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PREVIEW

**AN EMPIRICAL INVESTIGATION OF STRATEGIC RESPONSES OF  
U.S. FIRMS TO THE NORTH AMERICAN FREE TRADE  
AGREEMENT (NAFTA)**

**DOCTORAL DISSERTATION**

by

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**February 1996**

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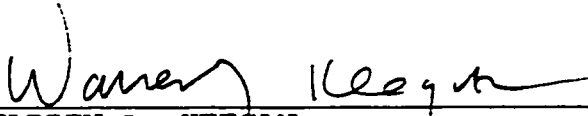
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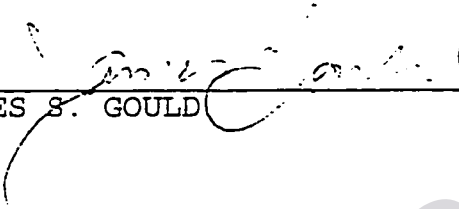
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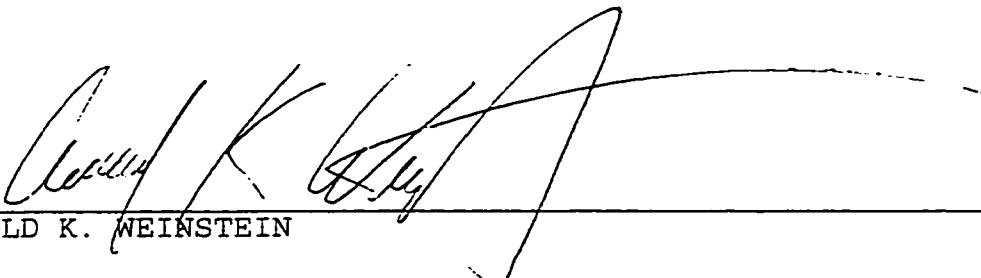
  
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## **ABSTRACT**

The present study was designed to investigate how American businesses have strategically responded to NAFTA and why businesses have reacted differently.

NAFTA calls for a drastic change in the regulation of international trade and investment. It serves as one of the major driving forces toward a highly integrated economy and consequently, more efficient cross border operations of business in North America. Therefore, a significant change in business operations in response to a macro environmental change should be observed.

Previous studies in the literature focus on the diverse effects of a free trade agreement on macro economic variables such as G.D.P, employment, etc. They generally concentrate on how a free trade agreement affects economies of the U.S., Canada, Mexico, and deal with pros and cons, opportunities and costs of NAFTA. Studies of firms' strategic behavior with regard to NAFTA are largely neglected in the literature.

For this study, data were gathered through a mail survey and explored through a variety of multivariate statistical methods such as principal component analysis, cluster analysis, and discriminant analysis to examine strategies and determining factors.

The research results suggest a few meaningful dimensions where firms' strategic responses to a free trade agreement take place. Research findings demonstrate some evidence that more internationalized firms/businesses, relatively larger in size, tend to focus on the restructuring/reorganization dimension of their

business operations by reorganizing their manufacturing activities and/or by creating a new structure: regional unit (i.e., North American Division in charge of North America as a whole). In addition, it is found that relatively small sized firms/businesses tend to depend on the integration/coordination dimension of their business operations. They rely heavily on strategic alliances.

A few implications for both academicians and practicing managers are also suggested. Using a more comprehensive view of the strategic response process to a free trade agreement, this study furthers our knowledge of firms' behavior and the relationship between strategic response and macro environmental change due to a free trade agreement. Some of our findings (i.e., discovery of a North American focus in Strategy/Structure) open a fertile ground for future research. Although this is an exploratory study, its findings suggest some tentative implications for practicing managers. For example, the perception factor was found as the most powerful discriminator for group differences. They can use the findings from the current research as useful reference material.

Finally, this study is considered the first one which deals with a comprehensive framework to cover the strategic response process and systematically analyze firms' strategic behavior responding to a free trade agreement in their home market. Therefore, the empirical findings of the current study, indeed, make a useful contribution to the literature.

## ACKNOWLEDGMENTS

Like many other doctoral candidates, I have looked forward to this moment to express my invaluable thanks to those who have helped me during my doctoral study.

First of all I would like to thank my doctoral committee for their guidance in helping me to finish up this work. Prof. Warren Keegan, as an advisor, was helpful with his intellectual stimulation throughout this research process. Prof. Stephen Blank inspired me to broaden the scope of data interpretation to the value of qualitative perspectives. Also, his caring mind for students' needs always impressed me. Prof. James Gould provided me with insightful advice not to fall into the trap of misinterpreting research findings due to lack of rigor in statistical analysis. Professors William Frech and Arnold Weinstein contributed substantially to this study with their penetrating questions which were instrumental in sharpening my arguments on research results.

In addition, I acknowledge that I am greatly indebted to Prof. John Dory, director of the doctoral program, for my interesting, yet painful, voyage into fulfilling my degree requirements.

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## CHAPTER I INTRODUCTION AND OVERVIEW

### 1. Rationale for the Study

NAFTA (The North American Free Trade Agreement) is designed to eliminate barriers to the flow of capital, goods and services among the U.S., Canada, and Mexico. NAFTA causes a substantial reduction in tariffs which is expected to result in more efficient cross border business operations. Taylor (1993) estimates that the U.S.-Canada Free Trade Agreement led to the elimination of tariffs averaging 9% in Canada and 4% in the U.S. The inclusion of Mexico in a North American-wide trade area leads to further eliminating Mexican tariffs in the 10 - 20 percent range, and to eliminating U.S. tariffs which average 10 percent on imports from Mexico (Taylor, p13).

NAFTA also calls for the elimination of a number of non-tariff barriers to trade. These include customs documentation and processing barriers, transportation barriers, technical standards, investment and exchange restrictions, and some other regulations. Therefore, many experts argue that NAFTA will accelerate the economic integration of North America (Blank, et al., 1993/1995; Garten, 1994). (Also, they argue that NAFTA is just responding to the recent economic integration across North America which has been rapidly developed by aggressive business operations across the borderlines in North America.)

As such, the drastic change in regulation and international trade is expected to affect significantly U.S. businesses.

Industries/businesses that would be affected significantly (i.e.: new markets in Mexico, Canada; massive unemployment in the U.S.) include many key sectors in the U.S. economy. U.S. International Trade Commission (U.S.I.T.C, 1993) described them as "sensitive" industries and listed as follows: service sectors - banking and insurance; transportation, telecommunication services; construction and engineering; agricultural sectors; energy sectors - primary petrochemicals, electricity, transmission, petroleum, natural gas; industrial sectors - automotive parts, computers and components, industrial machinery, bearings, textiles and apparel, pharmaceuticals, chemicals, etc. Therefore, U.S.I.T.C.(1993) argues that in these industries investment and capital flows of American businesses in North America would be significantly affected by new trading environment, because most regulations which restricted those flows in the past will be abolished.(The level of coverage for these industries in this study will be elaborated in Chapter III.)

The degree of change created by a free trade agreement depends on industry "contingency" factors such as competition, demand, and the strategic moves of competitors in the three countries involved. This is due to the different nature of impacts of a free trade agreement on each industry. Strategic moves of firms from outside North America also influence such change. Firms in declining industries face more severe threats to survival than do firms in other industries, because foreign firms increase their access to the U.S. market through their operations in Mexico which offers them insider (duty free) status. U.S.

businesses with competitive advantages in the North American market see emerging opportunities in new markets in Mexico. So the dynamic restructuring of industries through the North American continent is under progress. U.S. businesses/firms must strategically deal with this turbulent environment for their survival and for growth opportunity (Morrison et al., 1991; Sleuwaegen, 1993; Fraser, 1993; Blank et al., 1993/1995). (In this dissertation, we use "firms" and "businesses" interchangeably. A thorough description of these terms and "corporate" will be elaborated in the next section: Research Objectives and Scope of the Study.)

On the implications of NAFTA and firms' responses to it, Morrison et al. (1991) argue that:

The move toward the globalization of competition was paralleled in the latter half of the 1980s by a dramatic upsurge in regional competitive pressures. Although regional pressures come from a variety of sources, the most important developments are in the formalization of trading blocks. In North America NAFTA has a far reaching impact on the business environment. The rise of regional trading blocks has led many companies to reassess the anticipated rise of globalization. Increasingly, regionalization is being viewed by managers as a stepping-stone to more effective global competition. Managers are finding that regional competitive pressures are taking on an ever-greater importance by introducing a set of distinct opportunities and threats. (p11-12)

They conclude that the regionalization of business operations (regional solution) would provide a controlled approach - which can be efficiently managed, relative to business operations on global basis - to change.

The literature includes studies which have examined the diverse effects of a free trade agreement in general and those of NAFTA. In particular, most economic studies focus on pros and cons, opportunities and costs of NAFTA in terms of its impact on macro economic variables such as consumer welfare, gross domestic product (GDP), unemployment and wage rate, etc. (Brown, 1992; Hufbauer, 1992; U.S.I.T.C, 1993). In addition, many researches deal with the various sectoral impacts of a free trade agreements on the U.S. economy (Yee, 1990; Worley, 1990; Botzman, 1991).

Generally, however, the literature does not explore strategic behavior of firms under a free trade agreement. The stream of strategic management research includes only a few studies on the repositioning of Canadian subsidiaries of U.S. businesses. Studies of strategic responses at the individual company level are largely neglected and are primarily anecdotal in nature (Crookell, 1987; Litvak, 1988; Crookell and Morrison, 1990, Rugman et al. 1990; Fraser, 1993), or are with very small sample size (Blank et al., 1993/5).

At a more theoretical level, Luxmore (1990) and Rugman (1990) discuss a conceptual framework dealing with firms' responses from Canadian perspectives. Their framework covers conceptual abstracts by nature, because they use a very simple (narrowly focused) framework with 2 x 2 matrix (with the dimensions of firm specific advantage and country specific advantage). They do not deal with the various aspects of operations in strategy and determining factors which can explain strategic behavior of firms in greater detail. Therefore, their



research framework can not lead us to uncover distinctive patterns of strategic responses of U.S. businesses to NAFTA.

Only a few analyses deal with the effects of NAFTA on the functional aspects of business operations (Fawcett, 1990: logistic issues; Taylor, 1991: location implications). A series of articles in news media and business magazines have attempted to capture the fragmented pictures of strategic responses of American businesses to NAFTA.

Another stream of strategic management research includes studies which explore the general issues of strategic change (response) of firms to environmental changes such as government regulation (i.e., Smith and Grim, 1987; Zajac and Shortell, 1989). However, their focuses are on generic strategies such as the widely used typology of Miles and Snow (1978) in the domestic context and a single industry (i.e., railroad, banking).

Therefore, the lack of adequate and appropriate theoretical underpinnings has limited past research on strategic responses to a free trade environment to conceptual abstractions and descriptive studies of strategic behavior of firms. Systematic analysis of strategic responses (i.e., a study using a comprehensive framework on strategic response process for the case of a free trade agreement) seems scarce and largely ignored. Hence, there is a need for the greater understanding of the content and relevance of strategic behavior of U.S. businesses responding to the free trade agreement in North America.

## **2. Research Objectives and Scope of the Study**

In order to know more about the way in which businesses may respond to such an environmental change as a free trade agreement, this research uses the case of NAFTA as a research laboratory. Basically, this study was designed to explore how American businesses have strategically responded to NAFTA and why businesses have reacted differently.

This study on firms' strategic behavior under a free trade agreement generates reference material useful for both future research and practitioners, and it must be a major contribution of the present research to the literature. For future research, the empirical findings of the current research provide a good foundation on which to extend our knowledge (theory development) on businesses' strategic moves to a free trade agreement. For practicing managers, research findings must offer useful reference material on the role of key variables in strategic response process. Executives can use this information for their decision making on strategic responses to a free trade agreement in both home and foreign markets.

In order to achieve the primary objective, following steps have been undertaken:

Step 1: uncovering patterns of firms' strategic responses to a free trade agreement.

Step 2: identifying strategy determining factors which are most useful in discriminating group differences in strategy determining factors.

### **Scope/context of the study:**

In conducting such steps, we set the boundary of this research. Strategic response here is defined as alteration in a firm's strategy set (i.e., strategy, functional policies - Hofer, 1973). Strategy determining factors identified from the literature include four major variables: perception, internal characteristics and external environment. The literature review indicates that many factors influence strategic behavior responding to environmental change. Out of many internal characteristics, goals/objectives of the firms, for example, serve as one of key factors to determine strategy. Industry structure such as product life cycle can be a good indicator to identify firms' direction toward environmental change.

In this study, the unit of analysis is business-level strategy (Hambrick, 1980). Ginsburg and Venkatraman (1985) have referred this strategy as SBU strategy which focuses on "how do we compete in this business - chosen product/market segment". It is opposed to corporate level strategy which deals with "what business should we be in". (p425) Given the research objective - to investigate how American businesses have strategically responded to NAFTA and why businesses have reacted differently - business level strategy as a unit of analysis seems appropriate. Furthermore, the nature of change in business environment caused by NAFTA and its impact on individual businesses seem rather industry specific (i.e., geographic market expansion).

### **3. Structure of the Dissertation**

This dissertation is organized into six chapters. This section provides an overview of the contents of each chapter.

Chapter I: Introduction and Overview. This chapter includes the motivation for this study, a brief introduction to the new business environment emerging from NAFTA, and the importance of the research agenda. It introduces the laboratory, lists general research objectives and scope of the study.

Chapter II: Literature Review and Conceptual Framework of Strategic Response Process. This chapter reviews the strategic management and international business literature pertinent to research objectives mentioned in Chapter I. It provides a conceptual framework and construct development upon which the research questions are based. The framework describes the Challenge-Perception-Response process of strategic response, and specifies the key determinants in strategic response process. The conceptual framework specifies the variables and defines the terms, descriptions, and categories regarding firms' strategic responses.

Chapter III: Research Design and Methodology. This chapter includes the research design and methodologies used to collect the data, and measure the variables. It describes the procedure by which the data were gathered and analyzed.

Chapter IV: Research Findings and Data Analysis. This chapter is used to analyze the data collected for identifying patterns of firms' strategic responses. An empirical classification of firms' responses is provided and discriminating

factors for firms' differences in strategy determining factors are analyzed.

Chapter V: Discussion and Implications for the Management. This chapter further analyzes and discusses the major patterns of strategic responses of U.S. firms. A thorough interpretation of research results is provided. Moreover, a few implications of research findings for both academicians and practicing managers are suggested.

Chapter VI: Suggestions for Future Research and Conclusion. This chapter draws conclusions on the strategic behavior of U.S. firms responding to NAFTA and summarizes empirical findings of the current research. It also includes the contributions and limitations of the present study.

## **CHAPTER II**

### **LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK OF STRATEGIC RESPONSE PROCESS**

The purpose of this chapter is to highlight the strategic management literature (existing theory and research). This literature review is to provide insights into two critical research issues. First, this literature review provides an understanding of the appropriate theoretical concepts and research tools to use in studying firms' strategic behavior in a changing environment. Secondly, this literature review helps to determine the research variables to be covered and the range of variable levels to be analyzed.

The first section of this chapter discusses the conceptual framework upon which the research questions are based. The framework reflects the Challenge-Perception-Response process of strategic responses and specifies the key determinants of strategic behavior used in this research. The model provides an analytic framework for examining strategic responses of organizations as they respond to an anticipated environmental change. The second section deals with construct development by scanning the literature on the related topics of strategic response process.

#### **1. Conceptual Model of Strategic Response Process**

The literature review has found that Hofer's (1973) conceptual framework: Strategic Challenge- Perception- Response enables us to achieve our research objectives, because the

framework represents a comprehensive coverage of the process of strategic response to an environmental challenge. For example, major past studies in the literature such as Cooper and Schendel (1976); Smith and Grim (1987); Zajac and Shortell (1989) focus on the specific relation between environmental change (i.e., technology threats, change in government regulation) and strategic changes/responses of businesses.

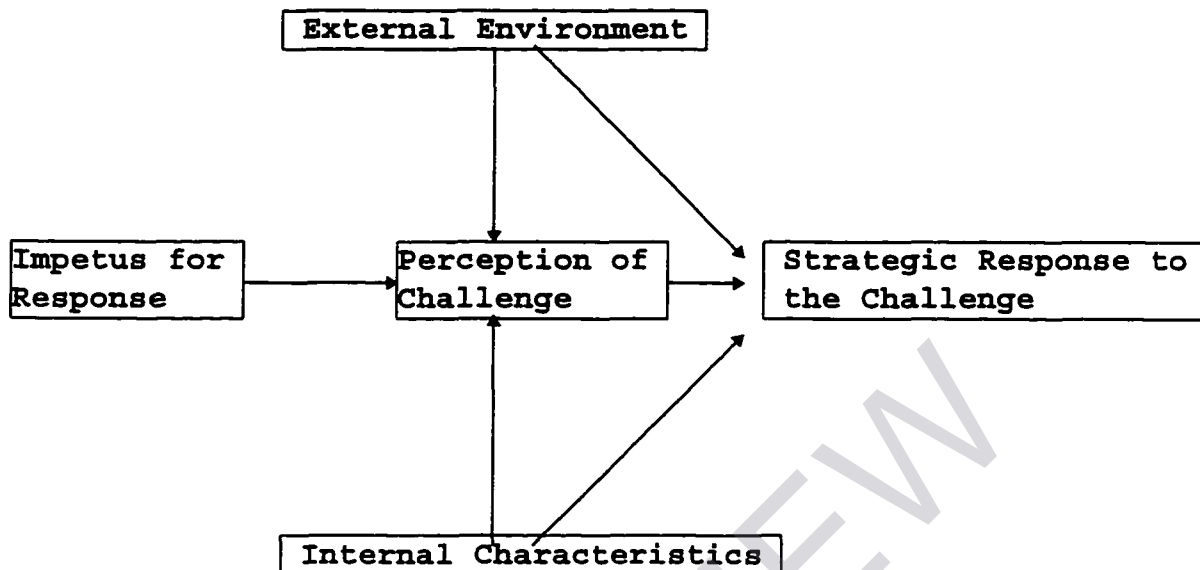
As discussed before, NAFTA environment cause a more comprehensive change in industries (i.e., competition, market size), and we believe that Hofer's framework reflects well strategic behavior of firms in response to the changes in business environment created by NAFTA. Therefore, Hofer's conceptual framework (extended by Han, 1988) serves as a road map to explore the relevant literature and identify key research variables for this research.

Hofer proposes an idea of strategic response process as a challenge-response. His conceptual model was extended by Han (1988) who includes perception as a key variable in the process.

As shown below, the conceptual framework on strategic response starts from impetus for response suggesting challenge. The framework then suggests that perceptions of the anticipated environmental challenge, internal characteristics of a firm, and external environment lead to certain patterns of strategic responses. (A discussion of the interaction of these independent variables will follow.)

**Figure 2-1.**

**A Conceptual Framework of the Strategic Challenge-Perception-Response Process**



Source: Hofer, 1973; Han, 1988

Hofer classifies the strategic challenges, as an impetus for response, into six categories (six socio-political views): market related, industry related, competitor related, supplier related, resource & capability, and broad environmental issues. (For a complete description of this category, see Appendix #1.)

Here, strategic response (dependent variable) is understood as a specific category of competitive strategy oriented to solving the problems caused by a specific type of challenge. Hofer also suggests five categories of strategic response (change) to the challenge. They are: changes in objectives; changes in strategy; change in functional policies; litigation