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National College of Art and Design

Faculty of Design
Department of Fashion and Textiles

A CRITICAL ANALYSIS OF THE PRESENT SITUATION OF THE WOOLLEN AND WORSTED INDUSTRY IN IRELAND

by

JOANNE NOLAN

Submitted to the Faculty of
History of Art and Design and Complementary Studies
in Candidacy for the Degree of
Bachelor of Textiles Design

1999

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INTRODUCTION

My choice of subject for this thesis stems from the fact that my time as an Irish weave student is drawing to a close. However the opportunities presented to me by way of employment in Ireland are virtually non-existent. This pushed me to examine the present situation of the woollen and worsted industry and what future, if any, it holds.

The Irish woollen and worsted Industry has often been regarded as an industry with little hope of survival. Indeed, it has experienced a very turbulent past and despite the many constraints underpinning its development, the industry's ultimate survival will depend on the people who are involved within it.

The main objective of this thesis is to analyse the situation of this industry in Ireland to examine key questions and the recommendations provided concerning Irelands apparent inability to produce a thriving woollen and worsted industry. This thesis does not have concrete answers regarding the future of this industry but it does try to provide an understanding of the reasons for it's decline and it present situation.

Chapter One - Chapter one of this research reviews the history of the industry and how it has evolved to its present form.

INTRODUCTION

It is a pleasure to submit for this issue a paper on the subject of the wool
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Chapter 1: The History of the Wool Industry in the United States
The wool industry in the United States has a long history. It began in the
early 19th century when the first woolen mills were established in the
United States. The wool industry has since grown to become one of the
most important parts of the United States economy.

- Chapter Two - This chapter provides a case study of one success story, that of Botany Weaving Mill.
- Chapter Three - This chapter examines the Irish Woollen and Worsted industry in relation to the European and World textile markets.
- Chapter Four - This chapter will look to the future of the Irish Woollen and Worsted industry and the many factors that have been recommended and could influence the direction the industry will take.

This chapter provides a comprehensive overview of the current state of the industry.

Key findings of the research are summarized below.

The research examines the impact of various factors on the industry's performance.

Key findings of the research are summarized below.

The research also identifies key challenges and opportunities for the industry.

In conclusion, the research highlights the need for continued innovation and collaboration in the industry.

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CHAPTER ONE

History of the Woollen and Worsted Industry and its
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CHAPTER ONE

The woollen industry is by far one of the oldest in the world and had its origin in the provision of a ready means of enabling mankind to clothe itself from sheep's wool which was converted by spinning into yarn and then weaving it into fabric form.

The whole process of rearing sheep for meat, the collection and sale of their wool and its manufacture into fabric became one of the most significant forms of early economic activities in Europe.

The history of weaving in Ireland is also a long one. Society in early Ireland was family dominated, rural and almost nomadic. Existence was pastoral; cattle and sheep were wealth and provided not only food but also the raw material for leather and for weaving.

It was the Normans on their arrival in 1169, and their descendants, with their organised towns and cities that allowed the development of weaving in another direction. Evidence in the 13th century of tuckmills to give a finish to the cloth, is evidence of the beginnings of trade and of an organisation of weaving that was not totally domestic.

More recently, when describing the development of the Irish woollen and worsted industry, it is useful to place it within the context of the general manufacturing industry. In reviewing the woollen and worsted industry as a complete unit within

CHAPTER ONE

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the manufacturing industry, we can highlight many of the decisions that affected the direction of the entire industry and those that have contributed to its decline.

Within this chapter, I will review the performance of the Irish woollen and worsted industry since World War 1 and examine relevant internal and external factors that have affected its performance to date.

The woollen and worsted industry in Ireland expanded at an unprecedented rate during the course of the 1914-1918 war, its output by value practically increasing fourfold during those years. The demand for military fabrics exceeded the reasonable capacity of the industry to supply. Following the war and the withdrawal of this artificial demand, the industry experienced decline until tariff protection of the domestic market was first introduced in 1925, with a tariff rate of 25% being imposed upon imported fabrics and yarns.

The imposition of tariffs, apart from the protection of the uneconomic output from Irish mills had two other effects: -

- It encouraged the setting up in Ireland of a number of commission yarn spinning operations and finishing and dyeing operations. Actually, many British industries set up facilities in Ireland to circumvent the high tariffs and to continue to supply the Irish market by operating within Ireland.

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- Also, Irish mills found it advantageous to integrate backward further into spinning, dyeing and finishing in an effort to become independent of outside raw material suppliers.

Such a protected market allowed the development of a wider variety of fabrics based on small production runs with little sophistication in design and colouring. It became common for mills to copy foreign designs, which, prior to the imposition of tariffs would have been imported.

In 1959, two economists, (Fitzgerald and Quinn) conducted a pilot study on the power-weaving sector of the industry. Their brief was to examine the structure of the industry and its cost competitiveness, and to highlight what steps might be taken to position the industry better to overcome the effect of free trade.

Their principle recommendation was for the immediate restructuring of the industry even before other issues requiring attention such as management techniques, product policy, design input and development of the marketing function.

The restructuring and rationalisation of output as outlined by Fitzgerald and Quinn was necessary for a number of reasons. These being:

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- The small size of the domestic market was forcing mills to operate short uneconomical production runs, which reduced their cost competitiveness on export markets.
- With imports expected to double between 1960 and 1970 in quantity terms, the industry would have to increase its exports at least five fold just to maintain existing production levels at the 1960 level.

One means of boosting the level of capacity utilisation would be through a programme of amalgamations throughout the industry which would result in lower overheads, economies in marketing and purchasing of yarn requirements, thereby improving the competitiveness of Irish mills overseas.

However, the recommendations of the Fitzgerald and Quinn Report failed to get widespread approval from the industry. This has been attributed to.

- The high level of family ownership in the industry and the consequent reluctance to give up control of their firms.
- The very localised and traditional presence of a mill as a large employer in areas of little employment opportunity.

The first of the three main objectives of the study is to identify the

main factors influencing the development of the industry in the

past decade.

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- Reservations about the effect such rationalisation would have upon the specialisation of production, especially in the higher quality segment which would come under severe competition from industries in other countries that adopted a similar policy of producing up-market fabrics, in the face of increased competition from the low cost countries.

This point was touched upon by a supplementary report upon the power weaving sector compiled by the Committee on Industrial Organisation (1964).

In the transition years, between 1968 and 1978, some twenty significant woollen and worsted manufacturers ceased production and 3,445 jobs were lost (representing 47% of employment) in what had traditionally been regarded as the backbone of the Irish Textile industry. These changes in the structure and nature of the industry took place against a background of totally changed trading relationships where Ireland, as an EEC member was participating in multifibres arrangement (MFA) negotiations.

During this time, the Irish woollen and worsted sector was coming under increasing pressure from the synthetic sector. Help went in disproportionate measures to attract manufacturers of synthetic fibres to Ireland with the result of mill closures. In 1979, the European Commission sent a letter to the Irish Government requesting no further state aid in the next two years towards increasing capacity in the synthetic fibre industry. Similar letters were sent to the other member

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governments. The EEC were obviously aware of the difficulties caused by over capacity but unfortunately the Industrial Development Authority (IDA) in Ireland felt that this should not interfere with their extensive programme in the synthetic fibre field. The IDA supported numerous projects such as Asahi, the Japanese company that set up at Killala and Ballina, also Snia Ireland, the Italian group, which was established in Sligo. Numerous cash grants went into these foreign companies while Irish based companies went into closure.

[Cork Examiner, 29th August 1979]

By the late 1970s, the woollen and worsted sectors began to enter a pronounced phase of decline, while synthetics continued to expand, and yet the IDA recognised the industries potential for growth as highlighted in an Irish Independent article:

For the first time the new plan outlines the IDA sectoral approach to the type of industry which offer the best potential for growth. It is committed to completing the target sub-sectors for special emphasis during the coming years are.... selected areas of the textiles sector....

[Irish Independent, 6th April 1978, pg.6]

The IDA also recognised that Ireland could not compete with the mass produced cheaper products from developing countries. Between 1973 and 1976 imports of textiles into the Community increased by 80%. In 1976 the value of those imports rose to more than £5 million.

Government. The 1971 amendments to the 1964 Act were intended to

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As a result of those growing imports, 3,500 European factories have had to close down between 1973 and 1976 and half a million jobs have been lost 15% of the total work force in the sector.

[Cork Examiner, 29th August 1979]

The IDAs' solution was to invest in high technology, high value added and high skill industries. Ireland began adopting the methods of the rest of Europe. European textiles were already technologically more advanced yet still unable to counteract the increasing import penetration of textiles from developing countries. To avoid this, the EC introduced measures to limit the imports of cotton fibre and clothing from certain non-community members.

As already mentioned, many companies found it difficult to survive, yet some of Irelands top companies did, and continue to survive. When we examine what companies have survived we note many common factors that have ensured their survival. We see that they are mostly entirely family owned. They are geographically dispersed throughout the country and many are traditionally apparel based and have high export content of sales.

In a lot of the cases that did not survive we find that generally these mills were vertically integrated mills, where everything involved with producing a finished fabric was carried out on the premises. This resulted in high sampling costs with low turnovers.

As a result of these growing trends, 3,500 European factories have shut their doors.

Between 1970 and 1975, for example, 100,000 jobs were lost in 17% of the

total work force in the European

[Book Excerpt, 1975, p. 123]

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They also became very dependent on agents, which meant that customer relations were poor and customer loyalty wasn't great. Another problem that was evident was that these mills were subject to rapid changes in product life cycles and were unable to keep up with growing market trends.

In Chapter 2, I will discuss one success story within this declining industry, that of Botany Weaving Mill which has established a world-wide reputation as a producer of high quality upholstery fabrics for a diverse range of interiors and to increasingly demanding specifications. Therefore it will be worth discussing the factors that ensured the survival of Botany.

In assessing the development potential of the Irish woollen and worsted industry, it is obvious that its development was greatly influenced by what happened at a European level and prospects for the 1980s weren't great. In fact by the early 1980s there was evidence of an increasing reluctance on the part of the IDA to continue to develop textile production in Ireland. There was less investment placed into textiles as a whole, in comparison to the manufacturing sector as a whole. In their Annual Report of 1980, the IDA expressed certain fears with regards to the expansion of the textile industry:

...planned investment in textiles might continue to decline in relative importance...investment in the sector should at least continue to reflect its relative importance in manufacturing industry.

[IDA, 1980, pg. 18]

Therefore, by the end of the seventies, concern about the level of commitment to the Irish Textile Industry as a whole was already articulated. There should have been a more balanced programme of investment where the synthetics sector should not have been developed at the expense of the woollen and worsted industry. In 1960 there were approximately 6,046 people employed in the woollen and worsted industry whereas figures compiled in 1996 show that there were 1,126 employed. It should be acknowledged that this employment decline is a continuing trend established after Irelands entry into the European Community in 1973.

With Irelands membership of the EEC two main forces had definite bearings on Irish Textiles. These were both internal and external forces. The internal impacts included harmonisation of taxation and technical standards and the removal of European border barriers. As far as Ireland is concerned, the issue of transport costs is especially important. As a peripheral island, Irish exports have further to go; therefore Ireland should enjoy large gains from the abolition of border controls. There are at present very few national level technical product standards which limit European Community trade in textiles, although in the case of Botany Weaving certain standards concerning flammability are present, but that will be discussed further in Chapter 2.

The main external impact on the Irish textile industry is the growing possibility of free circulation of goods between the EC and ultimately the world. With the evident unstable situation of the Irish woollen and worsted industry a surge of low-cost

imports from developing countries could pose a serious threat to what remains of Irelands industry.

The long term future and health, the competitive standing of the Irish woollen and worsted industry must ultimately depend on the saleability of the products being manufactured in the mills. Thus, the market appeal of Irish fabrics, determined as it undoubtedly is by the aesthetic, physical and end use characteristics of these fabrics, is of paramount importance in any analysis or discussion of the industry.

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CHAPTER TWO

Botany Weaving Mill,
a case study

CHAPTER TWO

Within this chapter, I will discuss the success of Botany Weaving Mill and the factors that have ensured its survival to date within Irelands diminishing woollen and worsted industry.

Botany Weaving Mill is based in Dublin, located in what is called the "Liberties" area of the city. The mill was formed in 1934 by Mr. James Hackett, who has since passed away. It is now probably the largest and longest established mill of its kind in Ireland occupying a 70,000 square foot facility in Dublin. The company is privately owned by the Hackett family.

The company sells into three main market areas, uniform fabrics representing 15% of sales, contract furnishing fabrics representing 45% of sales, and aircraft upholstery fabrics representing 40% of sales.

Up until 1986 uniform fabrics constituted the majority of the company's' sales. As a percentage, this figure continues to fall. Uniform fabric production is characterised by high volume; low margin fabrics and Botany's biggest customer would be British Airways where they supply all their woven fabric needs for female staff uniforms.

Botany has sold into the Contract Furnishing Fabric market since 1985 with the USA accounting for the largest geographic share of this product area. Botany sells

CHAPTER TWO

The first step in the process of developing a business plan is to determine the nature of the business and the market in which it will operate.

There are two main types of businesses: those that produce goods and those that provide services.

A business plan is a document that outlines the goals and objectives of a business, the strategies for achieving them, and the financial projections for the business.

There are two main types of business plans: those that are used to secure financing and those that are used to guide the business.

The first type of business plan is a financing plan, which is used to secure financing from banks, investors, and other sources.

The second type of business plan is a management plan, which is used to guide the business and to ensure that it is operating efficiently.

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ORGANISATIONAL CHART OF BOTANY WEAVING MILL

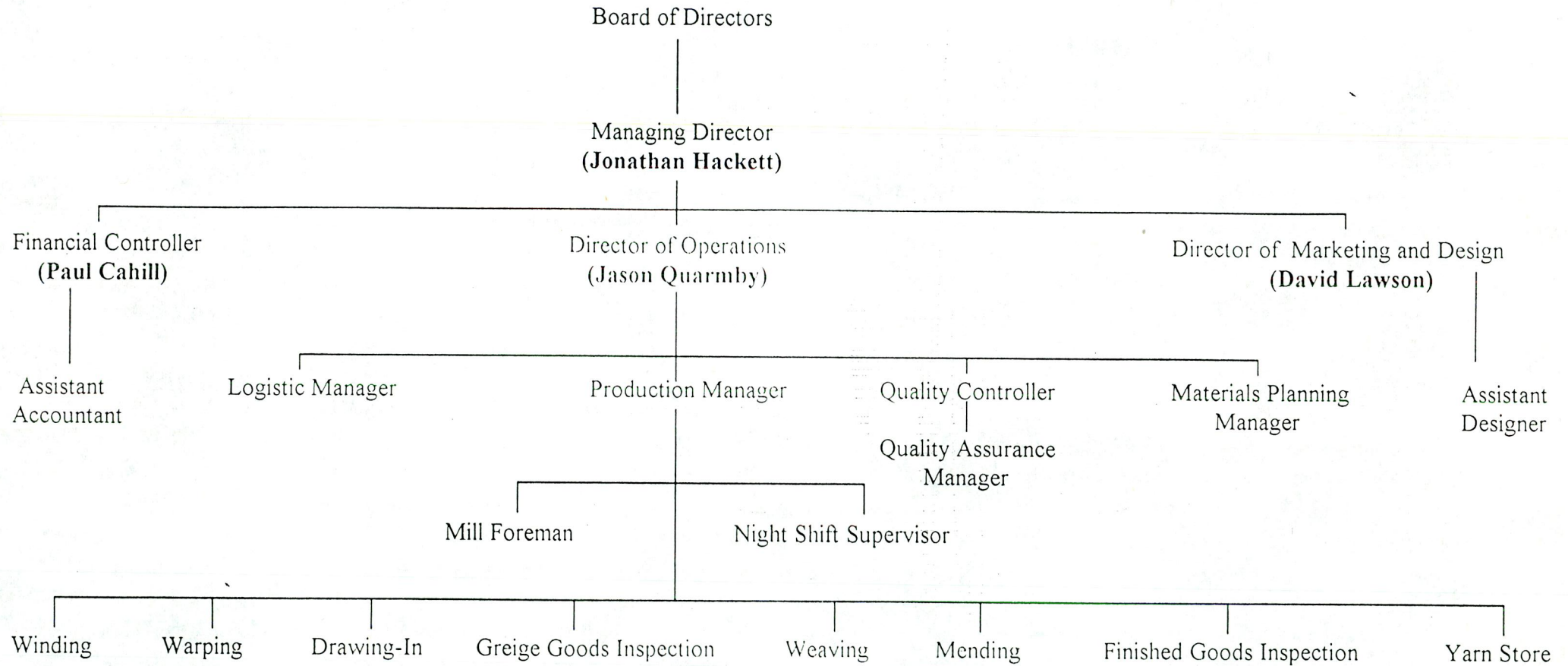


Fig. 2.1

to all the leading wholesalers in the States including Designtex, Maharam, Unika Vaev, Larsen Textiles, Pollack and Associates and Sina Pearson Textiles. They also sell to a number of leading office and Contract Furniture manufacturers including Knoll, Donghia and Herman Miller Inc, who are their single largest clients in the USA.

Botany also entered the Aircraft Seating Fabric Market in 1989 following enquiries for the supply of aircraft seat fabric by GPA Group, now known as GECAS. They now supply some 20 airlines world-wide including some of the most respected carriers operating. These include British Airways, Qantas, Cathay Pacific, Virgin Atlantic Airways, Aer Lingus and Britannia Airways.

Of course, all these developments in Botany occurred after in-depth research into each prospective market. In 1984, Jonathan Hackett (MD) began this research, in particular, into the US Contract Furnishings market. At that time the size of the total market was estimated to be worth US\$4 billion. The all-wool segment of this market was believed to be worth US\$217 million in 1984 and has grown at a rate of approximately 10% per annum.

Trends of design and colour developments in furnishing fabrics are becoming more fashionable and following apparel fashion colours more closely. Reliable estimates predict that room furnishing fabric colours will only be eight months behind apparel fabric colours.

The first of these is the fact that the British Government has been unable to secure the release of the prisoners of war held in Germany and Japan. This is a serious matter, and it is one which the British Government has been unable to deal with successfully. The second of these is the fact that the British Government has been unable to secure the release of the prisoners of war held in Germany and Japan. This is a serious matter, and it is one which the British Government has been unable to deal with successfully.

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There is also a trend towards better quality and more use of wool. Wool gives the appearance of safety, comfort and prestige, the major drawback being one of handling. However specialist finishing can largely eliminate this problem.

The US upholstery fabric market consists of two major types of customer:

1. **Jobbers:** these are wholesalers who market the fabric under their own name throughout the market.
2. **Furniture Manufacturers:** they design and manufacture furniture and select cloth with which they will market the furniture.

Jobbers are believed to hold 65% of the US\$217 million wool furnishing fabric segment of the US Contract Furnishings market. Of five leading firms and in terms of sales volume, they rank in order of size.

1. Maharam
2. Designtex fabrics Inc.
3. Architex
4. Arc-com
5. Carnegie

Competition would mainly arise from suppliers other than those from the US. Both furniture manufacturers and jobbers have found that the majority of US mills are

There is a small number of cases where the data is not available.

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The data is not available for the years 2022 and 2023.

unwilling to accept the low-minimum re-order quantities demanded by them.

Furthermore, high minimum order requirements restrict the variety of both colours and designs available.

The principle European competitors in the US market would be Great Britain, Ireland, Germany, Switzerland and Italy.

It should be said that for European mills, this is a relatively new market.

Traditionally, the mode of entry into the market has been to use an agent.

However, the more successful firms in recent years have tended to sell direct.

This trend is becoming increasingly apparent as firms seek to gain greater control over their relationship with clients and to cultivate this, firms aiming for the highest end of the market will usually have a greater proportion of jobbers than furniture manufacturers amongst their customers.

Mr. Hackett found that there were numerous opportunities for Ireland to expand into the US Furnishing Fabrics market. He found that Irish mills have the capability to serve a niche of the US upholstery market which American mills are largely not interested in serving.

Mr. Hackett also felt that the majority of Irish mills have the production flexibility to produce a wide variety of fabrics for an increasingly sophisticated segment of the

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market. This segment of the market continues to grow by 10% per annum which should ensure good profit potential for competent suppliers.

Jonathan Hacketts research on the US upholstery market was undertaken with the purpose of investigating key purchase criteria and attitudes of buyers in the market. He found that delivery time was ranked very highly amongst furniture manufacturers and minimum order quantities was rated highest amongst jobbers.

With regard to the use of agents, over two-thirds of the respondents in the US market research said they would prefer if their suppliers did not use agents. This was one of the most significant findings of Mr. Hacketts research given the very high regard which agents are held in by the Woollen and Worsted Industry.

Reasons cited for such a high rejection level included the lack of design knowledge amongst agents, also they inhibited the development of a close relationship amongst buyer and supplier which Botany feel is so essential for continued growth and innovation.

As already mentioned, probably the greatest problem facing the woollen and worsted industry in Ireland is that of competition from low cost countries. A strategy with which Botany realise, to counteract the onslaught of competition from low cost countries is likely to be linked to a reduction in costs and also differentiation and the creation of switching cost barriers to avoid direct confrontation.

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Cost reduction strategies are based on investment in new technologies, sub-contracting and outward processing. The main differentiation barriers are founded on the promotion of uniquely designed products, such as aircraft seating fabrics, (examples of which can be seen in Fig. 2.12) backed up by a commitment to quality and a high level of service together with a more focused investment in marketing and greater integration into distribution.

In some cases it can be in the interest of manufacturers to sub-contract certain elements of the processing, to specialised units of production. For example, Botany weave and sub-contract out spinning and finishing activities. This allows them to concentrate more upon product development and marketing.

A mill which has a weaving only operation is able to choose from a variety of specialist yarn spinners and fabric finishers. The mill not only benefits from their economies of scale and specialisation but it is also able to bargain amongst them to obtain a better deal. Also, it is able to adapt itself more quickly and with far less cost to changes in customer performances thereby enhancing its flexibility and responsiveness.

However, there are of course a number of disadvantages associated with a weaving only operation such as Botany, particularly due to its location in Ireland.

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Due to the large reductions in the number of woollen and worsted mills in Ireland, the sub-supply sector has also shrunk proportionately. Consequently there are limited spinning and finishing facilities that could handle the type of work that the majority of Irish mills would require. Therefore, mills such as Botany look to Britain, where there is a pool of large and small-scale commission yarn spinners and finishers. Purchases from this area entail the loss of control of a significant amount of total costs outside the country and such costs are subject to inflationary rates.

Botany found that in the upholstery market, a mill could create value by a number of factors.

- Being flexible with regard to production.
- By being able to develop ideas from customers own particular strengths and aid the customer in differentiating itself amongst its own competition.
- By being the major source of new product or design ideas for the customer.
- By ensuring an exceptionally quick delivery turnaround time for orders.
- By allowing low minimum re-order quantities to customers at a competitive price.
- Guaranteeing its commitment to the market from initial development until a worthwhile return in terms of re-orders is forthcoming.

Another problem facing Botany and the Woollen and Worsted industry as a whole in Ireland is employment figures. Botany has found that the amount of potential workers is shrinking. It will continue to shrink quickly as the size of the 17 year old

age cohort decreases from approximately 72,000 now, to approximately 50,000 in 2006 and as participation in third level and further education continues to improve.

Competition to employ people is also intensifying as the service sectors, such as Retail and Tourism expand and as increasing numbers of light assembly operations are established by multinational corporations in Ireland. The woollen and worsted industry generally does not have as positive an image as the newer high-tech industries. And yet Botany has continued to secure high production levels regardless. The workforce in all facilities are represented by one Trade Union and to date the company has a strike free record.

The future outlook for Botany is a very positive one. They anticipate that sales to the airline industry will account for at least 50% of their sales by the year 2000 and their objective is to increase total group sales to IR£10 million. They are committed to serving the specific fabric design needs of airlines and aircraft manufacturers by providing a level of design and colour innovation which exceeds that of their competitors. By using the latest CAD systems available both in their own in house design facility and that of their design consultants, Weaveplan, Botany can offer the complete design package whereby the designs and colours can be co-ordinated together.

The Woollen and Worsted Industry in its development over time has become specialised by process rather than by area. This is to say that the specialist

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Botany Weaving Mill

Geographical Sales Breakdown



Fig. 2.2

emphasis has been on function rather than on specialist end product or market niche. From examining Botany Weaving Mill, it is evident that their continued success stems from their unique specialisation into an area, which pushes them to provide a unique design package to customers. Mr. Hackett feels that in order for the industry to survive, individual firms have to re-evaluate how they organise their internal activities to enable them to provide a unique package to customers. The absence of qualified design personnel among marketing staff all require remedial attention if companies are to successfully segment their different markets.

and the other two are the two of the same kind and the same size.

There is a small hole in the middle of the top of the box.

The box is made of wood and is painted white.

The box is used for storing the books and the papers.

The box is very strong and it can hold a lot of things.

The box is very beautiful and it is very useful.

The box is very good and it is very nice.

The box is very good and it is very nice.

STAGES OF PRODUCTION WEAVING
WITHIN BOTANY WEAVING



Fig. 2.3 Initial stages of production weaving. The warping area of Botany Weaving Mill

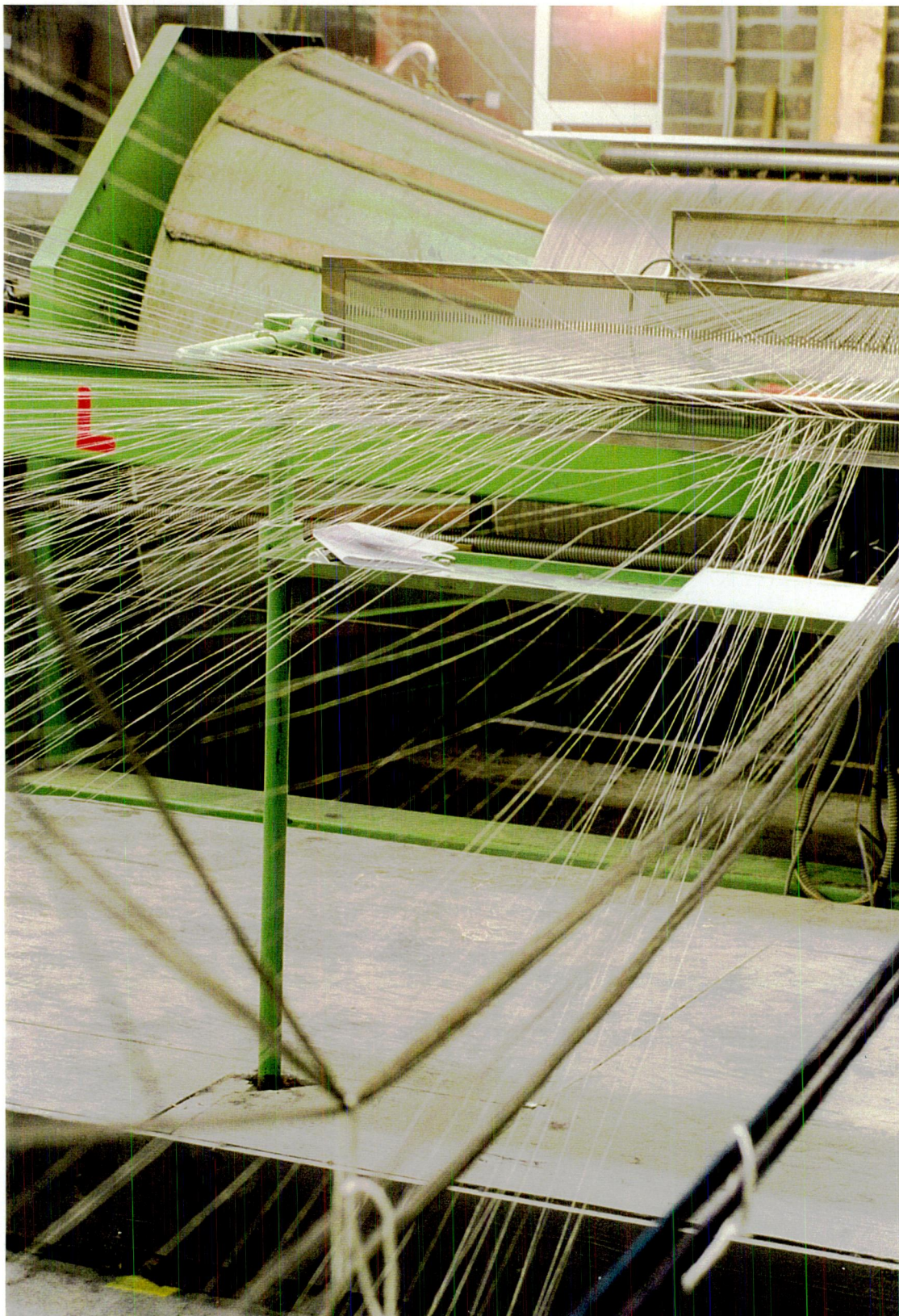


Fig. 2.4 Close up of reed where yarn is threaded through onto warping machine



Fig. 2.5 One of the Dornier Jacquard looms



Fig. 2.6 Back view of Jacquard loom



Fig. 2.7 Greige Perch inspection where faults are marked for mending

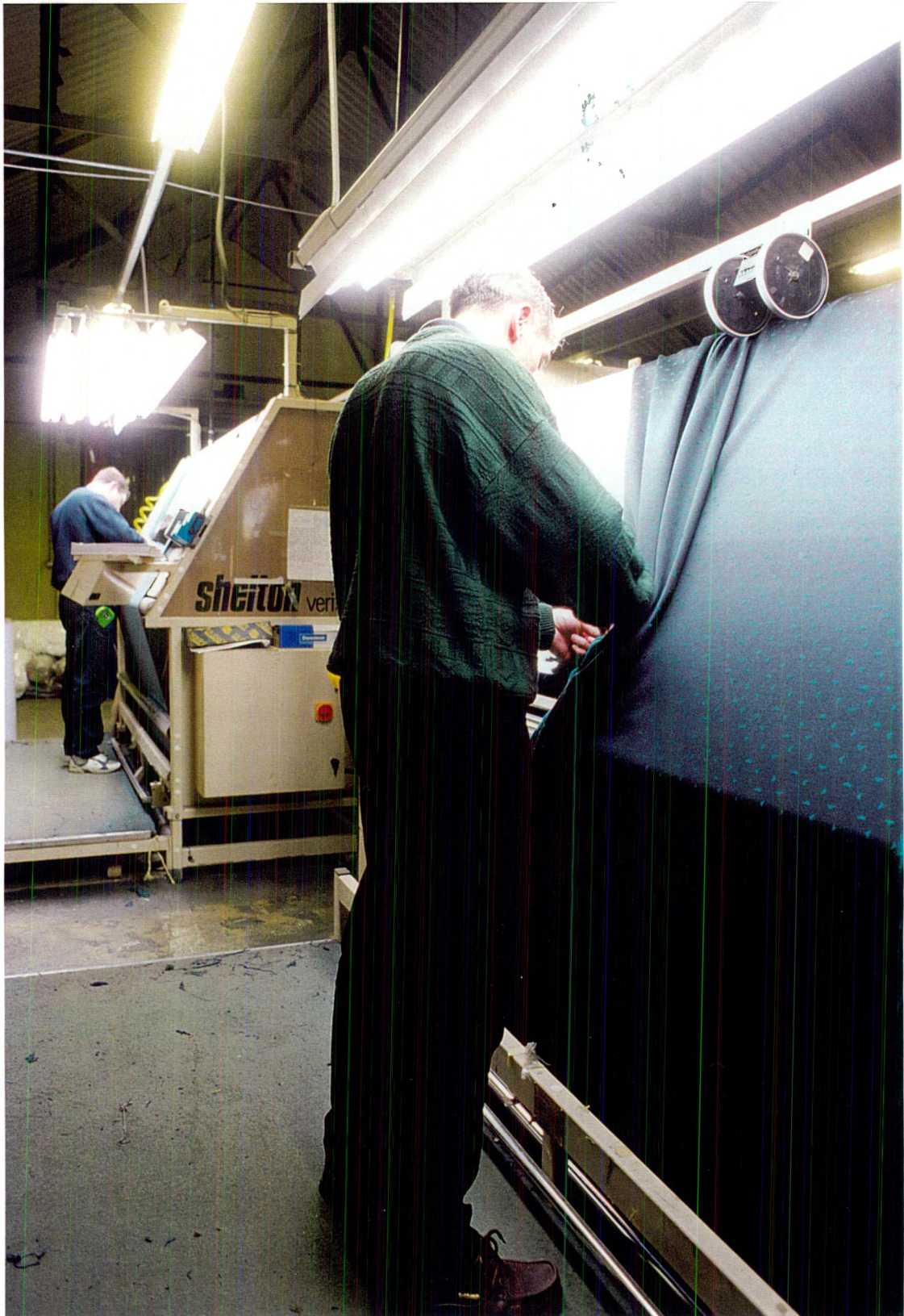


Fig. 2.8 Finished goods inspection area



Fig. 2.9 Finished rolls ready for shipping



Fig. 2.10 Storage area

JACK LENOR LARSEN



DEEPA TEXTILES

Fig. 2.11

DESIGNTEX

BRITISH AIRWAYS



Fig. 2.12

QANTAS

AER LINGUS

CHAPTER THREE

The Irish Woollen and Worsted Industry
in relation to European and World Textile Markets

CHAPTER THREE

Consumption of textiles within the EU is approximately static, or even falling, as can be seen in Fig. 3.1. This is partly because large parts of the clothing industry have moved out of the EU in recent years, to locations with lower labour costs.

Textile industry output has fallen slightly faster than consumption, as the balance of trade has changed; moving the EU from being a net exporter of textiles in the late 1980s to a net importer now, with the excess of imports over exports continuing to grow year on year.

With output falling and significant gains being made in productivity, EU employment in textiles is also decreasing, and is now less than 1 million, as can be seen from Fig. 3.2.

For many decades, world trade in textiles and clothing has been governed by the Multi-Fibre Arrangement (MFA), which has restricted trade. Its main thrust has been to limit imports into developed countries from developing countries with low labour costs. The stated objective from the start has been to give industry in developed countries time to adjust, while moving gradually towards free trade.

Until the Uruguay Round of talks regarding trade was concluded in 1995, trade in clothing and textiles were excluded from GATT, the main international agreement

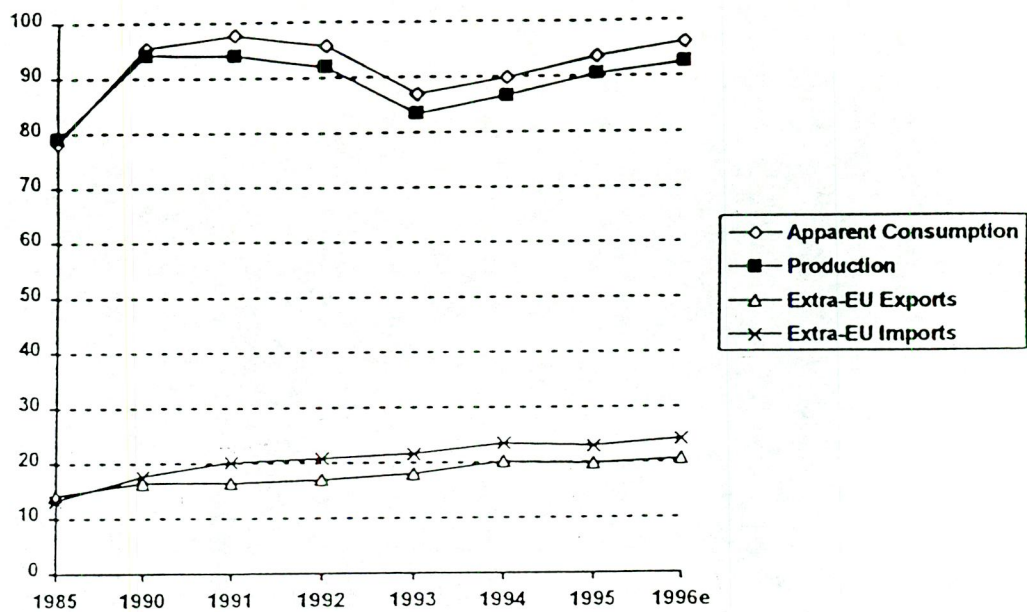


Fig. 3.1 EU production, consumption and trade in textiles

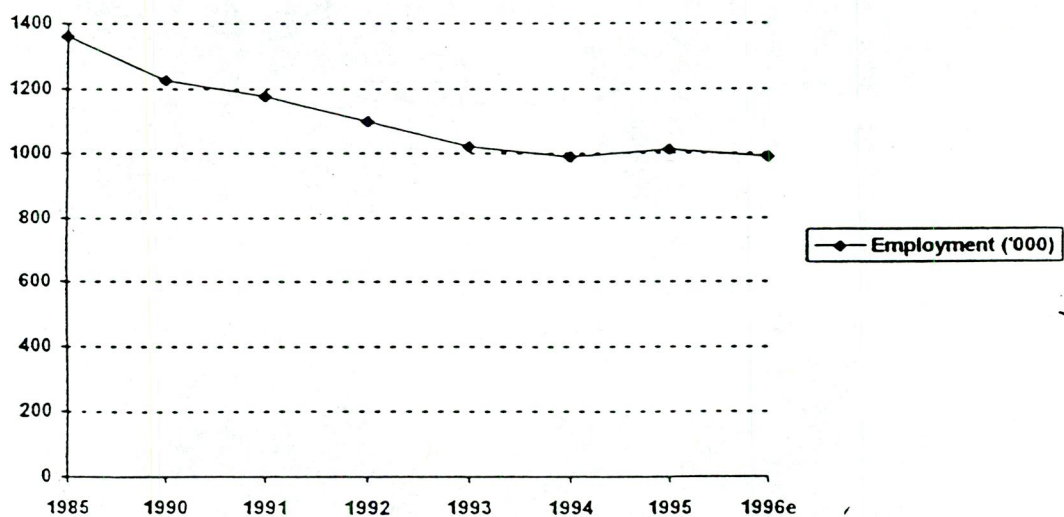


Fig. 3.2 EU employment in textiles

on trade. The Uruguay Round led to many changes in a number of areas including the creation of the World Trade Organisation (WTO) which was to govern and enforce the GATT agreement.

One of the most important changes was an agreement that the MFA would be dismantled. Each participating country was to liberalise products representing 16% of 1990 textile/clothing import volume immediately in 1995, a further 17% in 1998, 18% in 2002 and the remainder in 2005. In addition the quotas remaining after each step of liberalisation were to be increased by 16% in 1995, 25% in 1998 and 27% in 2002. In line with the requirements of the Single Market, EU quotas have been pooled. Decisions about scheduling liberalisation are being taken collectively at European level.

It is not clear that the MFA is still of any great practical benefit to the Irish textile sector. There have been significant increases in imports of textiles and clothing into the EU since 1993. However, it is not clear to what extent they have been due to changes in the MFA, and to what extent they are driven by other factors such as moves towards outsourcing or relocation of operations to low labour cost countries, the dismantling of import barriers between the EU and Eastern Europe, and improvements in the capability of companies in countries with low labour costs.

Moreover, there are significant benefits to the textile sector associated with the ending of the MFA. As import barriers into the EU have been reduced, import

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barriers into other countries have also been reduced, allowing Irish companies to increase their exports globally. Exports to outside the EU from Ireland have gone up by about half since 1992. This is greater than the rate at which exports from the EU as a whole have increased.

There are reports from Eurotex, the main EU Textile and Clothing Industry organisation among others, that some countries have not reduced their import barriers to the extent agreed under the Uruguay Round and are unjustifiably obstructing EU exports. This is potentially a significant issue for parts of the Irish Industry.

A further benefit to the running down of the MFA is that, some Irish Mills have benefited from cost reductions associated with the running down of quotas on yarns.

With 53% of exports going to the UK, the Irish woollen and worsted industrys capability to compete with UK competitors has a significant impact on its success. During 1997 and early 1998, sterling appreciated significantly relative to other EU currencies. The major effect on the Irish textile industry was to improve its competitiveness relative to the UK. A secondary effect, however, was to raise raw material cost for some companies buying through sterling with some negative impact on their competitiveness.

Textile companies are highly vulnerable to such currency movements particularly because their profitability tends to be low, leaving little margin to cover currency risks.

At the end of October 1997, the European Commission published a Communication entitled "Plan of Action to Increase the Competitiveness of the European Textile and Clothing Industry". This Communication is the first EU-level plan of its kind for any industrial sector. It is the outcome of an extensive programme of research and consultation with industry and unions, which commenced during 1996. The primary objective of the Communication is to further improve structural adjustment within the industry, while giving all due attention to the problem of employment.

The Communication put forward five main priority areas for action by businesses, employers associations and trade unions, national and community public authorities. These are:

- Jobs and training
- Development and the dissemination of new products, methods and equipment, of communications and information technology in the sector.
- The proper operation of the internal market, while ensuring a high level of protection for consumers and the environment, should not place new obstacles in the way of the free circulation of goods.

The Commission has been established to study the various aspects of the problem and to make recommendations to the Government.

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- Access to the markets of third world countries and strict compliance with the rules and disciplines, which have been freely accepted under international agreements.
- Regional development must involve giving special attention to viable firms located in less-favoured areas of the union.

In addition to the other factors listed, the Communication argues that particular attention should be given to “the transfer of technologies”, “the use of information technology” and “the promotion of synergies between Community and National programmes in order to maximise the results”.

At its meeting on 7th May 1998, the European Council welcomed the Commissions initiative in adopting the Bangemann Communication, and agreed that it was the role of the public authorities to develop and maintain adequate framework conditions for investment, for the creation of new enterprises, and to allow existing enterprises to become more competitive.

The Bangemann analysis of the EU textile sector rings true also in relation to Ireland. We have already discussed that employment has decreased significantly. As with the industry elsewhere in the EU Ireland has both competitive and uncompetitive firms. Some of Irelands major firms qualify as the most competitive, or among the most competitive, in their chosen markets, as is Botany Weaving Mill.

The priorities identified by Bangemann are also relevant to Ireland. Modern production technology is important to competitiveness and well-applied information technology is important.

Market access outside the EU is also a significant issue, with 15% of textile exports going outside the community.

Bangemanns approach to training is also relevant to Ireland. There would be many advantages to the introduction of new qualifications to ensure that new entrants to the industry get a good foundation to reflect the reality that the textile industry and, in particular, the woollen and worsted industry, requires significant skills.

As a firm increases its international involvement, it will gradually acquire, integrate and use knowledge about foreign markets. In the case of the woollen and worsted industry here in Ireland, members have lacked both knowledge and resources to such an extent as to constrain their degree of commitment. Lack of knowledge in that they had become accustomed to protection in the domestic market for so long and lack of resources in that traditionally they have had to serve a very small and diverse domestic market which in many cases proved to be uneconomic to sustain all firms in the long run.

Following Ireland's entry into the EEC in 1973 and with the removal of import tariffs, as already discussed, the industry was forced into exporting to make up for the surge of imports which were stealing domestic market share. Consequently, mills embarked upon an attempt to sell their diverse range of products to a large number of markets attempting to differentiate themselves from international competition by their ability to undertake short production runs.

Such diversity, however, forced the mills into dependence upon agents on international markets. Such a dependence upon agents would suggest a definite lack of planning and organisation by the mills in satisfying the needs of the end customers. This can be largely attributed to the small size of the domestic market and consequently the urgent need to develop exports almost overnight in the early 1970s. Such adversity led to a disjointed decision-making mode which would be characteristic of the reactive stage of the internationalisation process.

If the internationalisation process is to be understood fully, then obstacles to further international development should reduce in importance through incremental decision-making and learning about foreign markets and operations. Success will require modifications of product, service and procedure, which can only come about through selective focusing, and treatment of distinctly different product markets.

As M.F. Bradley states:

there is an obvious danger in public policies which encourage firms to become exporters before they are adequately prepared for such a step, so that they represent a high risk of early failure or temporary withdrawal from international markets.

Ireland's course of action should be to consider the priorities identified by the Bangemann Communication which as stated include attention being paid to:

- Modern production technology
- Market access outside the EU
- Bangemann's approach to training
- Promotion of synergies between Community and National programmes

In particular, the Bangemann Communication really emphasises the necessity of continual training within the industry. This could really benefit Ireland with regard to existing skill development approaches. Bangemann have already planned an initiative to examine training requirements within the Textile sector, an area that Ireland really needs to address.

CHAPTER FOUR

Future for the Irish Woollen and Worsted Industry
and the factors that could influence the direction the Industry will take

CHAPTER FOUR

Within this chapter various factors will be discussed that could have a specific influence on the future of the Irish Woollen and Worsted industry. I will highlight the importance of computer-aided design and also the role of the designer in the future of the Irish Woollen and Worsted industry. Co-ordination within the industry itself is also essential with greater co-operation and amalgamation between the existing companies that have managed to survive.

If Ireland is to survive in a competitive environment with industries using very advanced technology, consideration must be given to developing existing technology and giving back up support by providing access to existing research and development activities that are happening throughout Europe.

In the past twenty years, we have seen primary investment put into new industries such as Engineering and Pharmaceuticals. With regard to textiles, synthetics have received substantial grant aid, which exceeds the adaption grants given to more traditional sectors, such as the woollen and worsted sector. These adaption grants were essential in assisting these industries to modernise their premises and equipment and therefore improving productivity. By the early nineties, with increasing labour costs and an increasing rate of import penetration from developing countries such as Africa and Asia, efforts to improve every area of the woollen and worsted industry have become a necessity.

CHAPTER FOUR

The following chapter focuses on the role of the government in the development of the health care system. It discusses the role of the government in the provision of health care services, the role of the government in the regulation of health care services, and the role of the government in the financing of health care services. It also discusses the role of the government in the development of health care infrastructure, the role of the government in the development of health care human resources, and the role of the government in the development of health care technology.

The chapter is divided into four main sections. The first section discusses the role of the government in the provision of health care services. The second section discusses the role of the government in the regulation of health care services. The third section discusses the role of the government in the financing of health care services. The fourth section discusses the role of the government in the development of health care infrastructure, health care human resources, and health care technology.

In the past, the role of the government in the provision of health care services has been limited. However, in recent years, the role of the government has expanded significantly. This is due to a number of factors, including the aging population, the increasing prevalence of chronic diseases, and the increasing cost of health care services. The government has a number of ways in which it can play a role in the provision of health care services. It can provide health care services directly, it can regulate the provision of health care services, it can finance the provision of health care services, and it can develop health care infrastructure, health care human resources, and health care technology.

In-depth research into all aspects of the industry is seen as a possible method of establishing a competitive advantage over the textile industries of the developing countries in Africa and Asia. Since 1993, there have been significant changes in the location of the textiles industry that supplies the European markets with notable increases in the volume of imports from Eastern European countries, such as the Czech Republic and Hungary, also from India, Pakistan, China and Mauritius. It has become evident that these countries have managed to make major improvements in their use of technology and along with very low wage rates, they have an overall advantage over the more developed countries, and have proved so by penetrating the developed markets. This situation will become even more exacerbated in the coming years with the possibility of world trade liberalisation.

Environmental awareness throughout the world has increased dramatically within the last decade and there have also been some interesting developments in the attitudes of consumers. Consumers are better educated, more informed, wealthier and aspire to certain lifestyles. There is, in effect, a disdain of synthetic and a drift from anonymous mass marketed products. This in fact should be advantageous for Ireland's Woollen and Worsted industry.

Unfortunately, when Ireland initially invested huge sums of money into synthetics, Europe was already realising that high technology man-made fibres were simply not enough to stem the flow of cheap mass-produced fabrics from developing countries. European textiles were already searching for another alternative.

In a recent visit to Paris, I attended Premier Vision, one of the largest fabric trade fairs in the world. Since its establishment in 1973, Premier Vision has grown from strength to strength with ongoing emphasis on creativity. It has developed and flourished serving as a framework to a fruitful exchange between European weavers and buyers from all over the world. It was very encouraging to find that four of our countries top fabric manufacturers had exhibits among the very best in the world. Emblem Weavers, John Hanly and Co., Magee Weaving and John McNutt Textiles. Fortunately for Irish weaving mills, trends for the new millennium have forecasted that wool will "sail skilfully into the year 2000".

Winter 2000 means wool..... but this season Premier Vision weavers have endowed wool with every power of seduction... sometimes with the look of boiled wool through brushings and treatments.... Wool that reaches it's zenith in cashmere, in all it's traditional aspects or completely modern, yet always sublime!
[Le Journal, Premier Vision, 3rd October 1998]

The fibre exhibition evoked the traces left by fibres over the years highlighting the importance of natural fibres. I found that this was paramount throughout the whole exhibition. Finishing and after treatments were also a big issue. Buyers where looking for "new qualities, sophisticated handles and finishings " [Jim Stocks, head of technology at Marks and Spencer]. Vittorio Montagna said that he wanted to give "a technical spirit to pure wool" in his collections.

Ironically, FAS and the IDA had identified that the natural fibres sector was a sector with great potential for development and that if any growth was likely to take place it was likely to be in the woollen sectors. FAS stated that: "It is imperative that

Ireland researches these areas where we have a historically respected background". [FAS, Dublin, 1993]

Unfortunately, the potential for Irelands Woollen and Worsted Industry was not realised in the early sixties when there was a real prospect for growth.

As stated previously, I found that finishing and after treatments are essential if Ireland is to compete with the best of European textiles. At present there are very limited finishing facilities located in Ireland. Charona Finishers are located in Kilmainham, Dublin and finish the majority of Botany Weaving Mills fabric. Fortunately for Botany, their fabric requires very standard finishing procedures and Charona are equipped respectively for these standard finishes. The machinery Charona use is very dated and when problems arise, parts are very difficult to come by for repairs. Irish textiles cannot hope to develop competent research facilities into fibre blends while development into already existing finishing plants is lacking.

Computer aided design is an easily accessible method of developing the Irish Woollen and Worsted Industry. As of yet, there are no comprehensive computer design courses for textile designers in Ireland, and training in computer aided design (CAD) will become increasingly essential over the coming decade. It is evident that young computer literate textile designers are having a great influence on the development of the textile industry throughout Europe.

related to the need for a more integrated approach

Designing a GAT (1993)

United Nations, the potential for a more integrated and effective approach

related to the need for a more integrated approach

As stated previously, a more integrated approach is needed to address the

need to be consistent with the goal of sustainable development

that is, a strong and effective approach to sustainable development

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Computer-aided design (CAD) is a widely used method of developing

products and services in the design and manufacturing industries

design and manufacturing industries, and this is a common practice

design (CAD) will become increasingly essential over the next few years

that is, a strong and effective approach to sustainable development

the development of the design industry to support future

A survey of fabric design in the Irish Textile Industry was compiled in 1984 by a Mr. Pat Dalton, senior training advisor in the textiles sector of ANCO (now FAS). Many interesting facts arose from this survey and in particular with relevance to the position of Irish Colleges in comparison to British Colleges. In 1984, twenty designers were employed in the Woollen and Worsted sector, seventeen of which were British College graduates. 60% of designers employed were trained at the Scottish College of Textiles, Galashiels. Botany Weaving Mill employs two graduates of Galashiels.

Mr. Dalton found that, in general graduates from the National College of Art and Design "will not be perceived by the industry and particularly by the Woollen and Worsted section as a source of recruitment for designers, due mainly to the lack of technological base in their training".

As a weave student in the National College of Art and Design this statement is certainly not encouraging, considering little has changed since 1984.

Recommendations made by Mr. Dalton were that a working party of the Textile Industry Training Committee be set up to examine the findings of his survey with objectives such as examining the situation in which Design graduates of the Irish Colleges are not perceived by the industry as being a source of designers, and to determine if there is a solution in helping to bridge the gap between their art based training and the technological requirements of the industry. It was also suggested,

A survey of the literature in the field of health care delivery systems
has shown that the majority of the studies have been conducted in the
United States and have focused on the delivery of health care services.
The results of these studies have been mixed, with some studies showing
that the delivery of health care services can be improved through the
use of information technology and other innovations, and other studies
showing that the delivery of health care services can be improved through
the use of traditional methods.

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As a result of the literature, the delivery of health care services can
be improved through the use of information technology and other innovations.
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that there be a further study initiated to examine the implications of computer technology for the fabric design process in general.

This would seem to indicate that as future professional designers Irish Textile students need to be adequately educated. This necessitates the filtering of computer research through to Irish design colleges faster than has been happening.

Further to the Dalton Report a similar study was carried out in 1993 by McIver Consulting for FAS, with a subsequent action plan carried out in October 1993.

The recommendations of the 1993 Textile study were:

- Formation of a Textile Action Group whose primary purpose would be to drive the implementation of the study. Unfortunately there was a lack of demand from the industry. It is believed that the absence of such a group and of any other dedicated implementation structure, has most likely contributed to a lack of momentum in addressing the issues raised by the 1993 study and in implementing its recommendations. Another factor that may have taken away from the momentum is that the report was published when the industry was still distracted by the sterling crisis of 1992 and 1993, and that the amount of funding available was less than proposed in the study.

Other recommendations outlined proposals for action to be taken by FAS, Eolas and the IDA to promote the adoption of world class manufacturing (WCM). FAS

the fact that the study was not a true random sample.

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did undertake a number of world class manufacturing related activities in the form of a national conference, which took place in November 1993 and workshops for management were organised. A world class manufacturing video for the textile sector has been developed but final editing packaging and duplication has not been completed to date.

Another recommendation proposed a marketing training programme for Textile Company managers, comprising of five, two and a half-day workshops. Two attempts were made to implement this programme. On each occasion the programme had to be called off due to lack of interest shown by the industry.

A recommendation was proposed for a specialist postgraduate Design Programme to develop textile design students to make them suitable for employment as designers in industry. A year long programme was conducted once, catering for three graduates, one of which worked with Botany Weaving Mill. Training took place in FAS, Jervis Street and in the Scottish College of Textiles at Galashiels and in company.

The industry view obtained was that the programme had not turned out to be satisfactory. They felt that the main reason for this was that textile designers in industry need a strong practical knowledge of technical textile design, and that a period of years, rather than weeks at Galashiels is the best way to develop this.

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FAS reported difficulties in implementing the recommendations of the 1993 study. They felt that the funding available was inconsistent from year to year and was insufficient, as highlighted in Fig. 4.1. Also, there was a low level of take up on certain programmes by textile companies, particularly marketing programmes.

Year	Total Grant Value	Value as % of Total TSS Budget for All Sectors
1993	£114,000	4%
1994	£132,600	3%
1995	£368,900	7%
1996	£413,700	7%
1997	£252,000	7%
Total	£1281,200	

Fig. 4.1 Value of Training Support Scheme Grants to Textiles
Source FAS

In October 1998, an additional study was compiled by McIver Consulting for FAS which was an updated study of the Textile industry. The report highlights various factors that will influence the future of the Woollen and Worsted Industry in Ireland. They found that the Industry faces a number of labour market problems mainly due to the fact that the amount of potential workers is at present shrinking, as increasing numbers of young people enter third level and further education. It will continue to shrink quickly as the size of the 17-year old age cohort decreases from approximately 72,000 now, to approximately 50,000 in 2006.

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Year	Employment
1998	5,799
1999	5,580
2000	5,370
2001	5,167
2002	4,972
2003	4,784

Fig. 4.2 Employment Forecast for Textile Sector

As already discussed, competition to employ people is also intensifying as the service sectors such as Retail and Tourism expand, and as increasing numbers of light assembly operations are established by multinational corporations in Ireland. The textile industry generally does not have as positive an image as the newer high-tech industries.

While forecasting the future of the Industry in Ireland, the consultants of the McIver Report expect three main factors to combine to produce a fall in employment in the sector. Although some of the biggest company closures that threatened in 1992 have since taken place, they feel it is likely that closures will continue. They can see that some companies will increase their sales and some will continue with approximately their current sales levels. It is assumed that the net impact of company closures and output trends is that the sectors output will increase at about 2% per annum. Also, productivity will continue to improve.

The updated McIver study presents numerous recommendations, some of which suggest that FAS support training programmes that are chosen by the companies themselves. They also highlight the importance of support for the Bangemann Communication and its 'Plan of Action to Increase the Competitiveness of the European Textile and Clothing Industry' as discussed in Chapter 3. Of course the experience of implementing the programme of activity set out in the 1993 textile study bears lessons for the implementation of the recommendations of this update study. It is to address these lessons that the study set forth certain proposals about implementation.

They suggest that FAS should form a cross-regional team to implement the programme chaired by an industry specialist. The team should initially plan the implementation of the programme and should then meet regularly to review progress and adherence to the priorities set out.

Personally, I feel that if the textile industries involved are not taking an interest in these recommendations, not much can be done to develop the existing industry. Judging from past programmes many factors caused them to be unsuccessful but I feel that if the recommendations set out in the McIver Report are followed maybe some progress will occur. In some cases, I feel that Irelands protectionist, insulated background has contributed to the industrys inability to recognise outside influences and also in working together more and developing good relations between all existing Irish companies.

1. The first part of the report is a general introduction to the subject.

2. The second part is a detailed description of the methods used in the study.

3. The third part is a discussion of the results of the study.

4. The fourth part is a conclusion and a list of references.

5. The fifth part is a summary of the main findings of the study.

6. The sixth part is a list of the names of the authors and their institutions.

7. The seventh part is a list of the titles of the papers presented at the conference.

8. The eighth part is a list of the names of the speakers and their topics.

9. The ninth part is a list of the names of the organizers and their roles.

10. The tenth part is a list of the names of the sponsors and their contributions.

11. The eleventh part is a list of the names of the participants and their affiliations.

12. The twelfth part is a list of the names of the chairs and their topics.

13. The thirteenth part is a list of the names of the secretaries and their duties.

14. The fourteenth part is a list of the names of the members of the steering committee.

15. The fifteenth part is a list of the names of the members of the organizing committee.

16. The sixteenth part is a list of the names of the members of the local committee.

17. The seventeenth part is a list of the names of the members of the publicity committee.

18. The eighteenth part is a list of the names of the members of the finance committee.

19. The nineteenth part is a list of the names of the members of the logistics committee.

20. The twentieth part is a list of the names of the members of the catering committee.

21. The twenty-first part is a list of the names of the members of the transportation committee.

22. The twenty-second part is a list of the names of the members of the accommodation committee.

23. The twenty-third part is a list of the names of the members of the registration committee.

24. The twenty-fourth part is a list of the names of the members of the information committee.

25. The twenty-fifth part is a list of the names of the members of the security committee.

Little attempt has been made in this chapter to highlight that there are strengths within the Irish Woollen and Worsted industry. It has the possibility of being a vigorous and vital sector of our economy. An attempt has been made here to focus on areas of weakness or of potential weakness with a view to making recommendations on points of technology, marketing, development and education, where changes will be necessary if we are to provide a competitive industry. By addressing these problems we can certainly ensure the future prosperity of the Irish Woollen and Worsted Industry.

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CONCLUSION

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The impetus behind this research into the Irish Woollen and Worsted Industry was to provide an insight into how it can strengthen itself to move forward into the new millennium by creating a sustainable competitive advantage.

Within the first chapter of this thesis the primary economic policies and decisions which have had depressing effects on the growth of the Irish Woollen and Worsted Industry since 1914 were discussed as a background to the current state of the industry. I highlighted the fact that by the end of the seventies, concern about the level of commitment by the IDA to the textile industry as a whole was already articulated and that there should have been a more balanced programme of investment where the synthetics sector should not have been developed at the expense of the Woollen and Worsted industry.

The subsequent examination of Botany Weaving Mill was intended to provide an example of one success story within the industry and to highlight factors that have ensured their survival to date. From this examination of Botany, I found that their continued success stems from their unique specialisation into an area that pushes them to provide a unique design package for their customers. In general, the industry as a whole in its development over time has become specialised by process rather than by area. The emphasis has always been on function such as apparel or furnishings rather than on end product or particular market niche.

Through intensive research into potential markets and by re-evaluating how they

organise their internal activities Irish Mills have the potential to be highly competitive within both domestic and international markets.

Chapter three looked at Irelands situation in relation to European and world markets. I discussed factors that may help Irelands Woollen and Worsted Industry as well as European and world industry, but also decisions that were made that may have caused the closure of so many mills. I found that in order to further Irelands internationalisation progress, we need to address the domestic problems first. In looking at past examples, the industry was forced into exporting to make up for the surge of imports and the mills were not ready for this move. I feel that the Bangemann Communication as discussed in Chapter three will be of great relevance to Ireland and that its Plan of Action to increase the competitiveness of this industry is a big step forward if the five main priority areas for action are dealt with, these being:

- Jobs and training
- Development and the dissemination of new products, methods and equipment, of communications and information technology.
- The proper operation of the internal market.
- Access to the markets of third world countries and strict compliance with the rules and disciplines.
- And finally, regional development.

My final chapter of this thesis discussed the numerous factors which I feel will have a significant bearing on the future of Irelands Woollen and Worsted Industry. I highlighted the fact that graduates from the National College of Art and Design would not be considered for employment as designers in the industry due to the lack of a technological base in their training. There is a definite need for Irish colleges to look at the existing specialist third level courses and to examine why graduates of Irish colleges are not perceived by the industry as being a source of designers. There needs to be a solution to bridge the gap between the art based training and the technological requirements of the industry. The emphasis should be placed on specialised CAD training in textile design. As of yet, there are no comprehensive computer aided design courses for textile designers in Ireland, and the simple solution has been to draft in people from overseas as designers. To underpin the future of the Woollen and Worsted Industry, skill development in design and specialist technology skills are essential. Perhaps the industry should have more input into the training of textile students so as to ensure their suitability to industry.

In compiling this information, I feel that the decline of this industry was, and still is, the decline of companies that did not consider the many recommendations made by the numerous reports that were written with the intention of saving this diminishing industry.

If Irish textiles are to make an economically viable contribution to the European and World markets these recommendations need to be carried out, these being:

- Support by FAS for training, chosen by companies.
- Priorities for Training Support Scheme.
- National Traineeship Programme.
- Inward Investment in Textiles.
- Support for Bangemann.
- Innovation and Co-operation.
- An Integrated Development Strategy for the Textile and Clothing Sectors.
- Contingency Funds for Training Interventions.

The key factor that will differentiate quality Irish fabric from those of European and World textiles will be the promotion of unique, specialised and individualistic Irish fabric.

BIBLIOGRAPHY

BIBLIOGRAPHY

- BRADLEY, M.F., "A public Policy for International Marketing", Journal of Irish Business and Administrative Research, Vol. 5 (2), October, 1983, 57-75.
- Central Statistics Office, "Census of Industrial Production", Dublin, 1948, 1949.
- Central Statistics Office, "Census of Industrial Production", Dublin, 1958-1960.
- Central Statistics Office, "Census of Industrial Production", Dublin, 1980.
- Central Statistics Office, "Census of Industrial Production", Dublin, 1984.
- Central Statistics Office, "Census of Industrial Production", Dublin, 1996.
- Committee on Industrial Organisation, "Report of the Woollen and Worsted Industry", Stationery Office, Dublin, 1964.
- Committee on Industrial Progress, "Report on the Woollen and Worsted Industry", Government Publications Office, Dublin, 1972.
- DALTON, Pat, "A survey of Fabric Design in the Irish Textile Industry", AnCo, 1982.
- DORGAN, Val, "EEC plea on synthetics", Cork Examiner, 29th August 1979.
- Euratex News, Newsletter 11, Special Issue on the Bangemann Communication (<http://www.euratex.org/publications>)
- FAS, "Manpower and Training Study of the Textile Sector", Colm McIver Associates, 1993.
- HACKETT, J.P., "The development of a long run, sustainable Competitive Advantage for the Irish Woollen and Worsted Industry", 1986.

- Industrial Development Authority, "Report of Irish Textiles Industry", Dublin, 1976.
- Industrial Development Authority, "Report on the textile Industry in Ireland", Dublin, Confederation of Irish Industry, 1980.
- Institute for Industrial Research and Standards, "Report on a technical survey of the Irish Woollen Industry", Dublin, 1967.
- Irish Independent, 6th April, 1978 pg. 6.
- Le Journal, Premier Vision, 3rd October 1998.
- LUCAS, A.T., "Cloth Finishing in Ireland", Folk Life Journal, Vol. VI, Thanet Press, Margate.
- McIver Consulting, "A Textile Industry Update Study", October 1998.
- MITCHELL, Lillias, Irish Spinning, Dyeing and Weaving, Dundalgan Press, Dundalk, 1978.
- MITCHELL, Lillias, Irish Weaving, Discoveries and Experiences, Dundalgan press, Dundalk, 1986.
- O'HAGAN, John, The Evolution of Manufacturing Industry in Ireland, Dublin, Helicon Ltd, 1981.
- PACEK, Jasmina, An analysis of the role and position of education in the development and application of CAD/CAM system for textile design, 1994.
- RUSSELL, Aideen, An examination of the nature and scope of the woven textile industry in Cork, 1996.
- SUTTON, E.F., Weaving the Irish Inheritance, Dublin, Gilbert Dalton Ltd. 1980.

