer's Environment less Strategy gap

   = OOLET - AS.

3. Observer's Environment less Capability gap

   = OOLET - OC.

4. Strategy plus Capability gap

   = (OOLET - AS) + (OOLET - OC).

5. Total gap

   = (OOLET - TMLET) + (OOLET - AS) + (OOLET - OC).

The groupings were based on the concept of total gap, whereas:

OOLET = outside observer's perception of the level of environmental turbulence.

TMLET = top management's perception of the level of environmental turbulence.

AS = aggressiveness of strategy.

OC = openness of capability.

The reason for this grouping is due to the fact that the most interesting strategic gap for this study is the total gap, because it allows a generalized grouping of all respondents. Therefore, the respondents' groupings was based on the concept of total gap, using discriminant analysis.

As could be seen on Illustration 6 entitled "Canonical Discriminant Functions for the Total Gap." The top part of Illustration 6 shows Wilks' Lambda = 0.1406, F = 67.24. Furthermore Eigenvalue = 6.1127, canonical correlation = 0.927, Chi-square = 43.161, DF = 2, Sig = 0.0000.

Illustration 6. Canonical Discriminant Functions for the Total Gap

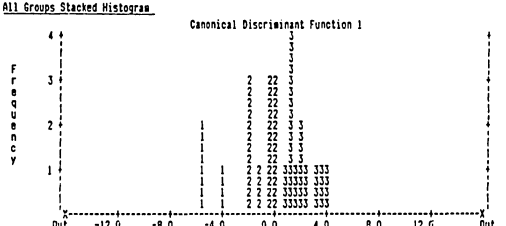
Wilks' Lambda (U-statistics) and univriate F-ratio
with 2 and 22 degrees of fredom

Variable	Wilks' Lambda	F	Significance
Total Gap	0.14059	67.24	0.0000

Canonical Discriminant Functions

Function	Eigenvalue	Percent of Variance	Cumulative Percent	Canonical Correlation	After Function	Chi-squared
1*	6.11272	100.00	100.00	0.927042	0	43 .161

All Groups Stacked Histogram



Classification Results -

Actual Group	No. of Cases	Predicted Group Membership 1	2	3
Group 1	3	3 100.0%	0 .0%	0 .0%
Group 2	10	0 .0%	10 100.0%	0 .0%
Group 3	12	0 .0%	0 .0%	12 100.0%

Percent of "grouped" cases correctly classified: 100.00%

Classification Processing Summary
25 Cases were processed.
0 Cases were excluded for missing or out-of-range group codes.
0 Cases had at least one missing discriminating variable.
25 Cases were used for printed output.

Therefore, the groupings of the banks into three groups is 100% accurate, and the groups are significantly different. The bottom part of the Illustration demonstrates two things: 1. The All-Groups stacked Histogram, and 2. The classification results which demonstrate the significance in two different manners.

The concept of the total gap allowed the grouping of all banks into three groups, with 100% accuracy. The three groups are labled as follows:

Group 1 = small gap = 3 banks.

Group 2 = medium gap = 10 banks.

Group 3 = large gap = 12 banks.

Therefore, the concept of the total gap is a very good method of grouping. The remaining four gap were not used for grouping, but the will be examined in question six.

Correlations of Independent Variables

Correlations between level of environmental turbulence, aggressiveness of strategy, and openness of capability results in findings, which are demonstrated on Table 12. Table 12 reveals the degree of linear association among the three IV's and the table contains vertically the independent variables and horizontally the independent variables. The findings are as follows:

1. There is a positive linear association between "aggressiveness of strategy" and "openness of capability, the $r=0.6474$, and $P>0.001$. This association emphasizes that an increase in TM's perceptions of

Table 12. Correlations for the Independent Variables Among Each Other

Independent Variables	Levels of Environmental Turbulence (LET) N=25	Aggressiveness of Strategy (AS) N=25	Openness of Capability (OC) N=25
Levels of Environmental Turbulence	1		
Aggressiveness of Strategy	NS	1	
Openness of Capability	NS	0.6474**	1

* P = < 0.01
** P = < 0.001
NS = Not Significant at 0.05.

"aggressiveness of strategy" was accompanied by an increase in TM's perceptions of "openness of capability".

2. There was no linear relationship between top management's perceptions of level of environmental turbulence and any of the two other IV's. At this point a question arises to why this occurred?

The answer to why there was a lack of positive correlation is as follows: Some of the respondents in group 2, and group 3 are good perceivers of the level of environmental turbulence, but they neither responded to the level of environmental turbulence with the necessary aggressiveness of strategy, nor did they develop the necessary openness of capability to support the aggressiveness of strategy.

Question Five

5. What are the relationships between the financial measures of the bank's performance, in terms of;

5.1. Other financial measures?

5.2. Independent variables draw from banks strategic posture?

Descriptives of Financial Performance Measures

As stated earlier, financial performance is examined in three categories. The results are on Table 13, and the descriptions are as follows:

1. The overall financial measures (OFM) are a composite of ROE and ROA.

Table 13. Comparison of Financial Performance Measures as a Function of Bank Groupings

Financial Measure		Group 1 %	Group 2 %	Group 3 %
Return on Equity % Mean=10.318 (OFM) N=25	Above the mean	26.81		
	Below the mean		9.56	6.83
Return on Assets % Mean=1.105 (OFM) N=25	Above the mean	2.80		
	Below the mean		1.01	.76
Assets Utilization Mean=11.8131 (SFM) N=24	Above the mean	13.51	12.32	
	Below the mean			10.89
Equity Utilization Mean=122.9095 (SFM) N=24	Above the mean	141.98	138.15	
	Below the mean			101.91
Loans to Deposits Mean=65.9968 (SFM) N=25	Above the mean			78.98
	Below the mean	60.26	52.14	
Profit Margin Mean=10.5449 (OPFM) N=24	Above the mean	21.23		
	Below the mean		9.84	10.54
Equity Multiplier Mean=10.6464 (OPFM) N=25	Above the mean	10.95	10.86	
	Below the mean			10.39
Expenditure to Net Income Mean=14.76 (OPFM) N=24	Above the mean		13.61	18.65
	Below the mean	4.35		

Key:
OFM = Overall Financial Measure
SFM = Strategic Financial Measure
OPFM = Operating Financial Measure

1.1. Return on equity (ROE) calculations for all banks (N=25) resulted in a minimum score of -2.265%, a maximum score of 31.429%, and a mean of 10.318%. As can be seen on Table 13, group 1 (mean = 26.808%) was almost twice as much as group 2 (mean = 9.555), and four times as much as group 3 (mean = 6.829). Group 1 was above the mean of all groups, while the two other groups were below the mean.

1.2. Return on assets (ROA) calculations for all banks (N=25) resulted in a minimum score of -0.499%, a maximum score of 3.984%, and a mean of 1.105%. As can be seen on Table 13, group 1 (mean = 2.796) was almost twice as much as group 2 (mean = 1.006), and four times as much as group 3 (mean = 0.764). Group 1 was above the mean of all groups, while the two other groups were below the mean.

2. Strategic financial measures (SFM) is a composite of assets utilization, equity utilization, and loans to deposits.

2.1. Assets utilization calculations of banks (N=24) resulted in a minimum score of 1.340%, a maximum score of 40.616%, and mean of 11.813%. As can be seen on Table 10, group 1 (mean = 13.5097) and group 2 (mean = 12.3157) were above the mean, while group 3 (mean = 10.8935) was below the mean.

2.2. Equity utilization calculations of banks (N=24) resulted in a minimum score of 19.154%, a maximum score of 524.81%, and a mean of 122.019%. As can be seen on Table 13, group 1 (mean = 141.9807) and group 2 (mean = 138.1504) were above the mean, while group 3 (mean = 101.9095) was below the mean.

2.3. Loans to deposits calculations of all banks (N=25) resulted in a minimum score of 25.259%, a maximum score of 122.401%, and

a mean of 65.997%. As can be seen on Table 13, group 1 (mean = 60.261) and group 2 (mean = 52.1391) were above the mean, while group 3 (mean = 8.9788) was below the mean.

3. Operating financial measures (OPFM) is a composite of profit margin,equity multiplier, and expenditures to revenue.

3.1. Profit margin calculations for banks (N=24) resulted in a minimum score of -5.178%, a maximum score of 50.507%, and a mean of 11.586%. As can be seen on Table 13, group 1 (mean = 21.229) was above the mean, while group 2 (mean = 9.8372) and group 3 (mean = 10.5449) were below the mean.

3.2. Equity multiplier calculations for all banks (N=25) resulted in a minimum score of 4.297%, a maximum score of 17.230%, and a mean of 10.647%. As can be seen on Table 13, group 1 (mean = 10.948) and group 2 (mean = 10.8646) were above the mean, while group 3 (mean = 10.3893) was below the mean.

3.3. Expenditure to net income calculations for banks (N=24) resulted in a minimum score of 0.98%, a maximum score of 48.075%, and a mean of 14.76%. As can be seen on Table 13, group 1 (mean = 4.35) was below the mean, while group 2 (mean = 13.61) and group 3 (mean = 18.65) were below the mean.

As can be seen on Table 13, the financial behavior of bank groupings indicate that the best OFP occurred when SFP and OPFP are both were best also. Therefore, optimum OFP occurs when SFP and OPFP are at their best.

Correlations of
Dependent Variables

This part deals with correlation of all the financial performance measures, the results are on Table 14, and the table contains vertically the dependent variables and horizontally the dependent variables. The findings are as follows:

1. There is a positive linear association between ROE and ROA, the r=0.7866, and P>0.001. This association emphasizes that an increase in ROE was accompanied by an increase in ROA.

2. There is a positive linear association between assets utilization and equity utilization, the r=0.8652, and P>0.001. This association emphasizes that an increase in assets utilization was accompanied by an increase in equity utilization.

3. There is a negative linear association between profit margin and expenditures to net income, the r= -0.6774, and P>0.001. This association emphasizes that an increase in profit margin was accompanied by a decrease in expenditures to revenue.

4. There is a positive linear association between ROE and profit margin, the r=0.4799, and P>0.01. This association emphasizes that an increase in ROE was accompanied by an increase in profit margin.

5. There is a positive linear association between ROA and profit margin, the r=0.5339, and P>0.01. This association emphasizes that an increase in ROA was accompanied by an increase in profit margin.

6. There is a negative linear association between ROE and expenditures to net income, the r=-0.4851, and P>0.01. This association

Table 14. Correlations for the Financial Performance Measures Among Each Other

Dependent Variables	Overall Financial Measures		Strategic Financial Measures			Operating Financial Measures		
	ROE N=25	ROA N=25	AU N=24	EU N=24	LD N=25	PM N=24	EI N=24	EM N=25
Return on Equity (ROE)	1							
Return on Assets (ROA)	0.7866**	1						
Assets Utilization (AU)	NS	NS	1					
Equity Utilization (EU)	NS	NS	0.8652**	1				
Loans to Deposits (LD)	NS	NS	NS	NS	1			
Profit Margin (PM)	0.4799*	0.5339*	NS	NS	NS	1		
Expenditures/Net Income (EI)	-0.4799*	-0.5339*	NS	NS	NS	-0.6774**	1	
Equity Multiplier (EM)	NS	NS	NS	NS	NS	NS	NS	1

* P = < 0.01
** P = < 0.001
NS = Not Significant at 0.05.

emphasizes that an increase in ROE was accompanied by a decrease in expenditures to revenue.

7. There is a negative linear association between ROA and expenditures to net income, the r=-0.5781, and P>0.01. This association emphasizes that an increase in ROA was accompanied by a decrease in expenditures to revenue.

Correlations between Independent Variables and Dependent Variables

This part provide finding resultant from correlating each of the three independent variables against each of the eight dependent variables. The results are on Table 15, and the table contains vertically the independent variables and horizontally the dependent variables. The findings are as follows:

1. There is a positive linear association between aggressiveness of strategy and ROE, the r=0.7707, and P>0.001. This association emphasizes that an increase in aggressiveness of strategy was accompanied by an increase in ROE.

2. There is a positive linear association between aggressiveness of strategy and ROA, the r=0.6489, and P>0.001. This association emphasizes that an increase in Aggressiveness of strategy was accompanied by an increase in ROA.

3. There is a positive linear association between aggressiveness of strategy and profit margin, the r=0.5407, and P>0.01. This association emphasizes that an increase in aggressiveness of strategy was accompanied by an increase in profit margin.

Table 15. Correlations for the Independent Variables and Financial Performance Measures

Independent Variables	Overall Financial Measures		Strategic Financial Measures			Operating Financial Measures			
	ROE N=25	ROA N=25	AU N=24	EU N=24	LD N=25	PM N=24	BI N=24	EM N=25
Levels of Environmental Turbulence	NS	NS	NS	NS	NS	NS	NS	NS
Aggressiveness of Strategy	0.7707**	0.6489**	NS	NS	NS	0.5407*	-0.5119*	NS
Openess of Capability	0.6499**	0.4775*	NS	0.5111*	-0.5308	NS	NS	NS

* = P < 0.01
** = P < 0.001
ROE = Return on Equity
ROA = Return on Assets
AU = Assets Utilization
EU = Equity Utilization
LD = Loans to Deposits
PM = Profit Margin
BI = Expenditures to Net Income
EM = Equity Multiplier

4. There is a negative linear association between aggressiveness of strategy and expenditures to net income, the r=-0.5119, and P>0.01. This association emphasizes that an increase in aggressiveness of strategy was accompanied by a decrease in expenditures to net income.

5. There is a positive linear association between openness of capability and ROE, the r=0.6499, and P>0.001. This association emphasizes that an increase in openness of capability was accompanied by an increase in ROE.

6. There is a positive linear association between openness of capability and ROA, the r=0.4775, and P>0.01. This association emphasizes that an increase in openness of capability was accompanied by an increase in ROA.

7. There is a positive linear association between openness of capability and equity utilization, the r=0.5111, and P>0.01. This association emphasizes that an increase in openness of capability was accompanied by an increase in equity utilization.

8. There is a negative linear association between openness of capability and loans to deposits, the r=-0.5308, and P>0.01. This association emphasizes that an increase in openness of capability was accompanied by a decrease in loans to deposits.

9. There is no linear association between level of environmental turbulence and any of the DV's, the reason for that is the same as the reason stated for question four above.

As could be seen on table 15, there are 24 correlations of which 8 are significant. Out of the eight, 4 are significantly correlated with the overall financial measures, two with the strategic financial

measures, and the remaining two with the operating financial measures. Based on the "Rate of Significance" (ROS) whereas, the higher the ROS the more linear associations found. ROS is computed according to the formula:

$$ROS = \frac{\text{Significant correlations}}{\text{Total correlations}} \times 100 = \%$$

Accordingly, for the correlations between the independent and the dependent variables, the ROS = (8 / 24) X 100 = 33.33%.

Question six

6. What are the correlations between the eight financial performance measures and each of the following:

6.1. Eight elements of the strategic posture?

6.2. Twenty-nine sub-elements of strategic posture?

6.3. Five strategic gaps?

6.4. Bank's size and five strategic business areas (SBA)?

Question six required the examination of linear associations between financial performance and the following:

Procedure correlations is used to measure the linear association. The "correlation coefficient" (r) is used to describe the strength of the association, and the significance levels are determined either by a one-tailed (P>0.01) or by a two-tailed (P>0.001) significance levels. The results of the correlations are as follows:

Correlations for Elements and Dependent Variables

Table 16 presents the correlations, and the table contains vertically the elements and horizontally the dependent variables. The findings are as follows:

1. There is a positive linear association between "changes in terms of decision making" and ROE, the r=0.6086, and P>0.001. This association emphasizes that an increase in TM's perceptions in "changes in decision making" was accompanied by an increase in ROE.

2. There is a positive linear association between "cognition of issues" and ROE, the r=0.5503, and P>0.01. This association emphasizes that an increase in TM's perceptions of "cognitions of issues" was accompanied by an increase in ROE.

3. There is a positive linear association between "aggressiveness of innovation strategy" and ROE, the r=0.6572, and P>0.001. This association emphasizes that an increase in TM's perceptions in "aggressiveness of innovation strategy" was accompanied by an increase in ROE.

4. There is a positive linear association between "aggressiveness of innovation strategy" and ROA, the r=0.4748, and P>0.01. This association emphasizes that an increase in TM's perceptions in "aggressiveness of innovation strategy" was accompanied by an increase in ROA.

5. There is a positive linear association between "aggressiveness of innovation strategy" and profit margin, the r=0.5078, and P>0.01. This association emphasizes that an increase in TM's perceptions in

Table 16. Correlations for the Elements and Financial Performance Measures

Elements	Overall Financial Measures		Strategic Financial Measures			Operating Financial Measures		
	ROE N=25	ROA N=25	AU N=24	EU N=24	LD N=25	PM N=24	EI N=24	EM N=25
Changes in terms of decision making	0.6086**	NS	NS	NS	NS	NS	NS	NS
Complexity	NS	NS	NS	NS	NS	NS	NS	NS
Cognition of issues	0.5503*	NS	NS	NS	NS	NS	NS	NS
Aggressiveness of innovation strategy	0.6572**	0.4787*	NS	NS	NS	0.5078*	NS	NS
Aggressiveness of marketing strategy	0.7387**	0.6776**	NS	NS	-0.4657*	0.4792*	-0.5574*	NS
Managers profiles	0.5509*	NS	NS	0.5530*	NS	NS	NS	NS
Management climate profiles	0.5326*	NS	NS	NS	-0.5584*	NS	NS	NS
Management Competence Profiles	0.5186*	0.5587*	NS	NS	NS	NS	NS	NS

* = P < 0.01
** = P < 0.001
ROE = Return on Equity
ROA = Return on Assets
AU = Assets Utilization
EU = Equity Utilization
LD = Loans to Deposits
PM = Profit Margin
EI = Expenditures to Net Income
EM = Equity Multiplier

"aggressiveness of innovation strategy" was accompanied by an increase in profit margin.

6. There is a positive linear association between "aggressiveness of marketing strategy" and ROE, the r=0.7387, and P>0.001. This association emphasizes that an increase in TM's perceptions of "aggressiveness of marketing strategy" was accompanied by an increase ROE.

7. There is a positive linear association between "aggressiveness of marketing strategy" and ROA, the r=0.6776, and P>0.001. This association emphasizes that an increase in TM's perceptions of "aggressiveness of marketing strategy" was accompanied by an increase ROA.

8. There is a negative linear association between "aggressiveness of marketing strategy" and loans to deposits, the r=-0.4657, and P>0.01. This association emphasizes that a decrease in TM's perceptions of "aggressiveness of marketing strategy" was accompanied by an increase loans to deposits.

9. There is a positive linear association between "aggressiveness of marketing strategy" and profit margin, the r=0.4792, and P>0.01. This association emphasizes that an increase in TM's perceptions of "aggressiveness of marketing strategy" was accompanied by an increase profit margin.

10. There is a negative linear association between "aggressiveness of marketing strategy" and expenditures to net income, the r=-0.5574, and P>0.01. This association emphasizes that a decrease in TM's perceptions

of "aggressiveness of marketing strategy" was accompanied by an increase expenditures to revenue.

11. There is a positive linear association between "managers profiles " and ROE, the r=0.5509, and P>0.01. This association emphasizes that an increase in TM's perceptions of "managers profiles" was accompanied by an increase in ROE.

12. There is a positive linear association between "managers profiles " and equity utilization, the r=0.5530, and P>0.01. This association emphasizes that an increase in TM's perceptions of "managers profiles" was accompanied by an increase in equity utilization.

13. There is a positive linear association between "management climate profiles" and ROE, the r=0.5326, and P>0.01. This association emphasizes that an increase in TM's perceptions of "management climate profiles" was accompanied by an increase ROE.

14. There is a negative linear association between "management climate profiles" and loans to deposits, the r=-0.5584, and P>0.01. This association emphasizes that an increase in TM's perceptions of "management climate profiles" was accompanied by a decrease loans to deposits.

15. There is a positive linear association between "management competence profiles" and ROE, the r=0.5186 and P>0.01. This association emphasizes that an increase in TM's perceptions of "management competence profiles" was accompanied by an increase in ROE.

16. There is a positive linear association between "management competence profiles" and ROA, the r=0.5587 and P>0.01. This association

emphasizes that an increase in TM's perceptions of "management competence profiles" was accompanied by an increase in ROA.

As could be seen on table 16, there are 64 correlations of which 16 are significant. Out of the sixteen, 10 are significantly correlated with the overall financial measures, three with the strategic financial measures, and the remaining three with the operating financial measures. Based on the "Rate of Significance" (ROS) whereas, the higher the ROS the more linear associations found. ROS is computed according to the formula:

$$ROS = \frac{\text{Significant correlations}}{\text{Total correlations}} \times 100 = \%$$

Accordingly, for the correlations between the elements and the dependent variables, the ROS = (16 / 64) X 100 = 25%.

Correlations of Sub-elements and Dependent Variables

Table 17 presents the correlations, and the table contains vertically the sub-elements and horizontally the dependent variables. The findings are as follows:

1. There is a positive linear association between "technological changes" and ROE, the r=0.5224, and P>0.01. This association emphasizes that an increase in TM's perceptions of "technological changes " was accompanied by an increase in ROE.

2. There is a positive linear association between "strategic issues" and ROE, the r=0.6118, and P>0.001. This association emphasizes

Table 17. Correlations for the Sub-Elements and Financial Performance Measures

Sub-Elements	Overall Financial Measures		Strategic Financial Measures			Operating Financial Measures		
	ROE N=25	ROA N=25	AU N=24	EU N=24	LD N=25	PM N=24	EI N=24	EM N=25
Familiarity of Events	NS	NS	NS	NS	NS	NS	NS	NS
Rapidity of Change	NS	NS	NS	NS	NS	NS	NS	NS
Visibility of future	NS	NS	NS	NS	NS	NS	NS	NS
Business scope	NS	NS	NS	NS	NS	NS	NS	NS
Economic changes	NS	NS	NS	NS	NS	NS	NS	NS
Technological Changes	0.5224*	NS	NS	NS	NS	NS	NS	NS
Socio-political changes	NS	NS	NS	NS	NS	NS	NS	NS
Strategic issues	0.6118**	0.5045*	NS	NS	NS	NS	NS	NS
Significant issues	NS	NS	NS	NS	-0.5185*	NS	NS	NS
Responsiveness to customers	0.4664*	NS	NS	NS	NS	0.5423*	NS	NS
Focus of Research	NS	NS	NS	NS	NS	NS	NS	NS
Market development	0.5758*	NS	NS	NS	NS	NS	NS	NS
Frequency of new service introduction	NS	NS	NS	NS	NS	NS	NS	NS
Role of research and development department	NS	NS	NS	NS	NS	NS	NS	NS
Sales aggressiveness	0.6608**	0.6168**	NS	NS	NS	NS	NS	NS
Responsiveness to competition	0.5139*	NS	NS	NS	NS	NS	NS	NS
Market share	NS	NS	NS	NS	-0.6807**	NS	NS	NS
Promotion/advertising	0.5518*	0.5042*	NS	NS	NS	0.5507*	-0.5209*	NS
Role of marketing department	0.6475**	0.6557**	NS	NS	NS	NS	NS	NS

* = P < 0.01
** = P < 0.001
NS = Not significant at 0.05.
ROE = Return on Equity
ROA = Return on Assets
AU = Assets Utilization
EU = Equity Utilization
LD = Loans to Deposits
PM = Profit Margin
EI = Expenditures to Net Income
EM = Equity Multiplier

Table 17. (Continued)

Sub-Elements	Overall Financial Measures		Strategic Financial Measures			Operating Financial Measures		
	ROE M=25	ROA M=25	AU M=24	EU M=24	LD M=25	PM M=24	BI M=24	EM M=25
Risk propensity	0.5148*	NS	NS	NS	NS	NS	NS	NS
Problem solving	NS	NS	NS	NS	NS	NS	NS	NS
Knowledge	NS	NS	NS	NS	NS	NS	NS	NS
Model of success	0.6141**	NS	NS	0.5266*	NS	NS	NS	0.5300*
Attitude toward change	0.5790*	NS	NS	NS	NS	NS	NS	NS
Change trigger	NS	NS	NS	NS	-0.5909**	NS	NS	NS
Initiative	NS	NS	NS	0.4794*	NS	NS	NS	NS
Problem solving process	NS	NS	NS	NS	-0.5121*	NS	NS	NS
Information system	NS	NS	0.5016*	NS	NS	NS	NS	NS
Rewards and incentives	NS	NS	NS	NS	NS	NS	NS	NS

* = P < 0.01
** = P < 0.001
NS = Not significat at 0.05.
ROE = Return on Equity
ROA = Return on Assets
AU = Assets Utilization
EU = Equity Utilization
LD = Loans to Deposits
PM = Profit Margin
BI = Expenditures to Net Income
EM = Equity Multiplier

that an increase in TM's perceptions of "strategic issues" was accompanied by an increase in ROE.

3. There is a positive linear association between "strategic issues" and ROA, the r=0.5045, and P>0.01. This association emphasizes that an increase in TM's perceptions of "strategic issues" was accompanied by an increase in ROA.

4. There is a negative linear association between "significant issues" and loans to deposits, the r=-0.5185, and P>0.01. This association emphasizes that an increase in TM's perceptions of "significant issues" was accompanied by an decrease in loans to deposits.

5. There is a positive linear association between "responsiveness to customers" and ROE, the r=0.4664, and P>0.01. This association emphasizes that an increase in TM's perceptions of "responsiveness to customers" was accompanied by an increase in ROE.

6. There is a positive linear association between "responsiveness to customers" and profit margin, the r=0.5423, and P>0.01. This association emphasizes that an increase in TM's perceptions of "responsiveness to customers" was accompanied by an increase in profit margin.

7. There is a positive linear association between "market development" and ROE, the r=0.5758, and P>0.01. This association emphasizes that an increase in TM's perceptions of "market development" was accompanied by an increase in ROE.

8. There is a positive linear association between "sales aggressiveness" and ROE, the r=0.6608, and P>0.001. This association

emphasizes that an increase in TM's perceptions of "sales aggressiveness" was accompanied by an increase in ROE.

9. There is a positive linear association between "sales aggressiveness" and ROA, the r=0.6168, and P>0.001. This association emphasizes that an increase in TM's perceptions of "sales aggressiveness" was accompanied by an increase in ROA.

10. There is a positive linear association between "responsiveness to competition" and ROE, the r=0.5139, and P>0.01. This association emphasizes that an increase in TM's perceptions of "responsiveness to competition" was accompanied by an increase in ROE.

11. There is a negative linear association between "market share" and loans to deposits, the r=-0.6807, and P>0.001. This association emphasizes that an increase in TM's perceptions of "market share" was accompanied by a decrease in loans to deposits.

12. There is a positive linear association between "promotion / advertising" and ROE, the r=0.5518, and P>0.01. This association emphasizes that an increase in TM's perceptions of "promotion / advertising" was accompanied by an increase in ROE.

13. There is a positive linear association between "promotion / advertising" and ROA, the r=0.5042, and P>0.01. This association emphasizes that an increase in TM's perceptions of "promotion / advertising" was accompanied by an increase in ROA.

14. There is a positive linear association between "promotion / advertising" and profit margin, the r=0.5507, and P>0.01. This association emphasizes that an increase in TM's perceptions of "promotion / advertising" was accompanied by an increase in profit margin.

15. There is a negative linear association between "promotion / advertising" and expenditures to net income, the r=-0.5209, and P>0.01. This association emphasizes that an increase in TM's perceptions of "promotion / advertising" was accompanied by an decrease in expenditures to revenue.

16. There is a positive linear association between "role of marketing department" and ROE, the r=0.6475, and P>0.001. This association emphasizes that an increase in TM's perceptions of "role of marketing department" was accompanied by an increase in ROE.

17. There is a positive linear association between "role of marketing department" and ROA, the r=0.6557, and P>0.001. This association emphasizes that an increase in TM's perceptions of "role of marketing department" was accompanied by an increase in ROA.

18. There is a positive linear association between "risk propensity" and ROE, the r=0.5148, and P>0.01. This association emphasizes that an increase in TM's perceptions of "risk propensity" was accompanied by an increase in ROE.

19. There is a positive linear association between "model of success" and ROE, the r=0.6141, and P>0.001. This association emphasizes that an increase in TM's perceptions of "model of success" was accompanied by an increase in ROE.

20. There is a positive linear association between "model of success" and equity utilization, the r=0.5566, and P>0.01. This association emphasizes that an increase in TM's perceptions of "model of success" was accompanied by an increase in equity utilization.

21. There is a positive linear association between "model of success" and equity multiplier, the r=0.5300, and P>0.01. This association emphasizes that an increase in TM's perceptions of "model of success" was accompanied by an increase in equity multiplier.

22. There is a positive linear association between "attitude toward change" and ROE, the r=0.5790, and P>0.01. This association emphasizes that an increase in TM's perceptions of "attitude toward change" was accompanied by an increase in ROE.

23. There is a negative linear association between "change trigger" and loans to deposits, the r=-0.5909, and P>0.001. This association emphasizes that an increase in TM's perceptions of "change trigger" was accompanied by a decrease in loans to deposits.

24. There is a positive linear association between "initiative" and equity utilization, the r=0.4794, and P>0.01. This association emphasizes that an increase in TM's perceptions of "initiative" was accompanied by an increase in equity utilization.

25. There is a negative linear association between "problem solving process" and loans to deposits, the r=-0.5121, and P>0.01. This association emphasizes that an increase in TM's perceptions of "problem solving process" was accompanied by a decrease in loans to deposits.

26. There is a positive linear association between "information system" and assets utilization, the r=0.5016, and P>0.01. This association emphasizes that an increase in TM's perceptions of "information system" was accompanied by an increase in ROE.

As could be seen on Table 17, there are 232 correlations of which 26 are significant. Out of the twenty-six, 15 are significantly correlated

with the overall financial measures, seven with the strategic financial measures, and the remaining four with the operating financial measures. Based on the "Rate of Significance" (ROS) whereas, the higher the ROS the more linear associations found. ROS is computed according to the formula:

$$ROS = \frac{\text{Significant correlations}}{\text{Total correlations}} \times 100 = \%$$

Accordingly, for the correlations between the sub-elements and the dependent variables, the ROS = (26 / 232) X 100 = 11.2%.

Correlations of Strategic Gaps and Dependent Variables

Table 18 presents the correlations, and the table contains vertically the strategic gaps and horizontally the dependent variables. The findings are as follows:

1. There is a positive linear association between "strategy less capability gap" and profit margin, the r=0.6840, and P>0.001. This association emphasizes that an increase in "strategy less capability gap" was accompanied by an increase in profit margin.

2. Their is a negative linear association between "strategy less capability gap" and expenditures to net income, the r=-0.5506, and P>0.001. This association emphasizes that an increase in TM's perceptions of "" was accompanied by an increase in ROE.

3. There is a negative linear association between "environment less strategy gap" and ROE, the r=-0.7100, and P>0.001. This association

Table 18. Correlations for the Strategic Gaps and the Financial Performance Measures

Strategic Gaps	Overall Financial Measures		Strategic Financial Measures			Operating Financial Measures		
	ROE N=25	ROA N=25	AU N=24	BU N=24	LD N=25	PM N=24	BI N=24	BM N=25
Strategy less capability gap	NS	NS	NS	NS	NS	0.6840**	-0.5506*	NS
Observer's environment less strategy gap	-0.7100**	-0.6616**	NS	NS	0.4659*	-0.5694*	0.5293*	NS
Observer's environment less capability gap	-0.5800*	-0.4700*	NS	NS	0.5841*	NS	NS	NS
Observer's gap	-0.7191**	-0.6365**	NS	NS	0.5688*	NS	NS	NS
Observer's total gap	-0.7159**	-0.5560*	NS	NS	0.4864*	NS	NS	NS

* = P < 0.01
** = P < 0.001
ROE = Return on Equity
ROA = Return on Assets
AU = Assets Utilization
BU = Equity Utilization
LD = Loans to Deposits
PM = Profit Margin
BI = Expenditures to Net Income
BM = Equity Multiplier

emphasizes that an increase in "observer's environment less strategy gap" was accompanied by an decrease in ROE.

4. There is a negative linear association between "observer's environment less strategy gap" and ROA, the r=-0.6616, and P>0.001. This association emphasizes that an increase in "environment less strategy gap" was accompanied by an decrease in ROA.

5. There is a positive linear association between "observer's environment less strategy" and loans to deposits , the r=0.4654, and P>0.01. This association emphasizes that an increase in "environment less strategy gap" was accompanied by an increase in loans to deposits.

6. There is a negative linear association between "environment less strategy gap" and profit margin , the r=-0.5694, and P>0.01. This association emphasizes that an increase in TM's perceptions of "environment less strategy gap" was accompanied by an decrease in profit margin.

7. There is a positive linear association between "environment less strategy gap" and expenditures to revenue, the r=0.5694, and P>0.01. This association emphasizes that an increase in "environment less strategy gap" was accompanied by an increase in expenditures to revenue.

8. There is a negative linear association between "environment less capability gap" and ROE, the r=-0.5800, and P>0.01. This association emphasizes that an increase in "environment less capability gap" was accompanied by an decrease in ROE.

9. There is a negative linear association between "environment less capability gap" and ROA, the r=-0.4700, and P>0.01. This association

emphasizes that an increase in "environment less capability gap" was accompanied by an decrease in ROA.

10. There is a positive linear association between "environment less capability gap" and loans to deposits, the r=0.5841, and P>0.01. This association emphasizes that an increase in "environment less capability gap" was accompanied by an increase in loans to deposits.

11. There is a negative linear association between "total gap" and ROE, the r=-0.7191, and P>0.001. This association emphasizes that an increase in "total gap" was accompanied by an decrease in ROE.

12. There is a negative linear association between "total gap" and ROA, the r=-0.6365, and P>0.001. This association emphasizes that an increase in "total gap" was accompanied by an decrease in ROA.

13. There is a positive linear association between "total gap" and loans to deposits , the r=0.5688, and P>0.01. This association emphasizes that an increase in "total gap" was accompanied by an increase in loans to deposits.

14. There is a negative linear association between "grand gap" and ROE, the r=-0.7159, and P>0.001. This association emphasizes that an increase in "grand gap" was accompanied by an decrease in ROE.

15. There is a negative linear association between "grand gap" and ROA, the r=-0.5560, and P>0.01. This association emphasizes that an increase in "grand gap" was accompanied by an decrease in ROA.

16. There is a positive linear association between "grand gap" and loans to deposits , the r=0.4864, and P>0.01. This association emphasizes that an increase in "grand gap" was accompanied by an increase in loans to deposits.

As could be seen on table 18, there are 40 correlations of which 16 are significant. Out of the sixteen, 8 are significantly correlated with the overall financial measures, four with the strategic financial measures, and the remaining four with the operating financial measures.

Based on the "Rate of Significance" (ROS) whereas, the higher the ROS the more linear associations found. ROS is computed according to the formula:

$$ROS = \frac{\text{Significant correlations}}{\text{Total correlations}} \times 100 = \%$$

Accordingly, for the correlations between the intervening variables and the dependent variables, the ROS = (16 / 40) X 100 = 40%.

Correlations of Size Strategic Business Area/s, and Dependent Variables

Table 19 presents the correlations, and the table contains vertically the size and strategic business areas. The dependent variables are represented horizontally. The findings are as follows:

1. There is a positive linear association between "strategic business areas" and equity multiplier, the r=0.6903, and P>0.001. This association emphasizes that an increase in TM's perceptions of "strategic business areas" was accompanied by an increase in equity multiplier.

2. There is a positive linear association between "assets based banking " and equity multiplier, the r=0.5335, and P>0.01. This association emphasizes that an increase in TM's perceptions of "assets based banking " was accompanied by an increase in equity multiplier.

Table 19. Correlations for Size with Strategic Business Areas and Financial Performance Measures

Size & Strategic Business Area	Overall Financial Measures		Strategic Financial Measures			Operating Financial Measures		
	ROE N=25	ROA N=25	AU N=24	EU N=24	LD N=25	PM N=24	EI N=24	EM N=25
Size	NS	NS	NS	NS	NS	NS	NS	NS
Strategic Business Areas	NS	NS	NS	NS	NS	NS	NS	0.6903**
Investment Banking	NS	NS	NS	NS	NS	NS	NS	NS
Assets Based Banking	NS	NS	NS	NS	NS	NS	NS	0.5335*
International Group Banking	NS	NS	NS	NS	NS	NS	NS	0.6491**
Corporate Banking	NS	NS	NS	NS	NS	NS	NS	NS
Retail Banking	NS	NS	NS	NS	NS	-0.4845*	NS	NS

* = P < 0.01
** = P < 0.001
ROE = Return on Equity
ROA = Return on Assets
AU = Assets Utilization
EU = Equity Utilization
LD = Loans to Deposits
PM = Profit Margin
EI = Expenditures to Net Income
EM = Equity Multiplier

3. There is a positive linear association between "international group banking" and equity multiplier, the r=0.6491, and P>0.001. This association emphasizes that an increase in TM's perceptions of "international group banking" was accompanied by an increase in equity multiplier.

4. There is a negative linear association between "retail banking" and profit margin, the r=-0.4845, and P>0.01. This association emphasizes that an increase in TM's perceptions of "retail banking" was accompanied by a decrease in profit margin.

As could be seen on table 19, there are 56 correlations of which 4 are significant. The four significant correlations occurred with the operating financial measures. Based on the "Rate of Significance" (ROS) whereas, the higher the ROS the more linear associations found. ROS is computed according to the formula:

$$ROS = \frac{\text{Significant correlations}}{\text{Total correlations}} \times 100 = \%$$

Accordingly, for the correlations between the moderating variables and the dependent variables, the ROS = (4 / 56) X 100 = 7.14%.

Question Seven

7. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, openness of capability, and the financial performance measures of the banks?

The seventh research question required the examination between levels of environmental turbulence, aggressiveness of strategy, openness of capability and financial performance measures.

Oneway analysis of variance was used for analysis. Two hypotheses were formulated as follows:

> Hypothesis 1: Optimum overall financial performance will occur when level of environmental turbulence, aggressiveness of strategy, and openness of capability match each other.
>
> Hypothesis 2: Banks which are not strategically myopic will preform better than banks which are strategically myopic.

Levels of Environmental

Turbulence

As can be seen Table 20 , there was a significant difference among the three bank groups ($F(2,22)=3.82$, $p<0.037$). The means of the bank groupings significantly differ in terms of their level of environmental turbulence score.

Table 20 presents Fisher's Least Significant Difference a posteriori test. As reflected in the table, Group 1 (mean=4.05) averaged significantly higher than the other two groups. Group 2 (mean=3.48) and Group 3 (mean=3.31) were statistically similar.

Aggressiveness of Strategy

As can be seen Table 21, there was a significant difference among the three bank groups ($F(2,22)=28.10$, $p<0.001$). The means of the bank groupings significantly differ in terms of their aggressiveness of strategy score.

Table 21 presents Fisher's Least Significant Difference a posteriori test. As reflected in the table, Group 1 (mean = 4.26) averaged

Table 20. Oneway Analysis of Variance for Top Management's Perception of the Levels of Environmental Turbulence as a Function of Bank Groupings

Variable Levels of Environmental Turbulence
By Group

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1.314	0.657	3.8268	0.0357
Within Groups	22	3.7771	0.1717		
Total	24	5.0911			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	4.05	0.374	0.2159	3.62	4.3
Group 2	10	3.48	0.4028	0.1274	2.97	4.25
Group 3	12	3.3108	0.4304	0.1242	2.61	4.11
Total	25	3.4672	0.4606	0.0921	2.61	4.3

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) = 0.3800, P = 1.000 (Approx.)
Bartlett - Box F = 0.038, P = 0.962
Maximum Variance / Minimum Variance 1.324

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

2.93 2.93

The ranges above are table ranges.
The value actually compared with Mean (J) - Mean (I) is..
0.2930 * Range * Sqrt(1/N(I) + 1/N(J))

(*) Denotes pairs of groups significantly different at the 0.050 level

Mean	Group	3	2	1
3.3108	3			
3.48	2			
4.05	1	*	*	

Table 21. Oneway Analysis of Variance for Top Management's Perception of the Aggressiveness of Strategy as a Function of Bank Groupings

Variable Aggressiveness of Strategy
By Group

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	7.6027	3.8014	28.1046	0.0000
Within Groups	22	2.9757	0.1353		
Total	24	10.5784			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	4.2667	0.2082	0.1202	4.1	4.5
Group 2	10	3.68	0.4131	0.1306	3.2	4.5
Group 3	12	3.0167	0.3040	0.0878	2.5	3.5
Total	25	3.4320	0.5558	0.1112	2.5	4.5

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) = 0.6421, P = 0.060 (Approx.)
Bartlett - Box F = 1.773, P = 0.171
Maximum Variance / Minimum Variance 3.920

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

2.93 2.93

The ranges above are table ranges.
The value actually compared with Mean (J) - Mean (I) is..
0.2449 * Range * Sqrt(1/N(I) + 1/N(J))

(*) Denotes pairs of groups significantly different at the 0.050 level

Mean	Group	3	2	1
2.5000	3			
2.9900	2	*		
4.2667	1	*	*	

significantly higher than the other two groups. Group 2 (mean=2.99) averaged significantly higher than Group 3. Group 3 (mean=2.5) was the lowest group.

Openness of Capability

As can be seen Table 22 , there was a significant difference among the three bank groups ($F(2,22)=19.90$, $p<0.001$). The means of the bank groupings significantly differ in terms of their score.

Table 22 presents Fisher's Least Significant Difference a posteriori test. As reflected in the table, Group 1 (mean=4.26) averaged significantly higher than the other two groups. Group 2 (mean=3.68) was significantly higher than Group 3. Group 3 (mean=3.01) was the lowest group.

Return on Equity

As can be seen Table 23, there was a significant difference among the three bank groups ($F(2,22)=23.66$, $p<0.001$). The means of the bank groupings significantly differ in terms of their ROE score.

Table 23 presents Fisher's Least Significant Difference a posteriori test. As reflected in the table, Group 1 (mean=26.80) averaged significantly higher than the other two groups. Group 2 (mean=9.55) and Group 3 (mean=6.82) were statistically the same.

Table 22. Oneway Analysis of Variance for Top Management's Perception of the Openness of Capability as a Function of Bank Groupings

Variable Openness of Capability
By Group

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	4.7751	2.3875	19.9011	0.0000
Within Groups	22	2.6393	0.1200		
Total	24	7.4144			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	4.05	0.374	0.2159	3.62	4.3
Group 2	10	3.48	0.4028	0.1274	2.97	4.25
Group 3	12	3.3108	0.4304	0.1242	2.61	4.11
Total	25	3.4672	0.4606	0.0921	2.61	4.3

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) = 0.5570, P = 0.202 (Approx.)
Bartlett - Box F = 0.781, P = 0.459
Maximum Variance / Minimum Variance 3.930

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

2.93 2.93

The ranges above are table ranges.
The value actually compared with Mean (J) - Mean (I) is..
0.2930 * Range * Sqrt(1/N(I) + 1/N(J))

(*) Denotes pairs of groups significantly different at the 0.050 level

Mean	Group	3	2	1
3.0167	3			
3.68	2	*		
4.2667	1	*	*	

Table 23. Oneway Analysis of Variance for Return on Equity as a Function of Bank Groupings

Variable Return on Equity
By Group

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	967.65	483.82	23.6663	0.0000
Within Groups	22	449.76	20.44		
Total	24	1417.41			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	26.81	4.36	2.52	22.77	31.43
Group 2	10	9.56	4.99	1.58	3.80	17.24
Group 3	12	6.83	4.13	1.19	-2.27	12.16
Total	25	10.32	7.69	1.54	-2.27	31.43

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) = 0.4078, P = 0.865 (Approx.)
Bartlett - Box F = 0.159, P = 0.852
Maximum Variance / Minimum Variance 1.454

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

2.93 2.93

The ranges above are table ranges.
The value actually compared with Mean (J) - Mean (I) is..
0.2930 * Range * Sqrt(1/N(I) + 1/N(J))

(*) Denotes pairs of groups significantly different at the 0.050 level

Mean	Group	3	2	1
6.83	3			
9.56	2			
26.81	1	*	*	

Return on Assets

As can be seen Table 24, there was a significant difference among the three bank groups ($F(2,22)=9.16$, $p<0.001$). The means of the bank groupings significantly differ in terms of their ROA score.

Table 24 presents Fisher's Least Significant Difference a posteriori test. As reflected in the table, Group 1 (mean=2.79) averaged significantly higher than the other two groups. Group 2 (mean=1.00) and Group 3 (mean=0.76) were statistically the same.

Oneway analysis of variance for the remaining financial measures proved to be non-significant as shown in Tables 25, 26, 27, 28, 29, and 30 (refer to Appendix F).

Validity of Hypotheses

Based on the above oneway analysis of variance, it is evident that Group 1 has the smallest gap, Group 2 has a medium gap, and Group 3 has the largest gap. This allows two findings for ROE.

First, Group 1 has the smallest gap and outperformed the other two groups, therefore the first hypothesis is valid. Second, Group 1's perception of the environment is closer than the other two groups, which means that Group 2 and Group 3 are strategically myopic, therefore, the second hypothesis is valid. The same result was manifested in terms of ROA as well.

The findings indicate that the remaining six financial measures were not significantly different. The probable causes are:

1. These measures are lower measures as compared to ROE firstly, and ROA secondly. For example, ROE = ROA x EM, and ROA = PM x AU.

Table 24. Oneway Analysis of Variance for Return on Assets as a Function of Bank Groupings

Variable Return on Assets
By Group

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	10.06	5.03	9.1639	0.0013
Within Groups	22	12.08	0.54		
Total	24	22.15			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	2.79	1.13	0.65	1.72	3.98
Group 2	10	1.01	0.66	0.20	0.31	2.13
Group 3	12	0.76	0.71	0.20	-0.49	2.17
Total	25	1.11	0.96	0.19	-0.49	3.98

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) = 0.5757, P = 0.159 (Approx.)
Bartlett - Box F = 0.551, P = 0.577
Maximum Variance / Minimum Variance 2.939

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

2.93 2.93

The ranges above are table ranges.
The value actually compared with Mean (J) - Mean (I) is..
0.5241 * Range * Sqrt(1/N(I) + 1/N(J))

(*) Denotes pairs of groups significantly different at the 0.050 level

Mean	Group	3	2	1
0.76	3			
1.01	2			
2.79	1	*	*	

2. The degree of dispersion of the remaining six financial measures, as a function of the groupings, is relatively high.

3. Ansoff's model of strategic posture analysis is supplemented by measures of financial performance, which were not obtainable due to the structure of the balance sheets and the income statements. Return on equity and return on assets are the closest ratios to Ansoff's (1984:52-56) financial measures.

Therefore, the return on equity and return on assets are the best measures for the strategic posture, while the remaining six appear not to be.

Additional Findings

Multiple regression which was used for the analysis, which allowed the examination of the extent of separate and cumulative influence of each of the independent variables on every dependent variable. Levels of environmental turbulence, aggressiveness of strategy, and openness of capability were included in the equation as predictor variables, and each of the dependent variables were criterion variables. Due to the utility of eight dependent variables in this study, eight multiple regression equations were examined. The multiple regression analysis allowed the study to achieve four different conclusions about the data for each equation. The broad spectrum of the four conclusions for each equation (SPSS/PC+ 1986) allows the understanding of the following:

I. The appropriateness of the regression model.

II. The statistical level of significance of the attempted prediction.

III. The strength of association between each of the dependent variables and the three dependent variables, in order to determine the importance level of each predictor variable when the effect of other IV's are excluded.

IV. The predicting of values of each DV from the three independent variables.

The results were as follows:

As seen in Table 31, there is a significant prediction of ROE by the IV's ($F(3,21)=8.626, p<0.0006$). Table 25 presents the multiple R ($R=0.742$), R square (R SQUARE=0.552), and the adjusted R square (ADJUSTED R SQUARE=0.488), which are all positive and highly predictive with roughly 74% of the variance accounted for.

Table 31 contains the standardized Beta weights, the standard errors of the Beta weights, the correlations and partial correlations between the DV and each of the IV's,the t-test of the Beta weights and their significance. This table reflects that the largest ROE weight was attributed to aggressiveness of strategy (Beta=0.54), with the next largest being attributed to openness of capability (Beta=0.23), and the least weight is attributed to level of environmental turbulence (Beta=0.11). In addition, the t-test of the Beta weights and the partial correlations indicate that aggressiveness of strategy was the strongest predictor of the DV ($t=2.84$, $P<0.009$, partial $r=0.52$), with openness of capability being the next most important ($t=1.19$, $P<0.24$, partial $r=0.25$),and the least important is level of environmental turbulence ($t=0.77$, $P<0.447$, partial $r=0.16$).

Table 31. Multiple Regression for Return on Equity (y), Levels of Environmental Turbulence (x1), Aggressiveness of Strategy (x2), and Openness of Capability (x3)

Equation Number 1

Dependent Variable Return on Equity (y)

Variables Entered on Step Number

1. Openness of Capability (x3)
2. Aggressiveness of Strategy (x2)
3. Levels of Environmental Turbulence (x1)

DF	Sum of Squares	RSq Chg	F	Sig F	Source
3	8.73766	0.552	8.626	0.0006	x1 x2 x3
3	8.73766		8.626	0.0006	Regression
21	7.09039				Residual
24	15.82806				Total

Multiple R	0.74299
R Square	0.55204
Adjusted R Square	0.48804
Standard Error	0.58107

F = 8.626 Signif F = 0.0006

Variables in the Equation

	Beta	Correl	Partial	T	Sig T
x3	0.23525	0.61230	0.25176	1.192	0.2465
x1	0.11846	0.23433	0.16650	0.774	0.4477
x2	0.54163	0.70202	0.52755	2.846	0.0097
(Constant)				0.16	0.9875

Concerning ROA, assets utilization, equity utilization, loans to deposits, profit margin, equity multiplier, and expenditures to net income, the results seemed to be unreliable, because violations of regression assumptions occurred. The data was such that even after various data transformations, it was non-normal and variances were not consistent.

Summary

The last part of this chapter provides a summary of the findings of this study, which are as follows:

1. Overall optimum financial performance occurs when levels of environmental turbulence, aggressiveness of strategy, and openness of capability match each other.

2. Banks which are strategically myopic, perform less well than banks which are not strategically myopic.

3. Perception of the environment is a very good trait, but alone without having the necessary response strategy and the capability to support the strategy is not financially healthy for the firm.

4. A decrease in any of the strategic gap significantly contributes to better financial performance.

5. The most significant strategic issue is the drop in oil prices.

6. Size did not correlate with any of the variables.

7. When the strategy less capability gap is high, then the profit margin is low.

8. Return on equity and return on assets are very good discriminant measures of performance.

9. Optimum overall financial performance was accompanied by high strategic and high operating financial measures.

10. Environment, strategy, and capability are very good predictors of return on equity.

11. For return on equity, aggressiveness of strategy was the most important variable, followed by openness of capability, and levels of environmental turbulence was the least important.

12. All of the significant correlations with no exceptions, emphasized either a positive or a negative correlation (as deemed appropriate for each particular financial measure). This in turn stressed the fact that in a turbulent environment an increase in the majority of the independent variables, elements, sub-elements is significantly accompanied by a better financial performance.

13. Based on the "Rate of Significance" (ROS) whereas, the higher the ROS the more linear associations found. ROS is computed according to the formula:

$$ROS = \frac{\text{Significant correlations}}{\text{Total correlations}} \times 100 = \%$$

the following order of correlations was manifested with the highest between the intervening variables and the dependent variables (40%), while the lowest was between the moderating variables and the dependent variables(7.41%) the lowest. The second highest was between the independent variables and the dependent variables (33.33%). The third highest was between the elements and the dependent variables (25%). The final, the second lowest was between the sub-elements and the dependent

variables (11.26%). The last two had large proportions of spurious correlations.

14. Outside observers proved to be an excellent source of pertinent strategic information regarding the levels of environmental turbulence.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Three sections are contained in this chapter. The sections are: a summary of the study, conclusions from the findings, and recommendations for further study. The content of the sections are as follows:

1. Summary: presents a concise overview of the study. It contains a summary of the research problem, theoretical perspective, variables and relationships, research approach, criteria for data source, background, method, collection of data, and a summary of findings.

2. Conclusions: explores conclusions related to the context of this study, and conclusions related to the literature. This section further explores applicability of the study and its limitations. Finally, an evaluation of the study is presented.

3. Recommendations: elaborates on significant applications of findings to the practice of management, possible future research in terms of environment, strategy, capability, and financial performance.

Summary

This section reviews the study. The review extends from the research problem to the findings.

The Research Problem

Over the past ten years strategic management studies have attempted to measure the extent to which the levels of environmental turbulence, the strategy, and the capability can account for variations in performance of environment serving organizations (ESO's). Various studies have contributed to knowledge through strategic management observations and/or experimentation, which have been valuable to practitioners of business, management, and other related disciplines. Nevertheless, the issue of concern has yet to be researched further. Previous research has been oriented toward investigating the strategic behavior of firms located in industrial market economies in developed countries. Furthermore, previous studies have been oriented toward examining the three variables, levels of environmental turbulence, aggressiveness of strategy, and openness of capability, by using a mixture of one or two of them, and their relationships with financial performance measures. It was the first aim of this study to examine levels of environmental turbulence, aggressiveness of strategy, openness of capability, and financial performance, of firms in a high income, developing, and oil exporting country.

The overall framework of the study was based on a model developed by H. Igor Ansoff (1984 215:238) as an extension of the original model. The original model was established by Chandler (1962). The model employed in this study is relatively new, and little empirical research has been established. The model used is entitled "Strategic Posture Analysis." The second aim of this study was to investigate the applicability of the model in a new setting (Middle East).

Strategic posture analysis is a multidimensional investigation of the strategic behavior of firms. To be specific, it places great emphasis on methodological and paradigmatic relevancy and accuracy. Furthermore, strategic posture analysis is based on the simplest principle of "requisity variety" in which the minimum requisity variety is applied to respond to complexity. The third aim of this study was to provide an epistemological investigation of the strategic behavior of banks in terms of strategic posture analysis.

The purpose of this study was to examine the banking industry of a high income, oil exporting country. The questions were directed to assess the following: top management's perception of the levels of environmental turbulence, outside observers' perceptions of the level of environmental turbulence, top management's perceptions of the aggressiveness of strategy, top management's perceptions of the firm's capability, the financial performance of the banks, and the relationship between the level of environmental turbulence, aggressiveness of strategy, capability, and financial performance measures. Seven research questions were formulated.

1. To what extent do top managers in banks differ in their perceptions of the levels of turbulence in the environment in which they operate, from outside observers perceptions of the levels of turbulence in the banking industry?

2. To what extent do top managers in banks differ in their perceptions of the aggressiveness of strategy of all of the banks as compared to:

2.1. Outside observers perceptions of the environmental turbulence?

2.2. The levels of environmental turbulence as perceived by top managers' of all banks?

3. To what extent do top managers in banks differ in their perceptions of the capability of all the banks as compared to:

3.1. Outside observers' perceptions of the environmental turbulence?

3.2. The level of environmental turbulence as perceived by top managers' of all banks?

3.3. The aggressiveness of strategy as perceived by top managers' of all banks?

4. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, and openness of capability?

5. What are the relationships between the financial measures of the bank's performance, in terms of:

5.1. Other financial measures?

5.2. Independent variables drawn from banks' strategic posture?

5.3. Financial performance measures as a function of bank groupings?

6. What are the correlations between eight financial performance measures and each of the following:

6.1. Eight elements of the strategic posture?

6.2. Twenty-nine sub-elements of strategic posture?

6.3. Five strategic gaps?

6.4. Banks' size and five strategic business areas?

7. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, openness of capability, and the financial performance measures of the banks?

Theoretical Perspective

This study was based on the basic hypothesis of Strategic Management. The basic hypothesis states that "an organization will be successful if environment, response, culture, and capability match each other" (Ansoff:1979:3).

The theory of strategic management is an applied theory which attempts to provide insights into managerial issues, such as: behavioral patterns of environment serving organizations (ESO's), causes of behavioral differences in ESO's, agents contributing to success or failure in ESO's, prevailing style of strategic behavior in ESO's, processes by which ESO's shift and/or drift from one prevailing style to another in order to match the ESO's environment, response and capability to each other in order to be successful. The theory of strategic management is a blend of other disciplines, Ansoff (1979:3) describes it as follows:

> The theory is multi-disciplinary in the sense that it seeks an optic appropriate to the problem and not to a particular scientific discipline. There are two paths to such an optic. One is to attempt an integration of the available disciplinary insights into a coherent whole. The other is to work back from the "real world" problem, abstract the features which appear critical to explanations of behavior, and then selectively borrow from theoretical insights which may be available.

The second path was followed by Ansoff to construct the theory. The theory is discussed in his book Strategic Management (Ansoff, 1979).

> The theory of strategic management deals with a wide scope of possible associations among and/or between seven elements. The elements were as follows: environmental turbulence, power structure, strategic behavior, and strategic leadership.

For the purpose of this study, the emphasis was placed on "strategic posture analysis" (Ansoff:1984:Chapter 3.4), whereas the analysis maintains that whenever "environmental turbulence," "aggressiveness of strategy," and "openness of capability" match each other on a "five point scale of matching triplets," optimum performance would occur. Thus, the following hypotheses are formulated, the first of which is stated below:

> Optimum overall financial performance will occur when level of environmental turbulence, aggressiveness of strategy, and openness of capability match each other.

The second hypotheses was based on Ansoff (1984:328 and 1979:144-147), whereas, the emphasis were placed on the "environmental surveillance technique," which stipulates that accurate perceptions of the level of environmental turbulence do contribute to better performance. Inaccurate perceptions can contribute to low performance. The second hypothesis was:

> Banks which are not strategically myopic will perform better than banks which are strategically myopic.

The two hypotheses were hypothesized for the overall performance measures. Ansoff (1984:201-202) maintains that the optimum performance (occurs when LET, AS, and OC match each other) is for the profitability measures, namely ROE and ROA.

This study investigated the eight financial measures, with special emphasis on the examination of above stated two hypotheses which are based on Ansoff's theory of Strategic Management.

Variables and Relationships

The study focused on determining the perception by top managers in banks in the Emirate of Abu Dhabi in United Arab Emirates, of the level of environmental turbulence, the aggressiveness of strategy, the capability, and their relationship to the financial performance, for three years (December 31, 1981 - December 31, 1984).

The research encompassed three independent variables (IV), eight dependent variables (DV), and eleven moderating variables (MV). The categorization of variables is explained as follows:

Independent Variables: The three independent variables are:

1. Levels of environmental turbulence.
2. Aggressiveness of strategy.
3. Openness of capability.

Dependent Variables: The eight dependent variables were classified into three types of measures, namely, overall financial measures (#1 and #2),strategic financial measures (#3, #4, and #5), and operating financial measures (#6, #7, and #8), as follows:

1. Return on Equity (ROE).
2. Return on Assets (ROA).
3. Equity Utilization (EU).
4. Assets Utilization (AU).
5. Loans to Deposits (LD).

6. Profit Margin (PM).

7. Expenditure to Net Income (EI).

8. Equity Multiplier (EM).

Moderating Variables: According to Emory (1980:97) a moderating variable (MV) "is a secondary independent variable which is chosen because it is believed to have a strong contingent or contributory effect on the original IV-DV relationship." The two moderating variables were:

1. Size.

2. Strategic Business Area.

Intervening Variables (Strategic Gaps): Each of the strategic gaps is treated as an intervening variable (IVV), because it is a conceptual mechanism through which the independent variables affect the dependent variables, (Emory 1980:99). The five intervening variables (IVV) are resultant from computations of the strategic gaps, which are based on the following equations:

1. Strategy less Capability gap

   = AS - OC.

2. Observer's Environment less Strategy gap

   = OOLET - AS.

3. Observer's Environment less Capability gap

   = OOLET - OC.

4. Strategy plus Capability gap

   = (OOLET - AS) + (OOLET - OC).

5. Total gap

   = (OOLET - TMLET) + (OOLET - AS) + (OOLET - OC).

The most interesting strategic gap for this study is the total gap, because it allows a generalized grouping of all respondents.

The relations among variables were as follows:

1. The IV's determine the DV's.

2. Size and SBA might have a relation with DV's.

3. IVV's are resultant of a combination of two or three IV's, and do impact the DV's.

Each of the eight dependent variables were measured for the last two available years. The computation consisted of the average value over period. The data for IV's was gathered from the most senior executive, assistant to most senior executive, or the executive responsible for a major division (Irvine 1985), of twenty five banks in the Emirate of Abu Dhabi. The total population of banks in Abu Dhabi amount to thirty-five. The sample of this study, therefore, consists of 71.42% of the population (Central Bank Annual Report 1981). Financial data originated from income statements and balance sheets published at local newspapers in Abu Dhabi.

Research Approach

A descriptive elemental research approach was utilized for questions 1, 2, 3, and 4. This approach expanded upon the qualities of the five characteristics of the levels of the environmental turbulence, the two elements of the aggressiveness of strategy, the three elements of the openness of capability, and the eight financial performance measures. A descriptive correlational research approach was utilized to determine the relations between the independent variables, dependent variables,

moderating variables, and intervening variables of this study. In this study, all statistical analysis are at a 0.05 confidence level or less.

Criteria for Data Sources

The data sources consisted of two types. The first was identified as top management and the second as outside observers.

Criteria for the First Data Sources: Criteria for selecting data sources were as follows:

1. All available banks, which amounts to thirty banks. (Annual Report of the Central Bank of United Arab Emirates, 1983).

2. The location of the banks was Abu Dhabi, the capital of United Arab Emirates.

3. Subjective data originated from the most senior executive, assistant to most senior executive, or the executive responsible for a major division.

4. Objective financial data originated from the financial statements of all the banks from 1981 to 1984.

5. Banks selected were in operation for the last three years (1981-1984).

Criteria for the Second Data Sources: The other second data sources refers to the outside observers. The emphasis was placed on the quality of respondents rather than the quantity , and accessibility to first hand data on the banking industry in United Arab Emirates. The criteria was as follows:

1. For question 1, a sample of twenty outside observers (not directly involved with any of the banks), such as staff at the central

bank, financial, economic and management consultants, and columnists who have been involved in activities of that nature for three years or more.

Background

Strategic management studies have mainly focused on the behavior of firms located in industrial market economies. By contrast, this study sought to explore a new dimension related to a high income, oil exporting country. There are four high income, oil exporting countries (World Development Report 1982), namely Kuwait, Libya, Saudi Arabia, and United Arab Emirates. The country selected by this study was United Arab Emirates, as this country has been incurring decreases in oil exports and prices, which has resulted in lower oil revenues since 1981 (Annual Report of the Central Bank of United Arab Emirates, 1983). The banking industry is the center of all economic activities in terms of financial transactions, therefore, U.A.E.'s world position as an oil exporter has increased international commercial transactions nationally and abroad. Such an empirical study, based on epistemological foundation could be a step towards the understanding of strategic behavior of banks in a high income, oil exporting country. As one witnesses the emergence of a turbulent and novel global environment, studies of this nature might be of aid in the perception of environmental turbulence, and as a consequence, better management might emerge.

Strategic posture analysis is a part of the strategic management theory. The epistemological background of the theory was categorized by investigating the origin, nature, methods and limits of a phenomenon to provide a better understanding of complexity, and in turn, result in

creating solution(s) (requisite variety) to "real world" problems, if creation is necessary. For example, Dr. H. Igor Ansoff (1984:455) maintains that:

> The major aim of an effort to understand a previously unstudied part of reality is to reduce the complexity of the real world to a model which is comprehensible and manipulable by man.

The previously mentioned aim is demonstrated in Ansoff's contributions, specifically his two books Strategic Management (1979) and Implanting Strategic Management (1984). The former elaborated on 11,250 strategic behaviors and their applicability, and the latter elaborated on selecting the strategic behavior which matches the environment, specifies the objectives, and allocated the resources.

Other strategic management studies have investigated issues similar to those in the area of concern, but not necessarily identical. For example, Wood and LaForge (1979) examined the association between "comprehensive planning" and "financial performance" in large American banks. Another example is the examination of four types of strategies which were used to respond to environmental challenges in ninety-four firms engaged in various functions, by Smart and Vertinsky (1984).

Contributions to the area of concern by researchers have been fruitful to practitioners. Contributions such as Chandler (1962), Channon (1973 and 1985) Bougeois (1980 a and b), Leontiades and Tezel (1980), Miller and Frigsen (1983), Robinson and Pearce (1983), and others have emphasized the need for further research. It seems, therefore, that further research is needed to examine the behavior of environment serving organizations, especially research which would elaborate on the role of

the strategic behavior, aggressiveness of strategy, openness of capability, the level of environmental turbulence, and their relation with financial performance.

Data Collection

Data sources, sample of data sources, instrumentation, and procedures which were utilized for the study are specifically described in this section of the chapter. The pilot study was described in this section as well. The data collection lasted approximately four months while the interviews lasted from one to five hours each.

Instrumentation

The instrument consisted of five parts, and was included in Appendix B, C, D, and E .

The first, second, and third parts of the instrument contained two sections each. The first section advanced an unstructured questionnaire. The second section encompassed a structured questionnaire, as did the third. The questions consisted of five levels; stable, reactive, anticipating, exploring, and creative (Ansoff,1984).

The fourth and fifth parts had no sections, the former was administered to collect demographics of respondents, and the latter was used to collect financial data. The demographics were based on position, age, sex, length of service, level of education, background, experience, and the strategic business area. This instrument was included in Appendix B, Part IV. This instrument was used to determine the appropriateness of including or not including respondents.

Pilot Study

A pilot study was conducted to determine the validity of the instrument and the appropriateness of the data to be gathered. The pilot study was conducted in San Diego, utilizing a sample which consisted of five banks and three outside observers. The pilot study resulted in errors which were corrected, then the instrument was retested. Thus, positive affirmation of the instrument's validity, and the type of data to be gathered for the purpose of the study was established.

Procedures for First Data Source

Subjective data was collected through a personal interview, using the following procedure:

1. Identify the bank and the name of the potential respondent.

2. Call the potential respondent and set an appointment for an interview.

3. During the interview the researcher would go through the questions with the subject without any interference except for explanations, should the need arise. For the unstructured questions, a recorder would be used, if the subject allows it. A tape recorder was used during the interviews.

4. If the previous attempts fail to achieve a 51% rate, go back to step 1 above and repeat the procedure, using a supplementary sample.

5. Objective financial data was collected from local newspapers.

Procedures for Second Data Source

1. For question 1 the procedure was as follows:

1.1 The name, address, and telephone number for each outside observer was identified.

1.2 Each outside observer was contacted and an appointment was scheduled.

1.3 The interview began with the presentation of the transmittal letter (Appendix C), and the survey instrument (Appendix D) to the outside observers.

1.4 An interview commenced with each outside observer, similar to step 3 in the above procedure.

Research Assumptions and Delimitations

Certain assumptions and delimitations of this study are elaborated upon in this section of the chapter.

The following assumptions were made during the commencement of this study:

1. For the purpose of the study, validity of the research approach, method of data gathering, and data analysis were adequate and accurate.

2. Validity of the questionnaire was established through a pilot study and consulting the experts, then the standard error was examined which emphasized the applicability of the questionnaire.

3. Each respondent understood the instructions provided, and responded accordingly and honestly.

4. Practitioners of business and management, as a result of this study, will be given insight in strategic posture analysis and it's relation with financial performance of the banking industry in United Arab Emirates.

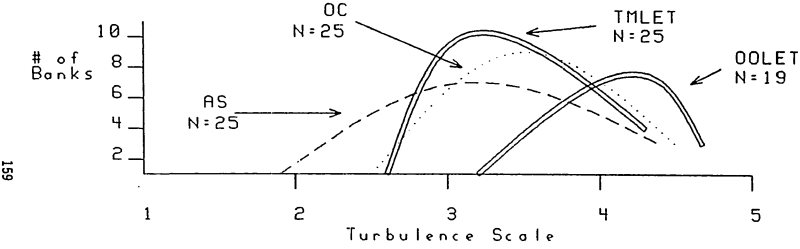
The delimitations of this study consist of the strategic postures of 25 banks in United Arab Emirates. The study spanned the duration of three years from December 31, 1981 to December 31, 1984. The financial performance measures were limited to the most resent two years between December 31, 1981 and December 31, 1984. The respondents were distributed according to their occurrence in the "Annual Report of the Central Bank of United Arab Emirates (1981).

Findings and Implications

Figure 1 summarizes the findings for questions 1, 2, and 3 which were obtained by making t-tests between the means of the distributions of the various measures. As the figure shows, the two solid lines represent the levels of environmental turbulence of TM's and OO's, the dashed line represents the aggressiveness of strategy, and the dotted line represents the openness of capability. The vertical axis indicates the number of responses, while the horizontal axis indicates the levels of environmental turbulence.

The table below the diagram presents the minimum, maximum, mean, and standard deviation of the TM's and the OO's perception of environmental

Figure 1. Strategic Posture Analysis of the Banking Industry in United Arab Emirates (December 1981- December 1984)



	Minimum	Maximum	Mean	Standard Deviation
Outside Observer's Perception of Environmental Turbulence (OOLET)	3.20	4.67	4.15	0.14
Top Management's Perception of Environmental Turbulence (TMLET)	2.61	4.30	3.46	0.46
Aggressiveness of Strategy (AS)	1.90	4.48	2.98	0.66
Openness of Capability (OC)	2.50	4.50	3.43	0.55

turbulence, as well as that of the aggressiveness of strategy, and the openness of capability. The results were as follows:

1. There was a significant difference between the means of the distributions of OOLET and TMLET.
2. There was a significant difference between the means of the distributions of OOLET and AS.
3. There was a significant difference between the means of the distributions of aggressiveness of strategy and TMLET.
4. There was a significant difference between the means of the distributions of openness of capability and OOLET.
5. There was a significant difference between the means of the distributions of openness of capability and aggressiveness of strategy.
6. There was no significant difference between the means of the distributions of openness of capability and TMLET.

From the above, and as could be seen on Figure 1, the means of the distributions of the banking industry emphasizes a gap between TM's and OO's perception of the level of environmental turbulence. TM's perception of their aggressiveness of strategy is less than their level of environmental turbulence, and significantly less than OO's perception. TM's perception of their openness of capability is similar to their perception of the level of environmental turbulence, but more than their perception of their aggressiveness of strategy and less than the OO's perception of the level of environmental turbulence.

The results included below were not sought by the researcher as direct answers to research questions. They were included as unstructured

questions in order to stimulate respondents' thinking regarding the level of environmental turbulence prior to answering the structured questions.

The most significant issue in the environment, is the "drop in oil prices/revenues," as seen by TM's and OO's. The fundamental strategic issue's in the level of environmental turbulence of the banking industry are resultant from responses of OO's and TM (see Table 3). The emphasis of both respondents' indicate the importance of the following:

1. Drop in oil prices/revenues.
2. Iraq/Iran war.
3. Central bank legislation.
4. Recession.
5. Unworthy customers (loan assessment from banks).

The banks were organized into three groups by discriminant analysis as described in the previous chapter. As previously discussed the groupings were 100% correct, and significantly different from each other. (See Illustration 6) The groupings were based on the concept of total gap, which is defined by the following equation:

Total gap = (OOLET - TMLET) + (OOLET - AS) + (OOLET - OC)

whereas,

OOLET = outside observer's perception of the level of environmental turbulence.

TMLET = top management's perception of the level of environmental turbulence.

AS = Aggressiveness of strategy.

OC = Openness of capability.

The three groups are labeled as follows:

Group 1 = small gap = 3 banks.

Group 2 = medium gap = 10 banks.

Group 3 = large gap = 12 banks.

Other types of gaps, are listed and defined earlier in this chapter. The results are in the findings for questions 5,6, and 7.

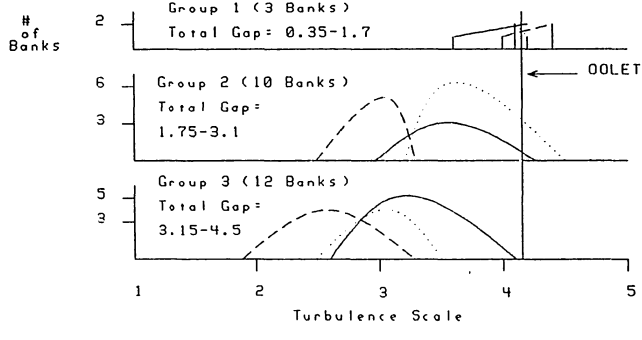
Correlations between the independent variables provide us with the following:

1. A positive correlation between aggressiveness of strategy and openness of capability indicates that an increase in aggressiveness of strategy was accompanied by an increase in openness of capability.
2. There was no significant correlation between the level of environmental turbulence and aggressiveness of strategy on the one hand, and level of environmental turbulence and openness of capability on the other. At this point a question arises as to why this occurred?

The answer to why there was a lack of positive correlation is illustrated on Figure 2. As the figure indicates, for each bank grouping, the solid line represents TM's perceptions of turbulence, the dashed line represents the aggressiveness of strategy, and the dotted line represents the openness of capability. The vertical axis indicates the number of responses, while the horizontal axis scales the turbulence.

The figure is divided into three segments. The top segment represents Group 1, with the smallest gap. The middle segment represents Group 2, with a medium gap, and the bottom segment represents Group 3,

Figure 2. Relationship Between Outside Observer's Perceptions of the Levels of Environmental Turbulence, and Top Manager's Perceptions of the Strategic Posture



Legend:

OOLET = Outside Observer's Perceptions of Turbulence

_____ = Top Management's Perceptions of Turbulence

_ _ _ = Aggressiveness of Strategy

..... = Openness of Capability

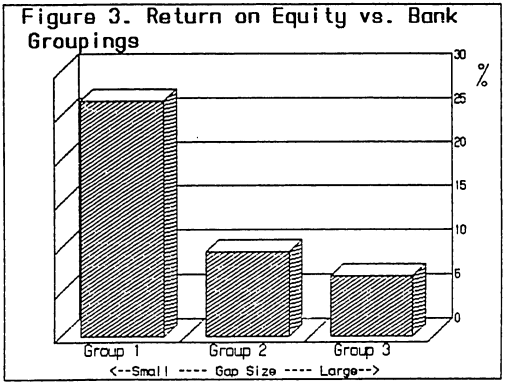
with the largest gap. The explanation is as follows: Some of the banks in group 2 and group 3 are good perceivers of the level of environmental turbulence, but they neither responded to the level of environmental turbulence with the necessary aggressiveness of strategy, nor did they develop the necessary openness of capability to support the aggressiveness of strategy. A further discussion of the gaps between the means of the distributions for each group of banks is contained in discussions for question 5,6, and 7.

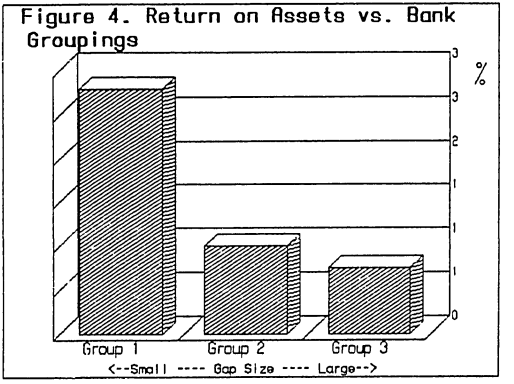
Question 5 required the examination of banks' difference in their financial performance for the most recent two years. As stated earlier, financial performance is examined in three categories. The results are as follows:

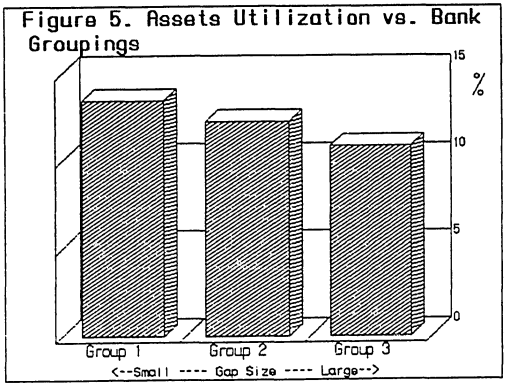
1. The overall financial measures (OFM) are a composite of ROE and ROA.

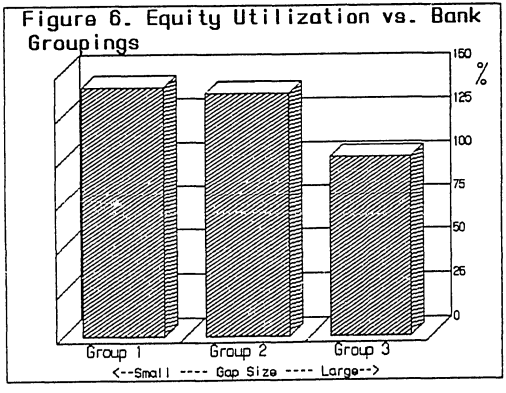
1.1. Return on equity (ROE) calculations for all banks (N=25) resulted in a minimum score of -2.265%, a maximum score of 31.429%, and a mean of 10.318%. As can be seen on Figure 3, group 1 (mean = 26.808%) was almost twice as much as group 2 (mean = 9.555), and four times as much as group 3 (mean = 6.829). Group 1 was above the mean of all groups, while the two other groups were below the mean.

1.2. Return on assets (ROA) calculations for all banks (N=25) resulted in a minimum score of -0.499%, a maximum score of 3.984%, and a mean of 1.105%. As can be seen on Figure 4, group 1 (mean = 2.796) was almost twice as much as group 2 (mean = 1.006), and four times as much as group 3 (mean = 0.764). Group 1 was above the mean of all groups, while the two other groups were below the mean.









2. Strategic financial measures (SFM) is a composite of AU, EU, and LD.

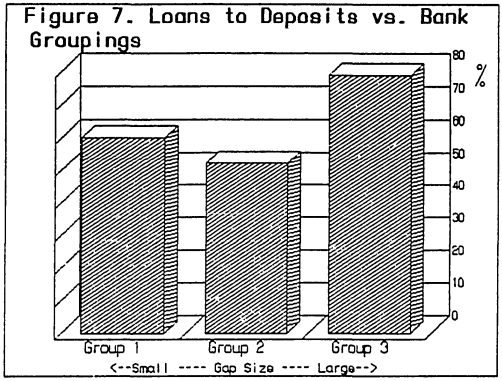
2.1. Assets utilization (AU) calculations of banks (N=24) resulted in a minimum score of 1.340%, a maximum score of 40.616%, and mean of 11.813%. As can be seen on Figure 5, group 1 (mean = 13.5097) and group 2 (mean = 12.3157) were above the mean, while group 3 (mean = 10.8935) was below the mean.

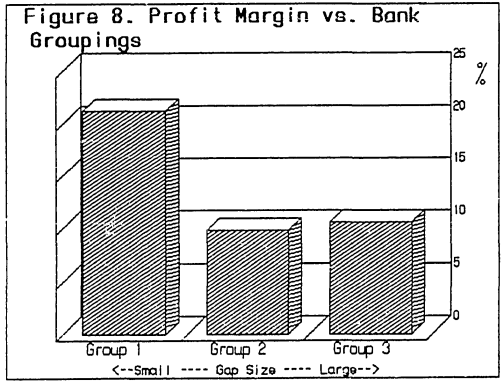
2.2. Equity utilization (EU) calculations of banks (N=24) resulted in a minimum score of 19.154%, a maximum score of 524.81%, and a mean of 122.019%. As can be seen on Figure 6, group 1 (mean = 141.9807) and group 2 (mean = 138.1504) were above the mean, while group 3 (mean = 101.9095) was below the mean.

2.3. Loans to deposits (LD) calculations of all banks (N=25) resulted in a minimum score of 25.259%, a maximum score of 122.401%, and a mean of 65.997%. As can be seen on Figure 7, group 1 (mean = 60.261) and group 2 (mean = 52.1391) were above the mean, while group 3 (mean = 8.9788) was below the mean.

3. Operating financial measures (OPFM) is a composite of PM,EM, and ER.

3.1. Profit margin (PM) calculations for banks (N=24) resulted in a minimum score of -5.178%, a maximum score of 50.507%, and a mean of 11.586%. As can be seen on Figure 8, group 1 (mean = 21.229) was above the mean, while group 2 (mean = 9.8372) and group 3 (mean = 10.5449) were below the mean.





3.2. Equity multiplier (EM) calculations for all banks (N=25) resulted in a minimum score of 4.297%, a maximum score of 17.230%, and a mean of 10.647%. As can be seen on Figure 9, group 1 (mean = 10.948) and group 2 (mean = 10.8646) were above the mean, while group 3 (mean = 10.3893) was below the mean.

3.3. Expenditure to net income (EI) calculations for banks (N=24) resulted in a minimum score of 0.98%, a maximum score of 48.075%, and a mean of 14.7653%. As can be seen on Figure 10, group 1 (mean = 4.3533) was below the mean, while group 2 (mean = 13.6151) and group 3 (mean = 18.6505) were above the mean.

Correlations between the dependent variables among each other (eight financial performance measures) reveal the following:

1. An increase in ROE is accompanied by an increase in ROA.

2. An increase in assets utilization is accompanied by an increase in EU.

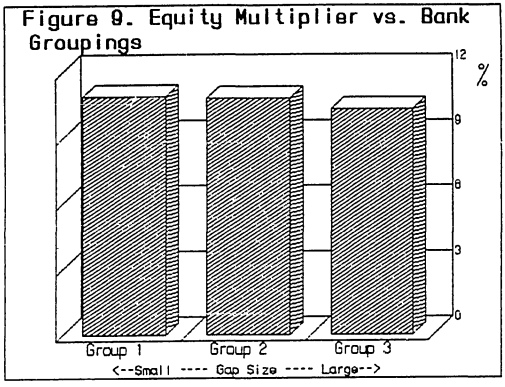
3. An increase in profit margin is accompanied by a decrease in expenditures to net income.

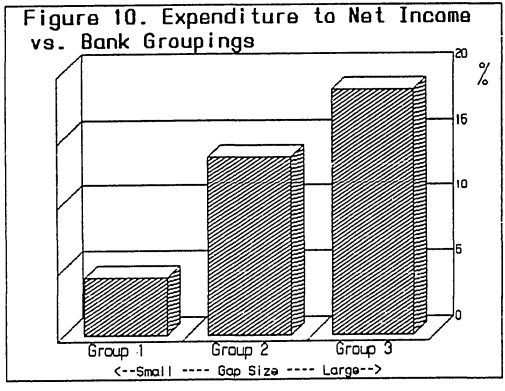
4. An increase in ROE is accompanied by an increase in profit margin.

5. An increase in ROE is accompanied by a decrease in expenditures to net income.

6. An increase in ROA is accompanied by an increase in profit margin.

7. An increase in ROA is accompanied by a decrease in expenditures to net income.





The significant correlations are in harmony with the "Du Pont" (Weston and Brigham 1981:152-154) system of financial analysis, and Sinkey's (1984:198-230) "Decomposition analysis." The non significant correlations imply a problem in the banks financial portfolio management, two of them are of a major concern:

1. No significant correlations existed between LD and other dependent variables, which implies that more attention from top managers should be given to that variable. Hence, a logical significant correlation would have been a decrease in LD accompanied by an increase in ROE.

2. No significant correlations existed between EM and other dependent variables, which implies that most of the firms are leveraged in the same manner. Hence, a logical significant correlation would have been, an increase in EM is accompanied by an increase in ROE. Correlations between the IV's and DV's reveal the following:

a. An increase in aggressiveness of strategy results in higher ROE, higher ROA, higher profit margin, and lower expenditures to net income.

b. An increase in openness of capability results in higher ROE, higher ROA, higher equity utilization, and lower loans to deposits.

c. No significant correlations existed between level of environmental turbulence, and any of the DV's. The reason for this may be due to the fact that although some of the respondents' perceptions of the level of environmental turbulence was close or equal to the OO's level of environmental turbulence, the reality of their aggressiveness of

strategy, and openness of capability did not match their perceptions of the level of environmental turbulence. It was interesting to note that among some of the poor performers, the perceptions of the level of environmental turbulence were accurate, but not reflected in their financial performance.

The strategic behavior resulting in a balance between level of environmental turbulence, aggressiveness of strategy, and openness of capability in group 1 banks, was accompanied by high overall financial performance.

The strategic behavior resulting in a medium gap between level of environmental turbulence, aggressiveness of strategy, and openness of capability in group 2 banks, was accompanied by moderate to low financial performance.

The strategic behavior resulting in a large gap between level of environmental turbulence, aggressiveness of strategy, and openness of capability in group 3 banks were accompanied by low performance. Furthermore, it seems that good overall financial performance occurs when the strategic financial performance and the operating financial performance are both good.

The above findings allow the following categorization:

1. Optimum financial performance results when LET, AS, and OC match each other, and match the actual levels of environmental turbulence.

2. The second best financial performance occurs when AS, and OC match each other, but they are not consistent with the actual level of environmental turbulence (the best of the worst situation).

3. The worst situation occurs when there is a total mismatch between LET, AS, GC, and actual environmental turbulence.

Data analysis for question six provided insights into the linear relationships among variables. Findings from the analysis are summarized as follows:

1. There was a positive correlation between ROE and top management's perceptions of changes in terms of decision making, technological changes, strategic issues, cognition of issues, aggressiveness of innovation strategy, responsiveness to customers, market development, aggressiveness of marketing strategy, sales aggressiveness, responsiveness to competition, promotion/advertising, role of marketing department, managers' profiles, risk propensity, model of success, management climate profiles, attitude toward change, and management competence.

2. There was a negative correlation between ROE and observer's environment less strategy gap, observer's environment less capability gap, observer's gap, and total gap.

3. There was a positive correlation between ROA and top management's perceptions of strategic issues, aggressiveness of innovation strategy, aggressiveness of marketing strategy, sales aggressiveness, promotion/ advertising, role of marketing department, and management competence profiles.

4. There was a negative correlation between ROA and observer's environment less strategy gap, observer's environment less capability gap, observer's gap, and total gap.

5. There was a negative correlation between loans to deposits, and top management's perceptions of significant issues, aggressiveness of marketing strategy, market share, management climate profiles, change trigger, and problem solving process.

6. There was a positive correlation between loans to deposits and observer's environment less strategy gap, observer's environment less capability gap, observer's gap, and total gap.

7. There was a positive correlation between assets utilization and top management's perceptions of the information system.

8. There was a positive correlation between equity utilization and top management's perceptions of managers' profiles, model of success, and initiative.

9. There was a positive correlation between profit margin and top management's perceptions of aggressiveness of innovation strategy, responsiveness to customers, aggressiveness of marketing strategy, promotion/ advertising, and strategy less capability gap.

10. There was a negative correlation between profit margin and top management's perception of retail banking, capability less strategy gap, and observer's environment less strategy gap.

11. There was a positive correlation between equity multiplier and top management's perception of model of success, strategic business areas, assets based banking, and international group banking.

All of the significant correlations with no exceptions, emphasized either a positive or a negative correlation (as deemed appropriate for each particular financial measure).

This in turn stressed the fact that in a turbulent environment, an increase in the independent variables, elements, and sub-elements is significantly accompanied by a better financial performance.

The above emphasizes that all correlations were in the right direction in accordance with the stipulations of this study. For example, a decrease in the total gap is negatively correlated with an increase in return on equity.

Based on the "Rate of Significance" (ROS), the higher the ROS, the more linear associations found. ROS is computed according to the formula:

$$ROS = \frac{\text{Significant correlations}}{\text{Total correlations}} \times 100 = \%$$

the following order of correlations was manifested. The highest was between the intervening variables and the dependent variables (40%), while the lowest was between the moderating variables and the dependent variables (7.41%). The second highest was between the independent variables and the dependent variables (33.33%). The third highest was between the elements and the dependent variables (25%). The second lowest was between the sub-elements and the dependent variables (11.26%).

Deductive reasoning allows the categorization of all the tested variables, based on the above percentages, in a manner which explains the linear associations in the following rank order:

1. Intervening variables.
2. Independent variables.
3. Elements.
4. Sub-elements.
5. Moderating variables.

This finding, in the researcher's opinion, is rather logical due to the fact that the intervening variables consist of two or more independent variables, while the independent variables are composed of elements. Furthermore, elements are constituted of sub-elements. The moderating variables, which are secondary independent variables, had the least significant correlations. Therefore, it was found that the higher the order of the variable, the higher the significance of the correlation associated with it.

The significant correlations are in harmony with each other. In other words they complement each other. Therefore, attention to all the variables is important.

It is important to note that from all of the correlations, 1 independent variable out of 3, 1 element out of 8, 12 sub-elements out of 29, and 3 moderating variables out of 6, did not show any significant correlation with any of the dependent variables. The probable reasons:

1. Similarities of responses for each variable.

2. The dependent variables are not the only financial measures which measures performance. For example, variability in ROE was not obtained because the available financial data was for the two most recent years.

3. There are measures which could not be abstracted from the financial statements, such as "return on investment in strategy." (See Ansoff 1979:36-46 and 1984:52-56)

Furthermore, all of the intervening valuables correlated with six of the dependent valuables, which was the highest ROS. Thus, the

intervening variables explain more of the nature, and direction of relationships.

One way analysis of variance was used for question 7 to determine the difference between the three groups. The results were as follows:

1. In terms of TM's perception of the level of environmental turbulence, group 1 was significantly different from group 2 and group 3. Group 2 and group 3 were not significantly different.

2. TM's perception of the aggressiveness of strategy, resulted in the three groups being significantly different from each other.

3. The three groups were significantly different from each other in terms of TM's perception of openness of capability.

4. Group 1 was significantly different from group 2 and group 3 in terms of ROE. Group 2 and group 3 were not significantly different.

5. Group 1 was significantly different from group 2 and group 3 in terms of ROA. Group 2 and group 3 were not significantly different.

The findings allow the study to accept the two hypothesis which were:

Hypothesis 1: Optimum overall financial performance will occur when level of environmental turbulence, aggressiveness of strategy, and openness of capability match each other.

Hypothesis 2: Banks which are not strategically myopic will preform better than banks which are strategically myopic.

Based on the above oneway analysis of variance, Figure 11 provides an illustration of both hypothesis as they relate to ROE and the strategic posture of bank groupings. As could be seen on Figure 11, the vertical axis indicates the percentage of the return on equity, while the horizontal axis represents the turbulence scale. It is evident on the

figure that Group 1 has the smallest gap, Group 2 has a medium gap, and Group 3 has the largest gap.

The solid vertical line is the mean of the OO's perception of the environment. The thin, single line represents the mean of each of the three group's top managers perceptions of environmental turbulence. The thin double, line represents the mean of each of the three group's aggressiveness of strategy. Finally, the thick double line represents the mean of each of the three group's openness of capability.

Figure 11 demonstrates two things. First, Group 1 has the smallest gap and significantly out-performed the other two groups, therefore the first hypothesis is valid. Second, Group 1's perception of the environment is closer than the other two groups, which means Group 2 and Group 3 are strategically myopic, therefore, the second hypothesis is valid. The same result was manifested in terms of ROA as well.

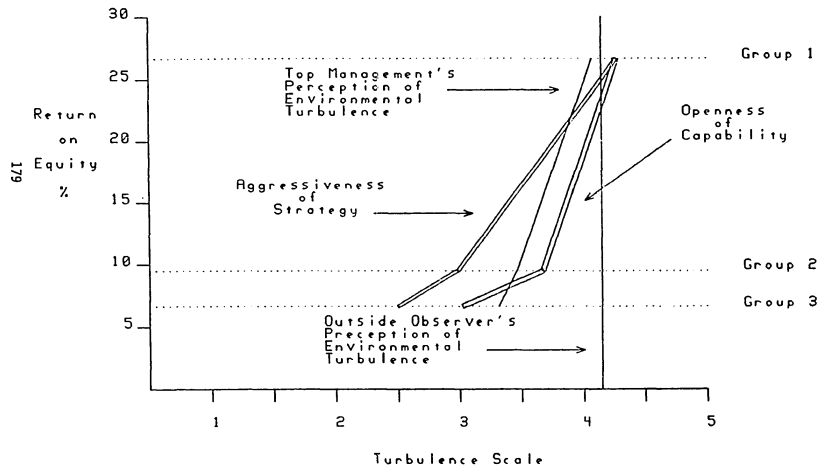
For the remaining six financial performance measures the findings indicate that they were not significantly different. That was due to three reasons:

1. These measures are lower measures as compared to ROE firstly, and ROA secondly. For example, ROE = ROA x EM, and ROA = PM x AU.

2. The degree of dispersion of the remaining six financial measures, as a function of the groupings, is relatively high.

3. Ansoff's model of strategic posture analysis is supplemented by measures of financial performance, which were not obtainable due to the structure of the balance sheets and the income statements. Return on equity and return on assets are the closest ratios to Ansoff's (1984:52-56) financial measures.

Figure 11. Strategic Posture of Bank Groupings vs. Return on Equity for the Banking Industry in United Arab Emirates



Therefore, the return on equity and return on assets are the best available measures for the strategic posture, while the remaining six do not appear to be.

Additional Findings

The additional findings resultant from additional data analysis for question 7 provided insights into the common and separate influences of three independent variables (level of environmental turbulence, aggressiveness of strategy, and openness of capability) on each of the eight dependent variables. Multiple regression was used for the analysis. The findings were as follows:

When level of environmental turbulence, aggressiveness of strategy, and openness of capability are included in the multiple regression equation they seem to be very good predictors of ROE. Aggressiveness of strategy seems to be the most important, followed by openness of capability and the least important being the level of environmental turbulence.

Concerning ROA, assets utilization, equity utilization, loans to deposits, profit margin, equity multiplier, and expenditures to net income, the results seem to be unreliable, because violations of regression assumptions occurred. The data was such that even after various data transformations, it was non-normal and variances were not consistent.

Major Findings

The following are the major findings resultant from this study:

1. Optimum overall financial performance occurred when levels of environmental turbulence, aggressiveness of strategy, and openness of capability match each other.

2. Banks which were not strategically myopic outperformed banks which were strategically myopic.

3. The smaller any of the five strategic gaps, the better the financial performance.

4. Banks which were not perceptive of the **actual** environment, and did not have the necessary strategy to respond to the environment or the capability to support such strategy, but were consistent in their **perceptions** of their aggressiveness of strategy and openness of capability (small "strategy-capability gap"), were better performers than banks in the same grouping which were inconsistent (large "strategy-capability gap"). This could be referred to as the "best of the worst".

5. Levels of environmental turbulence, aggressiveness of strategy, and openness of capability are very good predictors of return on equity.

6. Outside observers are excellent sources of strategic information regarding the assessment of the level of environmental turbulence.

7. For the purpose of the study, the reliability and the validity of the instrument were sufficient.

The above findings strongly support the main thrust of this study which is the practical applicability of Ansoff's theory of Strategic Management. Evidence of this support is demonstrated in two ways: linear associations, and central tendencies. Both ways complement each other,

which in turn provides a better understanding of the nature of relationships among variables.

Evaluation of the Research

The strengths of this research are as follows:

1. The data is first hand from TM's and OO's, who are on location in UAE, and thus represent the most accurate picture available of that industry.

2. A large portion of the population of banks was interviewed, 71% of banks in Abu Dhabi, which represents 51% of banks in United Arab Emirates.

3. The examination of origin, nature, method, and limitations of this study, provides a solid background for future studies, and as accurate of a picture as possible within the limitations of the study.

4. As a result of this study, practitioners of management can apply "strategic posture analysis."

The limitations of this study are as follows:

1. The data is limited to the perceptions of the respondents.

2. The available financial data was obtained for two years only. If financial data was obtained for three years or more, then financial analysis would have been used in a manner which allows the examination of risk (variability of return on equity). Further more, the definitions of overall, strategic, and operating financial measures would change some what. Nevertheless, the current analysis are a very good base for further research.

3. Ansoff's theoretical model of strategic posture analysis was developed a few years ago, the model provides "state of the art technology" for planning the firm's future. To complement that model, Ansoff (1984:52-56) developed specific and fundamental key measures for estimating the "strategic investment ratios" and the "critical mass and budget mix" (Ansoff 1979:36-46) of an organization. Unfortunately, the present study was not able to perform such analysis because the published financial statements did not provide them.

4. Since this appears to be the only study in this area, it is possible that there may be subtleties which the researcher has overlooked.

Conclusions

This section of the chapter presents the conclusions of this study. The conclusions cover the seven research questions.

Questions 1. To what extent do top managers in banks differ in their perceptions of the levels of turbulence in the environment in which they operate, from outside observers perceptions of the levels of turbulence in the banking industry?

The conclusions are as follows:

1. The mean of distribution of TM's perceptions of the level of environmental turbulence was significantly different from the mean of distribution of OO's perceptions of the level of environmental turbulence.

2. The most significant strategic issue is the "drop in oil prices/revenues." This issue is emphasized by TM's and OO"s. The six most important strategic issues are:

2.1. Drop in oil prices/revenues.

2.2. Iraq/Iran war.

2.3. Central bank legislation.

2.4. Recession.

2.5. Social economic changes.

2.6. Unworthy customers (loan assessment from banks).

3. Strategic myopia was evident in TM's perceptions of the level of environmental turbulence.

4. OO's are good sources of strategic information regarding the level of environmental turbulence. They provided a reference point for analysis in this study.

Question 2. To what extent do top managers in banks differ in their perceptions of the aggressiveness of strategy of all of the banks, as compared to:

2.1. outside observers perceptions of the environmental turbulence?

2.2. the levels of environmental turbulence as perceived by TM of all banks?

The conclusions are as follows:

1. The mean of distribution of TM's perceptions of their aggressiveness of strategy was significantly different from their mean of distribution of their perceptions of the level of environmental turbulence.

2. The mean of distribution of TM's perceptions of their aggressiveness of strategy was significantly different from the mean of distribution of OO's perceptions of the level of environmental turbulence.

TM's perceptions of their aggressiveness of strategy, therefore, was not adequate enough to respond to either their perceptions of the level of environmental turbulence, or OO's perceptions of the level of environmental turbulence.

Question 3. To what extent do top managers in banks differ in their perceptions of the capability of all the banks as compared to:

3.1. Outside observers perceptions of the environmental turbulence?

3.2. The level of environmental turbulence as perceived by TM of all banks?

3.3. The aggressiveness of strategy as perceived by top manager of all banks?

The conclusions are as follows:

1. The mean of distribution of top manager's perceptions of their openness of capability was significantly different from the mean of distribution of OO"s perceptions of the level of environmental turbulence.

2. The mean of distribution of top manager's perceptions of their openness of capability was not significantly different from the mean of distribution of their perceptions of the level of environmental turbulence.

3. The mean of distribution of top manager's perceptions of their openness of capability was significantly different from the mean of distribution of their perceptions of the aggressiveness of strategy.

Therefore, top manager's perceptions of their openness of capability was significantly different from perceptions of their aggressiveness of strategy, significantly different from OO's perception of the level of environmental turbulence, and not significantly different from their perceptions of the level of environmental turbulence. TM's perception of their openness of capability was not adequate to support their aggressiveness of strategy.

Question 4. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, and openness of capability?

The following conclusions are drawn from the answer to Question 4.

1. The concept of the total gap allowed the grouping of all banks into three groups. The three groups are labeled as follows:

Group 1 = small gap = 3 banks.

Group 1 = medium gap = 10 banks.

Group 3 = large gap = 12 banks.

The groupings were 100% accurate, and all the groups were significantly different from each other.

2. An increase in aggressiveness of strategy is accompanied by an increase in openness of capability, and neither aggressiveness of strategy nor openness of capability correlated with levels of environmental turbulence. Therefore, a question was advanced to understand the phenomena. The question is, "Why did this occur"?

3. The reason for this phenomena is due to some respondents' perceptions of the levels of environmental turbulence being close to the actual level of environmental turbulence. They responded, however, with neither the necessary strategy, nor had the necessary capability to support the strategy.

Question 5. What are the relationships between the financial measures of the bank's performance, in terms of:

5.1. Other financial measures?

5.2. Independent variables drawn from banks strategic posture?

5.3. Financial performance measures as a function of bank groupings?

The following are the conclusions drawn from answers to Question 5.

1. Overall financial performance is highest when both strategic and operating financial measures are high.

2. The level of environmental turbulence did not correlate with any of the financial measures. The reason is that some of the respondents in group 2 and group 3 perceived the environment better than the remaining members of there respective group.

3. Correlation between the aggressiveness of strategy and DV's are:

a. A strong positive correlation between aggressiveness of strategy and both ROE and ROA.

b. A positive correlation between aggressiveness of strategy and profit margin.

c. A negative correlation between aggressiveness of strategy and expenditures to net income.

4. Correlation between the openness of capability and DV's are:

a. A strong positive correlation between openness of capability and ROE.

b. A positive correlation between openness of capability, and both ROA and equity utilization.

c. A negative correlation between openness of capability, and loans to deposits.

5. The group with the small gap has out-performed the other groups.

Question 6. What are the correlations between eight financial performance measures and each of the following:

6.1. Eight elements of the strategic posture?

6.2. Twenty-nine sub-elements of strategic posture?

6.3. Five strategic gaps

6.4. Banks size and five strategic business areas (SBA)?

Answers to this question concluded the following:

1. An increase in the elements of the independent variables is significantly related to better financial performance.

2. An increase in the sub-elements of the independent variables is significantly related to better financial performance.

3. Decrease in the size of any of the five strategic gaps is significantly related to better financial performance. An example of that could be seen on Figure 12. The upper portion of Figure 12 has the vertical axis representing the number of banks, while the horizontal axis represents the return on equity. On the lower portion of Figure 12, the first column is the bank group number, the second column is the minimum score for return on equity, and the third is the maximum score for return

on equity. The fourth column is the mean of the scores for return on equity, the fifth column is the standard deviation, and the final column is the score of the total strategic gap. As could be seen on the figure, group 1, with the smallest gap, has out-performed the other two groups.

4. Size did not correlate with any of the dependent variables. The reason for that, was most of the data were skewed in one direction. That in turn implies that the banks size was similar, which provides further homogeneity of collected data.

5. Strategic business areas, investment banking, assets based banking, and international group banking seem to be related to the equity multiplier. In other words, the more a bank is involved in business areas the higher it's equity multiplier. An increase in retail banking seems to be accompanied by an increase in expenditures to net income.

Question 7. What are the relationships between levels of environmental turbulence, aggressiveness of strategy, openness of capability, and financial performance measures of the banks?

The two conclusions drawn support the main thrust of this research as follows:

1. Accepting the first hypothesis, which is:

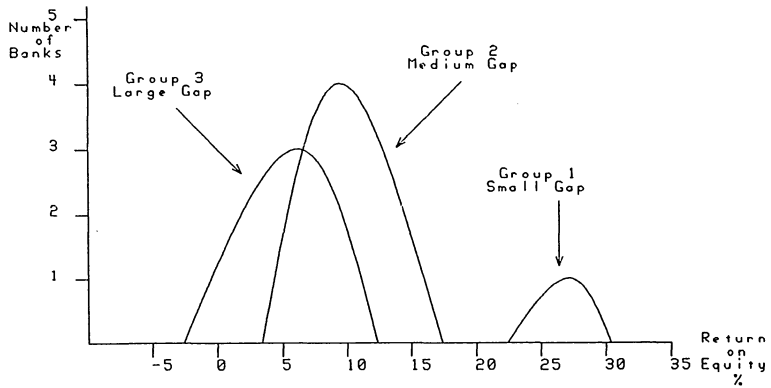
   Optimum overall financial performance will occur when level of environmental turbulence, aggressiveness of strategy, and openness of capability match each other.

2. Accepting the second hypothesis, which is:

   Banks which are not strategically myopic will perform better than banks which are strategically myopic.

Both hypothesis are accepted for overall financial performance measures, namely - return on equity, and return on assets.

Figure 12. Total Gap vs. Return on Equity of Bank Groupings



Summary of Statistics

Group	Minimum	Maximum	Mean	STD	Gap
1	22.77	31.43	26.8	4.4	0.62
2	3.80	17.24	9.5	4.9	2.42
3	-2.27	12.16	6.8	4.1	3.62

Observation. One observation resulted from this study: the bank groupings seem to have a good discriminatory power in terms of distinguishing good performers from bad performers, yet by observation it seems that the top performers in group 2 and group 3 have their strategy - capability gap less than the other members of their respective groups. Therefore, the top performer of each of the groups (group 2, and group 3) was synergetic or consistent in terms of strategy/ capability gap, a manifestation which could be labeled as "best of the worst".

Additional Findings. The additional findings resultant from additional data analysis for question 7 provided insights into the common and separate influences of three independent variables (level of environmental turbulence, aggressiveness of strategy, and openness of capability) on each of the eight dependent variables. Multiple regression was used for the analysis. The findings were as follows:

When level of environmental turbulence, aggressiveness of strategy, and openness of capability are included in the multiple regression equation they seem to be very good predictors of ROE. Aggressiveness of strategy seems to be the most important, followed by openness of capability and the least important being the level of environmental turbulence.

Concerning ROA, assets utilization, equity utilization, loans to deposits, profit margin, equity multiplier, and expenditures to net income, the results seem to be unreliable, because violations of regression assumptions occurred. The data was such that even after various data transformations, it was non-normal and variances were not consistent.

Recommendations

Two categories of recommendations are resultant of this study. The categories are as follows:

1. Further research.
2. Practical applicability of findings.

The remaining part of this dissertation will explicitly discuss the recommendations.

Further Research

This category contains recommendations for further research, the thrust of which should be directed toward "epistemological strategic telesis". The concept of "epistemological strategic telesis" refers explicitly to formal, planned development, and progress of propositions which considers the origin, nature, methods, dimensions, and limitations of strategic management theory. Bearing in mind the use of quantitative and qualitative propositions or a combination of both. The propositions must be effective, efficient, and equitable in order to relate the firm to it's levels of environmental turbulence. The methodology should be directed towards achieving an understanding of the means by which the firm could attain optimum performance in terms of "how," "why," "why not," "what," "where," "when," and "by whom." The investigation should provide the domain of applicability of the propositions, if any. Based on the above, the following could be used for future research:

1. Replication of this study, on different dimensions, such as:

1.1. The replication of this study as is, but utilizing a larger sample and/or another data base.

1.2. The use of another country.

1.3. The use of the same country, but on a different industry, such as the oil industry.

1.4. The examination of the relation between the firm's strategic posture and it's growth measures. The growth measures being "average of annual percentage growth," "average percentage change over period," and "average value over period," in terms of overall financial measures, strategic financial measures, and operating financial measures.

1.5. The relation between synergy within managers of the same and/or different levels of a firm, in terms of the strategic posture and financial performance, and comparing that to other firms.

2. This study is a static one. A dynamic study utilizing the same variables would certainly, and most coherently, be a great contribution to strategic management theory and practice.

3. A study which examines the hierarchy of optimum strategic posture. In other words, a study which examines different possibilities of strategic posture occurrences (different combinations of perceived levels of environmental turbulence, aggressiveness of strategy and openness of capability) then determines which occurrence produces optimal performance, as compared to actual levels of environmental turbulence.

4. A study which examines the cause and effect relationships among the various variables previously mentioned.

5. A study which examines the relative importance of each variable individually in terms of relationships with financial performance.

6. The data gathered in this study could be analyzed further, and compared and contrasted with other studies.

Practical Applicability of Findings

This category focuses on the practical applicability of findings to the practice of management in general, and strategic management specifically. In other words, the emphasis is placed on the use(s) of this study for Top Managers. The uses of this study are as follows:

1. The safest recommendation is to use the strategic posture for planning the firm's future. The strategic posture emphasizes that "optimum overall financial performance will occur when levels of environmental turbulence, aggressiveness of strategy, and openness of capability match each other."

2. The utility of the strategic posture analysis incorporated with multiple regression to predict the firm's return on equity is a very powerful tool for strategic managers.

3. Deductive reasoning permits recommending that since a firms strategic posture requires changes as levels of environmental turbulence change, the model could be used as an aid for helping in determining the following:

a. a firm's hiring of human resources (i.e., human resources vary from one level to another. During a stable level of environmental turbulence, custodial human resources are adequate, while during a discontinuous environment, creative man power is essential).

b. a firm's purchases of equipment (i.e., information gathering and processing equipment are important for high turbulence levels but not essential for low levels).

c. a firm's retraining of personnel (i.e., different categories of training are required for different levels).

d. any combination of two or more of the above.

4. Since firms are "environment serving organizations," environmental surveillance is a crucial part of strategic management. Another aspect which is just as crucial is the source of information.

Based on the above, and the findings of this study, outside observer's are very important and useful in providing information regarding changes in the levels of environmental turbulence. Regular consultation with outside observer's, therefore, is fruitful, and very rewarding for either eliminating strategic myopia, or reducing it, and/or becoming aware of it.

5. Generally speaking, banks are profit making organizations. Therefore, the banks' clientele which have the least credit risks (one of the generic risks in commercial banks) constitute a strategically excellent target market. Such clientele have a better propensity of loan repayments, thus, strategic posture analysis could be used in conjunction with conventional credit risk assessment to evaluate potential borrowers. Clientele with a large gap in their strategic posture would be more of a risk to lend to in general, and especially in a turbulent environment.

6. Optimum financial performance resulted when the strategic and operating measures were good. Therefore, attention to both should be a rule of thumb for managers, because attention to one alone is not enough.

In other words, a firm must strike a balance between strategic financial measures, and operating financial measures, in order to achieve optimum financial performance.

7. The capability/strategy gap is costly, because if for any reason/s a firm is not able to balance it's strategic posture with the actual levels of environmental turbulence, then that firm should balance it's capability/strategy gap in order to at least minimize cost.Balancing the capability/strategy gap only, will most likely not result in the best financial performance, but will result in an acceptable one, or the best of the worst.

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APPENDICES

APPENDIX A

LETTER OF INTRODUCTION FROM HIS EXCELLENCY

THE GOVERNOR OF THE CENTRAL BANK

OF THE UNITED ARAB EMIRATES

The following is a letter from His Excellency the Governor of the Central Bank of the United Arab Emirates. It was written in Arabic and was used for introductory purposes when approaching potential respondants of banks. The English translation follows.

Bismillah

UNITED ARAB EMIRATES
CENTRAL BANK

دولة الإمارات العربية المتحدة
المصرف المركزي

Date ____________
Ref. ____________

تاريخ ١٦ يوليو ١٩٨٥
الاشارة ____________

الى السادة/ جميع المصارف التجارية العاملة
في دولة الامارات العربية المتحدة المحترمين

تحية طيبة وبعد،،،

يرجى الافادة بأن حامل هذه الرسالة السيد/تامرتامر سلامه الذي يعد رسالة الدكتوراه بجامعة الولايات المتحدة الامريكية العالمية ، وموضوعها ((تحليلات الوضع الاستراتيجي والتصرف المالي للقطاع المصرفي في دولة الامارات العربية المتحدة)) .

لذا نأمل من الجهات ذات الاختصاص تقديم المساعدة اللازمة له .

وتفضلوا بقبول فائق الاحترام،،،

عبد الملك يوسف الحمر
المحافظ

ابوظبي ص.ب : ٨٥٤ - هاتف : ٣٦٨٢٠٠ - تلكس : الادارة العامة/البنوك : ٢٢٣٩٦/٢٢٥٧٧ - العملات الاجنبية : ٢٢٣١٦/٢٢٣٣٠ هواتف الفروع : دبي ٤٣٦٦٥٥
ABU DHABI — P. O. Box : 854 — Telephone : 368200 — Telex : Management/Banking 22396/22577 Foreign Exchange 22330/23316
Branches, Tel. Dubai 436655, SHJ 354514 RAK 28489 Al Ain 656656 FUJ 24040 ٢٤٠٤٠ - الفجيرة ٦٥٦٦٥٦ - العين ٢٨٤٨٩ - راس الخيمة ٣٥٤٥١٤ - الشارقة

July 16, 1985

To all Commercial Banks operating in
United Arab Emirates:

This letter is to inform you that Mr. Tamer Tamer Salameh is conducting a research entitled "Strategic Posture Analysis and Financial Performance of the Banking Industry in United Arab Emirates," at the United States International University. Therefore, please provide him with the necessary assistance.

Yours,

Abdul Malik Yousef Al Hamar
Governor

APPENDIX B

TRANSMITTAL LETTER

TOP MANAGEMENT

FOR TOP MANAGEMENT ONLY

A Questionnaire

Dear Respondent,

- The purpose of this study is to contribute to knowledge, and examine and build theory.
- Please do not indicate in any way your identity or the identity of your bank.
- If you have any questions, please feel free to ask because your thoughts and honest responses are of utmost value.
- The questionnaire is divided into two sections for each part. The first section is unstructured and the second section is structured. The parts amount to four in number.
- Thank you for your time and consideration.

Very truly yours,

Tamer Salameh
Strategic Management
Researcher

APPENDIX C

SURVEY INSTRUMENT

TOP MANAGEMENT

QUESTIONNAIRE

PART I ENVIRONMENTAL TURBULENCE

SECTION I

(1981-1984 = December 31 1981 - December 31 1984)

1.

a. Describe the characteristics of the changes of your bank's external environment over the last three years (1981-1984)?

b. Could you state specifically what were the most significant changes from those you have discussed?

SECTION II

The following series of questions have to do with changes which occur in the external environment during the period of 1981 to 1984.

1. For the past three years (1981-1984), which of the following statements best describes your bank's familiarity towards events in the environment of the banking industry?

a. Nothing really changes much in the environment.

b. Changes in the environment were repetition of the bank's experience.

c. Changes in the environment were understood when we thought of historical development.

d. The events in the environment were discontinuous, but we explained them when we thought of experience.

e. Changes in the environment were new, and not experienced before.

2. For the past three years (1981-1984), which of the following statements best describes your bank's speed of change in the environment of the banking industry?

   a. Speed of change in the environment was much slower than my bank's speed of response to it.

   b. Speed of change in the environment was slower than my bank's speed of response to it.

   c. Speed of change in the environment was comparable to my bank's speed of response to it.

   d. Speed of change in the environment was shorter than my bank's speed of response to it.

   e. Speed of change in the environment was much shorter than my bank's speed of response to it.

3. For the past three years (1981-1984), which of the following statements best describes the visibility of the future in the environment of the banking industry?

   a. My bank's environment remained substantially unchanged.

   b. My bank's environment was evolved in a historically logical manner.

   c. My bank's environment was foreseen through analysis of threats and opportunities.

   d. My bank's environment was difficult to predict.

   e. My bank's environment was characterized by unpredictable surprises.

4. For the past three years (1981-1984), please indicate your bank's business scope.

   a. My bank's business scope was Abu Dhabi.

   b. My bank's business scope was United Arab Emirates.

   c. My bank's business scope was Arab and developing countries.

   d. My bank's business scope was Arab countries, developing countries, and developed countries.

   e. My bank's business scope was global.

5. For the past three years (1981-1984), please indicate the extent of importance of each of the following as they affected your bank's decision making, with regard to changes in the external environment.

	Not Important	Low Importance	Medium Importance	High Importance	Very High Importance
Economic changes	1	2	3	4	5
Technological changes	1	2	3	4	5
Socio-political changes	1	2	3	4	5

PART II QUESTIONNAIRE

SECTION I

1.

a. Please describe your bank's business strategies which you have used for the past three years (1981-1984).

b. How would you compare this strategy to that followed by one or two or your nearest competitors; for the past three years (1981-1984)?

SECTION II

Strategy:

The following series of questions have to do with your bank's response to the changes in the external environment during the period of 1981 to 1984.

1. For the past three years (1981-1984), which of the following statements best describes your bank's service department's response to customers?

   a. We neglected responding to customers.

   b. Our service is what the customer wanted.

   c. We anticipated the customer's needs.

   d. We identified unfilled needs.

   e. We identified needs which would occur in the future.

2. For the past three years (1981-1984), which of the following statements represents your bank's focus on new service development?

   a. We have no service development.

   b. Our focus on service development was the imitation of emerging new services.

   c. Our focus was on service development and the improvement of existing services.

   d. Our focus of research was on the adoption of developing services.

   e. Our focus of research was on pioneering new services.

3. For the past three years 1981-1984), which of the following statements represents your bank's process in market development?

   a. We stuck to our customers.

   b. We followed competitors in their market development.

   c. We expanded to familiar markets.

   d. We expanded to foreign markets.

   e. We created new markets.

4. For the past three years (1981-1984), how would you characterize the frequency of your bank's new services introduction?

Rare	Low	Medium	High	Very High
1	2	3	4	5

5. For the past three years (1981-1984), which one of the following statements represents the role of the research and development department of your bank?

   a. We do not have one.

   b. Our research and development department was "called in when necessary."

   c. Our research and development department served as a support function to our marketing.

   d. Our research and development department was the source of new products.

   e. Our research and development department was "the elite."

6. For the past three years (1981-1984), to what extent did your bank pursue aggressiveness in sales?

Very Low	Low	Medium	High	Very High
1	2	3	4	5

7. For the past three years (1981-1984), which one of the following statements represents your bank's responsiveness to competition?

   a. We do not compete.

   b. We will respond to aggression.

   c. We were neither aggressive nor leaders of the pack.

   d. We lead the pack.

   e. We are our own competitors.

8. For the past three years (1981-1984), which one of the following statements represents your bank's market share?

   a. We grew with the market.

   b. We defended our market share.

   c. We increased our market share.

   d. We controlled the market.

   e. We dominated the market.

9. For the past three years (1981-1984), which of the following statements represents your bank's promotion and advertising strategy?

   a. Our promotion and advertising spoke for themselves.

   b. Our promotion and advertising were reactive.

   c. Our promotion and advertising were aggressive.

   d. Our promotion and advertising were advanced.

   e. Our promotion and advertising were creative.

10. For the past three years (1981-1984), which one of the following statements represents the role of the marketing department of your bank?

    a. To make services available on the market place.

    b. To convince customers that our services are superior.

    c. To influence service development to be responsive to customers' needs.

    d. Our marketing department established the bank as a marketing leader.

    e. Our marketing department established the bank as a marketing innovator.

PART III

SECTION I

1.

a. For the past years (1981-1984), how would you describe top management's ability to respond to changes in the external environment?

b. How do you compare these abilities to that followed by one or two of your nearest competitors, for the past three years (1981-1984)?

SECTION II

Capability:

The following series of questions have to do with top management's abilities. The abilities which were used to support your bank's response to the changes in the external environment during the period of 1981 to 1984.

1. For the past three years (1981-1984), which of the following statements represents top management's risk propensity in the bank?

   a. They rejected risks.

   b. They accepted familiar risks.

   c. They sought familiar risks.

   d. They sought unfamiliar risks.

   e. They sought novel risks.

2. For the past three years (1981-1984), which of the following statements represents top management's way of solving problems in the bank?

   a. They solved problems through trial and error.

   b. They solved problems through diagnosis.

   c. They solved problems through choosing among existing alternatives.

   d. They solved problems through searching for alternatives.

   e. They solved problems through creating alternate solutions.

3. For the past three years (1981-1984), which of the following statements represents the personal knowledge required by top management in the bank for conducting the business?

   a. The knowledge of internal politics was all that was needed.

   b. The knowledge of internal operations.

   c. The knowledge of traditional markets, competitor's behavior, and new technologies.

   d. The knowledge of global opportunities.

   e. The knowledge of changes in the environment.

4. For the past three years (1981-1984), which of the following statements represents top management's model of success for your bank?

   a. Top management's model of success was stability and repetition.

   b. Top management's model of success was service efficiency.

   c. Top management's model of success was the balance of internal efficiency and marketing responsiveness.

   d. Top management's model of success was the investment in the most profitable opportunities.

   e. Top management's model of success was creativity.

5. For the past three years (1981-1984), which of the following statements represents the management's attitude toward change in your bank.

   a. "Don't rock the boat." - We rejected change.

   b. "Roll with the punches." - We reacted to change.

   c. "Plan ahead." - We sought familiar change.

   d. "If it's new, it's good." - We sought novel change.

   e. "Create the future." - We created change.

6. For the past three years (1981-1984), which of the following statements represents the management's change trigger in your bank?

   a. Change occurred in our bank when the bank was confronted by crisis.

   b. Change occurred in our bank when the bank was confronted by unsatisfactory results.

   c. Change occurred in our bank when the bank was confronted by threats.

   d. Change occurred in our bank when the bank was confronted by threats and opportunities.

   e. Change occurred in our bank due to continued search for change.

7. For the past three years (1981-1984), which of the following statements represents management's initiative in your bank?

   a. "Don't volunteer."

   b. "Follow the rules."

   c. "Run with the ball."

   d. "Be a careful self-starter."

   e. "Be a self-starter."

8. For the past three years (1981-1984), which of the following statements represents management's problem solving process in your bank?

   a. Management's problem solving process was hierarchical.

   b. Management's problem solving process was hierarchical and compartmentalized.

   c. Management's problem solving process was hierarchical and bank wide.

   d. Management's problem solving process was bank wide and problem centered.

   e. Management's problem solving process was problem centered.

9. For the past three years (1981-1984), which of the following statements represents your bank's information system?

   a. Our bank's information system was based on informal past issues.

   b. Our bank's information system was based on information of past performance.

   c. Our bank's information system was based on extrapolative forecasting.

   d. Our bank's information system was based on extrapolative forecasting and some environmental surveillance.

   e. Our bank's information system was based on environmental surveillance.

10. For the past three years (1981-1984), which of the following statements represents the rewards and incentives system of your bank?

   a. Rewards and incentives were based on length of service.

   b. Rewards and incentives were based on past performance.

   c. Rewards and incentives were based on contribution of growth.

   d. Rewards and incentives were based on contribution of growth and contribution to innovation.

   e. Rewards and incentives were based on contribution to innovation.

PART IV

Demographics

1. Position at current establishment: _____

2. Age: _____

3. Sex: Male: _____, Female: _____

4. Years of employment at current establishment: ____

5. Highest level of education attained:

   High School _____
   A.A. _____
   B.S./B.A. _____
   M.S./M.A./M.B.A. _____
   PH.D./D.B.A. _____
   Other (Please Specify) _____

6. Area of educational specialization: _____
   _____

7. Experience: (Please use the back of this sheet for additional information):
   _____
   _____
   _____
   _____

8. Which of the following commercial sectors is your bank involved in?

   a. Investment Banking Yes ____ No ____
   b. Assets Based Banking Yes ____ No ____
   c. International Group Banking Yes ____ No ____
   d. Corporate Banking Yes ____ No ____
   e. Retail Banking Yes ____ No ____
   f. Other, please specify: _____

9. Approximate number of employees in your establishment:
   _____

10. Approximate number of branches of your establishment:
    _____

11. How many years, if any, have you worked outside the banking industry?_____

12. How many years did you work in the banking industry?

13. Approximate annual salary: _____

14. Are you: Married _____, Single _____, Divorced _____.

15. Number of children in your family: _____

APPENDIX D

TRANSMITTAL LETTER

OUTSIDE OBSERVERS

FOR OUTSIDE OBSERVERS ONLY

A Questionnaire

Dear Respondent,

- The purpose of this study is to contribute to knowledge, and examine and build theory.
- Please do not indicate in any way your identify or the identity of your establishment.
- If you have any questions, please feel free to ask because your thoughts and honest responses are of utmost value.
- The questionnaire is divided into two sections for each part. The first section is unstructured and the second is structured.
- Thank you for your time and consideration.

Very truly yours,

Tamer Salameh
Strategic Management
Researcher

APPENDIX E

SURVEY INSTRUMENT

OUTSIDE OBSERVERS

QUESTIONNAIRE

PART I ENVIRONMENTAL TURBULENCE

SECTION I

(1981-1984 = December 31 1981 - December 31 1984)

1.

a. Describe the characteristics of the changes in the banking industry's external environment over the last three years (1981-1984)?

b. Could you state specifically what were the most significant changes from those you have discussed?

SECTION II

The following series of questions have to do with the changes which occur in the external environment of the banking industry.

1. For the past three years (1981-1984), which of the following statements best describes the familiarity towards events in the environment of the banking industry?

   a. Nothing really changes much in the environment.

   b. Changes in the environment were repetition of the banking industry's experience.

   c. Changes in the environment were understood when banking industry managers considered historical development.

   d. The events in the environment were discontinuous, but the banking industry managers explained them when they thought of experience.

   e. Changes in the environment were new, and not experienced before.

2. For the past three years (1981-1984), which of the following statements best describes the speed of change in the environment of the banking industry?

   a. Speed of change in the environment was much slower than the banking industry's speed of response to it.

   b. Speed of change in the environment was slower than the banking industry's speed of response to it.

   c. Speed of change in the environment was comparable to the banking industry's speed of response to it.

   d. Speed of change in the environment was shorter than the banking industry's speed of response to it.

   e. Speed of change in the environment was much shorter than the banking industry's speed of response to it.

3. For the past three years (1981-1984), which of the following statements best describes the visibility of the future in the environment of the banking industry?

   a. The banking industry's environment remained substantially unchanged.

   b. The banking industry's evolved in a historically logical manner.

   c. The banking industry's environment was foreseen through analysis of threats and opportunities.

   d. The banking industry's environment was difficult to predict.

   e. The banking industry's environment was characterized by unpredictable surprises.

4. For the past three years (1981-1984), please indicate the banking industry's business scope in each of the following:

   a. The banking industry's business scope was Abu Dhabi.

   b. The banking industry's business scope was United Arab Emirates.

   c. The banking industry's business scope was Arab countries and developing countries.

   d. The banking industry's business scope was Arab countries, developing countries, and developed countries.

   e. The banking industry's business scope was global.

5. For the past three years (1981-1984), please indicate the extent of importance of each of the following as they affect the banking industry's decision making, with regard to changes in the external environment.

	Not Important	Low Importance	Medium Importance	High Importance	Very High Importance
Economic changes	1	2	3	4	5
Technological changes	1	2	3	4	5
Socio-political changes	1	2	3	4	5

PART II

Demographics

1. Position at current establishment: _____

2. Age: _____

3. Sex: Male: _____, Female: _____

4. Years of employment at current establishment: ____

5. Highest level of education attained:

   High School _____
   A.A. _____
   B.S./B.A. _____
   M.S./M.A./M.B.A. _____
   PH.D./D.B.A. _____
   Other (Please Specify) _____

6. Area of educational specialization: _____
   _____

7. Experience: (Please use the back of this sheet for additional information):
   _____
   _____
   _____
   _____

8. Approximate number of employees in your establishment: _____

9. Approximate number of branches of your establishment: _____

10. How many years, if any, have you worked outside the banking industry? _____

11. How many years, if any, have you worked in the banking industry? _____

12. Approximate annual salary: _____

13. Are you: Married _____, Single _____, Divorced _____.

14. Number of children in your family: _____

APPENDIX F

ONEWAY ANALYSIS OF VARIANCE

FOR SIX FINANCIAL MEASURES

Table 25. Oneway Analysis of Variance for Assets Utilization as a Function of Bank Groupings

Variable Assets Utilization
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	20.4	10.232	0.1859	0.8317
Within Groups	21	1156.0	55.051		
Total	23	1176.5			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	13.509	3.401	1.9637	9.77	16.43
Group 2	10	12.315	10.313	3.2615	2.43	40.61
Group 3	11	10.893	4.190	1.2634	1.34	16.73
Total	24	11.813	7.152	1.4599	1.34	40.61

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) = 0.7850, P = 0.003 (Approx.)
Bartlett - Box F = 3.953, P = 0.020
Maximum Variance / Minimum Variance 9.195

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

No two groups are significantly different at the .050 level.

Table 26. Oneway Analysis of Variance for Equity Utilization as a Function of Bank Groupings

Variable Equity Utilization
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	8245.9	4122.9	0.3956	0.6782
Within Groups	21	218849.1	10421.3		
Total	23	227095.0			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	141.98	65.95	38.080	93.93	217.18
Group 2	10	138.15	142.64	45.108	28.55	524.81
Group 3	11	101.90	51.98	15.673	19.15	186.38
Total	24	122.01	99.36	20.283	19.15	524.81

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) = 0.7426, P = 0.008 (Approx.)
Bartlett - Box F = 4.237, P = 0.015
Maximum Variance / Minimum Variance 7.530

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

No two groups are significantly different at the .050 level.

Table 27. Oneway Analysis of Variance for Loans to Deposits as a Function of Bank Groupings

Variable Loans to Deposits
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	4041.42	2020.7145	3.5049	0.0477
Within Groups	22	12683.8	576.5377		
Total	24	16725.25			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	60.26	3.8230	2.20	56.25	63.86
Group 2	10	52.13	18.39	5.81	25.25	85.41
Group 3	12	78.97	29.55	8.53	30.45	122.40
Total	25	65.99	26.39	0.0921	25.25	122.40

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) = 0.7123, P = 0.016 (Approx.)
Bartlett - Box F = 3.467, P = 0.032
Maximum Variance / Minimum Variance 59.775

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

2.93 2.93

The ranges above are table ranges.
The value actually compared with Mean (J) - Mean (I) is..
0.2930 * Range * Sqrt(1/N(I) + 1/N(J))

(*) Denotes pairs of groups significantly different at the 0.050 level

Mean	Group	2	1	3
52.13	2			
60.26	1			
78.97	3	*		

Table 28. Oneway Analysis of Variance for Profit Margin as a Function of Bank Groupings

Variable Profit Margin
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	321.467	160.734	1.2453	0.3082
Within Groups	21	2710.425	129.067		
Total	23	3031.893			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	21.229	8.080	4.6650	12.07	27.372
Group 2	10	9.837	5.576	1.7633	3.07	18.626
Group 3	11	10.544	15.165	4.5727	-5.17	50.507
Total	24	11.585	11.481	2.3436	-5.17	50.507

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) =	0.7047, P = 0.019 (Approx.)
Bartlett - Box F =	3.848, P = 0.022
Maximum Variance / Minimum Variance	7.397

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

No two groups are significantly different at the .050 level.

Table 29. Oneway Analysis of Variance for Equity Multiplier as a Function of Bank Groupings

Variable Equity Multiplier
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1.54	0.771	0.0439	0.9571
Within Groups	22	386.64	17.57		
Total	24	388.19			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	10.948	4.8149	2.7799	5.71	15.18
Group 2	10	10.864	3.7965	1.2006	4.34	17.21
Group 3	12	10.389	4.3752	1.2630	4.29	17.23
Total	25	10.646	4.0218	0.8044	4.29	17.23

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) = 0.4086, P = 0.860 (Approx.)
Bartlett - Box F = 0.131, P = 0.877
Maximum Variance / Minimum Variance 1.608

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

No two groups are significantly different at the .050 level.

Table 30. Oneway Analysis of Variance for Expenditure to Net Income as a Function of Bank Groupings

Variable Expenditure to Net Income
By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	504.495	252.247	1.7927	0.1911
Within Groups	21	2954.876	104.708		
Total	23	3459.372			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Group 1	3	4.353	2.546	1.4702	2.653	7.281
Group 2	10	13.615	9.885	3.1262	4.369	31.550
Group 3	11	18.650	14.360	4.3299	0.980	48.075
Total	24	14.765	12.264	2.5034	0.980	48.075

Tests for Homogeneity of Variance

Cochrans C = Max. Variance/Sum(variances) =	0.6643, P = 0.041	(Approx.)
Bartlett - Box F =	2.552, P = 0.079	
Maximum Variance / Minimum Variance	31.805	

Multiple Range Test (Least Significant Difference Procedure)
Ranges for the 0.050 level -

No two groups are significantly different at the .050 level.