JERRY FRUIN

CANADIAN TRANSPORTATION RESEARCH FORUM
LE GROUPE DE RECHERCHES SUR LES TRANSPORTS AU CANADA

PROCEEDINGS
of the 31st Annual Conference

ACTES
de la 31ème Conférence annuelle

TRANSPORT GATEWAYS AND TRADE CORRIDORS
PORTES DU TRANSPORT ET CORRIDORS DE COMMERCE

Winnipeg, Manitoba
May 26-29/26 au 29 mai
1996

Edited and compiled
by
Barry E. Prentice, Ph.D.
Vice-President, Programs

Rethinking Strategy for Global Competitiveness: The Logistics Focus

Dr. Vedanand
University of Manitoba

Introduction

It has been suggested that strategy as a field of study has fallen on hard times in the 1990s. Already there is a frantic search for a new paradigm in various fields of study, This concern has been very much highlighted by management scholars in the context of the need for the emergence of brand new organization theory in the 1990s as well as a new paradigm revolution (Williamson, 1994;; Lincoln,1985). Although this expectation has not materialized as yet; serious efforts are being made to search for a new paradigm in the fields of corporate strategy, business policy and strategic management. The optimism about the usefulness of strategic planners and planning of the 1960s and 1970s has already waned; and serious disillusionment has set in not only in the minds of the consultants, practitioners but also among academics and theorists. Indeed, a serious debate has already begun where the whole existing edifice of strategy literature is being questioned. In fact, the "Rise and Fall of Strategic Planning" (Mintzberg, 1995) and the "Bankruptcy of Strategic Management" (Hurst,, 1986) make a fascinating reading.

This paper will present a synthesis and reconceptualization of strategy concept. in the context of environmental constraints and the current agenda of downsizing and restructuring of organizations and its possible impact on the transportation sector. It also highlights the need for strategic thinking and building of core competencies for meeting the challenges in the context of chaotic and nonlinear discontinuities in the field. Finally, it will draw upon the experiences of Japanese companies and look at the relevance of certain evolutionary perspectives of strategic management in the field of logistics and transportation management in today's competitive world..

The Strategy Paradigm

It might be worthwhile to take a quick look at the dominant ethos of strategic planning in the management literature. It needs hardly any emphasis that for almost six to seven decades managerial mindset has been influenced by the spirit of scientific management. Beginning with Taylor (1868-1920), that line of managerial thinking has had the most significant influence on the western, and particularly the north American management. Things began to change in the 1930s and 1940s when the importance of human relations came to be realized, particularly after the Hawthorn experiments. The 1950s started the beginning of the golden period of strategic planning. From late 1950s and early 1960s the dominant paradigm of strategic planning came to be firmly established. Many individuals and practitioners made their contribution during this period..

However, serious questioning of the dominant paradigm began after many North American industries started losing their market shares in the sectors where they were once the dominant players. This was the time when the Japanese firms began to make inroads in the saturated markets of some selected industries of Europe and North America. And, in a rather short time, they firmly established themselves in industrial sectors like, automobiles, motorcycles, television, VCRs etc. These developments forced some authors to question the validity of the dominant strategy paradigm and call for a paradigm shift in our thinking in regard to the whole issue of strategy planning and implementation. (Pascale, 1982; Mintzberg, 1990, 1995). An interesting debate ensued between the main proponents of the original strategy paradigm and its critics. (See the exchange between Ansoff (1990) and Mintzberg (1991)

Now it might be germane to ask where do we stand as regards the adequacy of this paradigm; and how relevant is it to explain and analyze the organizational realities of modern times? Do we have consensus that the existing paradigm has helped and is helping us in the systemic advancement of knowledge? According to Kuhn (1970), a paradigm is "a constellation of concepts, values, perceptions and practices shared by a community which forms a particular vision of reality ..." Thus, a paradigm refers to the shared values and beliefs of the scientific community regarding the nature of reality at a given time. A paradigm is defined as a theoretical construct or model which can be used to explain phenomena and may be used to systematically advance knowledge. In many other fields, scholars have begun to take a serious look at the usefulness and adequacy of the existing paradigms. In trying to analyze the underlying epistemological assumptions and conceptual foundations of their discipline, they are exploring the "intellectual status and prospects" for the future growth of the respective fields of enquiry. They are re-examining the fundamental assumptions and taking a hard look at the nature and scope of their enquiry. If the basic assumptions and theoretical constructs and models are "false, or misguided" then obviously, there would be serious implications for future of the discipline itself. It is in this vein that a clarion call was made for a new research agenda and a paradigm shift in the field of organization studies (Daft and Lewin, 1993: i):

> ..as we contemplate the cataclysmic changes occurring in the environment of organizations, and as we observe the organizational revolution sweeping one industry after another, it is altogether clear that the management of organizations is undergoing a paradigm shift. Mainstream research on organizations does not appear to be a parallel paradigm shift. We are concerned that organization theory is in danger of becoming isolated and irrelevant to leading the emergence of new paradigms.

Further they bemoan the lack of new constructs and models for providing guidance to managers. The current theories and models do not seem to reflect the need and urgency for establishing a new paradigm. We are faced with a number of new forms of organizations characterized by such labels as virtual corporation, modular organization, learning organization or network organization etc.

> Managers in many organizations are at the frontier of finding new ways to use both the human resources and technology in the creation of new organizational forms. Characteristics of these new organizations seem to include flatter hierarchies, decentralized decision making, greater capacity for tolerance of ambiguity, permeable internal and external boundaries, empowerment of employees, capacity for renewal, self-organizing units, and self-integrating coordination mechanisms. Leadership in these new organizations seems to reflect a shift from maintaining rational control to leadership without control, at least in the traditional sense.

It is in this context that we might now ask, why do we need a new paradigm? And if we do need it, what should be its underlying assumptions, nature and scope? Zald (1993:514) has argued for a reconceptualization of organizational studies as " a humanistic as well as a scientific area of study." Perhaps it would make sense to reevaluate the epistemological and ontological basis of research in the field of organizational studies. As for the field of strategic management, the search for a new paradigm has gone for a long time and "there simply has been no agreement on a paradigm for the field of strategic management." Further, in the same vein, it has been suggested that this area is interdisciplinary in nature--an area which deals more with implementation and application; and therefore, perhaps the need for a single, unifying paradigm is either not desirable nor feasible. (Schendel, 1994:2)

The Legacy of Scientific Management

The dominant paradigm of strategic management has its roots in the traditional model of management. In the past seven decades, we have moved ahead from the machine age, dominated by the mass production technology, to modern information age. But it seems that little change has taken place in the managerial mindset. Indeed, the legacy of Taylor's "scientific management" is , by and large, still with us. It has been suggested that the "practice of management for the information age" has not been yet reinvented. (Prahalad, 1996). The traditional model drew its inspiration from the military metaphor popularized in the machine model of bureaucracy by Max Weber (1947) The rational model which formed the basis of the bureaucratic organization provided the unique setting for the emergence of strategy out of structure. In fact, much of the earlier writings on the subject were influenced by the "command and control" model of Weber. As pioneers of the traditional school, they provided the intellectual background which formed the basis of the traditional mindset. Later, the logical sequence of development in the 1950s and 1960s, finally culminated in the more formal writings of people who began to develop a more formal and rational construct for the management discipline. Simon (1947) became the leader of this new thrust. He sought to bring much-needed legitimacy to the discipline by bringing in academic rigor and sophistication through his individual and joint contributions. Around this time, developments at the Harvard Business School began to shape the new discipline of Business Policy and Strategic Management. Chandler (1962) followed with a major contribution to the strategy field. Andrews (1971), Igor Ansoff (1965) and Steiner (1969) became some of the other major proponents of the strategic planning/management field. Much of the contribution to the field during this period has been dubbed as an attempt to give an aura of legitimacy to the field and they tried to make the "soft" science look like a "hard" one. (Pascale, 1990). During all this period, it seems the pursuit of reductionistic, quantitative and deductive metaphors continued to be used by scholars. But in all probability, they still represented the old mindset and were representing the values, beliefs and convictions of the old paradigm.

The implicit assumptions of the old paradigm were heavily biased in favor of rational analysis and sequential planning. Most of the emphasis was placed on operations. Taylor, the father of scientific management, had a passion for finding the one best way for doing things. His philosophy of scientific management dominated the managerial mindset almost for the next 50 years. Some of these assumptions have been rightly identified and can be summarized under the following headings:

1. Rational planning and analysis of operations (inputs were thought to be interchangeable)
2. Profit maximization as the ultimate measure of performance;
3. Constant focus on bottom-line
4. Predominance of hierarchy and structure in the organization;
5. Quick fix approach to problems;
6. Strong directive and control-oriented leadership at the top defined the corporate culture.

Most of these assumptions are now in disrepute and have been challenged. Some of the younger scholars and some more perceptive ones began to take upon the challenge and raised the voice of dissent. The old paradigm was no longer representing the organizational reality. Things were constantly changing and have changed drastically. Yet there seemed to be no realization of this change. As mentioned earlier, the 1970s and 1980s were the real eye-openers, when the superiority of some western firms and their technologies were challenged by newcomers to the field, particularly by the Japanese. It was during this period that Toyota, Honda, Canon, Sony, Panasonic/JVC, Fujitsu, Hitachi and various others emerged on the scene as major challengers. Honda's success story in the north American and European markets offers some important and interesting lessons for students of strategy.

The competitive challenge of today's global economy is forcing a rethinking of the basic parameters of strategy concepts. No wonder that the MIT's Commission on Industrial Productivity recommended that "U.S. executives need to fundamentally rethink how they manage..." (quoted in Pascale, 1990:92). Equally disturbing is the fact that much of the literature and theoretical constructs and models of this field are being seriously questioned by strategy scholars themselves. It is being increasingly recognized that (Prahalad and Hamel, 1994: 6)

> ...the concepts and tools of analysis that formed the backbone of the strategy literature, during its period of growth (1965-85), may need a basic reevaluation in order to pave the way for new ideas.

Understanding the Strategy Dynamics

The reality of today's global economy has forced us to reexamine the traditional strategy paradigm and the legacy of the old mindset. Also, the ever-increasing struggle for competitive space among the firms at various levels, is forcing us to seek a better understanding of the strategy dynamics. The theorists, consultants and the practitioners have presented the many faces of strategy. Its focus has changed from seeking a natural fit with the external environment of the firm to its stretch and leverage that the firm can maximize to gain competitive advantage. Following Leavitt (1960), the marketing guru at Harvard, one of the typical questions raised in the 1960s became: "What business are you in?" The main thrust of this question was to enable the companies to define their industry orientation not in terms of the product-service being offered but rather in the context of "underlying generic need" of their customers. Thus, the railways were to see themselves engaged in the transportation business, not in the business of carrying passengers and cargo etc. This line of reasoning still dominates in our text books and business schools. Although, the challenge of "marketing myopia became a great motivator to a whole generation of managers, the concept had its own limitations. It was not easy to broaden the vision of managers and the firms could not transform themselves overnight without any change in their distinct competencies. (Mintzberg, 1994) Now compare this with the response of the Japanese CEO of a large business house. When he was asked what business they were in, he sank back in the luxurious sofa of his office in the Tokyo head office. He took a deep sigh, fumbled for words and said: Muzukashi desu (It's very difficult)". Goaded further by the questioner, he finally said, "We are in the business of surviving."

Chaos and Nonlinear Dynamics

Most of our managerial strategies are based on the implicit assumption that the managers will face a stable environment. Indeed, the mechanistic view of the organization presupposes a stable state and we expect the managers to manage certainty. Discontinuous and revolutionary changes are aberrations; and are not supposed to happen in the ordinary work situations. However, it is now being increasingly realized that the rational and the mechanistic view of organizations is out of joints with the contemporary world of reality. Instead, organizations are viewed as nonlinear dynamic systems, facing the constant interplay of the forces of stability and instability, which often push them to chaotic situations. The emerging science of complexity and chaos provides a new paradigm "where two apparently irreconcilable visions of management--rational and quasi-mechanistic on one hand, unexpected and disorderly on the other hand--can be reconciled" (Thietart and Forgues, 1995:20). The relevance of nonlinear dynamics to strategy formation is reflected in the work of some authors who stress the importance of dynamic interactions and emphasize the role of structured and unstructured decisions in organizations. (Mintzberg and Waters, 1985)

Business Ecosystems

The concept of business ecosystems has been advanced to explain the challenges of innovation and survival for businesses. The analogy is drawn from the natural environment and the field of biology. Instead of following the Darwinian logic of gradual evolution and natural selection, it has been shown that discontinuous changes are possible and do take place in the realm of nature.(Gould,, 1982) Following this analogy, we can visualize the firms operating in their respective business ecosystems, where they have to constantly interact with all kinds of internal and external forces. Often, the visionary industry leaders create new competitive spaces for themselves by innovation and offering new products and services. In the area of information technology we can see this happening in a number of areas: computers, telecommunications, discount retailing and many other areas. The ecology of competition has to be understood in the context of firm's willingness and capacity for self-renewal. Most ecosystems pass through four distinct phases: birth, expansion, leadership (and vision of future) and self-renewal. (More, 1993) A good relevant example is provided by the experiences of Apple vs Tandy, Wal-Mart vs K-Mart or Microsoft vs Intel. The leaders in these cases created and then succeeded in dominating their business ecosystems. (More, 1993) However, life is not easy in the ecosystems because of the constant struggle for survival and leadership. Often, the external environment and changes in the government's regulatory policies can bring about revolutionary and discontinuous changes that threaten the survival of firms and organizations. (Most of the transport industry is a case in point here.) In the business ecosystem, firms which do not have visionary leadership or which lack competencies and capability for survival will ultimately disappear. When firms are threatened with such dire consequences, they will need a renewed focus on their strategic intent, stretch and/or leverage.

It has been suggested that most analysts of strategy focus on the "what" of competitiveness not on the "why". Obviously this would force us to do some rethinking about the competitiveness of firms. One is tempted to ask: "Why do some companies continually create new forms of competitive advantage, while others watch and follow? Why do some companies redefine the industries in which they compete, while others take the industry structures as given?" (Hamel and Prahalad (1993) Perhaps, the answer might lie in the institutional and the cultural environment of the companies within which they operate---nation's factor endowments, the socio-cultural setting, government policies, macroeconomic factors and the level of competition within the business ecosystem. There could also be a kind of corporate genetic factor about the firm's capacity to take advantage of opportunities in a given competitive situation. Japan did not have a robotics industry. The technology was borrowed from the U.S. But after MITI suggested that robots could be the solution to increase their productivity in a number of industrial sectors, almost 200 firms jumped in to seize the opportunity. Today Japan is the largest user of robots in the whole industrialized world. Similarly, when solid state technology became available, most U.S. firms, including the firm that held the patent, did not think of using it in the Television and electronics field. Japanese firms almost immediately jumped at the opportunity and switched from using picture tubes to solid state in their TV sets. Hitachi came out with a new TV set, and offered a 20-year warranty. Today, the Japanese are the world leaders in television industry; and the TV industry has almost disappeared from the US economy. However, there are some interesting anomalies. Why has Japan's computer industry not been able to become the front-runner as they did in the case of automobiles, and TVs and VCRs? The Japanese experience in this context has some important lessons to offer. Let us briefly review some important and meaningful experiences of some Japanese companies.

The Japanese Perspective on Strategy

The Japanese perspective on strategy formulation and implementation appears to be quite different from the western view of the relevant issues in this context. Honda's experience in making inroads in the US motorcycle and automobile industry is an interesting case in point. The marketing strategy of Japanese corporations has been likened to a typical samurai warrior's tactics of offense and defence. Are their some specific postulates or theoretical underpinnings in the formulation and implementation of strategy by the Japanese? It has been suggested that the Japanese have done a superb job of applying text-book principles of marketing in implementing their strategy. A few things need to be emphasized here. First, the Japanese have been always distrustful of a codified single grand strategy. In their view, strategy should not be "fixed and frozen." It is evolutionary and keeps evolving all the time. Instead of being rigid, cast in concrete, their strategy is protean in nature, always evolving and ready to adapt to new challenges. Indeed, to be driven by a single-minded strategy is considered a weakness. They are experts in using the inflexibility of their competitors to their best advantage. When they initially began to challenge the market share of Harley-Davidson in the 1960s, here is what the managers at Harley-Davidson thought of the small motorcycle market (as quoted in Kotler et. al., 1985):

> We believe that motorcycles are sports vehicles, not transportation vehicles...It is generally for leisure time use. The light weight motorcycle is only supplemental.....We have seen what happens to these small sizes...

In fact, it was the introduction of these small motorcycles that started the phenomenal success of Honda in the US market. A report commissioned by the British Government (BCG Report) to present an analysis of the decline of their motorcycle industry consequent upon the Japanese competitive challenge has become an interesting case study. The case analysts speculated about the superb Honda strategy, which was based on cost efficiency and aggressive pricing and advertising. The fact of the matter was that they did not have any predetermined and codified strategy to begin with. Instead, there was a lot of organizational learning involved and Honda's strategy evolved through serendipity and on-going experience and learning in the US market. In fact, they were advised not to enter the saturated market of motorcycles in the US. And the Ministry of Finance, allowed them only $110,000 in cash for launching their product in the US market. It is not possible to go in greater details of this case here. However, the details of this case as given by Pascale (1984) make an interesting reading. In short, most Japanese companies look for a void and create a market niche for their product. Usually, once they identify a market opportunity, they follow a low-end entry strategy with sophisticated market segmentation and aggressive pricing. Once, they make the entry, they follow a customer-oriented strategy whereby they offer high quality product and service with proper positioning and product-stretching. In achieving their objectives they are helped by efficient dealership networks, a sense of commitment, mutual trust and cooperation.

Restructuring and Logistics Management

What is the significance of logistics in the context of strategy for competing in the global economy? If a company wants to achieve industry leadership and create its destiny for the future; then it has to be aware that reenigineering and delayering alone will not ensure its future destiny. It has been suggested that logistics management may very well be the last frontier for firms which want to ensure their future destiny in the global economy. Most often, the focus is on cost efficiency and effectiveness in the area of manufacturing. Unfortunately, the product envelope includes service as its very important element. Despite this, the logistics are not efficiently managed. And this provides a real opportunity. Japanese retail industry provides some very good examples of this phenomenon. Logistics becomes the basis of service differentiation. Bottlers of Coca-Cola products in Japan offer many extra services to the retailers. The drivers of the delivery trucks perform many more services and functions than what is being done by drivers elsewhere. With the help of modern information technology, the large (and even small) firms can make logistics an important element in their strategy.

In a study of a large telecommunications company, it was found that roughly 10% of its total costs ($900 million) belonged to the logistics function. As a result, they identified logistically distinct business (LDB) segments, which needed to be looked after in a more imaginative and effective way. It was suggested that tailoring the logistics to the needs of the customers could be the most important element in the overall corporate strategy. (Fuller et al ,1993) It has been recommended that firms should be able to anticipate customer needs and be focused so that they can get appropriate leverage from logistics. (Shapiro, 1984)

Let us speculate about what the current fever of restructuring, reengineering and delayering means to some of the important players like CN and CP rail or the leading airlines of Canada in the transportation industry. Most of the policies of downsizing target correcting the mistakes of the past. However, all attempts at restructuring and reengineering do not enable the firms to become industry leaders. In a survey conducted in 1980, quality was viewed as the most important source of competitive advantage in the year 2000 by 80% of US managers. In the case of Japanese managers, " their primary goal was to create new products and businesses." (Hamel and Prahalad, 1994) The attempt to create a lean (and mean) organization, usually follows what has been labeled as "denominator management" which is the financial expert's short cut to increase asset productivity. Some examples may elaborate this point. Both General Motors and Xerox were world leaders in their industry sector. But during the 1970s and 1980s these companies lost a substantial part of their market shares to Japanese competitors. Despite all the restructuring and improvement of productivity, none of these companies have been able to recapture their lost market shares. The Japanese automobile companies have continued to be a challenge despite the high appreciation of yen. Industry specialists agree that it may not be possible for GM to regain the lost glory and its previous market share. Although Xerox has succeeded in stopping it market share erosion, it has not been able to regain its full market share. Canon still remains a leader in the small paper copier and is one of the largest copier manufacturer in the world. What can we say about the future of big transport industry players of yesterday? Will they be able to regain their lost glory and recapture their lost market shares? Is some one doing something about their future destiny? We do see that railways have become an important player in the transportation business in Europe. They are still the most important carrier outside of the western world. The important issue here is regarding the ability and capacity of the firms to compete for the future. They must also have a vision to create a new destiny for themselves in the emerging realities of a highly competitive global economy. It must be understood clearly that the game of competitive revitalization requires a capacity to go beyond the accountant's game of denominator management. This would require a different conceptualization of strategy. In fact it may be necessary that the leadership of the organization should think about its organization not in terms of its past, but what it should become in the future.

Conclusion

What we are seeing today is a cataclysmic change in the very nature of competition. We see the blurring of the boundaries. It is no longer clear what constitutes a particular industry. The boundaries now overlap. Are computers a replacement for the old typewriter? Or are they a new product that is going to replace the TV, the telephone, radio, the fax and the copier? How could a small Taiwanese firm (Acer), a late entrant in the saturated market, become a major global player in the industry? And what does it mean to be a leader in an industry? Many Japanese companies hold 50% to 85% of global market shares of important core products. Core competencies and core product market share may be a better measure of a firm's capability to create new products and markets. It may be wise, therefore, to do some rethinking about one's corporate strategy if one wants to survive in the future.

=========

Bibliography & References

Andrews, K.R. The Concept of Corporate Strategy, Homewood, Il.: Irwin, 1971.
Ansoff, H.I. Corporate Strategy, New York: McGraw-Hill, 1965
------------- "The Emerging Paradigm of Strategic Behavior," *Strategic Management Journal,* V.VIII, 1987:501-515.
------------- "Critique of Henry Mintzberg's 'The Design School: Reconsidering the Basic Premises of Strategic Management', *Strategic Management Journal,* V.12, 1991:449-461.
Chandler, A.D., Jr. Strategy and Structure, Cambridge, MA: MIT Press, 1962.
Daft, R.L and A.Y. Lewin, Where are the Theories for the "New" Organizational Forms", *Organization Science,* V. 4(4), November, 1993.
Fuller, J.B. et al, "Tailored Logistics: The Next Advantage," *Harvard Business Review,* May-June, 1993: 87-98.
Hamel, G and C.K. Prahalad, "Strategy as Stretch and Leverage," *Harvard Business Review,* March-April, 1993: 75-84.
____________________, "Thinking Differently," Business Quarterly, Summer, 1995:23-35.
------------------------------,"Competing in the New Economy: Managing out of Bounds," *Strataegic Management Journal,* V. 17, 1996:237-242.
--------------------------------, Competing for the Future, Boston,MA: Harvard Business School Press, 1994.
Hurst, D.K., "Why Strategic management is Bankrupt," *Organizational Dynamics,* V. 15, Autumn, 1986:4-27.
Kotler, P. et al. The New Competition, Engelwood Cliffs,NJ: Prentice-Hall, 1985.
Kuhn, T.S. The STructure of Scientific Revolution, Chicago, University of Chicago Press, 1970.
Leavitt, T., "Marketing Myopia," Harvard Business Review, 1960.
Lincoln, Y.S. ed., Organization Theory and Inquiry, London/New Delhi: Sage, 1985.
Mintzberg, H., "The Design School: Reconsidering the Basic Premises of Strategic Management," *Strategic Management Journal,* V. 11, 1990:171-95.
---------- The Rise and Fall of Strategic Planning, New York: The Free Press, 1994.
-----------, Mintzberg, H. and Waters, J.A., "Tracking Strategy in an Entrepreneurial Firm," Academy of Management Journal, , V. 25(3), 1982:465-499.
More, J.F., "A New Ecology of Competition," Harvard Business Review, May-June, 1993:75-86.
Pascale, R.T., Managing on the Edge, Simon and Schuster, New York: 1990.
-----------------, "The Real Story Behind Honda's Success," *California Management Review,* V. 26(3), 1984:47-72.
Schendel, D., "Strategy: Search for New Paradigms", *Strategic Management Journal,* V.15:1-4, 1994.
Simon, H.A., Administrative Behavior, New York: Free Press, 1947.
Steiner, G.A. Top Management Planning, New York: Macmillan, 1969
---------------- Strategic Planning, New York<: Free Press, 1979.