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Capital expenditure budgeting & organisational change

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CAPITAL EXPENDITURE BUDGETING
& ORGANISATIONAL CHANGE

A thesis submitted in partial fulfilment of the
requirements of the degree of

MASTER OF COMMERCE (HONOURS)

from

THE UNIVERSITY OF WOLLONGONG

by

MARY M. GREENWELL (B.Bus)



Department of Accountancy & Legal Studies

1987

DEDICATION

*to my mother
and
to the memory of my father*

SYNOPSIS

It was argued in a previous study (Greenwell 1983a and 1983b) that capital expenditure budgeting should be studied within its environmental contexts. In this study, capital expenditure budgeting was studied in the specific setting of the Australian footwear manufacturing industry. This industry was chosen because its environment, which included one of the highest levels of protection in Australia, underwent a significant but orderly change in 1982. This current study addressed the nature of protection and outlined its history in the industry. This was followed by an argument regarding the creation of a particular corporate culture: learned helplessness. A hypothesis, that changes in capital investment were associated with changes in protection, was accepted for the period 1968/69 to 1981/82. However it was argued that the introduction of the seven year plan in 1982 would alter this relationship between capital investment and protection. It was hypothesized that the introduction of the seven year plan would stimulate organisational change, the organisational change would include a change in capital expenditure budgeting and capital investment, and that a change in the corporate culture would be an intervening variable. These hypotheses were accepted for four out of five firms on the basis of case studies undertaken in 1984. In 1986, the remaining footwear manufacturing firms were surveyed to ascertain actions taken in response to the seven year plan. The most frequent and "most important" action undertaken was capital investment in new production technology. It was argued that this action and others which did not necessarily involve capital investment, would have been a result of a change in corporate culture.

CERTIFICATE

I hereby certify that this work has not been submitted for a degree to any other institution.



Mary M Greenwell
April 1987

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CHAPTER ONE

INTRODUCTION

The objective of this chapter is to state the purpose of the research, define key terms, outline a justification for the study, acknowledge the limitations, identify the structure of the thesis, and to state three primary research questions.

PURPOSE:

The purpose of this research was to identify the nature and extent of organisational change following the systematic reduction in protection from tariffs and quotas in the Australian footwear manufacturing industry. Organisational culture and capital expenditure budgeting were two manifestations of organisational change examined.

DEFINITION OF KEY TERMS:

Nicholls [1980, p.63] suggested that the organisational culture was the value system of the organisation as reflected in the "... habits, customs, myths, and taboos that make up the folklore of the firm". The culture provides coherence and a sense of purpose to the organisation. [See also Mitroff & Kilman, 1977 and Deal & Kennedy, 1982]. The values which the culture places on change will either facilitate or restrain the adaptation of the organisation to changing external environments. Baker [1980, p.10] described a supportive culture as follows:

Good cultures are characterized by norms and values supportive of excellence, team-work, profitability, honesty, customer service innovation, pride in one's work, and commitment to the organisation. Most of all they are supportive of adaptability...

The major decision makers in the firm will both influence and be influenced by the culture of the organisation. A significant discrepancy between the values of a major decision maker and those of an organisation, could not be sustained without leading to severe disharmony [Deal & Kennedy, 1982, p.36]. This study will concentrate on the organisational culture as reflected in the value system of a significant decision-maker in each firm.

The concept of capital expenditure utilised is an extension of the concept of capital investment as proposed by Nicholls [1980, p.63]:

...[capital investment] involves committing the firm's resources to a substantial expenditure on a set of projects which will it is hoped be of net benefit to the firm in the future.

Capital expenditure budgeting relates to the total organisational process from the generation of the idea for a proposal through to post-implementation review, whereas capital investment is restricted to the actual commitment of the resources. While there are many definitions of capital expenditure budgeting [see Greenwell, 1983a] the above concept was preferred because of its comprehensive nature. It includes payments to consultants to redesign work flows, overseas trips to identify new processes of production as well as investment in fixed assets such as buildings, plant and equipment. Thus capital expenditure budgeting can be defined as an organisational process, starting with the generation of the idea for a proposal for a commitment of substantial expenditure on a project which is expected to generate future benefits to the firm, through to post-implementation review.

Organisational change is self-explanatory in a broad sense. Obviously organisational change can occur in many forms and be studied from a variety of dimensions, e.g. economic, sociological, psychological or political. The particular aspects addressed here are organisational changes that improve the efficient and effective use of the firm's resources. The economic dimension is adopted and is supplemented with organisational-behaviour aspects.

JUSTIFICATION FOR THE STUDY:

The study can be justified on several grounds:

1. the case studies undertaken provided rich insights into the complexity of actual capital expenditure budgeting. This will add to the existing body of knowledge relating to capital expenditure budgeting, and supported the conclusion drawn in a previous study [see Greenwell 1983 (a) and (b)] that capital expenditure budgeting should be studied in its environmental context;
2. the capital investment modelling undertaken identified significant variables in relation to capital investment in the footwear manufacturing industry. This will add to the existing body of knowledge of investment modelling;
3. the survey undertaken provided unique, up-to-date information regarding footwear manufacturers' reactions to the current seven year protection plan;
4. the study will contribute to the existing body of knowledge relating to protection and to policy making by government, particularly in relation to protection and its relationship with capital investment. Both the Industries Assistance Commission [IAC] and the Bureau of Industry Economics [BIE] have expressed an interest in the study and its outcomes. The selection of the footwear industry was influenced not only by the fact that it was one of the most highly protected industries in Australia [IAC, 1981a, p.7] but also because it was subjected to a readily identifiable reduction in the level of protection in 1982.

LIMITATIONS OF THE STUDY:

The time period chosen for examination was determined by the availability of data. Secondary data for Australian manufacturing industries were collected, collated and reported in a uniform way only

from the 1968/1969 financial year. These were used in the study.

The following three issues were outside the limits of this study:

1. the introduction of equal wages for females in the 1970s would probably have had an impact on the footwear industry because of the number of females employed;
2. the replacement of individual industry wage cases with the National wage case system may have had an impact on the footwear industry;
3. fluctuations in the exchange rate would probably have had an impact on the footwear industry, particularly in latter years.

STRUCTURE OF THE THESIS:

Chapter Two reviews capital expenditure budgeting research. It also presents an argument that the creation of a particular organisational culture, i.e. learned helplessness, was a result of consistently high levels of protection accorded the footwear industry. The argument was based on a brief outline of the history of protection in the industry, as well as the identification of problems in footwear industries overseas. It was postulated that learned helplessness promoted an overall lack of interest in efficient and effective use of resources, including capital investment in new technology.

Chapter Three addresses the first stage of the empirical research in the study. Variables were analysed in an attempt to model capital investment in the footwear industry. Protection was operationally defined as the nominal rate of assistance. It was identified as an important variable in the change of capital investment in the footwear manufacturing industry. As well as identifying a historical relationship between capital investment and protection, the results provided a foundation for the second stage of the empirical research.

Chapter Four addresses the second empirical stage which involved case studies of five footwear manufacturers. In-depth face-to-face interviews were conducted late in 1984. A central question addressed in these interviews was the change in the emphasis in capital investment decision-making as a result of the introduction of the current seven year plan; a plan, introduced in 1982, to gradually but substantially reduce protection. The objective was disguised by requesting interviewees to describe the total capital expenditure budgeting process most recently undertaken and then to similarly describe a decision taken five years previously, i.e. before the announcement of the seven year plan. From the descriptions of the two decisions, the change in corporate culture was identified.

Chapter Five outlines stage three of the empirical research. Information gained in the case studies, described in Chapter Four, was used to create the core of a questionnaire. Subsequent to pilot testing, the questionnaire was distributed by mail to the footwear manufacturers in Australia, accessible through the yellow pages of all the telephone books. Respondents were requested to identify actions undertaken since 1981, both in response to anticipated or actual increase in competition from imports, and for other reasons. The response rate was quite satisfactory: 37% of the number of manufacturing firms in the industry, and 85% of the number of employees. By far the most common and "most important" action undertaken, in response to anticipated or actual increase in competition from imports, was investment in new production technology. A total of 180 actions were obviously undertaken, in

response to the seven year plan, to increase the efficiency and effectiveness of the operation of 58 firms.

Chapter Six, the concluding chapter, draws the three stages of the empirical research together. Stage one, the modelling of secondary data indicated that capital investment would probably be reduced following a reduction in protection. Information gained in the case studies indicated that the current seven year plan affected a change in corporate culture and consequently a change in the capital expenditure budgeting process. A generalisable sample of the industry identified the most frequent organisational change undertaken by surviving firms, in response to the current seven year plan, was investment in new production technology. The variety and extent of the actions undertaken provided evidence of increased interest in the efficient and effective use of resources.

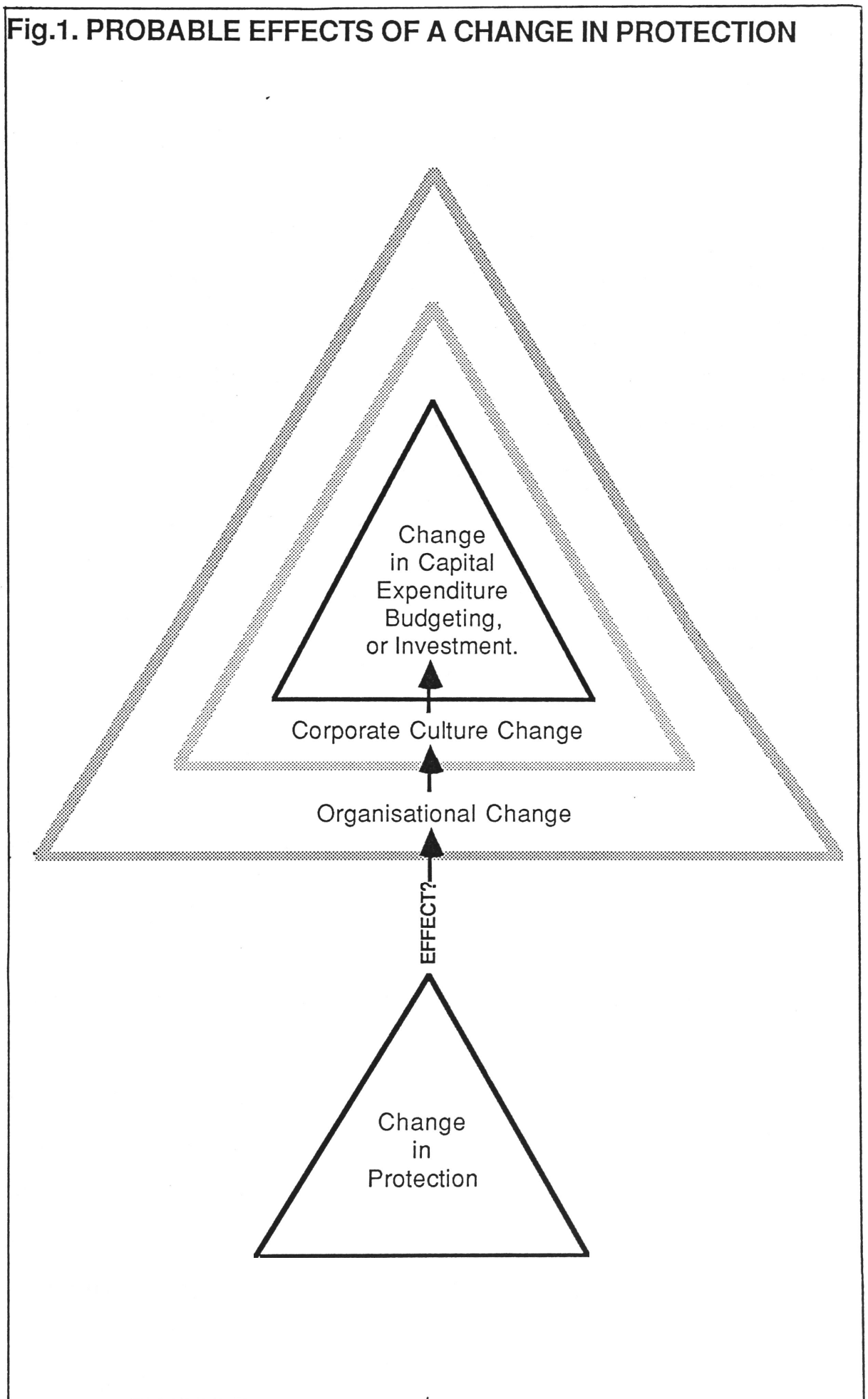
PRIMARY RESEARCH QUESTIONS:

The study addressed the following questions:

1. Did the change in protection stimulate organisational change?
2. If so, did the organisational change include a change in capital capital expenditure budgeting or capital investment?
3. If so, was a change in corporate culture an intervening variable?

The figure on the following page illustrates this series of questions.

Fig.1. PROBABLE EFFECTS OF A CHANGE IN PROTECTION



CHAPTER TWO

HISTORICAL PERSPECTIVES

One objective of this chapter is to review capital expenditure budgeting research, including a New Zealand paper which studied the effect of Government incentives on investment decisions. The second objective is to present an argument that a particular organisational culture, i.e. learned helplessness, was created as a result of the consistently high level of protection accorded the footwear industry. It is postulated that learned helplessness contributed toward an overall lack of interest in the efficient and effective use of resources, including capital investment in new technology. The argument is based on the nature of protection, reasons for its adoption and maintenance generally, and an outline of the history of protection in the footwear industry.

REVIEW OF CAPITAL EXPENDITURE BUDGETING LITERATURE:

A review of the literature in this area by Greenwell [1983a] will be referred to, as well as a study by Butcher, McDonald & O'Dea [1981, hereinafter referred to as Butcher et al.]. The dominant theme in the majority of the research was the use of various financial techniques, e.g. discounted cash flows, in the evaluation of capital expenditure proposals. [See Mao (1970), Klammer (1972), Fremgen (1973), Petty, Scott and Bird (1975), Schall, Sundem and Geijsbeck (1978), Rosenblatt (1980), McMahon (1981), Herbst (1982), Corr (1983), Clark, Hindelang & Pritchard (1984)].

Luck, Morgan, Farmer and Stringer [1971, hereinafter referred to as Luck et al.] undertook a more extensive study aimed at establishing a total organisational process of capital budgeting, from idea generation to post-installation review. However, a major limitation of the study from the perspective of this project, was that it did "... not stress the external links to the firm's environment". [Luck, et al. 1971, p.512]

Herbst [1982, p.341] in the concluding chapter of his book which concentrated on mathematical techniques, did recognise the limitations inherent in such an emphasis:

We may define contingency planning in capital budgeting as programming into capital investment analysis a degree of flexibility, based on responses to probable future difficulties affecting the investment if it is undertaken. Determination of what the future problems are likely to be does not altogether lend itself to rigorous quantitative treatment. Rather, it involves a combination of economic and social insights and analysis, along with a sense of political sentiment, and an ability to combine myriad seemingly heterogeneous facts and perceptions into an intuitive appreciation of the likely course of events and probable future developments.

This recognised need for flexibility was the extent of the non-quantitative aspects in that work.

In the Butcher et al. [1981] research paper published by the New Zealand Institute of Economic Research, there were some similarities with the present study, and a brief description of relevant aspects follows. Butcher et al. [1981, p.11.1] were researching business investment behaviour and were eliciting:

... data on firm characteristics and attitudes of importance to investment behaviour.

A questionnaire was administered (during a personal interview) to two groups of companies:

- 109 of the 118 largest firms in New Zealand;
- 32 of a sample of 50 companies, randomly selected from "other" companies. [page 11.1]

Thus a broad cross-section of industries was included. One of the questions related to the effect of government incentives on the firms' capital investment decisions. Butcher et al. [1981 p.1.2] reported that:

Respondents were evenly divided on whether Government incentives affected their investment decisions, a surprising lack of acknowledgement of incentives given the extent of Government's interventions in the market in New Zealand.

It should be noted that incentives in New Zealand covered a wide range including export incentives and regional investment allowances. The survey was not seeking to establish a relationship between a particular type of protection and investment. Given that however, 76% of respondent firms identified two major reasons for higher uncertainty compared with ten years earlier: "government-related and domestic-economy related" [page 11.7]. The increase in uncertainty was deemed to influence the firm, again with two major effects: "more cautious", "tighter commercial practices". This led to a conclusion that:

Any actions which would reduce uncertainty ... would probably increase investment. [p.1.1]

Thus the following policy recommendation was made for the attention of the Government:

Consideration should be given to reducing or removing risk, where possible, to encourage private investment ... [page 1.11]

Butcher et al. [1981, p.1.11] further suggested:

... the need for clear and consistent government policy without unnecessary change or prevarication.

With approximately 50% of the respondents indicating that government actions were directly related to uncertainty and that uncertainty had an impact on capital investment, it appeared that in New Zealand, at least, the reduction of uncertainty would promote investment.

Two previous papers by the author [Greenwell, 1983a and 1983b] stressed the organisational processes of capital expenditure and its environmental contexts. It was from these papers that the current study arose, i.e. the selection of a specific part of the environment, protection, in order to study its influence on capital expenditure budgeting.

NATURE OF PROTECTION:

Protection refers to deliberate governmental actions designed to reduce the ability of foreign businesses to compete with local firms in the same industry. This protection, which is an artificially created barrier between an industry and a "free-trade" environment, can be created by restricting the flow of goods and services, by granting, directly or indirectly, economic subsidies to local firms, or by imposing a penalty on foreign competitors. The types of protection that successive governments have seen fit to provide to Australian industry are many and varied. Warhurst [1982, p.24] listed several different types of protection or assistance to industry.

The footwear industry in Australia is primarily protected by tariff/quotas and it is this particular type of assistance which is addressed in this study. When an industry is protected by quotas, the sale of locally produced articles is promoted. When an industry is protected by tariffs, the price of the imported product is increased. The tariff/quota combination can also result in the levying of very high rates of duty on imports in excess of the quota licence.

REASONS FOR PROTECTION:

Patterson [1968, p. 20] identified that the first tariff was applied by the Australian colonies in 1856. The "need for revenue was by far the greatest consideration" [Patterson, 1968, p.30]. The decline in funds as a result of the English commercial crises in 1866 created a deficiency in public funds, and led to the introduction of a new tariff in Queensland [Patterson, 1968, p.41]. At this time Victoria also used tariffs as a means of raising revenue. The government in Victoria over the next three decades continued to gradually increase tariffs, while during the same period the New South Wales government reduced them. Patterson [1968] argued that this was because of the greater land area of New South Wales as compared to Victoria. Thus the amount of revenue generated in New South Wales through Land Tax was significantly higher than that for Victoria. It is interesting to note that despite the general reductions in New South Wales, tariffs on boots and shoes were increased from a maximum of £2/5/- to £3 per dozen in 1893. This implied that the tariff on footwear was, or had become, a mechanism for providing protection from imports. In the following decades imports were restricted by import controls,

particularly during World War I and World War II and the subsequent depressions. For a review of these periods see the Bruce Committee Report [1929], Alford [1934], Reitsma [1960] and Moffatt [1970].

In the Tariff Board's Annual Report of 1966/67, the following comment was made on page 4:

... it is necessary to remember that the work of the Tariff Board had little effect on the development of Australian industries between the late 1930s and the early 1960s. There was a rigid control of imports during the war. This was followed by a world-wide shortage of goods for several years. As this shortage was overcome, quantitative controls were imposed on imports for balance of payments reasons. These controls, rather than the Tariff, largely determined what was imported during the 1950s.

A review of the Annual Reports of the Tariff Board in the 1960s indicated an increasing number of applications for protection. Employment issues and the development of new industries were frequently mentioned in these Reports.

Obviously either the maintenance of existing levels or an increase in protection for an industry would provide for employment. The development of new industries was encouraged by protection because it provided a sheltered environment to allow the new industries to move along the learning curve to a competitive position. Once this position was reached it would be possible to withdraw or reduce the level of protection. The protection of "infant industries" is the term used for this category. This protection for infant industries was meant to be "temporary".

The Tariff Board did have an overall objective of commitment to economic and efficient policy, although the terms were not defined. As Glezer [1982, p.24] stated:

Economic and efficient stamped government policy with apparent coherence and consistency, and provided an excellent political mechanism for avoiding a clearer public specification of what should be protected, for what purposes and in what way. By the early 1960s the formula operated as a rationalization for any tariff decision.

In the 1960s the Tariff Board focused on the individual characteristics of each industry rather than the net effect on the total community. If an industry was in operation, then it was seemingly regarded as an asset to the community and to be maintained at all cost. Kasper [1983, p.17] wrote:

Industries that were relatively inefficient and out of place in Australia could normally demonstrate the greatest need for a tariff and usually obtained it.

Evans [1972, p.33] suggested that the core of the Board's task:

... was to determine the level of protection rather than the desirability of industries.

This determination was made through the operation of a vague policy.

Evans [1972, p.34] contended that this policy was kept deliberately vague because it

... allowed for a flexibility in granting protection well suited to the needs of politicians wanting to use it as a political resource.

However the Tariff Board's 1966/67 Annual Report on page 5 identified an announcement by the Governor-General, which indicated some concern was being expressed:

... a complete review of tariff-making policy and machinery in their relationship to national economic policy will be put in hand.

Apparently movement on the issue was slow because the 1971/72 Annual Report [p. 9] indicated that:

It is expected that the review will be completed by the end of 1978 ...

While the review was being delayed, some progress was evident in the Annual Reports, of attempts to publicize the extent of the tariffs. In the 1967/68 Report, page 19, there were tables of a "Preliminary Ranking of Products According to Height of Tariff Protection". There were seven groups from group 1, being products on which 10 percent or less ad valorem duty was levied, to group 7, being products on which 60 percent or more ad valorem duty was levied. The tabling of this information allowed the extent of the tariffs to become public knowledge. This was the start of attempts to provide more information to the public about the tariffs. In the next year 1968/69, a measure of protection, the nominal rate of assistance, was introduced.

This more detailed information was followed by calls for lower tariffs. As Gregory [1984, p.1] noted:

Over the last decade and a half successive governments have announced an intention to move towards lower tariffs ...

Thus it could be suggested that the provision of information about the cost of protection may have influenced the level of protection.

Another impact on protection can be ascertained from the decision by the Whitlam Government to reduce tariffs by a 25% "across the board" cut in 1973. According to Rattigan [1986, p.163]:

... the Australian economy was buoyant, industry was working at near full capacity, unemployment was falling, ... and retailers were reporting shortages of a wide range of goods.

The risk of a rapid increase in inflation was seen as being able to be restrained by a further revaluation (closely following the December

1972 revaluation) or by reducing the tariff level. So another factor affecting the level of protection, i.e. inflation control, can be included.

This reduction in the tariff led, within only a couple of years, to another factor, the assistance of "troubled industries". (The footwear industry was one of these "troubled" industries.) As Gregory [1984] indicated, the tariff reduction resulted in a flood of imports followed by a reaction: the imposition of import quotas. He wrote on page 13:

... import quotas were introduced to protect the factors of production used in the troubled industries against adverse market trends ...

During this time there was a change in the administration of protection in Australia. In 1974, the Industries Assistance Commission was created to take over the duties of the Tariff Board. With the changeover, the responsibility for the Commission was transferred from the Department of Secondary Industry, regarded as protectionist, to the Protection Policy Division of the Department of the Prime Minister and Cabinet, regarded as being less sympathetic to protection. [See Painter & Carey, 1979, for an exposé of inter-departmental conflicts and machinations.]

Attempts were made by the IAC to reduce protection, but the Commission was only an advisory body. Rattigan's recent book, "Industry Assistance: The Inside Story" published in 1986 provides an illuminating insight into the political nature of protection. Rattigan was Chairman of the Tariff Board from 1963 and was Chairman

of the IAC until his retirement in 1976. During these years he was at the core of these political conflicts.

In conclusion, Evans [1972, p.26] summarised supposed advantages of protection:

It developed skills in industries, created employment, produced a faster rate of population growth, developed national pride, produced a more balanced economy, reduced Australian reliance on foreign suppliers but attracted foreign investors, increased defence capability, allowed for higher wages and a higher standard of living, redistributed income to urban areas, reduced balance of payment problems and created a more varied and interesting society.

A panacea, indeed!

HISTORY OF PROTECTION IN THE FOOTWEAR INDUSTRY:

The first tariff imposed on the footwear industry was in 1864 in New South Wales [Patterson 1968, p.29]. In 1866 a similar tariff was imposed by Victoria and Queensland. Patterson [1968, p.41] pointed out, with respect to Queensland:

The Government was at pains to point out that their intention was not protection.

As noted in the previous section, the aim was revenue-raising. The implication drawn from the above was that protection was not popular. While the Government's intention may not have been protection, that was, in effect, the result of their policy.

Inspection of Patterson [1968] revealed changes in protection, in Victoria and New South Wales as set out below:

VICTORIA**Maximum Rates per Doz.****(Applied to Mens' No. 6 and upwards)****Boots & Shoes**

1866	6/-
1876	25/-
1879	33/-
1880	Nil
1889	45/-
1893	60/-

NEW SOUTH WALES**Boots & Shoes**

1864	6/- per cubic foot
1876	Nil
1893	10% duty per pair

In 1893, Boots and shoes were subject to tariffs at varying rates in all states. [See Patterson 1968, p.155 for details.]

After extensive discussion in Parliament, the Commonwealth Tariff Act was passed and the rate for boots was 20s and 15% duty per dozen [Parliamentary Debates, 1901-2, p.5730]. In 1912 tariffs were applicable on boots and shoes at a rate of 35% duty. [Parliamentary Debates, 1912, p.995.] At the time of the creation of the Tariff Board in 1921 the rate was 45%. Increases in the rate of duty applicable to imports of boots and shoes were made in 1929 and 1932; this increased the duties to 60% and 65% respectively. [Parliamentary Debates, 1934-37, p.1565.] A reduction in the rate to 52 1/2% was made in 1935 and the rate remained at this level until a review was instigated in 1953 [Parliamentary Debates, 1956, p.1595]. However, the rate was not changed after the review. A further review was undertaken in the early 1960s. The results of this review were disclosed by the Tariff Board in its 1966/67 report [p.41]. The rate was reduced to 45%.

The following table identifies the nominal rate of assistance to the footwear industry from its earliest calculation i.e. 1968/69, to 1981/82. (1981/82 was the latest measure reported for the footwear industry, using a consistent measure. Although the plan commenced on 1 January 1982, the inclusion of the 1981/82 year was made so as not to exclude July-December 1981).

TABLE 1

NOMINAL RATE OF ASSISTANCE - FOOTWEAR INDUSTRY

1968/69	a)	51
69/70		53
71		46
72		38
73		43
74	b)	30
75		49
76		51
77		55
78	c)	60
79		60
80		56
81		63
82		88

(a) assistance estimates between 1968-69 and 1972-73 are based on 1971-72 production weights,

(b) assistance estimates between 1973-74 and 1976-77 are based on 1974-75 production weights,

(c) assistance estimates between 1977-79 and 1981-82 are based on 1977-78 production weights.

Source: IAC Annual Reports - Various Years Plus Private Correspondence from IAC

Some of the movements in these figures can be explained. The "across-the-board" cut in Australian tariffs in 1973 was followed in 1974/75 by the introduction of quotas. Gregory [1984, p.1] noted:

... the introduction of import quotas in response to the 1974/75 recession, has resulted in large increases in protection for the footwear industry.

What happened to trigger this change? Sant [1981, p.285] wrote:

There is very little about resource allocation that does not have political salience.

Pressure, applied by lobbyists on behalf of the industry, using employment as the key issue, was successful, at least from the industry point of view.

The stated rationale for the introduction of import quotas in 1974-75 - that they would provide a breathing space behind which industries could adjust so that they could face international competition on a more equal footing - has clearly been at odds with the subsequent experience. [Gregory 1984, p.17]

These temporary import quotas, like protection for infant industries, had a tendency to remain. There was almost a repeat performance of this political activity in 1979 when Prime Minister Fraser ignored the IAC recommendations to reduce protection in the footwear industry. This led to an

... indication for business analysts and lobbyists to assure manufacturers that there was money to be made if pressure was applied. [Evans 1972, p.140]

justifying an outlay of up to \$20,000 to prepare an IAC submission [Warhurst, 1982, p.130]. It could be argued that capital investment was in lobbying rather than updated equipment.

The industry had ample evidence, both in 1974 and in 1979, that the benefits would most probably outweigh the costs. Evans [1972, p.151] observed:

The ... footwear industry had long ago learnt the art of threatening jobs. During the [early] 1970s it had studied the art of losing confidence.

In continuing, he suggested:

The political machinery ... always had the potential for being the predominant source of their profitability and their uncertainty. [page 151]

The protected industries have maintained a dirigiste philosophy but have kept a firm hold on their wish to influence by their right to lobby. As Kasper [1983, p.36] acknowledged:

... the owners and employees of an obsolete footwear factory form a concentrated and visible lobby whereas all those many young unemployed who are kept out of a job that is not created because resources are tied down in shoe making, and the buyers of overpriced shoes are not organised and may not even clearly realize the tariff burden that they have to bear.

In spite of political difficulties, the IAC continued to recommend a reduction of footwear industry protection. Their efforts finally had an impact when on the 15 August 1980 the Government announced the introduction of a seven year planned reduction in protection for the textiles, clothing and footwear industries. The plan was to commence on 1 January 1982 giving sixteen months notice. The sixteen months notice was important to allow footwear firms to undertake a planned programme of adjustment to the new environment. Any significant changes in operations would normally require at least that period to investigate alternatives, obtain new equipment, if appropriate, and to implement the new machinery or methods. The Government's plan was to systematically and gradually reduce assistance. The intention was to allow importers to increase their share of the total market by one percent each year. Thus manufacturers were put on notice that protection was going to be reduced. As the Department of Trade and Resources (then the department with responsibility for the IAC) wrote:

Under its provisions, quota levels will be increased on a gradual basis to provide improved market opportunities for Australia's trading partners while providing a reasonably predictable environment in which Australian manufacturers and importers can plan their investment and marketing decisions with greater confidence. [1982, p. 1]

Further the Department expected that the new programme should

... encourage further improvements in the efficiency of the industries, reductions in costs and responsiveness to changing consumer needs. [1982, p.1]

Thus the seven year plan would eliminate the uncertainty of major shifts in protection policy during the seven years. The time span was intended to be sufficient to allow the recovery of the costs of major changes in operations before the next review of protection.

In utilising a phased approach the Government appeared to have drawn on overseas experiences. Kasper [1983, p.36] wrote in reference to liberalisation policies in Europe and North America in the 1950s:

It is no small coincidence that all successful tariff-cutting exercises have been pre-announced and gradual.

Glezer [1982, p.12] also recognised the political prudence of slow change:

Gradual reductions were ... economically sensible and politically safer.

It is suggested that decision-makers in the industry would react to the plan as a trigger mechanism, and gradually create a change in the corporate culture. This change in the corporate culture, arising out of the government's perceived commitment to lower protection, i.e. seven years of gradual reduction of protection, as well as its concomitant reduction of uncertainty, would stimulate interest in the efficient and effective use of resources, including capital investment in new production technology. (The objective of stage two of this

research, case studies of five manufacturers, was to test the above postulated reaction.)

The next stage in the history of protection, as it applies to the footwear industry, is the post-1988 situation. This is at the end of the current seven-year plan. The IAC advised Senator Button, Minister for Industry, Technology & Commerce, of three options for the reduction of protection levels to either 25, 50 or 75 percent effective rate of assistance. (A brief discussion of the two measures, nominal and effective rates of assistance is included in the following chapter.) Its recommendation was to eliminate quotas and to lower protection to 50 percent.

The following selection of newspaper reports between October and December 1986 again highlighted the political nature of changes to protection. Potential job losses was a major thrust in the textiles, clothing and footwear manufacturers' campaign to maintain the level of protection. The negative attitudes of the industry and the failure to propose constructive strategic responses to further reduction in protection brought about criticism from Senator Button [Australian Financial Review, 16 October 1986, p.7]. Following the exposure to the industry, the options were presented to cabinet for consideration. As noted in the Australian Financial Review [20 October 1986, p.4]:

... the Textile, Clothing and Footwear decision ... is highly politically sensitive for the Federal Government.

Further,

Many of the industries' ... employees work in marginal seats and Labor backbenchers have been running a campaign in support of the industries and unions ...

Compare this with the comment in the same article that the

... departments of the Prime Minister and Cabinet, Treasury and Finance see even the IAC option of a 50 percent top rate as generous and believe tariffs should be cut even further to make the industries efficient.

The headlines in the Australian Financial Review of the following day told the story of the political conflict: "Factions' 'No' to Button on TCF" [page 1]. The publicity on the following few days revolved around varying figures of estimated job losses: IAC - 19000, National Institute of Economic & Industry Research - 30000, TCF Industries and Unions - 60000 [Australian Financial Review, 22 October 1986, p.7].

Labor Senators Gietzelt and Childs in a letter to the Editor, [Australian Financial Review, 4 November, 1986, p.14] stated that

Cutting protection eliminates inefficiency - it does nothing to stimulate new investment.

The empirical research outlined later in this study refutes this statement.

The final decision on the post-1988 level of protection was delayed and again the headlines in the Australian Financial Review [27 November 1986, p.2] told the story:

Cabinet fails to agree on Button's TCF plan.

The retailers had their say in a letter to the Editor [Australian Financial Review, President, National Footwear Retailers Association, 13 November 1986, p.15]:

The arguments from unions and manufacturers are not arguments for protection; they are a confidence trick aimed at featherbedding the shoe trade. The people who will pay are the consumers - and the glib and cynical arguments from some unions and manufacturers can only be called a conspiracy against them.

The plan, as accepted finally, involved:

... cuts in protection for the most heavily protected sectors, a "safety net" which would be triggered if local production dropped below certain levels, and compensatory mechanisms to help companies become world-competitive. Retraining and economic development schemes would cushion the effects of job losses in regional areas. [Australian Financial Review, 11 December 1986, p.6]

The major point to be drawn from this section is that the footwear industry has had a history of high protection despite systematic reductions in all tariffs. The first section identified a range of reasons for, or benefits of, protection from a macro viewpoint. It is also suggested that the primary concern of the footwear industry was to maintain adequate levels of profitability. They appear to have been successful as Gregory [1984, p.16] noted:

...[The footwear industry] has remained remarkably profitable behind the protection offered.

CONSEQUENCES OF PROTECTION IN THE FOOTWEAR INDUSTRY:

The consequences of protection can be discussed from a variety of viewpoints. It can be discussed in terms of the economy as a whole, in terms of consumers, or in terms of regional development (particularly where the major industries in the region are protected). It can also be discussed in terms of the creation of a particular organisational culture in the individual firms of a protected industry. In this study it is intended to concentrate on the creation of a particular organisational culture in individual firms of the footwear industry. This is not meant to imply that the other consequences are of no importance. (The IAC [1980b, p.33] estimated that the impact of tariffs in the footwear industry on consumers was the same as imposing taxes of \$M62 in 1972, \$M102 in 1975, and \$M165 in 1978).

Cairns [1971, p.8] suggested that a protectionist ideology existed in Australia; he used ideology:

... to mean a manner of thinking by an individual or class based on assumptions that are not questioned. An ideology can be a powerful factor in achievement or progress but there is a tendency for it to live on until it becomes a handicap.
[emphasis added]

Cairns was not alone in his emphasis of the negative effect. Sant [1981] wrote on page 293:

The problem is that it [protection] does nothing to improve the structure of the industry: instead of giving infant industries a chance to stand independently it has become a permanent crutch.
[emphasis added]

Evans [1972, p.7] wrote:

The most highly protected industries in Australia tend to be 'permanent' infant industries, i.e. industries for which protection was originally justified on the grounds that they would outgrow the need for protection, but which show no tendency to do so.

Similarly, the IAC [1977a, p.3] noted:

... the expectation was generated that assistance from the government was a natural and permanent element of the business environment: that it would be provided if requested, and would if necessary be maintained indefinitely. In short, industries were encouraged to expect insulation from changes in their economic environment, rather than to recognise the necessity for adjustments to these changes.

It will be recalled that Cairns [1971] and Sant [1981] used the words "handicap" and "a permanent crutch". It is postulated that the analogy can be extended to show that a particular corporate culture was created which impeded the efficient and effective use of a firm's resources. The term 'learned helplessness', borrowed from psychology [Seligman, 1975, p.1], is used to describe this particular culture. While not implying that organisations are living organisms, the analogy is deemed to hold true because it relates to attitudes held by significant decision-makers.

When a person views a personal situation with dismay and a fear of not being able to cope, sometimes the response is a cry for help. This cry for help may be rewarded with assistance which could be generated from family or external welfare organisations. When the assistance is granted the anxiety is lowered. If the occurrence is repeated often, the person who is externally rewarded for being helpless, learns a pattern of coping, i.e. to cry for help. Thus the person may get locked into this pattern of behaviour and with help readily available, may never have to look to his or her own resources.

Similarly, it is contended that protection, i.e. the government's response to the cry for help by industry, created a pattern of learned helplessness. This promoted an environment where organisations were not required to be self critical. Thus outmoded work practices and dated technologies remained, because there was no recognised need to change.

Without identifying the postulated corporate culture as an intervening variable, Kasper [1983, p.23] noted:

The demonstrable effects of protection have been to keep obsolescent equipment and methods of production.

It must be noted however that the presence of obsolescent equipment is not necessarily a negative result of protection. If new technology is only cost efficient with large production runs, it may be good economic decision-making to retain the older functional equipment. Of course if the old equipment determines the type of shoe able to be produced and consumer tastes change, protection may lead to a lack of responsiveness to consumer demands by manufacturers.

It will be recalled, from page 31, that the footwear industry was regarded as being "remarkably profitable". Obviously, if significant decision-makers in firms regarded profits as adequate, there was no incentive to change either production work flows or methods of production. Gregory [1984, p.16] noted that the rate of capital investment in the industry was below that of manufacturing as a whole. Again, if the manufacturers depended on successive governments to come to their aid with protection, and the evidence supports this, there was little incentive to invest.

Thus it is postulated that this learned helplessness was a major factor in understanding the attitudes of decision-makers in the footwear industry. The IAC [1980a, p.12] suggested that protection was perceived by the recipients as an asset. However a question that could be asked is, was the asset current or long term? This raises one disadvantage of learned helplessness, uncertainty. It is contended that learned helplessness gave rise to concomitant feelings of uncertainty as to the reliability of protection as a long term asset. As Glezer [1982, p.33] wrote:

... (it) caused considerable uncertainty, particularly among smaller manufacturers, about the permanence of their protected market.

Similarly, Cairns [1971, p.15] wrote:

... there have been ... persistent claims from manufacturers that industry has long been left in uncertainty about tariff protection.

The uncertainty, up to the introduction of the current seven year plan, related to the year-to-year protection levels.

A further aspect relating to protection is that, when an industry was protected, the protection or shelter applied to all the firms in the industry. As Glezer [1982, p.222] wrote:

A tariff was available to all producers therefore it was a collective good.

This was the case whether the individual firms were operating with competent managerial expertise or not. Although the industry was composed of a group of individual firms, it is naive to assume that there was homogeneity within the group with respect to competent management. Competent management could be described as management that was efficient and effective in all areas. The emphasis in this study however, is on the efficient and effective management of resources as reflected in the financial results. If there existed firms in a protected industry that were managerially inefficient, the protection acted as a buffer. As noted previously, firms were insulated from changes in the environment. It is contended that a pattern of expectation was created by protection. The expectation albeit tempered with uncertainty was, that once having convinced a government that protection was necessary, that successive governments would maintain the status quo. With the extant protection, the firms appeared to be "protected from competition". This may mean that where inefficient management was present, there was little incentive to change to more efficient practices. This, in turn, assumes that there was awareness on the part of management, that inefficient practices did exist. It may be that this awareness was not present. Certainly there was little incentive to change.

If the views of the retail industry were to be believed, the industry generally was inefficient, expensive and provided poor service prior

to the announcement of the seven year plan. [See Chapter Four for details of discussions with representatives of two major retailers.]

Further evidence supporting the concept of learned helplessness in the footwear industry is derived from research (outlined in the following section) on the value systems of small business owners, and the problems inherent in family businesses. It is postulated that these internal pressures exacerbated the consequence of protection on management i.e. learned helplessness. The quality of management is addressed in the work of Boon [1981] and Szenberg, Lombardi and Lee [1977 hereinafter referred to as Szenberg et al.]. Boon [1981, p.84], in discussing the Mexican footwear industry, noted that:

... the process of transforming an artisan and small scale production mentality into a modern efficient production organisation is taking place.

This "artisan ... mentality" comment, along with the fact that many Australian footwear manufacturing firms are small [BIE 1983, p.14 and supported by stage three of this study] led the researcher to the study of small businesses by Stanworth & Curran [1973].

They identified three types of identities, with differing clusters of beliefs and values, in the evolution of small business firms:

artisan,
classical entrepreneur, and
manager.

An artisan was primarily concerned with:

... the satisfaction of turning out a 'good' product backed up by personal service to the customer. [Stanworth & Curran, 1973, p.98]

This was not to imply that artisans were not concerned with profits. They were, but with an aim for a satisfactory level of profits to maintain a reasonable standard of living. Their primary satisfaction was generated from their product, and choosing the people they were to work with.

The next stage in the maturation process was the classical entrepreneur stage. At this stage the primary satisfaction of the owner/manager was the generation of profits. They suggested that the final stage, termed manager, occurred when all facets of the business, i.e. production, marketing, distribution, financial and industrial relations were operating efficiently and effectively. At the same time there was external recognition of the firm as being managerially excellent.

It should not be implied that this maturation process was not without difficulties. Boon [1981, p.84] used the terms "... an artisan and small-scale production mentality ..." in reference to the footwear industry, and Stanworth & Curran [1973] referred to identities as clusters of beliefs and values. The process involved in the change of attitudes, beliefs or values is complex, difficult and can be slow. The change can be considered to have two elements:

1. recognising the need for change; and
2. changing with all its inherent difficulties.

It is suggested that these value systems influence the culture of the organisation. Casualties of this maturation process appear to be businesses conducted as family businesses. As Boon [1981, p.85] wrote with respect to the footwear industry in Mexico:

Most of these family producers are in the process of going out of business.

There is some evidence that a similar situation may exist in Australia. Some evidence is in the reduction in the number of firms, and the increased production of larger firms.

According to the BIE [1983, p.14] there were 404 establishments in 1969, and the latest figure is 185 [Hywood, Australian Financial Review, 27 October 1986, p.7]. At the same time the four largest firms produced 43% of production in 1973 which increased to more than 52% in 1978-79 [BIE, 1983, p.37]. The IAC suggested, privately to the researcher, that most small firms were family operated.

Boon [1981] suggested that the shortage of trained, experienced and effective administrative and marketing personnel was a hindrance in the maturation process. However there is extensive literature that suggests that family businesses have inherent problems which can lead to self-destruction. The potential for nepotism is strong and this creates problems, particularly where there is an absence of crucial qualifications on the part of the appointee. However the problem is more extensive. This is because other non-family potential management personnel recognise, that the top positions will go to family members. They may then become disenchanted and leave. This is only an example of one type of problem existing in family businesses; see Levinson [1971], Cohn and Lindberg [1974], Barnes and Hershon [1976] and Alcorn [1982] for a discussion of others including father/son problems, inappropriate delays in providing for management succession, sibling rivalry, the interference of family relationships with business relationships, and paternalistic attitudes to staff.

Unfortunately the extent of family operated businesses in the industry is difficult to determine. A trade association executive could only estimate "a lot". It would seem reasonable to suggest that of the many small firms operating in the industry, some are family concerns and thus subject to the above pressures.

Similar to Boon's [1981] identification of a shortage of excellent managers, Szenberg et al. [1977], in their study of the footwear manufacturing industry in the U.S. identified a major problem. They suggested, on page 40, that of all the factors affecting viability:

... the quality of management is the most decisive of these forces.

It was obvious that Szenberg et al. [1977] were referring to all facets of management.

Marketing and distribution were seen as major problems in the Spanish footwear industry. Boon (1981) noted that Spain overcame this difficulty in the 1950s by building an infrastructure of common facilities for export promotion and international exhibitions. By sharing the cost of the maintenance of these facilities, Spanish manufacturers have been able to more efficiently and effectively market their footwear.

The deficiencies in management were not restricted to Western economies either, as the following quotation from Pravda [1/9/86, p.2] showed:

It is difficult to explain why equipment in the light industry enterprises of the Central Asian republics, where there are surpluses of manpower, is operating on short shifts. Maybe one reason is poor organisation. In the shoe industry, moulding machines in Armenian and Kazakh plants only operate in single shifts. Second or third shift operation is still only being talked about, yet this measure alone would provide for the additional production of tens of millions of pairs of popular shoes. [emphasis added]

Thus it had been argued that the continued support for protection over a long period of time had given rise to a situation of learned helplessness. Protection was relied upon to provide a profitable environment and the traditional forces for creating a drive for improved marketing, improved service, improved production and generally, greater efficiency and effectiveness were subdued in that environment. If this is correct, then there is reason to expect that if the protection was gradually removed according to a well publicized long-term plan, then the artificial environment of learned helplessness would be destroyed. This would stimulate a more aggressive style of management with increased emphasis on effective marketing, efficient production and generally more effective and efficient management.

CHAPTER SUMMARY:

The major points drawn from this chapter are:

1. Capital expenditure budgeting literature that is relevant to this study is Luck et al. [1971], Butcher et al. [1981], Herbst [1982], and Greenwell [1983a, 1983b and 1984].
2. Luck et al. [1971] and Greenwell [1983a, 1983b & 1984] stressed the total organisational process of capital expenditure budgeting;
3. The Butcher et al. [1981] study indicated that New Zealand firms were evenly divided on the question of the influence of government incentives on capital investment decisions;

4. Further, the research indicated that a reduction in uncertainty, particularly that related to government, would probably increase investment;
5. Consistent government policy relating to incentives was deemed desirable, according to the Butcher et al. [1981] study;
6. Herbst [1982] recognised the necessity for economic, social and political insights into the capital expenditure budgeting process;
7. Australia's footwear industry has a history of protection;
8. On at least two occasions, i.e. 1974 and 1979, the government responded positively to lobbyists' calls for the maintenance of protection;
9. It was postulated that the combination of the above two points created a particular organisational culture, learned helplessness;
10. The seven year plan introduced in 1981 was designed to gradually reduce protection but substantially reduced previous uncertainty regarding the level of protection from year to year;
11. It was postulated that the seven year plan would trigger a change in the corporate culture and stimulate interest in increased efficient and effective use of resources;
12. The post-seven year plan measures announced late in 1986 continue the objectives of the current plan;
13. Quality of management was seen from both the point of view of Boon [1981] and Szenberg et al. [1977] to be a crucial factor in viability of footwear manufacturing firms;
14. The extent of the existence of small family businesses is unknown, although there is some suggestion of "a lot";
15. These firms are subject to internal pressures, as suggested by the literature on family businesses and it is postulated that these pressures exacerbate the consequences of protection, i.e. learned helplessness.

CHAPTER THREE
EMPIRICAL RESEARCH – STAGE ONE
INVESTMENT RELATIONSHIPS
1968/1969 TO 1981/82

The purpose of the research was to identify the nature and extent of organisational change following the systematic reduction in protection in the footwear industry. This change was to be studied from the perspectives of organisational culture and capital expenditure budgeting. The study can be separated into three distinct but related stages.

In Stage One industry statistics were collected and analysed to determine the relationship between capital investment and a selection of variables. Protection in the footwear industry was initially selected and later profitability, production output in the footwear industry and capital investment in all other manufacturing industries were included in the analysis. The aim of this stage of the research was to identify significant relationships prior to the impact on capital investment of the seven year planned programme of reduction in protection. Ideally the same statistics would have been used to analyse the "post-plan" industry relationships. However long lead times in publication of the data, as well as changes in the measurement and reporting of protection in the industry prevented this. The modelling was useful for establishing "pre-plan" industry relationships and secondly, for providing a suitable basis on which to conduct the next stage of the research.

In Stage Two case studies were undertaken through in-depth interviews with five manufacturers, who were regarded as industry leaders. The aim was to identify organisational change in both organisational culture and capital expenditure budgeting, as a result of the seven year plan. Because these firms' reactions were not necessarily representative of the industry's reactions, a decision was made to survey the industry. This survey, termed Stage Three of the study, forms the basis of Chapter Five.

Because of the relationship between the three stages, it was decided to report in separate chapters the methodology, results and discussion of the results. Thus this chapter reviews related research and addresses the methodology, results and discussion of results of Stage One: the collection of secondary data and the subsequent input into a capital investment model, with the results being used to direct the emphasis of Stage Two.

RELATED RESEARCH - INVESTMENT MODELS:

A review of investment models by Junankar [1972] is the basis of this section. He identified two types of accelerator model, naive and flexible, and wrote on page 29:

The naive accelerator assumes that there is a symmetrical reaction for increases and decreases of output. *A priori* we could argue that firms would respond differently if demand [as represented by output or sales] increased, than if it decreased.

The flexible accelerator model was more sophisticated and attempted to take into account two lags in the adjustment process. These lags have been identified as decision lags and delivery lags [Junankar 1972, p.33].

The decision lag might be purely due to the administrative reasons or, because of uncertainty, due to management being cautious. [Junankar 1972, p.62]

It was this type of process that was identified by Greenwell [1983(a) and 1984] whereby the accounting techniques for evaluation were preceded in the capital expenditure budgeting process by the recognition of need for change, the operation of a trigger and the generation of an investment proposal. Although Junankar [1972] did not explore this aspect, it is likely that the decision lag could be measured from the generation of the idea to the acceptance of the proposal to invest.

As the name implied, delivery lag was the time period between the decision to commit the resources and delivery of the capital item. As Junankar [1972, p.63] noted:

The delivery lag depends on supply conditions in the capital goods industry.

In his review Junankar [1972] referred to extensive literature in which either the cost of capital or, changes in output, were deemed to be the determinant of investment. He noted that some of the equations using profits as an independent variable "... have a fairly high explanatory power (high R^2)". [Junankar 1972, p.66]. He concluded,

Current opinion ... suggests that profits independently of output, are important in determining *short run* investment.
[page 67]

The variable profits seemed worthy of inclusion in investment modelling because several researchers, as identified by Junankar [1972], had found it to be significant.

Strong profitability, in the absence of foreseeable changes, may increase confidence in the future, as well as providing some part of the funds necessary for financing future capital investment. Strong profitability may encourage increased capital expenditure. This is not to imply that a contrary argument cannot be made. If manufacturers are able to maintain a sufficiently high level of profits, while protected, it may be that there is less incentive to invest for the purposes of improving efficiency and effectiveness.

In his conclusion, Junankar [1972] identified policy implications from his studies of investment models:

The implications for policy seem to be that changes in the rate of interest and other elements in the cost of capital (e.g. tax rates) would, after a long lag, lead to a change in investment, while changes in aggregate demand would be a quicker and more potent way of affecting investment. [page 69]

An implication drawn from Junankar's 1972 review was that the emphasis in investment modelling, was on establishing the single most important variable. He wrote:

... there are numerous variables vying for the place of the *crucial* determinant of investment. [page 65]

METHODOLOGY:

This section includes a discussion of the variables and concludes with the formulation of a hypothesis.

DISCUSSION OF THE VARIABLES:

DEPENDENT VARIABLE: Capital Investment in the Footwear Manufacturing Industry in Australia

The detail of this variable is given in the table on the following page.

There are several points to be made about this variable. As noted in the table the source is the ABS; thus capital investment is that identified as capital investment by the ABS. The table details investment in fixed tangible assets. The broader definition of Nicholls [1980, p.63] was preferred and would include expenditure such as the commissioning of consultants for the implementation of an organisational development programme or even a study of production processes. Thus capital investment, as included, is substantially narrower than the preferred concept.

The conversion of these figures from historical cost to constant dollar terms was considered. However it was not possible to similarly convert all other relevant variables in this way and it was decided to leave the variable unadjusted. This is not to imply that inflation was ignored. The inclusion of the fourth variable, capital investment in all other manufacturing industries, was considered to assist in accounting for inflation. Another limitation of these statistics was that no provision was made for uncapitalised leasing. Attempts to obtain relevant data from the major machinery supplier to the industry and from ABS statistics were unsuccessful, accordingly, unadjusted figures were used.

TABLE 2

CAPITAL INVESTMENT IN THE FOOTWEAR MANUFACTURING INDUSTRY IN AUSTRALIA

**NEW OUTLAY ON
FIXED TANGIBLE ASSETS**

**FIXED CAPITAL EXPENDITURE (OUTLAY) ON
FIXED TANGIBLE ASSETS LESS DISPOSALS)**

Year	Buildings & Other Structures	Motor Vehicles	Other Plant Machinery & Equipment	Total Outlay on New Fixed Tangible Assets	Land & Second-Hand Fixed Tangible Assets	Disposals of Fixed Tangible Assets	Land Buildings & Other Structures	Motor Vehicles	Other Plant Machinery & Equipment	TOTAL
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
68/69	541	314	2871	3726	486	773	515	212	2723	3450
70	801	431	3398	4630	663	802	665	246	3580	4491
71							a) Unavailable	-	estimated	3665
72	736	413	3007	4156	1253	2568	-60	319	2582	2841
73	1064	360	2415	3839	539	1137	931	232	2079	3241
74	897	(incls M/V)	2405	3302	391	1788	-120	(incls M/V)	2026	1905
75	190		2470	2660	285	789	216		1940	2156
76	170		2431	2601	570	683	502		1986	2488
77	27		2821	2848	266	382	722		2660	2732
78	183		2683	2866	466	893	-164		2603	2439
79	293		3682	3975	350	494	214		3617	3831
80	200		3497	3697	1944	869	1259		3513	4772
81	240		4917	5157	2083	2140	328		4772	5100
82	504		7233	7737	2245	1470	1486		7026	8512

Source: Manufacturing Establishments (A)
Fixed Capital Expenditure by Type of Asset & Transaction by Industry
Class, Australia, A.B.S. Various years. [rounding errors were corrected]

a) No census was undertaken

A final point to be noted about this variable was the difficulty in determining the nature of investment. Investment in equipment that used new technology had the same representation in the data as the purchase of replacement machinery of a similar technological level. Similarly, capacity expansion investment was impossible to determine. Thus capital investment has been operationally defined as capital investment as reported by ABS.

It is prudent at this point to echo a qualification made by Szenberg et al. [1977, p.1]. The orientation of the research was conditioned by the accessibility and the nature of relevant data. Limitations do exist with using secondary data, but this is not to imply that the data are of no use. It is contended that the information is useful in indicating historical relationships as well as providing indicators of the relevant areas for primary research.

INDEPENDENT VARIABLE: Protection (Nominal Rate of Assistance) in the Footwear Industry

The level of protection appeared to be important for several reasons.

A more positive climate could stimulate increased interest in the idea of capital investment leading to an increase in the generation of proposals. At the same time, a positive climate, from the point of view of a major decision-maker in a footwear manufacturing firm, could enhance the viability of proposals. This could occur because of the perception of positive cash flows or profitability. Obviously this argument is somewhat simplistic because it ignores the negative

consequences of sustained high levels of protection as outlined in Chapter Two, i.e. learned helplessness and uncertainty. But it was the view of the researcher that the probable impact on the climate was sufficient reason to include a protection variable.

Further, the work of Butcher et al. [1981] as discussed in Chapter Two, indicated that in New Zealand respondents were evenly divided on the effect of Government incentives on their investment decisions. Thus the Butcher et al. [1981] study provided further reason for the tentative inclusion of a protection variable.

There are two publically available measures of protection in the industry; the nominal rate and the effective rates of assistance. The measure used in this study was the nominal rate of assistance, [See Table I, p.25]. It was defined by the IAC [1970, p.22] as

The nominal rate of tariff protection for a product is taken as the ad valorem equivalent of the duty provided in the Customs Tariff ... The nominal rate for an industry is a weighted average of the nominal rates for the products made by the industry.

The effective rate was not used because the method of calculation was not consistent throughout the period of analysis [private correspondence with the IAC] and it was designed to make comparisons across industries at a point in time, and not across time [interview with an IAC officer]. Further the assumptions on which the calculations are based can be challenged [Norman, 1975]. Thus protection has been operationally defined as the nominal rate of assistance.

INDEPENDENT VARIABLE - Production Output in the Footwear Industry

Current sales of locally produced goods were likely to have had a direct and indirect influence on capital investment decisions. If a proposed capital investment related to existing products, current sales figures would have had an important influence on forecasts of future sales and hence, future cash inflows. If a proposed investment related to new products, the level of current sales could have influenced the optimism or pessimism in the proposal evaluation. Thus there were reasonable grounds for hypothesising that the level of investment was a function of the level of sales of local production.

Further, Butcher et al. [1981, pp.1.7] noted that in capital investment decision making:

About 50 per cent of firms said that "past sales" was the most important variable.

However, available sales statistics included both local and import sales. Because import statistics were on a cost basis, it was not possible to adjust the sales figures to accurately identify local sales. Accordingly, it was decided that production statistics were the best available surrogates for local sales.

TABLE 3
PRODUCTION OF AUSTRALIAN FOOTWEAR MANUFACTURERS

<u>Year</u>	<u>'000 pairs</u>
1968/69	42,235 (b)
70	43,131 (b)
71	(a) 41,516
72	39,900 (b)
73	36,808 (b)
74	37,277
75	28,765
76	30,393
77	26,943
78	28,453
79	30,656
80	32,030
81	35,289
82	32,475

Source: ABS - various years - revised figures

(a) unavailable - estimated by researcher

(b) calculated by researcher from the addition of individual classes.

As can be seen from the above table, gaps in the data set were filled either by estimation, the average between the previous and the following year or by calculation, by the aggregation of several classes, from early ABS data.

INDEPENDENT VARIABLE - Profitability in the Footwear Industry

Junankar [1972] reported that:

Most studies that include profits ... suggest that it is a statistically significant variable. [page 67]

However, profit data were not obtainable for the footwear industry, but return on investment (i.e. profitability) figures were available from IAC Annual Reports. Thus profitability was operationally defined as that measure of profitability as reported by the IAC.

These were readily used as an alternative to profit in this analysis because they were conceptually a better measure of the effectiveness and attractiveness of existing investments. The current effective use of capital may have been an incentive to consider further investment.

TABLE 4
PROFITABILITY IN THE AUSTRALIAN FOOTWEAR INDUSTRY

<u>Year</u>	a) <u>Profitability</u>
1968/69	14.6
70	12.2
71	15.8
72	12.5
73	17.4
74	12.3
75	10.7
76	18.0
77	17.4
78	19.2
79	22.4
80	18.1
81	22.1
82	13.1

(a) ratio of net profit to shareholders' funds - net profit, after tax and interest paid, and includes income from investments; shareholders' funds are paid-up capital and undistributed profits and reserves.

Source: IAC Annual Reports - Various Years

INDEPENDENT VARIABLE: Capital Investment - All Other Manufacturing Industries

The rationale for inclusion of capital investment in all other manufacturing firms was the observation that aspects of the total domestic economy were not being taken into account. Thus a decision was made to reflect the impact of the economic and political environment on capital investment by the inclusion of this variable.

The variable is in the same form as the dependent variable, i.e. it is in historical cost and bound by the same definitional limitations.

Data were collected from both public and private sources; collected, and collated in some instances, from Australian Bureau of Statistics [ABS], IAC and BIE publications, and privately from the IAC. The period covered was from 1968/69 to 1981/82, a total of 14 observations. This period related to the availability of consistent measures of the data.

FORMULATION OF HYPOTHESES:

The research hypothesis was formulated as follows:

H_1 No.1 Changes in capital investment in the footwear industry are associated with changes in protection.

This hypothesis was reformulated in the following series of null hypotheses:

H_0 No.1 The variation in the level of capital investment in the footwear industry as reported by the ABS is not correlated with changes in the protection level in the footwear industry as measured by the nominal rate of assistance;

H_0 No.2 The variation in the level of capital investment in the footwear industry as reported by the ABS is not correlated with production output in the footwear industry as reported by the ABS;

H_0 No.3 The variation in the level of capital investment in the footwear industry as reported by the ABS is not correlated with profitability in the footwear industry as reported by the IAC;

H_0 No.4 The variation in the level of capital investment in the footwear industry as reported by the ABS is not correlated with capital investment in all other manufacturing industry as reported by the ABS.

COMPUTER MODELLING RESULTS:

Using the variables as outlined previously, i.e. capital investment in the footwear industry and all other manufacturing industries, protection, i.e. nominal rate of assistance, profitability and production output for the footwear industry for the years 1968/69 to 1982/83 inclusive, several regressions were run using SPSS_x.

In this section, it is intended to identify the 'best fit' regression. However a discussion of the process by which this situation arose is included in Appendix I. The results of the stepwise regression analysis, and the results of the Pearson correlations are presented in the text in Tables 5 and 6 respectively.

<u>TABLE 5</u>					
<u>SUMMARY OF STEPWISE LINEAR REGRESSION</u>					
<u>CAPITAL INVESTMENT MODEL</u>					
<u>VARIABLE</u>		<u>STEP</u> (limit.05)	<u>ADJ</u> <u>R²</u>	(N=14) <u>BETA</u>	<u>Final</u> <u>Coefficient</u>
FOOTWEAR INDUSTRY:	NOMINAL RATE OF ASSISTANCE	1	.64	.99	124.39 (7.84)
	PRODUCTION	2	.18	.45	0.14 (3.61)
	PROFITABILITY	-	-	-	
ALL OTHER MANUFACTURING IND:	CAPITAL INVESTMENT	-	-	-	
	Cumulative R ²		<u>.82</u>		
	F Statistic = 31.3,				
	Durbin-Watson = 1.27				(t statistic in parenthesis)

TABLE 6
PEARSON CORRELATION MATRIX

<u>INDEPENDENT VARIABLES</u>	<u>FOOTWEAR INDUSTRY</u>			<u>ALL OTHER MANUFACTUR- ING INDUSTRY CAPITAL INVESTMENT</u>
	<u>NOMINAL RATE OF ASSISTANCE</u>	<u>PRODUC- TION</u>	<u>PROFIT- ABILITY</u>	
FOOTWEAR INDUSTRY:	NOMINAL RATE OF ASSISTANCE	1.0		
	PRODUCTION	-.37	1.0	
	PROFITABILITY	-.28	-.37	1.0
ALL OTHER MANUFACT- ING IND:	CAPITAL INVESTMENT	-.21	.57	-.35

DISCUSSION OF RESULTS:

The final F statistic was significant at .001 level of confidence and indicated that the equation was meaningful. In addition the adjusted R^2 indicated that the equation explained a high proportion of the variability in capital investment. The stepwise regression clearly demonstrated that the nominal rate of assistance provided the highest contribution to the variation in capital investment with production output being the only other significant variable. Therefore null hypotheses numbered one and two were rejected and hypotheses three and four were accepted at a 0.05 explanatory level.

The equation was examined for evidence of multicollinearity and auto-correlation. Inspection of the standard error was the initial step taken in testing for multicollinearity. This was quite large

relative to the co-efficient, thus reference was made to the Pearson correlation matrix.

The results indicated that, although the variables were not completely independent, the degree of correlation was minor. An exception was the intercorrelation of .57 between capital investment in all other manufacturing industries and production output in the footwear industry. Whilst a correlation of such a degree between two variables is important, it was noted that multicollinearity does not affect the significance of the equation but only the relative importance of the variables. Given the dominance of the nominal rate of assistance variable, the problem of multicollinearity was not seen as critical. This was verified by Koutsoyiannis [1977, p.237]:

If ... strategically crucial explanatory variables happen to be strongly intercorrelated, the seriousness of the problem is greater than in the case of secondary factors being multicollinear, because the latter may be dropped from the analysis without seriously impairing the results.

To examine auto-correlation the residuals were observed, following the inconclusive result of the Durbin-Watson statistic. An inspection of the scatter plot confirmed there were no outliers. (See Koutsoyiannis 1977, p.202). Auto-correlation did not appear to be a major problem.

Because of the association between capital investment and protection in the footwear industry, it would be expected that a reduction in protection would be accompanied by a reduction in capital investment. It could be argued that uncertainty, with respect to year to year changes in protection levels, may have played a role in the capital expenditure decision-making processes of footwear manufacturers.

However the introduction of the seven year plan, and the consequent reduction in protection, did provide a time span of some seven years and sixteen months notice, which substantially reduced the uncertainty regarding year-to-year protection levels and allowed time for planned organisational change. Thus the role of protection in capital investment decision making may have changed as a result of the seven year plan.

One way of establishing the existence and nature of the relationship between protection and capital investment before and after the introduction of the seven year plan is to ask the manufacturers. This leads to the next stage of the research.

CHAPTER SUMMARY:

The major points to arise from this chapter are:

1. The model indicated that there was a positive correlation between changes in capital investment and protection in the footwear manufacturing industry. Thus hypothesis No. 1 can be accepted.
2. The probable role of protection in capital investment decision making may have changed as a result of the introduction of the seven year plan.
3. A logical next step was to establish the actual capital investment decision-making processes of footwear manufacturers.

CHAPTER FOUR
EMPIRICAL RESEARCH – STAGE TWO
CASE STUDIES

The objective of this chapter is to present the case studies undertaken of five footwear manufacturers in 1984. The case studies were undertaken to establish their actual capital investment budgeting processes, before and after the introduction of the current seven year protection plan.

METHODOLOGY:

This section addresses the review of the relevant literature, the access to manufacturers, desired information, and the interview planning.

REVIEW OF DATA COLLECTION IN CAPITAL EXPENDITURE BUDGETING LITERATURE

The table on the following page details, in chronological order of publication, the type of studies conducted, sample size and response rate.

It was obvious that the particular type of information required was a factor to be considered in the choice of survey medium. With the exception of Luck et al. [1971] and Butcher et al. [1981], the surveys listed were aimed primarily at establishing the use of various techniques in the evaluation of capital expenditure proposals. Luck et al. [1971] aimed at establishing a total organisational process of capital budgeting, and Butcher et al. [1981, p.11] were researching business investment behaviour.

TABLE 7
SURVEY DETAILS - LITERATURE SEARCH

AUTHOR/S	DATE OF PUBLICATION	SURVEY MEDIA	SAMPLE SIZE	RESPONSE RATE
Mao	1970	Interview - full day discussion, no details of interviewees	8	No details
Luck et al.	1971	Initial case studies. Seminars with participants completing questionnaire then follow-up with some firms	3 28 No details	No details No details No details
Klammer	1972	Postal questionnaire, no details of addressee	369	50%
Fremgen	1973	Postal questionnaire, addressed to the financial executive	250	71%
Petty et al.	1975	Postal questionnaire addressed to the controller	500	22%
Schall et al.	1978	Postal questionnaire, addressed to a major financial executive	424	46.4%
Rosenblatt	1980	Interview, interviewees were from many levels - common element and reason for selection: familiarity with capital budgeting procedure within their firms; plus examination of annual reports, capital investment guidelines and other confidential materials	21	No details
Butcher et al.	1981	Interviews, interviewees, Chief Executive or Senior Financial Executive	168	134 usable interviews
McMahon	1981	Postal questionnaire	220	48.2%

Postal questionnaires were the media used by Klammer [1972], Fremgen [1973], Petty et al. [1975]. Schall et al. [1978] and McMahon [1981] to conduct their surveys. The use of postal questionnaires in order to elicit information is well known, and the advantages well recognised. The most critical advantage is the relatively small expense incurred, in gathering information from a geographically wide sample. Perhaps equally well recognised are the inherent problems in the use of this medium. For particular criticisms levelled at capital expenditure budgeting questionnaires, see Luck et al. [1971], Rappaport [1979] and Aggarwal[1980]. Rappaport [1979, p.102] in his criticism, noted that the person completing the questionnaire may have a different perspective from others in the organisation:

Discounting techniques may be 95% significant according to a recent MBA graduate filling out the questionnaire, while the president and board of directors may regard it as 95% significant only 10% of the time.

A particular difficulty in using the medium of postal questionnaires not considered in the capital expenditure budgeting literature, is the problem of postal questionnaires generally. Designing unambiguous, valid questions in order to elicit required, reliable information is difficult. The complexity of the capital expenditure budgeting process makes this design very difficult, unless the survey is aimed at only one aspect of the process. A further restriction is the necessary brevity of individual questions and the questionnaire in total. This is necessary to encourage responses; lengthy questionnaires would tend to engender a lack of interest in potential respondents. Response rates of the surveys in focus, which range from 22% to 71%, are listed in Table 7.

Face-to-face interviews are an alternative to the postal questionnaire. This medium was utilised by Mao [1970], by Rosenblatt [1980] along with an analysis of annual reports, capital investment guidelines and other confidential material, by Luck et al. [1971] as one of the media, and by Butcher [1981]. It is important to note however that interviews are not necessarily homogeneous. For example, there could be quite a difference between interviews where a questionnaire was administered by the interviewer and where the interview was free-ranging. A free-ranging interview can be very demanding of the researcher and requires time and skill to sift through the results of the interview to identify responses to questions.

The interview is more expensive in terms of time and money, and does not have some of the disadvantages of postal questionnaires. (See Oppenheim [1966, p.33] and Kerlinger [1979, p.309] for a discussion of postal questionnaires and interviews.) However, resultant findings are open to a charge of interviewer bias. This bias is particularly difficult to detect and requires much discipline and experience to control. Factors such as the type of question asked, for example closed or open-ended, and the language in which it is posed, can easily manipulate the respondent to provide the requisite answer. Non-verbal manipulation by the interviewer, such as mannerisms indicating impatience must be curtailed. For these reasons training in interview technique should be a pre-requisite to the use of face-to-face interviews in the case study approach. It should be noted that the researcher has been trained in interview techniques.

The problem of choosing the appropriate person to provide the requisite information is still present. However, immediate feedback is possible under these circumstances, and thus open to correction. For example, if the respondent implies or admits to inadequacy in providing the required information, the researcher can simply request the name of someone who could provide the information. This facility of immediate feedback is probably the most advantageous aspect of face-to-face interviewing. The consideration of these methods was careful and informed. The decision was made to use a questionnaire type format for a face-to-face interview at this stage of the study.

ACCESS TO MANUFACTURERS:

It was hoped that a trade association might provide membership lists, or at least be prepared to assist in obtaining access to the manufacturers.

An interview was arranged with an executive of a state division of a national association of footwear manufacturers. The interview was intended to be in the nature of an exploratory one, to gain insights into the industry - from an industry point of view - and also an attempt to generate co-operation and thus access to a list of manufacturers. The interview extended over three hours and was considered successful, although not exactly in the way sought. Extensive preparation was undertaken by the writer, including an in-depth knowledge gathered from researching literature on the local and overseas footwear industries.

Familiarity with such terms as clicking, i.e. cutting a pattern of uppers from material, certainly gave an impression of serious endeavour which was obviously appreciated by the interviewee Mr. Jones, (a pseudonym).

Points which arose were that a majority of manufacturing businesses were family-run and, with the exception of two public companies, were private companies. The executive expressed the opinion that, a) the manufacturers considered themselves craftsmen primarily and business people secondarily, and b) only a few have gradually changed to being business people primarily. The similarity between these points and points made previously about the Mexican industry, indicate the application of the theory of small business management. Certainly the artisan set of values as outlined in Chapter Two seemed likely to fit some of the manufacturers.

A suspicion that access would be difficult was confirmed by Mr. Jones. The majority of owners were seen to be very private people, not likely to accept intrusion from outsiders, and not likely to be interested in providing information to researchers. Mr. Jones provided evidence by divulging the difficulties encountered by the association in gaining responses from members to association surveys. Although many manufacturers were members, most were not interested in the input of data to the association.

However, half-way through the interview, Mr. Jones introduced a new line of conversation. He divulged that a small group of interested

manufacturers had grouped together and formed a Footwear Action Group. This small group of 26 manufacturers had overcome their previous lack of co-operation and sought to better their businesses by the regular exchange of ideas and information. One stated objective was to compile and exchange aggregate data on items such as employment, wages, production, sales, deliveries, forward orders and investment.

The data were compiled by the association and then distributed confidentially to the members of the group. This group was chaired by a Sydney manufacturer. The membership of the group was distributed between three states. Mr. Jones provided the names and addresses of seven members and suggested that the researcher should first contact the Chairman of the group. He considered a positive response from this businessman would facilitate access to other members of the group. Unfortunately Mr. Jones was not confident that cooperation would be forthcoming, but agreed to mention during his normal contact with them, the researcher's name and her desire to undertake research on capital expenditure budgeting in the footwear industry. The use of his name in the initial contact was also agreed to.

Mr. Jones considered that the group members were the most sophisticated, in a business sense, in the industry. Accordingly this group will be labelled industry leaders in this thesis. Terms such as "industry leaders" can be operationally defined, and such a definition is used here: membership in the Footwear Action Group identified manufacturers as leaders. This can be justified on several grounds:

1. The interest and consequent lack of apathy apparent by joining such a group.
2. Given the description of the industry as outlined in earlier chapters, and supported by the executive, the description of "sophisticated" would support the use of the definition.
3. The name of one firm was recognised by the researcher as being a participant in IAC submissions. A small group of manufacturers are regularly mentioned in IAC and/or BIE reports as being at the forefront of new production technology, along with similar positive comments.

These members of the group are deemed likely to be proactive. Trist [1976] in an adaption from Ackoff, identified three planning postures: reactive, preactive and proactive. Reactive is typified by a response of wait and see, and satisfying behaviour; while preactive is typified by predicting, preparing and optimizing behaviour. However, proactive is seen as making it happen, through adaptive and innovative behaviour.

This means taking the active role to bring about a willed future chosen as a desirable path from the analysis of fields of consequences. It entails the building up of adaptive flexibility in the face of environmental uncertainty. [Trist, 1976 p.228]

Obviously, labelling the group members as industry leaders was tentative, pending the acquisition of evidence.

Thus, these seven members of this group became the target sample. It could be argued that the sample was not representative of the industry because of the size and nature of the sample. However, it is not argued here that the selected firms were representative of the industry. It was intended to be a survey of a sample of industry leaders. An attempt was made to determine if any major differences existed between this sample and the remaining members of the Action Group. It was the opinion of Mr. Jones, one of the interviewed

manufacturers, and staff officers from the IAC and the BIE, that the target firms would not differ substantially from other group members.

DESIRED INFORMATION:

The key questions were:

1. Did the change in protection stimulate organisational change?
2. If so, did the organisational change include a change in capital investment or capital expenditure budgeting?
3. If so, was a change in the corporate culture the intervening variable?

These questions led to the formulation of research hypotheses as follows:

- H No2 The introduction of the seven year plan stimulated organisational change;
- H No3 The change included a change in capital investment or capital expenditure budgeting;
- H No4 A change in corporate culture was an intervening variable.

The approach was to compare the capital expenditure budgeting processes, before and after the announcement of the seven year plan, in each firm.

INTERVIEW PLANNING:

The method of conducting the interview was a carefully considered decision. One point that was included in the deliberations was the necessity of establishing rapport quickly. Emory [1980, p.296] wrote:

The first goal in an interview is to establish a friendly relationship with the respondent.

A further point was that some direction needed to be decided upon before the start of the interview. This is not to imply that it was necessary to know exactly what was required. Rather the essence was to allow the respondent optimal opportunity to explain his perspective on the general issue. At the same time the researcher had a suitable checklist of items of interest to the researcher. (See Appendix 2) This allowed for appropriate breadth of questions and partial comparability of responses. The interview was intended to be a combination of allowing free expression, to provide an opportunity to identify new dimensions of the issue, and a systematic exploration of the dimensions already known to the researcher. (See Kerlinger [1973, pp.481-489] for a discussion of interviewing and interview schedules.)

A further problem was that if a researcher had just one solution in mind, this may have led to an unconscious type of cueing. In order to prevent this, a range of possible responses to the questions were identified in the interview planning. This action would promote the focus of attention on the actual response, rather than the desired response.

It will be recalled that the effect, if any, of the current seven year plan was a key issue. The question of disguise must now be addressed, i.e. would it be appropriate to disguise the objective of the interview? Emory [1980, p.217] wrote:

Much research on human subjects is disguised because it is believed that if we do otherwise we will introduce too many distortions.

The problem of respondents providing socially accepted responses is well known. It was decided that partial disguise would be appropriate in this study, i.e. emphasizing capital expenditure budgeting, but including no direct reference to the current seven year plan at that stage of the interview. One way to disguise the purpose of the interview was derived from the knowledge that the seven year plan commenced in 1982. It was decided to ask the question about the triggering of capital investment proposals in two time phases - before and after the introduction of the plan in 1982. On the basis that the most recent events were best remembered, the latest capital investment decision, i.e. in 1984, was the initial starting point. The follow-up question revolved around a capital investment decision five years previously, i.e. in 1979, hence the "before" time phase.

One problem with this approach was considered: the respondent may not have been responsible for the same input to the decision, or have the same degree of knowledge about the decision in 1979. Another potential problem was how accurate would the respondents' memory be, about decisions five years ago. If a problem developed regarding recall, it was decided to suggest a reference to an asset register, thus triggering recall. This was not without its problems however, because records would show only the results of a positive decision to invest and not a consideration of a proposal that ended in a negative investment decision.

If the respondent had not taken a prominent part in the decision making at that time, it was decided that an attempt would be made to

identify the then major decision-maker and interview that person. It was hoped that the family control of some footwear manufacturing firms would allow this to occur.

It was decided to write initially to the target members and then arrange interviews. [See Appendix 3 for copy of letter.]

The question of using a tape recorder during the interviews was carefully considered. Boyd, Westfall and Stasch [1981, p.375] wrote:

Experiments have shown that, contrary to general expectations, respondents will accept the use of tape recorders. The recorder may ... introduce bias. One study found that tape recording increased the accuracy of reported response of lower-class respondents, but reduced the reported accuracy of middle and upper class respondents.

It was decided not to use tape recorders, but to use note taking (if permission was granted by the respondent). In order to gain maximum recovery of information, it was decided to fully write up the interview as soon as possible after completion.

It was further considered that the gender of the interviewer would not be a hindrance to the study. Although Boyd et al. [1981] had deleted reference to the gender of the interviewer, in an earlier edition, [Boyd and Westfall, 1972 p.503] wrote:

Age and sex of the interviewer affect the data obtained ... the least effects of age and sex are found with middle-aged women interviewers ...

It was hoped that the gender and age of the researcher, i.e. a female in her mid-30s, would generate the desired response to the initial contact letter, but would not introduce bias.

The process as outlined above, i.e. initial letter contact followed by a phone call to arrange an interview, was used. Interviews were conducted with all but one of the target group. On the advice of Mr. Jones, several attempts were made to schedule an interview with the chairman of the group first. Some of the other members of the target group were more responsive, and so the interviews were finally scheduled when time was available to both parties. The process of persuading reluctant members of the target group was one that required considerable energy and ingenuity. Similarly, the actual scheduling of the interviews was difficult to accomplish. This aspect of the study had not been anticipated by the researcher.

One member of the target group used delaying tactics in the first two telephone contacts, and in the third refused to be interviewed, with the comment: "I can't add anything of relevance."

It became obvious that the members of the group were discussing the research among themselves. In spite of, or because of this, only six of the seven were interviewed. Five of these were manufacturers and the sixth was a major machinery supplier to the industry.

The case studies are detailed next. Then comparative analyses are provided to consolidate the information obtained.

RESULTS**CASE STUDY - FIRM NO. I**

This interview took place on 21 August 1984. The nominated executive, an engineer, was available but directed the researcher to his brother, an accountant and the secretary of the company, as being the more appropriate person to answer any questions.

The Company Secretary advised that the firm was Australia's oldest footwear manufacturing firm and had started operations in 1851. The interview took place in quite a large office with photographs of previous owners around the walls. The furniture was very old and included a huge solid wood desk - the sense of history was pervasive.

The interview commenced with some basic questions about the firm:

1. What sort of footwear manufacturer would you describe yourself as?
2. What is the number of your employees?
3. How long have you been in your present position?

(Unless stated otherwise, the following statements were made by the respondents.)

The firm restricted its production to mens footwear with 80% being industrial and the remaining 20% being a mix of riding boots and casual shoes, like moccasins. This was not always the case. In the 1890s for example, the firm was very diversified. It produced mens, womens, and childrens' footwear as well as speciality type footwear such as ballet slippers and sports boots. Currently there were only 16 different styles being produced. The reason for this was that the

firm had cornered a section of the market, and that they were content with these market segments. They were not interested in expanding their product range.

When asked why they were not interested in expanding their range, it was stated that the firm was "better off" keeping a narrow product range. It would certainly attempt to increase its share of the market in the industrial area. When asked how it would attempt this, the method was to try and reduce prices through reduction in its costs.

The firm currently employed 104 persons, and had 2 establishments in a major city.

Since 1926 the firm had been a private company and from that time on was in the hands of the family. However, the family first entered a partnership with the original owner in 1870, and so from that time, the family had some involvement with the firm. Currently the Directors are the two brothers referred to above, together with a third brother, their father and their uncle.

The Company Secretary said he had been in the current position for nine years but only in the last six-seven years had he any input to decision-making. His brother had been in the firm for six years. Four years previously the father had retired. The running of the firm since then had been easier because there were no protracted arguments with the older members of the family.

The researcher then identified capital investment decision-making as the topic of interest. The respondent was asked to think about the last time the firm considered making some major capital investment. Having done so he was asked about the total process.

The proposal for an investment was in a seat and waist (sections of shoes) lasting machine, parts for which cost \$35,000. The purchase price of a commercially-built similar machine would be \$150,000. The Company Secretary said that most of the firm's plant was actually manufactured by members of the family and a few staff. The firm only purchased sophisticated circuitry and the like. Thus the firm was able to build to its exact requirements and was able to maintain independence from expensive service contracts.

The Company Secretary could not recall whose idea it was, but thought that it was probably his brother's, the engineer. There was only about 3 months between the serious discussion of the idea and the purchase of the essential equipment parts. [July- October 1982]

There were two triggers identified with this decision:

- i) a desire to reduce labour costs;
- ii) the firm had plenty of cash.

The desire to reduce labour costs came about in an environment of wage indexation and hints about the possibility of an employment protection act. Further, the engineer brother had travelled to trade fairs, both in Europe and the United Kingdom. The firm deemed it necessary to do this because it was unsatisfactory to make a decision about new

machinery from a photograph in a catalogue. It was necessary to see it in operation, to see the quality of the job done. The firm was "cashed up".

The proposal was formally evaluated. Specifications of the commercial machine were used by the engineer brother to compare with current production per employee. The researcher then considered it appropriate to ask if any discounting techniques were used. (A similar question was asked during all other interviews.) No discounting techniques such as Discounted Cash Flows (DCF) were used in this calculation.

The decision was an accept decision with the only influential factor being a substantial increase in productivity. The firm could reduce the work force by two people and the machine would more than pay for itself within 12 months.

The item was installed in October 1982 but was not fully operational until January. Because there was a lack of technical knowledge in Australia, the time was spent solving the more technical aspects of the operation of the equipment. No review was undertaken.

The firm had a planning time period of about five years.

The firm fully utilised their machinery, and had regular scheduled maintenance and provided proper training for their operators. Most of the firm's machines were 20 years old and some were more than 50 years old. The firm had "excellent staff", and some fitters and turners had

been on the staff for more than 30 years. The employees were treated with respect and looked after. The firm acquired a lot of machinery cheaply at clearance sales, which were then used as spares.

Production statistics were volunteered. (These and other sensitive items of information supplied by the firms are mentioned but not disclosed.)

The researcher then requested the respondent to recall a major capital investment project five years ago, i.e. in 1979. When the Company Secretary acknowledged he had one in mind, the previous series of questions were again asked.

A moccasin stitching machine costing \$8,000 was imported from Germany in 1979. This investment was significant for the firm as they usually made all their machinery themselves.

The origin of the idea was unknown, although the delivery time was 12 months.

The trigger, in this case, was the identification of unused production capacity. When asked the reason for this, the respondent paused and thought for a short time. It was a result of the attitude in the firm at that time. The employees were like part of the family and if sales were a bit slow, there was no thought of reducing the labour force. So the idea was to find "something else" for the workers to make. It was thought that the moccasin style would sell well and there was certainly no need for new staff.

The proposal was formally evaluated - one of the brothers, the engineer, went to Germany to check on all details available.

The utilisation of unused production capacity was the influential factor in the accept decision.

(At this point in the interview the respondent digressed to discuss the firm generally and also made reference to the seven year plan.)

The firm does have formal directors meetings but the brothers sit down and have a chat each day and throw around ideas.

During these chats the topics were wide ranging and included "what's happening", not only to the firm's particular section of the industry, but to the industry as a whole. There was little impact from protection on this market segment. The principal item of production, was safety shoes. Australia had very stringent safety standards for industrial footwear. Industrial shoes were rarely imported because they simply did not meet the required standard. The seven year plan and all the discussions in the industry led the firm to closely examine their business for inefficiencies. This was mentioned again later during the factory tour. The Company Secretary talked about updating the firm's technology and again referred to the seven year plan. The firm was in the process of building an injection moulding machine. The purchase price of importing this machine from Italy was approximately \$500,000. Although the building had been going on slowly for some twelve months, the firm expected to complete the machine in another 6-9 months. Providing estimates of materials, labour and

overheads were reasonably accurate, the cost to the firm would be substantially less than the quoted purchase price. So although there was a delay while the workshop used only 'spare hours' to work on the machine, the savings were considerable. Thus the firm was updating technologically, but relatively cheaply, by making the equipment, as much as possible, themselves.

The firm expected profits to increase in the next five-ten years. The reason given for this was a reduction in the size of staff when the injection moulding machine was completed. The production units would be the same, and because of the updated technology, productivity would be higher.

In the past, the firm had been "too service-oriented". The firm had had an extensive range of sizes, of which the cost was acknowledged as being prohibitive. This was not to say that the firm was not now service-oriented. The firm was "loyal to its retailers", and that it still took pride in "reliable and fast service". As a general rule, deliveries would take up to ten days to Perth, and five days to all other capital cities.

The firm had never been involved in any inter-firm comparison studies. The Company Secretary had tried to persuade Mr. Jones of the Trade Association to initiate one through the association, but was not successful. With the exception of the Action Group, footwear manufacturers were very secretive. In 1983 the top five manufacturers produced 45% of output, and this firm would be in the top ten.

The Company Secretary at this stage, returned to the protection of the industry and said that the seven year plan had no direct effect on his firm. This was not to say that it did not have an effect, but no *direct effect*.

When asked about providing a profile of capital investment over the previous six years, the Company Secretary readily agreed. The following is a selection of items. Some evidence was gained of previous statements, e.g. interest in the welfare of employees and reluctance to rely on outsiders for machinery, and servicing. Although the costs were divulged to the researcher, they have been omitted here.

<u>YEAR</u>	<u>ITEM</u>
1979	Splitter (this plant splits the leather to make it more flexible and cheaper for tongues - parts of shoes)
1980	Hoist for repairs (outside repairs were seen as too expensive)
1981	Granulating machine (this enables the re-use of scrap leather pieces) Hardness tester (this was deemed useful in complying with standards) Clicking press Sewing machine
1982	Exhaust system (with increased use of PVC staff complained of headaches from the fumes, therefore this expenditure "was in their (employees') interest". Previously there were overhead and side fans, but these were not sufficient. The Company Secretary noted that it was not a legal requirement) Generating Plant (this was deemed advisable so as not to be affected by electricity strikes) Sewing machine Adhesive machine (this was needed to comply with standards) Clicking press Pre-forming upper-machine
1983	Counter mould (this moulds the leather hot and then chills it to set the leather)
1984	Heel making machine (this was seen as a cost saving to make own heels rather than buying them in)

There was little lease financing in the firm. This was due to unfavourable terms offered by British United Shoe Machinery Company (a major supplier and interviewee). There was little gearing, the firm was mostly funded by shareholders funds. There was some use of an overdraft as the only form of short-term debt finance. Financial information such as total funds, net profit before tax, sales, production in terms of pairs sold for the years 1978 to 1984 inclusive were obtained.

Pricing was reported as being "crazy" previously, however, in the last couple of years, the costing procedures had all been tightened up and it's "not so haphazard".

The English Organisation, SATRA, was noted as being the top research and development organisation. The firm subscribed to the Newsletter which was read in detail and discussed between the two brothers.

The offer of a tour of the factory was accepted.

FACTORY TOUR

The firm had spent considerable time in the last couple of years analysing work flows through the factory. The plant layout had been quite "bad": the flow was quite haphazard and involved some double handling. The impetus to improve this came from the thought that there probably was a more efficient way of "doing things". However, a second reason was the increasing cost of rates and maintenance of the building. By re-arranging the work flows and by creating a more efficient use of area, the required amount of area was reduced

substantially. Efforts to lease out part of the building had to date been unsuccessful. A strategy currently being explored was to sell the building and move to a smaller one.

At one stage during the tour, the Company Secretary disclosed the number of pairs manufactured per person per day, and that the firm considered this to be "reasonable production figure".

The Company Secretary was quite pleasant to employees during the tour; enquiring as to the state of health of one's wife who had been ill and calling each one by their first name as each stop was made. When sales were depressed at the end of 1982, the firm had to retrench some employees. This was the first time, that the firm had taken such action. Decisions as to who would be retrenched were quite difficult. The brothers weighed up what they knew about each employee and the decisions were finally made and the employees advised. "We did all we could to help them find other jobs" he said. It was obvious that while the Secretary acknowledged the necessity of the retrenchments, he had not liked the process.

The production process was explained from materials stored to completed goods. Examples of plant purchased recently, e.g. splitter, were highlighted and it was noted cost savings were substantial. The firm had quite radically changed the work flows and the total process now flowed quite smoothly. Most of the machinery did look quite old but appeared to be in good working order. The exhaust system, which resulted in only minimal fumes in that work area, was pointed out.

As the tour came to a close, the Company Secretary wished the researcher well, but expressed doubts as to whether the researcher would get much co-operation from the other manufacturers. "They are a close lot", he said.

The respondent was thanked for his co-operation and the interview was completed.

DURATION: 3 1/2 hours

CASE STUDY - FIRM NO. 2

The interview was conducted in two sessions. The first on 21 August 1984, was with the General Manager of the firm. The second on 28 August 1984 was with the nephew of the General Manager, who was the original person named by Mr. Jones.

The firm's production was industrial boots and shoes for both men and women. Some of the boots and shoes were steel-capped, but all were considered to be industrial footwear. The number of employees was given as 160. There were three factories. The firm was some 120 years old and was the first footwear manufacturer in Australia to manufacture steel-capped industrial safety boots. The respondent did not give any details about how long he had been in his present position, except to state that it had been for "too long".

The researcher then attempted to set the scene for the series of questions about capital investment. This was unsuccessful, and the respondent launched into his ideas about the industry. The researcher

decided to sit and listen and take notes and return at a later date to interview the nephew, who was currently on an overseas trip.

The General Manager was quite negative about the firm and the industry generally, and summarised his views by saying, "If I had my way, I'd close down."

Australian leather was considered to be too expensive. The firm, or rather "the young ones", were looking at importing leather.

The firm had developed the industrial shoe for women and he noted that it was a "presentable shoe". A catalogue was given to the researcher and the shoe was pointed out. The difficulty in persuading female factory workers that they needed safety shoes was discussed.

It was expensive to meet the standards set by the Australian Standards Association for industrial footwear. This applied particularly to steel-capped boots and shoes. The steel caps, imported from England, were high-grade steel. One shoe out of each batch must be tested by the Association, as well as one in every 1,000. The test shoe is subjected to various tests, and if it fails to meet the requirements, the whole batch of shoes or boots must be scrapped. Thus it is necessary to be very careful during the manufacturing process, particularly with synthetic shoes. The firm does not compete with imports. Overseas manufacturers didn't want to be bothered with the stringent regulations, and thus there were no imports.

The General Manager then started talking about worker attitudes.

People weren't interested in working. Workers compensation was seen as an easy way to get paid and not work. This seemed particularly prevalent among young female employees. In the last few months, three had received substantial compensation for "bad backs". "Nothing wrong with them", the General Manager said.

At this stage the General Manager decided he'd said enough. He instructed the researcher to come back later when his nephew had returned from Korea, where he was investigating importing leather and checking out their manufacturing techniques.

At the second interview, the nephew, who was the Sales Manager, apologised for the "grumpiness" of his uncle. He indicated that although the formal titles would indicate the opposite, he was making all the major decisions and virtually running the firm. The Sales Manager expressed the hope that the General Manager would "retire soon".

There seemed no point in covering the general questions again, so the researcher directed the respondent to recall the last major capital investment proposal, i.e. in 1984. Having done so, he was asked about the total process.

The proposal was for a new stitching machine costing \$60,000. The plant would be used in the manufacture of a new line; safety shoes for women. The Sales Manager could not recall where the idea first came from because it had been around "for a couple of years". There were two things that happened to instigate the proposal: one was the

perceived need to reduce labour costs, and the second was the desire to increase sales by expanding the product range.

The proposal was formally evaluated. Estimates of costs and likely markets were collected by various members of staff and were used to determine if the proposal was viable. No discounting techniques were used. The decision was made to go ahead with the proposal "some time ago". A more exact time couldn't be recalled. There were two factors that influenced the decision. They were the same as the triggers, but were ranked in a different order of importance. The increase in sales by the adoption/creation of a new market segment was most important. Cost reduction was seen as a secondary consideration.

The lag between order and delivery of the equipment was about six months. A review of the investment was undertaken when the equipment was "up and running". There was only one area where the firm "had slipped up". They hadn't properly investigated the demand for the product. It turned out that it was quite difficult to persuade female workers to wear the shoes, even if they were provided by the firm. The women talked to were reluctant to give up their comfortable shoes to wear the safety shoes. The situation was improving now, and ready acceptance had been noted. It was a good lesson in management. He said, "You really have to look at all the angles, costing, marketing as well as the production side."

The Sales Manager didn't really know how far he looked ahead in making decisions. He'd just returned from a trip to Korea. He went there specifically to check out the cost of leather, and to see if they had

adopted new technology in their processes. He said he was still uncertain about the importing of the leather. (Perhaps he was just disinclined to reveal any decision in that direction.) Koreans were using fairly recent technology and the firm would have to increase their rate of updating. The firm had a policy of up-dating, mostly when there was a plant break-down. The firm should now plan to update on a regular basis. This was not a new idea, and first came about with the introduction of the seven year plan. The plan had no direct effect, because there were no imports to compete with. The updating by the Koreans may change that in the future. The seven year plan still had an influence, because of "all the talk". It influenced the firm to look at its own technology.

The researcher directed the attention of the respondent to the firm's capital expenditure in 1979. The Sales Manager noted that he didn't have the same authority then as now, but that he was around and knew what was going on. When the researcher proceeded to ask the same series of questions, the Sales Manager indicated that he didn't know the details, but that the investment would have been in plant and machinery. The researcher then attempted to implement the planned strategy of interviewing the relevant decision-maker. However this would have been the General Manager. This strategy was not followed, on the advice of the Sales Manager.

When questioned about the type of machinery referred to above, the respondent noted that it would have been in replacement of worn-out or broken-down machinery. The replacement plant would have been new and thus more efficient, but not necessarily "new technology". Stitching

machines were given as an example. Each new one would be capable of more stitches per minute, but they still had to be manually operated and so the capability of the machine was restricted to the capability of the operator. The employees weren't slow or lazy, they were quite good, but they couldn't direct and control the plant at high stitching speeds. Computer stitching plant was identified as new technology. The firm had "thought about installing this type of equipment". When pressed for reasons about how or why they were discouraged, he had two reasons. The first was that it was "so expensive". He was then asked if the firm had prepared any figures to see if it was worth the expense. His response was "No, not yet". He was again pressed and this brought into the open his second reason. He said that at this stage, "it was too big a change". Part of the factory would need to be rearranged to provide a site for the plant. The firm would have to put on trained operators, or else train them themselves. The firm was not yet ready. When asked as to the possible time frame, i.e. when the firm would decide to purchase the equipment, the Sales Manager thought "in a couple of years".

The cost of materials was then referred to. Some of the firm's products were manufactured from leather uppers and some from synthetic uppers. The firm was looking at ways to reduce the cost of the leather used in the manufacture. Because it was a natural product, it was full of flaws and there was some wastage. The researcher asked whether the use of flawed leather was as important in safety shoes as compared to high fashion shoes. The Sales Manager acknowledged that there was a difference, but said the wastage was higher for safety shoes because of the larger pieces required. Fashion manufacturers

would have little wastage because they could use "bits and pieces" for strappy sandals.

Some years in the future, leather would not be used at all in safety shoes. Synthetic materials were being improved all the time. From a production viewpoint, synthetic materials were better to use. There was no wastage and no variation in quality. When asked the disadvantages of using synthetics, he noted two types. One was consumer resistance - "most people still felt leather was more comfortable", he said. Customers had welcomed the synthetic sole because it was non-slip and strong but flexible, but they still wanted the leather uppers. The second disadvantage was the extra costs involved with the installation of the plant. When the plant was first installed there were many complaints from the workers about the fumes. Large extractor fans were installed to remove the fumes. While this solved the problem, it added to the cost. Leather would eventually become so expensive that consumers would be forced, by the high price, to buy the synthetic product.

When asked to supply the researcher with some financial details of the firm, the Sales Manager declined to do so.

The Sales Manager indicated that the interview was coming to a close and then questioned the researcher about his uncle's comments. He asked, "Did he say he wanted to close the factory down?". When this was confirmed, the Sales Manager said, "He is getting too old." The firm was in a good financial position and that there was little likelihood of the firm closing down. "It's managed to survive this

long", he said and he had no doubts it would survive as long again.

The Sales Manager was thanked for his time and the information he had provided.

DURATION: 3 hours

CASE STUDY - FIRM NO. 3

On 20 September, 1984 the interviewer was shown into the small board room, and was joined shortly by the Managing Director and the Company Secretary.

The Managing Director answered most of the questions. However it was the Company Secretary who escorted the researcher on a tour of the head office factory at the conclusion of the interview.

The interview commenced with the researcher asking some general questions. The firm's production was approximately 88% womens fashion shoes in the medium to expensive price range, plus 12% childrens' shoes. There were several plants, and one warehouse. Some were acquired as a result of takeovers which the firm had been involved in over recent years. The takeovers were aimed at satisfying two diverse needs: either to increase market share or to acquire marketing expertise. The firm had no further interests in takeovers because operations were satisfactory now. This was qualified to be, "satisfactory from the point of needing no more buildings or additional firms".

The firm had two divisions - one, a manufacturing division and the

other, a marketing division. There was potential for expansion in the marketing division, but not in the manufacturing division. The firm wanted to expand the line of business to about 15% of the total footwear market, and thus to have a comparable share of imports. Following up on this point some two hours later, the Managing Director disclosed having recently purchased a quota licence for a substantial sum.

The non-expansion of the manufacturing division was then explained. The strategy was to maintain levels of production. However, changes in cost effectiveness must occur with an inevitable reduction in the labour force. One particular aspect of the environment that he noted, was the recent legislation regarding retrenchment compensation. This was seen as prohibiting large retrenchments. Accordingly the strategy was non-replacement of terminating employees. The Managing Director was most irate about the legislation, and said: "I can't afford to put people off now."

The number of employees was 1000 and it was further advised that the maximum over the last few years was 1300, with the minimum number employed being 850. The firm would be one of the top five manufacturers in Australia, and that these five between them produced more than half the total production. The firm commenced operations in 1900 and was originally in the family of the Managing Director. The Managing Director disclosed that he had been involved with the firm since 1949, and had been in his present position since 1969. The Company Secretary, an accountant, had been in that position for six

years and he advised that he had had no previous footwear industry experience.

The next intention of the interviewer was to examine the capital investment strategies of the firm. However before this could occur, the Managing Director acknowledged that he knew that the researcher had interviewed other firms. He expressed a desire to put forward his views about the industry and immediately identified changes in fashion and technology as the factors influencing his operations and hence the industry. In the interests of keeping the interview flowing, the researcher acknowledged interest in his views. The Managing Director needed no persuading and quite determinedly launched into his narrative.

FASHION CHANGE

The Managing Director disclosed that he and his top executives travelled the world two or three times per year. This was regarded as being absolutely essential to the continuation of the business. He considered that it was impossible to predict what would become "fashionable". The best way to introduce some degree of predictability into this elusive concept was to study overseas reactions. In particular, Italy was regarded as a major influence in deciding both what styles and colours might sell well here. The Australian market was regarded as following the lead of the European and to a lesser extent, the United States markets. However there was one particular aspect of this reaction to overseas trends, that was difficult to gauge. This was the timing of the acceptance of the European lead. A particular style may become fashionable here six to

eighteen months after selling well in Europe. Thus there was a twelve month period during which the fashion might prove acceptable to local consumers. Fashion magazines such as Vogue have an increasing influence on shortening this time frame. Thus as the circulation of these fashion magazines increased, there would be increasing predictability about local acceptance of styles and colours. The Australian market was quite diverse. What might sell well in Melbourne might not sell so well in Sydney or Brisbane. This was not just due to variations in climate, but also to other factors, e.g. Melbourne consumers were seen as being more "fashionable" generally than either Sydney or Brisbane.

The firm had also undertaken a strategic plan to visit trade fairs held both in Europe and the United States. These were generally held annually. These visits were considered necessary, not only to identify changes in fashion, but also to identify changes in manufacturing technology.

It was at this stage of the interview that the seven year plan was first mentioned. It was an ideal time period for the local manufacturing industry to update its technology. It "allowed people to stay in business". Thus, more firms would have gone into liquidation if the plan had not gone ahead. It should be regarded as a warning to firms, of harder times ahead, and that firms should "get their acts together" and to use the time period as "breathing space". For smaller firms, it was putting off the "evil day" of their liquidation by preserving jobs. These smaller firms would close down even after 1988, because they couldn't "compete".

TECHNOLOGICAL CHANGE

The Managing Director identified one particular aspect of technological change, i.e. research and development, in which the firm was not directly involved. SATRA, an English organisation, was responsible for research into improved production techniques and the subsequent development of new technology. It was sensible to keep informed of their research and development, and not to use up scarce internal resources. It was better to wait until all the "teething problems" were solved. Only after this stage, would the firm investigate incorporating any new technology into the firm. Criticism of the IAC and BIE for their statements that local firms were slow to adopt new technologies was made. It had taken years to "iron out all the bugs" and that there was no point in wasting the firm's time and other resources with new technology that was unsatisfactory.

The Managing Director advised that British United Shoe Machinery (BUSM) sometimes installed new equipment into the factory for the firm to evaluate its potential. This was an acknowledgment that the firm was interested in up-to-date technology. Sometimes the plant was returned to BUSM as it had "too many unresolved problems". The return was always due to machine faults and not inadequate operator skills.

It was further noted that some discontent existed between some local firms and BUSM. BUSM was seen to be too expensive. Thus some firms directly imported their required plant and machinery.

The Managing Director quite strongly identified the philosophy of his firm. The firm "was always on the lookout for new technology". The

seven year plan was a reminder to all who would listen, that Australia must update technologically.

The Managing Director then gave an example of his firm's consideration of new technology. The firm was considering an investment of \$100,000 on plant and machinery to manufacture polyurethane-injected soles. In their considerations, they had identified some benefits:

1. the sole was seen to be very durable;
2. it was seen to be in keeping with overseas fashion;
3. there was flexibility of styles available with a change in moulds.

However, the firm was not yet convinced that the proposed investment was "viable". When asked in what sense it was not "viable", the Company Secretary said that there was some doubt about the extent of cost savings.

Many new technologies were being considered all the time. When questioned whether the firm had considered computer stitching, computer-aided design or laser-cutting, he replied that the computer stitching equipment was installed, but that the other two were still "too new". In other words, there were still too many unresolved problems with them. The firm now worked on a planning time frame of about five years. Although the firm had been "technologically aware" for some time, the seven year plan crystallised and "gave impetus" to their strategies.

At this point, the interviewer regained control of the interview and identified the particular topic of interest, i.e. capital investment

decision-making. The Managing Director noted, that because the firm was seeking to maintain market share, cost efficiency was a desired target.

The interviewees were instructed to think about the last time the firm considered making some major capital investment, i.e. in 1984. Once they had acknowledged this in a positive way, they were asked to think about the total process and were then advised that a series of questions would be asked.

The proposal was for computer stitching plant at a cost of \$160,000.

The Managing Director said he had brought back some extensively stitched boots from the United States some ten years ago. The firm had been seriously considering the investment, on and off, for about seven years. When it was suggested by the researcher that it seemed like a long time period, the Managing Director responded, "Oh, there were a lot of problems with it". The final trigger was a need expressed by the marketing division. It was also noted that there was an increasing trend toward decorative stitching, sometimes elaborate, on fashion shoes. It was deemed to be much too expensive to hand stitch, so the trigger was fashion demand and cost efficiency.

The proposal was formally evaluated. The Company Secretary said that all the calculations were performed by the Marketing Division. Supplier specifications were used for production estimates. Calculations were made as to the number of pairs needed to be produced to make the purchase viable. The marketing division sought the views

of the large retailers, as part of this exercise. No discounting techniques were used. The actual cost savings were identified by the Company Secretary. It was not as much as was expected from the formal evaluation, however the saving was still worthwhile. No discounting techniques were used.

The accept decision was made some eighteen months to two years ago.

The factors influencing the decision were:

- (i) fashion demand;
- (ii) cost efficiency.

These would always be the influential factors and in that order, as far as his firm was concerned. The seven year plan was referred to as having some influence over the decision to invest in computer stitching plant now.

Sometimes delivery was immediate and that there was little setting-up time and cost involved. However it did depend on the circumstances. If there was an increase in demand then there was a lag in the supply. Such a lag was not seen as very important. In this case the plant was installed just recently. There were some setting up costs, e.g. training staff, but the costs were not significant. The Managing Director expressed confidence in the decision, and again repeated that it was evidence that his firm was technologically up-to-date.

The interviewees were then asked to think of a major capital investment decision in 1979. The Managing Director noted that he had one project in mind. He was reluctant to go through the same process. He said he considered that the same factors, fashion demand and cost

efficiency, influenced their decisions then. He then qualified this by saying that the degree of influence had changed. The environment had changed and that these two factors (fashion demand and cost efficiency) were "more critical now" compared to five years ago. The factors were likely to be even more critical after 1988, because the Government would probably reduce protection further.

The Managing Director, at this stage, was invited to share his expectations about the industry. He noted that currently the market mix was approximately 46% local production and 54% imports. He suggested that by 1988 or beyond, the mix would be 40% local and 60% imports. It was in this context that the Managing Director disclosed spending a substantial sum on a quota licence. This was in response to the perception that, as local production decreased, the firm would need to diversify in order to maintain and hopefully increase its total market share. Retailers preferred imports because the mark-up for imports was 140%, whereas the mark-up for locally produced shoes was only 105%.

The Managing Director indicated his intention of leaving the interview, and said "everyone wears shoes" so there will always be a market, but not necessarily of locally-produced shoes. There was a clear message that the firm was updating technologically and also expanding into a new line of business, i.e. importing. In fact, the Managing Director used the words "hedging my bets".

Finally the Managing Director expressed the view that if the Government in its post-1988 plan was to reduce tariffs, it would be

unlikely that any except the top 5 firms would survive.

At this stage the Managing Director left. The Company Secretary was then asked for a six year profile of capital investment, and he agreed to mail it to the researcher. Unfortunately, and in spite of a follow-up letter, the information was not received.

There was minimal gearing: equity was close to 100% with a working overdraft being the only source of debt.

There was a decrease in the extent of leasing of equipment in the last few years. This was a result of the unfavourable terms, i.e. long leases with a high penalty for early termination and no residual value.

The firm had never been involved in any inter-firm comparison studies. Some surprise was expressed that the Managing Director had agreed to the current interview.

FACTORY TOUR:

The Company Secretary escorted the researcher through the office and pointed out another major capital expenditure item of recent years: a computer which provided a fully computerised accounting system. Once again, cost efficiency was identified as the trigger.

The Company Secretary noted that the current layout was the most efficient. An analysis of work flows was undertaken a few years ago. When asked whether this was a result of the seven year plan, the

Company Secretary could not recall the exact circumstances, but thought that it might have occurred at around about the same time as the introduction of the plan. The analysis was directed at remedying double handling and bottle necks.

During the visit to the design section, just a small room, the importance of changing fashions in terms of both styles and colours was again emphasized. The point was made that the use of different dyes was necessary to get the exact colours and shades deemed to be "fashionable". Thus the design section, although physically small, was an important facet of the business.

The machinists were situated in one huge room, row by row. The firm was concerned about adequate lighting and noise control. However, it would not be possible for one machinist to speak to the next machinist and expect to be heard.

The computer stitching equipment was at one end of this room, lying idle. When a reason for this was asked, the Company Secretary noted, with some frustration evident, that both trained operators were away that day. Details of a training programme were currently being drawn up. The idea was to train more operators so the equipment could operate through all shifts.

The section where synthetic soles were produced was passed through quickly. The overwhelming smell, a sharp, biting sensation in the nose, was the reason. The extraction of fumes was not a priority.

The Company Secretary used the tour to emphasize that the firm was doing all it could to be viable, and yet that it still depended on protection through tariffs.

A visit to the rest room proved interesting. A notice on the wall in eight languages, gave some evidence of a substantial proportion of non-English speaking female employees.

At the conclusion of the tour, the Company Secretary was thanked for his and the Managing Director's co-operation.

DURATION: 4 hours

CASE STUDY - FIRM NO. 4

The researcher had tried several times to organise a mutually suitable time for the appointment, and at the penultimate contact the respondent noted that the researcher had spoken to other firms and had the view that he would have nothing to add. However he did finally agree to the interview.

On 27 September 1984 the interview was conducted in a small meeting room. The respondent was the Managing Director of the firm, and was the addressee of the original contact letter. In recognition of the respondent's reluctance to be interviewed, the researcher decided to leave until later the general questions and asked first about the capital investment decision-making of the firm.

The proposal in 1984, was for moulding equipment at a cost of \$30,000. The equipment was not an item of plant actually, but was a series of

moulds which would allow the expansion of the current product range. The idea was the Managing Director's, and although he could not recall exactly when he first thought of it, he guessed it was probably two years previously. When asked what had happened to instigate the proposal, he said it was a result of what he'd seen on an overseas trip. At this stage he talked at length about overseas travel which will be referred to later.

The proposal was formally evaluated. Various pieces of information about mould specifications and likely market for the new product were collected. Sales staff as well as the accountant prepared the figures. The figures "seemed to be OK", but the Managing Director went ahead mainly on the basis of what he'd seen overseas. This decision was taken some 15-18 months ago. No discounting techniques were used.

There were two factors influencing the decision and the Managing Director had some difficulty in deciding the order of importance, but thought it was cost reduction and fashion change, probably in that order. The cost reduction was seen as most important because of the increased competition from imports. "One needs to be always keeping an eye on costs", he said. Australia is a follower of fashion, and not at the forefront of fashion. The difficult estimate was when the fashion in Australia would change. Sometimes Australia is one year behind Europe, but sometimes two years behind.

Implementation had recently been completed, and the investment would be reviewed in about six months time. When asked what form this

review would take, he said that it would be just checking over the figures to see "if we are on target".

Generally he tried to look five years ahead. One difficulty with this in the fashion industry was the constant change. It was crucial to travel regularly to England and Europe. This was important for two reasons. One was to identify new technology. The firm was always on the lookout for new technology that was suitable for his firm's small production runs. When asked whether this interest was a result of the seven year plan, the Managing Director was hesitant. With some reflection, he thought that the seven year plan did make him think more about changes in technology. The second reason for the regular travel was simply to see what people had on their feet. A good idea about what would sell was gained just by sitting and watching the passing pedestrian traffic.

The Managing Director seemed more amenable than at the start of the interview, and so the researcher asked the general questions. The firm was about 32 years old, produced womens fashion shoes in the low to medium price range and employed 100 staff. The Managing Director had been in his current position for about 8 years.

The respondent was then asked to recall a major capital investment proposal in 1979. The Managing Director was reluctant to discuss this and said that the firm would just have replaced plant and machinery when it had broken down. He went on to say that he "didn't worry too much then" and that there had been no need to worry about trying to reduce costs.

The researcher noted the difference between then and now, and asked the Managing Director why it was different now. He responded to say that the seven year plan had jolted him. He then partially retracted this and said that it was more what other people in the industry were doing. He said that, because all the talk in the industry was about becoming more competitive and efficient, he started to review his operations. Prior to that the firm had just "coasted along". They were making good profits. The threat of lower protection forced him to look more closely at his firm. A lot of wastage was found. This wastage covered many areas, including poor work flows with the production process criss-crossing the factory floor, to paying too much for footwear parts, like heels.

The Managing Director said that he was fairly positive about his firm's future in the industry. This was because he was running the firm better, and was more interested in the firm "as a business rather than just manufacturing shoes".

The industry would only survive in Australia if it could reduce its costs. This would mean that every footwear manufacturer in Australia would need to learn how to operate a business. This firm had learnt how, and so it was possible. The Managing Director thought however, that the change would be too great for some firms, particularly smaller ones, and that they would go out of business.

The researcher asked the Managing Director to provide some financial information, however he declined to do so.

DURATION: 2 hours

CASE STUDY - FIRM NO. 5

On 27 September 1984 the interview was conducted in the small, very cluttered office of the Managing Director.

The researcher initiated the interview by asking the general questions. The firm's production was approximately 97% childrens sandals and shoes, and 3% mens sandals. The number of people employed was 40. The firm was started 15 years ago by a shoe repairer who had diversified from repairing shoes to making sandals in a back room of his house. The Managing Director said that the man was a craftsman and while he could make "beautiful" shoes, he was not a businessman. The Managing Director joined the firm some six years ago as the Manager. He reminisced about the chaotic state of the firm on his arrival and subsequent disagreements with the owner. Basically the disagreements were about "making shoes", the owner's forte, and "running a business", the respondent's forte. Last year the previous owner relinquished all control and sold to the respondent, thus control was in the hands of the incumbent Managing Director. The previous few years had seen the gradual acknowledgement by the owner that being a craftsman was not sufficient to guarantee a profitable business. As examples of how the Managing Director was able to influence decision making, he gave production figures and turnover figures for 1984, and expected turnover for 1985. Production had increased approximately 300% in the past six years.

After disclosing turnover figures and profit margins, the Managing Director again returned to the theme about footwear production being no longer a craft. He said it's a business and "should be operated

like a business".

The Managing Director was asked to think about the last time, i.e. in 1984, he considered making a major capital investment. When he acknowledged having one in mind, he was asked to think about the total process and was then advised that a series of questions would be asked.

The proposed investment was for machines and tooling, at a cost of \$60,000. The proposal was the Managing Director's, and the original idea was provided by a retailer. The retailer had requested the firm some two years previously, to expand its range from a successful first walker sandal to a first walker shoe.

The trigger was the repeated request from the retailer to expand the range. The first-walker sandal was a successful product and the idea behind the proposed investment was to expand production capability and capacity to include the first walker shoe in the range.

The proposal was formally evaluated, by an investigation of the market, and by detailed costings. The market investigation revolved around the product offered by the firm's competitors. A strategy of product differentiation was adopted. This would be appropriate in at least one or two areas, price and product quality, and preferably in both areas. If the price of the firm's product was lower than that of the competitors, then it should sell (providing there was equivalent quality). The second area of product differentiation was in the quality of the leather. The use of soft leather on the uppers and

in-soles was being considered. Mothers would prefer the softer leather for the childrens' first shoes.

While this market orientation was very important to the Managing Director, he also saw the importance of costing. The firm's approach was to use the selling price of his competitors' products as a standard for comparison. Extensive details of the costing which included estimates of labour, materials and overheads were provided. A range of production figures, including an estimate of "first up" production, and also an increased production run, based on the assumption of a successful initial product acceptance were used.

The accept decision was taken fairly quickly. The Managing Director, on completion of the evaluation as outlined above, was convinced the investment was sound. The decision was made a couple of months ago and delivery was expected about November; this was a lag of nine months between order and delivery. This was the expected delivery date and the Managing Director also noted that it might be delivered soon, or perhaps early January next year. He said "November is really only a guess". He elaborated, at some length, the difficulties this uncertainty posed. One important factor was that the market for shoes was likely to be seasonal. He explained that he would want to have the ability to promise the product for winter, this being the ideal time to launch the new product. Thus if delivery was delayed too long, this advantage would be lost. The lag between order and delivery was inevitable and thus he was not annoyed but accepted the lag as being "all part of running a business".

The factors influencing the decision were a perceived need to expand the market, and the second was cost efficiency, in that order of importance.

A pattern had emerged in the sales figures: the first-walker sandals seemed to sell more quickly lately, and also the larger sandals (boys and girls sizes 4-7) seemed to be selling slowly. This was discussed in consultation with sales staff and two conclusions were arrived at. One was that joggers were increasing in popularity, and that they were overtaking the market for larger-sized sandals. The second conclusion was that there was increased demand for the first-walker sandal. This was seen to be a result of a "superior quality product". The Managing Director saw that this would extend his winter sales. The characteristics of his firm would "almost guarantee" the sales of the new product. The firm had an established name for good products and services. The best thing about the service he could offer was that he was flexible. This was because he sold to retailers all over Australia, and thus could shuffle and change orders generally to suit the up-to-date requirements of the retailers. The Managing Director said that he had a close relationship with the retailers. This had developed because he was prepared to assist them in any way possible and they recognised the quality of the firm's products. The total Australian market was quite diverse, with Victorian demand quite different from Darwin demand. The differences went beyond different climates and was a result of different consumer tastes.

The second influential factor was cost efficiency. The Managing

Director had the view that although it was important to have a demand for the product, he was also running a business. Thus he was concerned about costs. His firm was cost efficient because of his thorough and extensive cost analyses. He showed the researcher the detailed schedules of cost estimates of all labour processes, materials, including packaging and an allocation of overhead. It was obvious that the respondent was quite proud of his cost analyses as he discussed the analyses in some depth. He re-iterated the change between the "guess work" costing on his arrival, and the method currently in use.

As noted earlier, expected delivery of plant and tooling was in a couple of months. The investment would be reviewed about six months after implementation. At that stage, set-up and early production problems would be resolved and the machine would be operated at full capacity.

The Managing Director noted that he worked on a time frame of 8-10 years. He anticipated that his market would change. This required constant monitoring and flexibility in order to adjust to changing consumer demand.

The same questions were asked about a capital investment proposal in 1979. There was no difficulty in recalling the particular investment, probably because it was linked to the current decision. The proposed investment was for moulds and plant, at a cost of \$85,000 to manufacture first-walker sandals. The proposal was put forward by the current Managing Director, the then Manager. The idea arose after

consultation with the sales staff. At the time, the firm "was in trouble". This was explained as being in financial difficulties. An expansion of the firm's product range was needed. At that stage the firm was manufacturing childrens' shoes and sandals, but not first-walker sandals. There was a thorough costing analysis performed.

The Managing Director said he had some difficulty in persuading the owner to go ahead with the investment, even though the evaluation showed that, as far as it was possible to judge, the idea was a "winner". He said that the owner had no idea of running a business and didn't really understand the costing figures. He was a craftsman who wanted to craft shoes, not a businessman operating a business.

The influential factor was that the firm was in financial difficulty. The cost-effective expansion of the firm's market was seen to be the most appropriate way of "getting the firm out of trouble". The Managing Director could not recall details about time lags.

The respondent then expressed a desire to show the researcher the extent of the costing of a pair of shoes, and then proceeded to do so in detail.

Government protection was expected to be reduced after 1988, and that this would mean more imports. The current plan hadn't really affected this business too much. The experiences with the previous owner of the firm had, however, provided insights into what was wrong with the industry. A few other small manufacturers who were interested in

making shoes were known, and making shoes was their only interest. They were not interested in running a business and, in fact, had no experience of managing a business. For example, they don't know about marketing or costing. The Managing Director said that he could see that the seven year plan should be used to update technology, but that it would not be successful because there were too many people in the industry who were not business-like.

The firm was not competing with imports directly because of the service orientation of the firm. Therefore the seven year plan had little direct impact on his firm. Imports imposed lead times up to 18 months on retailers and gave them no opportunity to change orders. His firm could offer lower lead times, the ability to revise order quantities, and in most cases they would take back excess stock.

The Managing Director then went on to outline a problem that existed. Some imports were packaged to deliberately look like Australian-made shoes, and one pair was shown to the researcher. The logo on the box was a kangaroo and the brand name was "Cangaro". The shoes were sold for \$11.30. The firm's similar product sold for \$15. When questioned he then acknowledged that in terms of price, his firm could not compete with imports, but that the quality of his products was better. Also, the service orientation referred to earlier more than made up for this higher price, according to the Managing Director.

The regulations regarding branding in Australia were that the product must disclose what materials were used in the upper, lining, in-sole and sole. The "Cangaro" shoes did not disclose this. The Managing

Director said that customs was "no help in keeping these out". They did not want to be bothered and that "it was not their responsibility". It clearly was the duty of the Customs Department to oversee this area, and that they should be given more staff to do their job properly.

Another problem that existed was that some unscrupulous importers affixed a label over the original stamping, identifying the materials, and the country of manufacture. One importer was recently charged and fined for this. The penalty was so small as to be meaningless, and would not act as a deterrent. His solution to this problem was that all the relevant details should be stamped on the product and that stick-on labels should be prohibited.

The final stage of this interview included the disclosure by the Managing Director of some brief financial details. The Managing Director's plan for the future was to expand the production by 500 pairs per week, and to consolidate the market share.

The interview was then concluded, and the Managing Director was thanked for his co-operation.

DURATION: 3 1/2 hours

SUMMARY OF RESULTS:

In this section tables are used to facilitate comparisons between the firms interviewed. Table 8 details general characteristics of each firm, such as the age, number of employees and segments of the market in which the firm operated.

FIRM NO.	AGE FIRM	NO. EMPLOYEES APPROX.	TYPE OF SHOES
1	133 yrs	104	80% mens industrial boots 20% other mens, including riding boots and moccasins
2	120 yrs	160	100% industrial boots and shoes, mens and womens
3	84 yrs	1000	88% womens fashion, 12% childrens
4	32 yrs	100	100% womens fashion low to medium price range
5	15 yrs	40	97% childrens, 3% mens sandals

It will be noticed that details of only five completed interviews are included in Table 8. The remaining member of the target sample was not a manufacturer but a major supplier of machinery to the footwear industry. The results of this interview will be included at the end of this section.

Table 9 on the following page details aspects of the pre-1981 and the current decision.

TABLE 9SUMMARY OF PRE-1981 AND CURRENT DECISIONS

<u>PRE-1981 DECISION</u>		<u>CURRENT DECISION</u>		
<u>FIRM NO.</u>	<u>EQUIPMENT TYPE & COST</u>	<u>FACTORS INFLUENCING DECISION</u>	<u>EQUIPMENT TYPE & COST</u>	<u>FACTORS INFLUENCING DECISION</u>
1	Stitching machine \$8,000	1)To reduce idle capacity	Lasting machine \$35,000	1)Substantial increase in productivity
2	Machinery No specific details	1)Plant breakdowns, Replacement - same technology	Stitching Machine \$60,00	1)Increase in sales from new market segment 2)Cost reduction
3	Machinery No specific details	1)Fashion demand to a lesser degree 2)Cost efficiency to a lesser degree	Computer Stitching \$160,000	1)Fashion demand 2)Cost efficiency
4	Machinery No specific details	1)Plant breakdowns, Replacement - same technology	Moulding equipment \$30,000	1)Reduce costs 2)Fashion change
5	Moulds & Plant \$85,000	1)Experiencing financial difficulty	Machines & Tools \$60,000	1)Perceived need to expand market 2)Cost efficiency as a result of thorough cost analysis

Without exception, the investment decisions were related to equipment. It was during the factory tours, that capital investment in buildings was mentioned. One respondent whose firm had radically altered the production flow through the factory, concluded that wasted space was a liability. Thus a move to a smaller factory was being considered. The second mention of buildings was made in terms of acquiring a business. A principal aim of this strategy was to acquire replacement equipment cheaply and then sell the building. The tabled decisions are all accept decisions.

Table 10 summarises identified changes in corporate culture as a result of the introduction of the seven year plan.

<u>TABLE 10</u>	
<u>CHANGES IN CORPORATE CULTURE AS A RESULT OF THE SEVEN YEAR PLAN</u>	
<u>FIRM NO.</u>	<u>CHANGES</u>
1	Increased emphasis on efficiency
2	A cautious interest in investment in new technology rather than "as is" philosophy
3	Provided impetus to existing strategies together with a diversification into imports
4	Contemplated more about investment in new production technology and more business oriented
5	No direct effect, but considered that all firms would need to change from craft attitudes to more businesslike attitudes to survive

Three of the five interviewees declared that they considered that their particular firms were not, in effect, competing with imports. Firms 1 and 2 stated that they were protected from imports by the strict Australian Standards imposed on safety shoes. According to both firms, importers were not interested in importing safety footwear because of the stringent requirements. The Managing Director of Firm 5 had the opinion that, although similar imported products were on the market, there was no direct competition for his firm, provided Australian branding regulations were effectively enforced. However, two of these three interviewees admitted that the seven year plan affected their attitudes to investment.

Firm 1 radically adjusted their production flow-through - this was triggered by the emphasis on cost reduction, even though the seven year plan had no direct influence. Firms numbered 2 and 3 acknowledged an impact of the seven year plan which would not be evident from a study of investment patterns. For example, detailed cost analyses of alternative materials were performed. This related not only to a comparison of leather compared with non-leather, but also local and imported leather. Firm 1 undertook a detailed analysis of purchase compared to self-production of heels and was able to adapt one machine at little cost to produce the heels in what was previously excess production capacity.

Comments from Firms 3 and 4 were that the plan:

"forced cost reduction strategies";
"forced responsiveness to market demands";

Comments like these were made during the interviews, and during the factory tours. Evidence of the changes in attitude by the significant decision-makers, provided evidence of a change in corporate culture.

Table 11 details a summary of lag times for the current decision.

<u>TABLE 11</u>			
<u>SUMMARY OF TIME LAGS IN YEARS FOR THE CURRENT DECISION</u>			
<u>FIRM NO.</u>	<u>FIRST LAG FROM IDEA TO ACCEPT DECISION</u> <u>IN YEARS</u>	<u>SECOND LAG FROM ACCEPT DECISION TO IMPLEMENTATION</u> <u>IN YEARS</u>	<u>TOTAL LAG</u>
1	0.25	0.5 + (.33)	1.08
2	2	0.5	2.5
3	7	1.5 - 2.0	8.5 - 9.0
4	2	1.5	3.5
5	2	0.5 - 1.0	2.5 - 3.0

It should be noted that in Firm 1 implementation took four months due to unfamiliarity with the equipment. Thus it can be seen that in one case the time lag from generation of the idea to implementation was some nine years. This long delay was explained by the problems to be resolved, and that the respondent was not willing to go ahead until the quality of output was acceptable. The item of machinery in this case was state-of-the-art equipment costing \$160,000. A more usual time lag would be approximately two years.

A summary of the use of evaluation techniques by the five firms follows:

Firm 1 - potential increases in production per employee figures were calculated as well as payback period;

Firm 2 - cost estimates and likely sales figures were calculated;

- Firm 3** - production estimates based on supplier specifications, estimation of cost savings and likely sales figures were calculated;
- Firm 4** - production estimates based on supplier specifications and likely sales figures were used;
- Firm 5** - potential sales, based on a product differentiation concept and costings, were calculated. Costings were calculated over a range of production runs and included learning curve scenarios.

All respondents denied using discounting techniques and with the exception of Firm 5, evaluations were based on relatively simple calculations. The more complex evaluation undertaken by Firm 5 was noteworthy because the firm had only 40 employees, the smallest of the case-studied firms. The lack of use of more sophisticated techniques lends some support to the concept of the accounting techniques being more of a justification for a decision rather than an objective evaluation of the proposals, confirming Greenwell [1983a and 1984].

It was noted in Chapter Two that many footwear firms were family owned and that these firms were subjected to particular pressures. Although that aspect of Firms 1 and 2 was not explored in an depth, it was obvious that problems had existed. Convincing the parent to retire, i.e. the succession problem, seemed a past problem in Firm 1 and a current problem in Firm 2. It will be recalled that in Firm 2, the firm was managed by a director, the nephew of the current Managing Director. Thus the key position was only nominally held by the uncle. Sibling rivalry did not appear to be a problem in Firm 1. The two brothers, one an accountant and the other an engineer, appeared to have a "good working relationship".

Detailed financial information was supplied by only one firm. None of the firms had been involved in inter-firm comparisons, and only one firm expressed a strong desire to participate in such comparisons.

INTERVIEW: FIRM NO. 6:

The Manager of the machinery division of the British United Shoe Machinery Coy (BUSM) was interviewed. The interviewee was in no doubt that the seven year plan "stimulated an interest in reducing labour costs". The firm noted a "massive increase" (evidence not provided) in sales from about July 1984. The respondent advised that although the firm used to have a monopoly, competitors had entered the market. Whilst an increase in sales had been expected, the increase was much greater than expected. The firm could not satisfy the demand.

It was stated that prior to the seven year plan, little interest was paid to new processes specifically, and generally, there was little emphasis on cost savings. Some actions taken by footwear manufacturers as a result of the seven year plan were identified by the Manager:

1. review of work flows - most factories had some degree of double-handling;
2. more notice was taken of retailers' suggestions in terms of market potential;
3. more travel overseas was undertaken, particularly to Europe, to identify changes in high fashion shoes.

However, manufacturers were still risk-averse in relation to technological advances.

In fact, the firm in recognising this last point had adopted a policy of setting up new technologically advanced machinery in selected factories on a trial basis.

The respondent gave an example of pre and post-1981 questions asked by potential customers about new machinery:

pre - how much does it cost?

post -how much can it do, and how much can it save?

DISCUSSION OF RESULTS:

The introduction of the seven year plan acted as a catalyst and forced management to take the responsibility for managing their changing environments. The environment underwent a dramatic change by the substantial reduction of uncertainty. For the first time, manufacturers knew the government's intentions for seven years, and with 16 month's notice. The lowering of protection, slowly and over the seven years, was an incentive to be self critical.

The triggers identified, coupled with the influential factors of the decisions, give strong indications of a reaction to the seven year plan. There was an increasing awareness of the need for efficient and effective use of resources. The case studied firms reacted in a variety of ways from analysis and change of work flows to the purchase of technologically advanced equipment. Thus there is some evidence in support of the hypothesised relationship between the seven year plan and organisational change.

In some firms the organisational change was manifested in capital investment in state of the art technology, and thus the hypothesised change in capital investment did take place.

Deal and Kennedy [1982, p.159] wrote

... when the environment is undergoing fundamental change these values [corporate culture values] must be changed.

The changes in strategy arose from the changed corporate culture. The changed corporate culture was manifested in the emphasis on efficient and effective use of resources including reviews of production flows and analyses of costs, as well as increased interest in new production technology. Confidential information provided by the association executive indicated that some manufacturers had doubled their investment per year since the introduction of the plan. How extensive this was throughout the industry is unknown. One indicator was the information provided by the machinery supplier, i.e. the inability of the firm to meet the demand.

The question of homogeneity of the industry is one that must be discussed in light of the interview results. With the investment model, one figure for the total industry was provided. This fact tends to lead one into considering the whole industry as having some sort of homogeneity. The variety of market segments gives some indication of the lack of homogeneity. The extent of competition from imports varied substantially across segments. Apparently however, this did not prevent all but one member of the target group from experiencing similar reactions to the seven year plan. It was quite obvious from the case studies that firms numbered 1 and 2 did have a

corporate culture change, as a result of the seven year plan, even if the firms were not directly import competitive.

The ages of the firms were from 15 years to 133 years. Two of the firms were family concerns, with younger members of the families taking over control of two firms in the last eight years. Firm 5 was the youngest at only 15 years old. The firm originated with a craftsman handcrafting shoes in a garage attached to his home, and from there to mechanisation and a small factory building. The current Managing Director had been involved in the firm for only six years, and now has a controlling interest. The relatively small life-time of the firm gives an example of a life cycle of small business - from product emphasis through to concern with profits and expanding markets; thus evolving from an artisan to entrepreneurial status.

All except one of the respondents identified changes in attitude, either directly or indirectly, as a result of the plan. This, combined with the lack of comparability between the respondents with respect to age, size and market segments, is an indication of the pervasive impact of the seven year plan.

It will be recalled that the case studied firms were designated industry leaders. Firm 3 was of the opinion that it had a competitive edge from two points of view. The first was from the product itself, and the second from the manufacturing process. The product in question, womens fashion shoes, accounts for some 70% of the output of this firm. By keeping a close watch on European markets, and by judiciously selecting a portfolio of styles that would appear to be

marketable in Australia, the firm, in the opinion of the Managing Director, had the "leading edge". With respect to the manufacturing process, this firm had installed current state-of-the-art computerised stitching equipment. This equipment enabled more elaborative decorative stitching, as well as faster ordinary stitching. Certainly, as far as the Managing Director was concerned, the firm was an industry leader. This perception was upheld by BUSM, the supplier of machinery to the industry, as well as a buyer for a large retail chain.

Firm 5 considered that it was an industry leader. The expansion of the market range was obviously a source of some pride to the Managing Director. The emerging change of consumer preference from sandal to jogger in teen sizes was quickly perceived by this firm. This led to a change in product mix. A further extension of the first walker range gave this firm a competitive edge. External validation was gained by a representative of a major retailer, who identified this firm as an industry leader.

Firm 2, was a manufacturer of protective industrial footwear. Again it was with expansion of the market line that this firm considered itself to be an industry leader. The extension of mens protective industrial shoes to womens protective industrial shoes was the case in point here.

Thus three of the five firms volunteered that in the opinions of the Managing Directors, all three firms were industry leaders. This was supported for Firm No. 3 and Firm No. 5 from external sources. With

hindsight, this should have been an issue raised at each of the interviews by the researcher. However, while there is not overwhelming evidence to support the researcher's contention that the target group were industry leaders, there is some evidence apart from their membership of the action group of this.

A further aspect of the case studies to be addressed is the checking process undertaken by the researcher. It will be recalled that various respondents made statements about retailers, e.g. retailers prefer imports because there is capacity for a higher mark-up. The researcher decided to attempt to verify these statements. Consequently extended telephone conversations were carried out with two senior buyers of large retail firms in May 1986.

With respect to fashion shoes, both buyers noted that importing shoes involved a long lead time. This gave local manufacturers an advantage. However, both buyers were critical of local manufacturers and noted that they were "unreliable". When probed, both identified unmet delivery promises as a disincentive to use locally manufactured goods. According to the buyers, the percentage mark-up depended on what the retailers thought customers would be prepared to pay, and there was no fixed rule. Another point made was that the mark-up depended also on the country of origin, e.g. there was little mark-up on European fashion shoes, compared to fashion shoes imported from Brazil. Lead times of 18 months were not uncommon for imported shoes and this, combined with delivery problems like dock strikes, should mean a big advantage for local manufacturers.

One buyer was critical of most local manufacturers. He gave an example where although the management of the firm approached the retailer for early orders to prevent bankruptcy, the director was driving a new, expensive, imported car. "They take out all the profits and don't leave anything in", he said. This buyer, a buyer for one of the largest Australian retailers, said he would not import at all if he could get the products from local producers. But generally he noted that manufacturers weren't interested in expanding their businesses. This buyer hastened to add that this did not apply to all manufacturers and promptly mentioned case study firms 3 and 5. He identified that Firm 3 had recently purchased computer-aided design equipment for a substantial sum and that it was the only one in Australia. Firm 5 was mentioned as having an excellent quality product, as well as an interest in expansion, although the buyer noted there was still an inadequate supply of quality childrens footwear. Thus external validation of the concept of industry leaders as applied to Firms 3 and 5 was gained.

It is appropriate to point out at this stage that the interview results were not intended to represent the total industry. However, some of the information in the case studies led to the design, construction and administration of a postal questionnaire to the remaining Australian footwear manufacturers.

CHAPTER SUMMARY:

The major points drawn from this chapter are:

1. Semi-structured interviews were conducted with 6 firms [members of the Footwear Action Group] - 5 manufacturing firms and 1 major machinery supplier.
2. Hypotheses 2, 3 and 4 were supported for four of of five case studies:
 - H No.2 The introduction of the seven year plan stimulated organisational change.
 - H No.3 The change included a change in capital investment or capital expenditure budgeting.
 - H No.4 A change in corporate culture was an intervening variable.

CHAPTER FIVE
EMPIRICAL RESEARCH – STAGE THREE
INDUSTRY SURVEY

The objective of this chapter is to identify whether the footwear manufacturing industry's reactions to the current seven year protection plan were similar to those expressed by the case-studied firms.

The case studies, as outlined in the previous chapter, indicated that four firms did take the change in protection, as specified by the seven year plan, into account in their capital investment decision making processes. The change in protection appeared to affect these processes, even when firms indicated that they did not consider their firms were directly competing with imports.

METHODOLOGY:

This section discusses the mode of the survey, access to the industry, survey design, and justification of the final questionnaire form, and the follow-up procedure.

MODE OF SURVEY:

The initial decision concerned the mode of the survey. This decision was constrained by the extent of industry representation required. For example there were approximately 185 footwear manufacturers throughout Australia, and because of resource limitations, it was not

feasible to interview all. Thus the choice was between interviewing a representative sample or using a postal questionnaire. Given the difficulties of selecting a representative sample, it was decided to survey the rest of the industry, using a self-administered questionnaire.

ACCESS TO THE INDUSTRY:

Access to all the footwear manufacturers was not without its difficulties. Representations to a trade association, as well as to the Textiles Clothing and Footwear [TCF] Industries Council of the Australian Chamber of Manufactures, were not successful. Requests to obtain access to membership lists, and/or sponsorship by the associations were denied.

An approach was also made to the ABS to identify means of access to their listings. There were basically two means available:

1. the address list was potentially available, but required the approval of Parliament;
2. ABS would, in certain circumstances, undertake to mail the survey with returns direct to the researcher.

Advice from a senior ABS officer in Canberra was that neither option was viable. Reasons included heavy workloads in ABS and the fact that the ABS undertook a survey of the TCF industries, within the last two years. (Their response rate was approximately 18%.)

The third option, that of accessing manufacturers through the yellow pages of the telephone book was deemed to be appropriate. However this option was not without complications. Unfortunately there was no

single category of footwear manufacturers in the yellow pages, but a wider category "Footwear Manufacturers and/or Wholesalers".

A list was collated from all the yellow pages of the telephone books, Australia-wide, and totalled some 500 names and addresses.

One method of reducing the list to manufacturers only was to telephone all those listed. This method was deemed to be too expensive and was discarded. The assistance of the trade association executive was again sought, and he was able to identify quite a number of wholesalers, as well as groups of companies. This then left a total of 300 names.

It was then decided to identify in the covering letter the source of the name and address of the firm. This allowed a short paragraph to instruct those firms not in the business of footwear manufacturing to so advise the researcher.

While not optimal in terms of identifying potential respondents, this method was adopted for practical reasons. The response rate would then have to be ascertained by taking the number of questionnaires distributed less those returned, indicating either they were importers or wholesalers only, or had ceased business. This may slightly understate the response rate. However, there were other industry statistics available which would provide guidance as to the extent of the representation attained by the survey. An alternative method of calculating response rate was to compare the usable responses to the known number of manufacturers at the time.

SURVEY DESIGN:

The in-depth case studies discussed earlier utilised a disguised objective to reduce bias in responses. As this survey was developed from the responses, it was considered unnecessary to use a disguised approach for the postal survey. What was required was a very structured approach (Emory 1980, p.216).

However, to provide simply for yes/no responses might create difficulties for respondents who want to qualify their responses. For example, technically "yes" may be the correct response but the respondents may want to qualify their answer by pointing out that the subject matter of the question varied in importance to them. (See Kerlinger [1973, pp.482-487] for a discussion of these issues.) The use of Likert scales was discarded in an attempt to simplify and shorten the questionnaire so as to get a good response and have a good indicator of industry actions. However, provision was made for respondents to identify the "most important" action. It was noted that the Likert scales do have limitations. (See Oppenheim [1966, p.141].)

The original questionnaire went through a number of iterations as trade-offs were made between the amount of information sought, the sophistication of the questions, and the desire to obtain the co-operation of the firms in the industry. Also the questionnaire and the accompanying letter were modified in light of a process of pilot testing. These steps are outlined in Appendix 4. The covering letter was deemed to be a very important part of the survey because it was

the initial contact with the potential respondent. Emory (1980, p.310), citing Kanuk & Berenson (1975), noted that,

The cover letter appears to be the most logical vehicle for persuading individuals to respond, yet the very few studies which are reported offer no insights into its formulation.

Interest must be created and then maintained through the covering letter so as to persuade the respondent to complete the questionnaire.

(See Oppenheim 1966, p.65.) Emory [1980, p.312] noted that

... the cover letter must convey that the respondent's help is needed to solve the problem. The researchers are portrayed as reasonable persons making a reasonable appeal for help.

The inclusion of the covering letter drafts in the pilot testing ensured that the final format, language and nature of the letter was appropriate to the target audience.

JUSTIFICATION OF FINAL QUESTIONNAIRE:

It will be noted that the questionnaire was quite short, i.e. 1 page. This was a result of strong indications from the testing that a single-paged, easy-to-complete questionnaire might be responded to, whereas a longer more complex one would simply be discarded.

The questions were as follows:

"1. How many people does your firm employ? _____"

This was regarded as an easy to answer opening question. It would provide information as to extent of the survey coverage and the size of the firm.

"2. Please identify the market segment(s) in which your firm operates and include the percentage of production in each:

	HENS	WOMENS	CHILDRENS
FASHION - HIGH
- MEDIUM
CASUAL
SPORTS
INDUSTRIAL N/A
OTHER - _____
(Please specify) _____

This was regarded as necessary because of the radically different nature of segments of the market, for example, the difference in responses to the seven year plan between "industrial- mens" and "high-fashion - womens" was quite clear from the case-studied firms.

"3. Listed below are some actions that your firm may have taken since 1981. Please tick those actions which were in response to the anticipated or actual increase in competition from imports. Because you may have initiated some actions for other reasons, a second column has also been provided.

<u>ACTIONS</u>	<u>COLUMN 1</u> <i>In response to anticipated or actual increase in import competition</i>	<u>COLUMN 2</u> <i>For Other Reasons</i>
A. WORK FLOWS - changed	<input type="checkbox"/>	<input type="checkbox"/>
B. MATERIALS - reduced cost	<input type="checkbox"/>	<input type="checkbox"/>
C. LABOUR - reduced cost	<input type="checkbox"/>	<input type="checkbox"/>
D. MARKETING METHODS - changed	<input type="checkbox"/>	<input type="checkbox"/>
E. COSTING SYSTEM - changed	<input type="checkbox"/>	<input type="checkbox"/>
F. NEW PRODUCTION TECHNOLOGY - investment	<input type="checkbox"/>	<input type="checkbox"/>
G. OVERSEAS TRAVEL	<input type="checkbox"/>	<input type="checkbox"/>
H. OTHER _____ (Please	<input type="checkbox"/>	<input type="checkbox"/>
I. specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
J. _____	<input type="checkbox"/>	<input type="checkbox"/>

If you have ticked more than one action in Column 1, please identify the most important action for your firm, by circling the appropriate letter, i.e. A to J.

If you have ticked any action(s) in Column 2, please identify the most important reason for taking the action(s):

PLEASE RETURN THE QUESTIONNAIRE IN THE PRE-PAID REPLY ENVELOPE.

THANK YOU "

This question underwent many changes in the design and testing stages. It was finally considered to be easy to understand, quick to complete and capable of providing the desired information, i.e. "how did firms respond?". The requirement to identify the most important action was included, because the actions may vary in importance from firm to firm. The second column was included as a result of the testing stage and was deemed appropriate because the responses would be capable of being interpreted as changes being made that were not directly as a result of the seven year plan.

It will be seen that the use of upper case letters and heavy print was used to highlight aspects of the question as well as the response frame. The question had a combination of dichotomous - closed and open ended types of response frames, as a result of the different types of required information. It was at this stage that the hypothesis could be formulated.

H No. 5 Australian footwear manufacturers did undertake capital investment in response to anticipated or actual increase in competition from imports.

The covering letter in its final form was word-processed to include the name and address of each manufacturer and addressed to the Manager. A decision was made to personalise the letter by the personal signature of the researcher on each. (See Appendix 5 a copy of the total package as distributed on 22 September 1986 to 300 firms.)

FOLLOW-UP PROCEDURE:

A decision was made to mail a follow-up letter (See Appendix 6), and accordingly letters were mailed on 13 October 1986, three weeks after

the original distribution. The further option of a second mailing of the questionnaire itself was not adopted. The decision was based on the satisfactory response rate gained from the original distribution.

RESULTS:

The responses are tabled below.

<u>TABLE 12</u>		
<u>SURVEY RESPONSES</u>		
Number distributed:		300
Number returned:		
- completed - usable	64	
- current manufacturers - questionnaire "not relevant"	3	
- previous manufacturers	8	
- wholesalers only	48	
- undelivered "left address"	<u>43</u>	166

Thus the researcher can account in some way for 166 or 55 per cent of the surveys distributed. However the actual coverage of the industry can be calculated in two other ways.

It will be recalled that, the coverage could be determined residually by using other data. Unofficial figures current as at October 1986 were 185 [Hywood, Australian Financial Review, 27 October 1986, p.7]. The steady decline in the number of firms, as suggested by the number of questionnaires returned marked "left address" and having no forwarding address, led the researcher to conclude that the figure of 185 was the "best estimate". Thus if this figure was adopted it must be reduced by 10, to take into account the five case-studied firms,

and the five firms involved in the pre-testing. A further adjustment was necessary to take account of the three firms who identified the survey as not relevant (addressed later in this chapter). Thus the response as measured above was 64 out of a possible 172, some 37 per cent.

The second method of determining industry coverage was related to the number of employees. Unofficial figures as at October 1986 [Hywood, Australian Financial Review, 27 October 1986, p.7] indicated that fewer than 12,000 were employed. The numbers of employees employed by the case studied firms and the pre-test firms, total 1,404 and 227 respectively. This assumes that employment levels in the five case-studied firms remained constant. Thus possible coverage of the industry, in terms of employees, can be calculated (12,000 - 1,631) as 10,369. The total number of employees disclosed by the 64 usable responses totalled 8,882. Thus using employees as a measure, the response rate was a much higher 85 per cent of the possible coverage.

It is intended to firstly identify the results of the 64 usable responses, and then to detail other results, e.g. information from previous manufacturers who have either "gone out of business" or who have changed their business to wholesaling.

The questionnaires were reproduced on different colours of paper so as to identify geographical origin of responses. Accordingly the table below identifies the responses in this manner.

TABLE 13**GEOGRAPHICAL ORIGIN OF RESPONSES**

Melbourne	25
Sydney	18
Brisbane	6
Adelaide	6
Perth	2
Groups	3
Non-metropolitan	<u>4</u>
	<u>64</u>

The results will initially be tabled in terms of column one results, i.e. actions taken since 1981 in response to anticipated or actual increase in import competition. Column two results, i.e. actions taken for other reasons will then be reported.

COLUMN I RESULTS:

Table 14 reports the distribution of actions undertaken since 1981 in response to anticipated or actual increase in import competition.

TABLE 14

**DISTRIBUTION OF ACTIONS TAKEN SINCE 1981 IN RESPONSE TO
ANTICIPATED OR ACTUAL INCREASE IN IMPORT COMPETITION**

<u>ACTIONS</u>	<u>NO. OF RESPONSES</u>
A. WORK FLOWS - changed	24
B. MATERIALS - reduced cost	16
C. LABOUR - reduced cost	21
D. MARKETING METHODS - changed	25
E. COSTING SYSTEM - changed	10
F. NEW PRODUCTION TECHNOLOGY - investment	44
G. OVERSEAS TRAVEL	21
H. OTHER - please specify	<u>19</u>
	<u>180</u>

No of respondents - 58

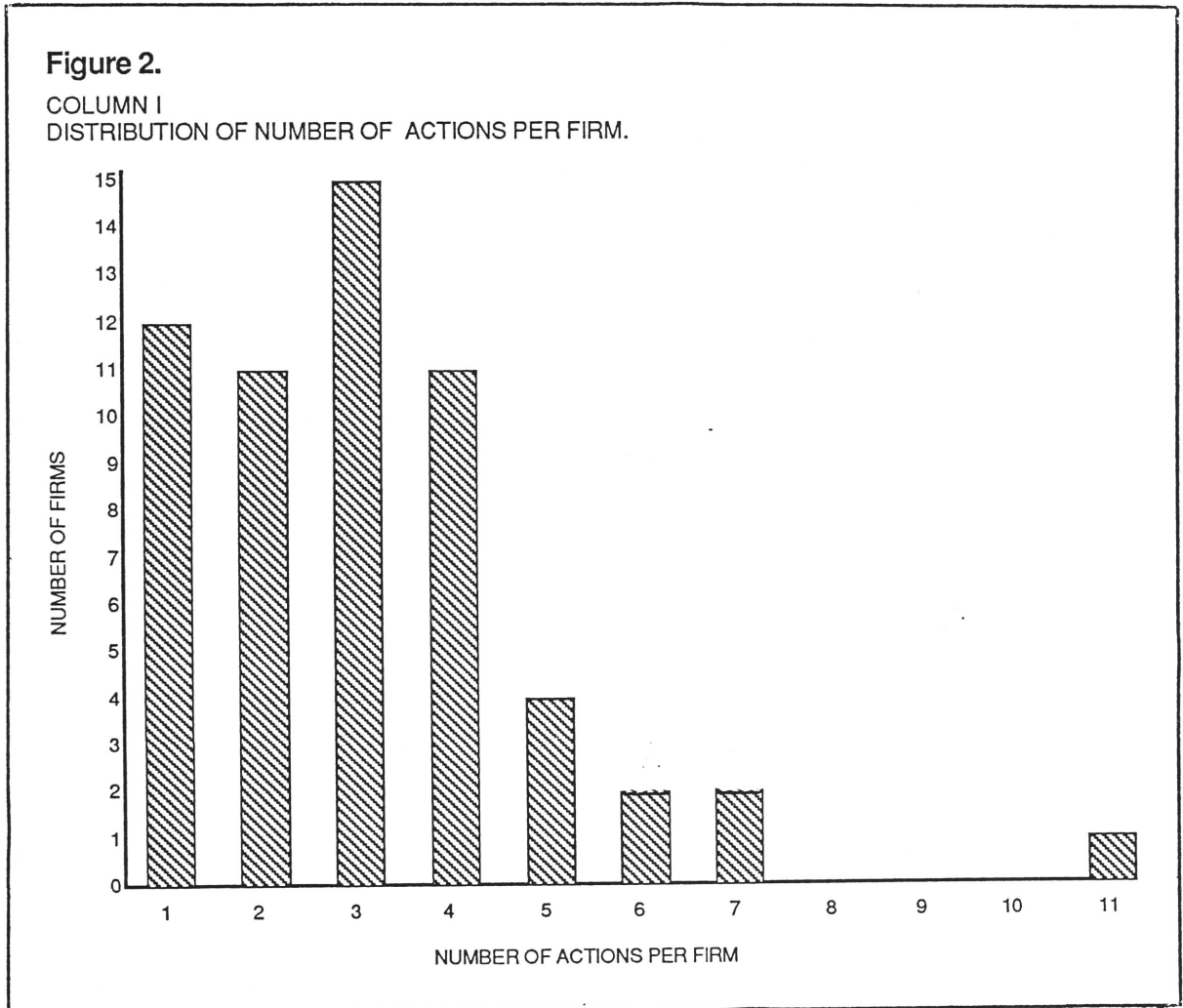
Average actions per firm 3.1

Proportion of respondent firms taking action in
response to import competition 91%

The 19 responses included as "other" can be classified into: changes in product line and/or increase in quality - 8; reduction in profit margin, production or staff - 3; import of components - 2; increase in cost of labour and materials - 2; increase in management involvement - 1; increase in productivity - 1; and capital investment in new technology (distribution, robotics, etc.) - 1.

Thus, 58 firms undertook a total of 180 actions since 1981 in response to anticipated or actual increase in import competition. These firms did react to improve the efficient and effective operation of their business. The most frequently cited action was investment in new production technology: 44 of the 58 firms (76%).

An analysis was undertaken to identify the number of actions per firm and results are as follows:



These results will next be reported in terms of distribution of "most important action" followed by the results of analyses of various subclassifications, i.e. size of firm, market segment and geographical location. These analyses were undertaken to identify any dependence between actions and the various subclassifications.

It will be recalled that respondents were requested to identify the most important action when more than one action was undertaken.

The results are as follows:

<u>TABLE 15</u>	
COLUMN I	
"MOST IMPORTANT ACTION" SINCE 1981 IN RESPONSE TO ANTICIPATED OR ACTUAL INCREASE IN IMPORT COMPETITION	
<u>ACTIONS</u>	<u>NO. OF RESPONSES</u>
A. WORK FLOWS - changed	6
B. MATERIALS - reduced cost	4
C. LABOUR - reduced cost	4
D. MARKETING METHODS - changed	8
E. COSTING SYSTEM - changed	0
F. NEW PRODUCTION TECHNOLOGY - investment	22
G. OVERSEAS TRAVEL	1
H. OTHER	5
	<u>50</u>

By far the most frequently cited "most important action" was investment in new production technology - 22 firms out of 50 (44%).

ANALYSIS OF RESPONSES BY SIZE OF FIRM:

The initial analysis undertaken related to the size of the respondent firms based on the number of employees. The Column I responses were divided by size into a two-way and then a three-way classification. The initial classification was to divide the firms responding into fifty or less employees, and fifty-one or more employees.

This classification is shown below:

TABLE 16			
COLUMN I			
RESPONSES: DISTRIBUTION OF ACTIONS AND SIZE - NO. I			
<u>ACTIONS</u>	<u>SIZE</u>		<u>TOTAL</u>
	<u>≤ 50</u>	<u>≥ 51</u>	
	<u>EMPLOYEES</u>	<u>EMPLOYEES</u>	
A. WORK FLOWS - changed	12	12	24
B. MATERIALS - reduced cost	7	9	16
C. LABOUR - reduced cost	9	12	21
D. MARKETING METHODS - changed	10	15	25
E. COSTING SYSTEM - changed	3	7	10
F. NEW PRODUCTION TECHNOLOGY - investment	18	26	44
G. OVERSEAS TRAVEL	9	12	21
H. OTHER	<u>8</u>	<u>11</u>	<u>19</u>
	<u>76</u>	<u>104</u>	<u>180</u>
Number of firms	27	31	58
Average number of responses	2.8	3.3	3.1

It can be seen that the larger firms, on the average, undertook more actions than the smaller. A (statistical) hypothesis was formulated as follows to test whether the distribution in responses was significant:

H_0 the distribution of actions taken in response to anticipated or actual increase in competition from imports was independent of the size of the firm (as classified by Size No. I)

The data were re-arranged to include action E into the "other" category H, because the expected frequency was less than five. (This process of amalgamation to obtain an expected frequency of five or more was utilised whenever necessary in the subsequent analyses.)

The decision rule was to accept the null hypothesis if $\chi^2 \leq 12.592$, at .05 confidence level. The computed value of $\chi^2 = 1.49$, therefore the null hypothesis was accepted.

A further analysis was undertaken of the number of actions taken per firm depending on the size one classification. Table 17 illustrates the significant results.

TABLE 17		
COLUMN I		
DISTRIBUTIONS OF ACTIONS PER FIRM AND SIZE NO. 1		
<u>NO. OF ACTIONS PER FIRM</u>	<u>NUMBER OF FIRMS WITH EMPLOYEES \leq 50</u>	<u>NUMBER OF FIRMS WITH EMPLOYEES \geq 51</u>
1	6	6
2	9	2
3	4	11
4	4	7
5	1	3
6	2	0
7	1	1
11	0	1
	<u>27</u>	<u>31</u>
χ^2 : Significant value = 7.815 (.05 confidence level)		
Calculated value = 8.2		

On the basis of these results it was decided that a further test of size dependence would be to group respondent firms in a three-way classification, delete the middle group and test for independence between the two extremes. It was considered that an analysis of the firms employing 20 people or less as compared to firms employing 101 or more people would be a more crucial test of size effect in terms of distribution of actions.

The classification was undertaken with the following results (confidence levels of .05 were used throughout):

TABLE 18				
COLUMN I				
RESPONSES: DISTRIBUTION OF ACTIONS AND SIZE NO. 2				
<u>ACTIONS</u>	<u>SIZE</u>			<u>TOTAL</u>
	<u>≤ 20</u>	<u>≥ 21</u>	<u>≥ 101</u>	
	<u>EMPLOYEES</u>	<u>≤ 100</u>	<u>≥ 101</u>	
A. WORK FLOWS - changed	9	7	8	24
B. MATERIALS - reduced cost	3	6	7	16
C. LABOUR - reduced cost	7	7	7	21
D. MARKETING METHODS - changed	6	13	6	25
E. COSTING SYSTEM - changed	2	6	2	10
F. NEW PRODUCTION TECHNOLOGY - investment	10	20	14	44
G. OVERSEAS TRAVEL	4	12	5	21
H. OTHER	<u>8</u>	<u>7</u>	<u>4</u>	<u>19</u>
	<u>49</u>	<u>78</u>	<u>53</u>	<u>180</u>
Number of firms	17	23	18	58
Average number of responses	2.8	3.3	2.9	
χ^2 : Significant value = 11.070				
Calculated value = 3.13				

Thus the distribution of actions is independent of size in firms with 20 or less employees, compared to firms of 101 or more employees.

A further analysis was undertaken of the number of actions per firm with this size classification number two.

The distributions were as follows:

TABLE 19			
COLUMN I			
RESPONSES: NUMBER OF ACTIONS PER FIRM AND SIZE NO. 2			
<u>NUMBER OF ACTIONS</u> <u>PER FIRM</u>	<u>≤ 20</u> <u>EMPLOYEES</u>	<u>21-100</u> <u>EMPLOYEES</u>	<u>≥ 101</u> <u>EMPLOYEES</u>
1	4	3	5
2	6	3	2
3	1	10	4
4	3	3	5
5	1	2	1
6	1	1	0
7	1	0	1
11	<u>0</u>	<u>1</u>	<u>0</u>
	<u>17</u>	<u>23</u>	<u>18</u>

However, no significant relationships were identified.

Further analyses was undertaken to identify significant relationships between the size and individual actions i.e. by using cross-breaks [See Kerlinger 1979, p.160]. With the exception of the "other category" there were no significant relationships.

ANALYSIS OF RESPONSES BY MARKET SEGMENTS:

The second group of analyses involved the classification of responses according to market segment. The broader classes of mens, womens and childrens segments were analysed first. An initial decision needed to be made as to the classification of responses where more than one market segment was operated in by individual firms. Requested information, i.e. percentage of production was, unfortunately, not always provided. Hence some respondents ticked the market segments in

which they operated. Where there was more than one tick, the information content was blurred, for example two ticks could mean 50 per cent production in each segment, or 90 and 10 per cent respectively.

However at the broader level, this classification problem existed with only eleven firms. These were usually large firms operating in many segments of the market. Of the remaining 47 firms, 16, 26 and 5 were classified as operating in mens, womens and childrens segments respectively. A decision was made to use 50 per cent production as the guideline for classification of a firm as operating in a segment. Thus, if a firm identified operating in casual mens, womens and childrens as 30%, 60% and 10%, the firm was classified as operating in the womens segment. Only the mens and womens segments provided usable groups. The results of this classification were as follows:

TABLE 20
COLUMN I

DISTRIBUTION OF RESPONSES WITH MENS & WOMENS MARKET SEGMENTS

<u>ACTIONS</u>	<u>MENS</u>	<u>WOMENS</u>	<u>TOTAL</u>
A. WORK FLOWS - changed	5	13	18
B. MATERIALS - reduced cost	5	9	14
C. LABOUR - reduced cost	6	9	15
D. MARKETING METHODS - changed	7	16	23
E. COSTING SYSTEM - changed	2	8	10
F. NEW PRODUCTION TECHNOLOGY - investment	12	22	34
G. OVERSEAS TRAVEL	7	12	19
H. OTHER	<u>4</u>	<u>12</u>	<u>16</u>
	<u>48</u>	<u>101</u>	<u>149</u>
Number of firms	16	26	42
Average number of responses	3	3.8	3.5

χ^2 : Significant value = 12.592
Calculated value = 1.66

It can be seen from the table above that, on the average, firms operating in the womens segment undertook more actions than those operating in the mens segment, even though the distribution was not significantly different. Thus another analysis was undertaken, after re-arranging the data so as not to infringe the limitations, regarding the number of actions per firm and the market segments:

<u>TABLE 21</u>		
COLUMN I		
RESPONSES: NUMBER OF ACTIONS PER FIRM AND MARKET SEGMENT		
<u>NUMBER OF ACTIONS</u> <u>PER FIRM</u>	<u>MENS</u>	<u>WOMENS</u>
1 & 2	7	6
3 to 11	<u>9</u>	<u>20</u>
	<u>16</u>	<u>26</u>
χ^2 : Significant value = 3.841 Calculated value = 1.8		

Individual actions were compared between segments to identify statistically significant relationships. All individual actions were tested, and they did not display different response patterns. However, when action E "COSTING SYSTEM - changed" was included in the "other" category H, because expected frequency was less than five, the "other" category exhibited different response patterns.

Table 22 illustrates the approach adopted.

TABLE 22
COLUMN I

DISTRIBUTION OF "OTHER" ACTIONS

<u>"OTHER" ACTIONS</u>	<u>MARKET SEGMENT</u>		
	<u>MENS</u>	<u>WOMENS</u>	<u>TOTAL</u>
Yes	6	20	26
No	<u>10</u>	<u>6</u>	<u>16</u>
	<u>16</u>	<u>26</u>	<u>42</u>

χ^2 : Significant value = 3.841
Calculated value = 6.8

It is appropriate, given the above results to identify the individual responses in the "other" category H including E. The following table indicates these:

TABLE 23

**COLUMN I: "OTHER" ACTIONS UNDERTAKEN BY FIRMS OPERATING
IN THE MENS & WOMENS MARKET SEGMENTS**

Mens Segments: 6 actions

"Reduced staff"
"Production"
"Changed style of shoes"
"Moved into casual fashion"
plus 2 from action E - COSTING SYSTEM changed

Womens Segments: 20 actions

"Better quality control"
"Increased quality standard"
"Changed to higher quality product"
"Increased productivity"
"Product simplification"
"Management involvement"
"Reduced profit margin"
"Import components"
"Sourcing parts overseas"
"Increase cost of materials"
"Increase cost of labour"
"Computerize systems"
plus 8 from action E - COSTING SYSTEM changed

The next group of analyses involved the various segments of the market, i.e. high and medium fashion, and the other categories. No significant relationships were identified. Individual actions were analysed between various womens and mens high and medium fashion segments but without identifying any significant relationships. A further analysis undertaken in this section followed from this (statistical) hypothesis:

H_0 Overseas travel was independent of market segment (classified as combined high and medium fashion womens and the adjusted balance).

The balance of the responses was adjusted to exclude responses which identified operations of less than 50 per cent in the womens high and medium fashion. The decision rule was to accept the null hypothesis if $\chi^2 < 3.841$. The computed value of $\chi^2 = 3.21$, thus the null hypothesis was accepted. The firms operating in the industrial market segment that responded, numbered too few to statistically analyse.

The market segments of casual and sports were combined to undertake the next analysis, however no significant relationships were identified. The number of responses per firm in the segments and individual actions were analysed, however no significant relationships were found.

ANALYSIS OF RESPONSES BY GEOGRAPHICAL LOCATION:

The results of the distribution is as follows:

<u>TABLE 24</u>		
COLUMN I		
DISTRIBUTIONS OF ACTIONS BY GEOGRAPHICAL LOCATION		
	<u>BRISBANE, PERTH, ADELAIDE, & NON-METROP.</u>	<u>MELBOURNE, GROUPS, & SYDNEY</u>
A. WORK FLOWS - changed	9	15
B. MATERIALS - reduced cost)		
C. LABOUR - reduced cost)	10	27
D. MARKETING METHODS - changed	7	18
F. NEW PRODUCTION TECHNOLOGY - investment	10	34
G. OVERSEAS TRAVEL	6	15
H. OTHER)		
E. COSTING SYSTEM - changed)	<u>5</u>	<u>24</u>
	<u>47</u>	<u>133</u>
Number of firms	14	44
Average number of responses	3.3	3.0
χ^2 : Significant value = 11.070		
Calculated value = 4.15		

It will be noted from the above table that the responses for 14 firms was 47 actions, whereas for the remaining 44 firms the actions were 133. The following table identifies the numbers of actions per classification.

<u>TABLE 25</u>		
COLUMN I		
NUMBERS OF ACTIONS PER GEOGRAPHICAL LOCATION		
	<u>FIRMS</u>	<u>ACTIONS</u>
Melbourne + Groups	27	83
Sydney	17	50
Brisbane, Adelaide		
Perth & Non-metropolitan	<u>14</u>	<u>47</u>
	<u>58</u>	<u>180</u>

The average number of actions undertaken per firm by geographical classification is 3.0, 2.9 and 3.3 respectively.

An analysis was undertaken of the number of actions per firm and geographical location as follows:

<u>TABLE 26</u>		
COLUMN I		
NUMBER OF ACTIONS PER FIRM AND GEOGRAPHICAL LOCATION		
<u>NUMBER OF ACTIONS PER FIRM</u>	<u>MELBOURNE, GROUPS AND SYDNEY</u>	<u>BRISBANE, ADELAIDE, PERTH & NON- METROPOLITAN</u>
1 & 2	20	3
3 to 11	<u>24</u>	<u>11</u>
	<u>44</u>	<u>14</u>
χ^2 : Significant value = 3.841 Calculated value = 3.5		

Similar analyses were undertaken with different groupings of geographical location, all of which resulted in the (statistical) null hypotheses being accepted.

A further analysis was undertaken of individual responses, i.e. using cross-breaks, with the results that only one significant relationship was identified.

The following table illustrates the approach adopted:

<u>TABLE 27</u>		
COLUMN I		
ACTION "CHANGED WORK FLOWS" AND GEOGRAPHICAL LOCATION		
<u>ACTION</u> <u>CHANGED WORK FLOWS</u>	SITUATION	
	<u>MELBOURNE AND</u> <u>GROUPS</u>	<u>BRISBANE, PERTH,</u> <u>ADELAIDE AND</u> <u>NON-METROPOLITAN</u>
YES	8	9
NO	<u>19</u>	<u>5</u>
TOTAL	<u><u>27</u></u>	<u><u>14</u></u>
χ^2 : Significant value = 3.84		
Calculated value = 3.99		

In summary, with minor exceptions, statistical analyses indicated independence between actions undertaken and size of firm, market segment and geographical location.

COLUMN 2 RESULTS - ACTIONS UNDERTAKEN "FOR OTHER REASONS":

The distribution of these responses follows:

<u>TABLE 28</u>	
COLUMN 2	
DISTRIBUTION OF ACTIONS UNDERTAKEN SINCE 1981	
"FOR OTHER REASONS"	
<u>ACTIONS</u>	<u>NO. OF RESPONSES</u>
A. WORK FLOWS - changed	11
B. MATERIALS - reduced cost	3
C. LABOUR - reduced cost	6
D. MARKETING METHODS - changed	7
E. COSTING SYSTEM - changed	7
F. NEW PRODUCTION TECHNOLOGY - investment	9
G. OVERSEAS TRAVEL	9
H. OTHER - please specify	<u>4</u>
	* <u>55</u>
No of respondents	22
* Most firms identified more than one action.	

It will be recalled that respondents were requested to identify the most important reason for taking these actions and 14 of the 22 respondent firms identified the reasons as tabled below. The table does include respondent firms where only one action was undertaken. The reasons can be summarised as: the increase in efficiency and effectiveness in the firms' operations.

TABLE 29

**COLUMN 2
MOST IMPORTANT REASON FOR ACTIONS UNDERTAKEN
FOR "OTHER REASONS"**

1. Maintain present market share.
2. Introduce new machinery.
3. New production technology.
4. Interest charges and incentives for modernising plant.
5. To stay competitive, to maintain profit, machine replacement.
6. Necessary and continual improvement to productivity measures.
7. Increased cost efficiency.
8. To standardize and simplify production and productivity.
9. Essential progression from an inefficient system.
10. Substantially reduced work in process to speed delivery and service.
11. To become competitive and retain market share.
12. Increasing awareness of the importance of footwear in a more lasting material.
13. Domestic competition, flexibility, workers compensation costs.
14. Australian competition as well as overseas.

Obviously a relationship may exist between some of the actions undertaken in Column I and Column 2. Eleven firms identified "Work flows - changed" and all but one of these had identified "new production technology - investment" in Column I. Thus the work flows may have been changed, indirectly, as a result of anticipated or actual increased competition from imports.

There were six firms who had identified actions in Column 2, but none in Column I. Of the six, five were identifiably in a single market segment, i.e. two in sports, one industrial, one in casual, one in surgical footwear, and the other firm ticked three mens segments: medium fashion, casual and industrial. Three of the firms actually wrote on the questionnaire that they were not competing with imports. The small number of responses created limitations with respect to analyses and no statistically significant relationships were found.

The third and final parts of this report on the survey results relates to other information gained. This can be divided into two areas: the first, notes or attachments to the questionnaire supplied by respondents, and secondly, follow-ups with the respondents who no longer manufacture footwear.

ADDITIONAL INFORMATION ATTACHED TO QUESTIONNAIRE:

Five firms provided other information, and three of these firms were situated in Melbourne, one in Sydney and one in Perth. Two of the Melbourne firms employed over 100 people, and the rest less than 50. One respondent had the view that it was impossible to reduce the cost of materials, and further that increased competition from imports was not a motivating reason for change in work methods or investment. The respondent wrote:

The motivation is trying to maintain a present market share with current levels of imports and a more centralized ownership of retail outlets for footwear. Increased competition from imports is more likely to have a negative effect on work method changes and investment.

Another respondent identified a problem with operators, and wrote:

While we are willing to invest in new updated machinery and train staff to operate them, we are finding it extremely difficult to get either skilled staff or unskilled labour willing to learn. The biggest problem area is shortage of machinists, and we face the undaunting prospect of several long serving, skilled machinists retiring and replacements nearly impossible to find.

A third respondent also raised the issue of the labour force and noted that the current seven year plan, did not encourage school leavers to enter the industry. A second point was raised related to competition with the rest of the world:

If we are to have all the benefits of living and working in Australia, to have and accept the living standards, hours of work, holidays and loadings, wages and sick pay etc. - then we must pay for it.

The final two respondents who provided additional information provide a contrast. One now had 13 employees, but had in excess of 100 some 10 years ago. The respondent wrote:

... had to open factory direct to public sales to keep doors open - orders from retail stores stopped completely in 1981 because of imports from low wage rate countries.

The second had 30 employees and had been in business for 2.5 years. Although the competition with Italian imports was recognised, the respondent had the view that because of the changes taking place, there were still opportunities to be capitalised on.

In this section a report follows of an interview conducted with an addressee of the questionnaire. The researcher was telephoned and advised by the potential respondent that as he had only been in

business for 12 months the questionnaire was not relevant. The researcher followed this up by arranging an interview, which was subsequently undertaken. The researcher was curious as to the nature of the business, particularly given that others were leaving or had left the industry.

The interviewee, who had a manufacturing background, identified a niche, and manufactured womens high fashion shoes on a made-to-order basis. The firm had a large range of moulds, types and colours of leathers, and provided a three week turnaround time, thereby providing the customer with what could be a unique pair of shoes relatively inexpensively. Matching handbags were also available. Although the business was small, the interviewee had the view that the business would shortly become profitable as it "filled a gap" between mass produced Australian fashion shoes and very expensive Italian fashion shoes.

A second firm who returned the questionnaire as "not relevant" noted:

"Our firm is not directly involved in manufacture as we get all our footwear made up by other factories."

The third firm in this category replied in letter form and concluded:

"We are manufacturers of industrial footwear which is controlled and governed by the standard association licencing system, and our other main production is contractual ten pin bowling shoes, and we are unaware of how and if the protection plan has had any influence or not."

INFORMATION FROM PREVIOUS MANUFACTURERS:

The final section of this chapter relates to information provided to the researcher, on returned uncompleted questionnaires. It will be recalled that eight firms returned the questionnaire with information to the effect that their firms were no longer making shoes. Various reasons were given by some firms, and a letter was sent to the balance of the firms requesting details as to when and why the change had taken place.

One respondent identified that the firm had sold out in April 1985, "as I found it quite difficult to compete on price with my small pairage and lack of large finance facilities". Two respondents identified that they had gone into liquidation because of insolvency and had employed 150 people in total. Another two firms had changed from the manufacture of casual shoes, joggers and thongs and are now importers. Another respondent identified the change to the "wholesale (of) footwear for industrial purposes". The final respondent, previously a manufacturer of thongs, "was unable to compete with thongs from cheap labour Asian countries and eventually closed down".

DISCUSSION OF RESULTS:

The usable responses to the survey based on the number of firms was, 37%; an acceptable rate. This was the lower of the two methods of calculation. The second method, based on the number of employees, was very high, i.e. 85% of the possible population. The comparison indicates that with the exception of perhaps three firms (calculated as the remainder of the groups), the non-respondent firms must have

been quite small. The remaining 15% of the employees were employed by 63% of the number of firms.

A test for non-response bias was made by comparing the results of early and late responses. Several distributions were attempted in the decision as to where the cut-off point of early, compared to late, was. The first 25 responses which were received within 7 days of the mailing date, were compared with the last 24 responses. The last response was received some 10 weeks after mailing, with the remaining 23 in this category being received up to 6 weeks after the mailing date. An analysis of the distributions of actions, using the chi-square test for independence, did not identify any significant difference in the early, compared to the late, responses. The follow-up letter could have assisted in the responses with 13 usable returns being received after the mailing of the follow-up letter. However no significant difference in the distributions of these responses, as compared to all others, was identified. On the basis of the above, it is believed that the results are generalizable.

DISCUSSION OF COLUMN I RESULTS:

The most interesting item of information gained from the survey is that so many actions, 180, were undertaken in response to the anticipated or actual increase in competition from imports. Further, the number of actions undertaken for this reason was considerably higher than the number undertaken for other reasons (55).

This was an indication of at least two factors: the first being an interest and/or commitment to remaining in the industry by these

firms. The second was the recognition of deficiencies in the operations of the firms' business, particularly in connection with competition from imports. By far the most common response in terms of both frequency and importance was investment in new production technology. Therefore, research hypothesis No. 5 was accepted.

H No. 5. Australian footwear manufacturers did undertake capital investment in response to anticipated or actual increase in competition from imports.

All of the 44 firms who invested in new production technology presumably knew that the intent of the current seven year plan was to reduce protection. This had a positive effect in the sense that it stimulated capital investment. It can be argued that this capital investment, stimulated by a reduction in protection, probably arose from a change in the corporate culture from "learned helplessness" to a recognition that it was time to act to achieve efficiency and effectiveness of operations. This change in the culture promoted organisational change to more efficient and effective operations. The extent of the number of actions undertaken provided substantial evidence that the firms were involved in a wide range of organisational changes as a result of the seven year plan. The proportion of these changes representing capital investment is difficult to gauge. Whilst new production technology is obviously a capital investment, changing the costing systems is less clear. Simple changes would not be regarded as capital expenditure but if a consultant was engaged to undertake the task or if the task was major they would be.

The relative importance of the actions undertaken can be gauged from the results of the 50 firms who identified a "most important" action:

22 identified the capital investment in new production technology. Again this supported the argument that the reduction of protection, part of the external environment of the firm, stimulated capital investment. One of the larger firms included capital investment in new technology in areas other than production, e.g. distribution.

The analyses relating to the size of the firm, in terms of the number of employees, were useful. The first analysis related to the distribution of types of actions and no dependence was identified in either of the two size classifications. Thus it can be argued that the non respondent firms, most of which must be quite small in terms of employees may have similar distributions of responses. It is arguable that the smaller non-respondent firms (probably having less than 20 employees) may have undertaken three actions. On the basis of the results in Tables 17 and 18, it would appear that firms which have between 50 and 100 employees have undertaken slightly more actions per firm.

The market segment analysis was interesting, but in this case because the expected variations did not occur. It was expected that overseas travel would be linked to the fashion market segment, but was not found to be so. With hindsight it could have been informative if overseas travel was divided into several types. Reasons for overseas travel could include the observation of changes in fashion styles and colours, the inspection of new production technology, and the inspection of overseas materials or components with a view to import.

The geographical location of respondent firms was the final aspect analysed. The interpretation of the rejection of the null hypothesis

as outlined in Table 27, is as follows. The action "work flows changed" was undertaken by 9 of the total 14 (64%) "Brisbane, Perth, Adelaide and Non-metropolitan firms" as opposed to 8 of the total 27 (30%) "Melbourne firms". It may be argued that changing work flows was a consequence of investment in new production technology. However, four out of the 9 "Brisbane, Perth, Adelaide and Non-metropolitan firms" who changed work flows did not invest, whereas only 1 out of the 8 in "Melbourne and groups" did not. It may be therefore assumed that the changes were made to promote efficiency and remove double-handling and bottlenecks. This may be an indication that the Melbourne firms devised efficient work flows prior to 1981, whereas the other group had not. Alternatively, it may be that Melbourne firms have yet to devise efficient work flows, perhaps after capital investment in new equipment.

Although the response format limited the statistical analysis that could be applied, the requisite information was gained, i.e. how did firms respond to the reduction in protection? It was obvious that firms did respond in a positive way. It will be recalled that the government's explicit objectives of the current seven year plan were to:

- increase efficiency;
- reduce production costs; and
- increase responsiveness to consumer demand.

Although no methods of measurement were outlined by the government, the survey responses appear to indicate that the plan's objectives were met to some extent.

DISCUSSION OF COLUMN 2 RESULTS:

The second section of the results was important in that it identified

actions undertaken, for reasons other than in response to anticipated or actual increase in competition from imports. The reasons as outlined previously can be reduced to one phrase

"to increase efficiency and effectiveness of operations"

In the main the pattern of responses were not influenced by size or market segment. Furthermore, responses in relation to imports were greater than for other reasons. This suggested that the plan had created a change in attitude in the industry as conveyed by a significant group of new actions unrelated, in the main, to structural factors. It will be recalled that one of the case studied firms identified the fact that all the "noise" about an efficient footwear industry stimulated that firm to review its operations.

DISCUSSION OF OTHER INFORMATION PROVIDED:

The final section of the results related to other information provided.

One point raised by a respondent was the cost of the benefits of living and working in Australia. The recognition was made that the cost of the high living standards and wages with their consequent holiday loadings, etc. must be paid for. The implication was that the payment should be made by consumers in the purchase of their footwear. The question of whether or not this is so is beyond the scope of this paper.

A further point to emerge from this section was the confidence displayed by the owner of a new footwear manufacturing business. He

had found and exploited a niche. He travelled to Italy and purchased not only moulds, but a range of leathers. His firm offered a service, made-to-order high fashion womens footwear. This service appeared to satisfy a want for uniqueness, as well as a "good fit". Thus, it appeared that an entrepreneur could have an efficient new business when other, more established firms were going out of business.

CHAPTER SUMMARY:

The major points drawn from this chapter are:

1. A questionnaire was constructed, pre-tested and administered by mail to firms listed in the yellow pages of the telephone books under "Footwear Manufacturers and/or Wholesalers".
2. The response rate was residually determined as 37% of the number of firms and 85% of the number of employees in the manufacturing industry.
3. Respondents were asked to identify actions taken since 1981 in response to anticipated or actual increase in competition.
4. Respondents were also asked to identify actions taken since 1981 for other reasons.
5. The survey responses indicated that, to some extent, the objectives of the plan, i.e. to increase efficiency, reduce production costs and to increase responsiveness to consumer demand, were achieved.
6. Investment in new production technology was by far the most frequent and most important action undertaken by the respondent firms.
7. Hypothesis 5 - Australian footwear manufacturers did undertake capital investment in response to anticipated or actual increase in competition from imports - was, on the basis of the survey responses, accepted.

CHAPTER SIX

CONCLUSION

Evidence was presented that the footwear manufactory industry had a history of high levels of protection. Attempts by various governments to reduce protection triggered lobbying activities by manufacturers. In most cases the lobbying was successful. A particular corporate culture, learned helplessness, was postulated. It was argued that the creation of learned helplessness was a consequence of the sheltered environment provided to the protected industry. It was considered that capital expenditure budgeting and capital investment may have been influenced by protection, i.e. there was little overall incentive to identify means of increasing the efficient and effective use of resources. Learned helplessness may have been an intervening variable between protection and capital expenditure budgeting.

Stage One of the empirical research was designed to use secondary data from 1968/69 to 1981/82. The aim was to identify the relationship between capital investment and protection, (operationally defined as the nominal rate of assistance) and other major identifiable variables, e.g. production output. This was achieved by using a stepwise multiple regression analysis. The null hypothesis was rejected, thus there is some evidence that capital investment and the nominal rate of assistance were moving in the same direction. The direction of the relationship could not be proved by the analysis. It was argued that a priori, increased protection would be likely to encourage some capital investment. In 1982 the government introduced

the seven year plan to structurally change the industry by encouraging greater efficiency and increased effectiveness, particularly by greater sensitivity to consumer needs. The phased-in reduction of protection provided greater certainty about protection levels over the planning horizon, in contrast to the previous uncertainty regarding year-to-year protection levels. At the same time there was certainty that the industry would face increased competition from imports in the future. The industry would need to become more efficient and effective to survive. Hence it was believed that the changed environment would influence organisational culture and capital expenditure budgeting. After allowing for a lead time in capital budgeting, it was expected that the level of capital investment would be affected by the changing protection levels. However the effect was expected to be different to the pre-1982 relationship. The next stage of the study was to study the impact of the seven year plan on the capital expenditure budgeting processes of industry leaders.

Five case studies were undertaken to establish actual capital expenditure budgeting processes. Because capital investment and protection in the industry were statistically related up to 1981/82, the interviews were structured to identify the importance of the seven year plan on capital expenditure budgeting. Disguise was accomplished by asking a series of questions about capital expenditure budgeting in two time periods. The interviews were conducted in 1984. Respondents were asked not only about their most recent capital expenditure proposal, but also about one in 1979, i.e. before the introduction of

the seven year plan. The respondents were regarded as industry leaders and there was no intention to suggest that the results were necessarily generalisable.

The case studies indicated that the seven year plan contributed toward a change in corporate culture. The change in corporate culture led the manufacturers to critically examine their operations. This led to changes, e.g. redesigned work flows, which did not involve capital investment. The change also led in some cases to investment in state-of-the-art production technology. Even when three firms considered that they were not competing with imports, two out of three reported similar experiences.

The variety of the triggers to the capital investment proposals as well as the variety of factors influencing the decisions provided rich insights into the complexity of capital investment decision-making. The evidence provided by these case studies was checked in general terms by an interview with the major supplier of equipment to the industry, who reported a significant change in attitude by the industry towards the purchase of equipment to improve efficiency. Parts of the evidence were also checked by reference to the senior footwear buyers from two major retail chains.

A decision was made to survey all remaining manufacturers to identify whether the industry reaction to the seven year plan was similar to the reactions of the case-studied firms. This stage of the research was undertaken in 1986. It was expected that those firms remaining in

the industry would undertake capital investment, as well as instigate other organisational changes to increase efficiency and effectiveness of their operations.

The questionnaire asked respondents to identify actions taken since 1981 in response to anticipated or actual increase in competition, and for other reasons. Seven actions, derived from the case studies, were included along with an "other" category. Extensive testing was undertaken to obtain a concise, easy-to-answer questionnaire, as well as a covering letter which would create interest on the part of the potential respondent. It was hoped that the covering letter, the questionnaire and the pre-paid reply envelope, would motivate potential respondents to complete and return the questionnaire.

The response rate was estimated to be 37% of the firms in the industry and 85% coverage in terms of the number employed in the industry. This response rate was considered very satisfactory, both in absolute terms and in light of the experiences of the government (18% response rate), and the industry association's very poor responses to requests for information. 58 firms identified that they had undertaken a total of 180 actions in response to the anticipated or actual increase in import competition since 1981. This was strong evidence that the seven year plan stimulated organisational change. The most frequent and "most important" action was investment in new production technology. There was strong evidence that 44 firms implemented organisational change in the form of capital expenditure budgeting. All 180 actions were apparently undertaken to increase the efficiency and effectiveness of the operation of the 58 firms.

Twenty two firms identified that they undertook a total of 55 actions for reasons other than the change in protection. The reasons given for the actions could be summarised as the increase in efficiency and effectiveness of operations.

Several analyses were undertaken to identify whether the distributions of the actions, and the number of actions per firm, were independent of the size of the firm, the market segment or the geographical location. Further analyses were undertaken to identify whether individual actions, i.e. overseas travel, were independent of the size of the firm, the market segment or the geographical location. With some minor exceptions, the actions and the distributions were independent. This tended to indicate that most surviving firms in the industry responded to anticipated or actual competition by increasing capital investment. The research also highlighted the following subsidiary facts:

- i) The high number of unopened questionnaires returned, as the addressee was no longer at the latest yellow pages address and had not provided for the redirecting of mail, confirmed reports of falling numbers in the industry. Also some replied indicating a change in the line of business to importing. Apparently the decreased protection had encouraged or forced a significant number of firms out of the industry or to change their line of business to importing, rather than manufacturing.
- ii) The case studies indicated systematic analysis of investment, but firms did not use discounted cashflow techniques.
- iii) Travel was an important source of new ideas for the industry.

The following table represents the extent of the industry covered during the collection of the primary data.

<u>TABLE 29</u>		
<u>EXTENT OF INDUSTRY COVERED</u>		
<u>Method</u>	<u>Firms</u>	<u>No. of Employees</u>
Interview-case study	No. 1	104
" " "	2	160
" " "	3	1000
" " "	4	100
" " "	5	40
" - questionnaire pre-testing	7*	25
" " "	8	17
" " "	9	100
" - q'aire & covering letter pre-testing	10	65
" " "	<u>11</u>	<u>20</u>
SUB TOTAL	10	1631
Self admin. mail survey	<u>64</u>	<u>8882</u>
TOTAL COVERAGE	74 firms	10513 employees
BEST ESTIMATE OF THE INDUSTRY TOTAL	185 firms	12000 employees
INDUSTRY COVERAGE	40%	88%

* Firm No. 6 was the major machinery supplier

In summary, the primary research questions are presented, and the derived hypotheses are discussed.

The primary research questions were:

1. Did the change in protection stimulate organisational change?
2. If so, did the organisational change include a change in capital investment, or capital expenditure budgeting?

3. If so, was the change in corporate culture an intervening variable?

As the study proceeded these questions were formulated into research hypotheses as follows:

- H No. 1 Changes in capital investment in the footwear industry are associated with changes in protection.
- H No. 2 The introduction of the seven year plan stimulated organisational change.
- H No. 3 The change included a change in capital expenditure budgeting or capital investment.
- H No. 4 A change in corporate culture was an intervening variable.
- H No. 5 Australian footwear manufacturers did undertake capital investment in response to anticipated or actual increase in competition from imports.

It will be recalled that the first hypothesis was accepted, on the basis of the statistically significant relationship.

The second, third and fourth hypotheses were accepted in relation to four out of the five case studied firms. What was particularly relevant was the contagion effect. The case studies indicated that the reassessment of operations and marketing strategies even occurred in firms which did not believe they were directly affected by imports. Furthermore, the interview with the footwear machinery supplier provided evidence that there was increased interest in improving operations, from a broader group than the case-studied firms.

The final hypothesis was accepted in that there was evidence, provided through survey responses, that Australian footwear manufacturers did undertake capital investment in response to anticipated or actual increase in competition from imports.

The study significantly contributes to the body of knowledge pertaining to the capital expenditure budgeting process, as well as to the body of knowledge pertaining to protection.

With respect to the body of knowledge pertaining to protection, a letter was recently forwarded to Senator Button, the Minister for Industry Technology and Commerce. It contained a preliminary summary of the survey results. This information would have had a different orientation, been more up-to-date and represent a higher response rate than the data which was available to the government. This unique information, regarding actions undertaken by firms since 1981, would have contributed toward an assessment of the extent to which the Government's objectives were met. The Government identified that the objectives were to:

- increase efficiency;
- reduce production costs;
- increase responsiveness to consumer demand.

It was considered that the information may also have been useful for the Senator's deliberations regarding post-1988 protection.

The study provides empirical evidence for the contention in a previous study [Greenwell, 1983a and 1984] that emphasis on evaluation techniques is only a small part of the total decision-making process. This process is best studied in an organisational context, as evidenced by the impact of changes in the external and internal environments.

AVENUES FOR FURTHER STUDY:

One avenue for further research relates to the possible reciprocal relationship between protection and capital investment. Although it is obvious that government decision-making, with respect to protection, is overtly political, it should be possible to study the use of capital investment data in the decisions. An examination of IAC and BIE reports could establish their use of capital investment data.

A second avenue for further research relates to the fact that the footwear industry is regarded as part of the textiles, clothing and footwear industries group. An analysis, similar to that undertaken in stage one of this study, could be made of the remainder of the group. This would allow analysis of aggregate data over the whole period of the current seven year plan and perhaps over the post-1988 plan. The analysis would be useful in determining the extent to which aspects of the footwear industry are common to similarly protected industries.

APPENDICES

1. Details of investment modelling process.
2. Case study interview sheet.
3. Approach letter to case-studied firms.
4. Summary of questionnaire construction.
5. Covering letter, questionnaire and pre-paid return envelope as distributed.
6. Follow-up letter as distributed.

A P P E N D I X 1

DETAILS OF INVESTMENT MODELLING PROCESS

APPENDIX IDETAILS OF INVESTMENT MODELLING PROCESS

The modelling process is outlined in the following section by series of regressions. The total process has, for convenience, been dissected into three series:

1. Single regressions using capital investment, footwear, and effective rate of assistance in the footwear industry, and new capital investment in all other manufacturing industry.
2. Multiple regressions with the above variables, some with the dependent variable adjusted for inflation.
3. Multiple regressions using the finally-adopted variables and lagging procedures.

FIRST SERIES

The original series of regression runs were comprised of single regressions. The first two variables were capital investment - footwear and the effective rate of assistance. The R^2 (adjusted) was .479. However, following private correspondence and discussions with IAC staff, a decision was made to discard the use of the effective rate of assistance because of continual changes in the method of calculation.

The second two variables were footwear capital investment - and capital investment - new - in all other manufacturing, with an R^2

(adjusted) of .556. Again this latter variable was discarded because of inconsistency between the two measures of capital investment. The footwear industry variable included land, second-hand buildings and equipment, as well as an adjustment for disposals. The original variable did not include these. The variable finally included, was extracted from the totals of the same ABS tables which provided the footwear data. This provided the desired consistency.

The third set of variables included as part of the original series, was capital investment - footwear, and retail sales - footwear, with an R^2 adjusted of .309. Again there was a difficulty with the nature of the variable: it included sales of imported goods, as well as locally produced goods.

Thus the first series used the effective rate of assistance, new capital investment in all other manufacturing industry and sales variables, in single regressions.

SECOND SERIES

The second series of regressions involved multiple regressions, but still using the above independent variables. Maximum R^2 (adjusted) was calculated, at .7407, by including all the independent variables. However, although capital investment new - all other manufacturing industry, and retail sales of footwear were significant ($p < .01$), the effective rate of assistance was not. A regression without including the effective rate of assistance variable gave an R^2 (adjusted) of .73 ($p < .02$). Thus, while it may have appeared the modelling was to some extent successful, the researcher was concerned about the nature

of the variables used and consequently set about to establish variables that were considered to be more meaningful for the purposes of this study.

The second series of regressions involved using, at times, the dependent variable adjusted for inflation. Further the finally adopted variable of capital investment - all other manufacturing industries was used (calculated from totals of ABS tables, the same tables from which the original and finally-adopted dependent variable were obtained). A number of regressions were attempted. An example was a check to see the difference between the use of nominal rate and effective rate of assistance. Both regression runs used capital investment as the dependent and profitability as one independent variable. The second independent variable was effective rate of assistance in one run and nominal rate of assistance in the second. The adjusted R^2 for the effective rate was .47 ($p < .005$) and for the nominal rate .64 ($p < .0005$). Although the results are "better" using the nominal rate, the lack of consistency in the measure of the effective rate was of more concern. Continued concern regarding the nature of the variables left all of these regressions redundant.

THIRD SERIES

The final set of regressions involved the variables as outlined earlier in this chapter:

capital investment	- footwear industry
nominal rate of assistance	- footwear industry
profitability	- footwear industry
production output	- footwear industry
capital investment	- all other manufacturing industries

It was considered at this stage that the variables were suitable and consequently the regression runs in this series involved lagging various variables.

Investment models may be termed either naive or flexible models. Naive models do not involve the lagging of variables, whereas flexible models do. The question of lagging is an important one, and can be addressed from two different approaches; firstly, what is the reality reflected in the variables, i.e. the inherent characteristics of the variables and secondly, the "best fit" when running the regressions on a lagged basis.

It is appropriate here to investigate the nature of the variables from the timing aspect. The first observation for capital investment in the footwear industry, 1968/69 reflects the accept decision of an investment proposal, probably considered some time prior to 1968/69.

There would have been an earlier awareness of the need for action. This may have been followed by a considerable delay while alternatives were investigated, and the commitment to place an order was made. If equipment had to be imported, there would have been further delay in delivery. Obviously these delays may vary considerably from item to item. Studies identified by Junankar [1972, p.68], suggested that decision and delivery lags together:

... seem to be of the order of 6 to 8 quarters [i.e. between 1.5 to 2 years].

A question also arose as to the nature of the environment at the time of the accept decision. For example, did the decision-makers know what the level of protection would be, or even more critically, was the level of protection even considered as having some bearing on the accept/reject decision. Thus the time frame involved between the announcement of change in protection and the actual change, could be important. It was for this reason that the timing of the announcement of the seven year plan was considered noteworthy. It will be recalled that the time lag in this case was 16 months.

Expectations about future production output, on the part of decision makers, are difficult to estimate. It was expected that with this variable, as well as with profitability, lags would probably be minimal, although profitability expectations were probably more difficult to estimate than production.

The final variable, capital investment in all other manufacturing industry, had the same difficulties with estimation of lags, as the dependent variable. As noted earlier, lags could be different not only between classes of investment but within classes.

As a general observation, the lags which could be relevant in both capital investment and protection level appeared to be within 1 to 2 years. Obviously the allocations of lags relied on tenuous assumptions and this qualification must be noted. However, the above discussion provided some guidelines as to possible meaningful lagged regressions.

This process of changing the model from naive to flexible was undertaken using a variety of lags; the variables being lagged were capital investment, nominal rate of assistance and profitability.

The first run adopted a one year lag of capital investment, thus the 1969/70 observation was used with the 1968/69 observations of all other variables. This only resulted in the inclusion of the nominal rate of assistance ($p < .05$) and the adjusted R^2 was .37. A second run adopted a two year lag with capital investment. However this was also unsatisfactory.

There was some concern about a possible difference between expectations of production output and profitability. Because of the marked degree of difference in the nature of these two variables, it was considered appropriate to lag profitability. Thus one run used lagged profitability starting with 1969/70 and with all other variables unlagged. However this procedure failed to include any variables into the equation. It will be recalled that, rather unexpectedly, profitability was not significant in the final results at all. Accordingly a decision was made to lag profitability in the opposite direction; thus using 1968/69 observation of profitability with 1969/70 observations of all other variables. This situation could be justified by an assumption that decision-makers place more emphasis on current profits rather than projecting different profits one year ahead. The results of this regression are tabled on the following page:

TABLE 31**RESULTS OF REGRESSION USING PROFITABILITY LAGGED 1 YEAR BEHIND**

<u>VARIABLE</u>	<u>STEP</u> (limit .05)	<u>R²</u> (ADJ)	(N=13) <u>BETA</u>	<u>FINAL</u> <u>COEFFICIENT</u>
Nominal Rate of Assistance	1	.64	.81	127.49 (8.77)
Production	2	.22	.5	0.16 (4.36)
Cumulative R ²		<u>.86</u>		

F statistic = 39.05, p < .001

Durbin-Watson = 1.60 (t statistic in parenthesis)

However profitability was still not included in the equation, even though by using the variable lagged one year behind, a higher R² (adjusted) statistic was obtained [compared to R² (adjusted) of .82 as tabled in the text].

There was no evidence available that suggested that decision-makers in the footwear industry did emphasize current profits in this way. Thus, even though the R² (adjusted) was slightly higher, this regression was discarded.

Because of the lack of compelling reasons for lagging in any particular direction, it was decided to utilize the unlagged model.

A P P E N D I X 2

CASE-STUDY INTERVIEW SHEET

NOT A QUESTIONNAIRE but points to pick up in INTERVIEWS

Basic information:

- (1) What sort of footwear manufacturer would you describe yourself as?
generalist or specialist?
gender: adult < male
female
children
industrial
high fashion
other
- (2) Number of employees?
- (3) Age of firm?
- (4) How long have you been in your present position?

I am particularly interested in your capital investment decision making.

Now I would like you to think about the last time you considered making some major capital investment. Have you got one in mind? I'd like you to think about the total process and then tell me the story.

1. What was the proposed investment?
 - (a) type
 - (b) \$\$
2. Whose proposal and when was it first floated (may just have been an idea)?
3. What was the trigger (what happened to instigate the proposal)?

4. Was proposal formally evaluated?

If yes - how?

4. Now, the accept/reject decision:

When?

How? factors influencing:

general state of economy

liquidity

current profitability

expectations future profitability

competitors actions/nonaction

desired firm size - expansion

replacement - broken

- obsolete

government protection

safety - legal requirement

- urging from employees

urging from union

- own desire

- reduce workers compensation claims or premiums

- restructuring - ergonomics

- morale booster - employees

5. Can you rank them in order of importance?

6. If decision was accept:

? implemented

? when

? or expected implementation

? review

7. If decision was reject:

What discouraged you from investing?

8. How far ahead do you need to look in making decisions?

Now I'd like you to go over same process about a major decision some 5 years ago.

If not same person in position, talk with other person (unlikely) or would you have made a different decision 5 years ago?

How and why would it have been different?

Other financial information:

6 year - Profile of Capital Investment : amounts
type

6 year - total funds invested
- gearing

6 year - extent of leasing
- amount
- any

6 year - profit before tax

6 year - sales and/or production

6 year - quota situation

Management consultants

Ever been involved in interfirm comparisons?

How profitable do you see the industry - past/future?

Strategic impact of the seven year plan?

Can you suggest anyone else?

A P P E N D I X 3

APPROACH LETTER TO CASE-STUDIED FIRMS



13 August 1984

Dear

I am a lecturer in the Department of Accountancy and Legal Studies and am undertaking research into investment decision making in the footwear industry. I have recently discussed the project with Mr. . He seemed positive about my research interest, and suggested I approach you to see whether you would assist me. He said I could mention his name when introducing myself.

I am aware of the advantages of educating students by having a working knowledge of how things work in industry. This, along with a curiosity about differences between textbook presentations of decision making and actual factors which influence your decisions, has stimulated my interest.

On completion of my interviews I will prepare a report and distribute it to participants. While not disclosing any information classified as confidential, this report could hold some interest for you.

I hope you will co-operate and with this in mind, I will telephone you shortly and would appreciate your granting an appointment.

Thanking you.

Yours sincerely,

Mary M. Greenwell
Lecturer

A P P E N D I X 4

SUMMARY OF QUESTIONNAIRE CONSTRUCTION

This appendix summarises the process of questionnaire construction, including the pre-testing procedures which involved the testing of the covering letter.

QUESTIONNAIRE CONSTRUCTION:

The central question was the identification of actions undertaken in response to the current seven year plan. The potential actions were derived from the actions of the case-studied firms. It was further considered that information as to the timing was important. As there was a lag of up to three years in the publication of ABS data, an indication of the timing of the investment would give more up-to-date information regarding capital investment.

A decision was soon made that the detailed subdivision of actions taken, may have been too great. This was a result of the researcher continually posing the questions, "is the question of proper scope?" and "is all the detail necessary?". (See Kerlinger [1973, p.485] and Oppenheim [1966, pp.39-43].) The advantage of including the detail was that it might cue the respondent to recall an action temporarily forgotten. The disadvantage was that the detail and length of the question may have reduced the probability of response.

A similar problem existed with the timing element in the question. It would provide information but was cumbersome and was unlikely to encourage responses.

The draft survey also included attitudinal questions regarding length of planning time frames and management style, both prior to 1981 and currently. These attitudinal questions were included to elicit information regarding changes in attitudes from before the announcement of the current seven year plan, i.e. pre-1981, to currently. The aim was to use this information to make a judgement about changes in the corporate culture of the firm. It was expected that the seven year plan would have promoted a longer planning time frame due to the reduction in uncertainty of year-to-year protection levels. The management style question adopted Stanworth and Curran's [1973] cluster of values as outlined in the thesis. Evidence already gathered (see case studies) seemed to indicate that most would identify artisan values. It was expected that the introduction of the seven year plan might have stimulated a shift in values to the entrepreneur stage.

It should be noted that the draft survey included all of the "nice to know" questions and did not, to any extent, take into account the probability of response. A shorter version of the questionnaire was developed with a view to reducing the length so as to encourage potential respondents to complete the questionnaire. Basically the differences between the two were that attitudinal questions, both pre and post announcement of the seven year plan, were discarded. This action denied the researcher the means of directly testing a hypothesis that the seven year plan contributed to a change in corporate culture. Reliance would have to be placed on the earlier case study research to suggest the nature of the intervening variable

should the survey indicate that there was a substantial increase in investment as a result of the seven year plan. The question relating to actions taken was shortened.

At this stage the researcher decided to return to the trade association executive for his opinion of the draft. Although the executive was not a member of the potential audience, his input to the design process was deemed of some relevance in light of his experiences in dealing with the target group. The researcher was urged to further reduce the length of the questionnaire. Advice regarding the structure of the market segment question was taken into account.

At this stage, it was decided to undertake pre-testing with manufacturers. As Oppenheim [1966, p.25] identified:

... pilot work can help us with the actual wording of questions and also with such procedural matters as the design of a letter of introduction, the ordering of question sequences ...

PRE-TESTING OF QUESTIONNAIRE - STAGE ONE:

At this stage, two manufacturers from the Metropolitan area, Firms 7 and 8, were chosen on the basis of geographical proximity. It was decided to include a third manufacturer, Firm No. 9, from a non-metropolitan area. This was based on the perceived need to ensure a metropolitan bias was not being created. These firms had not previously been interviewed by the researcher.

Contact was made by telephone to the Managers. The researcher identified the objective of the survey, i.e. identifying actions taken by manufacturers as a result of the current seven year plan, the need

for extensive testing, and consequently the request for their assistance. All three were initially reluctant, but were finally convinced to co-operate. All three were reassured that some twenty minutes should be sufficient time.

A process of testing was thus decided:

1. administer the short version of the questionnaire;
2. check that the taxonomy in the question relating to market segment was appropriate;
3. check the understanding of the words "work flows" after the response to the question;
4. check the probable response to the question of management style in order to make a judgement about the decision to discard the attitudinal questions;
5. check the order of questions;
6. advise that a summary of results would be sent;
7. thank the interviewee for their time and assistance.

This process was adopted for all three manufacturers.

The two metropolitan tests were conducted on the same day, with a process of re-checking included. Thus, suggestions made by the first were raised by the researcher with the second, for a further opinion. The third manufacturer was interviewed in the following week, and the process of re-checking was also included.

The survey responses and summaries of interviews with Firms 7, 8 and 9 are available for inspection from the researcher, although to maintain confidentiality, identifying information would be withheld. On completion of this stage, the revised draft was posted to firms 7, 8 and 9 for comment.

STAGE TWO PRE-TESTING:

The next stage of the testing also involved a testing of the covering letter. In this stage, two other manufacturers, Firms 10 and 11, were interviewed. The covering letter was deemed to be a very important part of the survey because it was the initial contact with the potential respondent. Emory [1980, page 310], citing Kanuk & Berenson [1975], noted that,

"The cover letter appears to be the most logical vehicle for persuading individuals to respond, yet the very few studies which are reported offer no insights into its formulation".

After consultation with colleagues, a reasonable draft was arrived at. It was decided that this draft and another, using the same wording but arranged differently, would be included in the second test run with manufacturers.

Both manufacturers Nos. 10 and 11 were positive in their response to the short version of the questionnaire. Completed surveys and interview details (edited to preserve confidentiality) with Firms 10 and 11 are available for inspection from the researcher. Each question on the questionnaire was deemed to be relevant, easy to understand and complete. In total, this questionnaire was far more likely to be responded to than the longer version. The researcher was urged to take note that, in the opinion of one manufacturer, most managers were production-oriented. The implication was drawn by the manufacturer that factual type questions would be answered, but the inclusion of attitudinal questions would decrease the response rate.

The covering letter was subjected to scrutiny with both manufacturers and the following points emerged. Use of heavy type to identify the survey topic was deemed to be positive. However opinion was divided as to the placing of the topic. One manufacturer had the strong view that the introduction, i.e. identification of who the researcher was and where from, should be at the commencement of the letter. He made the point that an unsolicited caller would introduce herself first.

The specification of approximate time needed to complete the questionnaire, coupled with the adjective "short", was deemed to be positive. Similarly, the assurance of anonymity and the option of receiving a summary of results was well received. A further positive point was the disclosure of the origin of the name and address, particularly when the information was publicly available.

Two deficiencies were noted by the manufacturers. The first of these centred around convincing potential respondents, "its worthwhile to answer". The second criticism was the use of "In anticipation of your co-operation". This was seen as potentially negative and could "put people off".

It was on completion of the pre-testing with firms 10 and 11 that the revised draft of both the questionnaire and the covering letter was completed. At this stage, only Firm No. 8 returned the amended questionnaire. The following comments were made: "Now an excellent form. Short and to the point. I am sure your response rate and accuracy of answers will be much improved." These comments must

be interpreted cautiously. However this comment and the positive responses of the questionnaire pre-testing lead the researcher to conclude that the basis of the questionnaire was well grounded.

Some minor adjustments were made to the questionnaire, and with the covering letter, were further distributed to colleagues for comment. Some criticisms were received: one of major concern, and a second of more minor concern. The major criticism related to the questionnaire itself. It was considered that responses to the central question, (identification of actions undertaken since 1981 in response to anticipated or actual increase in import competition) were unlikely to provide any meaningful results because there was no indication of the importance of actions, i.e. of marginal or significant importance. While accepting that this could be a valid criticism, the researcher took the view that the type of information required needed to be qualified by what was likely to promote an acceptable response rate. The central question was, "What actions did firms take?", and this was regarded as a "need to know" question. The range of perceived importance to each firm was regarded as "nice to know". However, the questionnaire was amended to allow the respondent to identify the "most important action". This decision obviously minimised the extent of statistical analysis of the responses, a cost the researcher accepted.

The second criticism related to the covering letter. It was deemed by some to be "too folksy". Again the potential audience was deemed to be of particular importance. Information received from an ABS officer indicated that the recent official survey of the TCF industries, while

not similar in content, only gained an 18% response rate. The industry had been described elsewhere as having a few large firms and many small family-type firms. It was considered that a less formal and friendly letter would gain initial attention and maintain interest, so vital to encourage response.

The question of providing for pre-paid postage on return envelopes was quickly decided. Emory [1980, p.309] again citing a study by Kanuk and Berenson [1975] noted:

The one study which tested the hypothesis that return envelopes increase response rates suggests that the inclusion of a stamped, return envelope does encourage response because it facilitates questionnaire return.

A decision was made not to apply postage stamps to the return envelopes, but to utilise the Freepost system.

195.

A P P E N D I X 5

**COVERING LETTER, QUESTIONNAIRE AND PRE-PAID
RETURN ENVELOPE AS DISTRIBUTED**



THE UNIVERSITY OF WOLLONGONG

DEPARTMENT OF ACCOUNTANCY AND LEGAL STUDIES

Phone (042) 27 0727

22 September 1986

Dear Manager,

My name is Mary Greenwell, I am a lecturer at the University of Wollongong. This survey is part of an on-going project studying the impact of government policy on the footwear manufacturing industry. It follows from a series of in-depth interviews with five manufacturing firms. The interviews addressed the question:

**HOW DID AUSTRALIAN FOOTWEAR MANUFACTURERS
RESPOND TO THE CURRENT 7 YEAR PROTECTION PLAN?**

I will be grateful if you would spare about ten minutes to complete the attached short questionnaire, which is designed to help me find the answer.

You are not asked to identify your firm and only aggregate results will be published. However, if you would like a pre-publication summary of results, please return this letter with your completed questionnaire in the pre-paid reply envelope. This summary should give you some insights into the responses of the industry.

As the name of your firm was drawn from the yellow pages of the telephone book, you may be a wholesaler and not a manufacturer. If this is the case, please return this letter and your firm's name will be removed from the listing.

It is only through the assistance of individuals, such as yourself, that we can hope to shed some light on the problem. Thank you for your contribution.

MARY M. GREENWELL
LECTURER

197.
QUESTIONNAIRE
FOOTWEAR MANUFACTURING
AUSTRALIAN OPERATIONS ONLY

1. How many people does your firm employ? _____
2. Please identify the market segment(s) in which your firm operates and include the percentage of production in each:

	MENS	WOMENS	CHILDRENS
FASHION - HIGH
- MEDIUM
CASUAL
SPORTS
INDUSTRIAL	N/A
OTHER _____ (Please specify) _____

3. Listed below are some actions that your firm may have taken since 1981. Please tick those actions which were in response to the anticipated or actual increase in competition from imports. Because you may have initiated some actions for other reasons, a second column has also been provided.

ACTIONS	<u>COLUMN 1</u> In response to anticipated or actual increase in <u>import competition</u>	<u>COLUMN 2</u> For Other Reasons
A. WORK FLOWS - changed	<input type="checkbox"/>	<input type="checkbox"/>
B. MATERIALS - reduced cost	<input type="checkbox"/>	<input type="checkbox"/>
C. LABOUR - reduced cost	<input type="checkbox"/>	<input type="checkbox"/>
D. MARKETING METHODS - changed	<input type="checkbox"/>	<input type="checkbox"/>
E. COSTING SYSTEM - changed	<input type="checkbox"/>	<input type="checkbox"/>
F. NEW PRODUCTION TECHNOLOGY - investment	<input type="checkbox"/>	<input type="checkbox"/>
G. OVERSEAS TRAVEL	<input type="checkbox"/>	<input type="checkbox"/>
H. OTHER _____ (Please specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
I. _____	<input type="checkbox"/>	<input type="checkbox"/>
J. _____	<input type="checkbox"/>	<input type="checkbox"/>

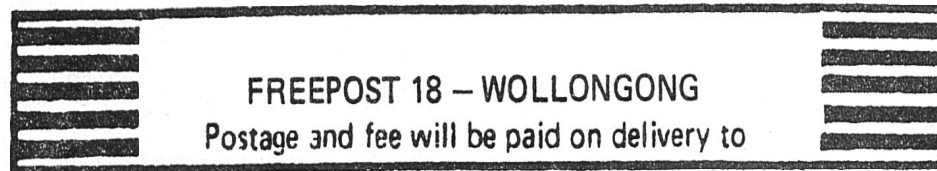
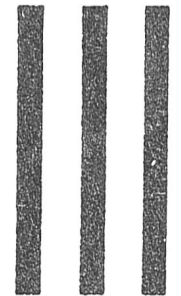
If you have ticked more than one action in column 1, please identify the most important action for your firm, by circling the appropriate letter, i.e. A to J.

If you have ticked any action(s) in column 2, please identify the most important reason for taking the action(s):

PLEASE RETURN THE QUESTIONNAIRE IN THE PRE-PAID REPLY ENVELOPE.

THANK YOU

No postage stamp required
if posted in Australia



Mary Greenwell
Department of Accountancy and Legal Studies
University of Wollongong
P.O. Box 1144
WOLLONGONG. N.S.W. 2500.

A P P E N D I X 6

FOLLOW-UP LETTER AS DISTRIBUTED



13 October 1986

Dear Manager,

About three weeks ago I sent you a questionnaire, which was part of an on-going study of the impact of government policy on the footwear manufacturing industry. The survey addressed the question:

**HOW DID AUSTRALIAN FOOTWEAR MANUFACTURERS
RESPOND TO THE CURRENT 7 YEAR PROTECTION PLAN?**

So far I have received responses from 64 manufacturers. The more responses I receive, the more representative the study will be of the industry's actions and views.

Accordingly may I please request your co-operation and ask that you complete and return the questionnaire. If, for any reason, you did not receive the questionnaire which I sent, please let me know and I will gladly send you a copy.

It may be that you have already returned the questionnaire on an anonymous basis. If this is the case then please ignore this request and accept my sincere thanks for your invaluable contribution.

Yours faithfully,

MARY M. GREENWELL

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