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**EUROPEAN IMPORTER BELIEFS AND ATTITUDES TOWARDS
IMPORTING FRESH APPLES FROM CHILE**

**A thesis presented in partial fulfillment of the requirements for the degree of
Master of Applied Science in Agribusiness**

Massey University

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Abstract

The objective of this research was to understand the attitudes European importers hold towards importing fresh apples from Chile. The purpose is to assist Chilean exporters to formulate adequate marketing strategies aimed at importers, in order to maintain and develop further competitiveness. The research examines the determinants of overall attitude towards the behaviour of importing apples from Chile. The analysis shows which beliefs and/or evaluative attitudes need to be changed in order to improve importers' overall attitude.

Ajzen and Fishbein (1980) have suggested a theory of reasoned action that can be used to predict and understand behaviour. In this research the theory of reasoned action was applied to examine attitudes of European importers towards importing apples from Chile and to expose to Chilean exporters the key areas in which positive changes can improve importers attitudes leading to a more favourable behaviour, i.e. increasing the likelihood of importing apples from Chile. In contrast to other models of organisational buying behaviour, the theory of reasoned action presents a conceptual framework that is practical to use for empirical research.

The research findings suggest that attributes related to the product such as quality and condition of apples as well as the infrastructure and capabilities of Chilean exporters to achieve good quality and condition were the attributes that most contributed to a favourable attitude. Exceptions were the specific cases of Bitter Pit and yellowing in Granny Smith apples and the proportion of new varieties (bicoloured apples) Chilean suppliers have available.

In relation to attributes that were exporter oriented, in general these contributed less towards a positive attitude. However, it can be concluded that improvements in the service exporters give to their importers could improve importer attitudes substantially. The key areas were fulfilment of pre-established shipping programmes, flexibility to

adapt to market dynamics and/or customer needs and in general a long term business commitment to the importer.

The study also indicates further possibilities for research on this subject.

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CHAPTER ONE

Introduction

The investigation of what European importer beliefs and attitudes are towards importing apples from Chile has been motivated mainly by the following reasons:

- Importers play an essential role in international fruit trade.
- In the case of the Chilean fruit export industry this role is enhanced because of the fact that exporters participate little in marketing strategies once the fruit has arrived at the port of destination.
- The European counter-seasonal fresh apple market has become increasingly competitive, while consumption has shown signs of stagnation.
- Europe is Chile's largest market for fresh apples, and it is also the largest market for fresh apples from all other Southern Hemisphere supplier countries.

The purpose of the research is to assist Chilean exporters to formulate adequate marketing strategies aimed at importers, in order to maintain and develop further competitiveness. The research examines what are the determinants of overall attitude towards importing apples from Chile, and those aspects which need to be changed in order to improve importers' overall attitude.

1.1 Objectives of the Research

1. To determine the attitudes of European importers of fresh Chilean apples towards importing apples from Chile.
2. To identify the attributes that determine European importers overall attitude and how these attributes presently contribute to overall attitude.
3. To discuss from the results obtained, how European importer attitudes can be improved.

1.2 Outline of the Thesis

This thesis consists of seven chapters. Chapter Two discusses the background of Chilean apple exports to Europe, some of the major market factors and the role of the importer. Chapter Three contains a literature review of previous studies relating to importer buying behaviour, the selection criteria they use when choosing a supplier and the cognitive assessment of their suppliers. Because importers usually take the form of organisations, some differences between organisational and consumer buying behaviour are discussed. The literature review ends with a presentation of the theoretical framework underlying this research. Chapter Four presents a complete description of the methodology used to collect and analyse the data obtained. In Chapter Five the results of this research are shown, including a respondent's profile, descriptive results and the results of the data analysis. A complete discussion of the results obtained can be found in Chapter Six. The results of the analysis are examined in the context of other studies and recommendations, and possible further research is mentioned. Finally in the seventh Chapter the conclusions are summarised.

CHAPTER TWO

Background

2.1 The Expansion of Chilean Fresh Fruit Export Industry

Production of fruits in Chile goes back to the arrival of the first Spanish “conquistadores”, who recognised the agroecological advantages of the land they had conquered. Since then fruit growing has been an important part of Chilean agricultural production and tradition. However, it was not until important political and economic reforms were carried out during the mid 1970's and early 1980's that exports of Chilean fruits boomed considerably and the country became a major participant in international fruit trade.

According to Corbo (1985) cited by Venezian and Muchnik (1995), for many years before 1973, successive Chilean governments had pursued an import-substitution strategy built around high barriers to trade, direct government intervention in the productive sectors, and price controls to keep inflation under control. It was a period marked by sluggish growth, foreign exchange shortages, fiscal deficits and high inflation rates. By 1973 the fiscal deficit reached 20 % of GDP, inflation was over 500 %, investment fell below 8 % of GDP and official foreign exchange rate provided barely one month of import cover (Venezian and Muchnik, 1995). The severe economic crisis was accompanied by disrupted production and tenurial relations because of the land reform process. All this was compounded by political instability and culminated in September 1973 with a military take-over and a change in policy orientation.

The reforms to Chilean agriculture were initiated in 1973/74 after the government introduced structural reforms that allowed the liberalisation of markets. Economic reforms in Chile occurred mainly in two phases between 1973 and 1983 and between 1984 and 1990 (Valdés (1994), Venezian and Muchnik (1995)). The main highlights of the reforms were reduction of the public sector size, opening of international trade, reform of the financial sector, freeing interest rates, removing favourable credit

concessions to agriculture, reduction of regulations on economic activity, reform of public enterprises and as Valdés (1994) puts it "... recognition that macroeconomic and trade policies constitute critical framework for reform, as part of a development strategy that restores market-oriented resource allocation and the private sector as the principal player".

During the first phase of reform, access to land and the development of capital intensive orchards were greatly improved. Previously the security of property rights over agricultural land was minimal, so that farmers made little long-term investments in perennial crops. Afterwards, they were assured that under the new system market economy principles would also apply to land ownership (OECD, 1996). This attracted not only traditional fruitgrowers who had recovered confidence, but also new investors who saw fruitgrowing as a good business (CEPAL, 1990). However, in 1982 and 1983, Chile experienced a severe recession triggered mainly by the deterioration of the external terms of trade and intensified by the growing inconsistency between inflation indexed wages and the fixed exchange rate (Venezian and Muchnik, 1995). In 1982 the government adjusted with periodical nominal devaluation's of the Chilean Peso and supportive fiscal policy to achieve real devaluation. As a result of the earlier reforms and this improvement in the exchange rate, the export sectors' efficiency improved considerably. From this point on Chilean exports of fresh fruit began their boom and are still growing today. The number of fruitgrowers increased sharply, and large investments were made in technological innovations, new plantations and infrastructure (CEPAL, 1990).

2.2 Chilean Fresh Apple Exports

In 1996 there were 187,410 hectares of fruit growing orchards in Chile. Apples account for 31,106 hectares (16.5 %) and are located in second place after table grapes, followed by pears and avocados. During the 1995/96 season Chile exported approximately 167 million cases of fresh fruit to the world. Table 2.1 shows that apples occupy the third place in export volumes after table grapes and kiwifruit.

However, the comparison in number of cases underestimates real apple volumes since apples are packed in 18.2 kg boxes while table grapes and kiwifruit are packed in a variety of different cases of lower weights. In reality, apple volumes should appear in second place between table grapes and kiwifruit. Total apple exports accounted for 24 million cartons (436,800 tons).

Table 2.2 shows the main destinations of Chilean apples and how they have changed over the last six seasons. Europe stands out as being the main market for Chilean apples even after an important decrease in exports to this destination. During the 1995/96 season the European market absorbed 9.8 million cartons of apples from Chile (178 thousand tons). All other export destinations have increased their participation with Latin America achieving the highest growth rate. Hence, Chilean exporters have been trying to diversify from the European market.

Table 2.1: Total exports of Chilean fruit and fruit orchard area in Chile by specie (1995/96).

Specie	Table grapes	Kiwi-fruit	Apples	Pears	Plums	Necta- rines	Peaches	Others
<hr/>								
Thousand								
Boxes (exp)	69 511	36 044	23 943	9 670	8 583	7 414	4 492	7 011
Hectares	45 968	8 549	31 106	14 950	6 892	7 434	11 386	60 250

Source: Asociación de Exportadores de Chile A.G. and Ciren, Centro de Informacion de Recursos Naturales (Chile), (1996).

**Table 2.2: Chilean apple exports to the main export destinations: 1991 to 1996
(metric tons)**

Regions:	Europe	USA	Far East	Middle East	Latin America
1991	256 888	25 287	17 029	64 806	18 019
1992	271 662	24 771	12 094	64 018	41 754
1993	158 960	22 805	16 973	73 455	71 562
1994	154 964	20 734	17 125	64 381	88 108
1995	191 982	20 983	17 887	77 340	83 961
1996	178 064	30 151	31 749	73 737	83 727

Source: Asociación de Exportadores de Chile A.G. and Decofrut (1996)

In relation to the volume of production, Chile surpassed Australia as the third largest Southern Hemisphere producer of apples in 1981/82 and took over South Africa's second place in position in 1986/87. Although Argentina still remains as the largest producer, Chile became the largest fresh apple exporter from the Southern Hemisphere in 1985/86 and has held that position since then (The World Apple Report, June 1995). Table 2.3 shows how apple exports for the main Southern Hemisphere participants have changed since 1985.

**Table 2.3: Total apple exports of different Southern Hemisphere apple suppliers
(Thousand metric tons)**

S.Hemisph. suppliers:	Chile	Argentina	Brazil	New Zealand	South Africa
1985	202.9	200.1	0	146.8	197.3
1986	312.8	133.9	0	156.2	208.4
1987	331.2	201.5	0.1	166.2	191.0
1988	347.8	207.7	0.6	119.0	113.0
1989	325.7	227.2	3.0	174.3	143.5
1990	314.3	260.7	6.3	201.2	202.3
1991	392.2	215.7	3.3	206.0	197.6
1992	417.5	194.9	32.3	209.9	231.4
1993	361.3	145.5	24.2	224.9	175.0
1994	347.1	156.8	30.1	201.0	245.0

Source: Published by OECD (1994)

2.3 The European Apple Market

Data from the Food and Agriculture Organisation (FAO) of the United Nations show that in 1994 Europe, including Eastern European countries, had the largest production of apples in the world reaching 12.3 million tons, followed at some distance by China with 6.7 million tons. The European Union alone produced some 7.9 million tons. Even with this record of high production Europe imported approximately 72% of all apples traded in the world.

Of the total amount of apple imports to the European Union, approximately 95% are from the Southern Hemisphere. The main suppliers are Chile, New Zealand, South Africa, Argentina, Brazil and at a far distance Australia. As can be observed in table 2.4 for each of these exporting countries, the European Union is the main export destination for their apples. Chile shows the greatest diversification of export destinations, while South Africa and Argentina show the highest concentration on Europe.

The remaining volumes are imported mainly from the United States, while other suppliers are Canada, Turkey and some Eastern European countries such as Poland. However, these have little direct influence on imports from the Southern Hemisphere since they arrive in different months of the year. Consequently, Southern Hemisphere suppliers share the market mainly with stocked production of EU origin.

Table 2.4: Export destinations for apples of the main Southern Hemisphere suppliers (1994)

Export destinations	(metric tons)					
	Chile	New Zealand	South Africa	Argentina	Brazil	Australia
Europe	154 964	158 570	185 044	83 827	31 450	4 212
Far East	20 734	36 039	21 754	1 226	9 250	130
USA	17 125	22 630	7 769	-	7 300	29 059
Middle East	64 381	22 925	15 067	569	-	-
Latin America	88 108	393	5 791	15 000	2 000	99

Source: Assembled from figures published by Quiroz and Alcaino (1994)

Table 2.5 shows a market balance of the use of fresh apples in the EU. The market production refers to apples produced by commercial orchards and that are intended for fresh consumption. This means that apples for processing have already been subtracted. There is some variation between seasons, particularly for the 1991/92 season where production was at an historical low. This can be explained by a frost that affected apple orchards throughout Europe in the Spring of 1991. As a consequence, apple prices jumped to record levels giving an incentive to suppliers from the Southern Hemisphere to send increased volumes to the European market. The following season, however, the situation reversed. Due to the biological phenomenon of alternate bearing and a very warm spring in 1992, apple trees in Europe produced a record crop. The market showed signs of saturation, imports fell considerably, while the European Commission in Brussels had to intervene by withdrawing over 1.7 million tons of apples from the market.

Table 2.5: Market balance for fresh apples in the EU (Thousand metric tons)

	1990	1991	1992	1993	1994	1995
Market production	7.043	5.308	8.972	7.933	7.874	7.112
- Interventions	324	36	1.761	988	622	212
= Sales	6.719	5.275	7.211	6.945	7.252	6.900
+ Imports	752	969	552	585	647	610
- Exports	170	101	340	371	424	430
= Consumption	7.301	6.140	7.423	7.159	7.475	7.080
Cons. per capita (kg)	21.2	17.8	21.4	20.5	21.4	20.2

Note: 1995/96 is forecasted by Z.M.P.

Source: Z.M.P. (1996)

The reason that withdrawals were so high in 1992 was that in Europe, and particularly in Germany, there are many “household orchards” or apple trees. Household orchards are apple trees or small orchards that are not intended for market production, however the apples produced are available for private consumption. It is quite frequent that German households have one or more apple trees in their back yard. These also produced record amounts which are not included in market production statistics. Hence, the increased availability of apples from these origins has the effect of decreasing demand for market production from commercial orchards.

Since those events, the European market has shown signs of market saturation, which is evident by the substantial volumes intervened. Interventions are in reality a subsidy to European growers. The European Commission withdraws apples of Class 2 from the market by paying calculated prices for this fruit. The purpose is to avoid market prices falling to levels that are not sustainable for European growers.

Another way of protecting European growers is through the entry price system. The system basically operates as follows. If the entry price of an imported commodity (apples) is above a minimum entry price only an ad valorem tariff is applied to the product. However, if it is below the entry price, an ad valorem tariff as well as an additional specific tariff is imposed. The minimum entry prices as well as the ad valorem tariffs vary according to the period of the year (importing calendars). This system is a modification of the reference price system that was recently replaced as a result of the Uruguay Round of the GATT. In 1993 countervailing duties were heavily imposed on Chilean apples under the reference price system, to the point that half way through the season practically all shipments to the EU were suspended or diverted to other markets. Although it can be expected that the entry price system will be less disruptive than the reference price system, there will continue to be a certain degree of insulation of EU producers against fluctuation of world prices of fruit and vegetables and protection against third country suppliers (OECD, 1996).

Table 2.5 also indicates that the consumption capacity of the EU varies around 7.1 million tons and that consumption per capita is approximately 21 kg. Quiroz and Alcaino (1994) state that this consumption per capita is at a very high level compared to other countries and is particularly high in Northern Europe, particularly Germany, Holland, Belgium, England and Denmark. Apples are one of the three kinds of fruits with the highest consumption in Europe. The first are citrus fruits grouped together, followed by apples and then bananas. However, apple consumption has decreased in the age groups under 44 years, while it has been stable at the age groups of 45 years and over. Younger people seem to be more willing to substitute different kinds of fruits or snacks for apples.

There are also different preferences for apples within different European countries. Consumers in Southern European countries such as Spain and Italy prefer the Red Delicious type apple with large sizes and full red colour. In contrast, Northern European countries show a preference for bicoloured apples such as Jonagold, Elstar, Gloster and Cox's Orange (Quiroz and Alcaino, 1994).

There are many factors that influence the outcome of the market during the season. For example, demand may be affected by external factors such as economic recessions or even the climate. Quiroz and Alcaino (1994) have recognised that climate has a direct effect on eating patterns for different varieties of apples. When Chilean apples arrive in the early European Spring and the climate is warm, Europeans prefer the more tart Granny Smith apples, while when temperatures are low there is a preference for the sweeter varieties of apples.

However, there are three main reasons for an increased competition in the European counter-season apple market (based on some extracts from Quiroz and Alcaino (1994), CEPAL (1994) and conversations with European importers):

1. European production increasingly competes with the Southern Hemisphere season because of increased storage capacity and improved technology in storing apples.

Conventional cold stores for storing apples over long periods of time are hardly used anymore in Europe. Controlled Atmosphere (CA) technology has widely taken over for this purpose and in recent years Ultra Low Oxygen (ULO) technology has increased considerably. The effect is that the European crop can be stored without problems and retain its quality for very long periods of time. Particularly Jonagold apples can retain very good quality and are the main competing variety with the Southern Hemisphere supplies.

The level of European stocks is an important factor determining the outcome of the Southern Hemisphere season. If the stocks are very high at the time of arrival of the first apples from the Southern Hemisphere the market will usually be under pressure to clear

the stocks and prices tend to be low. This is an important signal importers and suppliers consider when preparing for the season.

2. Increased competition between Southern Hemisphere suppliers.

Table 2.6 shows how imports to the European Union from the major Southern Hemisphere suppliers have evolved from 1988 to 1994. South Africa seems to be the most stable supplier with only a small drop during the last two years. However, after the ending of South Africa's apartheid regime, exports have increased considerably to the Scandinavian market that had practically banned imports from this origin for political reasons. This has meant that other suppliers have lost market share in Scandinavia, and one of the most affected was Chile.

Table 2.6: Apple imports to the EU from different Southern Hemisphere countries (1988-1994)

S. Hem. suppliers:	South Africa	New Zealand	Chile	Argentina	Brazil	Australia
1988	195.2	127.6	146.6	78.7	0.6	6.0
1989	202.5	117.3	147.4	69.2	3.6	1.8
1990	196.3	129.8	148.6	80.2	6.1	3.1
1991	196.4	152.0	213.5	86.9	3.9	3.2
1992	201.8	140.7	236.7	79.3	29.7	5.2
1993	184.0	153.0	109.6	47.5	17.1	3.0
1994	185.0	158.6	155.0	83.8	31.5	0

Source: Published by Quiroz and Alcaino (1994)

New Zealand shows a steady increase in its export volumes to Europe, which is most probably due to the good acceptance of the new varieties that this country has developed and marketed. Quiroz and Alcaino (1994) have noted that New Zealand has the most favourable composition of varieties for the European market.

Chile shows high variations of apple volumes exported to the EU depending on the market situation in Europe. Chilean exports to Europe are heavily influenced by the outcome of the European production and the level stocks at the beginning of their

season. Heavy countervailing duties explain the sudden decrease in volume in 1993 as described before. However, Chile has the capacity to increase exports to Europe if market conditions are favourable.

Argentina also shows some variation of volumes exported to the EU depending on the market situation, their important domestic market and the neighbouring Brazilian market.

Brazil has shown a spectacular increase in apple exports to Europe over the last few years, and although still relatively small they compete strongly in the Royal Gala variety market segment. Brazil also has a strong domestic market that accounts for the great majority of their sales. Exports often depend on how the local market is performing.

3. Increased competition from other fruits.

Quiroz and Alcaino (1994) state that in Western European countries, particularly in countries where income per capita is already high, increases in income per capita have practically no effect on apple consumption, moreover it is possible to expect some decrease in consumption because of substitution with more exotic fruits. These are mostly fruits of tropical origin.

However, there is still another kind of competition that is more important in volume. The bulk of the Southern Hemisphere apple season is during the European spring, mostly from April to June. In these months the first shipments of strawberries and early summerfruits such as cherries and apricots begin to arrive from Southern European countries such as Spain and Italy. These fruits usually find high acceptance among consumers who are anxious to change from the cold winter mood to the fragrance of spring and prefer fruits that are more aromatic and juicy. Through improved technology, growers from these regions have been able to supply fruit consistently at earlier dates in Northern European markets.

2.4 The Role of the Importer

According to Grant (1995), importers currently make up the largest share of operators in the European fresh produce supply industry.

When dealing with Chilean suppliers, importers usually take control of the whole marketing and sales operation for the fruit once it has arrived at the port of destination. CEPAL (1994) describes how the European importer has many decisions to make during the whole process of importing. Previous to the season, importers need to decide the volumes and qualities of each fruit type they will import as well as the exporters they will work with. Subsequently, it is important for them to decide the best dates that the fruit should be shipped to the market and finally they decide what kind of financing they can give the exporter.

Once the fruit has arrived in Europe, importers need to assess the market situation and decide if it is best to sell immediately or store fruit if market improvements can be expected. Then it is their responsibility to resolve to what market segment they will sell the fruit, which marketing channel they will use and the price at which the fruit will be sold.

Chilean exporters usually have limited participation in the aspects of the business after the fruit has arrived. However, many of the decisions that have to be taken previous to the season have to be well co-ordinated with Chilean exporters.

Importers need to handle a great amount of information during the import process. From one side they need to be well informed about the market situation in order to be able to provide the best service to their suppliers and place the fruit on the market at the right opportunity to achieve the best possible prices. Suppliers will always want to be informed about what is happening in the market and will inevitably inquire what prices they are going to get for their fruit.

From the other side, they need to know exactly when and what quality products are arriving in order to be able to satisfy the buying customers needs. They also will need information on the broader picture of what total volumes will be arriving and what volumes competing countries are shipping to the market. Communication with exporters is essential for these reasons.

Although the Chilean exporter has limited participation on sales once the fruit arrives at European ports, they often visit the port and supervise the disembarkment of the fruit. Some exporters send specialised personnel to inspect the fruit in order to assess the quality and condition on arrival. Over the years another agent has appeared on this level. There are specialised companies that represent exporters in Europe and inspect the fruit for them. These companies have also been very active in sending exporters market information and are also increasingly participating in commercial decisions. Their presence has been at a separate level between exporters and importers, advising exporters about the market situation and defending their interests. Generally they do not sell fruit themselves, thus not competing with the importer.

Contracts between importers and Chilean exporters can be made under the following terms of payment: at a fixed price, on free consignment, or on free consignment but with minimum guaranteed prices. The last two are the most widely used terms of payment. The importer receives a commission for his services, which is a percentage of the price at which he sells the fruit. It varies according to what they have negotiated and is approximately 8 % (CEPAL, 1994).

The exporter receives a settlement from the importer at the end of the trading process. The settlement contains the following details (allowing for some variation between importers):

- a.) Revenues: description of the fruit, the quantity and the unit price at which it was sold.
- b.) Costs: Commission for the importer, costs of shipment, import duties, unloading at port of destination, freight forwarding, loading of trucks, fruit inspections, insurance, transport to coldstore, cold storage and promotion, if applicable.

Often the importer also has an important role of financing the export operation through advanced payments, which are negotiated with each exporter. Many Chilean exporters depend on assistance from the importer in order to finance the export operation or in turn give advanced payments to their growers.

2.5 Motivation for this Research

The above summary of the background to this thesis suggests increased competition in the European market for Southern Hemisphere apple suppliers as discussed in section 2.3. Simultaneously, several studies have indicated that consumption in the European market is stagnating (OECD (1996), O'Rourke (1994). Thus, suppliers need to evaluate their future prospects in this market, either by diversifying to other markets or by increasing their competitiveness in Europe. The purpose of this research is to assist with the latter.

One way to improve competitiveness is to improve the beliefs and evaluative attitudes importers have towards importing apples from Chile. It has been suggested above that the importer plays an essential role, particularly for the Chilean fruit industry. The conceptual framework will be described in the following chapter, however attitudes are considered to be precursors of import behaviour. Therefore, if present importer attitudes and their determinants can be understood by Chilean exporters, marketing strategies can be formulated in order to improve attitudes and increase competitiveness of Chilean exporters.

CHAPTER THREE

Literature Review

3.1 Scope of the Literature Review

International trade is created by exporters and importers in different countries. Nevertheless, the vast majority of the marketing literature available through conventional journals relate to the exporter's side of the marketing equation, leaving the importer side greatly neglected (Ghymn (1983), Ghymn and Jacobs (1993), Katsikeas and Al-Khalifa (1993)). However, the importer side is equally important and Khanna (1986) justifies his research on importer perceptions by stating that even with consumer products, importers and channel intermediaries play a leading role in the import decision.

Likewise, a substantial amount of attention has been given to the consumer sector, while industrial purchasing or organisational buying that represents a major portion of trade in many countries, has received less attention (White (1979) and Webster (1979)).

The discussion that follows concentrates on studies that have been performed on the importer's side of the trade equation. Since importers take the form of organisations rather than final consumers, the discussion begins with a review of the differences between consumer behaviour and organisational (industrial) buying behaviour. The purpose is to gain a better understanding of the factors that influence importer buying behaviour.

Thereafter, an extensive review of previous research in the area of importer purchasing behaviour is discussed. Finally, the conceptual framework under which this research has been carried out is examined.

3.2 Organisational Buying Behaviour vs. Consumer Behaviour

Marketers need to have an extensive knowledge of the process through which their target markets make their buying decisions. Craig-Lees et al. (1995) state that consumer behaviour has been commonly defined as a process that encompasses the activities of individuals (singly or in groups) in the discovery, evaluation, acquisition, use and disposal of goods and services. To understand the dynamics of this process, marketers seek to understand the factors that influence these activities. Essentially this means understanding the mind of the consumer and the socio-environmental factors that influence marketplace behaviour. Extensive literature is available on this subject as can be recognised by the numerous textbooks available, however they almost entirely put emphasis on consumers and not on industrial (organisational) buyers. As mentioned above importers generally take the form of organisations rather than consumers.

Knox and White (1991) in their studies of fresh produce suppliers for UK retailers view horticultural marketing as an industrial marketing activity as well. They justify this by citing Webster (1979): "industrial marketing is directed towards specific customers while consumer marketing is directed towards the mass market." Since in this research the approach to fresh apple marketing is customer specific (i.e. importers) it is sensible to assume that there is more in common with industrial (organisational) marketing than consumer marketing. Therefore it is important to understand how organisations carry out their buying decisions.

The literature available on organisational buying behaviour rests greatly on the general models proposed by Webster and Wind (1972) and Sheth (1973). Nevertheless, Howard and Bender (1989) review the fundamental differences that exist when compared to consumer behaviour:

Derived demand: Demand for industrial products is derived demand instead of direct demand represented by final consumers. In the context of this research for example, the demand shown by importers for fresh apples is a derived demand of retailers demand for apples which in turn is a derived consumer demand for this

fruit. Possibly other channel members may take part in the process, such as wholesalers, each with their own demand derived from the buyers of their product.

Goal orientation: Industrial products are not sold because someone really *wants* to buy them. Industrial customers have economic needs and not wants. They are only bought to help the user manufacture, distribute or sell more effectively.

Group decisions guided by explicit choice criteria: The buying decision in organisations is made by a group of people, each coming from a different function within the organisation, such as for example, marketing, manufacturing, finance, research & development and purchasing. Each has a different orientation and a specific set of needs that need to be satisfied. This is known as the “**buying centre**” and usually several distinctions can be made within its members: **users**, who actually use the product or service; **influencers**, who impact the buying decision; **buyers**, who have the formal authority to place orders; **deciders**, who have the formal or informal power to select suppliers; and **gatekeepers**, who are in the position to control the flow of information to other members of the centre.

Expert buyers and use of standardised languages: Information asymmetry, where the seller is better informed than the buyer, is much less severe in industrial marketing and in many cases the opposite may be true. Buyers are likely to be experts in their fields with a great amount of experience in relation to the products they purchase. They are usually familiar with the technical terminology involved and the different members of the buying centre can be expected to use different choice criteria to judge products.

Interdependence between selling and buying firms: Organisations are often reluctant to change a supplier. All other things remaining equal, suppliers with whom organisations have had past experiences are perceived to be low risk suppliers. Examining alternative suppliers can be costly since such examination requires physical and work force resources. Additionally, social relations have been built between members of the selling and buying firm, who come to know and trust

each other. Often the buyer can become dependant on the supplier when the supplier develops skills in servicing his customers that have become essential to the buyer. The effect is that source loyalty can often be observed in industrial marketing exchanges.

Other differences between organisational buying behaviour and consumer behaviour are mentioned in the literature. For example, that the market is smaller in the sense that there are fewer organisations than members of the public (Rice, 1993). The market is segmented in that a seller may know all potential buyers or vice versa, allowing marketing efforts to be tightly targeted (Webster, 1979).

In summary, Howard and Bender (1989) conclude that organisational buying tends to be thorough, stable and slow to change. Nevertheless, not all situations of organisational buying fit this pattern. In many cases purchases are of a routine nature, e.g. for less important items, and hence the buying process is much less complicated. Fern and Brown (1984) even suggest that there is not sufficient justification to separate consumer from industrial marketing by stating that there are more similarities than differences between the two. They suggest that there are more variations between the kind of purchase (routine, limited, extensive) than the type of buyer (organisational, consumer).

In the context of this research, and since the attitudes that import managers hold towards importing apples from Chile are investigated, it is important to understand the role of the import manager in the decision making process.

Sheth (1973) states that the different individuals that participate in the buying decision (buying centre) have different expectations of suppliers and brands depending on (a) the background of the individuals, (b) their information sources, (c) active search, (d) perceptual distortion, and (e) satisfaction with past purchases. In his model these different expectations explain why different participants have different buying criteria and why suppliers are rated differently. This can lead to a conflict among participants in the buying centre, which in the Sheth model, calls for a conflict resolution process. Details of this process are beyond the scope of this literature review. However, Sheth mentions six

conditions that define when it is likely that the buying decision will be joint (by many members of the buying centre) or autonomous (purchasing decisions delegated to only one party):

Perceived risk: The greater the perceived risk for a specific buying situation, the more likely that the purchase will be decided jointly by all parties concerned.

Type of purchase: If it is a capital expenditure or first-time purchase, as opposed to a repetitive and routine purchase or limited to maintenance products, it is likely to be a joint decision.

Time pressure: If the buying decision has to be made with time constraints it is more likely to be delegated to one party.

Company orientation: If the company is very orientated to one of its departments, then buying decisions will be made in essence by those belonging to this department. For example, if there is an orientation towards technology then the engineering department may be the important decision maker.

Company size: If the company is large the decision process is likely to be made jointly.

Degree of centralisation: Small privately owned companies will tend to take decisions autonomously as opposed to large public corporations where decisions are more likely to be made jointly.

These factors are useful as a basis to think about how European importers of fresh fruit are likely to make their import decisions. Firstly, when looking at *company orientation*, the main area of business can be identified as the trade of fresh fruit. Therefore the purchasing agent (import manager) is likely to rank at a much higher level within the company than in the case of manufacturing companies that are production orientated. Hence the greater influence and importance of purchasing agents (import managers) in

the fresh fruit trade is a major factor and suggests that decisions are likely to be made autonomously. Secondly, in many cases decisions have to be made quickly in order to take advantages of gaps in the market or adapt during the season to the dynamics of the market. *Time pressure* can often be important and flexibility to make autonomous decisions is necessary. However, this might not be the case when choosing a supplier or negotiating contracts before the beginning of a new season. Those are *long term decisions* with higher *perceived risk* and usually are more likely to be taken jointly. Finally, the *size of the company* and *degree of centralisation* are important factors as well. There were 119 importers of fresh Chilean apples in Western Europe in the 1995 season (Allende and Molina, 1995). These importers range in size and scope of their business. For example, there are big multinational companies such as Dole Fresh Fruit Europe Ltd. & Co. which accounts for a considerable proportion of overall import volume. On the other hand, 55 importers accounted for only 10% of the total volume imported. These smaller scale importers are often run by a small team of people and decisions are likely to be taken more autonomously. This is comparable to the situation of individual households, although in a formal organisation, relations are much more fixed. In an extreme situation the roles of users, influencers, buyers, deciders and gatekeepers can all be taken by one person.

The above suggests that there are differences between European importers as to how much influence the import manager has on import decisions. Nevertheless, due to the fact that the fresh fruit-importing business is trade oriented as opposed to production oriented, it is very likely that the influence import managers have on the import decision in the context of this research is more far reaching than suggested in the industrial buying behaviour models of Sheth (1973) and Webster and Wind (1972) which are only general models and therefore have some limitations.

Even the Webster and Wind model, which suggests that buyer's (importer's) authority may be severely constrained by decisions at earlier stages of the decision process, recognises that buyers have the responsibility at the terminal stages of the process and it is the buyer who is the final decision maker and the target of influence attempts from other members of the buying centre. Webster and Wind (1972) concluded that in

formulating marketing strategies, it is important for sellers (exporters) to understand the psychological characteristics, predispositions, preference structures and decision models of organisational buyers (importers) as the basis for the formulation of marketing strategies.

3.3 Previous Research on Importer Buying Behaviour

Before proceeding to this area of discussion it is important to note that most research of importer buying behaviour has been carried out in the context of manufactured products as opposed to fresh produce. Aksoy and Kaynak (1994) recognise that the present knowledge on fresh produce marketing is at an earlier stage of development when compared to manufactured products. This is confirmed by the fact that no previous research was found that specifically examined importer behaviour for fresh produce. However, even though fresh apples for export present some unique characteristics, many similarities with manufactured products can be observed and conclusions from previous research can be helpful.

Within the empirical work available on importer buying behaviour, two lines of research can be observed. There are those that analyse the relative importance of selection criteria or attributes of the products and/or suppliers, and secondly those that deal with the cognitive assessment importers have of the products they are importing and/or their suppliers.

3.3.1 Importer Selection Criteria

Several empirical research papers after Webster and Wind (1972) and Sheth (1973) have studied organisational buyers, and they have found that purchasing agents select their suppliers on a large number of selection criteria. Sheth (1973) used product characteristics as well as supplier characteristics in his model. In his research Sheth proposes that supplier reputation and sales representative personality effect supplier evaluations.

Kraft and Chung (1992) cite Lehman and O'Shaughnessy (1974) who identified 17 criteria used by organisational buyers to evaluate sources. Their research mainly involved product offer variables, but they also identified supplier reputation, past experience with the vendor and flexibility as important variables in supplier evaluations. In their studies they also found that US and British purchasing agents place different importance on these determinants. Kraft and Chung conclude that most published research relies heavily on product offer related variables but these should not be assumed to be the more important ones.

Håkansson and Wootz (1975) examined perceived risk by 43 Swedish purchasing agents. They identified the selection criteria in two groups, those related to supplier characteristics (location, reputation and size) and those related to bid characteristics (quality and price). The research concluded, that in this case, location was a more important determinant for selecting a supplier than size of the supplier. On the other hand, price was found to be more important than quality.

Ghymn (1983) studied the import decisional variables (selection criteria) used from a survey of 198 US import managers and distinguished between two groups of variables. He used eight product-oriented variables and seven service-oriented variables. His findings show that service-oriented variables received a higher score. Additionally, by using a multivariate discriminant analysis he found that importers dealing with developing countries relied more on variables of price and long-term supply condition, while importers dealing with Western European countries relied more on brand and quality variables.

As an extension of the previous paper, Ghymn and Jacobs (1993) compare the above findings with a survey of 200 Japanese managers. Firstly, the results show that Japanese importers rated quality as number one in importance, followed by timely delivery, price and dependability of long term supply. US importers, on the other hand, rated quality sixth. Product safety was also of importance to the Japanese, but US importers ranked this characteristic last. Promotional help from suppliers was ranked very low by both sets of importers. Secondly, Ghymn and Jacobs grouped the variables in three categories:

Product-oriented variables, service-oriented variables and laws/regulation variables. By doing this they found that Japanese importers value product-oriented components much more than US managers do, and that US importers give more significance to service-oriented elements.

Cavusgil and Yavas (1987) surveyed 54 Saudi Arabian import distributors. Their purpose was to identify principal choice factors by examining the interrelationships among selected criteria for choosing their suppliers. They identified a large number of criteria, and then reduced these to a smaller set of underlying factors by using principal factoring followed by varimax rotation. The result was a set of six factors that described Saudi importers' selection criteria and these ranked in the following order of importance:

1. Suitability to local market (local preferences)
2. Core supplier benefits (non price benefits)
3. Price
4. Commercial risks
5. Expatriate appeal (this is a unique market segment in S. Arabia)
6. Support services

Based on these results the authors discuss a series of implications for exporters to the unique Saudi Arabian market.

In a more recent study, Deng and Wortzel (1995) examined importer purchase behaviour of US agents for two levels of buyers (importer/wholesalers and importer/retailers) and of three product categories (clothing, electronics and chinaware) from Asian developing countries. They surveyed 300 larger retailers and 280 wholesalers in the US and asked them to rate their use of 42 import decision determinants (selection criteria).

The eight top-ranking criteria show that importers give importance to receiving the goods at the right time, at the right place, in the right quantity, at the right price, of the right quality and with the least trouble. Other factors such as closeness to the market, size of supplier company or brand name were at the bottom of the list. Deng and Wortzel

then performed a factor comparison of the criteria by aggregating the 42 criteria into six main factors (brand name, price, product-quality standards, service capability, distribution capability and production capability). The results indicate that price is the most important factor followed by quality standards, while brand name is the least important.

Additionally, Deng and Wortzel compared the two levels of distribution (wholesalers and retailers). Their findings reveal that importers/retailers placed a higher emphasis on brand name, while importers/wholesalers placed more importance on product quality, production and distribution capability. Finally they also performed an Analysis of Variance to compare the different product categories. This analysis showed that electronic buyers placed more importance on brand names compared to clothing or chinaware buyers, while chinaware buyers comparatively placed more importance on distribution capability, the latter perhaps because of the fragility of transporting chinaware.

The main conclusion from the above studies is as Ghymn and Jacobs (1993) stated: "... the relative importance of import purchasing decisional variables may vary by type of product, by country, between firms and from industry to industry". This means that selection criteria vary in their relative importance ultimately according to the specific buying situation. Therefore it is not possible to generalise from these studies and it stresses the importance of analysing specific situations, as for instance the present research regarding European fresh apple importers. However, the studies provide guidance for export managers from the countries where these studies were carried out, as to which determinants of buying behaviour are more important for their counterpart importers.

In the context of this research they also provide useful information about the different factors that lead importers to give priority to certain selection criteria. For instance, if importers are dealing with developing countries they will place more emphasis on price (Ghymn (1983) and Deng and Wortzel (1995)). On the other hand, importers at the

distribution level place more importance on product quality and distribution capability (Deng and Wortzel, 1995).

Importers from different countries also place different importance on selection criteria according to their market realities. For instance, Cavusgil and Yavas (1987) found that the most important selection criterion for Saudi importers is suitability to the local market. Chiesl and Knight (1981) and Ghymn and Jacobs (1993) both agree that Japanese importers only give moderate importance to price criteria. However product quality seems to be an important factor for the Japanese (Ghymn and Jacobs, 1993) while US importers place more emphasis on service characteristics (Ghymn (1983) and Ghymn and Jacobs (1993)).

Deng and Wortzel (1995) found that for chinaware products, importers placed more importance on distribution capability because of product fragility. In the case of fresh apple trading, distribution capability might also be an important selection criterion due to the perishable nature of the product and the importance of maintaining an uninterrupted cold store chain during the post-harvest period.

The above discussion stresses the importance of understanding that there are important selection criteria on which suppliers are evaluated. Exporters may not be aware, or have a false understanding, of what these criteria are. Katsikeas and Al-Khalifa (1993) demonstrated that exporters do not necessarily perceive the same decision variables underlying the import behaviour of their importers. They called this the existence of a "multi-attribute perceptual gap". The authors surveyed 48 major Bahraini importers and 112 UK exporters of electronic products for industrial use and asked them to evaluate 12 factors regarding their importance as import stimuli. Significant perceptual differences were found between importers and exporters, so a further multivariate discriminant analysis was performed where various import motivation variables were analysed at the same time. Among other findings it was suggested that UK exporters appear to underestimate the magnitude of a number of important stimulus elements such as new product development, product quality, extended credit facilities, exclusive distributorship/agency and after-sales service support. Therefore the authors recognise

the importance of the establishment of strong working partnership between the two parties. Thus, Katsikeas and Al-Khalifa's study emphasises the importance of understanding the important attributes (selection criteria) in order to be able to adopt adequate marketing strategies.

In summary, importers use a variety of selection criteria to evaluate their suppliers. Some of these criteria relate to the product, service and/or to the supplier. Before examining the cognitive assessment importers have towards their suppliers it is necessary to understand what the different selection criteria are for the specific buying situation, recognising that they are not always equal to what exporters believe are the relevant attributes.

3.3.2 Importers' Cognitive Assessment of their Suppliers

While the discussion above concentrated on understanding the criteria importers use to select their suppliers, the discussion now focuses on the cognitive assessment importers make of their suppliers. Ghymn (1983) and Yavas et al. (1987) have noted the need for further research on importer perceptions, specially when dealing with foreign suppliers. In the literature available, empirical studies can be found that measure perceptions or attitudes. The terms perception and attitudes are often used by different authors for essentially the same meaning. In some cases, importer perceptions of exporter attributes are generally measured to infer their attitudes towards the exporters. Wilson-Salt (1996) in her research on consumer attitudes towards agrichemicals considered the terms perception, concern and attitude synonymous.

Chiesl and Knight (1981) studied Japanese buyers and their attitudes towards US suppliers. 241 companies were surveyed and asked to answer 24 Likert-type statements that were selected to measure six dimensions of attitude towards the United States: Product, price, promotion, distribution, market research and US institutions. The relevant findings by the authors show that Japanese importers gave only a moderate importance to price, while they felt that US suppliers should organise their distribution in a similar way as done in Japan and that marketing research, although very efficient in

America, was not done specifically for the Japanese market. Further, they perceived that US companies show poor control standards (compared to Japan). The authors conclude that there is a need to actually market US products in Japan and not only sell.

Further in this line of research is a paper by Chasin and Jaffe (1979), who examined industrial buyer attitudes of US purchasing agents towards goods made in Eastern Europe. The authors surveyed 100 New York firms and asked them to profile the USA and five Eastern European countries through a series of ten performance attributes on a 9 (excellent) to 1 (poor) scale. Less than 30% of the firms surveyed had experience in dealing with these countries and therefore little awareness could be expected of their production capabilities. However, the results indicate that images of several Eastern European countries are quite inferior to that of the USA. The authors confer this to what they call a "halo effect" for these countries, where the respondents have judged according to their attitude to the country itself. Chasin and Jaffe mention the possibility of reversing this halo effect so that it operates to improve the country image as a possible solution, as for example the case of Japan after World War II. Nevertheless, the best rated attributes for Eastern European countries were advanced technology, quality and dependability. A final important conclusion of their research was that while general stereotypes exist, some may be specific for certain product attributes such as (in this case) styling and engineering.

White (1979) contends that one of the most important individual psychological processes of individuals when exercising their buying responsibilities is perception. White states that perceptions may or may not be factually correct. For instance, two products may be technically equal but individuals may have the perception that one of them is better than the other. The effect is that the companies that market this product are not only affected by the product characteristics, but also by perceptions of buyers with respect to these products.

Few studies have been made to examine country of origin perceptions at the importer level, although there are many such studies at the final consumer level. Nagashima (1970, 1977) cited by both Kraft and Chung (1992) and Ghymn and Jacobs (1993) determined

that business executives develop general stereotypes, both of industrial and consumer products.

In his research, White (1979) examines the types of stereotypes that exist in the minds of industrial buyers when they consider buying industrial products manufactured in four Western European countries compared to the USA. This was done by determining the perceptions purchasing managers had of products from each country. He surveyed 213 American purchasing managers asking them to evaluate industrial products from each country for twelve attributes by using a semantic differential type scale. The results showed substantial correlation between the twelve attributes and therefore they were further analysed by performing a factor analysis with varimax rotation. Consequently, three significant factors were extracted that explained 70% of the variance. These were product quality, marketing characteristics and product price. Finally, he proceeded to perform pairwise comparisons by countries to see if there were any differences.

White's results show that West Germany received higher ratings for the product quality variables compared to the rest, the US dominated with respect to marketing characteristics and there was no clear difference related to price. Therefore, White concluded that purchasing managers in the USA do have stereotypes associated with industrial products from these five countries. Although going beyond the scope of the research, White explains these stereotypes as coming from two possible sources. First, that generalised stereotypes common among members of society carry over into assessments of industrial products (similar to Chasin and Jaffe's halo effect), and alternatively, that these stereotypes are based on a compilation of experiences in buying products from these countries.

Another early study by Rao (1977) examines Spanish importers' experiences, perceptions and evaluations of US exporters. Approximately 250 Spanish importers were either interviewed or asked to respond to a mailed questionnaire. Rao concluded, that US exporters were well rated regarding quality of the products they supply and the promotional support they provide. However, Spanish importers assessed them less favourably with regard to price and extending credit. It is noteworthy that more than

two-thirds of the importers felt that US exporters lacked cultural and social empathy while performing a business deal. Spanish importers typically compared their US suppliers with other European suppliers and Rao concludes that US suppliers are at a distinct disadvantage to their European counterparts.

Another study dealing with country stereotypes, by Khanna (1986), examined the difficulties experienced by Indian companies when exporting their products. Khanna writes about two walls of market resistance: Tariff and non-tariff barriers, and attitudes of foreign businessmen and consumers towards LDC products. He studied the second wall of resistance and focused on four product attributes: price, product, promotion and service. He surveyed major importers of Indian industrial products in selected Asian countries and constructed an Export Image Index based on 16 attributes measured on bipolar semantic differential scales. The main findings were that country of origin image affects the relationship between Indian firms and their foreign clients. This impact was very important with new clients and less important with older clients that had more experience in dealing with Indian exporters. Non-price factors were rated low and competitive disadvantages were found for product, promotion and service factors. Finally he states that Indian companies have been able to overcome some of these problems through personal selling and other special promotional methods and recommends these approaches to other LDC countries.

Yavas et al. (1987) recognise the importance of Saudi Arabian middlemen (importers) in this market and they examine how these importers assess their suppliers from the USA, Japan, England and Taiwan. Personal interviews were performed and importers had to rank 18 attributes on a Likert-type scale. After comparing the means of each country by attribute, a Analysis of Variance was performed to test aggregate differences among the four sets of rankings. Yavas et al. find that Japanese companies are the best rated and that Saudi importers perceive that Japanese products are more suitable to the unique Saudi Arabian market. The US followed the Japanese image but lacked on several service-oriented attributes. The poorest image was that of Taiwan. Their research also demonstrated that a country of origin bias exists and Yavas et al. expand on the implications for exporters from the different countries.

A comprehensive research on Korean importer perceptions was carried out by Kraft and Chung (1992). The authors surveyed a sample of 300 importers of 19 product categories, which they grouped into three major categories: raw materials, finished materials and machinery and equipment. Their objective was to measure Korean importer perceptions of American and Japanese exporters and their products and to make a comparison of both supplier countries. Importers were asked to evaluate 32 exporter characteristics and 24 product offer characteristics on a seven point Likert scale. First a common factor analysis, followed by varimax rotation, was performed to find the underlying perceptual dimensions. Japanese exporters were rated more favourably than their US counterparts on almost all dimensions of both sets of variables (exporter and product characteristics). Korean importers perceived that US firms performed very poorly regarding awareness of the Korean culture.

Additionally, a regression analysis was performed in order to see which factors contribute most to the prediction of importing decisions. They found that exporter characteristics are significant to the importer's decision to import from the US. Kraft and Chung therefore suggest that US companies should emphasise exporter characteristics, such as reputation and orientation to customer needs, and not only use marketing strategies that concentrate on product characteristics. The study therefore confirms some of the findings of Chiesl and Knight (1981) in the Japanese market, that US companies fail to make an optimal marketing effort.

The above mentioned studies suggest that country stereotypes among importers exist and that they do have an effect on importer evaluations of foreign suppliers and their products. Importer perceptions therefore contribute to the evaluation of suppliers when making a purchasing decision, especially with regard to subjective exporter characteristics.

3.4 Attitude Measurement

The present research investigates the attitude European importers have towards importing fresh apples from Chile. In the following section the conceptual framework is described within which the term “attitude” is understood in this research and which models the methodology used to measure importer attitude.

3.4.1 Definition of Attitude

A widely accepted definition of attitude is that of Fishbein and Ajzen (1975): “Attitude is a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object.”

Firstly, the definition tells us that attitudes are learned through information received about the object or through experience in dealing with the object. This is an important aspect because it means that attitudes can be modified.

Secondly, it tells us that attitudes are predispositions to respond, which means that they are covert or unobservable and therefore represent hypothetical constructs that cannot be verified (Lutz, 1991). Attitudes are important, nevertheless, because it is assumed they are precursors of behaviour. In other words, if an import manager is favourably predisposed towards importing apples from Chile, this should lead to a high probability that he will decide to import apples from Chile.

The definition also mentions that behaviours will be consistently favourable or unfavourable. That is if attitudes are positive, it can be expected that the pattern of behaviours will be consistently favourable (Lutz, 1991). For instance, in the case of importers this could lead to source loyalty.

The object towards which attitude is measured can be not only a true object, but also a person, issue or behaviour (Lutz, 1991). In this research attitude towards a behaviour is measured, i.e. importing apples from Chile.

Fishbein and Ajzen (1975) view attitude as part of a causal flow of behavioural dimensions that lead to the behaviour (figure 3.1). Attitude, in their view, consists of affect that represents the favourability or unfavourability towards the attitude object. The causal flow in figure 3.1 shows how beliefs precede the existence of attitudes, while intentions are the immediate consequence of attitudes. In other words, if an importer learns something new about importing apples from Chile, this learning in the form of a belief gives rise to an attitude, which in turn leads to the formation of an intention to import or not to import.

Figure 3.1: Fishbein and Ajzen's (1975) view of Attitude



Fishbein and Ajzen (1975) view beliefs as the fundamental building blocks of conceptual structure. A person learns or forms a number of beliefs about the object from observation, information received or inference processes. The totality of a person's beliefs serves as the informational base that ultimately determines a person's attitudes, intentions and behaviours. The authors state that a person's attitude towards an object is based on his or her salient beliefs about that object. If the beliefs associate the object with favourable attributes, his attitude will tend to be positive. On the other hand, his attitude will be negative if they tend to be associated to negative attributes. Therefore the authors maintain that a person's attitude towards some object can be determined by his beliefs that the object has certain attributes and by his evaluations of those attributes.

Fishbein and Ajzen (1975) have applied this reasoning to empirical research by defining an attitude variable in a mathematical equation. In this equation, the scores for evaluative attitudes and beliefs related to an object's characteristic are multiplied together and summed over the characteristics to give the attitude variable. This is known as a multi-attribute model and has the following formula:

$$A = f \left(\sum_{i=1}^n b_i e_i \right) \quad (\text{equation 3.1})$$

where, A = Attitude as an independent measure of affect for or against the attitude object (Overall Attitude).

b_i = Strength of the belief (expressed as a subjective likelihood) that the attitude object possesses the i th attribute.

e_i = Evaluative aspect (evaluative attitude) associated with the i th attribute.

n = the number of salient attributes of the attitude object.

3.4.2 The Ajzen-Fishbein Theory of Reasoned Action

Ajzen and Fishbein (1980) assume that human beings are usually quite rational and make systematic use of the information available to them. They argue that people consider the implications of their actions before engaging or not engaging in a specific behaviour and therefore they call it a theory of reasoned action.

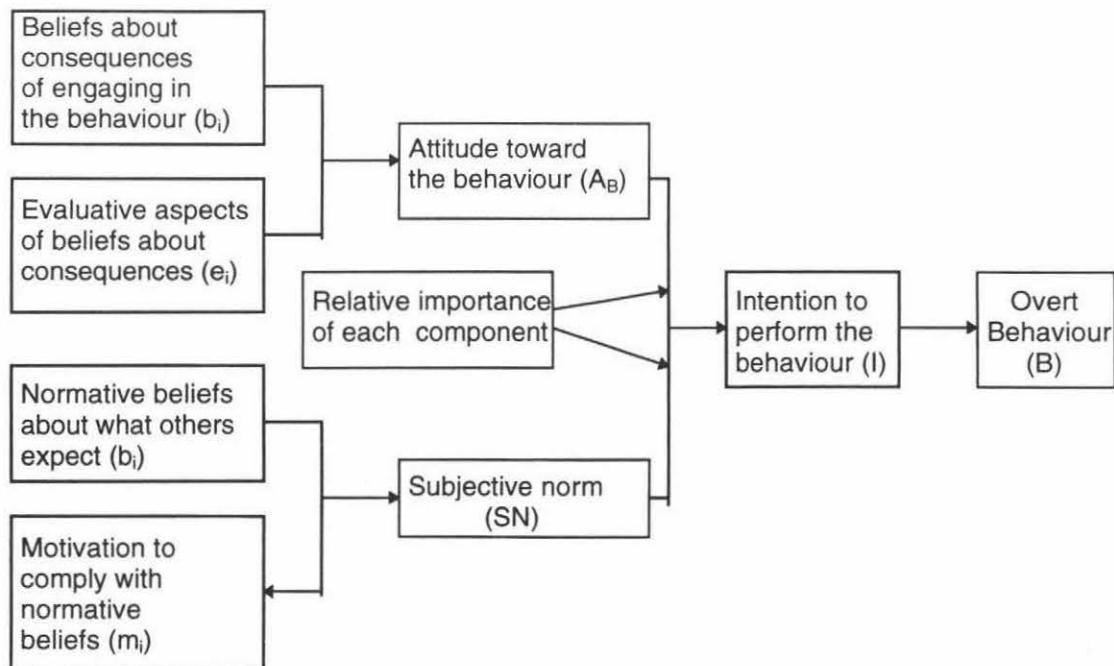
In the context of Ajzen and Fishbein's theory, attitude towards a behaviour is measured, as opposed to the attitude towards the object. For instance, in the present research we use the theory to measure attitude towards importing apples from Chile and not the attitude towards Chilean exporters. If the attitude towards importing apples from Chile is positive this will be a better predictor of import behaviour. On the other hand, if the attitude towards Chilean exporters was to be measured, then even if the result is a positive attitude it does not necessarily predict increased imports. Importers might have a favourable attitude towards Chilean exporters, but there may be other factors that could make them prefer apples from other sources.

The fact that an attitude towards the behaviour is measured instead of an attitude towards the object makes the theory of reasoned action a more situation specific attitudinal predictor.

The theory also includes a second determinant of behaviour which Ajzen and Fishbein (1980) name the Subjective Norm (SN). The subjective norm is a measure of the social influences upon a person's behaviour, as for instance, the expectations of friends or family or other people in society. Thereby they recognise that in some cases the expectations of other people that have a relevant influence on the person are major factors in the final behaviour outcome. In figure 3.2 the entire theory of reasoned action is shown. It can be seen that the intention to perform a behaviour depends on the attitude towards the behaviour and the subjective norm. The relative strength of the attitudes and subjective norms in each situation will determine whether the formation of intentions is primarily determined by one or the other.

The inclusion of a subjective norm component of behavioural intention has been questioned by some authors, mainly because it is argued that it adds little to the predictive power of the model (Warshaw, 1980). It is likely that the influence of subjective norms has already been incorporated in the attitude variable, and this has led some previous researchers to ignore the subjective norm (Wilson-Salt (1996), Blanchard (1993)).

Figure 3.2: Schematic Diagram of Ajzen and Fishbein's (1980) Theory of Reasoned Action



We have seen that research in the area of importer attitudes has been performed by different methodologies where importer attitude toward their suppliers is usually measured by a series of belief statements on a scale. The above mentioned theory of reasoned action from Ajzen and Fishbein is believed to be a better conceptual framework to use in this research for understanding importer attitudes. It is interesting that no studies regarding importer purchase behaviour have been found that have used this conceptual framework, while it is commonly used at the consumer level.

CHAPTER FOUR

Methodology

4.1 Data Measurement

The theoretical framework used in this research has been described in the previous Chapter. From the discussion it follows that attitudes towards the behaviour of “importing apples from Chile” should be measured. In order to obtain values for the Fishbein and Ajzen attitude variable (equation 3.1) it is necessary to ask European import managers about their beliefs and evaluative attitudes towards a series of attributes they consider when importing apples.

4.1.1 Identifying Salient Attributes

Prior to designing the questionnaire it was necessary to investigate what the likely salient attributes are that determine an individual’s attitude towards the behaviour (importing apples from Chile). This can be ascertained by interviewing a sample of the population and asking them to identify the attributes they believe are important. As a result, a set of modal salient attributes is obtained.

Preliminary phone calls were made randomly to six European importers of Chilean apples and additionally to one Chilean agent with many years of experience in the European market. The interview started typically with an introduction and explaining the purpose of the research. Subsequently, they were asked to identify the main characteristics, qualities or attributes that come to their mind when considering importing apples in general and from Chile specifically.

The responses from all interviews were then organised by grouping together very similar attributes and by looking at the frequency with which they were mentioned and the importance importers gave to these characteristics. As a result, twenty modal salient attributes were identified. These are listed below (attributes are not ranked by numbers).

1. Range of apple varieties available: There are many different varieties of apples that differ on specific characteristics in relation to shape, colour, taste, texture, etc. This attribute refers to having a wide range of the main commercial varieties available.
2. Proportion of bicoloured apples available, such as for example Royal Gala and Braeburn: There is a relatively new group of varieties that are often referred to as bicoloured, because they contrast with the traditional only red or green apples. Royal Gala and Braeburn are very representative of this group of varieties although many others exist such as for example, Fuji, Fiesta, Pink Lady, Pacific Rose.
3. Sizes of apples available: Apples are packed in cartons according to their sizes. Different markets have different preferences for the size of apples.
4. Overall quality of apples: Overall quality is defined by aspects such as shape, colour, texture, taste, etc.
5. Cosmetic defects: Apples can have many different cosmetic defects, typically spots or marks of various origins on the surface of the apple that do not necessarily affect the eating quality. However, they make apples look less appealing to the consumer. Causes can be from simple bruising to complicated physiological disorders such as scalding and Bitter Pit.
6. Colour in relation to the variety: Colour is an important aspect of quality, but what is a good colour for one variety may not be good for another. The optimal colour is a characteristic of each variety.
7. Uniformity of quality within specific shipment units: When an importer places an order for apples of a specified quality he expects that this quality be homogeneous for the whole unit. Often quality may vary due to variations in colour, sizing within the boxes or other reasons. Some shipments may arrive with apples below and above the quality expected because of problems in packing stations. Uniform quality means one apple looking the same as the next.
8. Skill in handling post-harvest stage of packing and shipping apples: Exporting apples requires a certain amount of technological capabilities, starting from picking the apples in the orchards, handling them with care all through the

- packing stage, packing them adequately for the long journey (22 days to Europe), giving them the correct cold treatment, etc.
9. Infrastructure available for post harvest handling: In order to achieve the previous attribute some essential infrastructure is needed such as adequate packing stations, efficient cold stores, controlled atmosphere storage, transport on cold storage trucks.
 10. Condition on arrival of apples: Apples may be of very good quality, but they must also arrive in good condition. Some examples of deteriorated condition are, decay, bruising, internal breakdown, dehydration, etc.
 11. Bitter Pit and/or yellowing in Granny Smith apples: For Granny Smith apples Bitter Pit and yellowing is a very common problem. Bitter Pit is a physiological disorder of the apple that predisposes the appearance of small stains on the fruit. The appearance of both Bitter Pit and yellowing is enhanced by inadequate handling at the post-harvest stage.
 12. Firmness and/or level of internal breakdown in red apples: Red apples, especially Red Delicious are often prone to internal breakdown and their texture is described as mealy. These problems can also be enhanced by inadequate handling at the post-harvest stage.
 13. Fulfilment of pre-established shipping programmes: The fruit business can be very dynamic and many things can happen that may change actual shipping programmes. For example, if market signals say the price will fall sharply in Europe, exporters might want to divert fruit to some other market or vice versa. Estimation of crop yields may vary highly as well due to numerous climatological reasons. Many factors combined may affect the original shipping programme that was agreed upon. Nevertheless, importers expect to receive the product as detailed when they placed their order.
 14. Flexibility to adapt to market dynamics or customer needs: Customer needs or market situations may change during the season and importers may need more or fewer apples, or of different characteristics, or packed in a different way, etc. This attribute is concerned with the ability of exporters to adapt to these situations on short notice.

15. Communication with exporters: Because of all the details associated with the fruit trade, the need to time shipments well and the perishable nature of the good, frequent communication between exporters and importers is necessary in order to achieve good co-ordination. This attribute is concerned with how fluent is communication with Chilean exporters.
16. Offering apples at negotiable prices as opposed to fixed prices: Chilean apples are usually offered at negotiable prices in contrast to apples supplied by marketing boards. Apples arrive at the port of destination and usually receive prices at which apples are traded in that moment (price-takers). However they can negotiate minimum guaranteed prices and occasionally also sell at firm prices with the importer taking the risk. The marketing boards set a fixed price for each category of apples according to their assessment of the market situation and officially there is no negotiation with importers.
17. Requirement of minimum guaranteed prices and/or advanced payments: Many exporters require minimum guaranteed prices before the season when contracting with their importers and often, specially smaller exporters with limited financial capacities, require advanced payments from their importers.
18. Awareness of European Union regulations: There are many regulations to be considered when exporting to the European Union, for example those in relation to waste disposal and quality as well as import duties and the entry price system.
19. Promotional help: This attribute is concerned with the assistance suppliers give to importers to promote their apples in the European market. For example this can be financial assistance or supplying promotional materials.
20. Easiness to build up long term business relationships based on mutual trust: As discussed before, source loyalty is an important aspect.

A closer examination of these attributes shows that attributes one through twelve are closely related to the quality and condition of the product (apples), while attributes thirteen through twenty are closely related to the characteristics of the exporter and the services he provides or requires. This is consistent with the findings of Sheth (1973), Ghymn (1983) and Kraft and Chung (1992) among others who have concluded that

product characteristics should not be the only ones or the most important characteristics importers consider when choosing their suppliers .

4.1.2 Measurement

Following Fishbein and Ajzen's (1975) theory as described in equation 3.1, for each attribute there must be a measurement of the strength of the belief as well as of the evaluative aspect associated with each attribute.

Fishbein and Ajzen (1975) recommend that beliefs should be measured by a procedure that places the subject along a dimension of subjective probability that links the attribute and the object (in this case the object is a behaviour). The authors give a detailed discussion of the use of different scaling methods, most importantly the Guttman, Thurstone and Likert scales.

In this research, respondents were asked to answer to what extent they agreed or disagreed with specific statements regarding each attribute when considering importing apples from Chile. The scores on each attribute varied from 1 (strongly disagree) to 5 (strongly agree), with the midpoint 3 indicating neither agree nor disagree. This allows for respondents indicating strongly agree (5) a "very probable" association, through to strongly disagree (1) "very improbable" association with the attribute. Thus, the importer is indicating the likelihood (i.e., his subjective probability) that importing apples from Chile is associated to the attribute. This complies with Fishbein and Ajzen's recommendations.

The next step is to measure the evaluative aspects about importing apples from Chile. If importers evaluate the attributes negatively and believe strongly that they are associated to the behaviour of importing apples then the outcome should be a negative overall attitude. On the other hand, if the evaluations are positive and beliefs are also strong then the outcome should be a positive attitude. Hence, evaluative aspects can be measured by means of bipolar scales.

In this research, respondents were asked to answer how important each attribute is when considering importing apples from Chile. The scores varied from -2 (Extremely Unimportant) to +2 (Extremely Important), with the midpoint 0 indicating indifference.

The complete statements for each belief as well as evaluative aspect associated to each attribute is shown in the final questionnaire (appendix I). Figures 4.1-a and b are an example of the scale used for one attribute, in this case “overall quality of apples”.

Figure 4.1-a: Measurement of the belief associated to attribute “overall quality of apples”.

I. Please indicate to which extent you agree or disagree with the following statements, when considering importing fresh apples from Chile.

Chilean apples have a good **overall quality**.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	2	3	4	5

Figure 4.1-b: Measurement of the evaluative aspect associated to attribute “overall quality of apples”.

II. Please indicate how important the following statements are, when importing fresh apples in general.

The good **overall quality** of apples.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important
-2	-1	0	1	2

Only with one attribute (number 17: requirement of minimum guaranteed prices and/or advanced payments) was the belief statement formulated negatively, while for the

remaining attributes all statements were formulated positively. In the case of attribute 17 the scale was inverted for purposes of the analysis.

The third section in the questionnaire asks respondents to state their overall attitude towards importing apples from Chile. The purpose of this question is to have an independent measure of their overall attitude in order to validate the estimate of attitude based on the salient attributes. The question was formulated to obtain a score of the importer's overall feeling of favorableness or unfavorableness towards importing apples from Chile (figure 4.2). In the final questionnaire this question was hidden between four similar questions that additionally would give more information and would also make interesting comparisons (appendix 1).

Figure 4.2: An independent measure of overall attitude towards importing apples from Chile:

III. In this section please indicate your <u>overall attitude</u> towards importing fruit.								
3. Importing apples from Chile.								
<input type="text"/> <table style="width: 100%; text-align: center;"> <tr> <td style="width: 25%;">0</td> <td style="width: 50%;">50%</td> <td style="width: 25%;">100%</td> </tr> <tr> <td>very unfavourable</td> <td>indifferent</td> <td>very favourable</td> </tr> </table>			0	50%	100%	very unfavourable	indifferent	very favourable
0	50%	100%						
very unfavourable	indifferent	very favourable						

A final section was included in the questionnaire with specific questions regarding information about the importer that could help explain the outcomes of attitude measurements. The information requested included issues regarding the company, such as the country where they are located, overall sales and experience with suppliers from other countries. Other questions were asked in relation to their experience dealing with Chilean exporters such as number of years and number of suppliers from Chile they deal with. Furthermore, questions were asked regarding the volume of apples imported from Chile, proportion of apples from Chile imported compared to total volume of apples imported and proportion of apples from Chile compared to the total volume of all fruits imported from Chile.

Additionally, respondents were asked to state their opinion in relation to their company's future intention of importing apples from Chile. This question was not asked to test the Fishbein and Ajzen (1975) theoretical framework, however it was thought that the outcome could give interesting additional information.

Finally, importers were given the chance to comment on the performance of Chilean exporters with an open ended question. This was thought necessary in case any important aspect had been overlooked. For example, importers would have the possibility to add other attributes that might have been of importance and that possibly were omitted in this questionnaire.

4.2 Data Collection

4.2.1 Sample

The target population for this survey consisted of all European importers within the European Union that imported apples from Chile during the 1995 season. For this purpose the Chilean publication "Eximfruit, Chilean Fruit Export Analysis" was purchased (Allende and Molina, 1995). The book is essentially a directory of Chilean fresh fruit exporters and their world-wide importers. Very detailed information can be found regarding European importers, including volume of total fruits imported as well as apples imported from Chile by exporter. Mostly addresses, telephone and fax numbers were available, although quite a few had to be updated or tracked down otherwise.

There were 119 importers of apples from Chile in the European Union countries in 1995. From this total 64 importers accounted for 90% of the volume of apples imported and 55 accounted for the remaining 10%. For the purpose of this research it was judged that 90% of the volume was sufficient to give a representative sample of the population. Many of the 55 remaining importers show very low volumes imported from Chile and are believed to be only occasional importers of apples from this origin. Surveys were consequently sent out to all 64 apple traders that account for the 90% of the total volume imported to the EU.

4.2.2 Survey Procedures

It was decided to carry out the survey by mail due to the long distance and geographical dispersion of the respondents. Telephone interviews to all 64 importers were not possible because of budget constraints. The major difficulty of mail surveys is the low response rate that is usually associated with this method.

However Erdos (1983) summarises the advantages of mail surveys as being able to reach a wider distribution, having less distribution bias, no interviewer bias, better chance of

truthful reply and better chance of thoughtful reply due to the possibility given to respondents to answer at their convenience of time.

The survey for this research was mailed on August 23, 1996 with a covering letter (appendix 1). Precaution was taken to include several important points in the covering letter to help improve response rates as recommended by Erdos (1983).

- Emphasis was given to the fact that the respondents would directly benefit from the results of this research, e.g. an improved service from Chilean exporters.
- It was explained who was undertaking the research and its purpose.
- Respondents were told beforehand that the survey was short and simple.
- A postage paid envelope was enclosed.
- Respondents were assured that all responses given would be treated with absolute confidentiality and that only combined responses would be published.
- The possibility was given for the respondents to contact the researcher in case of inquiries.
- An additional incentive was given by offering the respondent a copy of the main results of the research findings.

The covering letter was addressed to the “import manager”, since it was too costly to investigate the names of import managers from every company. Although it is generally recommended to address respondents personally (Erdos, 1983), a paper by Brennan (1992), who examined response rates obtained by research carried out in New Zealand argues that this is only an effective technique when addressing the general public. In the case of business surveys he concluded that it was more effective to use an impersonal rather than personal salutation on a covering letter.

Finally all covering letters were copied on the original “Massey University, School of International and Applied Economics” letter head paper and were signed personally by both the researcher and the supervising professor.

Before mailing the questionnaire, it was pretested in order to check how well questions were understood and answered. The pretest was done by two supervising professors, eight fellow students and a Chilean fruit agent based in Europe.

The surveys and the accompanying letter were folded in half and placed inside a plain white envelope with a stamp of the research institution. It was addressed to the import manager of each import company. Labels with addresses where computer printed. The postage paid return envelope was also included, with the return address printed on front. The return envelope's size was just a little smaller to fit in the outgoing envelope, but there was no need for importers to further fold the questionnaires in order to send them back. The task was simple and easy.

The questionnaires were identified with a code number in order to be able to send out reminder letters. The first questionnaire was sent on August 23, 1996 and reminder letters were sent off ten days later on September 2. According to Brennan (1992), enclosing a second questionnaire with the reminder letter is an effective technique to increase response rates. Therefore, copies of the questionnaire as well as postage paid envelopes were enclosed again with the reminder letter, with the same characteristics as described above.

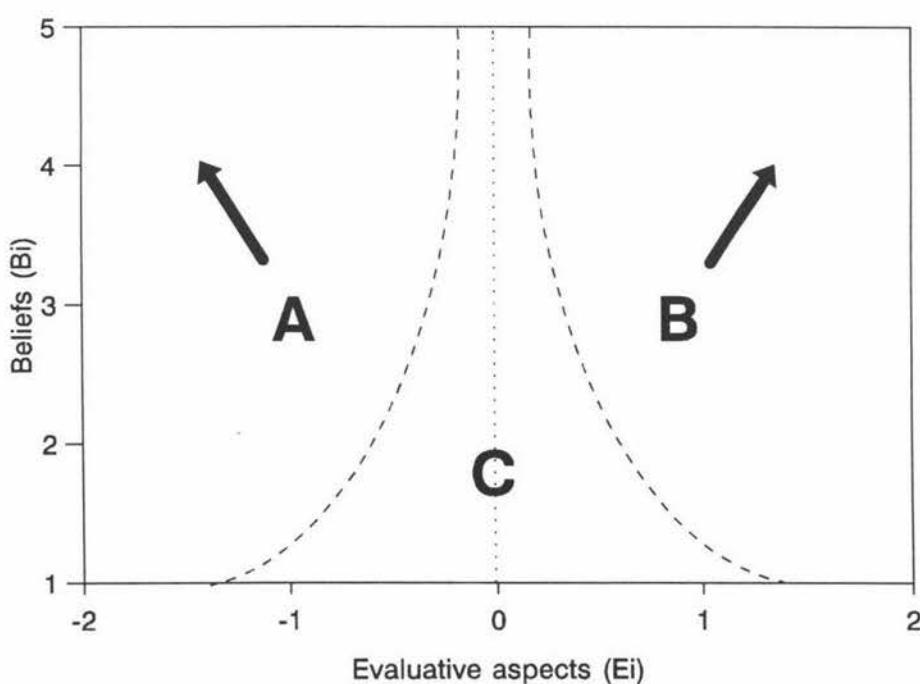
The original intention was to send no more reminders, but due to the low number of responses obtained a final effort was made to try to collect more responses. A fax reminder was sent to the remaining respondents on October 22. Both the reminder letter as well as the fax reminder are shown in appendix 1.

4.3 Data Analysis

4.3.1 Cognitive Maps

The measurement of subjective belief (b_i) as well as evaluative aspects (e_i) for each of the attributes ($n = 20$) associated with the behaviour of importing apples from Chile can be analysed graphically by plotting cognitive maps. They can be plotted individually for each importer and as an average for all importers. Typically evaluative aspects are on the X-axis while the subjective belief scores are on the Y-axis. The map consists of points that represent each attribute as a result of the combination of b_i 's and e_i 's that each importer has responded for these attributes. Each attribute makes a certain contribution to the overall attitude importers have. As a result three basic areas can be identified on a cognitive map as shown in Figure 4.3.

Figure 4.3: Areas that can be identified on a cognitive map.



When points fall into area A these attributes contribute negatively to the overall attitude of the importer that is subject of the analysis. The further these points are located in the direction of the arrow, the more negative the effect will be on their overall attitude. Similarly, points that fall into area B contribute positively to the overall attitude of the importer and the effect becomes stronger the further into the right hand corner these points are located. Points in area C represent attributes that have a relatively neutral contribution towards overall attitudes.

This way of analysing attributes can be very helpful in formulating strategies to help increase overall attitudes of importers. The cognitive map can be used to find out about evaluative aspects and beliefs that need to be changed for selected attributes. Normally it is much easier to change beliefs rather than evaluative aspects. For example, consider the following attribute: "Exporters' skill in handling post-harvest stage of packing and shipping apples." Suppose an importer has stated that this attribute is very important when considering importing apples from Chile and considers that Chilean exporters do not possess this skill. Therefore this attribute would not be contributing positively towards his overall attitude. The objective for Chilean exporters then, would be to convince the importer that they are skilled and that they are improving on this aspect. In this way exporters could move this point on the cognitive map to a more positive position.

Cognitive maps can also be plotted for each attribute where each point on the map represents an individual (importer). These cognitive maps can be used to identify target groups of individuals with the objective of trying to change the overall attitude of these people.

In this research cognitive maps of both attributes and individuals were plotted. The analysis was taken a step further by analysing the average importer cognitive map for product and exporter oriented attributes separately.

4.3.2 Statistical Analysis

The data collected through the surveys was coded into a spreadsheet (Excel 6.1) and all further statistical analysis was performed by using SAS 6.11 software.

Several linear regressions were performed using the overall attitude variable obtained in section three of the questionnaire as the dependent variable. The explanatory variables used were Fishbein and Ajzen's attitude score (equation 3.1) in a simple linear regression model. Likewise, a multiple regression was performed by separating the attributes into product and exporter oriented characteristics.

Subsequently, another multiple regression was performed by using a combination of subjective belief and evaluative aspect scores ($e_i \times b_i$) for each of the twenty attributes as explanatory variables.

Because some correlation was found between attributes a principal component analysis was performed on all twenty variables (again as $e_i \times b_i$). Principal components analysis obtains linear transformations of a group of correlated variables such that a smaller set of variables that are uncorrelated can be obtained. This smaller set of variables was used in a further regression analysis.

Finally, another regression with all twenty attribtues was carried out. However in this analysis the twenty belief scores by themselves (b_i) without associating them to the evaluative aspect scores were used. The reason for this last analysis is that other authors often use only subjective belief to measure attitudes, for example Chasin and Jaffe (1979), Chiesl and Knight (1981) and White (1979).

For the regression analyses the SAS/STAT regression procedure (PROC REG) was used while for the principal components analysis the principal components procedure (PRIN COMP) was applied.

CHAPTER FIVE

Results

This chapter describes the survey results. A respondent profile is analysed first, followed by descriptive results that summarise respondents' answers to the questions used in the analysis. Thereafter, an interpretation of the cognitive maps will be presented followed by results of the regression and principal components analysis.

5.1 Respondent Profile

Out of the 64 questionnaires that constituted the sample and were sent to European importers, two were returned because of changes in addresses. Out of the 62 remaining surveys 20 responded questionnaires were returned, yielding a response rate of 32%. From the 20 questionnaires all but one were complete and useable for the analysis. The responses obtained from this importer were very inconsistent and serious doubts emerged if the respondent really understood the questions correctly.

Some of the remaining nineteen questionnaires had missing data in the fourth section of the questionnaire that involves information regarding their company. The missing data could be found in the questions concerning how many years they had been in the business of importing apples from Chile (one case), the proportion of apples from total fruits imports from Chile (one case) and the overall value of sales from the company (two cases). However, since this information was not essential for the analysis there was no need to eliminate these observations. In the descriptive analysis in the following sections, the missing values are simply indicated and excluded from calculations.

Respondents could only be compared to the general population on two variables, because these two variables were the only ones possible to extract from the Eximfruit directory of European importers. These variables were country where the importer is located and volume of apples imported from Chile.

Table 5.1: Number of importers by country where they are located

Country	Population (%)	Sample (%)	Respondents (%)	Population (#)	Sample (#)	Respondents (#)
Belgium	2.5	0.0	0.0	3	0	0
Britain	10.9	9.4	10.5	13	6	2
France	6.7	6.3	5.3	8	4	1
Germany	10.1	10.9	10.5	12	7	2
Greece	1.7	1.6	5.3	2	1	1
Holland	21.8	29.7	36.8	26	19	7
Italy	12.6	10.9	5.3	15	7	0
Portugal	5.0	6.3	5.3	6	4	1
Spain	15.1	20.3	21.1	18	13	4
Sweden	3.4	4.7	5.3	4	3	1
unknown*	10.1	0.0	0.0	12	0	0
Total	100.0	100.0	100.0	119	64	19

* For very small importers that were not included in the sample some addresses were not obtained.

Table 5.1 shows how the geographical location of respondents compares to the total population of importers and to the sample. Although the number of responses was relatively low, the respondent profile on this variable shows a wide geographical distribution similar to those of the sample and the population. The percentages in the table show an important proportion of importers located in Holland, the main reason being because the port of Rotterdam is one of the most important ports of entry for Chilean fruits to the European Union. This port alone accounts for 45% of all Chilean fruits exported to Europe.

Table 5.2 shows the profile of respondents by the volume of apples imported. Two observations are appropriate before analysing the table. Firstly, the data available for the general population and sample was only available for 1995 while data from respondents was requested for the 1996 season. However, although the volumes imported from one season to another may have changed for individual importers in the population, the overall proportions may still be very representative. Nevertheless, official estimates from the Chilean Exporters Association show that overall exports of apples to Europe have decreased by 7.2 % from 1995 to the 1996, which means that some variation is possible. Secondly, the volume of apples imported from Chile does not reflect the size of the company. In effect, the respondent that stated the highest figure of overall sales was the one that reported the lowest volume of Chilean apples imported.

Table 5.2: Number of importers by volume of Chilean apples imported

# cartons*	18.2 Kg	Population (%)	Sample (%)	Respondents (%)	Population (#)	Sample (#)	Respondents (#)
> 1,001	0.8	1.6	0.0	1	1	0	0
501 - 1,000	2.5	4.7	0.0	3	3	0	0
301 - 500	4.2	7.8	0.0	5	5	0	0
201 - 300	3.4	6.3	15.8	4	4	3	3
101 - 200	8.4	15.6	15.8	10	10	3	3
51 - 100	13.4	25.0	26.3	16	16	5	5
20 - 50	21.0	39.1	42.1	25	25	8	8
0 - 20	46.2	0.0	0.0	55	0	0	0
Total	100.0	100.0	100.0	119	64	19	

* Thousand cartons

The method used to choose the sample allowed the inclusion of most of the volume of Chilean apples imported to the European Union (90%) and was not related to the number of importers. Hence, the last importer included in the sample had imported just over 20 thousand cartons of apples. This volume is very low and many importers that work on this level are likely to be only occasional importers of apples, while their main business may reside with other types of fruits, or with apples from other suppliers.

Table 5.2 shows a lack of responses from the large sized importers. No response was obtained from importers with volumes imported over 300,000 cartons. This means that any conclusions obtained in this research should not be extended to these importers. It is important to be aware that the responses received correspond to medium to small sized importers of Chilean apples, where size is measured as volume of Chilean apples imported.

Respondents appeared to have extensive experience in dealing with Chilean exporters of apples. Table 5.3 reveals that all importers had at least been in the business of importing Chilean apples for the last two years, 84% of them during the last five years and 37% for over 15 years. Consequently, it can be expected that respondents have an adequate knowledge of the research topic.

Table 5.3: Respondent's experience in dealing with Chilean apples: Years in the business and number of Chilean suppliers during 1996 season.

Characteristic	Category	Respondents (%)	Respondents (#)
business*	Less than 2 years	0.0	0
	2-5 years	15.8	3
	5-10 years	26.3	5
	10-15 years	15.8	3
	More than 15 years	36.8	7
Number of suppliers	1	26.3	5
	2	21.1	4
	3	15.8	3
	4	21.1	4
	5	0	0
	6	10.5	2
	> 6	5.7	1

*One missing case

The same table also indicates with how many Chilean suppliers of apples each importer operated during the 1996 season. Mostly, importers dealt with one to four exporters at a time, although some operated with six and one importer stated he even imported apples from nine different exporters during the 1996 season. Although importers tend to have a reduced number of suppliers, the table shows that experience is not necessarily limited to one exporter. Furthermore, exporters may have changed suppliers over the years.

Respondents' experience with suppliers from other countries from the Southern Hemisphere seemed to vary extensively from one importer to another (table 5.4). 16 % of respondents did not import apples from any other sources than Chile. In contrast, 11% had imported apples from all major exporting countries in the Southern Hemisphere (New Zealand, South Africa, Argentina, Brazil and Chile). These last companies were also those with the highest overall value of sales, i.e. large sized importers. Argentina stands out as being the country of origin that mostly shared importers with Chilean exporters.

Almost 90% of respondents stated that their imports of apples from Chile accounted for over 25% of their total imports of apples from the Southern Hemisphere and 63% stated that it accounted for over 50% of their imports. Accordingly, there is a tendency of the respondents being more concentrated on Chilean apples than apples from other sources.

This is a logical consequence, because of the manner in which the population was defined.

Table 5.4: Respondent's experience with other suppliers from the Southern Hemisphere: Other supplier countries and proportion of apples imported from Chile.

Characteristic	Category	Respondents (%)	Respondents (#)
Other SH* supplier countries	Chile	100.0	19
	New Zealand	21.1	4
	South Africa	31.6	6
	Argentina	57.9	11
	Brazil	26.3	5
	Uruguay	10.5	1
	Australia	5.2	2
Proportion Chilean apples from total SH* imports	0 - 24 %	10.5	2
	25 - 49 %	21.1	4
	50 - 74 %	26.3	5
	75 - 99 %	21.1	4
	100 %	21.1	4

*SH: Southern Hemisphere

Although Europe is the main destination for Chilean apples, it is also the main export destination for Chilean pears and kiwifruit, and importers also trade with a wide range of other fruits, such as grapes and stonefruit from Chile. For this reason, importers were asked if apples are the main interest when importing fruit from Chile. 52% of respondents stated that apples were their main interest while the remainder acknowledged that they were more interested in other types of fruits. Table 5.5 shows that not a single respondent imported only apples from Chile. The highest proportion of apples from total Chilean imports reached 65 %. Proportions of apples from Chile varied between 5 % to 65 % between respondents.

In relation to the size of the company, importers were asked to state the value of their overall sales (table 5.6). Mostly the respondents' companies were in the US\$ 10 million to US\$ 100 million sales value range. One importer was distinctly different from the rest with overall sales over US\$ 400 million.

Table 5.5: Proportion of apples in relation to overall imports of fresh fruit from Chile

Category	Respondents (%)	Respondents (#)
0 - 9 %	11.1	2
10-19 %	15.8	3
20-29 %	15.8	3
30-39 %	5.6	1
40-49 %	11.1	2
50-59 %	22.2	4
60-65 %	16.6	3
> 65 %	0	0

One missing case

Table 5.6: Respondent's categorised by overall value of their companies' sales.

Sales in US\$	Respondents (%)	Respondents (#)
< 10 million	16.6	3
10 - 50 million	38.8	7
50 - 100 million	22.2	4
100 -150 million	16.7	3
> 150 million	5.6	1

Two missing cases

Finally, the last question of this section asked importers about their company's intention in relation to importing apples from Chile in the future. The majority (79%) stated that they intended to increase imports from Chile in the future. 10.5% responded that they intended to increase imports from Chile strongly and another 10.5% indicated that they intended to maintain present levels of apples imported from Chile. None of the respondents stated their company's intention of reducing or stopping imports from Chile altogether.

5.2 Descriptive Results

In section III of the questionnaire, importers were asked to state their overall attitude towards importing fruit on a scale of 0 (very unfavourable) to 100 (very favourable). Respondents were confronted with different behaviours, such as importing apples from the Southern Hemisphere, from Chile or from countries that export through marketing Boards such as New Zealand and South Africa. Similarly, their attitudes towards importing other fruit types from the Southern Hemisphere and Chile were inquired. Table 5.7 shows the averages and standard deviations for each question. There was no clear difference on the average scores between importing from the Southern Hemisphere and Chile, although importing apples from Chile received a slightly lower average and presented a higher standard deviation, meaning that importers differed somewhat in their appreciations. The range for the question of importing apples from Chile was 40 - 100.

The overall attitude that importers showed towards importing apples from countries that use marketing boards was on average much lower. An extremely high standard deviation reveals that there was no agreement by importers on this matter, with a range of 0 to 100. A closer examination of the data shows that importers that source apples from New Zealand and/or South Africa consistently determined a favourable attitude toward this behaviour while importers that had no participation with marketing boards showed a wide range of responses. Since all respondents had experience with Chilean suppliers and only 42 % had experience in dealing with marketing boards the respondents showed an obvious bias in favour of Chilean exporters.

Table 5.7: Overall attitude scores towards importing fruit

Overall attitude towards importing:	AVG.	S.D.
apples from the Southern Hemisphere	89.2	13.8
other fruits from the Southern Hemisphere	87.8	15.1
apples from Chile	83.9	22.5
other fruits from Chile	87.1	16.7
apples from countries that export through Marketing Boards (NZ, SA)	58.2	41.8

Table 5.8: Overall attitude scores towards importing fruit: only respondents that have experience importing Chilean as well as New Zealand or South African apples (7 respondents).

Overall attitude towards importing:	AVG.	S.D.
apples from the Southern Hemisphere	85.0	15.3
apples from Chile	77.1	20.8
apples from countries that export through Marketing Boards (NZ, SA)	87.1	12.2

Table 5.8 shows that importers that deal both with Chilean suppliers and marketing board suppliers define their overall attitude differently from those that only deal with non marketing board suppliers. When dealing with both kind of suppliers, importers gave marketing boards the highest scores with the highest consistency, indicating a more favourable attitude towards importing apples from them.

Sections I. and II. of the questionnaire are concerned with the respondent's assessment of their subjective belief and evaluative aspects in relation to each of the twenty attributes. A summary of the results of the belief statements is shown in table 5.9. The table exhibits how many respondents replied for each level of agreement for all twenty attributes. The average scores and standard deviations for each attribute are calculated, and in the last column attributes are ranked from the highest (1) to the lowest (20) average score.

The ranking clearly shows that the first six attributes with the highest average scores are product oriented variables. Basically these attributes are concerned with the quality and condition of apples on arrival and the skill and infrastructure needed to achieve this. Not only did these attributes have the best ranking, but they also presented the lowest standard deviations, meaning that importers mainly agreed on how they perceived these attributes. Consequently, when considering importing apples from Chile the respondents perceived that quality and condition of apples on arrival is adequate.

However, the problems of internal breakdown in red apples and particularly of Bitter Pit and yellowing in Granny Smith apples are still perceived to be a problem as shown by a lower ranking. Additionally, the fact that these aspects were included as independent

attributes by importers during preliminary phone interviews, reveals that there is a problem in relation to these specific aspects of quality and condition.

Continuing with product oriented attributes, both attributes concerning the varieties available from Chilean suppliers were ranked lower. Specially the proportion of bicoloured apples that are the main new varieties like, for example, Royal Gala and Braeburn, received a very low average score, indicating that importers believed that the composition of varieties from Chile is not optimal.

Within the category of exporter related attributes, the best score was achieved by communication with Chilean suppliers, although this variable had the highest standard deviation from the whole set of attributes. This means that importers varied highly in relation to their levels of agreement with this attribute. It is noteworthy that for the attribute “easy to build long term business relationships based on mutual trust”, which has very much in common with having good communication, the standard deviation observed is also very high. Thus, it seems that different importers have had quite different experiences with different suppliers from Chile when considering “business relationships”.

Attributes that were scored low by European importers were the flexibility to adapt to market dynamics and/or customer needs, and the fulfilment of pre-established shipping programmes. Although both attributes have in common the “fulfilment of customer needs”, it is the flexibility to adapt that has received a considerably lower score on average.

Finally, the lowest scores were obtained by the attribute concerning the terms of payment and promotional help. Respondents indicated their belief that Chilean suppliers usually require minimum guaranteed prices and/or advanced payments. The low score on promotional help, reflects the low level of involvement the Chilean industry has in the marketing aspect compared to competing countries.

Table 5.9: Summary of belief scores by attribute

Attribute	Number of Respondents					Scores		RANK
	Strongly Disagree	Disagre	Neither Agree Nor Disagree	Agree	Strongly Agree	AVG.	S.D.	
1 Wide range of varieties		5	3	11		3.33	0.91	13
2 High proportion of bicoulored apples	2	11	3	3		2.39	0.92	19
3 Adequate sizes		4	5	7	3	3.56	0.98	9
4 Good overall quality		1	6	9	3	3.78	0.81	2
5 Free of cosmetic defects		2	4	11	2	3.67	0.84	5
6 Good colour in relation to the varieties		1	5	11	2	3.74	0.73	3
7 Uniform quality within specific shipment units		5	3	10	1	3.37	0.96	11
8 Skill in handling post-harvest stage of packing and shipping	1	1	4	10	3	3.68	1.00	4
9 Adequate infrastructure for post-harvest handling	1	1	4	11	2	3.63	0.96	6
10 Good condition on arrival		2	1	13	3	3.89	0.81	1
11 Low level of Bitter Pit and/or yellowing in Granny Smith		7	5	5	2	3.11	1.05	15
12 Firm red apples with low level of internal breakdown		3	4	11	1	3.53	0.84	10
13 Fulfilment of pre-established shipping programme		8	4	5	2	3.05	1.08	16
14 Flexibility to adapt to market dynamics and/or customer needs	1	9	1	8		2.84	1.07	17
15 Good communication	1	3	3	7	5	3.63	1.21	7
16 Offering at negotiable prices as opposed to fixed prices		4	5	9	1	3.37	0.90	12
17 No requirement of min. guaranteed prices and/or adv. payments	3	7	6	3		2.47	0.96	18
18 Awareness of EU import regulations		6		9	4	3.58	1.17	8
19 Sufficient promotional help	4	11	1	3		2.16	0.96	20
20 Easy to build long term business relationships based on mutual trust	1	5	4	6	3	3.26	1.19	14

Table 5.10: Summary of evaluative aspect scores by attribute

Attribute	Number of Respondents					Scores		
	Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important	AVG	S.D.	
1 Wide range of varieties		3	1	13	2	0.74	0.87	20
2 High proportion of bicoloured apples	1	1	3	8	6	0.89	1.10	19
3 Adequate sizes			1	4	14	1.68	0.58	4
4 Good overall quality				5	14	1.74	0.45	3
5 Free of cosmetic defects			2	8	9	1.32	0.67	15
6 Good colour in relation to the varieties				9	10	1.53	0.51	11
7 Uniform quality within specific shipment units			1	8	10	1.47	0.61	12
8 Skill in handling post-harvest stage of packing and shipping			1	5	13	1.63	0.60	6
9 Adequate infrastructure for post-harvest handling			1	5	13	1.63	0.60	7
10 Good condition on arrival				3	16	1.84	0.37	1
11 Low level of Bitter Pit and/or yellowing in Granny Smith				4	15	1.79	0.42	2
12 Firm red apples with low level of internal breakdown				7	12	1.63	0.50	8
13 Fulfilment of pre-established shipping programme				6	13	1.68	0.48	5
14 Flexibility to adapt to market dynamics and/or customer needs				10	9	1.47	0.51	13
15 Good communication				8	11	1.58	0.51	10
16 Offering at negotiable prices as opposed to fixed prices		1	10	8	1.37	0.60	14	
17 No requirement of min. guaranteed prices and/or adv. payments	1	1	9	8	1.16	1.07	17	
18 Awareness of EU import regulations			3	7	9	1.32	0.75	16
19 Sufficient promotional help			5	8	6	1.05	0.78	18
20 Easy to build long term business relationships based on mutual trust				7	12	1.63	0.50	9

The average scores for the evaluative aspects associated to each attribute can be observed in table 5.10. All average scores are positive and mostly over one, indicating that importers perceived most attributes to be important when considering importing apples. The highest ranking was obtained by attributes concerning the quality and condition of apples. These also obtained the lowest standard deviations, indicating that importers agreed on the importance of these attributes. However, it is important to notice that the problems of Bitter Pit and yellowing in Granny Smith are also recognised by importers to be very important.

Within the product oriented attributes, the two attributes concerned with availability of varieties are ranked very low. This means that on average this aspect is less important when considering importing apples than other attributes. However the scores obtained still indicate that a reasonable importance is given to this issue. For the availability of bicoloured apples, the standard deviation is very high and the table reveals that some importers consider this attribute to be very important.

In relation to exporter oriented attributes, importers considered that the fulfilment of pre-established shipping programmes was the most important attribute. This shows the importance importers give to receiving the agreed amount of apples at the agreed moment in time in order to meet their market strategies. Meanwhile, promotional help, awareness of EU import regulations and terms of payment were considered less important. This last attribute, terms of payment, had high standard deviation and shows that a few importers do not regard this as an important issue when considering importing apples.

The analysis above can be taken a step further by taking the belief scores and the evaluative aspects scores for each observation and then multiplying them together. If these values are summed for each importer we would obtain Fishbein and Ajzen's Overall Attitude variable (equation 3.1). However, if these scores are averaged over each attribute it is possible to see how each individual attribute on average contributes towards the overall attitude variable. The range for these scores would be between -10 (- 2×5) and +10 (2×5).

Table 5.11 shows how, on average, quality and condition as well as the skills and infrastructure needed to achieve good quality and condition on arrival contribute most to a positive overall attitude (they also have the lowest standard deviation). This is a logical consequence of these attributes having received high belief scores as well as high evaluative aspect scores. Although on average no attribute makes a negative contribution, the two attributes concerned with the varieties available (proportion of bicoloured apples and wide range of varieties), promotional assistance and terms of payment have the lowest contribution towards a positive overall attitude. The highest standard deviation can be observed for the attributes concerning terms of payment and awareness of EU import regulations.

Table 5.11: Summary of attitudes towards each attribute measured by the average belief scores (b_i) x evaluative attitude scores (e_i)

Attribute	Avg	S.D.	Rank
1 Wide range of varieties	2.68	3.04	18
2 High proportion of bicoloured apples	1.74	2.84	20
3 Adequate sizes	5.84	2.83	8
4 Good overall quality	6.53	2.14	2
5 Free of cosmetic defects	4.95	2.99	13
6 Good colour in relation to the varieties	5.89	2.66	6
7 Uniform quality within specific shipment units	5.21	2.80	11
8 Skill in handling post-harvest stage of packing and shipping	6.05	2.91	3
9 Adequate infrastructure for post-harvest handling	6.00	2.83	4
10 Good condition on arrival	7.16	2.14	1
11 Low level of Bitter Pit and/or yellowing in Granny Smith	5.47	2.20	9
12 Firm red apples with low level of internal breakdown	5.89	2.51	7
13 Fulfilment of pre-established shipping programme	5.05	2.17	12
14 Flexibility to adapt to market dynamics and/or customer needs	4.26	2.31	16
15 Good communication	6.00	3.09	5
16 Offering at negotiable prices as opposed to fixed prices	4.42	2.14	15
17 No requirement of minimum guaranteed prices and/or adv. payments	2.79	3.34	17
18 Awareness of EU import regulations	4.89	3.48	14
19 Sufficient promotional help	2.58	2.71	19
20 Easy to build long term business relationships based on mutual trust	5.47	2.95	10

5.3 Cognitive Maps

5.3.1 Importer Maps

As discussed in section 4.3.1, cognitive maps can be plotted in order to visualise how subjective beliefs and evaluative aspects are located graphically in relation to each other for an individual under analysis. Each point on the map represents one attribute, numbered from one to twenty as in the tables from the previous section. The cognitive maps created for each of the nineteen importers are shown in appendix 2.

Cognitive maps are different for each respondent, however it was possible to identify four “types” of maps that represent limiting cases with all the possibilities of variation in between. Figure 5.1 represents the cognitive map of importer C, who showed positive beliefs and positive evaluative attitudes towards most of the attributes. Figure 5.2 shows the cognitive map of importer R. In this case beliefs towards the attributes were mostly moderate to very weak, while evaluative attitudes were strong.

Figure 5.1: Cognitive map of importer C. Numbers indicate attributes associated to importing apples from Chile. Attributes numbered as in table 5.11, page 64.

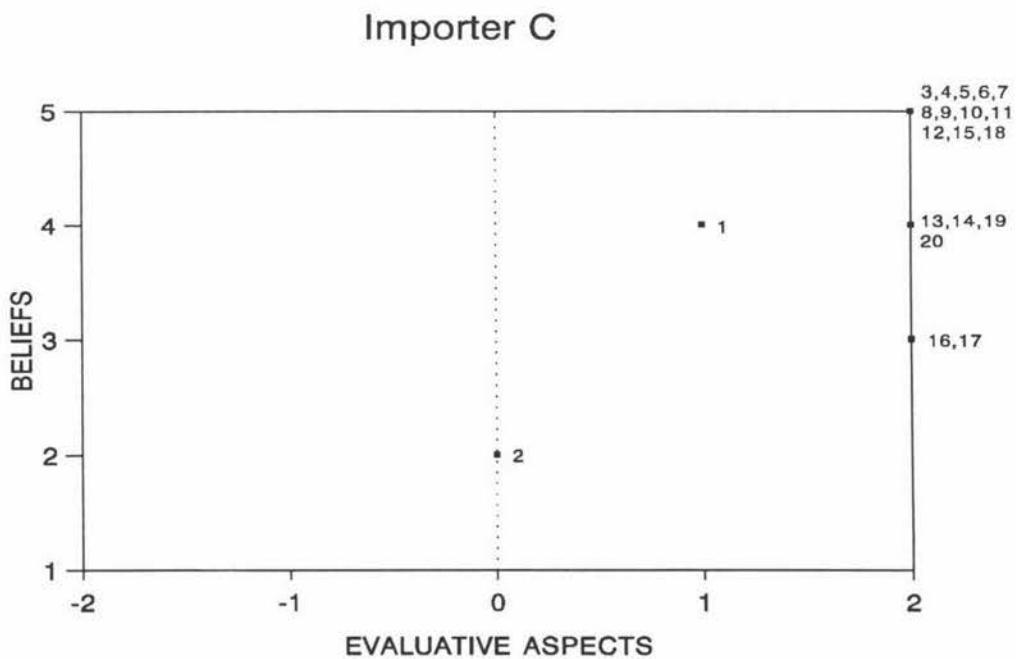


Figure 5.2: Cognitive map of importer R. Numbers indicate attributes associated to importing apples from Chile.

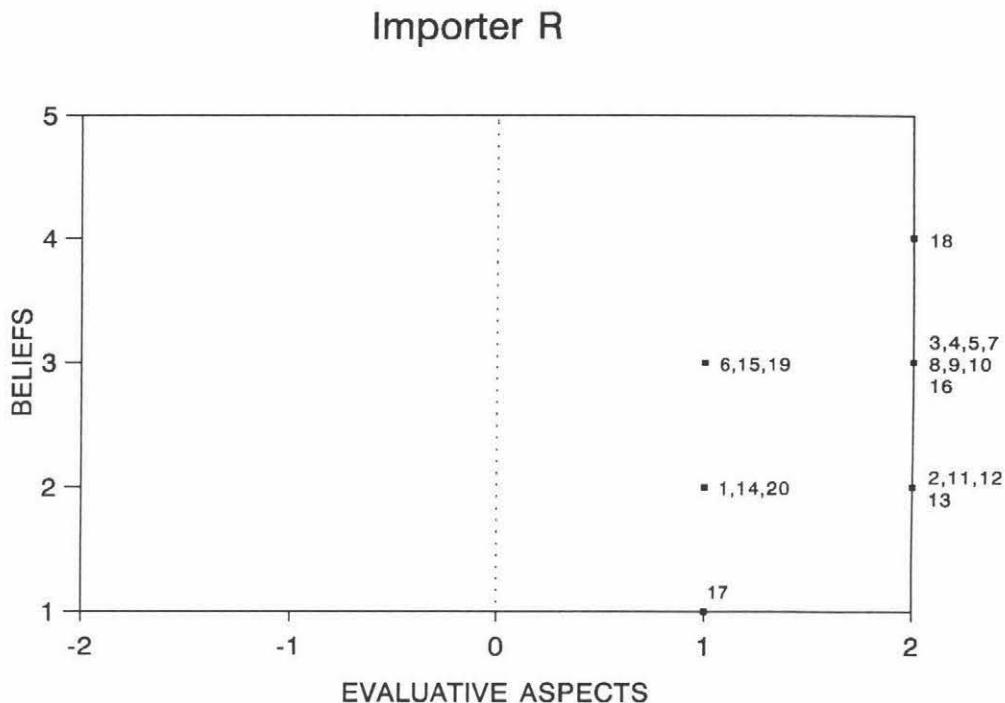


Figure 5.3: Cognitive map of importer E. Numbers indicate attributes associated to importing apples from Chile.

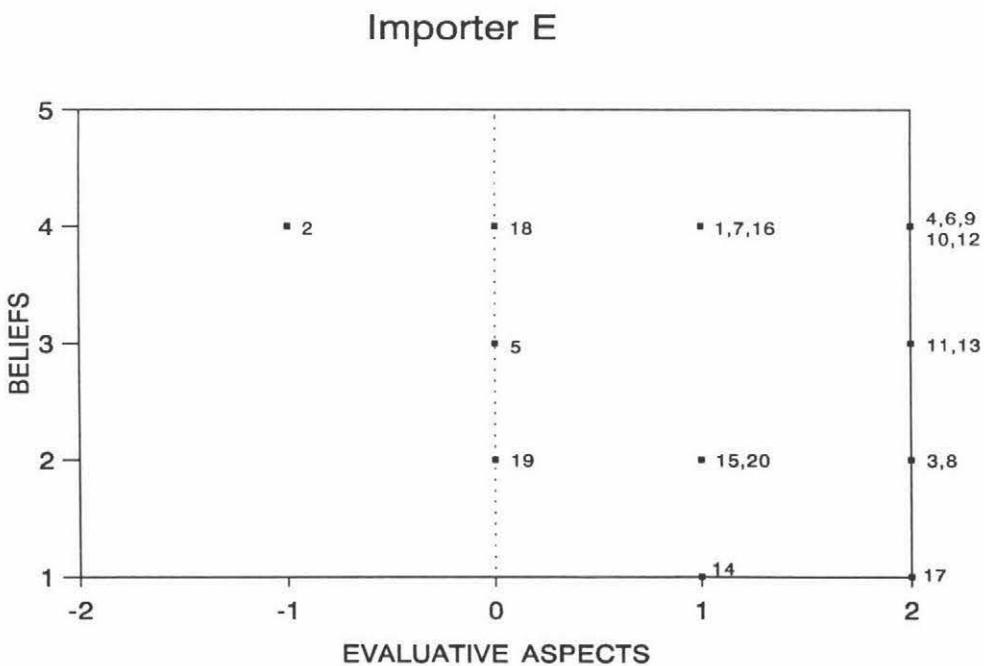
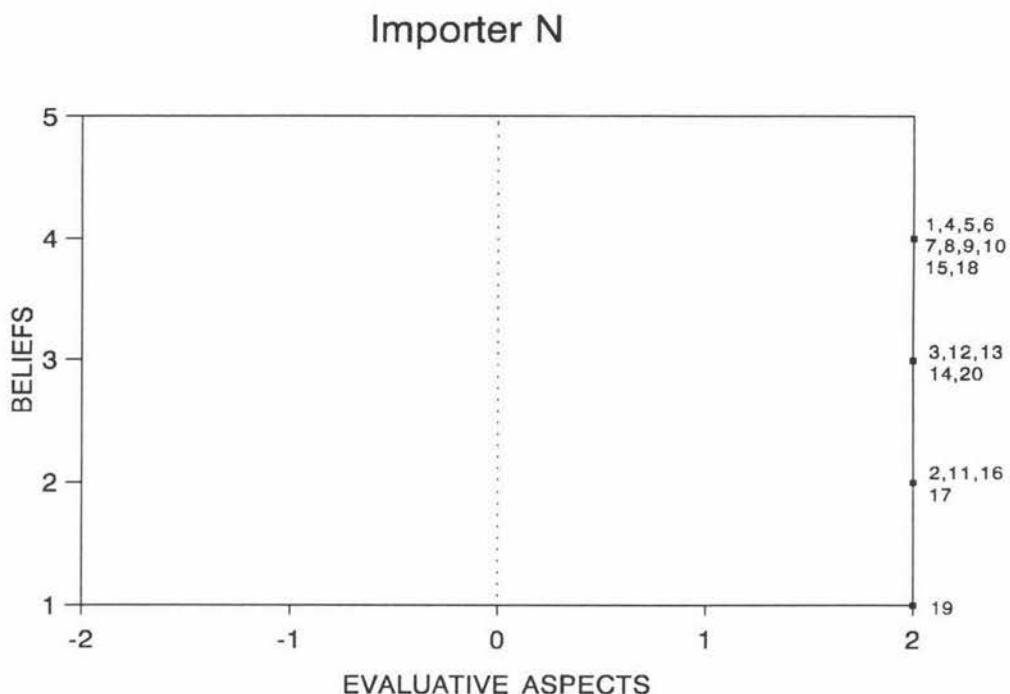


Figure 5.4: Cognitive map of importer N. Numbers indicate attributes associated to importing apples from Chile.



In figure 5.3 the case of importer E is shown. This respondent showed a high level of dispersion in relation to his beliefs as well as his evaluative attitudes. Some attributes contributed very favourably, some contributed less and others were neutral. Only one attribute made a negative contribution.

Finally, figure 5.4 shows the last type of cognitive map, represented by respondent N. This respondent had very strong evaluative attitudes, while the strength of his beliefs varied widely from very weak to strong.

The average scores over all respondents for beliefs and evaluative attitudes can be observed in figure 5.5. Although the X-axis scale should extend from -2 to +2 and the Y-axis should go from 1 to 5, these were reduced with the purpose of allowing a better visualisation of the picture.

Figure 5.5: Cognitive map representing the average respondent

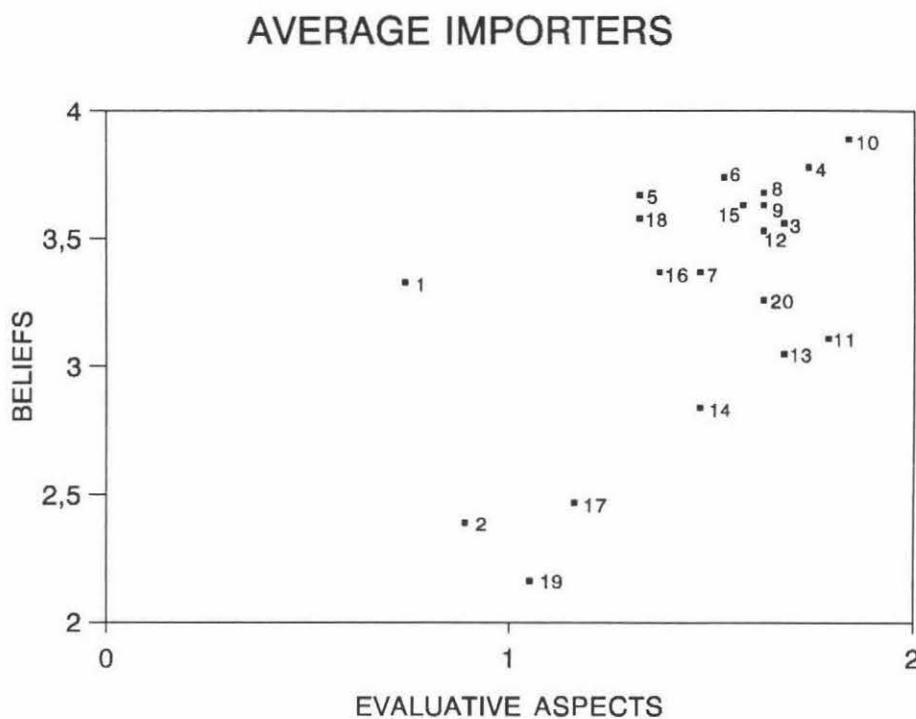
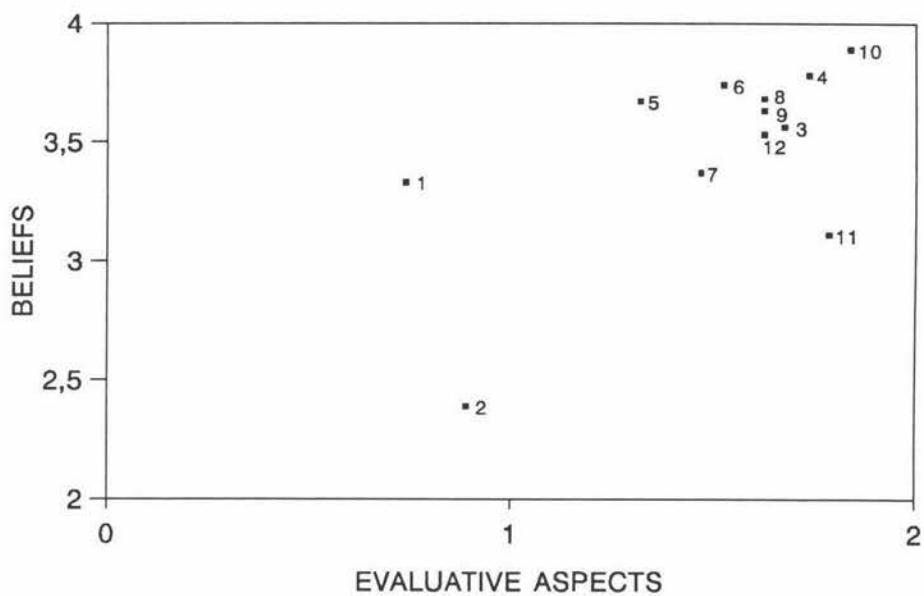


Figure 5.5 clearly shows how attributes ten and four (condition on arrival and overall quality) are the attributes that contribute most to a positive overall attitude, due to their location in the upper right hand corner. These attributes are followed by skill in handling the post-harvest stage, adequate infrastructure for post-harvest handling and good colour. In contrast, promotional help, proportion of bicoloured apples, terms of payment and range of varieties show the lowest contributions towards overall attitude on average.

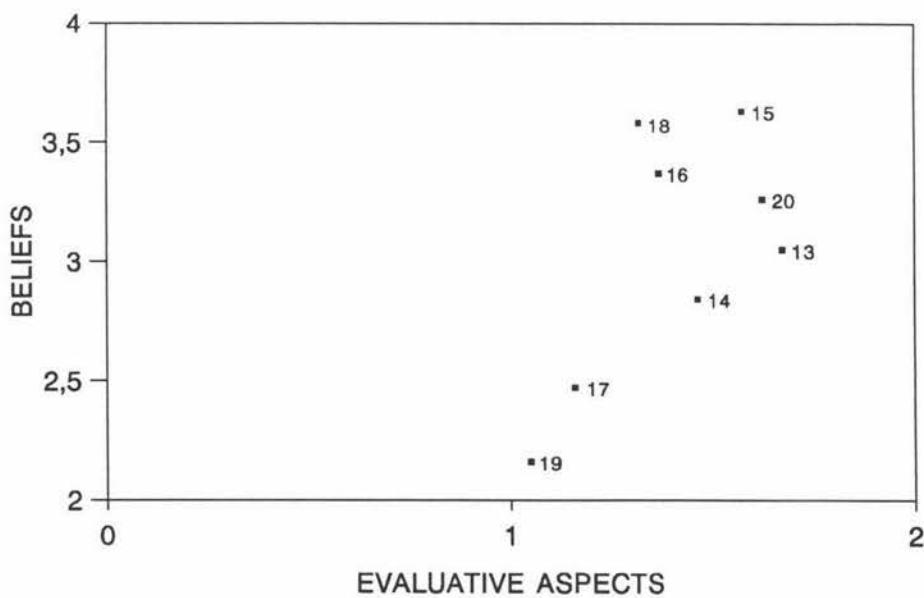
The analysis was taken a step further by separating product oriented attributes (one through twelve) and exporter oriented attributes (thirteen through twenty). Figures 5.6 and 5.7 expose how product attributes, with a few exceptions tend to be located further into the upper right hand corner contributing more to a positive overall attitude. Exporter attributes are more dispersed and seem to have a lower contribution.

Figures 5.6 and 5.7: Cognitive maps representing the average respondent for product and exporter oriented attributes respectively.

AVERAGE ALL IMPORTERS
PRODUCT ORIENTED ATTRIBUTES



AVERAGE ALL IMPORTERS
EXPORTER ORIENTED ATTRIBUTES



For this research it was relevant to examine on what attributes Chilean exporters should focus in order to effectively improve the attitude of their importers. Question 3 in section III. of the questionnaire was a measure of how importers stated their favourableness towards importing apples from Chile. Eight out of the nineteen respondents considered that their overall attitude was equal or less than 80% toward this behaviour. The cognitive maps of these respondents were closely examined, because these importers should be considered when formulating marketing strategies aimed at improving attitudes. The rest have stated positive overall attitudes and therefore show little space for improvement.

The respondents that composed this group were importers A, B, E, M, P, Q, R and S, whose cognitive maps can be observed in appendix 2. Only very occasionally did attributes appear on the negative side of the cognitive map, while the great majority were located on the positive side. The main task then is to improve subjective belief for the attributes that are located in the lower right hand corner of the cognitive maps. The maps of each of the above mentioned respondents were examined and the frequency with which each of the attributes was located in this corner was determined. Figure 5.8 shows two areas of the map that were examined. First one larger area was chosen, defined by the rectangle of points ABDE. In addition a smaller area was chosen, i.e. rectangle FCDE. The smaller rectangle in the lower right hand corner contains the attributes that are the most inconsistent in the sense that they are considered very important, yet the belief that they exist is very weak. It is from those that the most can be gained when trying to change beliefs.

The results of the frequencies observed are shown in table 5.12. Out of the eight respondents, a frequency of seven is the highest obtained for any attribute for the large rectangle, while a frequency of five is the highest for the smaller rectangle. The table clearly shows that fulfilment of pre-established shipping programme had the maximum frequency in both areas. Others worth mentioning as being very frequent are proportion of bicoloured apples, flexibility to adapt to market dynamics and/or customer needs, Bitter Pit and/or yellowing in Granny Smith apples, promotional help and terms of payment.

Figure 5.8: Cognitive map showing areas analysed for frequency of attributes.

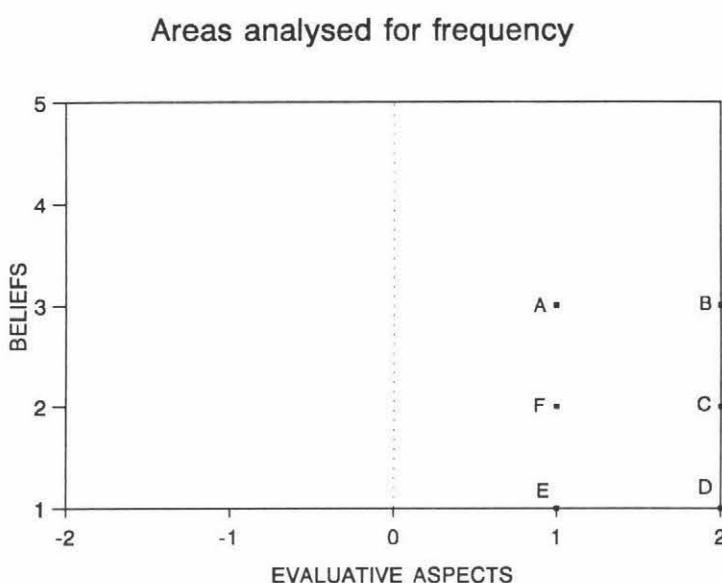


Table 5.12: Frequencies of attributes with minor contribution to overall attitudes for respondents A, B, E, M, P, Q, R and S.

Attribute	Large area ABDE	Small area FCDE
1 Wide range of varieties	2	1
2 High proportion of bicoulored apples	6	5
3 Adequate sizes	5	2
4 Good overall quality	5	0
5 Free of cosmetic defects	4	1
6 Good colour in relation to the varieties	4	0
7 Uniform quality within specific shipment units	5	3
8 Skill in handling post-harvest stage of packing and shipping	5	2
9 Adequate infrastructure for post-harvest handling	2	1
10 Good condition on arrival	2	1
11 Low level of Bitter Pit and/or yellowing in Granny Smith	7	3
12 Firm red apples with low level of internal breakdown	4	2
13 Fulfilment of pre-established shipping programme	7	5
14 Flexibility to adapt to market dynamics and/or customer needs	5	5
15 Good communication	4	2
16 Offering at negotiable prices as opposed to fixed prices	4	1
17 Requirement of minimum guaranteed prices and/or adv. payments	6	4
18 Awareness of EU import regulations	2	2
19 Sufficient promotional help	4	3
20 Easy to build long term business relationships based on mutual trust	5	4

5.3.2 Attribute Maps

Finally, cognitive maps can also be analysed by attributes, where each point on the map represents a respondent. These maps are shown in appendix 3.

Wide range of varieties: The majority of respondents had moderate to weak beliefs that Chilean exporters possessed this attribute and there was high variation concerning their evaluative attitude towards this characteristic. Judgements varied from reasonably unimportant to extremely important.

High proportion of bicoloured apples: Beliefs were mostly weak in relation to this attribute, however respondents varied widely as to their appreciation of the importance of having a high proportion of these new varieties. Nevertheless, an important group considered them to be very important and it is this group that had weak beliefs that Chilean exporters possessed these varieties.

Adequate sizes required: Mostly respondents considered this to be an important attribute, while beliefs varied from weak to very strong. Overall, respondents were positive on this issue.

Good overall quality: Mostly respondents were very positive in relation to the quality of Chilean apples. An important group thought this was a very important attribute and showed a moderate to strong belief that Chilean apples were of good overall quality.

Free of cosmetic defects: Beliefs were mostly moderate to strong that Chilean apples are free of cosmetic defects, while the importance given to this aspect was mostly high although a few showed indifference.

Good colour in relation to varieties: Again here, respondents were mostly positive. Respondents had a moderate to strong belief that Chilean apples presented good colour in relation to the varieties, while all of them considered this attribute to be important to very important.

Uniform quality within specific shipment units: Respondents varied on this attribute mostly from weak to strong beliefs that Chilean suppliers complied with having uniform quality. Although mostly considered important, a few respondents with weak beliefs were indifferent to the importance of this characteristic.

Skill in handling the post-harvest stage of packing and shipping: Mostly this attribute was considered important and beliefs ranged from very weak to very strong, concentrating more on the strong beliefs. Overall, respondents were positive on this attribute.

Adequate infrastructure for post harvest handling: This map shows very similar characteristics to the previous case.

Good condition on arrival: Respondents were very positive on this attribute. The majority thought having suppliers that are able to supply apples with good condition on arrival was a very important characteristic and beliefs that Chilean suppliers were able to perform well on this issue varied mostly from moderate to very strong.

Low level of Bitter Pit and/or yellowing in Granny Smith apples: Respondents considered this attribute to be important to very important, while beliefs varied from weak to very strong. However, there was more weight on the weak side of the belief scale making this a less positive attribute.

Firm red apples with low level of internal breakdown: This attribute map is very similar to the previous one with the exception that the weight is more on the strong side of the belief scale.

Fulfilment of pre-established shipping programme: All respondents considered this to be an important to very important attribute, while beliefs varied from weak to very strong. However an important group that evaluated this attribute as very important showed weak beliefs.

Flexibility to adapt to market dynamics and/or customer needs: Again respondents considered this aspect to be important to very important, however beliefs that Chilean suppliers were flexible varied from very weak to strong. Over half of the respondents were located on the weaker end of the belief scale.

Good communication: Respondents varied widely from having very weak to very strong beliefs that good communication is possible with Chilean suppliers. For respondents that considered this an important attribute, this variability was homogenous along the belief scale. For respondents who considered this a very important attribute responses were mostly concentrated on the strong to very strong beliefs, making this overall a relatively positive attribute.

Offering at negotiable prices as opposed to fixed prices: Mostly respondents varied around the moderate belief in relation to this attribute, while mostly it was considered important to very important.

Requirement of minimum guaranteed prices and/or advanced payments: Although most respondents considered it important to very important that suppliers do not require minimum guaranteed prices or advanced payments, a few considered the terms of payment being unimportant. Beliefs ranged mostly from weak to moderate that Chilean suppliers did not require these terms of payment.

Awareness of European import regulations: The importance given by respondents to this attribute varied from indifferent to very important and there was disagreement as to the belief that Chilean suppliers were aware of EU regulations or not. One group had strong beliefs while another had weak beliefs.

Sufficient promotional help: With this attribute, respondents mainly showed a moderate to very weak belief that Chilean suppliers assisted with promotional help. Some respondents considered this to be a very important aspect while others showed indifference.

Easy to build up long term business relationships based on mutual trust: This attribute has a very similar map as the one that describes the good communication attribute.

5.4 Statistical Analysis

This section investigates the relationship between the independent overall attitude variable (OA) requested in section III of the questionnaire and Fishbein and Ajzen's (1975) attitude variable (A) based on beliefs and evaluative aspects, as described in equation 3.1. Regression analyses were performed using the overall attitude variable (OA) as the dependant variable.

First the relationship between OA variable and the calculated A variable was determined. This was done by a simple linear regression analysis, with OA being the dependent variable and A the explanatory variable. As a result the following equation was obtained (figures in brackets are standard errors of estimates):

$$Y = 53.034 + 0.307 X \quad (\text{equation 5.1}) \\ (13.927) (0.135)$$

where, Y = Overall attitude as an independent measure

X = Attitude variable based on belief and evaluative aspects

$$R^2 = 0.234$$

$$P>F = 0.0358$$

The coefficient of determination (R^2) shows that the proportion of variation explained by the regression line is very low. This can be observed visually in figure 5.10. where the regression line obtained in equation 5.1 is depicted. Three observations stand out as being probable outliers and are indicated as importers C, F and R. Considerable thought was given to the possibility of eliminating these observations from the data set. Observation F represents a respondent that judged his overall attitude to be 100% towards importing apples from Chile. However, he consistently gave low belief scores for attributes he considered important. Respondent C, in contrast judged his overall attitude to be lower than the maximum, even though he showed strong beliefs to attributes he also considered very important, thus giving him by far the highest score for

Fishbein and Ajzen's attitude variable. Observation R represents a respondent that judged his overall attitude to be very low, although his beliefs and evaluative attitudes gave him an average attitude score.

Consequently, it was decided to perform both regressions with and without these three observations in order to be able to obtain more information, but without losing the perspective of the original data set. It should be remembered that a significant proportion of the data set (16%) is eliminated when this is done.

The same regression analysis was performed without these three observations. As a result the following equation was obtained:

$$Y = 21.271 + 0.643 X \quad (\text{equation 5.2}) \\ (9.699) \quad (0.095)$$

where, Y = Overall attitude as an independent measure

X = Attitude variable based on belief and evaluative aspects

$$R^2 = 0.765$$

$$P>F = 0.0001$$

The regression line for this equation is shown in figure 5.11. The graph clearly shows that the regression line obtained fits the data much better, this being confirmed by a much higher coefficient of determination. Further it was determined that observation C, F and R were 4.3, 5.9 and 8.7 standard errors away from the predicted mean (\hat{Y}), respectively. These values are relatively high, and therefore support the decision of considering them outliers and taking them out of the data set.

The above results show that there is a positive relationship between overall attitude and the sum of evaluative aspects and subjective belief responses (i.e. Fishbein and Ajzen's attitude index).

Figure 5.10: Regression line representing equation 5.1. Observations C, F and R are regarded as possible outliers.

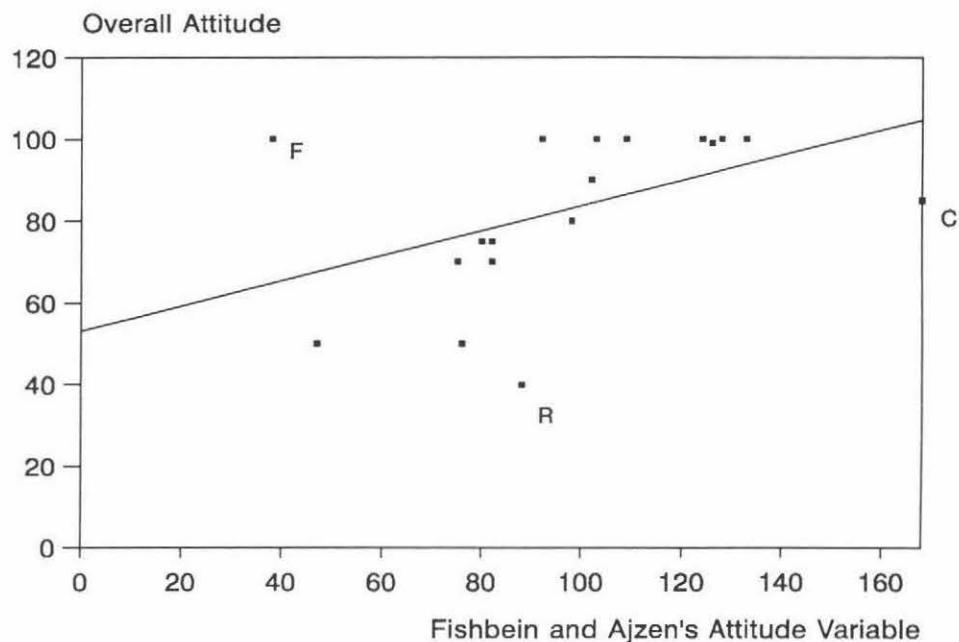
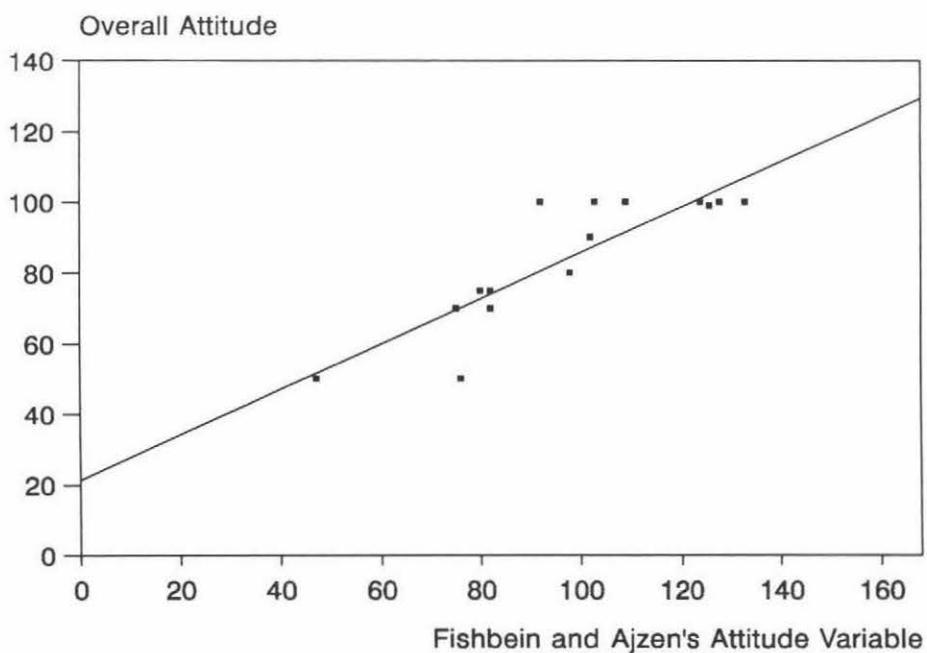


Figure 5.11: Regression line representing equation 5.2



With the purpose of trying to find the relative importance of product oriented and exporter related attributes on overall attitude the explanatory variable was divided into these two categories and a multiple regression analysis was performed. The following result was obtained:

$$Y = 55.785 - 0.053 X_p + 0.872 X_e \quad (\text{equation 5.3})$$

$$(13.251) (0.242) \quad (0.346)$$

where, Y = Overall attitude as an independent measure

X_p = Attitude variable based on subjective beliefs and evaluative aspects for product oriented attributes

X_e = Attitude variable based on subjective beliefs and evaluative aspects for exporter oriented attributes

$$R^2 = 0.357$$

$$P>F = 0.0293$$

While the partial correlation coefficient for X_p appears with a negative sign, the high standard error shows that this coefficient is not statistically significant or different from zero.

As in the previous case, the same three observations (C, F and R) were dropped in order to obtain better information. The result was the following regression line:

$$Y = 24.449 + 0.358 X_p + 1.067 X_e \quad (\text{equation 5.4})$$

$$(7.65) \quad (0.117) \quad (0.154)$$

$$R^2 = 0.867$$

$$P>F = 0.0001$$

Again the results show a significant improvement of the line fitting the data. In this case it was determined that observation C was 4.7, observation F was 5.7 and observation R

was 8.5 standard errors away from the predicted mean (\hat{Y}). As in the case before these figures indicate that the observations are very likely to be outliers.

Both regressions (with and without the outliers) indicate that the attributes that are related to the exporter have a larger influence on overall attitude than attributes related to the product. This means that in the case of importing apples from Chile, at present the attitude of importers is more influenced by exporter characteristics than by characteristics of the product. However, both make an important contribution towards overall attitude.

The analysis was taken another step further by regressing all attributes on overall attitude. In this case each individual attribute was considered an explanatory variable and was simply calculated as the multiplication of subjective belief by evaluative aspect. Because of the high number of explanatory variables (20), a stepwise regression was performed. While in the previous regressions the procedure starts off with all variables to fit the linear regression, this procedure starts off with no variables in the model. The procedure makes a forward selection, adding variables at each step in order to maximise the fit of the model. Then a backward selection is performed for the same purpose so that variables that have been included may not necessarily stay in the model (SAS User Guide, 1993). The criterion for including variables into the model was set at the 0.1 significance level. The result is shown in the following equation for the entire data set:

$$\begin{aligned} Y &= 59.787 + 3.930 X_{15} && \text{(equation 5.5)} \\ &(8.293) \quad (1.236) \end{aligned}$$

where, Y = Overall attitude as an independent measure

X_{15} = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 15 (good communication)

$$R^2 = 0.373$$

$$P>F = 0.0055$$

The stepwise regression picked up only one variable (good communication) through this procedure. However, when dropping the three possible outliers (C, F and R) from the data set, the regression line obtained was as follows:

$$Y = 42.537 + 3.141 X_4 - 1.822 X_6 + 4.73 X_7 + 3.657 X_{19} \quad (\text{equation 5.6})$$

(5.364) (0.863) (0.625) (0.604) (0.531)

where, Y = Overall attitude as an independent measure

X_4 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 4 (overall quality)

X_6 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 6 (colour in relation to varieties)

X_7 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 7 (uniformity of quality within specific shipment units)

X_{19} = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 19 (promotional help)

$$R^2 = 0.921$$

$$P>F = 0.0001$$

The equation shows that in this situation four variables are picked up by the model defining overall attitudes. These are overall quality, colour in relation to variety, uniformity of quality in specific shipment units and promotional help. The three observations dropped were 4.4, 5.7 and 7.8 standard errors away from the predicted mean (\hat{Y}) and could therefore again be considered as outliers.

Caution should be exercised when interpreting these results, because the partial regression coefficients are calculated holding all other attribute levels constant. The correlation matrix (table 5.13) shows some level of correlation between attributes, which could explain the inclusion of attribute 19 (promotional help) which did not seem so important previously, since it might be picked up instead of another attribute with which

it has a high correlation, such as for example attribute 20 (easiness to build up long term business relationships based on mutual trust). Further, the partial regression coefficient for attribute 6 is negative, while one would expect it to be positive. Again this can possibly be caused because of the negative correlation this attribute has with attribute 2 (proportion of bicoloured apples).

Table 5.13: Correlation matrix for all twenty attributes.

Table 5.13 (continued)

Because of the correlation between attributes it was decided to perform a statistical analysis to group the variables into uncorrelated groups. This can be done by using principal components analysis. Here linear transformations of a group of correlated variables are obtained so that the transformed variables are unrelated.

The SAS PRIN COMP procedure was used to perform this analysis. As a result the Eigenvalues showed that the first principal component accounted 40% of the variance. The scree plot shown in figure 5.12 shows that the first five principal components are the important ones that should be retained for the analysis. These five principal components account for 81% of the variance and they are all orthogonal to each other.

Figure 5.12: Scree test to identify number of principal components.

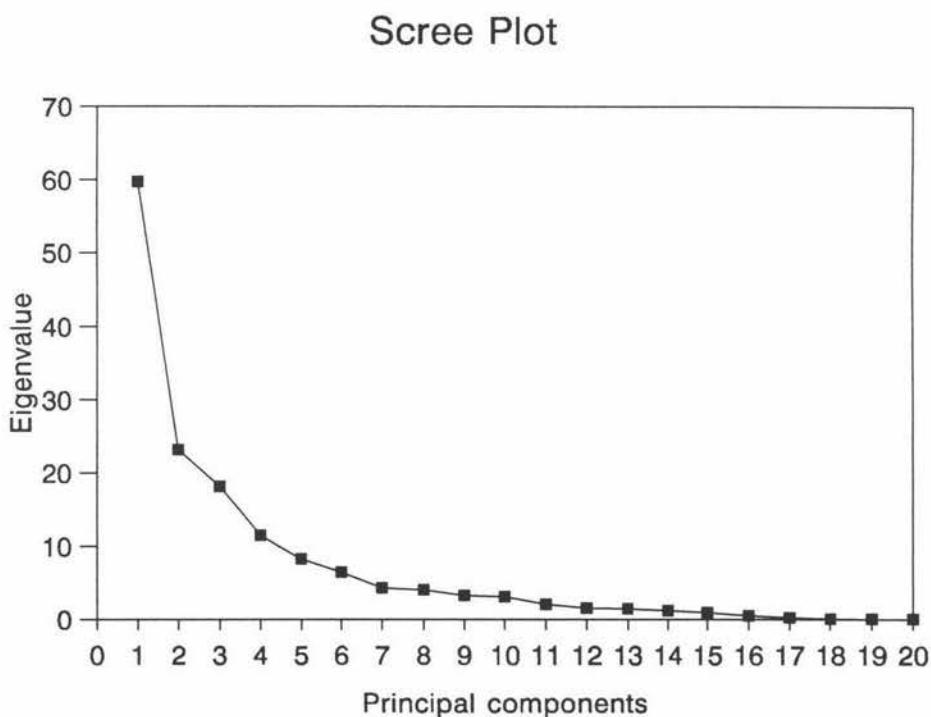


Table 5.14 shows the eigenvectors for the retained principal components. Identifying what these principal components represent turned out to be an extremely difficult task. The first component is relatively straightforward since almost all attributes presented positive and similar values. The corresponding principal component is therefore essentially the overall attitude of the respondents towards importing apples from Chile.

The second principal component is more difficult to identify. However, the data show a contrast between those attributes that describe the exporter, such as fulfilment of shipping programme, flexibility, communication, promotional help and terms of payment with positive and high values with those related to the product, such as range of varieties, proportion of bicoloured apples, cosmetic defects, skill of post-harvest handling and infrastructure for post-harvest handling, with low negative values. This suggests a principal component that describes the contrast between attitudes based on the supplier's capacity to comply with the importers needs as opposed to attitudes based on the technical capacities of suppliers and product (varieties) available.

Table 5.14: Eigenvectors for the first five principal components (orthogonal vectors)

Attributes	Principal components				
	1	2	3	4	5
Range of varieties	0.160	-0.230	-0.476	0.025	0.349
Prop. bicoloured apples	-0.063	-0.350	0.363	-0.226	0.182
Sizes	0.219	0.198	0.187	0.070	-0.394
Overall quality	0.201	0.107	-0.006	0.246	-0.201
Cosmetic defects	0.273	-0.224	0.246	0.099	0.357
Colour in relation to varieties	0.201	0.061	-0.339	0.354	0.172
Uniformity of quality in sh. units	0.316	-0.025	0.114	0.153	0.076
Post-harvest handling skill	0.322	-0.215	0.063	0.040	0.036
Infrastructure for p.h. handling	0.201	-0.389	0.048	0.150	-0.149
Condition on arrival	0.204	0.099	-0.097	0.155	-0.161
Bitter Pit / yellowing G. Smith	0.194	-0.056	0.013	0.141	0.097
Firmness / level i.b. red apples	0.240	-0.135	-0.109	0.064	-0.127
Fulfilling shipping programme	0.186	0.202	-0.149	0.083	-0.183
Flexibility to adapt m.d. / c.n.	0.106	0.275	0.042	0.014	0.420
Communication	0.313	0.254	0.069	-0.123	-0.056
Negotiable prices	0.169	-0.192	0.202	0.032	-0.032
Terms of payment	0.009	0.406	0.503	0.284	0.269
Awareness EU regulations	0.351	-0.088	0.170	-0.444	-0.147
Promotional help	0.175	0.251	-0.125	-0.388	0.322
L.t. business rel. based on trust	0.243	0.194	-0.154	-0.486	0.025

The remaining principal components were very difficult to interpret, and show no clearly identifiable principal component. Nevertheless, the subsequent regression analysis was performed with all five principal components. In order to carry out the regression analysis, the principal components were sorted by importer and the values obtained used in a stepwise regression with the same characteristics as described in the previous section. The following equation gives the results of the regression performed.

$$Y = 83.368 + 1.206 X_{pc1} \quad (\text{equation 5.7}) \\ (4.147) \quad (0.551)$$

where, Y = Overall attitude as an independent measure

X_{pc1} = Attitude variable based on subjective beliefs and evaluative aspects for the first principal component.

$$R^2 = 0.220$$

$$P>F = 0.0429$$

In this case only the first component representing overall attitude was included in the model. Subsequently, the same regression was repeated without observations C, F and R.

$$Y = 84.66 + 2.503 X_{pc1} + 1.301 X_{pc2} \quad (\text{equation 5.8}) \\ (2.025) \quad (0.334) \quad (0.411)$$

where, Y = Overall attitude as an independent measure

X_{pc1} = Attitude variable based on subjective beliefs and evaluative aspects for the first principal component.

X_{pc2} = Attitude variable based on subjective beliefs and evaluative aspects for the second principal component.

$$R^2 = 0.827$$

$$P>F = 0.0001$$

In this situation, the first and second principal components were included in the model, although the first one showed to be the more influential. This result could be expected due to the fact that the first principal component essentially represents the Fishbein and Ajzen attitude index.

Finally it was also considered that the belief statements by themselves for all attributes may be good explanatory variables for overall attitude. Thus, the same stepwise regression for all twenty variables as before was performed, but in this case the explanatory variables were all attributes considered as subjective belief only and evaluative aspects were omitted. The following equation was obtained:

$$Y = 11.115 + 9.118 X_2 + 22.327 X_8 - 8.702 X_9 \quad (\text{equation 5.9})$$

$$(21.611) (4.103) \quad (4.394) \quad (4.136)$$

where, Y = Overall attitude as an independent measure

X_2 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 2 (proportion of bicoloured apples)

X_8 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 8 (skill in handling at the post harvest stage)

X_9 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 9 (infrastructure for post-harvest handling)

$$R^2 = 0.64$$

$$P>F = 0.0013$$

Again the same regression was performed by excluding observations C, F and R, considering they were possible outliers. As a result the following equation was obtained:

$$\begin{aligned}
 Y = & -10.215 + 4.742 X_1 + 6.527 X_3 - 4.793 X_4 + 1.897 X_5 + 19.073 X_7 \\
 & (4.116) \quad (0.616) \quad (0.412) \quad (1.409) \quad (0.637) \quad (0.853) \\
 & + 7.332 X_8 - 9.307 X_{12} + 1.382 X_{16} + 1.381 X_{20} \quad (\text{equation 5.10}) \\
 & (0.633) \quad (0.734) \quad (0.469) \quad (0.658)
 \end{aligned}$$

where, Y = Overall attitude as an independent measure

X_1 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 1 (range of varieties)

X_3 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 3 (adequate sizes)

X_4 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 4 (overall quality)

X_5 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 5 (cosmetic defects)

X_7 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number (uniformity of quality within shipment units)

X_8 = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 8 (skill in handling apples at the post-harvest stage)

X_{12} = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 12 (firmness of red apples and level of internal breakdown)

X_{16} = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 16 (Offering at negotiable prices)

X_{20} = Attitude variable based on subjective beliefs and evaluative aspects for attribute number 20 (Easiness to build up long term business relationships based on mutual trust)

$$R^2 = 0.998$$

$$P>F = 0.0001$$

In this case nine out of the total twenty variables were picked up by the model. Examination of observations C, F and R revealed that these were 4.8, 5.7 and 6.3 standard errors away from the predicted mean, once more justifying the decision to consider them outliers.

Once again when using all twenty attributes there are correlations between attributes to be considered and therefore caution should be taken when interpreting the results. This may explain why the partial regression coefficients for attributes 4, 9 and 12 appear with negative signs. They all have some negative correlation with other attributes that may have influenced the sign of the partial regression coefficient.

A summary of all the above regressions performed is shown in table 5.16. The summary table shows that the inclusion of more variables into the model improved the fit of the regressions substantially. Adjusted R^2 values were calculated in order to be able to compare the fit of models with different number of explanatory variables. Values were very acceptable for all regressions when eliminating the three outlying observations. In all cases these observations were between 4.3 and 9.8 standard errors away from the predicted mean, indicating that they could be treated as outliers. When eliminating them the square root of the mean error is reduced substantially, improving the models considerably.

Table 5.16: Summary of regression analyses

#OBS.	PARAMETER	PARAMETER ESTIMATE	STANDARD ERROR	R ²	ADJUSTED R ²	ROOT MSE	P>F	(Y-YHAT) SE(YHAT)
OA vs. A								
19	INTERCEPT	53,034	13,927	0,234	0,189	17,911	0,0358	
	Attitude (A)	0,307	0,135					
16	INTERCEPT	21,271	9,699	0,765	0,748	9,087	0,0001	(C) -4,352
	Attitude (A)	0,643	0,095					(F) 5,925
								(R) -8,570
OA vs. product and exporter oriented attributes as variables								
19	INTERCEPT	55,785	13,251	0,357	0,276	16,920	0,0293	
	Product	-0,053	0,242					
	Exporter	0,872	0,348					
16	INTERCEPT	24,449	7,650	0,867	0,846	7,105	0,0001	(C) -4,661
	Product	0,358	0,117					(F) 5,661
	Exporter	1,067	0,154					(R) -8,513
OA vs. all twenty attributes as variables - stepwise								
19	INTERCEPT	59,787	8,293	0,373	0,336	16,204	0,0055	
	Attribute 15	3,930	1,236					
16	INTERCEPT	42,537	5,364	0,942	0,921	5,084	0,0001	(C) -7,647
	Attribute 4	3,141	0,863					(F) 6,153
	Attribute 6	-1,822	0,625					(R) -9,832
	Attribute 7	4,730	0,604					
	Attribute 19	3,657	0,531					
OA vs. five principal components - stepwise								
19	INTERCEPT	83,368	4,147	0,220	0,174	18,078	0,0429	
	Prin. comp. 1	1,206	0,551					
16	INTERCEPT	84,660	2,025	0,827	0,800	8,100	0,0001	(C) -4,422
	Prin. comp. 1	2,503	0,334					(F) 5,687
	Prin. comp. 2	1,301	0,411					(R) -7,786
OA vs. all twenty attributes as variables (but only on subjective belief scores) - stepwise								
19	INTERCEPT (Bi)	11,115	21,611	0,640	0,568	13,073	0,0013	
	Attribute 2	9,118	4,103					
	Attribute 8	22,327	4,394					
	Attribute 9	-8,702	4,136					
16	INTERCEPT	-10,215	4,116	0,998	0,995	1,242	0,0001	(C) -4,806
	Attribute 1	4,742	0,616					(F) 5,692
	Attribute 3	6,527	0,412					(R) -6,345
	Attribute 4	-4,793	1,409					
	Attribute 5	1,897	0,637					
	Attribute 7	19,073	0,853					
	Attribute 8	7,332	0,633					
	Attribute 12	-9,307	0,734					
	Attribute 16	1,382	0,469					
	Attribute 20	1,381	0,658					

CHAPTER 6

Discussion

6.1 Introduction

In the literature review no studies on importer attitudes towards importing fresh produce from any origin could be found. Neither was any research available in relation to importer attitudes or importer evaluations of Chilean suppliers of any product. Further, none of the literature on importer purchasing behaviour has used the Fishbein and Ajzen (1975) methodology to analyse attitudes of importers. This makes the present research unique in many ways, but does not allow for comprehensive comparisons with previous research. Some comparisons with research on importer attitudes in relation to manufactured products will be made in the first part of the discussion. In the second part the focus of the discussion will centre on the implications of the results for Chilean exporters. Finally, some possibilities for further research are mentioned.

6.2 Comparisons with Previous Research

Previous research has shown that importers select their suppliers on numerous selection criteria. These criteria can relate to the product, service and/or the supplier (Kraft and Chung (1992), Håkansson and Wootz (1975), Ghymn (1983), Ghymn and Jacobs (1993)). Although the present research was not focused on selection criteria but on attributes that determine attitude, a few similarities as well as differences were found and are discussed in this section. The ratings of importers in previous research of selection criteria are similar to the ratings of importers in this research of evaluative attitudes. In both situations, importers are asked to evaluate how important these characteristics (attributes) are.

Ghymn (1983) concludes that selection criteria are dependent on many factors and can vary from one buying situation to another. European importers of fresh apples

considered attributes related to the quality and condition on arrival of apples to be the most important. Although dealing with different products and different cultures, Chiesl and Knight (1981) and Ghymn and Jacobs (1993) both found that Japanese importers also placed most importance on product quality. Since they were dealing with manufactured products that are not perishable, condition on arrival was not an important characteristic. In contrast, Ghymn (1983) found that when US importers were dealing with suppliers from developing countries, price was more important than quality, while when importing from Western European countries quality was the most important characteristic. In this research importers did not compare Chilean exporters with suppliers from other countries. However, the high emphasis on quality that importers showed suggests that this may be due to the fact that they are dealing with fresh fruit, where it is common that quality has greater variations than with manufactured consumer goods. Hence, it is probable that quality and condition have a high priority whatever the country of origin of the supplier.

It is interesting that importers did not mention attributes such as the exporter's company size or brand name as being important when considering importing apples from Chile. Similar results were obtained by Deng and Wortzel (1995) when examining US importer-*wholesalers* in relation to Asian suppliers. Brand name and size of the supplier company were ranked at the bottom of the list in their findings, while product quality, production and distribution capability were considered the most important, similar to the findings of the present study. However, the same authors found that in the case of importer-*retailers* brand name was considered important. Since the importer's demand is a derived demand these aspects should not be neglected. Further research in the area of retailer and consumer attitudes towards buying Chilean apples would be helpful in order to understand how important such aspects are.

Another similarity can be found with research by Ghymn and Jacobs (1993). Their findings show that both US and Japanese importers consider promotional help from exporters not to be important. In the present research, promotional help also ranked very low, indicating that importers on average did not consider this an important attribute. Nevertheless, a few importers did consider it very important.

Importers also omitted price by itself as being an important attribute in this research. This contrasts with most of the previous research where price is often a high ranking selection criterion, such as found by Ghymn (1983) in the case of developing country suppliers or Deng and Wortzel (1995) in the case of Asian suppliers. In this research European importers considered more important the fact that prices be negotiable as opposed to fixed prices such as those given by the marketing board suppliers. This allows importers more flexibility with their buyers. Marketing boards have a panel of importers who distribute their fruit, but the price is fixed by the boards who regularly assess the market situation and adjust prices. Chilean suppliers are price-takers, meaning that they usually get the price at which the market is trading when their fruit arrives in Europe. Importers act as intermediaries and only earn a commission as a percentage of the price at which they sell the apples. Hence, having negotiable prices and the terms of payment and financing requirements of Chilean suppliers seem to be a more important criterion to determine an importer's attitude than price in itself.

Another important characteristic mentioned in previous studies is packaging (Ghymn and Jacobs (1993) and Deng and Wortzel (1995)). With the importance importers give to the handling of apples at the post-harvest stage it is interesting that packaging was not mentioned. Two possible explanations could justify this. Firstly, it is possible that importers included the packaging issue when mentioning the post-harvest handling attribute of apples. Secondly, almost all Chilean apples to Europe are packed in the same kind of cartons (18.2 kg. carton), which is also very similar to the ones other competing countries use. South Africa has been the most innovative country with respect to apple packaging with new cartons like the 12.5 kg Mark VI box. However this influence is still only marginal. Thus, in the case of apples, packaging is not an important issue that may affect attitudes. In other types of fruits such as kiwifruit for example, this may have been considered as an important attribute, because of the wide range of packaging alternatives that are used.

Most previous research that deals with importer attitudes or perceptions, examine how importers from a certain country perceive exporters from different countries. (White (1997), Chasin and Jaffe (1979), Chiesl and Knight (1981), Rao (1977), Khanna (1986)

Yavas et al. (1987), Kraft and Chung (1992). Most studies, particularly White (1979), suggest that country of origin stereotypes exists. The measures of attitude in these studies are simply indications of importers' perceptions or evaluations of their suppliers. This is comparable to the belief statements in the present research. In both situations importers are asked to answer how strongly they believe the exporter has or does not have a certain attribute.

The main findings of these studies can be found in the literature review. In the present research no comparisons were made between exporter countries. Consequently, country stereotypes could not be identified. It is not possible to make comparisons with previous research on importer perceptions because none deals with apples or similar products and the importers are not the same as in this research. However, a comprehensive study by Kraft and Chung (1992) shows some useful conclusions. The authors compared perceptions Korean importers of US and Japanese exporters. Japanese exporters were rated more favourably on almost all attributes. The paper suggests that US exporters should emphasise exporter characteristics such as orientation to customers needs and not only product characteristics. In relation to Chilean exporters of apples in this study a similar situation arises. Belief statements are more favourable in relation to product attributes than exporter attributes. These results and their implications will be discussed in more detail in the next section.

6.3 Implication of the Results for Chilean Exporters

The respondent profile described in section 5.1, shows that the response rate was low (32%); that the sample consisted of 64 importers and the number of observations available for the analysis was nineteen. Hence, there were fewer observations (19) than attribute variables (20). This situation is far from optimal for purposes of statistical analysis (regressions and principal components analysis). The results from these analyses should be examined having these limitations in perspective.

Even with the relatively low response rate, the respondents' profile indicates that they are representative of the population in relation to their geographical distribution (countries where their operations are located). Furthermore, respondents had mostly long term experiences with Chilean suppliers of fresh apples, indicating that they were well aware of the research topic. Thus, the results obtained from the analysis of the cognitive maps and the conclusions drawn from there should be reliable. The lack of response from European importers that deal with very large volumes of Chilean apples, however, means one should be cautious in extending conclusions to this group of importers. The respondents were mainly importers that deal with volumes in the range of 20 thousand to 300 thousand cartons of apples from Chile.

The discussion focuses mainly on the results from analysing the data on cognitive maps. However, some important results from the statistical analysis are worth mentioning.

Firstly, the simple linear regression that predicts overall attitude by using the attitude score based on subjective beliefs and evaluative aspects shows that there is a statistically significant and positive relationship between both variables. This indicates that the sum of attitude components as described by Fishbein and Ajzen (1975) is a good predictor of the overall attitude elicited from a single statement. This result validates the conceptual framework used to carry out this research.

The second regression analysis that separates product related attributes from exporter related attributes as explanatory variables of overall attitude, shows that both groups of

attributes have a positive influence on overall attitude. However, the parameters indicate that there is more to be gained from improving exporter related attributes than product related attributes.

Another important result emerges from the principal component analysis and the subsequent regression of the principal components on overall attitude. The first principal component (representing overall attitude) was included in the regression model. However, the identification and inclusion of the second principal component provided further information on how attitudes are determined. This principal component, although difficult to identify, tends to describe a contrast between *attitudes based on the supplier's capacity to comply with importers needs* as opposed to *attitudes based on the suppliers technical capacities and product (varieties) available*. This represents two different dimensions of attitude that had not been evident from the simple analysis of the raw data. Perhaps these dimensions allow for a better classification of attributes than simply exporter or product related attributes as used in this study. Further research in this area would be beneficial to improve the understanding of importer attitudes. Chilean exporters should recognise that importers put emphasis on both aspects.

The analysis of the cognitive maps shows that individual respondents locate attributes in different patterns on their cognitive maps. While some considered all attributes very important others considered certain attributes more important than others, but only occasionally were attributes considered unimportant. In relation to the subjective beliefs, respondents showed greater variability in relation to their agreements to the statements in the questionnaire. For this reason and as discussed in section 4.3.1, when implementing a marketing strategy aimed at European importers of apples, Chilean exporters should focus on trying to change subjective beliefs.

Although the results show that each attribute has the potential to improve in the eyes of the average importer, the purpose of this research is to expose the attributes that, when beliefs are changed, are most effective in improving importer attitudes. The question of how this can be achieved is beyond the scope of this thesis.

The cognitive map of the average respondent in figures 5.6 and 5.7, shows six attributes that are located in the bottom half of the graph, indicating a weak to very weak belief that Chilean exporters possess these characteristics. The ranking from the weakest belief to the strongest follows:

1. Attribute 19: Sufficient promotional help
2. Attribute 2 : High proportion of bicoloured apples
3. Attribute 17: No requirement of min. guaranteed prices and/or advanced payments
4. Attribute 14: Flexibility to adapt to market dynamics and/or customer needs
5. Attribute 13: Fulfilment of pre-established shipping programme
6. Attribute 11: Low level of Bitter Pit and/or yellowing in Granny Smith apples

The first three attributes ranked above hold the lowest belief scores indicating a very weak belief. Thus, if Chilean exporters are able to improve their importer beliefs in relation to them, they will enhance the attitude towards Chilean apple exports. However, this improvement is bounded because importers differed in their appreciation as to how important these attributes are. While some importers were indifferent or considered them not important others considered them very important. On average importers assessed these three attributes as being only moderately important. Consequently the improvement that can be gained from changing these beliefs is limited.

The last three attributes ranked above achieved higher belief scores, although still indicating a weak to moderate belief. However, importers tended to consider them very important. Hence, an improvement in relation to the beliefs concerning these attributes could contribute largely to an improved attitude towards Chilean apple exports.

Instead of examining the situation of the average importer, the results in section 5.3.1 (table 5.12) refer to those importers that had a low overall attitude towards importing apples from Chile. Marketing strategies should be formulated to change the beliefs particularly of these importers. It was concluded that the most frequent attributes that appeared in the lower right corner of the cognitive map were:

Attribute 13: Fulfilment of pre-established shipping programme

Attribute 2: High proportion of bicoloured apples

Attribute 14: Flexibility to adapt to market dynamics and/or customer needs

Attribute 17: No requirement of min. guaranteed prices and/or advanced payments

Attribute 11: Low level of Bitter Pit and/or yellowing in Granny Smith apples

Attribute 20: Easy to build long term business relationships based on mutual trust

Five out of the six attributes listed above agree with those obtained from the “average” importer.

The results show that product related attributes, particularly those related to the quality and condition of apples and the skills, capabilities and infrastructure needed to achieve good quality and condition are the attributes that contribute mostly to a positive attitude of importers towards importing apples from Chile and do not appear on these lists. There are two exceptions however. The problem of Bitter Pit and/or yellowing in Granny Smith apples appears to be a specific problem that has not been resolved by Chilean exporters. Possibly an improvement with this attribute would also enhance the evaluation of the other attributes concerned with quality and conditions of apples. Hence, it can be expected that if Chilean exporters succeed in convincing their importers that they are achieving a better control of Bitter Pit and yellowing, backing this up with effective control, there would be a substantial improvement of importer attitudes.

Firmness and/or internal breakdown of red apples, considered as a specific attribute, turned out to be less important than the problems with Granny Smith. These problems with red apples seem to be less frequent. Importers noted that the problem of firmness in these apples tended to appear specially towards the end of the season, while during the arrival of the main volumes from Chile this is not such an important problem.

The second product related attribute is proportion of bicoloured apples. The composition of apple varieties existing in Chile is mostly of the traditional varieties, i.e. Red apples (Red Delicious type apple varieties mostly) and green apples (mostly Granny Smith). However, plantings of orchards of new varieties that are bicoloured have increased

considerably over the last five years. Some of these orchards are just coming into production, but many have not yet reached the production phase. One importer made an additional comment alongside his response regarding his belief about this attribute: "not yet". Hereby he was indicating that he was well aware of the situation. This shows that Chilean suppliers are already improving their variety composition, however, they are likely to be always a step behind some of their competitors due to lack of research and development of new varieties. Most new varieties are developed and promoted by New Zealand or South Africa who will always have the marketing edge on the varieties created by their substantial research capabilities. Hardly any research is performed in Chile to obtain new varieties of apples. Chilean growers are usually very observant of what new varieties are being developed in other countries in order to trial them in Chile as soon as possible.

In relation to the exporter related attributes, the fulfilment of pre-established shipping programmes shows need of improvement. This attribute was mostly considered very important while the range of beliefs was very wide. This indicates that different importers have had different experiences with Chilean suppliers on this attribute. In essence this attribute means that some exporters often fail to keep their market commitments with their importers because they are unable to fulfil their shipping programmes. Possibly Chilean exporters are very price oriented and prefer to divert fruit to markets where they can achieve a better result. This means taking some apples from their European importers and sending them to other markets when the market outlook is rather pessimistic in Europe or vice versa, when the outlook is positive, trying to send more than previously agreed. However, it must also be said that the market situation that occurred between 1992-1994 was very unusual: first because of the frost in Europe that brought an unusually low local production; later the record European production that produced market saturation, very low prices and the implementation of countervailing duties that almost halved Chilean shipments to Europe. European importers who responded to the survey may have been affected by these situations and may not have considered them in their evaluations. Nevertheless, it is important for Chilean exporters to recognise that importers also need to meet commitments with their suppliers and must be able to count on what they have agreed to.

The next attribute is the flexibility to adapt to market dynamics and/or customer needs. This attribute was intended to measure the flexibility of exporters to adapt to certain situations such as specific customer needs or changes in the market situation. There were two distinct groups of importers according to their responses to this question (see attribute map 14, appendix 3). Half of the importers had a strong belief (agreed) that Chilean exporters were flexible and half had a weak belief (disagreed) that this was true. Experiences vary and differences between different exporters from Chile are very likely. It is possible that some would be more willing to adapt to market dynamics than to customer needs. The way in which this statement was structured does not allow a definite conclusion to be drawn. However, this emphasises that importers need to satisfy their buyers and that Chilean exporters could achieve better competitiveness by being more flexible. Further research in relation to how Chilean exporters respond to customer needs would be helpful in order to gain a better understanding of the situation.

The fact that Chilean exporters usually require minimum guaranteed prices or advance payments, also contributes little towards importers' attitudes. However, on this point Chilean suppliers are not very different from other competitors. Chilean exporters would probably not be able to sacrifice financial assistance from their importers or increase their risk by selling on free consignment in order to improve importer attitude. However, it is possible that importers would be more indifferent regarding advanced payments if Chilean exporters were more reliable in keeping their pre-established commitments and more focused on fulfilling customer needs. In a situation of long term commitment and mutual trust, importers may not consider this to be an important attribute that determines their attitude, thus if it were possible to eliminate this as an attribute it would improve their overall attitude towards importing apples from Chile.

During the preliminary phone interviews to determine the salient attributes, one importer commented on the fact that importers usually do not choose their suppliers each season. Importers do not like to change suppliers very often because this means dealing with an unknown exporter, exposing the importer to an increased risk in relation to the quality of the fruit and the commitment of the exporter to their shipment agreement. Howard and Bender (1989) also conclude that in an industrial buying situation source loyalty can

often be observed because of these reasons. Hence the importance importers give to the attribute of "easy to build up long term business relationships based on mutual trust". It is likely that most Chilean exporters are aware of this situation, nevertheless this research shows that importer attitudes can be improved by changing this belief. The high number of Chilean exporters contributes to the fact that in some cases this has been a difficult experience for importers. Even so, quite a few respondents have evaluated Chilean exporters very well on this attribute.

Most importers agreed that Chilean exporters did not give sufficient promotional help. As discussed before, in the case of Chile the exporter has very little participation in the marketing and promotion of their fruit once it has arrived at the port of destination. In contrast, suppliers like New Zealand and South Africa that have single desk marketing boards and therefore work with very large volumes of fruit at a time and have a much greater involvement in promotional strategies. Importer attitude could gain from improvements in this area from Chilean suppliers. However, this improvement is limited, because many respondents were indifferent on this issue, ranking very low on average in their evaluative attitude. Although importers did not place much importance on this attribute it would be interesting to investigate how retailers respond to promotional help.

6.4 Possible Further Research

There are numerous ways in which this research can be extended, or in which further knowledge in relation to European importer attitudes can be investigated. The following are the main possibilities that follow from this study:

- Investigating European importer attitudes towards importing apples from competing Southern Hemisphere suppliers. For example, making a comparison between suppliers that export through marketing boards versus free market supplier countries.
- Investigating European importer attitudes towards importing apples from Chile in comparison to other fruits, such as kiwifruit or table grapes from Chile.
- Investigating differences in attitudes of importers from different countries within the European Union.
- Comparing attitudes from importers in the European Union compared to importers in other important markets such as the United States.
- Investigating European retailer and consumer attitudes towards buying Chilean apples.
- Examining more thoroughly what are the attributes that determine importer attitudes towards importing apples from Chile, particularly by trying to group attributes concerned with the capacity to comply with importer needs and attributes concerned with suppliers technical capacities and varieties available.
- Investigating if importers have different attitudes to different segments or groups of Chilean suppliers.
- Investigating the relationship between European importer attitudes towards importing apples from Chile and the subsequent behaviour of making the import decision.

CHAPTER SEVEN

Summary and Conclusions

This study has examined European importers' attitudes and beliefs towards importing fresh apples from Chile. This was accomplished by performing a mail survey of European importers of fresh Chilean apples. The conceptual framework for designing the survey and subsequent analysis was taken from the Ajzen and Fishbein (1980) theory of reasoned action.

Ajzen and Fishbein (1980) have suggested that the theory of reasoned action can be used to predict and understand behaviour. They mention that there is nothing really unusual about consumer behaviour, when compared to other behaviour in a person's life. In this research the theory of reasoned action was applied to determine attitudes of European importers towards importing apples from Chile and to expose to Chilean exporters the key areas in which positive changes can improve importers attitudes leading to a more favourable behaviour, i.e. making the decision of importing apples from Chile. In contrast to other models of organisational buying behaviour such as Webster and Wind (1972) or Sheth (1973), that are complicated and confusing due to the great number of variables included, the theory of reasoned action presents a conceptual framework that is practical to use for empirical research.

Preliminary phone interviews with importers identified twenty salient attributes that determine an importer's attitude. In the subsequent mail survey, importers were asked to indicate the strength of their beliefs in relation to each attribute on a five-point unipolar scale, and the importance they give to evaluative attitude statements of each attribute on a five point bipolar scale. Additionally, an independent measure of the importer's overall attitude towards importing apples from Chile was made in order to validate the Fishbein and Ajzen (1975) attitude variable which is based on the combination of belief and evaluative attitude scores.

The analysis mainly consisted of examining cognitive maps for each respondent importer as well as for each attribute. Regression analyses were also performed in order to validate the positive relationship between Fishbein and Ajzen's (1975) attitude variable based on beliefs and evaluative attitudes and the independent overall attitude variable. Similarly, further regressions were used to find the significant explanatory variables (attributes) that determine importer attitudes.

The research findings suggest that attributes related to the product, such as quality and condition of apples, as well as the infrastructure and capabilities of Chilean exporters to achieve good quality and condition were the attributes that most contributed to a favourable attitude. Exceptions were the specific cases of Bitter Pit and yellowing in Granny Smith apples and the proportion of new varieties (bicoloured apples) Chilean suppliers have available. Improvements in these areas would improve importer attitudes towards importing apples from Chile.

Attributes related to exporter characteristics, in general, contributed less towards a positive attitude. However, it can be concluded that improvements in the service exporters give to their importers could improve importer attitudes substantially. The key areas were fulfilment of pre-established shipping programmes, flexibility to adapt to market dynamics and/or customer needs and in general a long term business commitment to the importer. When formulating marketing strategies aimed at importers, Chilean exporters should concentrate on these aspects, since importer attitudes are likely to gain most by improving these aspects.

Because of the great number of Chilean exporters, it was found that attitudes of European importers could vary significantly from one importer to another on certain attributes, particularly those that were related to exporter characteristics. Attitudes were very positive for some exporters, while less favourable towards others.

This study was a first approach to understanding European importer attitudes towards importing apples from Chile. Although some helpful conclusions could be drawn from the analysis, the results show that further examination of attributes and their effect on

attitudes as well as how attitudes affect importer behaviour (making the buying decision) would be beneficial.

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Appendix 1

Cover letter, questionnaire, reminder letter and fax reminder

23 August, 1996



SCHOOL OF
APPLIED AND
INTERNATIONAL
ECONOMICS

MASSEY
UNIVERSITY

Dear Import Manager,

Would you like to be serviced better by Chilean exporters?

Your answers to the enclosed questionnaire will enable Chilean exporters to be aware of what they are doing well and what needs to be improved when exporting fresh apples to Europe. The questionnaire has been sent out as a part of a study at Massey University in New Zealand. We are conducting the survey with the purpose of examining how European importers evaluate Chilean exporters of apples.

It will only take a few minutes to answer this simple questionnaire and to return it in the postage paid envelope enclosed.

All responses given are treated with absolute confidentiality and are only used for the purpose of this study. A code number, not your name, will identify the completed questionnaire. The results will only be published as overall statistics.

Your opinions are essential to the accuracy of our research. If you have any enquiries or require further information please feel free to contact us. A copy of the main results of the research can be made available to you if you write your name and address at the bottom of this letter and return it with the responded questionnaire.

If you are not the import manager responsible for the importing of Chilean apples, please forward this letter to the correct person.

Thank you for your valuable assistance to this research effort.

Sincerely,

Miguel Raczynski
Postgraduate Student

Dr. William C. Bailey
Professor of Agribusiness

Yes, I would like a copy of the results of this research. Please, send a copy to the following address:

Department of Agricultural
Economics and Business
Massey University
Private Bag 11222
Palmerston North
New Zealand

Telephone 0-6-356 9099
Facsimile 0-6-350 5642

SURVEY AMONG EUROPEAN IMPORTERS OF CHILEAN APPLES

I. Please indicate to which extent you agree or disagree with the following statements, when considering importing fresh apples from Chile.

WE ARE MOST INTERESTED IN YOUR OPINION SO PLEASE TICK THE BOX THAT BEST REPRESENTS YOUR LEVEL OF AGREEMENT WITH EACH STATEMENT.

1. Suppliers of fresh apples from Chile have a wide **range of varieties** available.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

2. Suppliers of fresh apples from Chile have a high **proportion of bicolored apples** available, such as Royal Gala and Braeburn.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

3. Suppliers of fresh apples from Chile have the **adequate sizes required**.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

4. Chilean apples have a good **overall quality**.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

5. Chilean apples are relatively **free of cosmetic defects**.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

6. Chilean apples have a good **colour** in relation to their varieties.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

7. Chilean apples present **uniform quality** within specific shipment units.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

8. Chilean suppliers of fresh apples are skilled in **handling the post-harvest stage** of packing and shipping and maintenance of the cold chain.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

9. Chilean exporters have the **adequate infrastructure** for the post-harvest handling of fresh apples.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

10. Chilean apples usually are of good **condition on arrival** at the port of destination.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

11. **Granny Smith** apples from Chile tend to develop only very little **Bitter Pit** and/or **yellowing**.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

12. **Red Apples** from Chile tend to develop only very little **internal breakdown** and are usually very **firm**.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

13. Once a shipping programme is defined for importing fresh apples from Chile, you can count on Chilean suppliers that they will **fulfil this programme** within the normal and acceptable margins of variations due to the nature of the business.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

14. Chilean exporters of apples are **flexible** and can adapt rapidly to the dynamics of the market and/or specific customer needs.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

15. **Communication** with Chilean suppliers is good.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

16. Chilean suppliers offer their apples at **negotiable prices** as opposed to other suppliers such as Marketing Boards who usually offer at fixed prices.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

17. Chilean suppliers of fresh apples usually **require minimum guaranteed prices** and/or **advanced payments** for their apples.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

18. Chilean suppliers of fresh apples are aware of **European Union import regulations** (For example agrichemical residues, waste disposal, import duties, entry prices, etc.)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

19. Chilean suppliers give sufficient **promotional help** to their import agents.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

20. It is easy to build up **long term business relationships** based on **mutual trust** with Chilean suppliers.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

II. Please indicate how important the following statements are, when importing fresh apples in general.

WE ARE MOST INTERESTED IN YOUR OPINION SO PLEASE TICK THE BOX THAT BEST REPRESENTS YOUR EVALUATION IN RELATION TO EACH STATEMENT.

1. Having suppliers with a wide **range of varieties**.

Extremely
Unimportant

Reasonably
Unimportant

Indifferent

Reasonably
Important

Extremely
Important

2. Having suppliers with a high **proportion of bicolored apples** such as Royal Gala and Braeburn.

Extremely
Unimportant

Reasonably
Unimportant

Indifferent

Reasonably
Important

Extremely
Important

3. Having suppliers that can provide the **adequate sizes required**.

Extremely
Unimportant

Reasonably
Unimportant

Indifferent

Reasonably
Important

Extremely
Important

4. The good **overall quality** of apples.

Extremely
Unimportant

Reasonably
Unimportant

Indifferent

Reasonably
Important

Extremely
Important

5. The provision of apples **free of cosmetic defects**.

Extremely
Unimportant

Reasonably
Unimportant

Indifferent

Reasonably
Important

Extremely
Important

6. The good **colour** of apples in relation to their variety.

Extremely
Unimportant

Reasonably
Unimportant

Indifferent

Reasonably
Important

Extremely
Important

7. The **uniformity of quality** within specific shipment units.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

8. Having suppliers that are skilled in **handling the post-harvest stage** of packing and shipping and maintainance of a cold chain.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

9. Having suppliers that have **adequate infrastructure** for the post-harvest handling of fresh apples.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

10. The good **condition on arrival** of apples at the port of destination.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

11. A low level of **Bitter Pit** and/or **yellowing** in Granny Smith apples.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

12. Receiving **firm** red apples with low level of **internal breakdown**.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

13. Having suppliers that are capable of **fulfilling their pre-established shipping programme** within the normal and acceptable margins of variation due to the nature of the business.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

14. Having suppliers that are **flexible** and can adapt rapidly to the dynamics of the market and/or the needs of the importing agent.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

15. Having good **communication** with your suppliers.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

16. Having suppliers with whom you can **negotiate prices** as opposed to suppliers who establish fixed prices such as the Marketing Boards.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

16. Having suppliers that are willing to accept terms of payment that are on free consignment (i.e. without **minimum guaranteed prices**) and/or **without advanced payments**.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

18. Having suppliers that are aware of **European Union import regulations** (for example agrichemical residues, waste disposal, import duties, entry prices, etc.).

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

19. Receiving **promotional help** from your suppliers.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

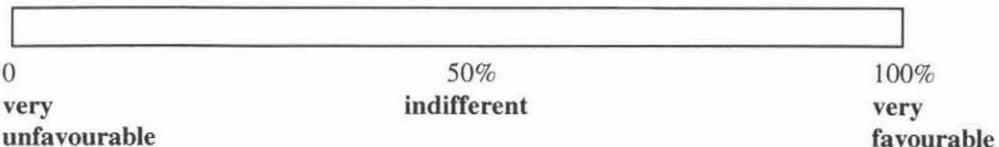
20. Having suppliers with whom you can easily build up **long term business relationships** based on **mutual trust**.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Unimportant	Reasonably Unimportant	Indifferent	Reasonably Important	Extremely Important

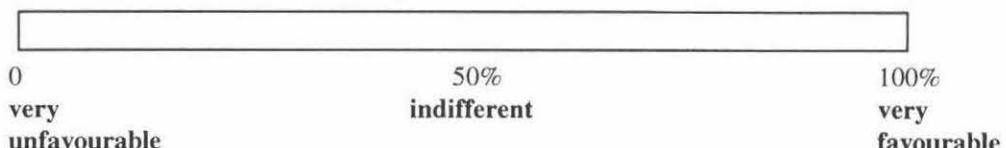
III. In this section please indicate your overall attitude towards importing fruit.

PLEASE INDICATE THE STRENGTH OF YOUR FEELINGS BY WRITING A NUMBER BETWEEN 0 AND 100 ON THE SCALE PROVIDED TO INDICATE HOW FAVOURABLE OR UNFAVOURABLE YOUR ATTITUDE IS TOWARDS EACH ACTION.

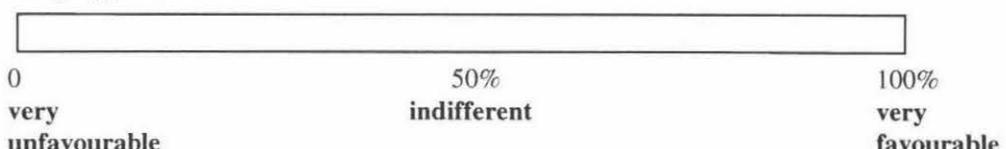
1. Importing apples from the Southern Hemisphere.



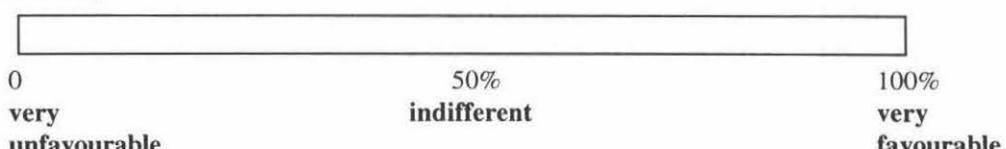
2. Importing other fruits from the Southern Hemisphere (e.g. kiwifruits, pears, table grapes, plums, peaches and nectarines)



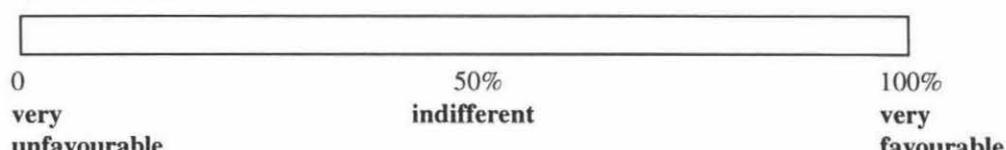
3. Importing apples from Chile.



4. Importing other fruits from Chile (e.g. kiwifruits, pears, table grapes, plums, peaches and nectarines)



5. Importing apples from countries that export through Marketing Boards such as New Zealand and South Africa.



IV. To help us analyse your answers above, please answer the following questions about your company.

PLEASE REMEMBER THAT THE SURVEYS WILL BE TREATED WITH COMPLETE CONFIDENTIALITY.

1. In what European country is your import agency located? PLEASE WRITE THE NAME OF THE COUNTRY.

2. With how many suppliers of fresh apples from Chile did you work with during the 1996 season? PLEASE CIRCLE THE CORRECT NUMBER.

none one two three four five more than five. How many? _____

3. From what sources in the Southern Hemisphere do you import fresh apples? PLEASE CIRCLE THE NUMBER OF YOUR RESPONSE(S) (MAY BE MORE THAN ONE).

Chile	.	.	.	.	.	.	.	.	1
New Zealand	.	.	.	.	.	.	.	.	2
South Africa	.	.	.	.	.	.	.	.	3
Argentina	.	.	.	.	.	.	.	.	4
Brazil	.	.	.	.	.	.	.	.	5
Others (please specify)									6

4. For how many years has your company been in the business of importing fresh apples from Chile? PLEASE CIRCLE THE NUMBER OF YOUR RESPONSE.

Never	.	.	.	.	.	.	.	.	1
Less than 2 years	.	.	.	.	.	.	.	.	2
2-5 years	.	.	.	.	.	.	.	.	3
5-10 years	.	.	.	.	.	.	.	.	4
10-15 years	.	.	.	.	.	.	.	.	5
More than 15 years	.	.	.	.	.	.	.	.	6

5. Approximately what proportion in volume of your apples imported from the Southern Hemisphere were from Chile in the 1996 season? PLEASE WRITE THE PERCENTAGE.

_____ %

6. Approximately what is the volume of fresh apples that your company imported from Chile in the 1996 season? PLEASE WRITE THE NUMBER OF 18.2 KG BOXES.

_____ 18.2 kg BOXES

7. Are fresh apples the main interest for your company when importing fresh fruit from Chile? PLEASE CIRCLE THE CORRECT RESPONSE.

YES NO

8. Approximately what proportion in volume of your total imports of fruits from Chile are apples? PLEASE WRITE THE PERCENTAGE.

_____ %

9. Approximately what was the total value of the overall sales of your company in the 1995 financial year? PLEASE WRITE THE APPROXIMATE VALUE AND SPECIFY THE CURRENCY.

_____ (please specify the currency)

10. Which of the following statements represents best your company's intention in relation to importing fresh apples from Chile in the future? PLEASE CIRCLE THE NUMBER OF YOUR RESPONSE.

- | | |
|---|---|
| Intend to stop imports | 1 |
| Intend to reduce imports | 2 |
| Intend to maintain present level of imports | 3 |
| Intend to increase imports | 4 |
| Intend to increase imports strongly | 5 |

11. In the following blank space you may add any brief comments regarding the performance of Chilean exporters of apples if you believe they can assist this research.

THANK YOU FOR YOUR TIME AND ASSISTANCE WITH THIS RESEARCH EFFORT.

Code ()

2 September, 1996



SCHOOL OF
APPLIED AND
INTERNATIONAL
ECONOMICS

—
MASSEY
UNIVERSITY

Dear Import Manager,

Recently we mailed you the enclosed questionnaire as part of a study at Massey University in New Zealand. As indicated in the previous letter your answers to the enclosed questionnaire will enable Chilean exporters to be aware of what they are doing well and what needs to be improved when exporting fresh apples to Europe.

If you have completed and returned your survey already please disregard this letter and thank you for your time and effort in doing so.

Your opinions are essential to the accuracy of our research and it would be of great help if you could return this simple questionnaire in the postage paid envelope enclosed. It will only take a few minutes to answer.

If you have any enquiries or require further information please feel free to contact us. A copy of the main results of the research can be made available to you if you write your name and address at the bottom of this letter and return it with the responded questionnaire.

All responses given are treated with absolute confidentiality and are only used for the purpose of this study. A code number, not your name, will identify the completed questionnaire. The results will only be published as overall statistics.

If you are not the import manager responsible for the importing of Chilean apples, please forward this letter to the correct person.

Thank you for your valuable assistance to this research effort..

Sincerely,

M. Raczynski

Miguel Raczynski
Postgraduate Student

W.C. Bailey

Dr. William C. Bailey
Professor of Agribusiness

Yes, I would like a copy of the results of this research. Please, send a copy to the following address:

Department of Agricultural
Economics and Business
Massey University
Private Bag 11222
Palmerston North
New Zealand

Telephone 0-6-356 9099
Facsimile 0-6-350 5642

FAX REMINDER

ATTN.: Import Manager / (Company Name)
FROM: Miguel Raczynski
Agricultural Economics and Business Department
Massey University, New Zealand
REF.: Survey among European importers of Chilean apples
DATE: October 22, 1996

Dear Import Manager,

Recently I mailed you a questionnaire as part of a research effort designed to enable Chilean exporters to be aware of what they are doing well and what needs to be improved when exporting fresh apples to Europe.

As an importer you would directly benefit from improved Chilean service.

Your opinions are essential to the accuracy of our research. It will only take a few minutes to complete the simple questionnaire and return it in the postage paid envelope previously provided.

Please disregard this fax if you have already returned the questionnaire. Feel free to contact me if you would like further information regarding this research.

Thank you very much for your valuable assistance.

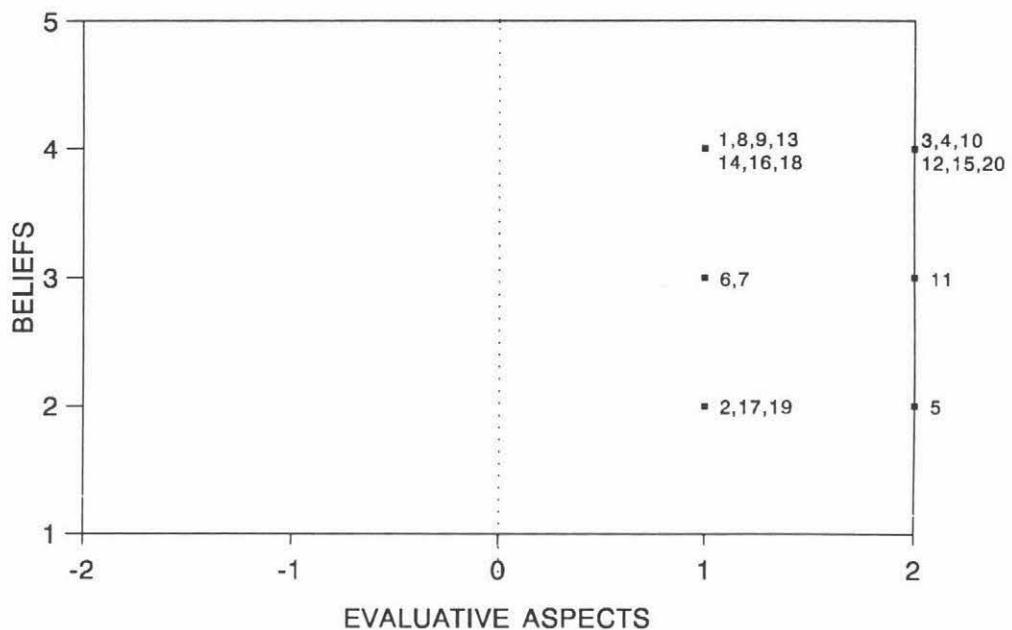
Sincerely,

Miguel Raczynski

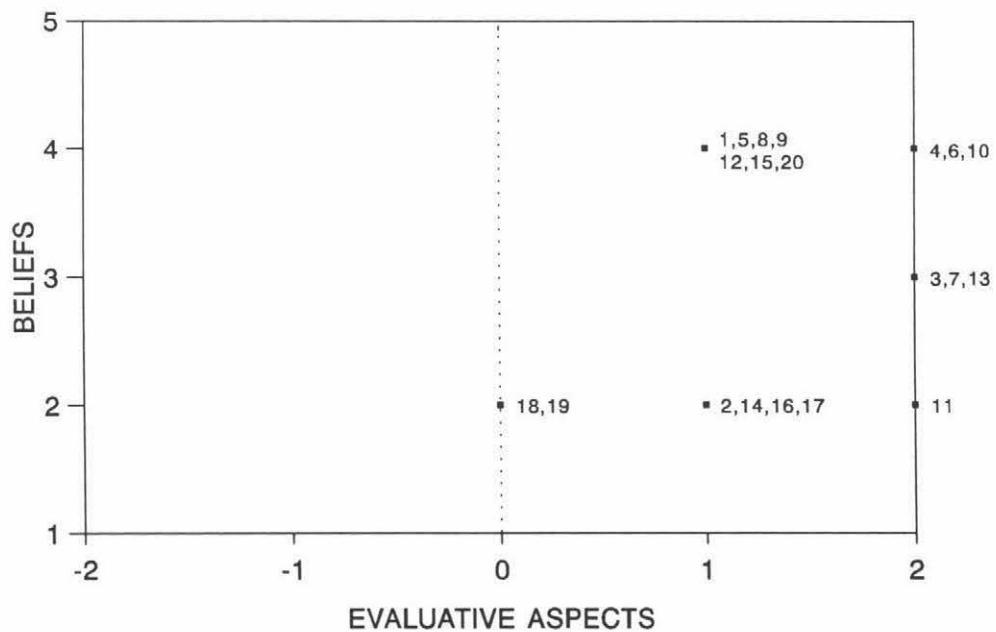
Appendix 2

Cognitive maps of all importers

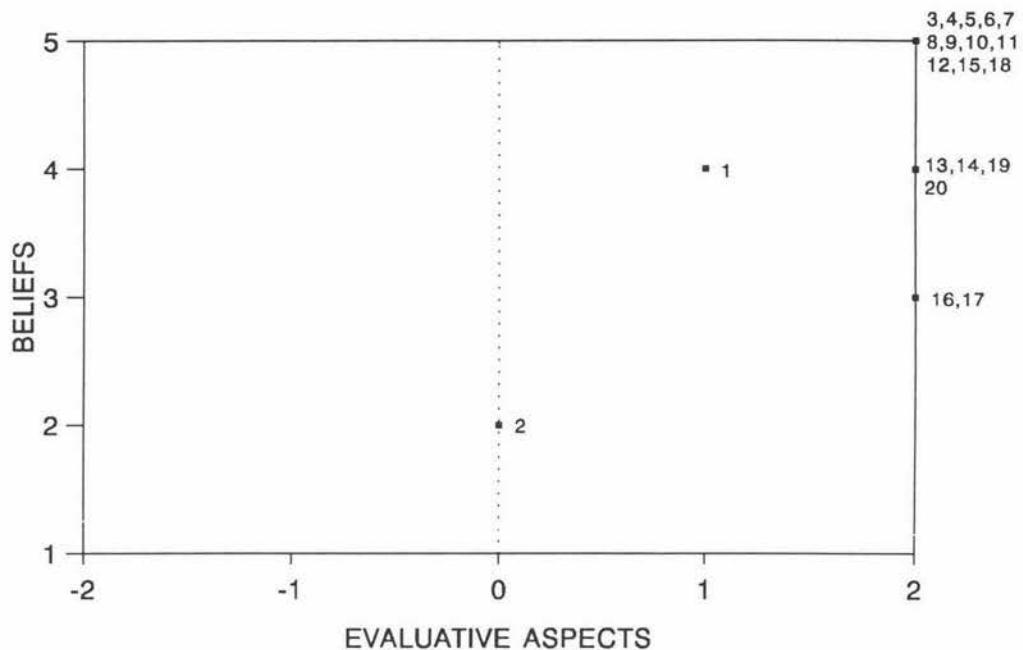
Importer A



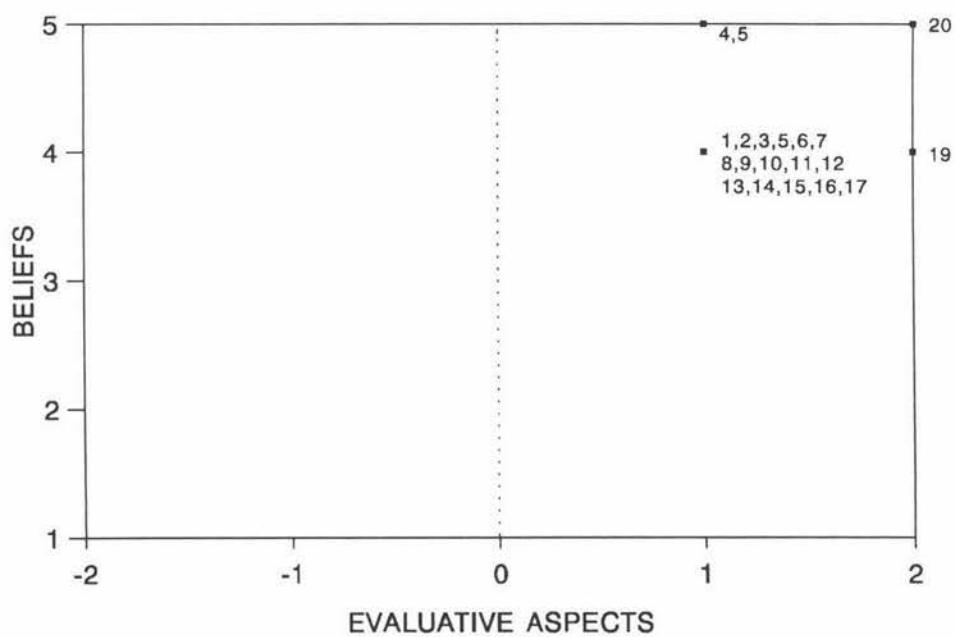
Importer B



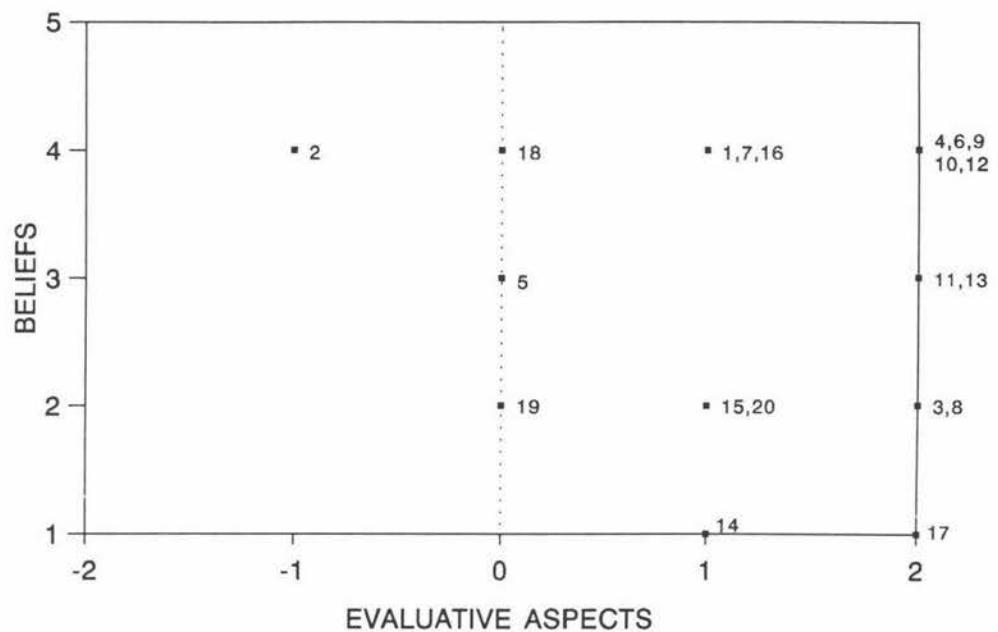
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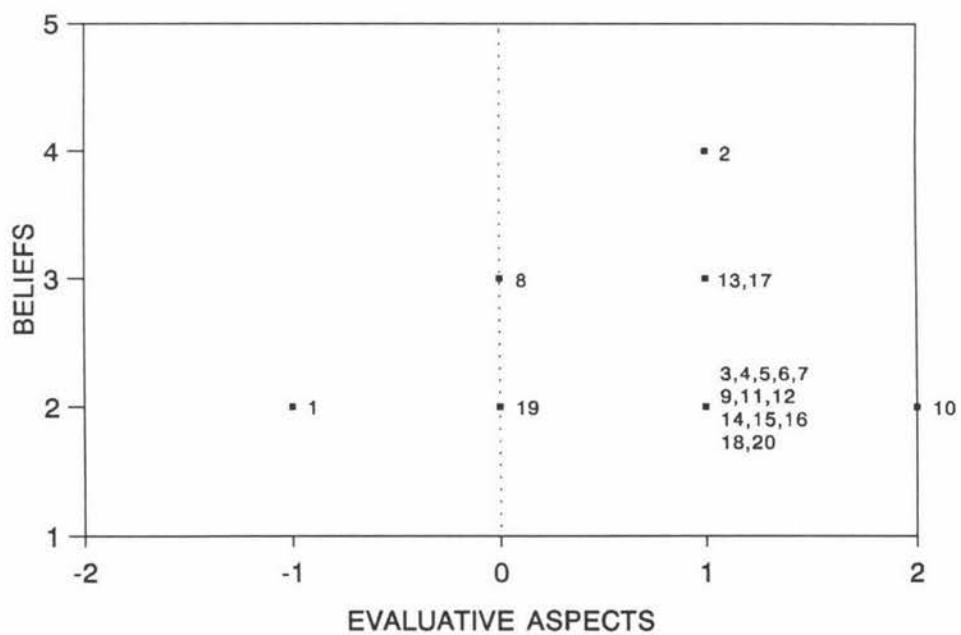
Importer D



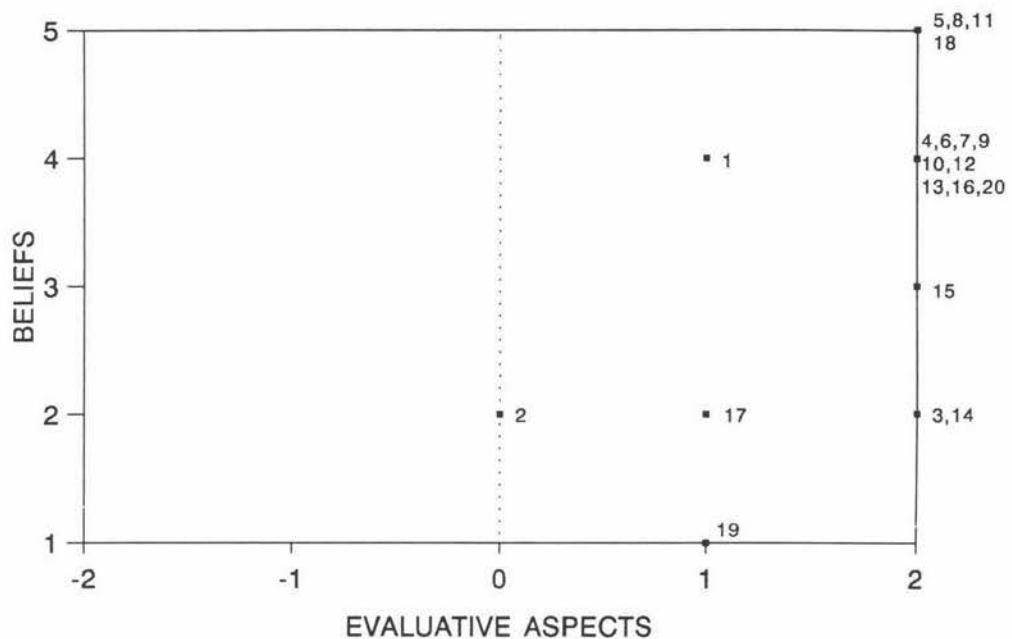
Importer E



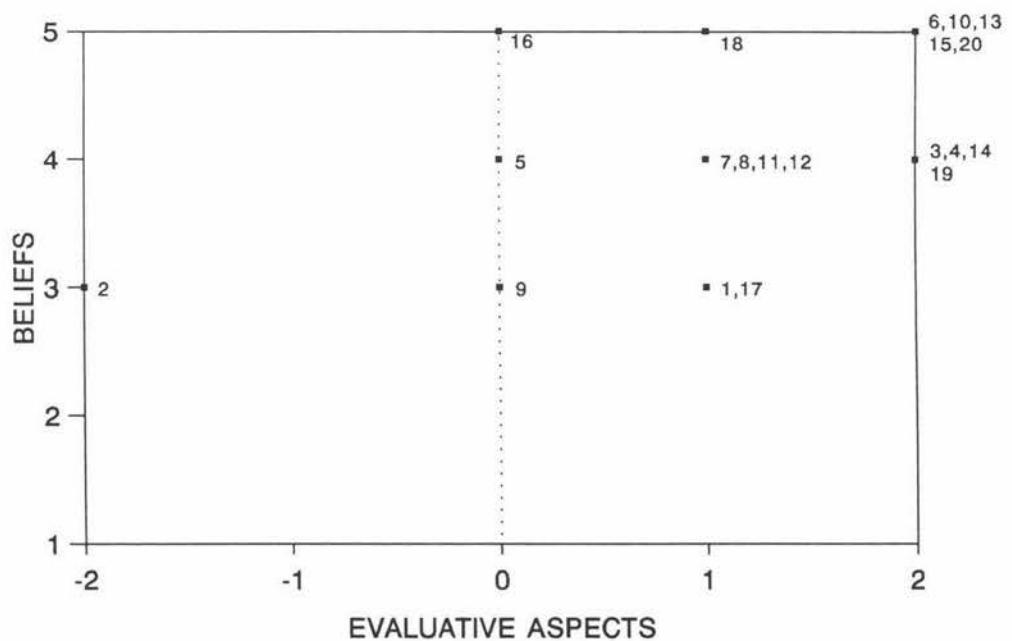
Importer F



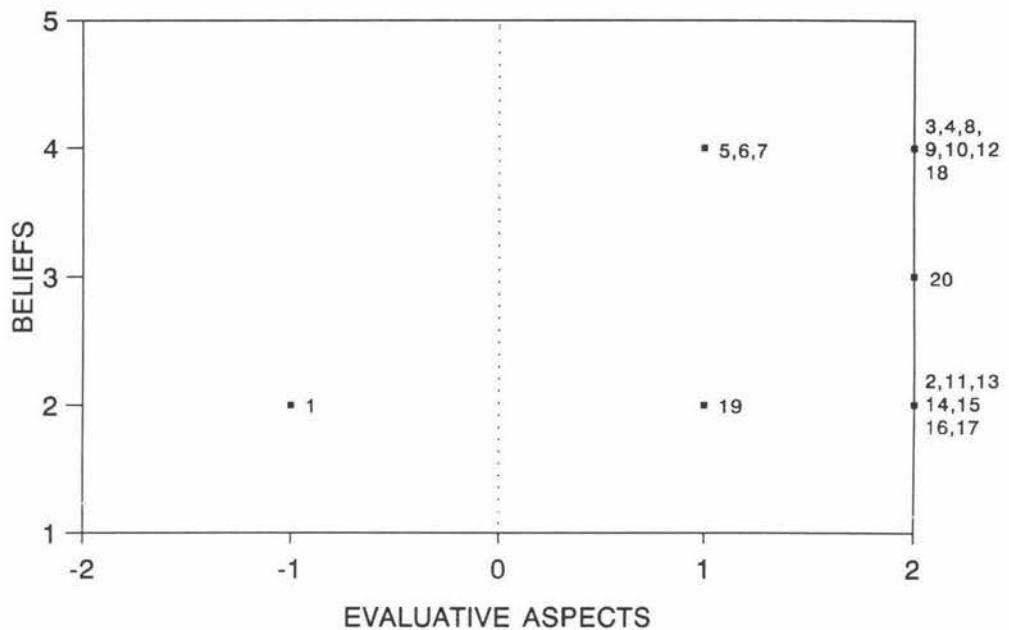
Importer G



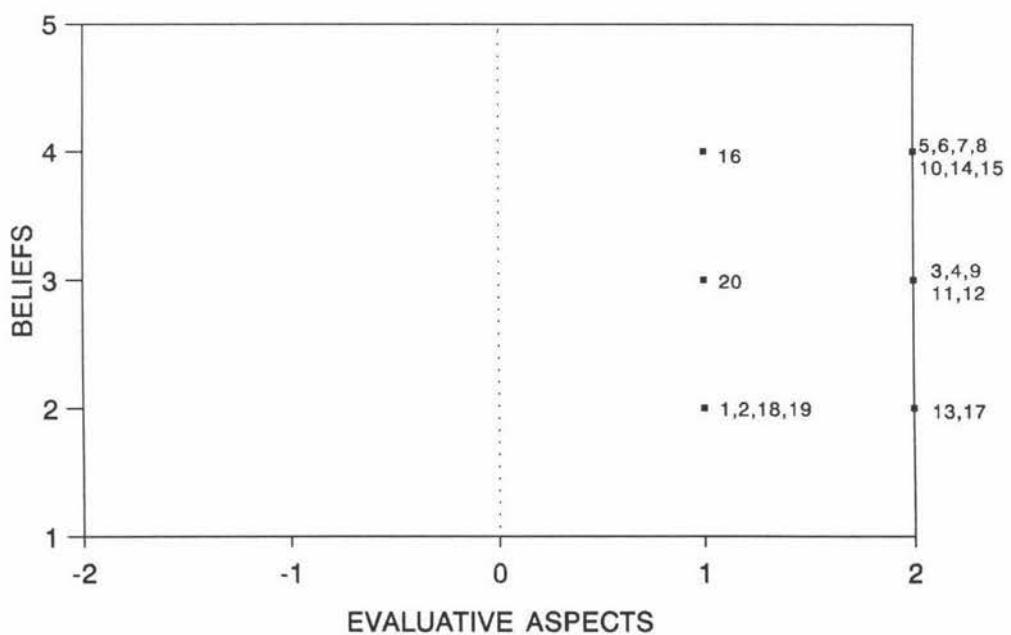
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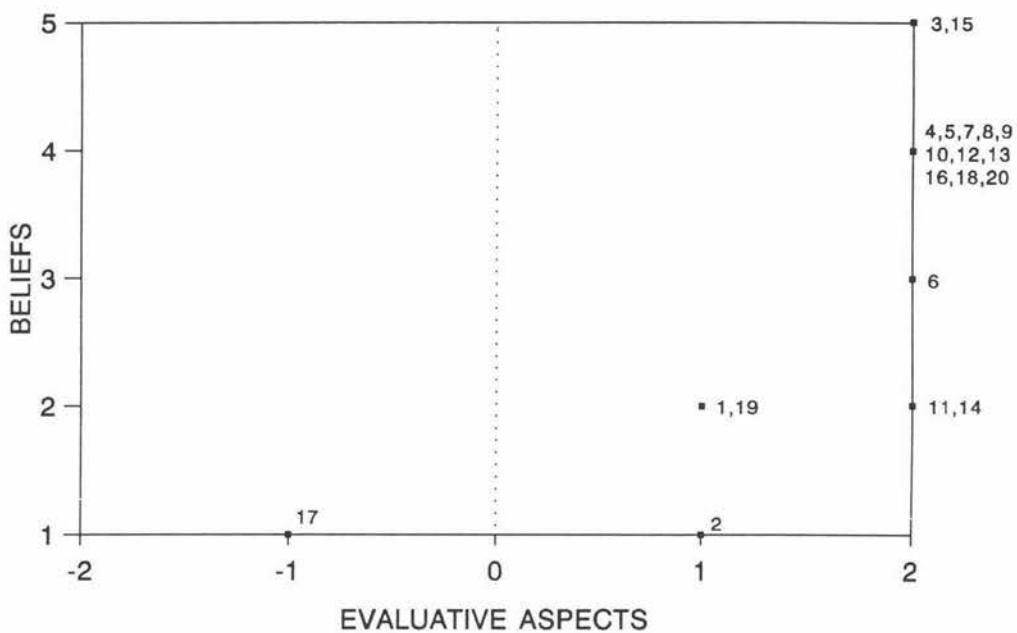
Importer I



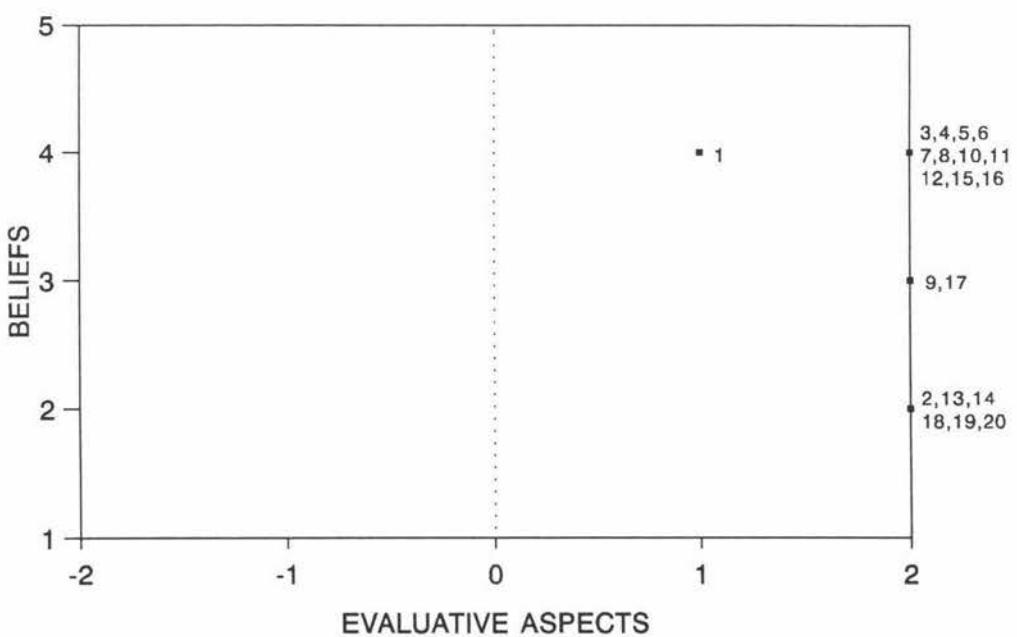
Importer J



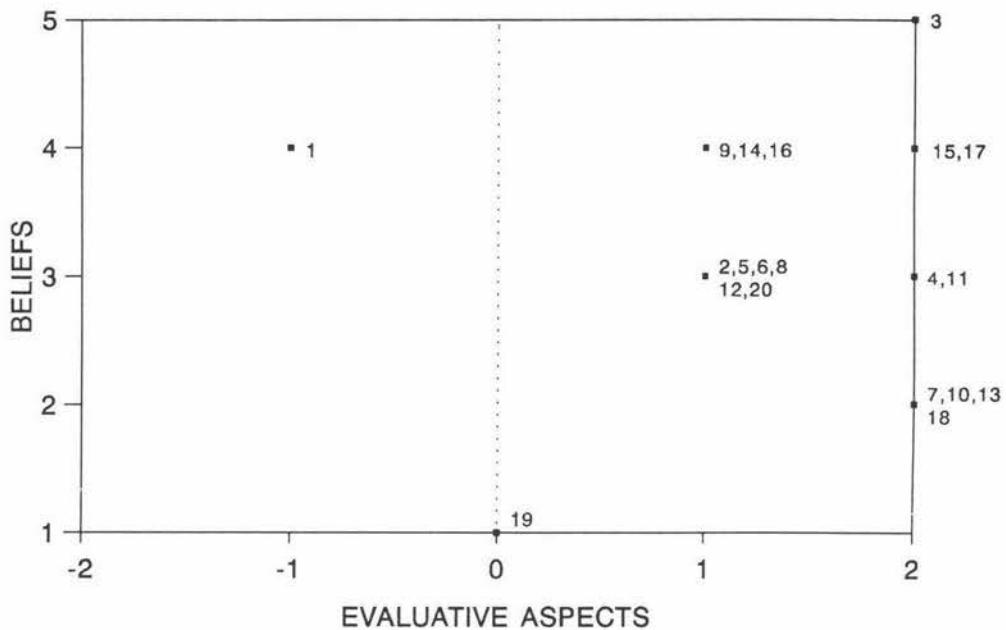
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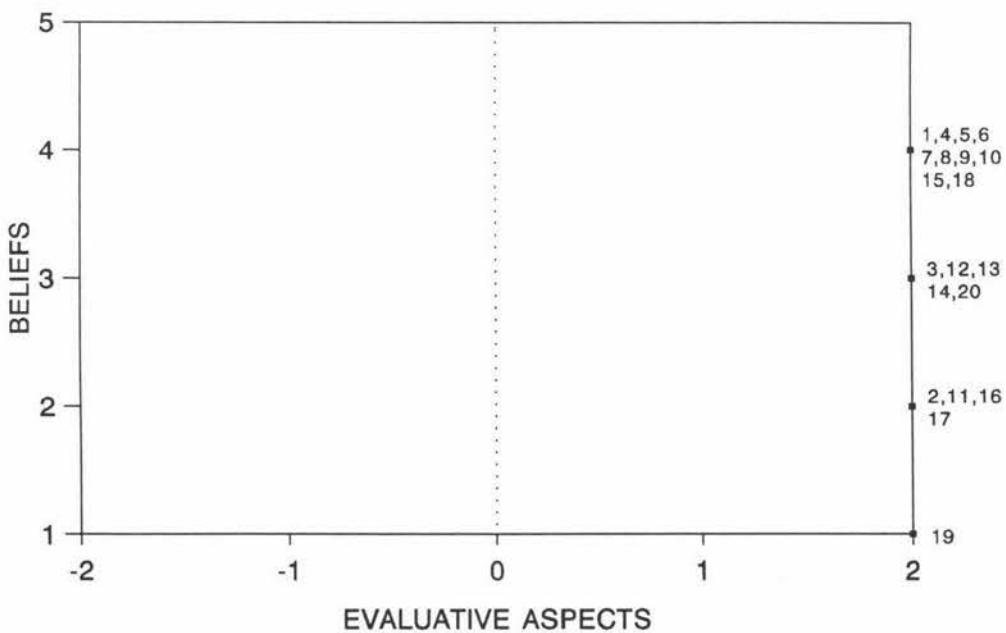
Importer L



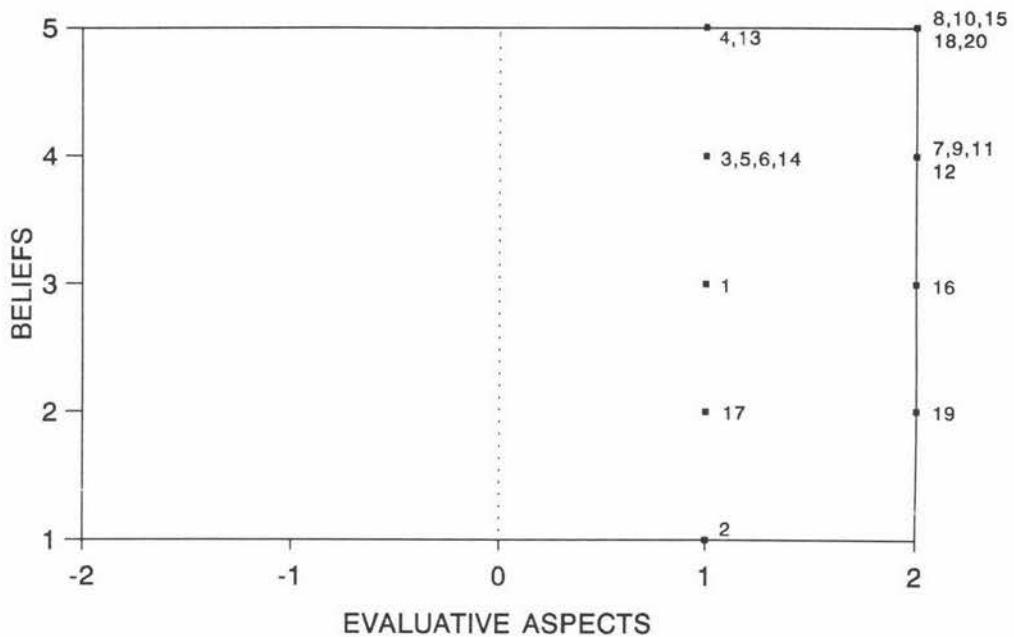
Importer M



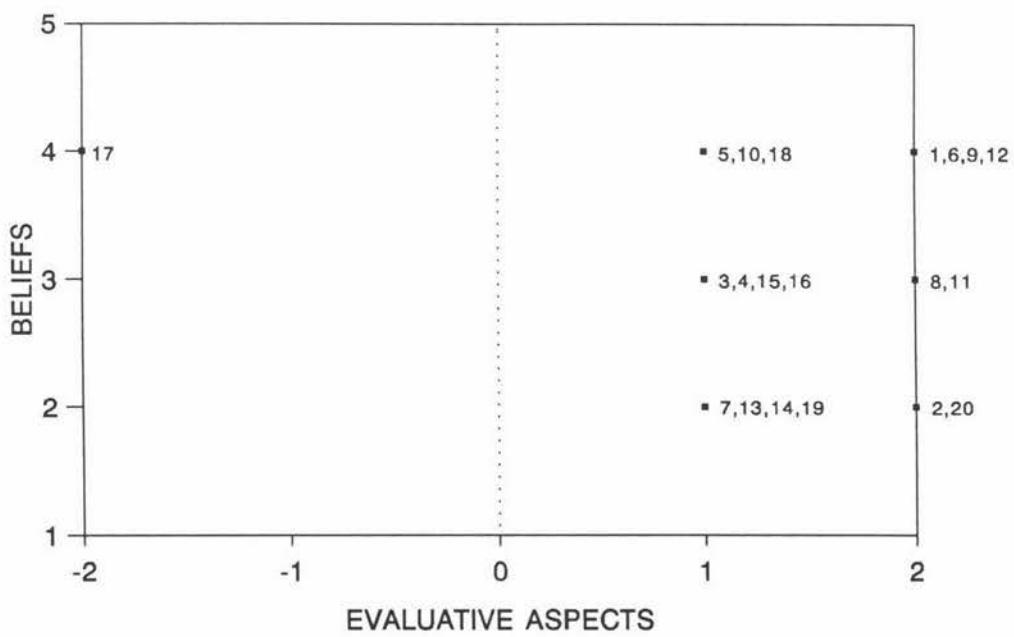
Importer N



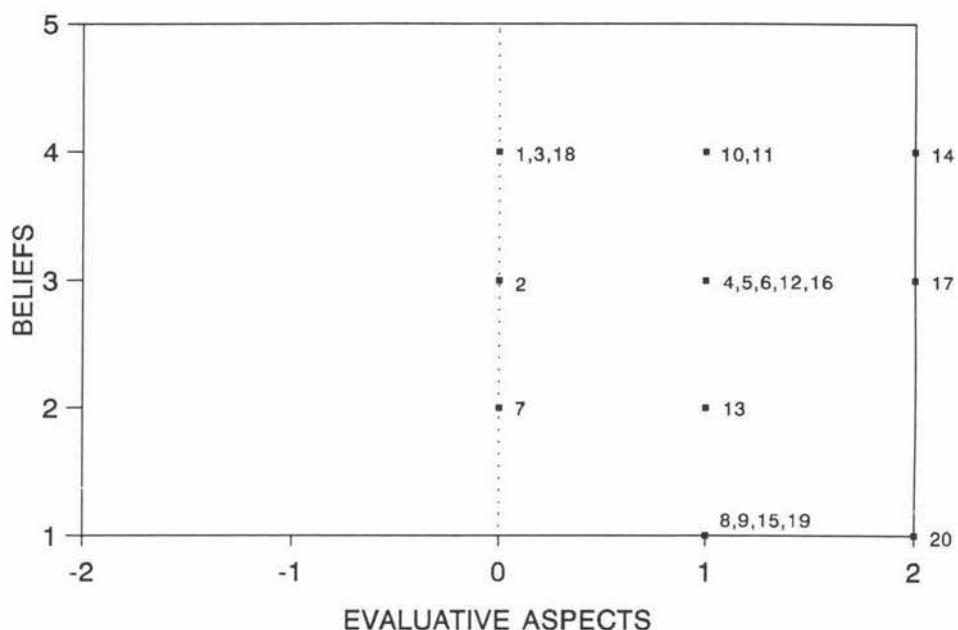
Importer O



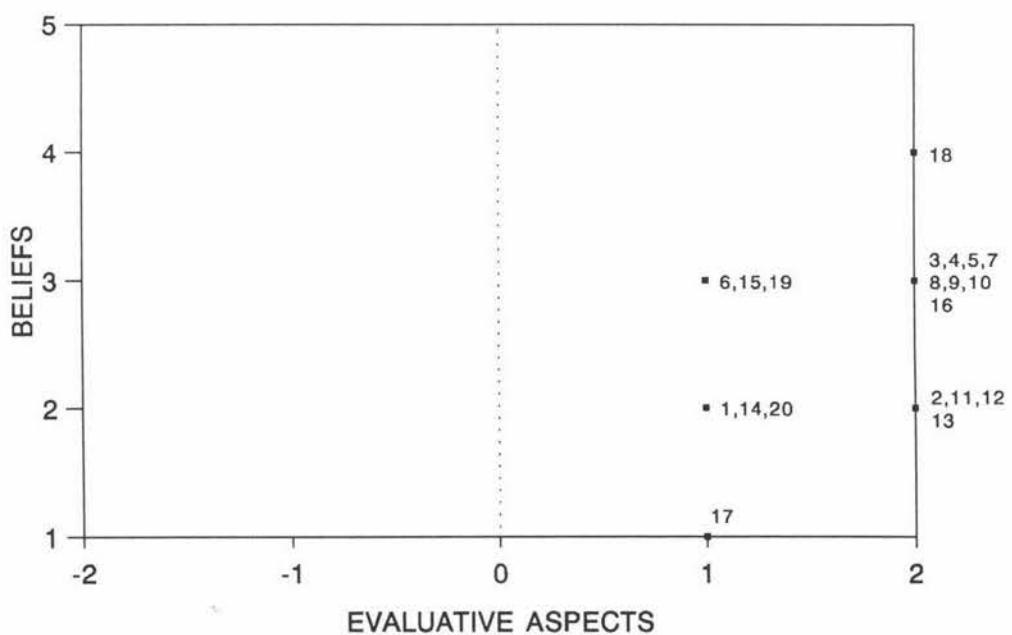
Importer P



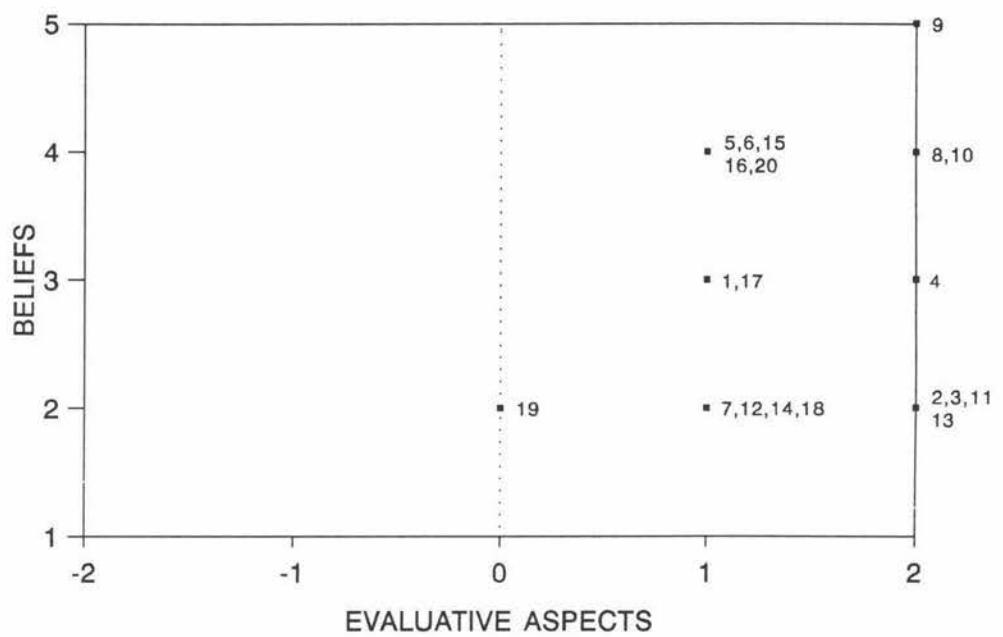
Importer Q



Importer R



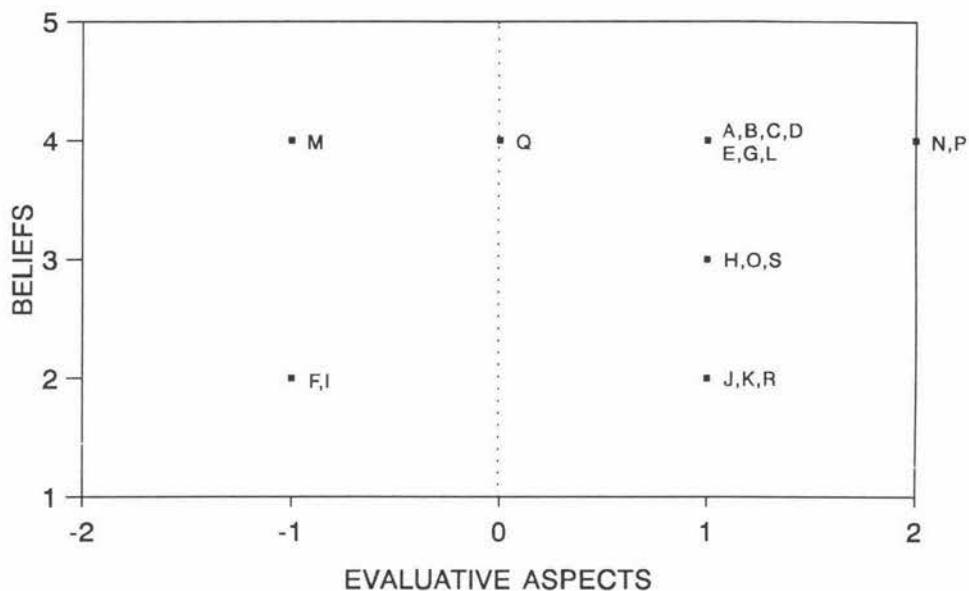
Importer S



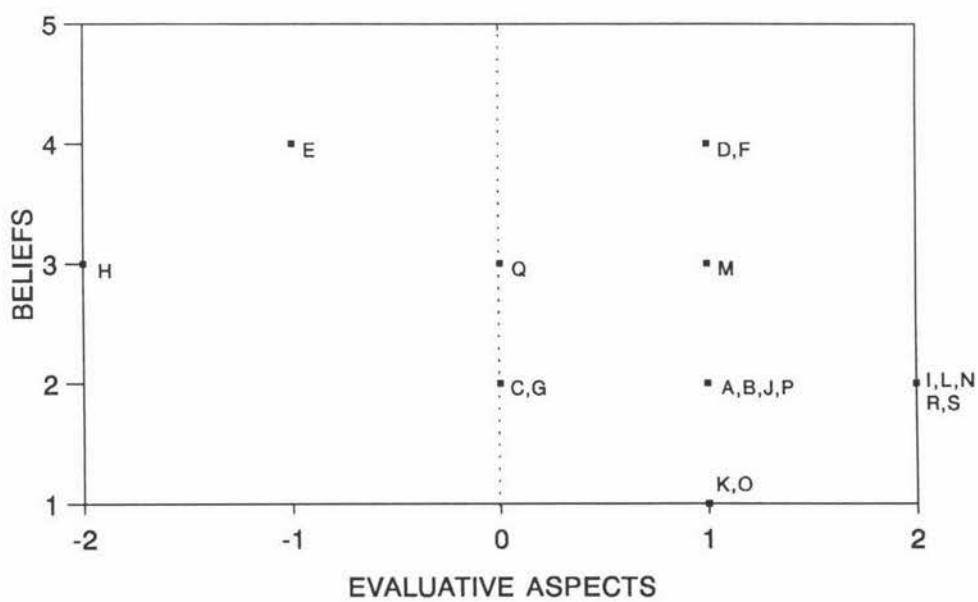
Appendix 3

Cognitive maps of all attributes

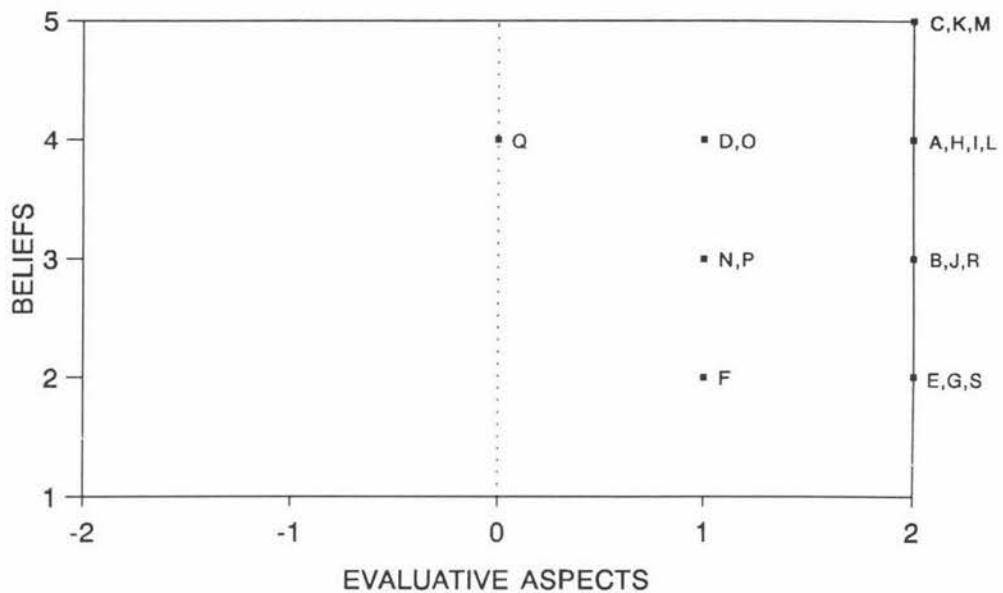
ATTRIBUTE 1 Wide range of varieties



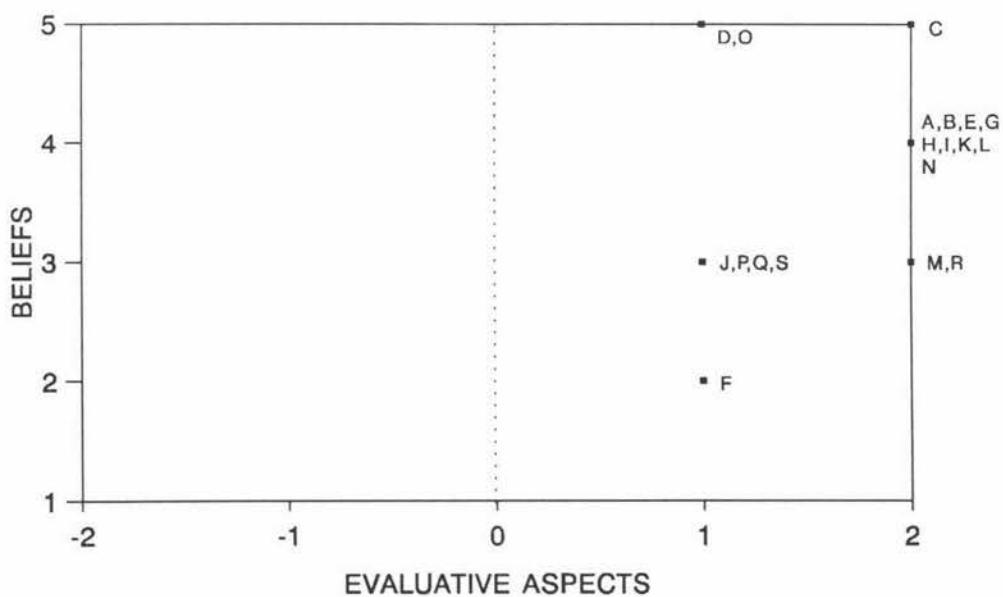
ATTRIBUTE 2 High proportion of bicoloured apples (Royal Gala, Braeburn)



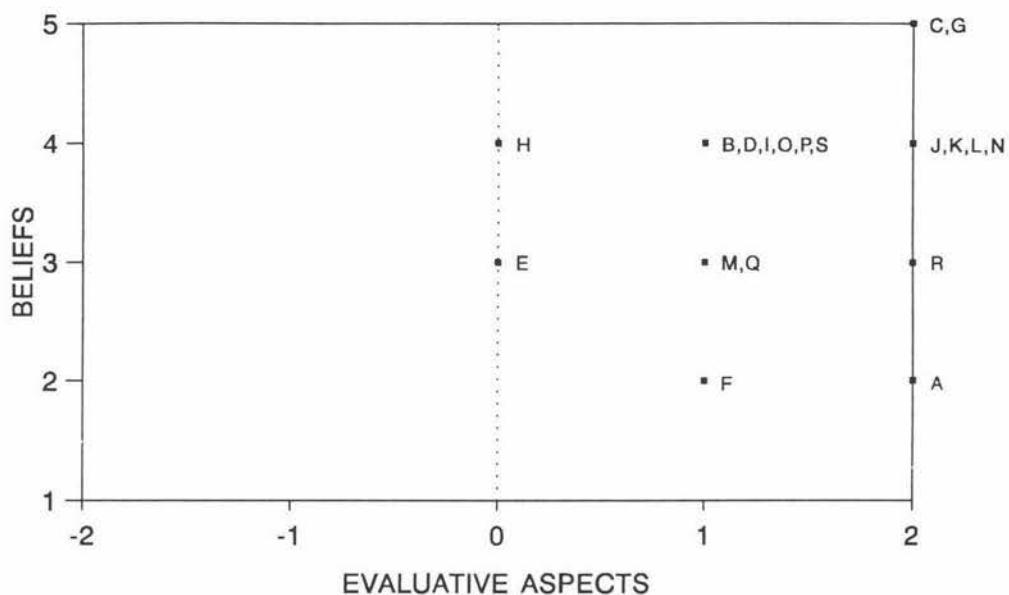
ATTRIBUTE 3 Adequate sizes required



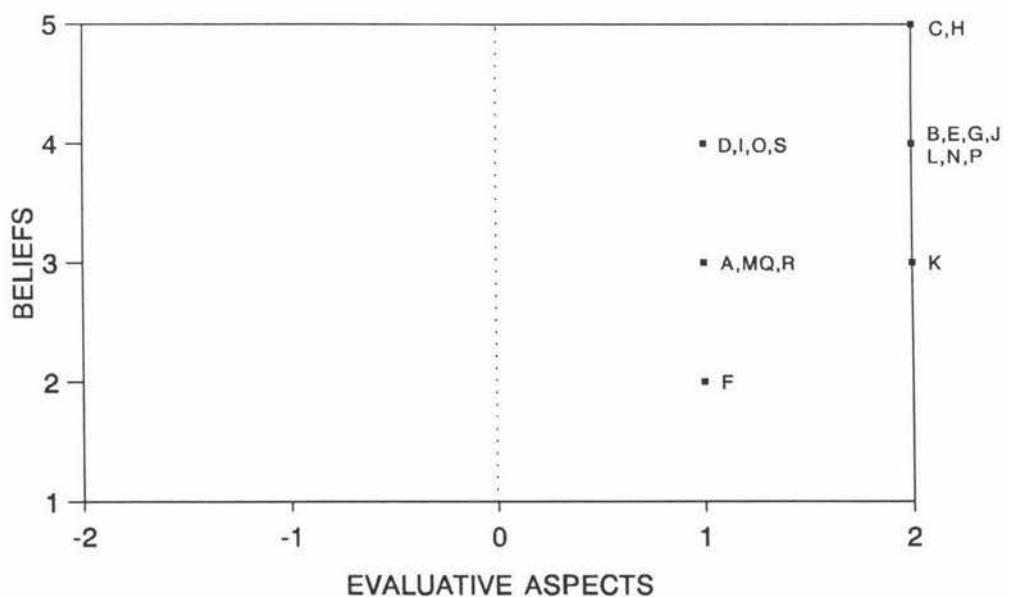
ATTRIBUTE 4 Good overall quality



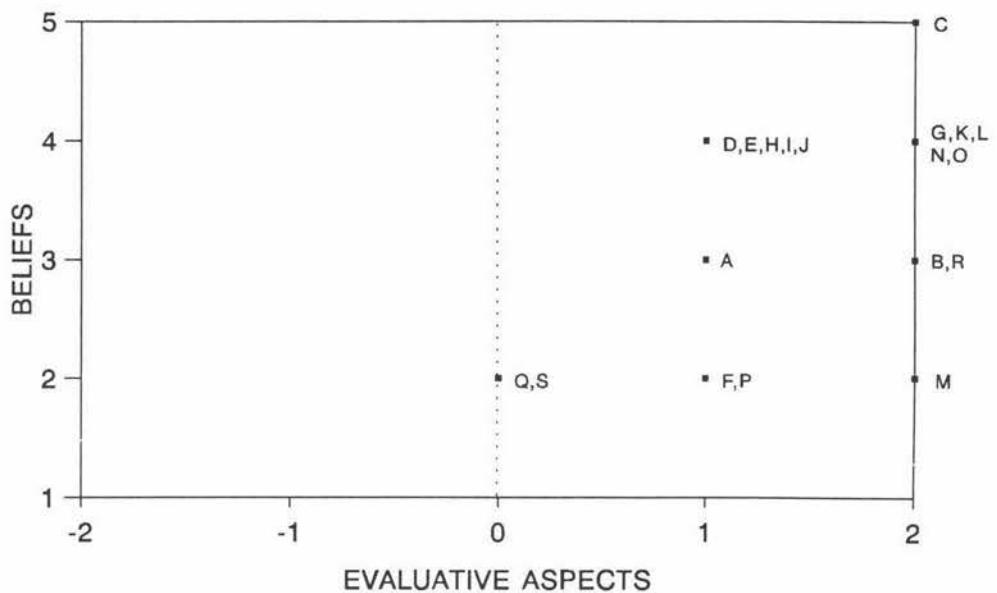
ATTRIBUTE 5 Free of cosmetic defects



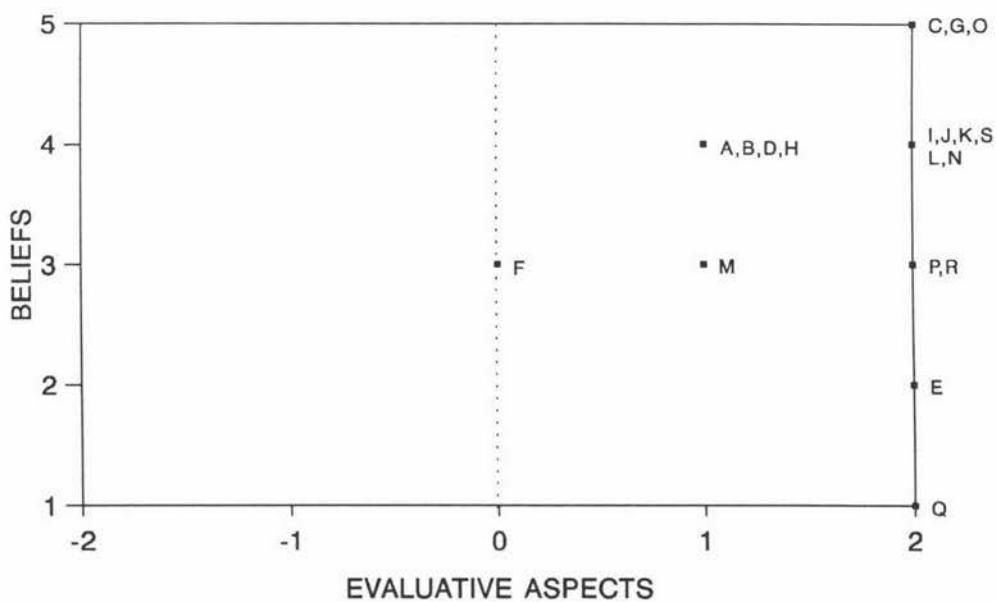
ATTRIBUTE 6 Good colour in relation to the varieties



ATTRIBUTE 7
Uniform quality within specific shipment units

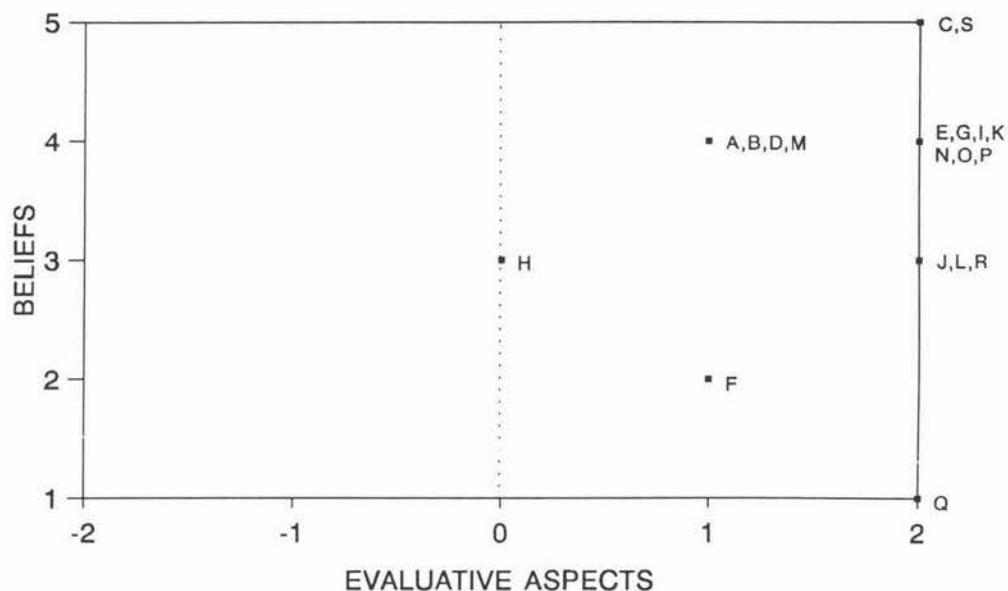


ATTRIBUTE 8
Skill in handling the post-harvest stage of packing and shipping



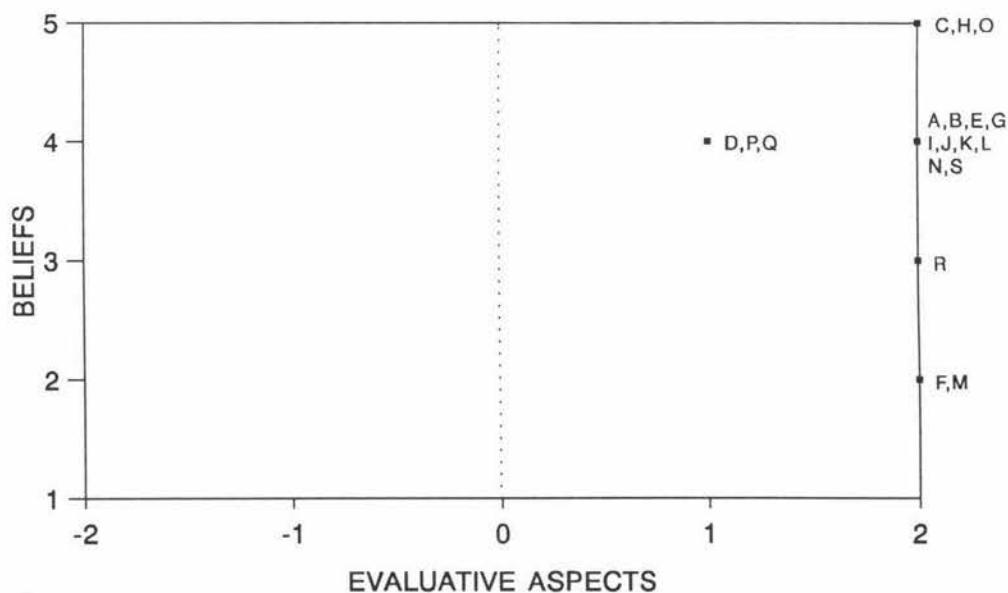
ATTRIBUTE 9

Adequate infrastructure for post-harvest handling

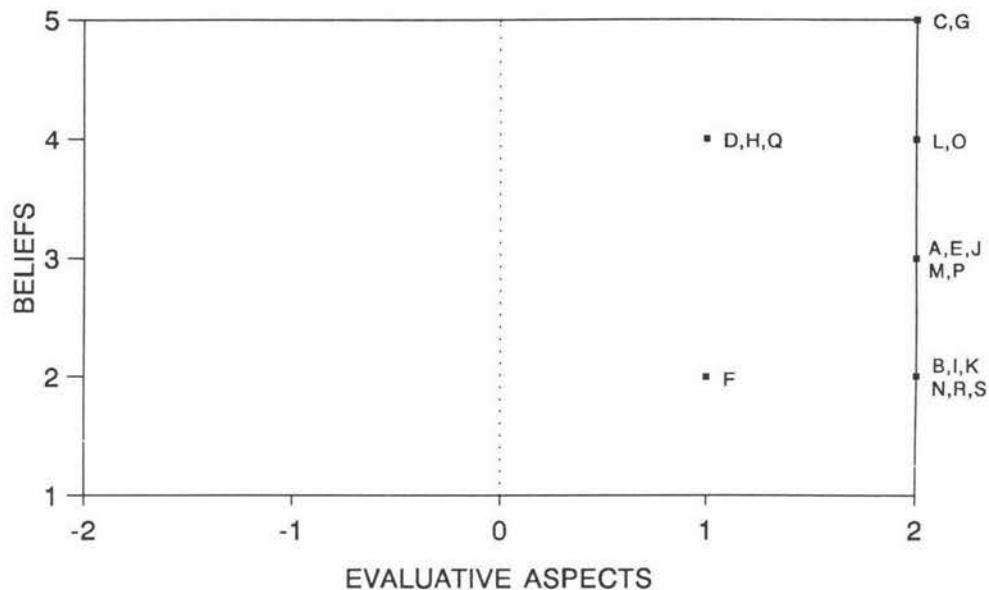


ATTRIBUTE 10

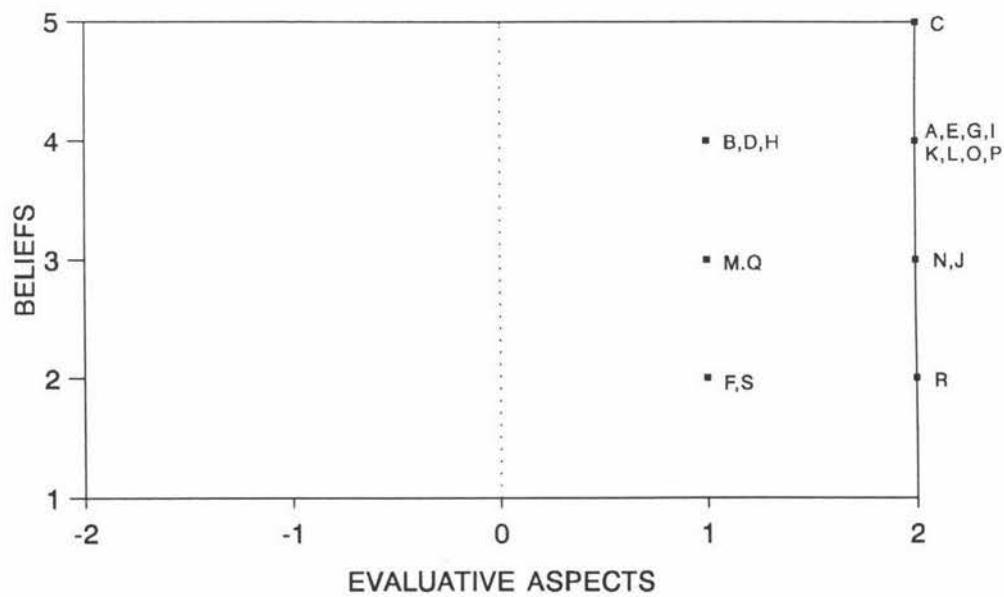
Good condition on arrival



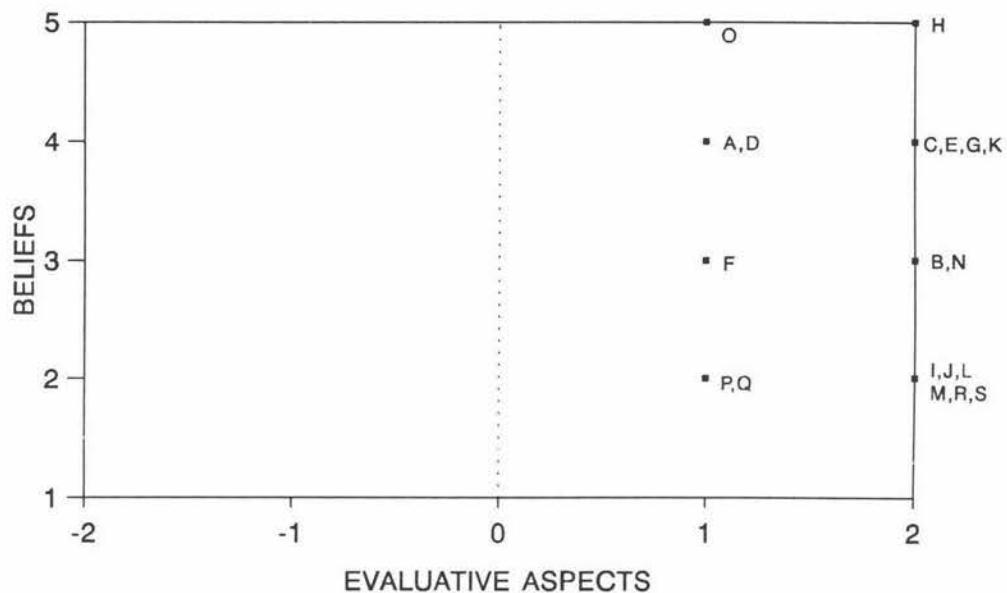
ATTRIBUTE 11
Low level of Bitter Pit and/or yellowing in Granny Smith



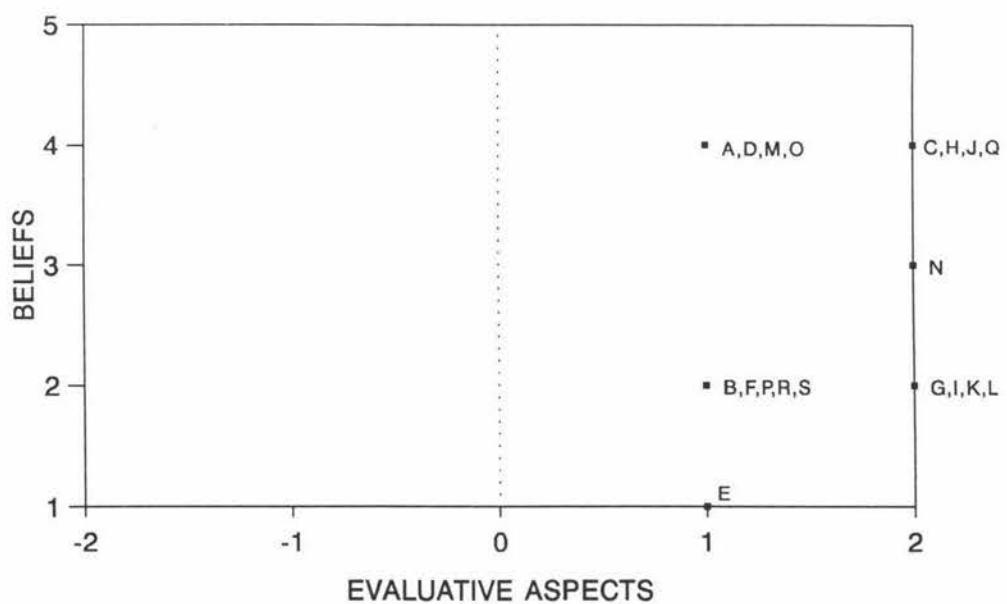
ATTRIBUTE 12
Firm red apples with low level of internal breakdown



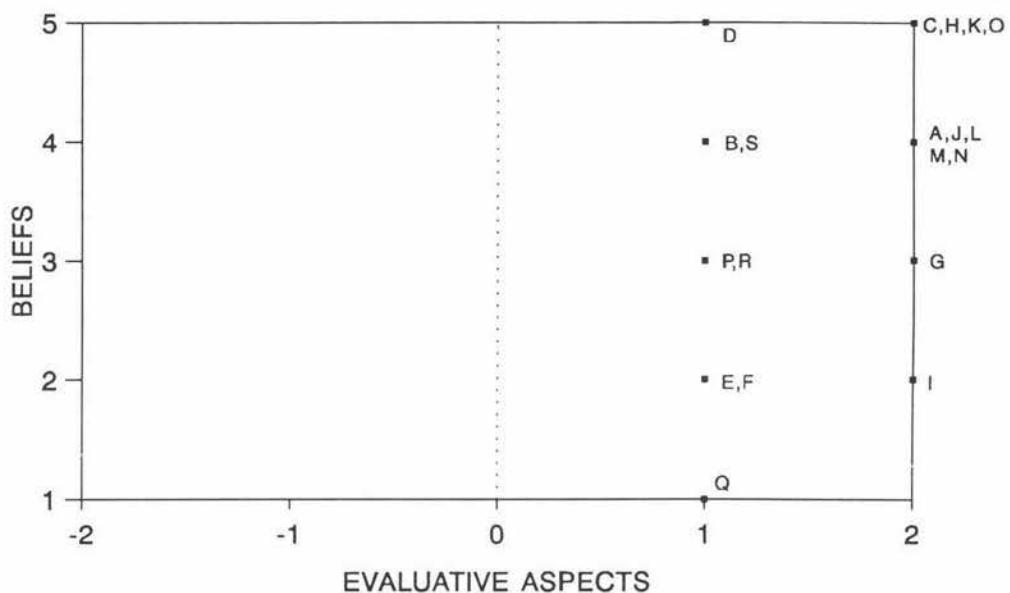
ATTRIBUTE 13
Fulfilment of preestablished shipping programme



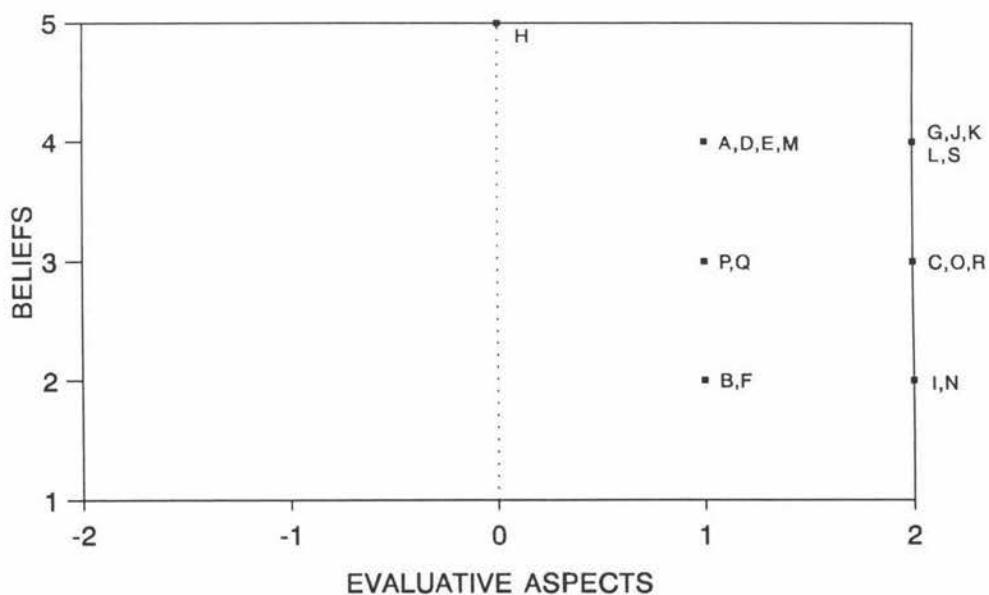
ATTRIBUTE 14
Flexibility to adapt to market dynamics and/or customer needs



ATTRIBUTE 15 Good communication

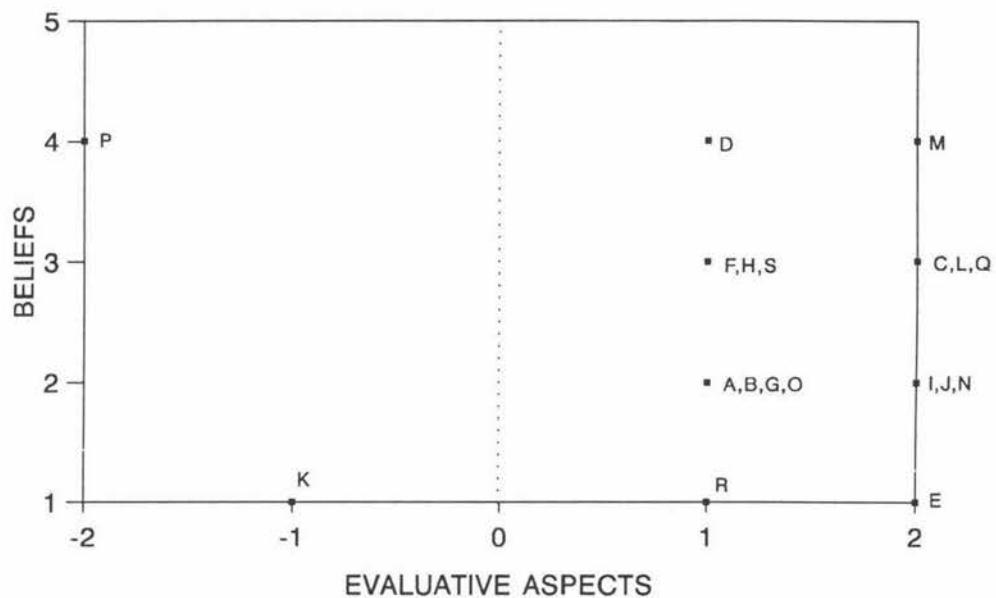


ATTRIBUTE 16 Offering at negotiable prices as opposed to fixed prices



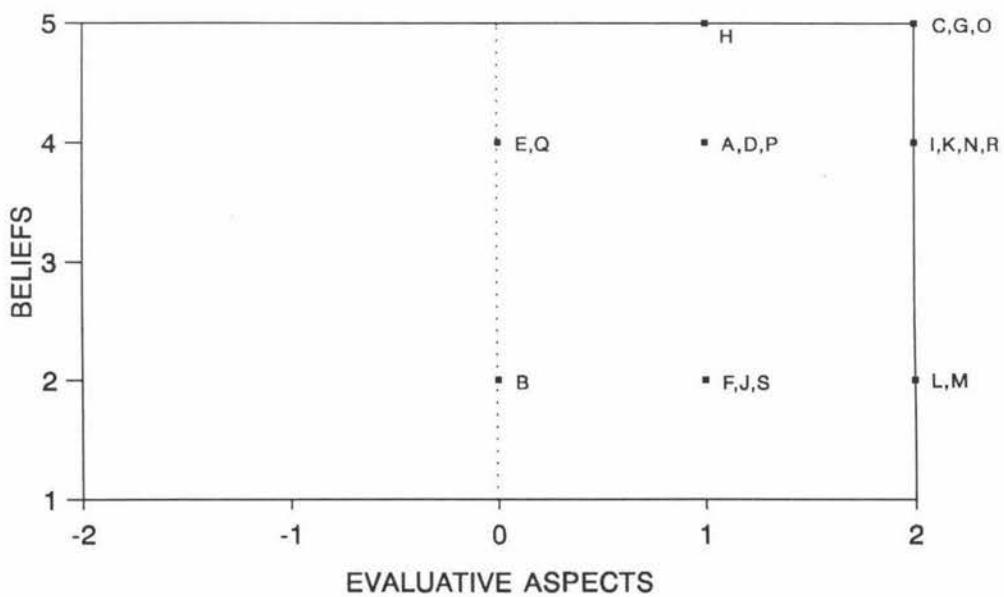
ATTRIBUTE 17

No requirement of min. guaranteed prices and/or advance payments

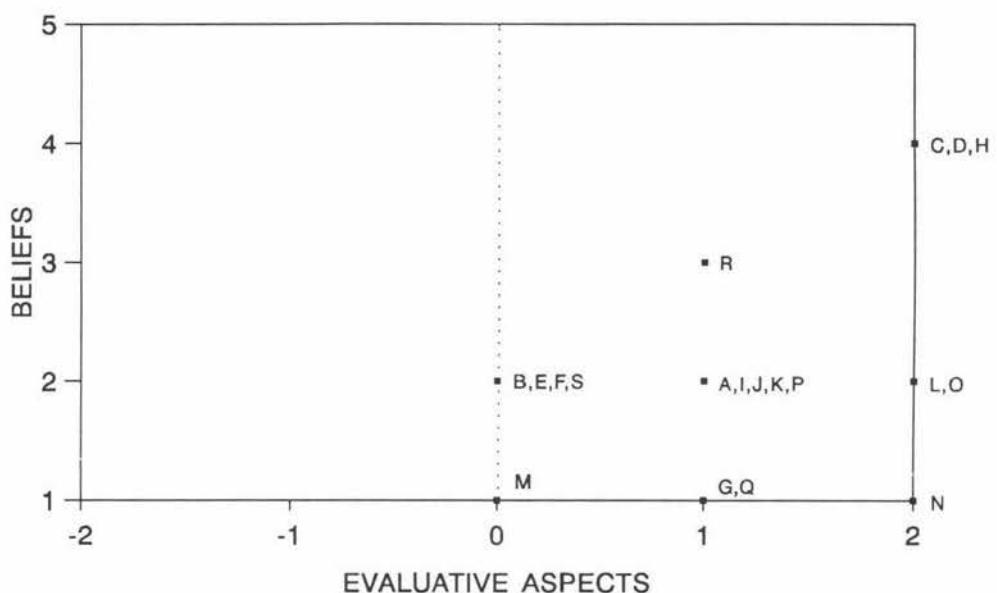


ATTRIBUTE 18

Awareness of European Union import regulations



ATTRIBUTE 19
Sufficient promotional help



ATTRIBUTE 20
Easy to build long term business relationships based on mutual trust

