

**THE GEOGRAPHICAL FACTORS  
ON THE FAILURE OF  
BRICKLIN CANADA LIMITED**

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## ABSTRACT

This research paper investigates the factors on business failure in the Maritime region of Canada via a sample study of Bricklin Canada Ltd. This sample illustrates the effects of regionalism and geographic location on the manufacturing industry. This company's failure will be examined as how it arose from reasons including geographic isolation, regional disparities, externalities, scale economies and external forces. A study of this particular industrial failure will lend insights regarding the needs of future regional policy. Although businesses from these marginalized regions of Canada have realized success, there are still a great many steps yet to take. A means must be found to re-introduce a self-sustaining economy to these regionalized areas of Canada where it is lacking.

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S.M.W. April, 1991

To Mom and Dad,  
Sorry I've been so busy the last four years.

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## CHAPTER 1

### Introduction

The relationship between the geography of a nation and its political, economic, and social structure is always a highly diverse and much debated topic. Studies of this relationship often prove to be fruitful in lending insight into actual observed occurrences. Of particular interest, to many Canadians, is the association between geographical location and economic prosperity. Examination of this issue, in a particularly Canadian focus, often encounters the phenomenon of regionalism. This persistent by-product of the capitalist economy is noticeably apparent in Canada. It is argued that regionalism is an inherent element of the Canadian fabric. For many Canadians, it is a factor that they could do better without. These are the ever-increasing number of people finding themselves in disadvantaged positions not only economically and politically but also socially. Due to the unique geography of Canada, many of these groups are found predominantly in specific regions of Canada. For the last 100 years, the Prairie regions, Canadian north and Maritime provinces have maintained a considerably lower level of economic efficiency than have the other regions of Canada. The implications of this are many and varied. The response of the federal government has been to create and implement regional policies. These have been geared towards inducing, supporting and maintaining economic growth in areas where it is lacking. This process has been wrought with controversy since its inception. Many questions have arisen as to whether any of these programs have ever achieved their objective. In many cases, the measures have proven to be temporary in nature and the previous circumstances return. Examinations of such



situations often give evidence of their failing. This knowledge can then be applied to adapting future ventures for greater success.

An excellent sample case for investigative study is that of the creation and collapse of Bricklin Canada Ltd. The benefit it may have brought, to the economically depressed region of Maritime Canada, may only be fully realized if its demise is applied to a reformation of regional policy. It is readily evident that physical distance was a contributing factor to the demise of Bricklin Canada Ltd. To end the investigation here would be most myopic. The relationship between geography and business is a very important one. As the scale of business increases, this relationship will become even more crucial. Another consideration within this domain is how geography creates and perpetuates the "particularly Canadian" phenomenon of "regionalism". This is also of critical concern in examining the Bricklin case. Regionalism has had the effect of "depressing" the economies of the Maritime provinces for over a century. It had an undoubted effect on the collapse of Bricklin Canada.

The focus of this research paper will be to examine how the forces of geographical distances and regionalism combined to result in the collapse of Bricklin Canada Ltd. These two inter-related factors will be scrutinized under many different business circumstances to see how they have different impacts on different situations. A deeper understanding of this phenomenon could lead to improved regional planning for this blighted region of Canada.

Accordingly, this case will be examined with the goal of isolating its errors and learning from them. This analysis will be taken from two related perspectives. Firstly, how the financial collapse occurred as a result of the effects of physical distances between the

centre of production, the centre of organization, and the intended market. The second approach will examine the effect of the company's location in this particular "region" of Canada. This specific investigation will examine the failure of this business and other ventures taking into consideration the effect of economic, political and social regionalization within Canada. This is a highly relevant study as it has parallels with many other business failures in this part of "regional" Canada. This company's history will be contrasted with a number of success stories from adjacent regions in order to more fully appreciate the magnitude of this corporation's demise. All of these situations will be explored under economic, political and geographical perspectives in order to achieve a better understanding of corporate fate. This information will then be extrapolated into an explanation as to why certain "regions" of Canada succeed while others fail. This knowledge can then be employed for more insightful corporate planning; particularly with regards to geographical location.

## CHAPTER 2

### Literature Review

In order to achieve a better understanding of the relationship between geography and economic efficiency, its relevant literature must be reviewed. This process has been completed for this study. The focus of the review will include the circumstances of Bricklin Canada Ltd. and related businesses, in the same industry, in this area of Canada. The literature, that was examined, was mostly of a qualitative nature. This arises from the firms studied being private businesses and their right to confidentiality. A background analysis of regionalism, as it applies to these specific cases, is also provided.

#### 2.1 STUDY SAMPLE HISTORY

The study sample case is, in actuality, a consortium of different companies all owned by the same man. For the sake of expediency, and to avoid confusion, the corporation being examined will hereafter be referred to as Bricklin Canada Ltd. The founder and president of this corporation was Malcolm Bricklin, an American. He was a young, enterprising man who was said to have been a self-made millionaire at age 25. He was also a man constantly on the run from creditors following up on previous business failures. He entered Canada with an idea for a revolutionary new "safety car" intended to be the sports car for those on modest income. It had many radical features such as doors that opened up, a fibreglass and acrylic body and many previously unimplimented safety features (see Figure 1). An initial problem lied in that the car was only an idea. It had never been comprehensively engineered and no evaluation had ever been made with regards to production capabilities. Still, Bricklin, armed with a short film of a prototype, some promissory notes from a

Pennsylvania bank and an uncanny ability to sell approached the Quebec Government on a tip from a business associate. They balked at the proposal which deflected Bricklin to New Brunswick in search of support. Here, he found Premier Richard Hatfield and a much friendlier welcome. As a result of the same proposal, Bricklin, in June of 1973, was granted an initial investment of 6.5 million dollars and a total investment of 9 million dollars from the New Brunswick government. (Fredericks and Chambers, 1977, p. 26) Production plants were established in Saint John and Minto, New Brunswick (85 kilometres to the north). At peak production they employed over 700 people.

What ensued was a gross injustice to the tax-payers of New Brunswick. With the province owning a 51 percent share in the company, the citizens of this economically depressed province had to bear the enormous burden of its quick demise. Before Bricklin Canada Ltd. was placed into receivership on September 24, 1975, it had received in excess of 25 million dollars. (Fredericks and Chambers, 1977, p. 134) These had come both from provincial and federal (DREE) sources. The liability on the province was enormous as the Bricklin had become a symbol of New Brunswick's new industrial spirit. The reasons for the decline were both obvious and varied. The failure was complete as little if any good came from the incident. It remains as one of the many business failures that have come from this region of Canada. Many questions, on this matter, have never been definitively answered. These include, whether this collapse resulted from problems within the project itself, problems with regard to geographical distances or from those inherent in the economic environment of this sector of Canada.

## 2.2 CAUSES OF THE COLLAPSE

There is no denying that the problem inherent to the entire project was bad planning, execution and management. It is doubtful that this venture would have succeeded regardless of where it had taken place. The issue of geographical location and a stagnated economy in the area only compounded the problem.

... nobody was in control of expenses, and that the whole project was proceeding without direction. Bricklin's accountants were in Saint John and New York. The development of a production model was being carried out in Livonia (Michigan). The body plant was at Minto. The assembly plant was in Saint John. Bricklin officials were in constant flight between the different centres. Conflicts were developing.

(Fredericks and Chambers, 1977, p. 4)

Even before production began, there were extensive travel costs built up resulting from the far-flung enterprise that had been set up by Bricklin. Travel costs of \$ 412 061 were charged to Bricklin Canada Ltd. for the period ending October 31, 1974. (Fredericks and Chambers, 1977, p. 97) This large cash drain also stemmed from intrinsic bad planning. The simple factor of geographical distances cannot be ignored in either case.

After production began, the problems with regard to distances only worsened. The car itself was somewhat of "an automotive dog's breakfast; engine from Chrysler, suspension from Datsun, steering by Chevrolet." (Starr, 1987, p. 86) These factors contributed to the downfall of the entire project.

Beyond references to world conditions and start-up problems, the government has offered few explanations for Bricklin's collapse. But some of the factors are obvious. They were inherent in the project.

One is the simple problem of distances. Parts and materials for Bricklin cars were imported to New Brunswick from sources as distant as California. Cars were assembled at two New Brunswick plants for shipment to distant markets. An efficient organization would have been required to overcome the high overhead costs imposed by geography. The Bricklin organization was not efficient. It was as disparate and as uncoordinated as the Bricklin's parts supply. (Fredericks and Chambers, 1977, p. 86)

Problems such as these had plagued other governments and other businesses in similar ways.

... a 'fateful similarity' between the government's involvement in Bricklin and the earlier involvement of the Nova Scotia government in Clairtone Industries Ltd., an electronics firm that collapsed after receiving heavy public investment.<sup>1</sup> 'Clairtone in the past, and Bricklin now, rely on parts brought in from long distances and on markets equally far removed ... Its (Bricklin's) reason for being in New Brunswick is the availability of government financing and adequate labour supply.' (Fredericks and Chambers, 1977, p. 94)

The New Brunswick government failed to take heed of the Clairtone failure and proceeded to "top" it. If a well established, high technology organization like Clairtone failed, then a "fly-by-night" organization like Bricklin was also likely to do so. The enormous transportation costs involved with an automobile manufacturer compared to electronics assembly does not bode well for the former. This was one of the major reasons for the collapse of Bricklin Canada Ltd. Factors such as these are often turning points between success and failure. If success is to be derived from this failure, other components must be considered.

### 2.3 COMPARISON CASES

There are two particular businesses, in the Maritime region, in the same sector as Bricklin Canada Ltd., that have met with some success in the past and in the present. Both located in Nova Scotia, they are Michelin Tire (Canada) Ltd. with headquarters in Granton and Volvo Canada Ltd. of Halifax. Both of these companies produce goods for the automotive industry and have become integral parts of the manufacturing economy of Nova Scotia. These firms have been able to overcome the barriers of regionalism and succeed in the international market. The nature of both these firms is such that their high quality and craftsmanship will merit a higher price on the market than other products. This will ably offset the escalated costs of transport. This strategy has proven to be able to overcome the obstacles of regionalism. A full examination of it could prove to be most helpful to related businesses in this region of Canada.

Michelin tires is a French company that produces high quality tires of all types. The firm began operation in Nova Scotia in the 1970s and presently has three modern plants and employs over 4 000 employees. It is the largest privately-owned employer in the province. Production is carried out at Waterville manufacturing earth mover, truck and subway tires, at Granton manufacturing heavy truck and passenger car tires and at Bridgewater manufacturing passenger car and light truck tires (Financial Post, 1988, A). Michelin Canada has maintained a sound level of prosperity despite the recent hardships of the Canadian tire industry.

With the exception of Michelin Tire (Canada) Ltd. of Granton Nova Scotia, which has three modern plants in Nova Scotia, the industry is only marginally competitive in a North American free trade context. (Financial Post, 1988, B)

The Canadian tire industry is a growing concern as it represents a sizable portion of the national economy. All forms of tire sales in Canada came to approximately two billion dollars in 1987 (Financial Post, 1988,B). In recent years, Dunlop Tires has gone defunct, Goodyear has pulled out of Etobicoke, and Firestone has left Hamilton. Part of the problem is that Canadian plants are relatively small in comparison to the rest of the world's scale of production. Average daily production in a Canadian plant is 13000 tires a day while the world average is 50000 (Financial Post, 1988, B). There is a great deal of competition in the industry from Asia and Europe. What has been helpful to Michelin and harmful to these other plants is that Michelin invented the radial tire in the 1950s. Its selling features include better fuel economy, better handling and longer life than regular bias tires. They are also less labour-intensive to build. The demand and sales of high-quality radial tires has been catching up to that of bias tires in the last decade (see Figure 3). Also beneficial to the health of Michelin in Nova Scotia was provincial legislation enacted in 1977. This bill required majority consent from all employee's in the company's interdependent plants to support a union before certification would be allowed. This was used to quell an attempt by the C.A.W. to unionize Michelin's Nova Scotia operations. Since the bill only applied to Michelin it was called the "Michelin Bill". This assistance has also been augmented by recent loan arrangements between the Nova Scotia government and Michelin in August of 1988 for expansion. All of these factors plus others have enabled Michelin to be a productive and successful manufacturing entity in this region of Canada where success is often the exception rather than the rule.



In much the same fashion, Volvo Canada Ltd. has thrived in the past and is still succeeding in the present. It has been able to succeed in the automotive assembly business by transplanting practices that have proven themselves elsewhere. Production of Volvo cars began in Halifax in 1963. Then and now, the Canadian government allows Volvo to import cars duty-free in return for the employment that it brings. The style of production in the Halifax plant is called "completely knocked down" assembly. In this process unassembled car kits are brought in from Sweden and assembled.

The Halifax plant, Volvo's only Canadian factory, assembles 6 000 automobiles a year, 60 percent of which are exported to the U.S.  
(Canadian Press, Halifax : October 3, 1988)

Halifax provides an excellent location for the import of kits, along with inexpensive and quality assembly and ready transportation to markets.

All the advantages of being located in the closest, major, ice-free North American port to Gottenburg, Sweden, where the kits are manufactured, remain the same. Shiploads of car parts can still arrive regularly at dockside; good rail connections can still speed the finished cars to Canadian and U.S. markets.  
(The Globe and Mail, 1988, A)

Volvo also employs some of its own manufacturing techniques. These practices have earned the Volvo's reputation for quality, durability and prestige. Such practices are in keeping with the "craft" ethic that is often associated with the Maritime region. Volvo has taken advantage of this reputation in order to ensure a quality work environment and end-product.

The company believes however that the plant's relatively uncomplicated production environment and the slow pace of its assembly line - just 36 cars a day - pays off in a more human atmosphere for its employees and better product quality.  
(The Globe and Mail, 1988, A)

This has worked well for Volvo Canada Ltd. in the past and only promises to continue in the future. A recent \$ 10 million expansion of a 135 000 square foot assembly plant will now produce the upscale 740 series discontinuing the 240 series. All of these traits of the Volvo and of this region of Canada have had a successful marriage. This suggests that the automotive industry could be a part of the Maritime's future.

The accomplishments of these two companies located in "regional" Canada are a signal to others that this area is not economically barren. It is capable of achieving considerable success. It should also be noted that this will only occur under the most specific set of circumstances. As such, the general level of economic prosperity is low. This factor is self-perpetuating and certain to play a large part in the economic future of this region.

## 2.4 REGIONALISM AS AN ISSUE

Within this entire examination, the perspective and scope will shift between a "macro scale" and a "micro scale". The economic despondency of the Maritime regions can be attributed to the failures of such businesses as the Bricklin venture. Conversely, the Bricklin collapse can be blamed upon the effects of the economic, social and political inadequacies of this region. This phenomenon has been given the political/economic term of "Regionalism". The occurrence of regionalism within Canadian society is an all too common one. It has been said that regionalism is a defining factor of Canadian society. Canadians are

thought to be distinct from all others as a result of the differences inherent in regionalism. Regardless of this, it has been regionalism that has created a division within Canada between the "haves" and the "have-nots". This has created a blight on the rest of Canada that has left the nation unable to realize its full potential.

Unequal distribution of people, resources, industry, opportunity, and wealth in Canada have clearly contributed to regionalism and to regional disparities. Such unequal distributions have also affected Canadian unity, in the past and now. Regionalism is an inescapable fact of Canadian society and most Canadians see it as an advantage, adding to the quality and rich texture of Canadian life. Regional differences expressed as severe disparities of social and economic status and opportunity are another matter, however, hardly to be seen as advantages.

(Krueger and Koeler, 1975, p. 7)

Areas such as the Maritimes have been experiencing the disadvantaged component of regionalism for over a century now. Regional disparities are unfortunate consequences from the nature of Canadian geography. Such a situation, is, to some extent, inevitable in such an expansive nation. The problem here is that it has become an accepted characteristic of Canadian society and of the Canadian economy. The implications of this are many and far-reaching. To this end, particular care must be taken when trying to overcome these effects.

One of the reasons for regional disparity lies in the structure of the Canadian economy, and in the fact that the economies of some peripheral areas tend to serve the interests of outside investors from central Canada and the United States rather than those of their own inhabitants. This is perhaps the most difficult factor for the development process to take into account. If we are to have the advantages of a relatively free market economy then we must also accept some of its disadvantages. The biggest of these, as far as the

development process is concerned, is that no government really has the power to issue directives to industry. Instead, it must try to achieve its ends by more subtle incentives which attempt to stimulate growth in particular directions.  
(Krueger and Koeler, 1975, p. 62)

It is obvious that these peripheral areas are bound to a subsistence level of existence for a long time yet to come. Regionalism is a process that has been created by history and presently creates history. In regions, such as the Maritimes, its effects have been lower standards of living, lower levels of education, higher unemployment rates, decreased job productivity and diminished quality of life for those involved. All of this has come as a result of geography affecting the political, economic and social life of a nation.

The origin of regionalism is similar to a "chicken and egg" parable. Did Canada create regionalism or did regionalism create Canada ? A concise outline of this line of questioning is presented by Stillwell who notes that

an underlying premise of theoretical constructs used in regional analysis is that which presupposes regional deficiencies to arise out of either structural or locational factors. The former claims that regional disadvantages stem from an uncompetitive economic structure, whereas the latter apportions blame to a peripheral location vis a vis the national economic heartland. The two are not mutually exclusive, and when operating in unison may compound the difficulties faced by a region.  
(Stillwell, 1972 in Todd, 1977, xii)

This is a very complex problem that can rarely be definitively accounted for. Still, events such as the Bricklin collapse are all a part of the Canadian story and in this, regionalism has played a large role. In the New Brunswick government's harried attempt to overcome regionalism, they

invested heavily in a project that was economically, politically and geographically unfeasible. The end results of this venture are plain to see. What can be learned from it is less certain. A full understanding of past events will enable more rational decision making in the future. In the case of Bricklin Canada Ltd., the reasons for its failure must be carefully examined in order for any benefit to come from it. To that end, future endeavours will be armed with a greater understanding of what lies ahead. They may be better able to overcome the factors of geographical distances and the geographically created influence of regionalism.

## CHAPTER 3

### Data and Methodology

A great deal of background information on this subject has been collected and processed. A thorough discussion of the data will be given in order that it may be best understood. This will be complimented by an outline of what is hoped to be accomplished through its use.

The overall goal of this study is to establish a more profound comprehension of the relationship between geographical location and economic efficiency on the business market. This will be done by examining a particular case and how it was affected by the many forces that were in existence at the time. This will include, but not be limited to, the affiliation of this firm with the many levels of government backing it, the levels of investment, notably in manufacturing, in the surrounding area and the levels of manufacturing by region in Canada. The data examined will be largely of a qualitative nature but will also include quantitative references. Many different types of data will be examined coordinately to contribute to the broadest understanding of the relationship under question.

#### 3.1 Literary Data

The first phase of this analysis will be the examination of the various literary data. Within this scope many different aspects of the rise and fall of Bricklin Canada Ltd. will be observed. This will entail a breakdown of the "far-flung" nature of this firm and how this led to numerous additional costs that were detrimental to its financial well-being. Other Canadian automobile manufacturers will be examined in much the same fashion as comparisons. Taking the nature of this firm into consideration, questions must be addressed as to why this venture began

in this area in the first place. An evaluation of the economic, political and social needs of this region is given. This will show both what led to this venture and what its aftermath meant to the people of this region. A specific concern within this investigation will be the level of services the relatively small cities of eastern Canada have to offer in comparison to the major centres of central Canada. This will take account of the effect of externalities on the attractiveness and benefits that certain urban centres provide or lack. An appraisal of the demands of the worldwide automobile industry will also be provided. The factor of scale economies will be given strong consideration with regard to its effect on the success and decline of automobile manufacturing firms. Inherent to the necessity of scale economies for automobile manufacturing is the available dissemination of information. This was complicated by the isolated location of this firm. The difficulties that this posed will be examined in great detail. Further difficulties will be examined in that one of the original *raison d'être* for this venture, in this area, was the ready supply of cheap labour. The effect of the United Auto Workers certifying the workforce will be studied to see how the elimination of this benefit grew to become a major drawback. Similar disadvantages that resulted in higher operating costs will be examined. This will include the difficulties faced without an exemption from the U.S.-Canada 1965 Auto Pact. The geographical boundary, between these two nations, proves to be a major impediment in situations such as these. A further investigation into the realm of the automobile industry will show the particular demands of the luxury car market in comparison to other markets. Here, the Bricklin example will be contrasted to the similar circumstances of the DeLorean Motor Company. This will show how the necessary elements for success

were lacking in both of these firms. Another business failure, Clairtone Inc., will be provided to illustrate the effects of geographical distances and regionalism on a company's economic efficiency. All of these negative forces will be approached in a different perspective when an analysis is made of economically successful firms from this region of Canada. An in-depth account will be made with regards to the means that these businesses used to achieve and maintain prosperity. This will give a different viewpoint to the effect of regionalism. A concern that is factored within all of these findings is the relatively intangible presence or absence of entrepreneurship. Its varying levels, within Canada, lend explanation to the fluctuating levels of economic growth within the nation.

All of these analyses will take into consideration their respective relationships with the effect of regionalism. This will be done exclusively with every inquiry. It will reveal the pervasive nature of regionalism and render significant information pertaining to its many effects. This will be done to acquire the greatest basis of data for the research question.

### 3.2 Numerical Data

All of the literary data will be complimented by a broad range of numerical data. Many of these findings will be used to illustrate the economic climate of the area, at the time of this situation. This will include specific information on the automobile industry. Further data will be examined with regard to earned income per capita, gross domestic product, unemployment levels, manufacturing employment levels and provincial urban-rural percentages. This will all contribute to a broader understanding of the relationship between these regions, regionalism,



economic efficiency and business success. Of particular interest here is an examination of a location quotient for manufacturing by region in Canada. This is a graphic representation of the structure of the manufacturing industry within Canada. It provides a detailed picture of the economic disparities within Canadian manufacturing.

This numerical data will further employ a multi-faceted explanatory approach. It will be examined with regards to geographical distances and regionalism and how they, separately and combined, effect this region and its interests. It is hoped that all of this data and its commentary will provide a better understanding of the relationship between geography, regionalism and economic efficiency in business pursuits.

## CHAPTER 4

### Findings Based On Literary Data

#### 4.1 Introduction

The following investigation will examine all of the literary data collected regarding the Canadian regionalism dilemma. It will be explored in conjunction with its relationship to Bricklin Canada Ltd. and other related companies. The data is derived from many and varied sources. This analysis will attempt to bring all of it together to establish a concise picture of the particular phenomenon in existence.

#### 4.2 The Geography of Bricklin Canada Ltd.

A major problem from the outset of the Bricklin production process was that of its geographical location. It was argued that the New Brunswick location was perfect for what was being attempted as it was central to many of the suppliers and proximal to the intended market of the American northeast seaboard. In reality, it was not a great distance from many of the major sources of input or output. However, by this same token, it was also not immediately close to any of them either. The end result was that all components of the production process demanded transportation costs of some sort. For an automobile that was comprised entirely of "off the shelf parts", this would result in immensely escalated production costs. The proposed price of the car (\$ 5000) was never achieved as a result.

The geography of this corporation spanned the continental United States and southeastern Canada. Its many different sites of operation encompassed an area of over 5000 kilometres <sup>2</sup>. The implications of this were not limited to increased transportation costs.

The various suppliers proved difficult in maintaining an acceptable level of inventory and product quality. A Bricklin worker once commented that:

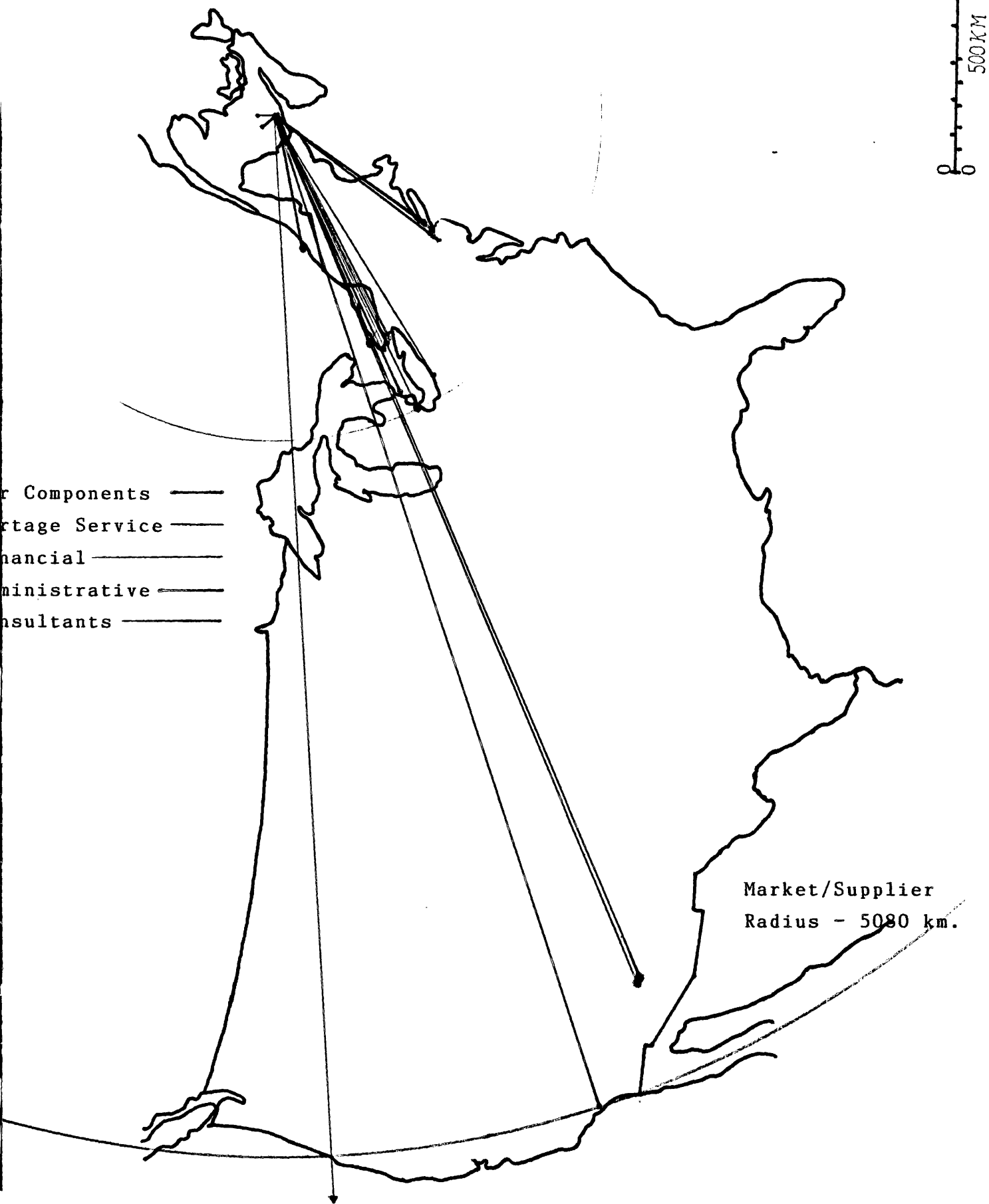
The company appeared to be continually suffering from parts shortages... Parts were coming from a lot of different suppliers. They often wouldn't fit the car, and had to be reworked once they arrived.

(The Globe and Mail, 1975, B)

These additional man hours spent in compensation for the detached supplier network further added to the costs of production. The tremendous distances that were covered to bring all of the inputs together is illustrated in Figure 2 (see next page). This depicts the many sources of parts, components, services and assistance that were required in the production of the Bricklin. This pattern is wholly uncharacteristic of the automotive industry. The profitable production of automobiles has proven, over time, to result from scale economies. This often necessitates huge scales of production that are often placed in close proximity to its competitors. An example of this would be the intense concentration of automotive manufacturing facilities in southern Ontario and southeastern Michigan. Within this area, the "Big Three" have numerous manufacturing facilities assembled together for more expeditious production of their respective goods. In grouping close together, they also share in some of the many benefits that result. These would include a quality workforce, sufficient transportation networks, and ready supply of inputs and services to name but a few. The geography of production for the Canadian branches of General Motors, Ford and Chrysler can be seen illustrated in Figures 4, 5 and 6,<sup>7</sup> respectively (see Appendix A). The patterns of their operations also show how geographic proximity is

Figure 2

## GEOGRAPHICAL EXTENT OF BRICKLIN CANADA LTD.



conducive to success within the automotive industry <sup>3</sup>. The corollary of all of this is that a major factor contributing to the failure of Bricklin Canada Ltd. was the inter-related and compounding effects of its isolated location and its far-flung suppliers and distributors.

#### 4.3 The Region Before and After

Upon carefully scrutiny of the circumstances of this company's decline, questions will arise as to its beginnings. The conditions surrounding its creation are an explanatory factor. During the mid 1970s, New Brunswick was undergoing a drive to increase its productivity. Particular attention was given to the manufacturing sector at this time. With the previous economy depending largely on natural resources it was a logical step to diversify and solidify the provincial economy. These steps included an increase in total investment in New Brunswick of 19.2 % in 1975 compared with a 14.1 % increase for Canada as a whole. Total investment in manufacturing was up 18.8 % (Canada : 15.4 %), capital investment up 20.7 % (Canada : 18.2 %) and construction investment up 18.9 % (Canada : 12.6 %) (The Globe and Mail, 1988, C). The goal of the provincial government, at this time, was to expand the manufacturing sector and in so doing, create jobs for the growing unemployed. Although the premier was not pleased with the approach, it had to be done.

Ranged against Hatfield's distrust of forced economic growth was his desire to encourage manufacturing and other secondary industry into New Brunswick. He wanted to move New Brunswick, where less than 15 % of workers were employed in manufacturing, closer to the national average of 25 %. This was central to his government's economic strategy, not just as a means of creating new jobs, but also to stabilize a provincial economy that was vulnerable to the boom and bust of a resource-based economy.  
(Starr, 1987, p. 89)

Thus when Bricklin approached the Hatfield government for assistance in his venture, the situation was such that they could not, realistically, refuse. The major selling point of the Bricklin deal was its labour-intensive nature. "In a province where the unemployment rate is running at close to 10 percent, labour-intensive industries are always welcome. The 600 jobs that Bricklin promised to create were a big come-on" (The Toronto Star, December 21, 1974). In this situation, a regionalized province was offered a means of escape. Very few such offers were likely to have come their way before. Their level of economic disparity forced them into a venture that would have been avoided by a more financially solvent government. It is obvious that an economy, weakened by the adverse effects of regionalism, had forced the New Brunswick government into this venture. In time, it would undoubtedly prove to contribute to its demise.

If there was ever a best time for such a venture, it was at this very same time. The evidence towards this is observed in certain presences and absences. At this time, and still today, there was a deficiency in the levels of prominent industries in this area. "Industries of significant national stature such as clothing, machine tools, vehicles and electronics are notably lacking in the region's manufacturing composition" (Todd, 1977, p. 22). The national economic climate was also conducive to initiating economic growth. Despite the world-wide recessionary times, Canada was not affected as greatly as other nations.

The course of the Canadian economy from mid 1973 to the early part of 1974 was in sharp contrast to that of most other countries. Probably the major element was the uneven impact of the oil embargoes and oil price increases. Whereas in most countries the oil

problem resulted in temporary economic dislocations and uncertainties, the impact in Canada was not as severe...  
(New Brunswick Economic Statistics : 1973-74, 1975)

This factor, coupled with a provincial population growth rate, during the 1973-1976 time frame, slightly ahead of the national rate and a net immigration of population, boded well for economic growth. All of these signs suggested future success in this venture, in this particular time frame. Unfortunately, even this especially pleasant economic climate could not overcome the negative effects to be felt in geographical placement and regionalism. Their effects on this firm were felt deeply by a people that were already struggling to survive.

The result of Bricklin's collapse has been disastrous to the province of New Brunswick and the Maritime region in general. After all was said and done, every citizen of New Brunswick will lose \$ 30 and every Canadian will lose \$ 0.12 to cover costs. Banks and financial institutions will lose \$ 3 - 4 million, and unsecured American creditors will lose \$ 2 - 3 million. The total bill for the loss of this company was in excess of \$ 30 million (1976 dollars) or over \$ 76 million in 1991 Canadian dollars (Financial Post, 1976, C). The implications of this are immense to such a small province and weak economy. The losses that the provincial government incurred (in excess of \$ 23 million) forced them to cut funding and investment in other ventures. The province's citizens will be hardest hit.

It is a burden that the province's taxpayers will carry with difficulty. Already, the effects of the losses on New Brunswick's treasury are discernible. The government, because of its losses on Bricklin and on a number of smaller investments in the past two years, has been forced to reduce its investment activity. According

to government and industry sources, loan applications from companies are being turned down with increasing regularity. The government hasn't got the money. According to bank sources, the province's credibility has suffered in financial circles. Banks are not as willing to provide guaranteed loans because they have less faith in the government's business judgments.  
(Fredericks and Chambers, 1977, p. 135)

The problems inherent to the collapse of Bricklin Canada Ltd. extend far beyond the loss of jobs and capital. The losses in opportunity costs are enormous. The ventures that were turned down due to lack of funding could have proven to be successful and begun to lessen the effects of regionalism. These opportunities were foregone due to a previous failure. What happens is thus somewhat of a "domino-effect" in that one loss sets off a rash of losses and the region is left to merely try to pick up the pieces. This is the devastating effect of regionalism in that it is self-perpetuating. No amount of investment or economic growth is likely to reverse its effects. Moreover, poor investment will only strengthen its effects.

#### 4.4 The Effects of Externalities

The manufacturing industry is seen to be constantly shifting, with capital mobility escalating to a global scale in recent decades. The movements that firms usually take are from one industrial sector to another. This is often due to externalities. Todd give a succinct analysis of this pattern.

Polarized growth, in the spatial context, presumes that economic activities are clustered in relatively few nodes where the thresholds for creation of externalities can be realized. The availability of externalities acts as a cost-reducing agent for the firm in all manners of ways ranging from qualitative improvements in labour through to such intangible, but nonetheless real concerns



as risk aversion. Spatially immobile externalities are promoters of city formation, and the larger the city, ipso facto, the greater the scale of external benefits accruing to resident firms. Manufacturing production functions are characterized by substantive technological inputs in the form of trained workers, equipment and specialist suppliers, and so they benefit considerably from the cost reducing aspects of urban externalities. Consequently, the expectation is for manufacturing firms to gravitate towards larger urban centres so long as positive advantages can be gained from externalities.  
(Todd, 1977, p. 23)

This is yet another geographical factor that is at work in the manufacturing industry. In the Bricklin example, the beneficial externalities were notably absent as these areas lacked the presence of any large urban centres. This is a crucial problem in inducing manufacturing investment to this area. Large scale ventures will not locate in areas that are strictly "small scale" in nature (see Table A.A1, Appendix A). In the cases examined earlier of General Motors, Ford and Chrysler, the effect of externalities appears to be to their benefit. These huge corporations are thriving in the industrial sector that they helped create. Conversely, Bricklin did not share in these "spatially immobile" benefits. The results of this were tremendous cost of production increases that might have been avoided in a central Canadian location.

#### 4.5 The International Automotive Industry

Of all the many worldwide industries, very few are as competitive as the automotive industry. This industry is dominated for the greater part by the huge multi-national corporations such as General Motors, Ford, Nissan, and Toyota. Breaking in on this oligopoly has proven to be extremely difficult. In fact, only two automobile manufacturers, of the 150 that have been formed since the end of World War II, have survived. These two companies are Porsche and Lotus and both reside in

the high price sport-luxury car market. No reasonably priced car manufacturer has appeared on the market in this time and succeeded. Present markets are already adequately served, if not, saturated. The Bricklin plan was thus highly unrealistic in its intentions and its means of attaining them. A large problem was that the project involved a great deal of new and untested technology and practices. It would have presented difficulties to even an experienced workforce. The people that were working on the Bricklin project were doubly inconvenienced through their inexperience. A major stumbling block in the production process was the bonding of the two body composites. Here, acrylic was formed over a polyester/fibreglass backing. This technology had never been adequately tested, let alone, implemented in the production of automobiles. For this problem, a chemical engineering professor had to be flown in from Hamilton, Ontario as a consultant on the project. This was becoming increasingly common in the Bricklin enterprise as they had already hired Jack Hennessey away from Ford of Canada in Oakville to be the new vice-president in charge of operations. The new consultant, Dr. Archie Hamielec saw that this project was not on firm ground, in that information dissemination proved to be poor and costly. The Bricklin people were relying on all of the suppliers for their technical information. In the case of the body components, the suppliers were located in Sarnia, Ontario and southern California. This involved a great deal of travel for products and product information. This, obviously, led to problems.

Where inputs are technically advanced and non-standardized, often requiring rapid modification, the problem of communication becomes a very considerable one, and close proximity gives advantages in the control of quality and work progress.

(Lutrell, 1972, pp. 246-247)

The problem intrinsic to this scheme was that there was an attempt to transplant all of these intangible factors in a region that previously lacked them. The geographic impact of externalities can never be quantified and thus can never be fully accounted for. Industrial sectors have the characteristic of being larger than the sum of their respective parts. Any attempt to break into the automotive industry must either be done in the proper venue or face the problems that Bricklin Canada Ltd. did.

... regions evolve over very long periods. Investment in plant and infrastructure, the building up of services and living environments, and the development of a labour force do not happen in 5 or 10 years. Cumulative impacts operate more in the 25 - 50 year range, and decisions from 100 years previously can often remain important. The desire for quick solutions and the consequent frequent changes of policy have been really damaging in themselves, but the inability to see long-term consequences from existing trends perhaps even more so.

(Chapman and Walker, 1987, p. 219)

#### 4.6 External Forces

Geographic distances and regionalism were not the only factors at work against the success of the Bricklin venture. There were also consumer, political and solely economic considerations. Many of these elements affected their strategy in ways that increased the price of the product. Of particular importance here was the changing cost of labour power. The original estimated price of the car was based upon the low cost of labour in this region.

Bricklin Canada hired its original workers - most of whom had no training in car assembly - at about \$ 3 an hour. Low-priced labour was one of the premises on which Bricklin's optimistic financial forecasts were based. But the workers were organized by the United

Auto Workers and now have a contract that will give them up to \$ 4.55 an hour by March.

(Toronto Star, December 21, 1974)

This certification of the workforce eliminated one of the common benefits of a peripheral location. Often firms choose to locate in such an area as New Brunswick as a result of its comparatively cheaper labour costs. Once this benefit is eliminated, so too is the incentive for the firm to locate there. A similar impact was felt with the lack of an exemption from the U.S.-Canada Auto Pact of 1965 <sup>4</sup>. This would also lead to increased costs of production. "Without an exemption under the pact, Bricklin would have to pay duties on parts and car shipments and then apply for duty rebates - an expensive, time-consuming process" (Fredericks and Chambers, 1977, p. 21). Bricklin sought this exemption through DREE. It was never attained because DREE was worried that it would fall into disfavour with the Big Three automakers. "With all these worries, Ottawa was never able to screw its courage to the hilt and negotiate Bricklin's entry to the pact - a factor that Bricklin officials insist contributed to Bricklin's failure" (Fredericks and Chambers, 1977, p. 21).

Both of these concerns were further contributors to the increased cost of the end product. All of these related factors produced another problem. The Bricklin ceased to be an inexpensive safety-sports car. It was now amongst the ranks of the luxury-sports cars and its lack of comprehensive engineering would not allow it to remain competitive in this class. Its intended competition was always seen to be the Chevrolet Corvette. The marketing scheme was to attract the consumer with the "nifty" gull-wing doors, safety features and impact resistant body and then undercut Corvette by being less expensive. The reality was that when

the Bricklin finally hit the market, the 1975 model was priced at \$ 9775 while the same year's Corvette was only \$ 8227 (Motor Trend, May, 1975). In present dollar terms with a 1991 Corvette costing between \$ 43000 and 56000 (GMAC Financing), the Bricklin, if it had survived, would presently be in the range of \$ 51000 to \$ 66000. This would pose further problems in that the market for luxury cars in the United States is considerably smaller than any of the other markets (see Table A.A2, Appendix A). Attempts to enter into this market will not encounter a large degree of sales. They will thus suffer from lack of capital that is so crucial to the launch of any such enterprise. A strong analogy can be drawn between this venture and that of the DeLorean Motor Company <sup>5</sup>. This firm never overcame the enormous start-up costs at the inception of automotive manufacturing (see Table A.A3, Appendix A). Such was the case with the Bricklin. It could never compete against the established market despite its attractive features. The extra costs imposed upon its production by external forces and those innate in geographic location and regionalism only complicated matters further.

#### 4.7 Comparison Cases

Bricklin Canada Ltd. is not alone amongst the ranks of failed businesses in this region of Canada. The nature of economic development in this area is such that attempts to implement it are often problematic. This is particularly true if the circumstances are similar to those of Bricklin's. These efforts are merely perpetuating the problem of regionalism in that the bulk of the interests served are those of central Canada's. Such was the case with the short life of Clairtone Inc. that operated briefly out of Stellarton, Nova Scotia <sup>1</sup>. It received a great deal of funding from provincial sources and promised abundant employment in

return. Its eventual downfall lay in the fact that components were manufactured in southern Ontario, shipped to Nova Scotia where they were assembled and then shipped back to the central Canadian market. Despite the financial assistance, the venture did not prove to be equitable and pulled out leaving the Nova Scotia government with a \$ 19 million bill. Problems, such as these, suggest that an industrial sector will likely never exist in this region. However, there have been instances where industrial manufacturing has proven to be profitable in this area. Two such cases have been the growth of Volvo and Michelin in Nova Scotia. Both of these firms produce high quality products for the automotive industry. The higher craftsmanship that goes into these products retrieves a higher price from the consumer. This offsets the increased transport costs (Matthews, 1990). This was an original benefit of the region's economy over a century ago. At this time, shipbuilding was the pride and the lifeline of much of this region. With the growth of Volvo in Halifax this spirit appears to be returning. This venture is still based entirely upon jobs. Economic growth is always given second ranking to the immediate importance of jobs and attracting them to this area. In this specific case the bottom line was that "Volvo came to Canada, and remains here, because of its no-duty deal with the Canadian government, reached in the 1960s" (The Globe and Mail, 1988, A). It is highly unlikely that Michelin would maintain the level of success that it has without government assistance. Special legislation and favourable loan agreements are often provided for Nova Scotia's largest private employer. Such businesses as these are not likely to create further industrial growth in this sector. The province's return on investment comes merely in the form of employment and not tax equity that could be geared towards further development. Even

in situations that seem productive, the effects of regionalism and geographical location are still preeminent. They collaborate in such a way that no amount of counter-action will be effective.

The deeper reality is that, after 40 years of failed efforts to promote regional development, neither federal nor provincial governments have anything to offer Maritimers beyond paving contracts and other porkbarrel goodies.

(Williams, 1988, in New Maritimes, 1988, p. 11)

Further influences are responsible for the level of regional disparities in Canada. A factor that is hard to quantify but is nonetheless crucial to industrial success is that of entrepreneurship. This, alone, will not create business success, but combined with other essential elements, such as resources and capital, it will. Emigration of people from the Maritimes, for decades, has drained the area of many of its enterprising minds. These people leave the area in search of "greener pastures" elsewhere. This leaves behind a poorer environment for the manufacturing industry to exist in. There are notable exceptions to this pattern. Most of these firms owe their origins to family ownership of resources or establishment of a store. Although these triumphs exist in this area, they are definitely the exception to the norm. This will persist if the depressed economies of these regionalized areas of Canada force this "brain drain" to continue.

## CHAPTER 5

### Findings Based On Numerical Data

#### 5.1 Capital and Labour Statistics of Automotive Industry

In order to better comprehend the circumstances surrounding the rise and fall of Bricklin Canada Ltd., an abundance of numerical data must be considered. This data will illustrate how New Brunswick was not capable of promoting and sustaining the growth of this venture. Moreover, it will show that the reasons for this were the deleterious impacts of geographical location and regionalism.

Entry into the automotive manufacturing industry is a highly capital and labour intensive endeavour. The capital requirements of an auto sector start-up are summarized on Table A.A3 (see Appendix A). This index shows that the ratio between plant cost and annual automobile production was higher for the Bricklin project than any of the others listed. This is further evidence towards the haphazard financial controls that this business exercised. The amount of funds for this venture were very limited and careless spending would only have complicated matters. The province of New Brunswick had a very small tax base for collecting the needed capital for this venture. This is evident in its levels of earned income per capita, gross domestic product and general population figures (see Tables A.A4, A.A5 and A.A6 respectively, in Appendix A). These were always consistently lower than those of the central Canadian (Ontario and Quebec) average. The result was that this venture would have to be highly cost-effective in order to succeed. The venture was far from that and this contributed to its demise. The large sums of capital that a venture such as this required were not available. This resulted from the harmful effects



of regionalism and geographical location on this province's economic solvency.

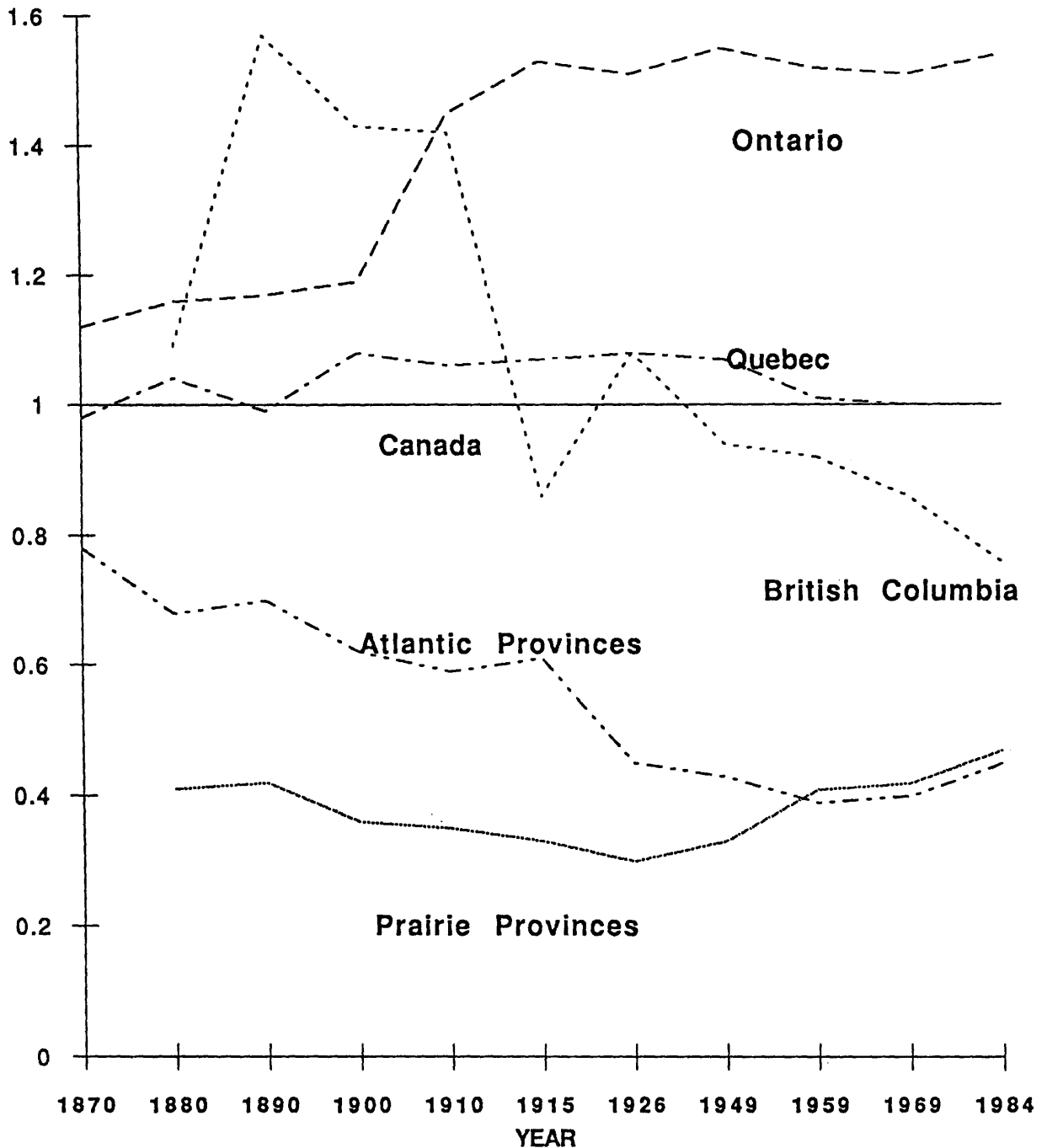
A further hindrance to this firm's chances was the requirements placed upon it by the demands of labour. There was no lack of available labour in this area at this or any other time. The provincial unemployment rate (see Table A.A7, Appendix A) was at its customarily high level. A related implication to this was that there was a lack of an experienced manufacturing labour force. The levels of manufacturing employment as a percentage of total employment (see Table A.A8, Appendix A) were consistently close to half that of the central Canadian average. This problem would be intensified by the size of the labour force in the area and its high unemployment levels. The end result would be a tremendous increase in production costs as a consequence of having to train all of the workers to perform their assigned duties. This all came as a product of the effects of regionalism and geographical location. They have accordingly contributed to the devaluing of the labour force in this area. Bricklin Canada Ltd. was forced to spend additional, sparse funds on training their workforce. This became another contributing factor to the rapid fall of the company.

## 5.2 Manufacturing Location Quotient

The Bricklin undertaking was one of many attempts to diversify Maritime manufacturing. The net result has realized little success. The principle interests of manufacturing lie in central Canada and particularly Ontario. This is easily demonstrated by a location quotient for manufacturing by region (see Figure 3, next page) This graph takes measures of value-added per person in each region as a ratio of the national average. The quotient is then plotted over a number of years to

show a steady decline of the concentration of manufacturing in the Maritime provinces. A particularly steep drop was experienced between 1915 and 1926. This fluctuation plus many others are inversely mirrored by the fluctuations of Ontario. As Maritime manufacturing declined, Ontario manufacturing increased. This pattern has increasingly separated the two regions with the exception of a slight narrowing after 1959. This represents the introduction of federal attempts to implement regionally-specific industrial policies along with substantial expansion of resource-based processing in the Maritime region. This is further evidence towards the divergent nature of the national economy. The economic growth of central Canada continues while the Maritime provinces continue to decline. This trend began as a result of the adverse effects of regionalism and geographical location. These factors are maintaining control of the economic future of the region and its direction is not a promising one.

**Figure 3**  
**Manufacturing Location Quotient By Region In Canada,**  
**Selected Years**



Source: Atlantic Canada Today, 1987.

## CHAPTER 6

### Conclusion

#### 6.1 Summary

In summary, the examination of the research data revealed the following conclusions. The geographical extent of the Bricklin operations proved far too large for reasons of its impending transportation costs. More successful firms, in this industry, tend to locate close together and share in spatial conservatism. The economic, political and social needs of the region led both to the introduction and the demise of this corporation. The area's unemployment level, economic base and lack of a manufacturing sector enticed the venture to this area. Conversely, these same weaknesses resulted in its ultimate collapse. Transplanting such a venture in this area, without a quality labour force and pre-existing infrastructure coupled with a limited source of funding, foretold failure. Inherent in this assertion is the lack of positive externalities from these areas. Often this can be the difference between success and bankruptcy. Its absence, in this case, decreased the opportunities for prosperity. Related to externalities and intrinsic to scale economies is the ready ability for the dissemination of information. This was complicated by the geographical placement of the enterprise which further reduced the likelihood for success. Comparable effects were felt by the lack of an exemption from the U.S.-Canada 1965 Auto Pact. The resulting higher production costs were a constant enigma to firm growth.

Overall, the persistent decline of the manufacturing base in the Maritime region is beyond the control of internal powers. This is a native characteristic of regionalism in Canada. The divergence of the centre and periphery's manufacturing economies has only reversed slightly

following implementation of regional policies initiated by federal authorities.

The results of all of this are relatively obvious. The perpetual bond linking geographical location and the effects of regionalism must always be a foremost consideration when determining regional policy at any level. The relationship between these two factors is such that any decision, to this regard, should always be case-specific. It must always be understood that the inter-relationship between geographical location and regionalism will have tremendous adverse impacts on industry in the marginal areas. This is particularly true of the manufacturing industry. With the realization of the extent and nature of this relationship, the indisputable conclusion is that the venture was doomed from the outset. With the existing conditions, inputs and plan, the early collapse of the company was a financial blessing more so than a misfortune.

## 6.2 Future Implications

The only benefit to be derived from this project will be seen in its impact on future decisions. The economic climate of this region has not improved to any appreciable degree since this time. The implications of the observed phenomena are still crucial to the Maritime region's economic destiny. This requires a schemata that continuously accounts for its presence. Any future plans should hold regionalism and geographical location in primary regard. This has been accomplished, to a large degree, in the work of Matthews. He contends that

There are three kinds of business that should go here. (1) Those that use natural resources and sell both to local markets and the world. (2) Smaller industries to do secondary manufacturing for the Atlantic Provinces market. (3) Those industries, such as oil refining,

which bring offshore resources to our ports (by ship) for refining, and then move them to a central market. Generally speaking, however, if you've got to go to central Canada to get any materials and then send it (the finished product) back, you've got a big problem. Also to have large industries here you have to be either resource based, such as fishing which gives lots of employment to a lot of people, or you've got to be the type of industry like Michelin which is not a resource based thing but which can get a higher price on the market (than its competitors). If you want a local business which is not resource based to be large, you have to diversify.

This statement sums up, as concisely as is possible, most of the problems and the basic alternatives open ... with regard to industrial development.

(Matthews, 1981, pp. 74-75.)

This form of analysis will prove to be most prudent in effecting change in this area. It does not attempt to shake the "forces that be" in the economic, political and social structures of this country. Transformations of this nature are even beyond the control of the Canadian federal government; let alone those of the Maritime regions. Movements such as those outlined above and others focused on growth in these areas, will only achieve their goals if they work within the system that exists at present. Attempts to drastically alter the regional, economic structure of Canada will only find themselves in the same outcome as did Bricklin Canada Ltd.

## NOTES

### 1 Clairtone Inc.:

This operation was the brainchild of two Ontario entrepreneurs, Peter Munk and David Gilmour. The headquarters of Clairtone was in Rexdale, Ontario. On June 21, 1966 there was the official opening of a branch plant in Stellarton, Nova Scotia. This venture received 85 percent of its funding from Industrial Estates Ltd.; and industrial development arm of the Nova Scotia government. The essential downfall of the arrangement was the production plan. "... cabinets are made at Strathroy, shipped to Stellarton for chassis, record players and speakers to be installed and then shipped back to Ontario" (Globe and Mail, April 6, 1968). In time, this proved to be inefficient and in April of 1968 all assembly lines for chassis work making functions were sent to Strathroy. The net loss to the province of Nova Scotia was up to 600 jobs and a total investment of \$ 19 million.

### 2 Bricklin Canada Limited:

The following is a spatial breakdown of Bricklin Canada Ltd.'s international operations :

- the body plant was in Minto, New Brunswick
- the assembly plant was in Saint John, New Brunswick
- engines were purchased from AMC for the 1974 model then from Ford of Detroit for the 1975 model
- powertrains and transmissions were purchased from Ford out of Detroit
- tires were from Goodrich of Kitchener, Ont.
- steering components were purchased from Chevrolet out of Detroit
- suspension components were imported from Datsun of Japan
- body components consisted of fibreglass from Fibreglass of Canada from Sarnia, Ont. and acrylic from Svedlow Inc. of California.
- car carrying services between Minto, Saint John and markets was provided by Nu-Car Carriers out of Cleveland, Ohio
- financial funding for the entire project came from sources in Philadelphia, Fredericton, Montreal and Toronto
- BCL's accountants were in Saint John and New York

- BCL's headquarters were in Scottsdale, Arizona, marketing and administration were in Whippany N.J., and testing facilities were in Phoenix, Arizona,
- experts such as Jack Hennessey (from Ford) and Dr. A.E. Hamielec (chemical engineering) had to be brought in from Oakville and Hamilton, Ont., respectively
- initial market was the northeastern seaboard of the United States with no sales to take place in Canada

### 3 Canadian Automotive Industry

#### General Motors of Canada:

The following is a spatial breakdown of General Motors of Canada's operations.

- headquarters is in Oshawa Ont.
- largest production facility is "GM Autoplex" in Oshawa
- here there are assembled entire vehicles (Oldsmobile Cieras, Pontiac 6000, Buick Regals and GMC light trucks) along with metal stampings, batteries, radiators, instrument clusters, plastics and mouldings.
- in Ste. Therese, P.Q. they produce mid-size cars (Chevrolet Celebrity and Oldsmobile Ciera)
- in Scarborough they produce Chevy and GMC vans
- in Windsor they produce body trims and transmissions
- in St. Catharines there is the General Motor's Metal Casting, Axle and Engine Plants
- there are also 10 regional sales office in major centres across Canada

Source: General Motors Annual Report, 1986. Oshawa, Ont.: General Motors of Canada Public Relations Department, 1985 in Dimitry et al, 1988.

#### Ford Motor Company of Canada:

The following is a spatial breakdown of Ford Motor Company of Canada's operations.

- headquarters is in Oakville, Ont.
- in Oakville they produce mid-size cars (Tempo and Topaz) along with production at the Ontario Truck Plant
- other final assembly takes place in St. Thomas producing LTD Crown Victoria and Mercury Grand Marquis



- in Windsor there are Engine Plants 1 and 2 , the Casting Plant and the Export Supply Facility
- in Essex there is the Engine and Aluminum Casting Plant
- in Niagara Falls there is the Ford Glass Plant

Source: Ford in Canada. Oakville: Ford Motor Company of Canada Public Relations Department, 1987. in Dimitry et al, 1988.

### Chrysler Canada:

The following is a spatial breakdown of Chrysler Canada's operations.

- headquarters is in Windsor, Ont.
- in Windsor there is the assembly of "Magic Wagons"
- interior trim is produced at the Ajax Trim Plant
- in Guelph they produce moulded plastics
- in Stratford they produce interior trim components
- in Etobicoke there is the Aluminum Castings Foundry
- in Perth (near Ottawa) they produce various engine and body components
- in Bramalea, Ont. they produce the AMC Eagle Premiere
- in Brampton there is the AMC Jeep Plant

Source: Chrysler Canada Ltd. - General Information. Windsor, Ont.: Chrysler Canada Public Relations Department, 1986 in Dimitry et al, 1988.

## 4 U.S.-CANADIAN AUTOMOTIVE PRODUCTS TRADE AGREEMENT OF 1965:

The Automotive Products Trade Agreement (APTA) was completed in January of 1965. It was ratified by both the American and Canadian governments. The general intent of the agreement was to broaden the market for production and consumption of automobiles.

The terms of the agreement specify that a qualified manufacturer may import vehicles and original equipment parts (except tires and tubes) into Canada duty free provided the manufacturer maintains a ratio of production-to-sales greater than or equal to 0.75. This implies two conditions:

- The net sales value of vehicles produced in Canada should be at least three-quarters of the net sales value of vehicles sold in Canada.

- This ratio should be constant or rising from year to year.  
(The University of Texas at Austin Policy Research  
Project Report, 1985, pg. 3-4.)

Up to 1985, this pact had not been changed in any significant manner. This has hence facilitated a tremendous growth in the automotive trade between the U.S. and Canada. "Commerce in this sector has increased from a base of \$ 1.1 billion (U.S.) in 1965 to \$ 21.7 billion in 1982 - a twelvefold increase after inflation" (The University of Texas at Austin Policy Research Project Report, 1985, pg. xv.). Essentially, the benefits to those corporations that it includes and detriments to those that it does not are summarized in the following statement.

Creation of a broader market for automotive products within which the full benefits of specialization and large-scale production would be achieved; the liberalization of U.S. and Canadian automotive trade in respect of tariff and other factors tending to impede it ... and the development of conditions in which market forces might operate effectively to obtain the most economic pattern of investment, production and trade.  
(Keeley, 1983.)

#### 5 DeLorean Motor Company:

The situation of the demise of Bricklin Canada Ltd. bears a striking resemblance to the circumstances of the rise and fall of the DeLorean Motor Company. This company was in operation from 1975 to 1982 and also produced a revolutionary new "safety car" intended to be produced and sold at a reasonable price. This entire project was masterminded by one man for whom the car gets its name. John DeLorean had worked at Chrysler, Packard and been a high-level executive at General Motors. He resigned from GM and shortly thereafter began promoting his idea of building an "ethical" car. This concept was realized in the DeLorean. It possessed some rather radical features for the time. These included a composite fibreglass and plastic body with a stainless steel outer skin. Gull wing doors, rear engine and a rust proof chassis were also to be included in the new automobile. The main competition for this car was seen to be the Chevrolet Corvette. The car was manufactured in Dunmurry, Northern Ireland. This was said by DeLorean to be a result of ethical reasons; to provide work for the unemployed.

Unemployment in the area was a staggering 30%. The Northern Ireland Development Agency and the United Kingdom Department of Commerce promised to guarantee over \$ 113 million in loans and grants in exchange for the over 2000 jobs DeLorean's venture would bring.

(Rue and Holland, 1986, pg. 317.)

When the first car rolled off the assembly line, it was 900 pounds overweight, underpowered and priced \$ 10 000 more than the original projection of \$ 15 000. This put it well above the price range of the Corvette. Shortly after distribution began, the car acquired a reputation for quality problems. Due to a series of circumstances and consumer wariness that bankruptcy was imminent, sales dipped greatly and DeLorean's cash flow sank to dangerously low levels. After asking for more money, on February 19, 1982, the British government declared the DeLorean Motor Company in receivership. Despite many different attempts to rescue the company it finally went bankrupt on October 25, 1982. In the end only 8 000 DeLoreans were ever built.

**APPENDIX A**

TABLE A.A1

PROVINCIAL URBAN-RURAL PERCENTAGES FOR SELECTED YEARS

	1971	1976	1981
New Brunswick	U-56.9 R-43.1	U-52.3 R-47.7	U-50.6 R-49.4
Nova Scotia	U-56.7 R-43.3	U-55.8 R-44.2	U-55.1 R-44.9
Quebec	U-80.6 R-19.4	U-79.1 R-20.9	U-77.6 R-22.4
Ontario	U-82.4 R-17.6	U-81.2 R-18.8	U-81.7 R-18.3
Canada	U-76.1 R-23.9	U-75.5 R-24.5	U-75.8 R-24.3

Source: Statistics Canada in Canada Yearbook, 1971, 1976 and 1981.

TABLE A.A2

U.S. SALES BY MARKET CLASS EXCLUDING IMPORTS. 1976-1980

(1000 units)

YEAR	SUB- COMPACT	COMPACT	INTER - MEDIATE	FULL-SIZE	LUXURY
1980	1671	1675	1836	1075	322
1979	1762	1936	2334	1707	483
1978	1210	2225	3006	2141	577
1977	956	2232	2960	2268	556
1976	981	2298	2806	1928	473

Source: Wards Automotive Yearbooks in Stanford, 1983.

TABLE A.A3

COMPARATIVE INVESTMENT IN AUTO SECTOR START-UPS

(in 1987 Canadian dollars)

COMPANY	LOCATION	PLANT COST (\$ million)	ANNUAL CAR PRODUCTION
Toyota	Cambridge, Ontario	300	50 000
Honda	Alliston, Ontario	200	80 000
Hyundai	Bromont, Quebec	300	100 000
GM-Suzuki	Ingersoll, Ontario	280	75 000

Source: The Royal Bank of Canada, Economics Department, 1987.

Delorean	Dunmurry, N. Ireland	180	30 000
Bricklin	Saint John, New Brunswick	80	10 000

Source: Rue and Holland, 1986 and Fredericks and Chambers, 1977.

TABLE A.A4

EARNED INCOME PER CAPITA, BY PROVINCE (N.B., N.S.,  
ONT. AND P.Q.) SELECTED YEARS  
1961-81, RELATIONSHIP TO NATIONAL AVERAGE. (CANADA=100)

	1961	1966	1971	1976	1981
New Brunswick	64.1	65.1	68.1	69.0	64.9
Nova Scotia	75.0	71.5	74.2	74.2	73.4
Quebec	89.5	89.2	87.8	90.4	89.9
Ontario	121.1	118.3	119.2	112.5	110.6

Source: Statistics Canada, Provincial Economic Accounts in  
Choudhury, 1988.



TABLE A.A5

GROSS DOMESTIC PRODUCT BY PROVINCE AND CANADA 1966-80

(in millions of dollars)

	1966	1968	1970	1972
New Brunswick.	1491.9	1799.0	2211.4	2699.4
Nova Scotia	1184.4	1383.8	1631.8	2053.6
Quebec	16291.9	18801.5	21930.8	26258.4
Ontario	25594.4	30682.7	36258.2	44762.5
Canada	61828.0	72586.0	85685.0	105234.0
	1974	1976	1978	1980
New Brunswick.	3585.4	4633.9	5678.4	6435.6
Nova Scotia	2834.6	3657.3	4484.2	5224.7
Quebec	35451.0	46242.3	55269.7	67792.4
Ontario	60362.6	76038.5	90579.6	111739.6
Canada	147528.0	191031.0	229698.0	297556.0

Source: Statistics Canada, Provincial Expenditures, Report, 1965 - 82.

TABLE A.A6

PROVINCIAL POPULATION SUMMARIES. SELECTED YEARS

(thousands)

	1971	1976	1981	1986	1988
New Brunswick	635	677	696	710	714
Nova Scotia	789	829	847	873	884
Quebec	6028	6234	6438	6540	6639
Ontario	7703	8264	8625	9114	9431
Canada	21568	22992	24343	25354	25923

Source: Statistics Canada in Canada Yearbook, 1990.

TABLE A.A7

PROVINCIAL UNEMPLOYMENT RATE, SELECTED YEARS 1961-81  
RELATIONSHIP TO NATIONAL AVERAGE. (CANADA=100)

	1961	1966	1971	1976	1981
New Brunswick	148	156	98	155	154
Nova Scotia	114	138	113	134	134
Quebec	130	121	118	123	137
Ontario	77	76	87	87	87

Source: Statistics Canada, "The Labour Force" in Choudhoury, 1988.

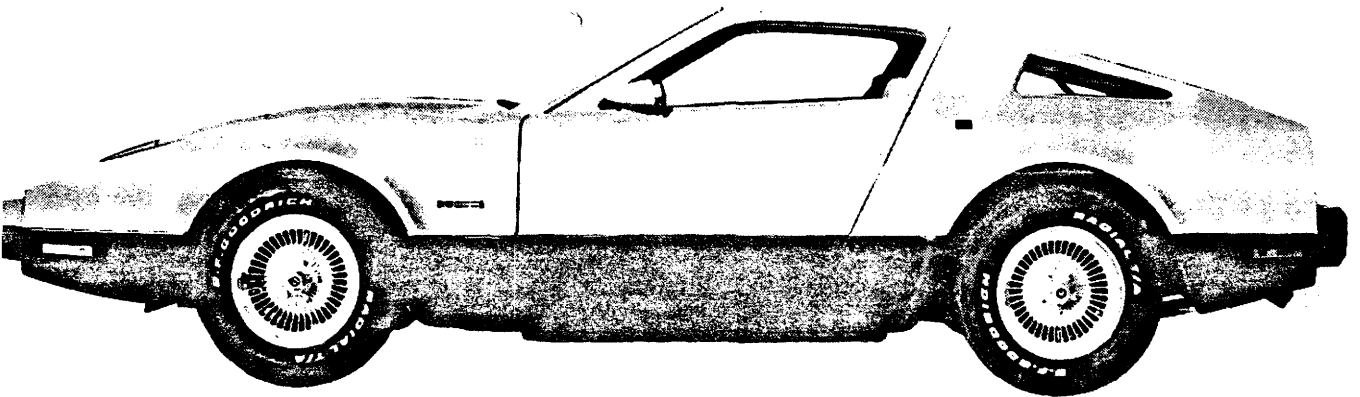
TABLE A.A8

MANUFACTURING EMPLOYMENT AS A PERCENTAGE OF  
TOTAL EMPLOYMENT

	1961	1966	1976	1981
Canada	21.6	9.5	17.5	15.66
New Brunswick	13.3714.02	11.81	10.64	
Nova Scotia	13.60	11.6	11.8	10.57
Quebec	25.41	22.47	20.13	17.55
Ontario	29.83	25.38	22.26	20.34

Source: Statistics Canada, "The Labour Force" in Choudhury, 1988.

Figure 1 : An Illustration of the Bricklin SV1

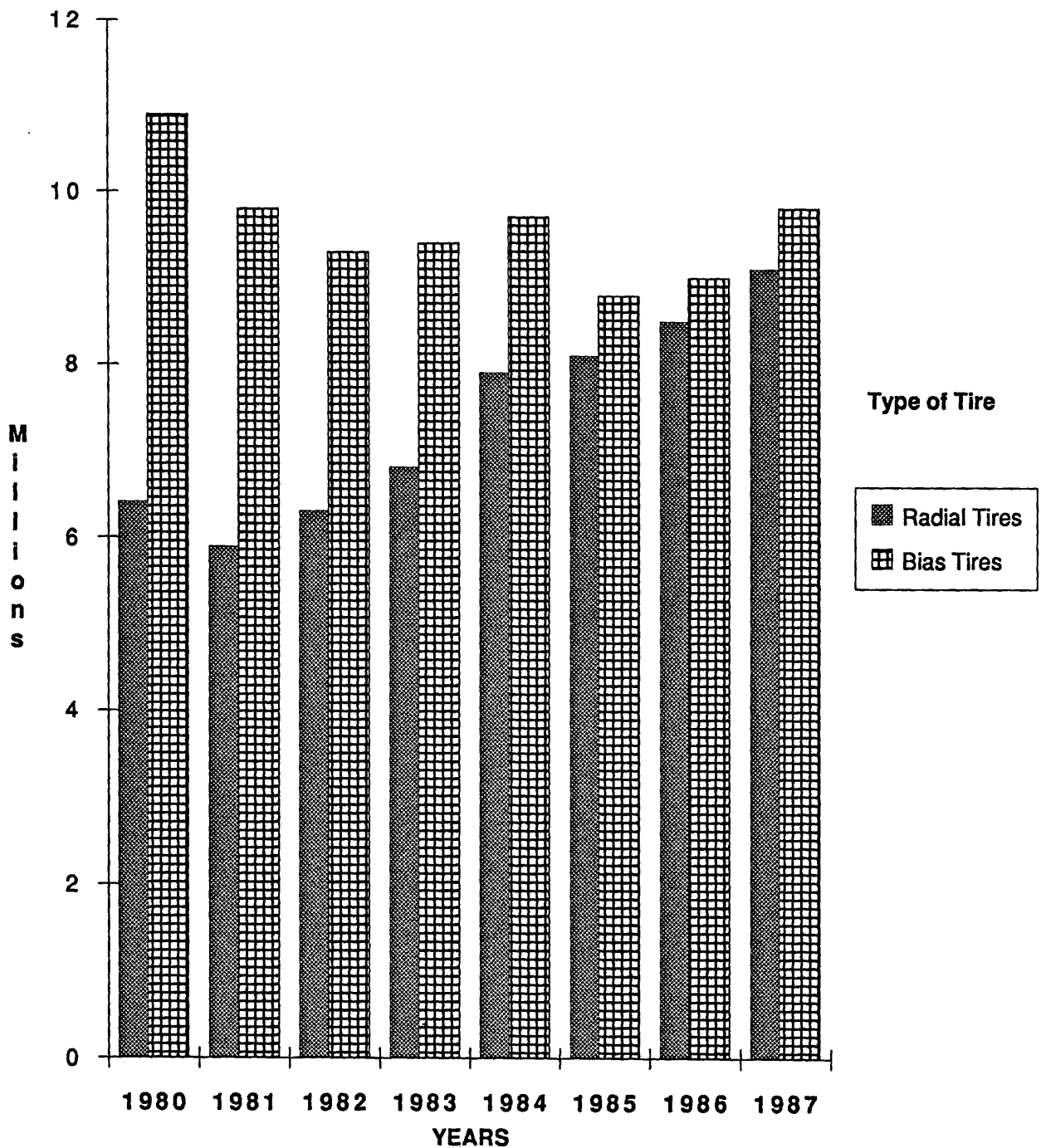


*A prototype of the Bricklin car*

Source : Fredericks and Chambers, 1977.

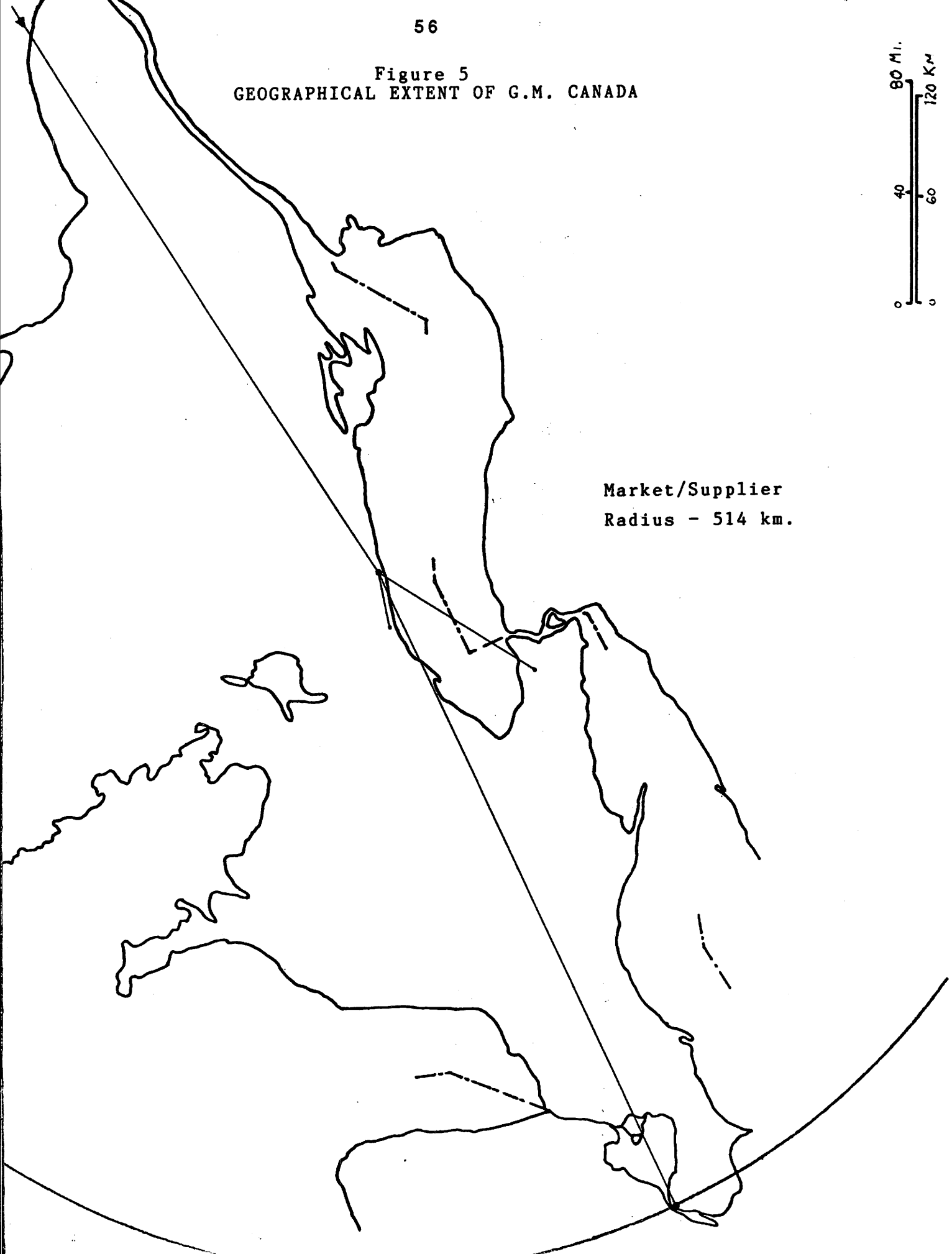
Figure 4

**Production of Replacement Tires for Passenger Cars in  
Canada**



Source: Financial Post - January 25, 1988, pg 10.

Figure 5  
GEOGRAPHICAL EXTENT OF G.M. CANADA



Market/Supplier  
Radius - 514 km.



## GEOGRAPHICAL EXTENT OF FORD OF CANADA

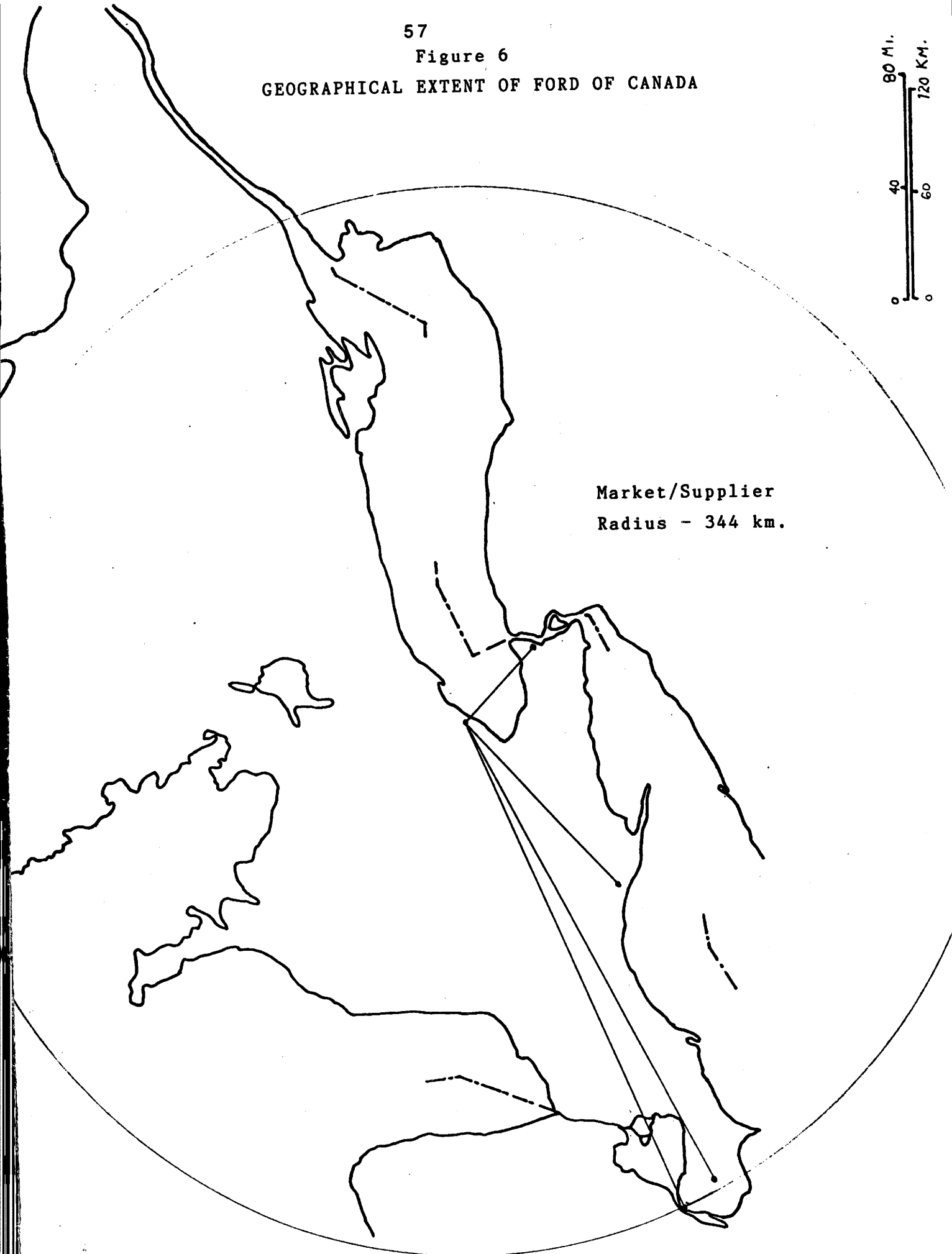
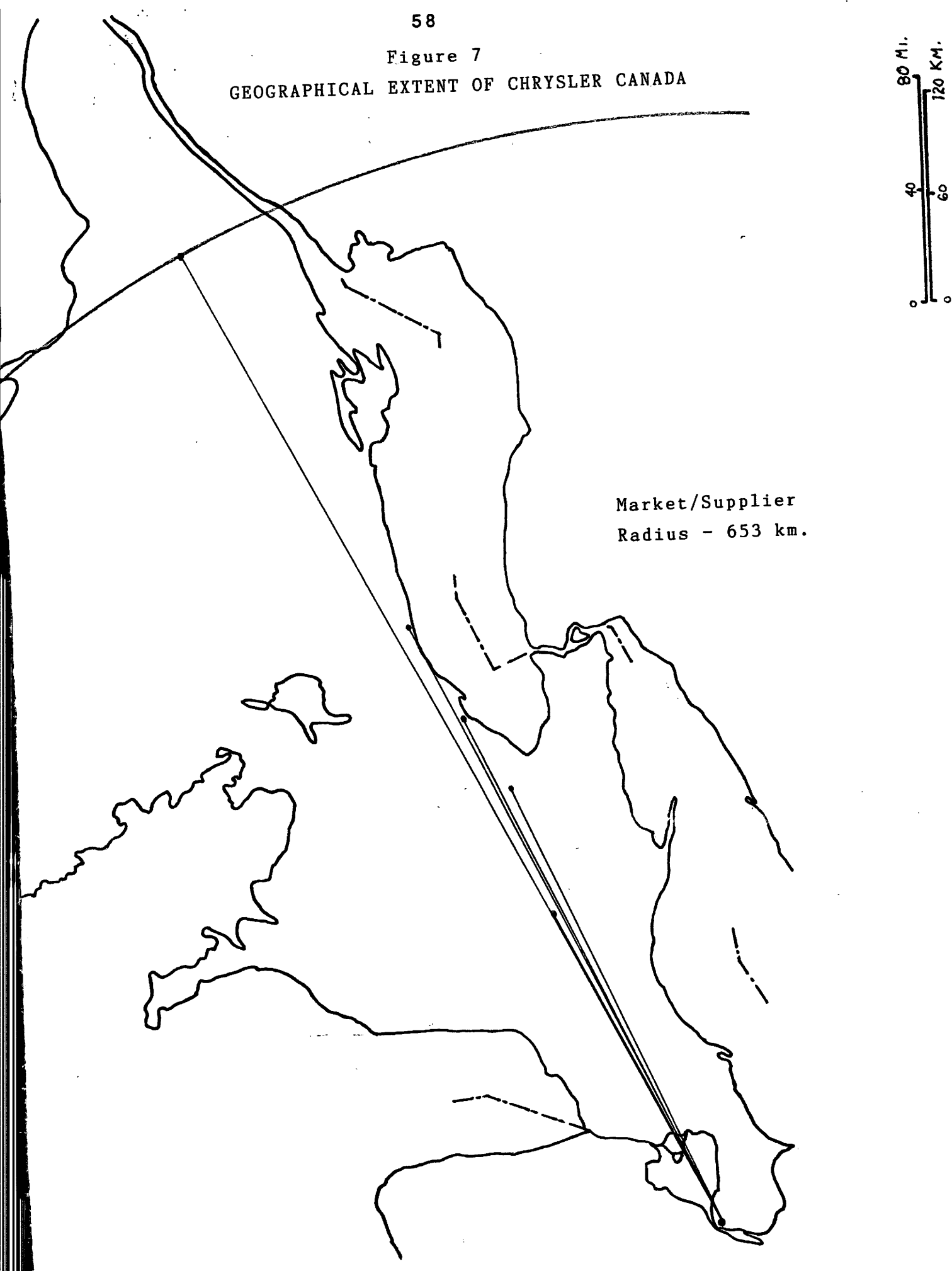




Figure 7

## GEOGRAPHICAL EXTENT OF CHRYSLER CANADA



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