Export Marketing Performance

in the Greek Food and Beverage Industry

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ABSTRACT

Greek export competitiveness has decreased continuously during the last decade and the external trade deficit grew to more than €20 billion in 2000. A major factor contributing to this trend is the lack of appropriate export marketing strategies. This thesis examines export marketing strategies of firms in the Greek food and beverage industry which are some of the most dynamic in Greece and contributed 20% to both total output and to total export earnings in 2000. Moreover, this sector is of wider interest because Greece is a member of the European Union and is at a similar stage of development as some other members such as Portugal and Ireland, which have similar structural characteristics and exporting contingencies.

The aim of the thesis is to identify the nature of interdependencies at the firm level between internal and external environment, export marketing strategy, and export performance in the Greek food and beverage industry. In addition, the thesis aims to identify marketing practices that firms in this sector could use to improve export performance and competitiveness. It also seeks to provide insights for government policy makers to improve the competitive position of Greek exporters in general.

The research employs a novel approach by integrating the research techniques of qualitative in-depth interviews, and quantitative multivariate analysis of exploratory factor analysis and structural equation modelling. The advantage of this integrated approach is that the qualitative analysis ensures data quality while the quantitative analysis provides results that can be tested statistically.

Using exploratory factor analysis we examine five constructs – export stimulus, export problems, competitive advantages, information sources, and entrepreneurial orientation – t hat i nfluence d ecisions c oncerning e xport m arketing s trategy a nd t he ultimate export performance. These constructs and other, including firm size, export experience, and management characteristics, are then integrated into a structural equation model to reveal the type, direction and magnitude of their interdependencies. Results show that the model has good fit with the marketing strategy related variables, especially the export marketing mix and entrepreneurial orientation, the internal environment, especially management competencies and competitive advantage, and the external environment, especially export market attractiveness and trade barriers, affecting export marketing performance. An optimal export marketing strategy is then developed which can be compared with each firm's current strategy and firm-specific recommendations follow. A key conclusion is that export marketing assistance provided by the Greek government is ineffective for reasons such as inadequate provision of information and poor generic national export promotion.

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ABBREVIATIONS

AGFI .... Adjusted Goodness of Fit Index

AMOS 4 .... Analysis of Moment Structures (Program used in SEM)

ACCI .... Athens Chamber of Commerce and Industry

BoG .... Bank of Greece

BRC .... British Retail Consortium

C .... Component

CFA .... Confirmatory Factor Analysis

CFI .... Comparative Fit Index

CMIN .... Chi-square

CR .... Construct Reliability

C.R. .... Critical Ratio

df .... Degrees of freedom

EC .... Second-order Factor of Export Competencies

EC1-EC4 .... Export Competencies Components

EFA .... Exploratory Factor Analysis

EFSIS .... European Food Standards Inspection Service

ELOT .... Hellenic Organisation for Standardisation

EMC .... Export Management Companies

EMU .... European Monetary Union

EO1-EO3 .... Entrepreneurial Orientation Components

ENOR .... Second-order Factor of Entrepreneurial Orientation

EPR .... Second-order Factor of Export Problems

EPR1-EPR3 .... Export Problems Components

OPEC	Organisation of Petroleum Exporting Countries
Par Change	Expected Parameter Change
PIMS	Profit Impact of Marketing Strategy
PME	Path Model Estimation
P-value	Probability level
PSE	Pan Hellenic Exporters' Association
R&D	Research and Development
RFI	Relative Fit Index
RMR	Root Mean Square Residual
RMSEA	Root Mean Square Error of Approximation
SCP	Structure-Conduct-Performance paradigm of Bain
SE	Standard Error
SEM	Structural Equation Modelling
SEV	Association of Greek Industries
SEVE	Association of Exporters of North Greece
SEVITEL	Association of Greek Manufacturers of Packaged Olive Oil
SEVT	Association of Greek Food Industries
SL	Standardised Loading
SME	Small and Medium Enterprises
SPSS	Statistical Program for Social Sciences
TLI	Tucker –Lewis Index
TUV	TÜV German Rheinland (Berlin Brandenburg Group)
UK	United Kingdom
U-M	Uppsala Internationalisation Model
USA	United States of America

VE .... Variance Extracted

WTO .... World Trade Organisation

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Chapter 1: Introduction

1.1 Introduction

Export markets have become increasingly important options for firms that seek to expand their operations due to growing market globalisation and increasing competition (O'Cass and Julian, 2003). It is important to examine both theoretically and practically export-related issues such as strategy, firm characteristics, the environment of markets and performance in specific export markets to improve the export efficiency of firms thereby assisting their long-term success in world markets.

Export efficiency is explained by both bounded rationality theory and Lindblom's theory of "successive limited comparisons" where firms can increase export marketing efficiency by shifting from less to more optimal export marketing practices (Bilkey, 1985). Firms' organisational, environmental and managerial characteristics are the main determinants of export marketing strategy and performance. However, there is no consensus in the export-related literature regarding the significance of these characteristics and our understanding is rather fragmentary and often conflicting (Aaby and Slater, 1989; Bilkey, 1978; Cavusgil and Zou, 1994; Chetty and Hamilton, 1993; Katsikeas *et al.*, 1996).

This thesis attempts to assess the influence of various exporting variables to export marketing performance. In particular, it contributes to the literature by developing an integrated model of export marketing performance that examines the nature of the

interdependencies between firms' internal and external environment, export marketing strategy and performance in the context of the Greek food and beverage industry. The ultimate aim is to identify an optimal export marketing practice to improve the industry's international competitiveness. The research employs a distinctive methodological approach that combines qualitative and quantitative techniques and aims in helping practitioners and the Greek food and beverage industry in general with their export marketing practices by providing them with guidelines and recommendations for their development.

1.2 Research Rationale

This thesis examines the export marketing strategy in the food and beverage sector in Greece. Katsikeas *et al.* (1996, p. 9) note that "...a small European Union country, like Greece, is of special research interest because many others are in a similar stage of development and have similar structural characteristics and exporting contingencies." For example, the enlargement of European Union (EU) to Mediterranean and East European countries revealed similar strategic competitive disadvantages of other food and beverage manufacturers in countries such as Spain, Portugal or Ireland (Chryssochoidis, 1996b; Linda, 1988).

Export development is highly regarded by both the public and corporate policy makers, due to macro- and micro-economic benefits. From a macro-economic perspective, exporting increases foreign exchange reserves, provides employment, and leads to a higher standard of living. In micro-economic terms, Greek firms' international activities usually lack adequate financial and managerial resources and

exporting gives them a competitive advantage, improves their financial position, increases capacity utilisation, and leads to technological advance (Bourandas and Halikias, 1991). However, in the Greek business environment, more advanced modes of international involvement (e.g. licensing, franchising, joint ventures, manufacturing overseas, etc.) are rarely chosen (Katsikeas *et al.*, 1996).

Greece has gradually shifted away from a heavy reliance on import substitution strategies of the 1970s, towards contemporary export orientation. However, the Greek economy has faced major problems since 1980. According to Greek Bank analysts, there were hopes that Greece's accession to European Community in 1981 would increase exports, but, instead, exports fell (BoG, 1990). Export activities are important for the survival and growth of Greek firms since the domestic market is relatively small and increasingly competitive, particularly since the opening up of EU-frontiers.

As Chryssochoidis (1996b) notes, industrial manufacturing production growth in Greece in 1976-1980 had an annual average of 4.2%, but then declined to 0.1% in 1981-1988, mainly due to the poor achievements of industry and its declining competitiveness (Aggelopoulos, 1990). In 2000, Greek manufacturing has overcome a period of relative stagnation and is becoming the main driving force of growth in industrial production: manufacturing production increased by 6% in 2000, while the cumulative increase for the period 1995-2000 was 15%, compared with negative growth in 1990-1994 (SEV, 2001). One of the most important manufacturing sectors is food and beverage, which grew by 4% in 2000 (ACCI, 2001a), contributing to key economic indicators, such as the GDP, employment, investments, private domestic consumption and foreign trade. Export competitiveness of the food and beverage

industry has a disproportionate importance, since the sector accounts for 21% of the total exports, including 7% contribution from unprocessed products (FaB, 2001a). However, export competitiveness is continuously decreasing and there is a growing external trade deficit, which was €360 million in 2000 (around three times the exports), with consequences for a substantial part of the Greek population (around 20%) that is employed in food and beverage firms and within the agricultural sector which relies on food exports to absorb much of their output (NSSG, 2002; Petkanopoulos, 2000).

In contrast to other developed countries such as Canada and USA, Greek national export policies are still in an embryonic phase and are characterised by a lack of focus on specific exporter needs (Katsikeas et al., 1996). In particular, public export policy instruments are financial incentives and tax credits, along with import duty relief for capital equipment and supplies directed to export-oriented manufacturing.

Hassid (1986) highlights that declining exports are the result of firms being conditioned b y m arket d evelopments r ather t han b y changes i n i nstitutional f actors affecting overall trading conditions like Greece's accession to EC. In addition, product-specific and marketing factors are major determinants of trade performance and it seems that the most significant problem is a lack of appropriate marketing strategies (FT, 1989). Vasiliadis (1988) argues that the Greek food and beverage industry has followed an inappropriate export strategy and if it remains unchanged, it will result in lower exports. Further, Katsikeas and Piercy (1990, 1991) conclude that Greek manufacturers (including those in the food and beverage sector) have a limited ability to satisfy demanding customer's requirements in export markets.

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1.3 Research Objectives

The aim of the thesis is to investigate and identify best practice for exporting marketing in the Greek food and beverage industry. It is the first attempt that uses multivariate techniques within a single industry in Greece. This thesis builds upon previous findings of the export marketing strategy literature, providing a deeper understanding of the marketing practices currently employed by the exporters of the Greek food and beverage sector. This thesis will also help both practitioners and the industry with their current marketing practices by providing a good practice guide for international development. Furthermore, it will help government policy makers to improve the competitive position of the sector.

Thus, the main aims of the thesis are to:

1. Identify and analyse the export marketing practices and characteristics employed by Greek food and beverage exporters.

2. Understand these marketing practices including business philosophy, strategic awareness, marketing strategies, marketing organisation, marketing control, distribution network selection and the sector's environment.

3. Identify variables that affect export marketing performance.

4. Construct a model that specifies the nature of interdependencies between the various factors affecting export strategy and export performance.

5. Identify the most important variables in formulating a successful export marketing strategy to develop marketing policy recommendations that will help Greek exporters to improve their competitiveness and final export performance.

To meet these aims and objectives, apart from employing secondary data and reviewing the literature, three research techniques are employed, namely the qualitative technique of in-depth interviews and the quantitative techniques of exploratory factor analysis and structural equation modelling.

1.4 Structure of the Thesis

The structure of the thesis includes a literature review in Chapters 2 and 3, a description of the Greek food and beverage industry in Chapter 4, methodology in Chapter 5, the questionnaire in Chapter 6, the empirical methodology and results in Chapters 7 and 8, and the conclusions in Chapter 9.

Chapter 2 analyses international business terminology and discusses different entry modes and their characteristics. It also examines the factors affecting entry mode choice and associated theories i.e. the transaction cost based theory, the eclectic framework of the entry mode choice, the eclectic paradigm, the Uppsala internationalisation model, and the network model. The final part of this chapter summarises and highlights the entry mode analysed within this thesis.

Chapter 3 explains the main export market entry options, along with strategies that exporters can use during foreign market entry and discusses the innovation related organisation models. Then it examines the determinants of export marketing performance, analyses various elements of export marketing strategy and discusses different export performance measures. The chapter is concluded with findings on optimal export marketing.

Chapter 4 presents an overview of the Greek economy, discusses the Greek food and beverage industry, with reference to the trade balance, and highlights important foods and beverages exported.

Chapter 5 develops a research strategy detailing the qualitative in-depth interviews and questionnaire design and the quantitative techniques employed, i.e. exploratory factor analysis and structural equation modelling.

Chapter 6 provides demographic characteristics for the sample of firms surveyed and details of the questionnaire results which relate to the general exporting issues of the internal and external environment of the firm, export marketing strategy and final export performance.

Chapter 7 analyses the survey data through exploratory factor analysis where the primary data are condensed and described in a much smaller number of dimensions that reveal the structure of relationships between variables. The underlying dimensions o f f ive m ultidimensional c onstructs - e xport s timulus, e xport p roblems, export competencies, usefulness of information sources, and entrepreneurial orientation - are established. Finally, important results are summarised to use them in the subsequent analysis of structural equation modelling, in *Chapter 8*.

Chapter 8 uses structural equation modelling to examine the significance of the exploratory factor results through confirmatory factor analysis. These constructs are then incorporated into an integrated structural export marketing performance model

that is tested through path model estimation. The overall fit of this model is then assessed to identify the significance and the magnitude of the relationships among the constructs.

Chapter 9 summarises the thesis and concludes. Finally, a discussion of research implications in relation to business practitioners and public policy makers, as well as research limitations and direction for future research follow.

Chapter 2: International Marketing and the Choice of Foreign Market Entry Mode

2.1 Introduction

When firms decide to internationalise their operations, they have to formulate an appropriate international marketing strategy. Apart from the right product-market combination, this strategy entails a key strategic issue, the choice of foreign market entry mode. The entry mode choice is a critical decision during the internationalisation of the firm and it has a lasting impact on the success or failure of international business operations (Terpstra and Sarathy, 1991; Wind and Perlmutter, 1977).

In particular, Root (1987) notes that firms deciding to enter foreign markets have to decide an appropriate institutional arrangement (i.e. entry mode) that makes possible the introduction of a firm's products, technology, human skills, management, or other resources to the overseas market. Therefore, the firm must decide the means by which to enter international markets based on their external and internal environment characteristics and their competencies.

The remainder of this chapter is organised in four sections and presents the various factors influencing the final entry mode choice, as well as the most important theories and frameworks developed by various researchers in the international business literature. In particular, Section 2.2 provides insight in the international business

terminology. Section 2.3 discusses the different entry modes and their characteristics. Section 2.4 traces the factors affecting the entry mode choice and analyses various theories related to the entry mode choice i.e. the transaction cost theory, the eclectic framework of the entry mode choice, the eclectic paradigm, the Uppsala internationalisation model, and the Network model. Finally, Section 2.5 provides a summary and refers to the entry mode analysed within this thesis.

2.2 International Business Terminology

International business is a highly dynamic discipline and definitions on the different terms vary among authors. In particular, authors use the terms "global", "international", "multinational" and "transnational" interchangeably to describe firms operating in a widespread international context. Usually, a "global" firm aims to standardise operations in all functional areas (e.g. marketing, technical, production) and seeks to identify market opportunities, threats from competitors, sources of products, raw materials, and financing and personnel in a worldwide context (Ball and McCulloch, 1999). Such a firm treats the world market as an integrated whole and its international operations are driven by the need for global efficiency. It is more centralised in terms of strategic and operational decisions and its dominant unit of analysis is the global operating environment and the worldwide consumer demand, instead of the nation-state or the local market, while products and strategies are developed to exploit an integrated unitary world market (Bartlett and Ghoshal, 1989).

Instead, an international company is based primarily on transferring and adapting the parent company's knowledge or expertise to foreign markets, while the parent retains

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considerable influence and control, although less than in a global company. The individual n ational u nits o f a n i nternational c ompany can a dapt p roducts a nd i deas coming from the centre and their strategies reflect the pattern of worldwide exploitation of knowledge described in the international product-cycle theory[1] (Bartlett and Ghoshal, 1989).

A multinational company is a holding company with several overseas operations, each of which adapts its products and marketing strategy to local managers' perceptions of the unique aspects of local markets and needs. It has more independence and autonomy than an international company and it develops a strategic posture and organisational capability sensitive and responsive to the differences of national environments, by managing a portfolio of multiple national entities (Bartlett and Ghoshal, 1989). Similarly, several authors use the terms "multidomestic" and "multilocal" as synonyms for the multinational definition (Hout *et al.*, 1982; Samli *et al.*, 1993).

However, the continuously increasing forces of global integration, local differentiation, and worldwide differentiation led to the transnational company, which had to develop global competitiveness, multinational flexibility, and worldwide learning capability, simultaneously. The United Nations and the governments of many developing nations used "transnational" instead of "multinational" to describe a firm operating in more than one country. In addition, some authors use the term "transnational" to describe a company that combines characteristics of global and

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[1] The product-cycle theory notes that multinational companies develop new products in their home countries, utilising local resources and technologies to respond to local market needs, and then diffuse the innovations around the world step-by-step, first to countries with similar development stage and then to the rest (Vernon, 1966).

multinational firms, by trying to achieve economies of scale through global integration of its functional areas and, simultaneously, being highly responsive to different local environments (sometimes also called "multicultural multinational") (Bartlett and Ghoshal, 1989; Ghoshal and Nohria, 1993).

Figure 2.1: Organisational characteristics of "Multinational", "Global", "International", and "Transnational" companies

Organisational Characteristics	Multinational	Global	International	Transnational
Configuration of assets and capabilities	Decentralised and nationally self-sufficient	Centralised and globally scaled	Sources of core competencies centralised, others decentralised	Dispersed, interdependent, and specialised
Role of overseas operations	Sensing and exploiting local opportunities	Implementing parent company strategies	Adapting and leveraging parent company competencies	Differentiated contributions by national units to integrated worldwide operations
Development and diffusion of knowledge	Knowledge developed and retained within each unit	Knowledge developed and retained at the centre	Knowledge developed at the centre and transferred to overseas units	Knowledge developed jointly and shared worldwide

Source: Bartlett and Ghoshal (1989, p. 65).

Other more recent terms used are the Japanese "Dochakuka" meaning global localisation and the supranational corporation, described by the United Nations as a firm in which both the operation and ownership are multinational (Ball and McCulloch, 1999).

2.3 Foreign Market Entry Modes

When a firm decides to expand its foreign operations and enter foreign markets, an important strategic decision that has to be taken is the choice of the foreign market entry mode. Young *et al.* (1989) note that the selection of the most effective

international market entry and development strategy is the most complex decision firms face during internationalisation, while Wind and Perlmutter (1977) identify the entry mode selection as a "frontier issue" in international marketing. There are several foreign market entry modes and the most common are exporting, licensing, franchising, joint venture, and sole venture (i.e. overseas manufacturing plant). Each entry mode has strategic advantages and disadvantages and the choice is affected by each firm's characteristics and strategic needs, as well as by the environment conditions of the target market.

Exporting is the easiest way to meet the needs of foreign markets. It has a minimal cost effect on the ordinary operations of the firm and the risks involved are the smallest compared to other alternatives. In particular, in exporting, most of the value-adding activities take place in the home country. A highly centralised production might allow firms to benefit from economies of scale (i.e. lower unit costs), but this might also become a competitive disadvantage in cases where local producers have lower cost structures (e.g. preferential access to raw materials or control of distribution channels) (Maurer, 1996). Most companies use this entry mode during the initial stages of the internationalisation process, but others with experience in foreign markets use exporting on a regular and permanent basis, too (Albaum et al., 1994).

Licensing and franchising are contractual entry modes and can be described as non-equity associations between an international company and a legal entity in the overseas market. The main purpose of contractual entry modes is the transfer of knowledge, skills, and techniques to an overseas company in return for payment. Licensing is an arrangement where a company transfers to an overseas entity for a

defined period the right to use its commercial/industry property (e.g. technology knowledge, patent, etc.) in return for some form of compensation (e.g. royalty payment). Franchising involves the right to use a business format (i.e. products, brand name etc.) in return for the franchiser receiving some form of payment (Root, 1987). The main advantage of contractual entry modes is the rapid access to the target market, even if the firm is constrained by management or capital resources, while the main disadvantage is the risk of loosing the initial competitive advantage or having a poorer return for this special advantage (Maurer, 1996).

Joint venture and sole venture are investment entry modes and involve ownership of production units in the foreign targeted market, based on some form of equity investment. In particular, joint venture involves the sharing of the ownership and control of overseas facilities or outlets with one or more local or foreign partners, while sole venture refers to production facilities (either new green-field investment- or through acquisition) under full ownership and control of the company selling to the overseas market (Root, 1987). Sole venture is a relatively expensive and risky approach and i s u sed b y c ompanies w hen t hey a re f orced b y c ompetitive p ressure, market demands, government restrictions on imports, government actions that would result in disadvantaged imports, or when they seek to strengthen their long-run international operations (Buckley *et al.*, 1991). Firms rarely establish overseas sole ventures at the initial stages of internationalisation, but, exceptionally, they might do if policies and regulations of the targeted market are such that direct investment in a manufacturing facility is necessary (Albaum *et al.*, 1994). The main advantage of investment entry modes is that they allow firms to increase their familiarity and knowledge for the foreign market and have better control over the business functions

(e.g. distribution, marketing etc.), which is essential for long-term profitability (Maurer, 1996).

In the following section, the different foreign entry methods are distinguished on the basis of their characteristics.

2.3.1 Characteristics of the Different Entry Modes

The key characteristics distinguishing the different entry modes are the different degrees of control, dissemination risk, flexibility, resource commitment, and ownership associated with each entry mode (Agarwal and Ramaswami, 1992; Anderson and Gatignon, 1986; Douglas and Craig, 1989; Driscoll, 1995; Erramilli and Rao, 1993; Hill et al., 1990; Root, 1987). Control is a crucial characteristic in foreign entry mode decision, because it is seen as a means to maximise economic efficiency and return on investment in international markets (Driscoll, 1995). High degrees of control entail good command over operational (safeguard supplies, good logistical and marketing activities, ensure total quality management etc.) and strategic decision-making, and enable the firm to better judge the target market needs and respond more accurately to them (Hill et al., 1990).

Dissemination risk is the risk of expropriation of certain know-how during a contractual agreement. For many firms specialised know-how (related to technology, marketing etc.) is the basis of their competitive strength and strategy and, therefore, it is very important for their survival to maintain their special strengths intact (Driscoll, 1995). There are a few means of safeguarding such firm competitive strengths (i.e.

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comprehensive contingent claim contracts etc.), but usually they are difficult to specify and costly to maintain (Williamson, 1985).

Flexibility refers to the ability of the firm to change entry modes quickly and with minimal costs (Driscoll, 1995). Usually, firms able to change entry modes quickly and efficiently can prevent considerable losses when the host environment changes unfavourably and facilitate substantial earnings when the host environment changes favourably. Flexibility is highly associated with the degree of resource commitment, which is the financial, physical and human resources that firms commit to the host market. Resource commitment affects firm flexibility because heavy resource commitment increases the cost of repositioning within a market or retrieving the value of its investments when exit a market (Porter, 1976). For example, when a firm sets up a whole subsidiary, it has to transfer people and equipment, to purchase, lease or construct offices or manufacturing facilities and to develop a network of suppliers and customers. Apart from high risks involved in undertaking such a substantial financial investment (e.g. in case of unstable political conditions or kidnaps etc.), an opportunity cost is engaged, because this investment prevents the firm from investing in other markets (Driscoll, 1995).

Another important characteristic in foreign entry mode decision is the degree of ownership, which refers to the extent of a firm's equity participation in an entry mode and occurs by the reduction of costs through the internalisation of intermediate product markets within the firm (Buckley and Casson, 1976; Rugman, 1981). A higher degree of ownership involves high degree of control and substantial risk, while a small degree of ownership lead to limited control, along with smaller risks (e.g.

dissemination risks). However, control is not maintained only through high degree of ownership (Driscoll, 1995). For example, in contractual entry modes, the home-based firm can have substantial control over its foreign operations without necessarily owning the host-country business (e.g. franchising – McDonald's). Figure 2.2 shows that as firms change their mode of foreign market entry from export to the other entry modes, their strategic orientation shifts from the country of origin to the host country involving more capital investment and the involvement of own personnel in the host country (Meisner, 1990).

Figure 2.2: Degree of internationalisation related to the involvement of capital investment and own personnel in the home and host country
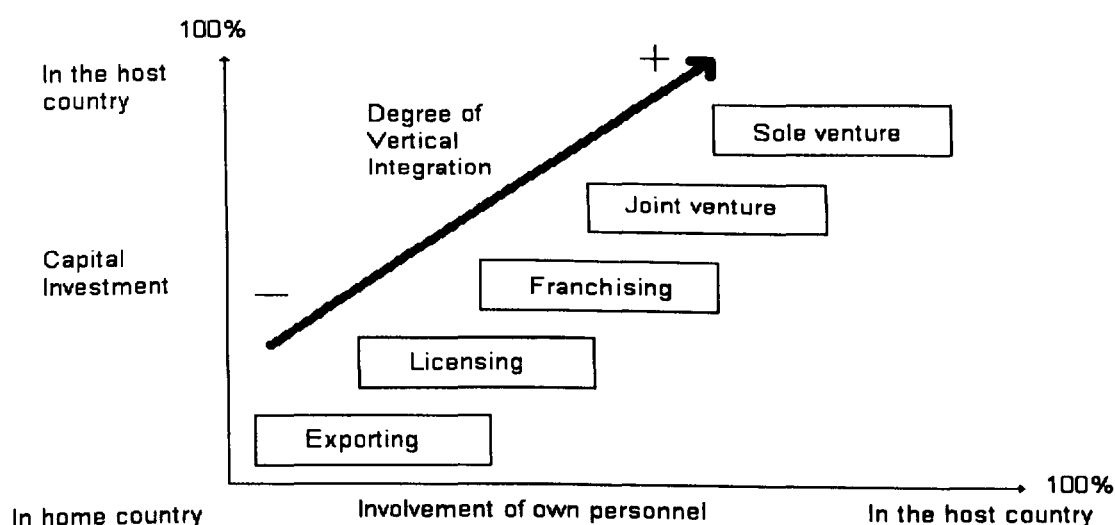
Source: Meisner (1990, p. 47).

In addition, Figure 2.2 represents the degree of vertical integration of firm functions (e.g. marketing, distribution etc.), where exporting has the lowest and sole venture has the highest degree. Higher degrees of vertical integration involve higher control by the firm, since the firm has control over the most of its functions, but it also brings more responsibility, commitment, and attendant risks (Ahmed, 1977).

In general, all firms should consider all these characteristics before deciding a foreign entry m ode. F igure 2 .3 r epresents t he u nderlying c onstructs o f t hese c haracteristics between the different types of entry modes.

Figure 2.3: Characteristics of Export, Contractual, and Investment Entry Modes

Entry Method	Control	Dissemination Risk	Resource Commitment	Flexibility	Ownership
Investments	High	Low	High	Low	High
Contracts	Medium	Medium-High	Medium-High	Medium-High	Medium-High
Exports	Low	High	Low	High	Low

Source: Driscoll (1995, p. 19).

Investment entry modes entail high degree of control, resource commitment, and ownership and low degree of dissemination risk and flexibility. On the other hand, exports are characterised by low degree of control, resource commitment, and ownership and high degree of dissemination risk and flexibility. Finally, in between, the contractual e ntry modes involve medium levels of c ontrol and medium to high levels of resource commitment, ownership, dissemination risk, and flexibility.

2.4 Factors Affecting the Foreign Entry Mode Choice

To decide which entry mode is the most appropriate for every situation, firms have to consider their internal (firm-specific) characteristics, as well as the target market (market-specific) characteristics and the choice of a foreign market entry mode is a compromise between risks, returns, resource availability, and need for control by the firm (Agarwal and Ramaswami, 1992).

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Buckley and Casson (1976), along with Rugman (1982) are among the first who considered the driving forces for internationalisation and the modes of international resource transfer and they developed a theory to explain the multinational enterprise. Here, it is assumed that a multinational enterprise has a firm-specific advantage (i.e. superior production or product, marketing and/or management knowledge) in its home market, which it wants to utilise further by expanding into foreign markets. If this benefit cannot be exploited and safeguarded effectively through market (or contractual) transactions, an internal market has to be created either by establishing or by buying manufacturing plants overseas. Therefore, multinational firms exist due to market failures or high contracting costs and they aim to protect their intangible assets and be able to control the price others have to pay in order to gain access to these assets. However, multinationals have to bear the costs of internalising (e.g. internal administrative systems, risk-taking etc.) and, usually, these costs are lower in similar markets to the home market. Consequently, the internationalisation model predicts that initially the internalisation takes place in foreign markets with similar characteristics to the home market (Johanson and Mattsson, 1988).

Other theories related to foreign direct investment are the market imperfections theory, the international production theory and the internalisation theory. According to the first, firms constantly seek market opportunities, while their strategy for overseas investment is justified as a decision to capitalise on certain capabilities that competitors do not possess in foreign markets (Hymer, 1970). These capabilities are explained by market imperfections for products or factors of production acquired by firms that hold different types of competitive advantages and each to varying degrees, as reflected in industrial organisation theory (Porter, 1985).

The international production theory, developed by Dunning (1980) and Fayerweather (1982), suggests that a firm's initiative for foreign production depends on specific attractions of its home market compared with resource implications and advantages of locating in another country (Morgan and Katsikeas, 1997b). Apart from determining foreign investment strategies only through competitive advantage, it incorporates foreign government actions to rationalise foreign market attractiveness and entry conditions.

According to internalisation theory, firms try to develop their own internal markets whenever transactions can be made at a lower cost within the firm by vertically integrating (i.e. owning and governing) operations previously carried out by intermediate markets (Buckley, 1982; Buckley and Casson, 1976; Buckley and Casson, 1985; Buckley et al., 1988). However, there are also other theories and frameworks explaining the internationalisation process of firms, as well as the factors affecting entry mode choice. The most important are the transaction cost theory, the eclectic framework of the entry mode choice, Dunning's eclectic paradigm, the Uppsala internationalisation model, the innovation-related internationalisation models and the network model, each of which are considered separately in the following sections.

2.4.1   The Transaction Cost Theory

The transactions cost theory is essential to the theory of the multinational company and the theory of the firm. According to transactions cost theory, if the transaction

costs of an administered exchange are lower than those of a market exchange then the market is internalised and firms' efficiency is thus increased (Buckley and Casson, 1976). Following Williamson (1989), transaction cost analysis examines the comparative costs of planning, adapting and monitoring task completion under alternative governance structures (i.e. market, hierarchy). Thereby, the transaction is made the basic unit of analysis and the principal dimensions, on which transaction cost economics presently rely, are: the condition of asset specificity, the degree and type of uncertainty to which they are subject, and the frequency with which they recur.

Asset specificity has reference to the degree to which an asset can be redeployed to alternative uses without sacrifice of productive value and it can take the following forms: site specificity, as where successive stations are located close to each other to economise on inventory and transportation costs; physical asset specificity, such as specialised material required to produce a component; human asset specificity, which arises through experiential knowledge; dedicated assets that are discrete investments made at the request of a particular customer; and brand name capital (Williamson, 1989). Uncertainty arises from random acts of nature, unpredictable changes in consumer preference, and lack of communication between decision makers while when there are frequent transactions and high asset specificity, typically vertical integration is expected to take place (Williamson, 1985).

According to the transaction cost theory, entry modes differ greatly in the mix of advantages/disadvantages and, therefore, the selection of an entry mode has to be based on a conscious, deliberate cost-benefit analysis between the different options

that maximises the risk-adjusted return on investment (Anderson and Gatignon, 1986). In particular, the theory combines elements from industrial organisation, organisation theory and contract law and it is mainly concerned with weighting tradeoffs in vertical integration (and degree of control) and maximising the economic criterion of economic long-run efficiency. Since integration gives a firm legitimate authority to direct operations, control and integration are closely related and, therefore, vertical integration can generate propositions about the desirability of various entry modes offering various degrees of control.

A basic assumption of the transaction cost theory is that the market being entered has enough potential so that the firm can at least break even on the fixed cost of a high control entry mode (e.g. investment entry mode) (Williamson, 1979). Anderson and Gatignon (1986) suggest that under these circumstances, the efficiency of every entry mode depends on four constructs that determine the optimal degree of control, following a transaction cost analysis. First, the transaction-specific assets, which are investments either physical or human specialised on one or a few users or uses; second, the external uncertainty, which shows the uncertainty related to entrant's external environment; third, the internal uncertainty, which represents the entrant's inability to determine its agents' performance by observing output measures; and fourth, the free-riding potential which refers to agent's ability to exploit benefits without bearing the associated risks.

Figure 2.4 shows the framework of the transaction cost analysis. Specifically, the four factors affecting the entry mode choice (i.e. transaction specific assets, external uncertainty, internal uncertainty and free-riding potential) are positively associated to

the entrant's degree of control, which is then positively associated with the long-term efficiency. We now analyse each of these factors in terms of their influence in the entry mode choice closely, following Anderson and Gatignon (1986).

Figure 2.4: A Transaction Cost Framework for Analysing the Efficiency of Entry Modes

Transaction-specific Assets

External Uncertainty

Internal Uncertainty

Free-riding Potential

X

+

+

+

+

Entry Mode: Degree of Control

+

Long-term Efficiency
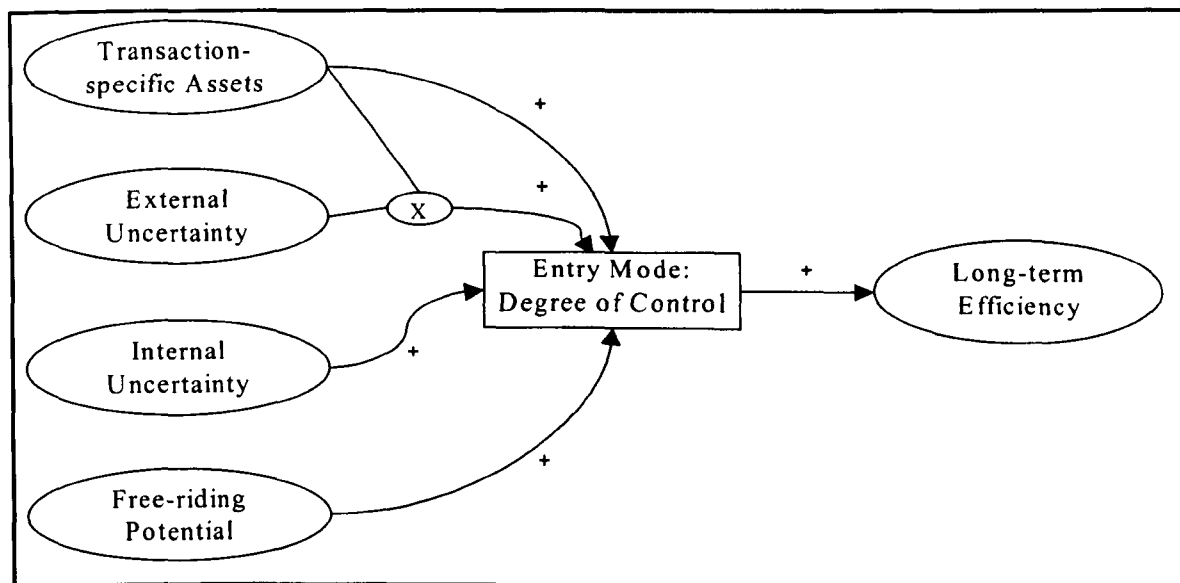
Source: Anderson and Gatignon (1986, p. 7).

Transaction-Specific Assets

Transaction-specific assets are investments (physical or human) valuable to specific transactions and specialised to one or a few users or uses. The sources of transaction-specific assets are the proprietary nature of products and processes, ill-understood products and processes, customising products to the user, and the immaturity of the product class.

In the transaction cost approach, lower levels of ownership are preferable until proven otherwise and this is related to an assumption important in economics, which notes that market outcomes tend to be efficient when competition is strong. For example, a

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firm is advised to avoid integration if it operates in a competitive supplier market, because when the firm's suppliers are readily available, then it can exploit their expertise and economies of scope and scale and simultaneously be confident for finding a new supplier in the case of an unsatisfactory relationship (Williamson, 1981b). In this way, it can have both a high return and a lower risk.

However, a firm could use integration when competitive pressure is low (i.e. when a contract partner becomes irreplaceable) or when "transaction specific assets" of considerable value accumulate and become critical in the overall performance of the firm (Williamson, 1981b). In such cases, the transaction cost analysis suggests that the firm should either integrate the function or redesign tasks. If the firm integrates, it is dependent on its employees rather than outsiders and, usually, its employees can be better controlled by exercising legitimate authority, monitoring behaviour, and offering more varied incentives than those used by outsiders. Instead, if the firm decides to redesign tasks, it loses the value already generated by specialised assets, but avoids overhead costs, which sometimes offset the loss of the specialisation benefits.

The concept of transaction-specific assets suggests that the entry modes offering greater control (i.e. investments modes) are more efficient for highly proprietary products and processes. In particular, proprietary knowledge is an important type of specialised asset that is generated usually by firms with high research and development expenditures. The main problem with such knowledge is that it is difficult to be licensed, transmitted or evaluated (Calvet, 1981). For example, a buyer cannot know the value of a certain knowledge, unless this knowledge is disclosed, at

which point the acquirer is not likely to pay for it. Therefore, owners of proprietary knowledge are often forced to exploit it themselves, resulting in the use of entry modes with higher degree of ownership and hence control of the foreign business entity (Anderson and Gatignon, 1986; Coughlan and Flaherty, 1983).

Another implication of the asset specificity is that higher levels of control are more efficient for unstructured and poorly understood products and processes. For example, the costs incurred by the first transfer of products of processes between national boundaries are much higher than the subsequent transfers, due to the firm's lack of experience and its poorly understood and structured activities. However, as the firm moves down the learning curve, it can use its personnel and the experience acquired to develop and codify solutions that can be applied in the subsequent transfers, so as to reduce transfer costs. This implies the need for high degrees of control by the firm, particularly for complex products, that can be achieved only through investment entry modes (Teece, 1983; Wilson, 1980).

Higher control entry modes are also more efficient for products customised to the user. This happens because considerable local knowledge is necessary to customise products and, usually, entrant's personnel must work actively with the local entity to tailor products to the end user. Therefore, working relationships have to be developed between the personnel from each company (i.e. contractor and contractee) that will include knowledge of what to expect from individuals and how to communicate. Such knowledge c onstitutes a n a sset s pecific t o t he c ontractor-contractee t ransaction a nd decision-makers are often heavily relied on these relationships when assessing other foreign opportunities (Anderson and Gatignon, 1986; Holton, 1971; Kobrin *et al.*,

1980). Therefore, control is necessary to preserve the team effects created through these relationships in which the entrant is locked in (Williamson, 1981b).

In addition, asset specificity suggests that the more mature the class of the product, the less control the firm should demand in terms of its chosen entry mode. In particular, the specialised knowledge comes to the open market as the innovation diffuses and, at this point, the transaction specific assets become general purpose assets associated with a well-established product and require less integration and administrative control by the firms (Anderson and Gatignon, 1986; Chandler, 1977). Therefore, older technology is likely to be transferred through low control entry modes (e.g. contractual entry modes), because technology transfer costs decline sharply in mature products. Furthermore, the requisite knowledge is well codified and available for hire and thus the entrant does not have to supplement the control offered by the market mechanism (Teece, 1976; Williamson, 1979).

External Uncertainty

In international operations, external uncertainty is the volatility (or unpredictability) of the firm's environment and, usually, it is represented by the country risk (e.g. political instability, economic fluctuations etc.) (Herring, 1983). Williamson (1979) and Mascarenhas (1982) suggest that firms should avoid ownership in volatile environments, try to be flexible and shift risk to outsiders. Therefore, according to the transaction cost analysis, higher control entry modes are not expected to be more efficient than lower control modes in volatile environments.

However, if transaction-specific assets accumulate in value then flexibility (the major reason not to integrate in face of uncertainty) becomes important, while the normal difficulty of working with irreplaceable partners increases. Therefore, control sometimes becomes more desirable as uncertainty and assets specificity increase and, in particular, the higher the combination of country risk and transaction-specificity of assets, the greater the necessary degree of control. Figure 2.4 indicates that without specificity (i.e. transaction-specific assets, marked with an X), external uncertainty does not influence the degree of control (and the entry mode); if specificity does exists, then external uncertainty increases the need for control.

Internal Uncertainty

Internal uncertainty exists when the firm cannot accurately assess its agents' performance through objective and readily available output measures. For example, when relationships between inputs and outputs are poorly understood, it is not possible to specify expected performance levels. Therefore, as Williamson (1981a) notes, high internal uncertainty makes increased control modes more desirable regardless of the level of asset specificity. Increased control modes can help by providing subjective judgement to monitor inputs, as long as management has learned how people should behave and how to judge to quantify results. Usually, management has this knowledge in the domestic market due to long experience, but in the international setting, management rarely possess such experience so as to overcome internal uncertainty.

The entrant's degree of control should be positively related to firm's cumulative international experience. This stepwise process of firm maturation (i.e. exporting

leads to high investment modes) through the acquisition of experience in international markets is commonly noted in the literature (e.g. Johanson and Mattsson, 1988; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990; Johanson and Wiedersheim-Paul, 1975; Stopford and Wells, 1972). In particular, firms initially are very hesitant in gaining control by setting up a foreign business entity because they overstate risks and uncertainty in the foreign market (Davidson, 1980b). Thus, firms select nearby and culturally similar markets (Bilkey, 1978; Davidson, 1980b) and when they accumulate experience and become confident, they enter more distant and different countries and seek to expand their control over the management of the foreign entity (Davidson, 1980b; Root, 1983).

The opposite relationship (i.e. a negative relationship between the degree of control and international experience) is also evident in the literature. One of the reasons is ethnocentrism (i.e. inexperienced firms demanding to have their own nationals in key positions), which is more easily achievable through higher degrees of control, while the other is the confidence some firms develop with the local environment, which leads them to delegate control and take advantage of local expertise (Shetty, 1979; Weichmann and Pringle, 1979). Transaction cost analysis states that inefficient practices are extinguished by market pressures, implying that in non-competitive industries, the entrant's degree of control could be negatively related to firm's international experience. So, inefficient practices can be observed in cases where the managers decide to implement their preferences and sacrifice long-term results.

A potent form of internal uncertainty is also derived by the sociocultural distance, represented by the difference between the home and the host country cultures.

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According to the transaction cost analysis, an entrant deciding to expand in a foreign environment has to train its agents and since they acquire valuable knowledge about the entrant's techniques, they become transaction-specific assets. This implies that an entrant should favour higher control entry modes in order to deal with the management problems derived by sociocultural distance through specificity. Alternatively, the entrant may design its operations to fit local methods in order to have little control and reduce specificity of its assets. In this way, it deals with the problem of sociocultural distance by transferring risk to external agents, but it reduces its flexibility. Transaction cost analysis suggests that both alternatives are correct and the firm should decide between having freedom to be unconventional or having low commitment to be flexible. Furthermore, as Richman and Copen (1972) note, the problems of sociocultural distance diminish over time, because local personnel are trained to foreign firms' techniques and, therefore, the larger the foreign business community in host country, the lower degrees of control an entrant should aim.

Free-Riding Potential

Davidson (1982) highlights that firms need to have higher degrees of control in order to protect their brands from free-riders (i.e. local operation using brand name in inconsistent manner) and, thus, the higher the value of a brand name, the higher the degree of entry modes necessary. However, Lall (1978) and Helleiner and Lavergne (1979) find that strong brands (e.g. heavily advertised brands) can be efficiently marketed through low-control entry modes because in many cases these products are unsophisticated and, therefore, local agents are capable of handling. Thus, higher control modes are advised for valuable brand names, but as brand value increases

more restraints are added and high control modes might become inappropriate. Again, the firm has to decide according to their needs for control and flexibility.

2.4.2 An Eclectic Framework of the Entry Mode Choice

This framework, which Hill *et al.* (1990) developed to determine a multinational's final entry mode choice, is an extension of the transaction cost framework. Here, apart from employing environmental and transaction-specific factors to explain entry mode choice, an additional factor is incorporated, namely global strategic considerations (Kim and Hwang, 1992). Figure 2.5 shows the eclectic framework of the entry mode choice where three groups of variables influence the entry mode decision.

Figure 2.5: An Eclectic Framework of the Entry Mode Choice
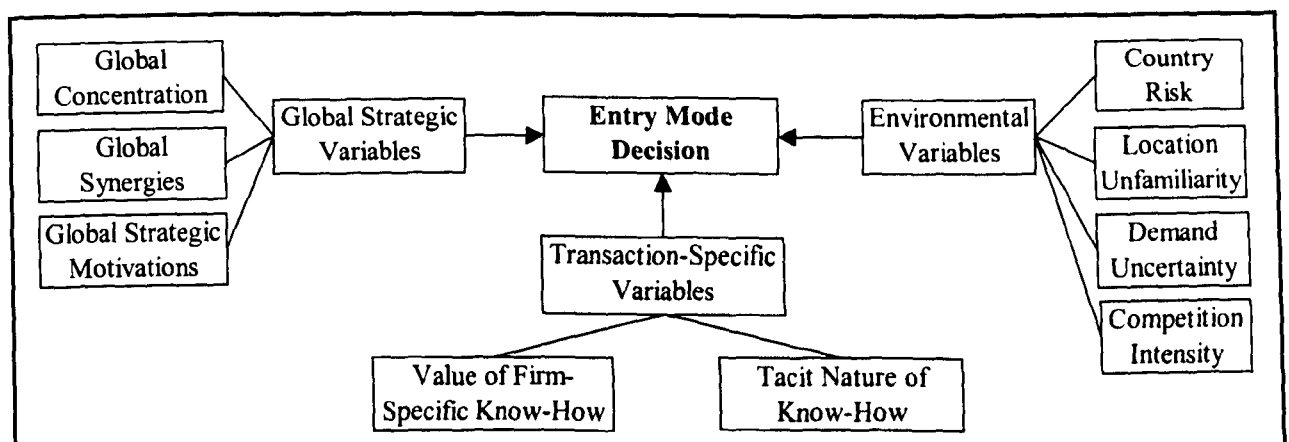
Source: Kim and Hwang (1992, p. 33).

Environmental Variables

As shown in Figure 2.5, the environmental variables involve the parameters of country risk, location unfamiliarity, demand uncertainty, and competition intensity. In particular, when risk is high within a certain national domain (e.g. due to political

instability), an entry mode with limited resource commitment should be selected (Bradley, 1977; Kim and Hwang, 1992; Kobrin, 1983). In addition, the greater the perceived distance between the home and host country in terms of culture, economic systems, and business practices, the more likely it is for the firm to select entry modes with low resource commitments (Anderson and Coughlan, 1987; Davidson, 1980b; Green and Cunningham, 1975; Johanson and Vahlne, 1977; Kim and Hwang, 1992; Kobrin, 1983; Stopford and Wells, 1972). This happens because low resource commitment entry modes enhance a firm's flexibility to quickly and harmlessly (i.e. small as possible sunk costs) withdraw resources, when circumstances require such action.

When there is uncertainty regarding future host country demand, then firms should favour low resource commitment entry modes, so as to enhance their ability to exit the market without substantial sunk costs in case the demand falls even further (Harrigan, 1983; Kim and Hwang, 1992). Furthermore, in case the host market has intensive competition, then firms should favour low resource commitment entry modes because such markets tend to be less profitable and, thus, they do not justify large resource commitments (Harrigan, 1985a; Harrigan, 1985b).

Transaction-Specific Variables

The transaction specific variables refer to the value of the firm-specific know-how and the tacit nature of the know-how (i.e. difficulty to articulate/transfer). In particular, transaction cost theory emphasises the importance of firm-specific advantages that entrants have relatively to the host country firms and suggests that the higher the realisable returns entitled to a firm due to the differential advantage in

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know-how, the more likely is the probability that this firm will favour a high control mode (i.e. investment mode) (Buckley and Casson, 1976; Dunning, 1981; Hill and Kim, 1988; Kim and Hwang, 1992; Rugman, 1981; Teece, 1981; Teece, 1983). Furthermore, if the firm-specific know-how is tacit, then the firm is more likely to employ high control entry modes, because internal organisation enhances its ability to utilise its human capital and draw on its organisational memory to better transfer tacit know-how (Kim and Hwang, 1992; Nelson and Winter, 1982).

Global Strategic Variables

Global strategic variables refer to the extent of global concentration, global synergies, and global strategic motivations exercised by the firm and their effects are further discussed.

Currently, multinational enterprises tend to operate in industries with a limited number of players who compete in different national markets. In such a highly concentrated global industry, conditions of oligopolistic interdependence spill over national boundaries creating a high level of competitive interdependence among the different players (Kim and Hwang, 1992). Therefore, when there is global interdependence, actions of a multinational in one market also have either direct or indirect repercussions in other national markets (Kim and Mauborgne, 1988; Watson, 1982).

Since such global industry settings exist, multinational enterprises have to exercise high control over their foreign operations, in order to ensure that strategic actions taken in a national market do not produce externalities in the performance in other

markets and, furthermore, to enable the different subsidiaries to assist each other during competitive battles for the benefit of the whole organisation. Therefore, Kim and Hwang (1992) conclude that when the global industry is highly concentrated, multinational enterprises will favour high control entry modes.

According to Willig (1978), global synergies arise when the inputs (i.e. research and development, marketing, manufacturing etc.) of a multinational are shared or utilised jointly with complete congestion. Some authors suggest a positive effect of global synergies to corporate profitability (e.g. Ghoshal, 1987; Hamel and Prahalad, 1985; Kim et al., 1989), which is mainly accomplished through innovative capability or some form of cost reduction (Baumol et al., 1982).

Harrigan (1985a), Harrigan (1985b), Jones and Hill (1982) and Porter (1980) argue that synergy, apart from aiding a firm's economies of scope, also increases its commitment to the different business units and it can be best exploited through hierarchical control. However, in order to realise synergies, inputs between the transacting parties must be shared and utilised jointly. This leads to difficulties in verifying the unique contribution and performance of each transacting party and, at last, to managerial discretion (Jones and Hill, 1982). Thus, when there is a lack of hierarchical control, managerial discretion gives rise to opportunistic behaviour, which limits the activities between the independent transacting parties (Williamson, 1975). Therefore, Kim and Hwang (1992) conclude that when the extent of potential global synergies between the entrant and other sister business units is great, multinational enterprises demand a high level of control in the foreign operation.

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Global strategic motivations aim to accomplish strategic objectives set at the corporate level for the overall corporate efficiency maximisation. Thus, they usually are the main reason behind firms' inefficient selection of entry modes, particularly, when they enter their global competitors' home markets (Hamel and Prahalad, 1985; Hout et al., 1982; Kim and Mauborgne, 1988; Watson, 1982). For example, global strategic motivations might force multinationals to violate economic efficiency maximisation of a particular business unit either for creating strategic outposts for future expansion, or for developing a global sourcing site, or for attacking actual and potential global competitors (Kim and Hwang, 1992).

Porter (1986) argues that the effective and efficient execution of global strategic motivations require co-ordination across global business units because sometimes certain business units have to sacrifice their gains for the benefit of the overall organisation. Therefore, in order to succeed tight co-ordination between the different business units, multinationals are required to exercise high control entry modes (Kim and Hwang, 1992).

2.4.3 The Eclectic Paradigm or OLI-Framework

Dunning (1977, 1980, 1988) suggests that the internationalisation process is influenced by firm-specific and market-specific factors. His framework explains choices among different market entry modes (Figure 2.6). This model, often called eclectic paradigm or the OLI-framework (ownership, location and internalisation) explains foreign market entry by incorporating trade theory and transaction cost theory (Arrvidson, 1997).

Figure 2.6: A Schematic Representation of Entry Choice Factors

```
┌─────────────────────────────────────┐
│ OWNERSHIP ADVANTAGES                 │
│   Firm Size                          │
│   Multinational Experience           │
│   Ability to Develop Differentiated  │
│                         Products     │
└─────────────────────────────────────┘

┌─────────────────────────────────────┐          ┌────────────────────────────┐
│ LOCATION ADVANTAGES                  │          │ CHOICE OF ENTRY MODE       │
│   Market Potential                   │ ───────▶ │   Exporting                │
│   Investment Risk                    │          │   Licencing                │
└─────────────────────────────────────┘          │   Franchising              │
                                                  │   Joint Venture            │
┌─────────────────────────────────────┐          │   Sole Venture             │
│ INTERNALISATION                      │          └────────────────────────────┘
│                  ADVANTAGES          │
│   Contractual Risk                   │
│   Degree of Vertical Integration     │
└─────────────────────────────────────┘
```
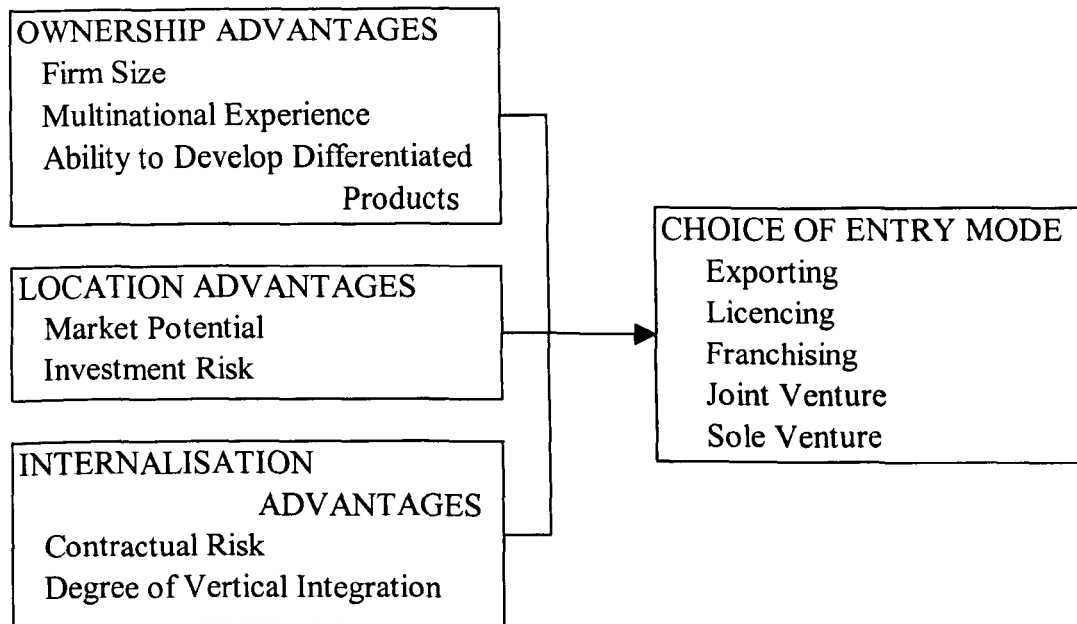
Source: Agarwal and Ramaswami (1992, p. 5).

The ownership, location and internalisation advantages are the main factors influencing the choice of the foreign market entry strategy, each of which is considered separately.

Ownership advantages

A firm's asset power is reflected by its size, multinational experience, and its skill to develop differentiated products. Usually, firms that possess a skill (i.e. differentiation advantage based on a certain comparative advantage) run the risk of loosing this special knowledge of producing differentiated products if they co-operate with host-country firms, because the latter may acquire the skill and decide to operate as a separate entity. Thus, firms possessing such special skills need to have a better control over the entry mode and, usually, they use investment or export entry modes

(Agarwal and Ramaswami, 1992; Anderson and Coughlan, 1987; Caves, 1982; Coughlan, 1985; Coughlan and Flaherty, 1983; Davidson, 1982; Stopford and Wells, 1972).

The size of the firm reflects its capability of absorbing the costs of engaging operation in a foreign market, such as costs of marketing, for patent or contract enforcement, and for the achievement of economies of scale (Buckley and Casson, 1976; Hood and Young, 1979; Kumar, 1984). Empirical evidence shows the significance of firm size in gaining access to foreign markets, especially in investment entry modes (i.e. joint or sole ventures) (Buckley and Casson, 1976; Caves and Mehra, 1986; Cho, 1985; Kimura, 1989; Terpstra and Yu, 1988; Yu and Ito, 1988).

A second ownership advantage, which is supported by empirical evidence, is a firm's degree of multinational experience, which influences the entry mode (Caves and Mehra, 1986; Gatingnon and Anderson, 1988; Terpstra and Yu, 1988). In particular, lack of experience leads to incorrect predictions regarding the risks and returns of the expansion (e.g. overstatement of risks and understatement of returns). Therefore, non-investment entry modes are more suitable for firms lacking multinational experience, and *vice versa* (Agarwal and Ramaswami, 1992).

Location Advantages

An important consideration for firms before choosing their foreign market entry mode is the foreign market potential in terms of returns and investment risk (Agarwal and Ramaswami, 1992). Usually, in high market potential (i.e. large markets, growing fast) countries, investment entry modes are expected to provide the firm with the

opportunity of establishing long-term market presence and a greater long-term profitability due to the achievement of economies of scale from the consequent lower marginal cost of production (Sabi, 1988).

However, apart from the market potential, firms should also consider the investment risk related to this target market and, specifically, the uncertainty over the continuation of the country's present economic and political conditions and government policies which are critical for firms' operations within this country. For example, if government policies change, then problems might occur with the repatriation of earnings, or even with expropriation of assets in extreme cases (Root, 1987). Therefore, firms should avoid entering risky markets, but if they decide to do so, non-investment entry modes are the most favourable.

Internalisation Advantage (Contractual Risk)

Williamson (1985) suggests that low control modes (non-investment entry modes) are superior because they allow firms to exploit scale economies of the marketplace without experiencing the bureaucratic disadvantages that accompany integration. However, the low control modes might involve a higher cost, in relation fully to integrating assets and skills, if management is unable to predict future contingencies (external uncertainty) and if the market is unable to provide competing alternatives (opportunism) (Agarwal and Ramaswami, 1992). This happens because high external uncertainty makes the writing and enforcement of contracts more expensive, while opportunism makes the enforcement of contracts meaningless and inefficient since the firm may not find other partners (Anderson and Weitz, 1986). Therefore, exporting

and sole venture provide better control under these conditions by retaining assets and skills within the firm.

2.4.4   The Uppsala Internationalisation Model

The Uppsala Internationalisation Model (U-M) was established in the 1970s by Johanson and Wiedersheim-Paul (1975) and Johanson and Vahlne (1977) and it is associated with the research of the internationalisation of Swedish manufacturing industry. Its main assumption is that firms adapt to a new environment as uncertainty is reduced through organisational learning, and it suggests that in the initial stages of internationalisation, firms face high uncertainty and are reluctant to make large investments. However, small capital investments increase knowledge of the foreign target market and, gradually, as long as the experience is successful, firms make larger investments (Johanson and Vahlne, 1990; Johanson and Vahlne, 1992). One of its distinctive features is the stress on the development of different modes of marketing that are associated with an organisation's growing commitment to a foreign market (Clark and Mallory, 1997).

Figure 2.7: The Internationalisation of the Firm

| Market Commitment | Commitment Decisions |
| Market Knowledge | Current Activities |
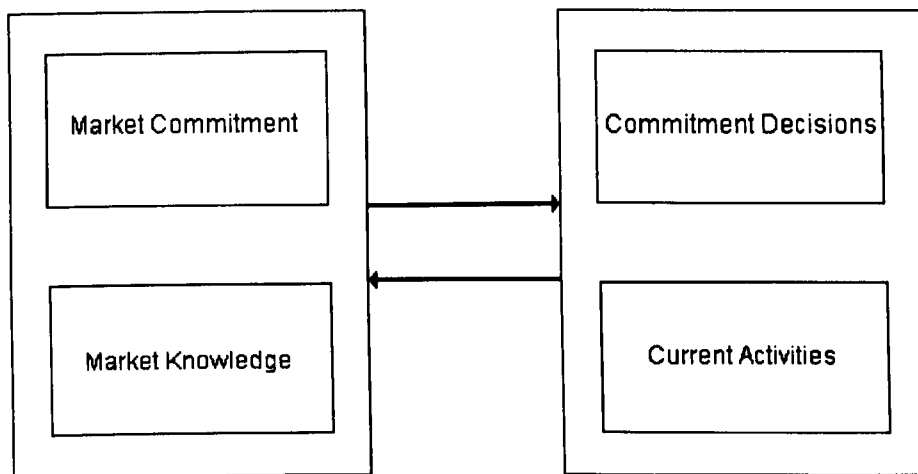
Source: Johanson and Vahlne (1990).

The model in Figure 2.7 shows the incremental character of internationalisation in which the outcome of one cycle of events constitute the input to the next and the main structure is given by the distinction between state and change aspects of internationalisation variables. The state aspects are the market commitment (i.e. resource commitment to the foreign markets) and knowledge about foreign markets and operations, while the change aspects are decisions to commit resources and performance of current business activities (Johanson and Vahlne, 1990). Johanson and Wiedersheim-Paul (1975) argue that the Uppsala internationalisation process model can explain two main patterns: first, the sequence of the internationalisation stages indicates an increasing commitment of resources to the foreign targeted market according to market experience gained; and, second, firms enter new markets with successively greater "psychic distance",[2] i.e. start from markets that they can easily understand, where perceived market uncertainty is smaller.

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[2] Psychic distance is defined in terms of factors, such as differences in language, culture, political systems, level of education or industrial development etc., which disturb the flow of information between the firm and the market (Vahlne and Wiedersheim-Paul, 1975).

Internationalisation is seen as a process that evolves both the development of knowledge about foreign markets and operations and the increasing commitment of resources to these markets. Market knowledge, including perceptions of market opportunities and problems, is initially acquired from the current business activities in the market (experiential market knowledge) and it is a driving force in the internationalisation process. Johanson and Vahlne (1990) model in Figure 2.7 implies that additional market commitment is made in small incremental steps. However, there are three exceptions: first, when firms have larger resources and experience small consequences of their commitments, they can make larger internationalisation steps; second, when market conditions are stable and homogeneous, relevant market knowledge can be acquired regardless experience; and, third, when a firm has considerable experience from markets with similar characteristics, it could generalise this experience to any specific market.

The U-M is widely used with a good empirical support (Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975; Juul and Walters, 1987; Wiedersheim-Paul *et al.*, 1978; Yoshihara, 1978), but there are other studies that fail to support the stepwise development process (e.g. Buckley *et al.*, 1979; Millington and Bayliss, 1990; Turnbull and Valla, 1986; Young and Hood, 1976). For example, Turnbull's (1987) conclusions contradict with U-M's development process and notes that firms with considerable experience and well-developed international institution arrangements continue to export extensively. Similarly, Reid (1983) argues that the U-M is too deterministic and general and he suggests that a transaction cost approach is superior to t he e xperiential l earning m odel, b ecause a firm's c hoice o f e ntry and e xpansion

mode is more specific and context-specific and can be explained by heterogeneous resource patterns and market opportunities. Hedlund and Kverneland (1983) also conclude that U-M's Swedish case is not valid in Japan, where the establishment and growth strategies on foreign markets are changing to more direct and rapid entry modes.

2.4.5 Internationalisation and the Network Model

The network approach, developed by a group of Swedish researchers (e.g. Johanson and Mattsson, 1985; Johanson and Mattsson, 1986), specialises in the areas of distribution systems, internationalisation processes of industrial firms, and industrial purchasing and marketing behaviour as interaction between firms. Here, firms engage in production, distribution, and use of goods and services compose the industrial system, which is described as a network of relationships between them. Within these networks, there is a division of work and since firms are dependent each other, their activities have to be co-ordinated.

According to the network model, the internationalisation of the firm involves the establishment and development of certain positions within foreign networks in relation to counterparts either through international extension (i.e. establish new positions); or by developing current positions and increasing resource commitment towards these networks (i.e. penetration); or by increasing co-ordination between positions in different national networks (i.e. international integration) (Johanson and Mattsson, 1985; Johanson and Mattsson, 1986). The driving forces for increased internationalisation are every firm's need to utilise and develop its resources in such a

manner so as to achieve its long-run economic objectives and this process is influenced by the firm and market characteristics. Thus, the structure of firm's market assets is influenced by its internationalisation degree and, similarly, the assets of the other firms are influenced by the internationalisation degree of the market.

A production network can be internationalised; a high degree of internationalisation indicates many and strong relationships between the different national sections of the global production network, while a low degree implies a few relationships (Johanson and Mattsson, 1988). Figure 2.8 represents the different situations of internationalisation according to the degree of internationalisation of the market and the firm.

Figure 2.8: Internationalisation and the Network Model

		Degree of Internationalisation of the market (the production network)	
		Low	*High*
Degree of Internationalisation	*Low*	The Early Starter	The Late Starter
of the firm	*High*	The Lonely International	The International Among Others

Source: Johanson and Mattsson (1988, p.298).

The Early Starter

In the case of the early starter firm, neither the firm nor the market environment has a high degree of internationalisation. In particular, the firm, its competitors, its suppliers and other firms of the domestic and foreign markets have a few international relationships and a little knowledge about foreign markets. Such firms usually start their internationalisation process in close (i.e. similar) foreign markets by using agents rather than subsidiaries which minimises the need for knowledge development, the

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demands for adjustments, and the utilisation of the positions in the market occupied by already-established agents. In this way, the firm utilises the agent's market investment and experience in the foreign market by reducing the proportion of own investment and risk taking.

However, when overseas demand increases or when foreign networks are tightly structured and effective agents do not exist, increase in market assets or the other difficulties may justify higher commitment to these markets in the form of foreign direct investment. This can be accomplished either through an acquisition or through a green-field investment and an important role in this choice is the size and resourcefulness of the firm, along with the long-run need for knowledge development and penetration in the foreign market. As the firm becomes more internationalised, it becomes a lonely international.

The Lonely International

The case of the lonely international firm is highly internationalised, while its market environment is not. The lonely international has a good knowledge and experience in handling international operations in similar and different foreign markets (e.g. in terms of culture, institutions etc.) and, usually, it has a wider range of resource adjustments, which are less difficult to handle. Thus, it is easier for it to maintain various types of resource completions within the foreign markets due to their greater resource combination possibilities. For example, a highly internationalised firm can use its market investments to achieve a quick diffusion of its new products or it can use its positions to control the internationalisation moves of competitors.

In addition, such firms have the ability to enter more easily tightly structured production networks, since they have plenty of resources to invest and possess good knowledge about different national markets. In addition, initiatives to expand their operations are not offered by other parties in the production networks, because their counterparts are not so internationalised as them. However, to exploit these advantages, they have to co-ordinate activities in the different national networks and, therefore, international integration is an important feature in their development.

The Late Starter

The "Late Starter" has a low degree of internationalisation, while the market of the firm is already substantially international. The driving force to enter new markets may be the relationships of the firm with its counterparts within the network or the entry opportunities in specific markets. The need for co-ordination is greater in well-internationalised production network and firm size plays an important role. In particular, small firms that decide to become international within an internationalised environment are usually highly specialised and adjusted to resolving problems in specific sections of production networks. Instead, when firms are large, they often are less specialised than small firms and they face a more complex situation. If they decide to invest abroad, it can become highly risky since they do not have the necessary experience in international operations and competitors are already well established (i.e. they have a high degree of international experience). Moreover, it is more difficult for large firms to adjust to new networks and react to the initiatives of the other firms.

In general, the "Late Starter" has a comparative disadvantage in terms of market knowledge and it is difficult to establish new positions in tightly structured networks, because competitors already possess strong positions and links to these networks. Further, in highly internationalised environment, firms are usually more specialised and thus a "Late Starter" has to have greater adaptation ability or a greater ability to influence the need specifications of the customers.

The International among Others

In this case, both the firm and its environment are highly internationalised. Further internationalisation implies marginal changes in the extension and penetration of the firm to the different networks while radical changes can be achieved only through international integration. In particular, strong international integration implies that operations in one market can help utilise production capacity for sales in other markets which leads to production co-ordination by specialisation and increased volumes of intra-firm international trade.

High internationalisation and international knowledge level, along with a strong need to co-ordinate activities in different markets helps in establishing sales in subsidiaries quickly and succeeding gains in procurement, production, and research and development. Further, national differences become smaller, innovations are defused more rapidly, and indirect business relations through the other countries' networks become more important to utilise. The need to co-ordinate operations in international networks is even more critical when there is a changing environment within these networks. For example, if these changes spread in the different countries the

international firms operate, these firms are more likely to discover such changes and take advantage of them (i.e. by adjusting to them).

Generally, the driving force for "The International among Others" firms to further internationalise is to use strategically and more efficiently their network positions by adjusting to the geographical reallocation of activities in the production networks. Additionally, this type of firm operates within a highly internationalised environment and tightly structured network, suggesting that major position changes increasingly take place through joint ventures, acquisitions and mergers.

2.5 Summary

Since selection of an entry mode is one of the most important elements of a firm's international success and is instrumental in the future expansion of activities, careful consideration has to be given to this decision. In particular, when appraising different entry modes, a firm has to consider the situational fit between different entry mode characteristics, firm and environmental factors essential to its preferred entry mode, and the parameters moderating its ability to embrace the selected entry mode (Driscoll, 1995).

In this chapter, some important aspects of international business literature are reviewed and they are used to understand and explain the internationalisation process of firms and distinguish between the different foreign entry modes and their corresponding degree of control. International business theories and frameworks (e.g. transaction cost theory, eclectic framework, OLI-framework) are also used to identify

the factors that affect foreign entry mode selection thereby helping to understand how foreign market entry strategy influences firm performance.

This thesis focuses on one low investment entry mode, namely exporting. Transaction cost theory suggests that lower levels of ownership are always preferable and entry modes with less control (e.g. exporting) are more efficient when transaction specific assets have a small value e.g. for low proprietary products and processes, and simple or m ature p roducts. H owever, t ransaction c ost a nalysis i ndicates t hat l ower c ontrol entry modes are less efficient for products customised to the end user due to the lack of local knowledge required to develop such products. Exporting is preferable when there is high external uncertainty like volatile foreign markets; the exception is where transaction specific assets accumulate in value and higher control entry modes become more desirable. High internal uncertainty and free-riding potential require high control entry modes, but sometimes firms enter through exporting to maintain low resource commitment and be more flexible.

The eclectic framework incorporates an additional factor that influences entry mode, namely the global strategic variables. In particular, when there is high global concentration and global synergies and when there are specific global strategic motivations like to attack potential global competitors, higher control entry modes are favoured. Furthermore, the OLI-framework suggests that exporting is a desirable entry mode when a firm has ownership disadvantages, such as lack of multinational experience, when there are substantial investment risks in the target market, and when there are substantial bureaucratic disadvantages to integrate assets and skills. The insight from Uppsala model is that exporting is preferable in the first stages of

internationalisation where foreign market knowledge and experience are low. However, there may also be cases where firms with considerable experience and well-developed international institution arrangements continue to export. Finally, the network model offers an alternative explanation of the internationalisation process and provides four different situations according to the degree of internationalisation of the market and the firm.

In the following chapter, further issues relevant to all types of international marketing activities are discussed and the emphasis is on export marketing, which is a major dimension of international marketing and which is important to the economy as whole, as well as to individual firms. Furthermore, as Albaum *et al.* (1994) notes, the differences between exporting and the other types of international marketing are simply a matter of degree rather than of a kind.

Chapter 3: Export Marketing Strategy and Market Entry Method: A Literature Review

3.1 Introduction

The General Agreement on Tariffs and Trade (GATT) and the World Trade Organisation (WTO) (April, 1994) have helped to create a global economy with fewer barriers and fewer subsidies and other instruments of protectionism and thus foreign markets can be exploited more easily. Businesses attempt to exploit these opportunities by expanding their operations to these markets and, as Hax (1989) and Ohmae (1989) argue, in the 21st century, their performance will be directly influenced by their ability to compete effectively in world markets. However, to effectively compete in world markets, they have to engage successful international marketing activities. This chapter is concerned with issues relevant to international marketing operations and, in particular, it emphasises on a major dimension of international marketing, the export marketing strategy.

According to Katsikeas *et al.* (2000a), a good practice of export marketing strategy can help to achieve superior export performance, which is particularly important for public policy makers, business managers and marketing researchers. That is because public policy makers view exporting as a means of accumulating foreign exchange reserves, increase employment levels, improving productivity, and enhancing societal prosperity (Czinkota, 1994); business managers seek through exporting to improve corporate growth and capacity utilisation, strengthen their financial performance and

competitive edge, and ensure their firm's survival in a globalised market (Samiee and Walters, 1990); while, marketing researchers consider exporting as an area for theory building in international marketing (Zou and Stan, 1998).

Export marketing literature abounds with studies relating to the determinants of export marketing strategy (e.g. Aaby and Slater, 1989; Bilkey, 1978; Madsen, 1987) and confirms its importance as a fundamental issue of international marketing. In particular, Zou and Stan (1998) state that export marketing strategy has gained increased recognition among academics as a legitimate field of research. Important studies that attempt to explore, assess and synthesise the export marketing literature are, for example, those of Aaby and Slater (1989), Bilkey (1978), Cavusgil and Zou (1994), Gemunden (1991), Katsikeas *et al.* (1996), Koh (1991), Leonidou (1995a), Madsen (1987), Styles and Ambler (1994).

The main predictors of export strategy and performance, found in the literature, are the organisational, environmental and managerial traits of each exporting venture (Cavusgil, 1984a; Cavusgil and Nevin, 1981; Dichtl *et al.*, 1990; Dichtl *et al.*, 1984; Gripsrud, 1990; Joynt, 1982). According to this view, exporting is considered as a firm's strategic response to the interplay of internal (i.e. firm's product, managerial and organisational traits – e.g. planning abilities, technological strength, size, export structure etc.) and external factors (i.e. environmental factors related to domestic and target market) affecting the firm and its ultimate performance (Cavusgil and Zou, 1994; Holzmuller and Kasper, 1991; Koh, 1991; Madsen, 1989; Reid, 1987). These factors are considered in detail in the following sections.

In particular, section 3.2 explains the main market entry options and strategies that exporters can use to enter a foreign market. Section 3.3 refers to the innovation related organisation models. Section 3.4 discusses the determinants of export marketing performance by focusing on the internal and external environment of the firm, analysing v arious e lements o f e xport m arketing strategy a nd p roviding i nformation about different export performance measures. Section 3.5 traces previous findings in identifying optimal export marketing strategies. Section 3.6 summarises and concludes.

3.2 Export Market Entry Options and Strategies

In exporting, firms can decide between two alternatives, direct or indirect exporting, which are distinguished by the manner the transactions flow between firm and foreign importer or buyer (Albaum *et al.*, 1994). In indirect exporting, the manufacturer utilises services offered through independent marketing or co-operative organisations located in its home country, which undertake the responsibility of carrying out foreign selling. In direct exporting, the manufacturer itself is responsible for carrying out international sales activities, which it manages through a department within its own organisation. Therefore, as Anderson and Coughlan (1987) note, firms in the internationalisation process have to decide whether to employ an integrated channel (captive or company-owned) or a channel including independent intermediaries.

Entry strategy is important in determining the export marketing strategy. The choice of export channel can be included in a firm's internationalisation process and refers to the degree to which a firm undertake its own export marketing strategies instead of

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buying them in the market, e.g. through agents, distributors etc. (Madsen, 1989).

Indirect exporting seems to be the most appropriate arrangement for small and

medium enterprises (SME) working in distant markets because they obviate the need

for an extensive, internationally focused organisation. Conversely, the use of direct

export strategy appears to be more appropriate for large firms working in close

markets because they are more involved in the marketing strategy formation (i.e.

better control over marketing mix). However, such strategy requires significant capital

commitment and resource allocation of management and production, along with any

product adaptations required to meet the overseas buyer's needs (Branch, 2000;

Madsen, 1989).

Table 3.1 shows the various export entry strategies that are then further analysed on

the basis of Albaum *et al.*'s (1994) classifications:

Table 3.1: Methods of Exporting

Indirect Exporting (selling goods overseas through a third party – relinquish control of selling process)	Direct Exporting (exporter is fully involved in the process of exporting in a proactive basis)
➢ **Marketing Organisations:** *Merchants:* 1. Export merchants 2. Trading Company 3. Export Desk Jobber *Agents:* 1. Export Commission House 2. Confirming House 3. Resident Buyer 4. Broker 5. Export management Company 6. Manufacturer's Export Agent ➢ **Co-operative Organisations:** *Piggyback Marketing* *Exporting Combinations*	➢ **Home Country Based Department:** *Built-in Department* *Separate Export Department* *Export Sales Subsidiary* ➢ **Foreign Sales Branch** ➢ **Storage or Warehousing Facilities** ➢ **Foreign Sales Subsidiary** ➢ **Travelling Salesperson** ➢ **Foreign Based Distributors and Agents/Representatives**

Source: Albaum *et al.* (1994).

3.2.1 Indirect Exporting

Exporters usually have two alternatives when they export indirectly, either to use international marketing organisations or to export through a co-operative organisation. In particular, when an exporter decides to use international marketing organisations, it has two main options, merchants and agents, and their main distinction is that the merchant holds title for the products sold, while agent does not.

Export Merchants

Export merchants usually are engaged in exporting and importing simultaneously and they buy or sell on their own account. This type of marketing organisation decides on several aspects of the international marketing strategy, such as selecting the channels in the foreign markets, as well as the activities related to sales, marketing, merchandising, advertising, delivery, and services and, sometimes, giving directions to the manufacturer for the product itself. Export merchant companies might own branch houses or offices, warehouses, docks, transportation facilities, retail establishments or overseas industrial enterprises and, sometimes, they become so dominant in the supply chain that they influence manufacturer's prices.

Trading Company

In many countries, export merchants are also known as trading companies (e.g. general trading companies, export trading companies, federated export marketing groups, commodity trading companies etc.). These companies often have an important role in foreign market entry and export marketers can use them either in direct or indirect exporting. They often become so dominant in specific markets that exporters

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cannot compete with them and, therefore, export strategies have to change to enhance their co-operation.

Export Desk Jobber

The export desk jobber is another type of export merchant (also called export drop shipper or cable merchant) who is primarily used in the international sales of raw materials, and who actually never sees or physically acquires the goods bought or sold and rarely owns these goods for more than a few hours. Manufacturers using this type of export merchants come closer to direct exporting since they are responsible for the physical movement of their products. Export desk jobbers are specialised in identifying sources of supply and markets but they do not aim to establish manufacturer's products in specific markets by creating permanent market relationships.

Export Commission House

The export commission house is a representative of foreign buyers residing in the exporter's home country and it operates on the basis of orders or indents[1] placed from these buyers who pay a commission for the service they employ. Exporting manufacturers are not directly involved in the transaction, but only bid for the specifications given by the commission house; usually, the lowest bid gets the order (i.e. price is the most important factor). Selling to export commission houses is an easy way to export, since exporters experience little credit risk (i.e. payment is guaranteed) and the problems encountered in the physical movement of the goods are

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[1] Indents are offers to purchase under conditions stipulated by the prospective buyer, including the price to be paid.

undertaken by a third party (i.e. commission house is responsible), but it provides little direct control over the international marketing of products.

Confirming Houses

Confirming houses are mainly employed by SMEs and they assist overseas buyers by confirming orders already placed so that the exporter can receive payment when the goods are shipped (sometimes they are also involved in making arrangements for the shipper). The confirming house interposes its credit between the buyer in the importing country and the exporter in the exporting country and it is particularly beneficial in cases where credit conditions are uncertain or cost of money is high.

Resident Buyer

Resident buyers are similar to export commission houses. In particular, they represent all types of overseas buyers that aim to keep close and continuous contact with overseas sources of supply and are either sent to the exporter's home country or are local people appointed as representatives. However, they differ from export commission houses in that they are permanently employed representatives of foreign buyers and, thus, the exporting manufacturer has the opportunity to succeed a steady and continuous business relation with foreign markets. In addition, they are highly price-conscious towards their product selection with other factors (e.g. established brand, trademark etc.) being less important and, usually, they are employed by large retailers.

Broker

The main function of brokers is to bring a buyer and a seller together without handling t he p roducts s old o r b ought a nd t hey are p aid a c ommission i n p rincipal. Usually, they are specialised in specific products or classes (e.g. they are commodity specialists) and their distinctive characteristic is that they can act as agents for either the seller of the buyer.

Export Management Company

Export management c ompanies (EMCs) are independent intermediary organisations specialised in international sales and they work for several allied (i.e. non-competing) manufacturers by conducting business in the name of each manufacturer (i.e. act as an "export department" for each manufacturer). Many EMCs work on a commission basis, but the majority do their own financing by undertaking all credit risks abroad and paying the manufacturer in cash for each order. These companies are particularly beneficial for SMEs because they provide valuable export marketing services, which these companies usually cannot afford.

For the manufacturer, an EMC provides a tailor-made export department along with its experience without extra cost, handles all selling activities, researches in foreign markets, chooses the best type of channel within overseas market and, usually, it does its own advertising and promotion. In addition, it can provide legal advice (e.g. patent and trademark situations) and credit information for foreign customers and it can lead to economies of scale (e.g. in shipment costs by consolidating orders from different manufacturers or promotion shared with other products), thereby reducing manufacturer's expenses. In general, EMCs can assist manufacturers to set up an

export department quickly and relatively cheaply by providing experience and knowledge in the specific sector.

Manufacturer's Export Agent

In contrast to an EMC, a manufacturer's export agent retains its own identity and operates under its own name. It also receives a commission for its services, but it does not offer all the services an EMC can provide particularly advertising and financial assistance. (However it can assume the financial risk for an additional charge – commission.) Usually, manufacturer's export agents are used either when firms aim to sell small orders to overseas buyers, or w hen they sell new products, or enter new markets.

Table 3.2 provides a systematic summary of the alternative options that exporters have when they follow an indirect export entry strategy. In particular, each alternative form is analysed on the basis of the amount of facilities owned, the holding title, the firm size favoured, the d egree of involvement in marketing activities and the basis country.

Table 3.2: Indirect Exporting – Marketing Organisations

Indirect Exporting	Amount of Facilities Owned	Holding Title	Firm Size Favoured by This Form	Involvement in Marketing Activities	Basis Country[2]
Export Merchants	LARGE	YES	ALL	HIGH	HOST
Trading Company	LARGE	YES	ALL	HIGH	HOST
Export Desk Jobber	SMALL	YES	ALL	SMALL	HOST
Export Commission House	MEDIUM	NO	SMALL/ MEDIUM	HIGH	HOME
Confirming House	SMALL	NO	SMALL/ MEDIUM	SMALL	HOST
Resident Buyer	SMALL	NO	ALL	MEDIUM	HOME
Broker	MINIMAL	NO	ALL	NONE	EITHER
Export Management Company	LARGE	NO	SMALL/ MEDIUM	HIGH	HOME
Manufacturer's Export Agent	MEDIUM	NO	SMALL/ MEDIUM	MEDIUM	HOME

Piggyback Marketing

Piggyback marketing refers to the case where one manufacturer uses its foreign distribution facilities to sell another company's products alongside its own. Usually, piggyback marketing is used for products from unrelated companies that are non-competitive (but related), complementary (allied), or unrelated and it provides an easy, low risk way for a company to begin export marketing operations (e.g. the Greek food manufacturer Chipita S.A. using the distribution facilities of another Greek food manufacturer's subsidiary (Delyung S.A. subsidiary of DELTA S.A.) in the Yugoslavian Market to introduce its products) (Naftemporiki, 13-3-2001). Piggyback marketing is particularly suited for manufacturers which are either too small to go directly to exports or for those who do not want to invest substantially in foreign marketing. However, this type of agreement transfers the control of the marketing function to other companies, which is not favoured by many firms, especially in the long run.

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[2] In relation to the exporter's home country (e.g. if Greece is the exporter's home country then HOME implies that the merchant or agent is based in Greece, as well).

Exporting Combinations

An exporting combination is defined as a formal association of independent and competitive business firms with voluntary membership and organised for purposes of selling to foreign markets. There are two main types of exporting combinations: the marketing co-operative associations of producers or merchandisers that engage in exporting member's products (e.g. in agricultural products), and the export cartels (e.g. OPEC - Organisation of Petroleum Exporting Countries). With this type of agreement, the difficulties that usually arise are that different manufactures often cannot co-operate properly and they loose their freedom of choice while individual interests are not adequately represented.

3.2.2 Direct Exporting

In direct exporting the actual transaction flow is handled by a dependent organisation to the manufacturer or a foreign-based marketing organisation or customer.

Built-in Department

This type of export organisation is the simplest in structure and, therefore, it is most suitable for small firms which are relatively new in export marketing and which have spare capacity of marketing resources in the domestic market. The main function of this department is to sell or direct it, while the other export marketing activities are performed by the domestic market-oriented department of the company. However, since other departments are usually domestically oriented, they do not have the required international knowledge to take proper exporting decisions or they often view export marketing as something optional without any real importance for the

company. Therefore, the success of this type of export organisation relies on its managers' ability in terms of his or her international experience and co-operation with the other departments' managers.

Separate Export Department

In cases where export sales increase substantially, a fully integrated organisation is necessary which can be met by setting up either a separate export department or a subsidiary export company. Through a separate export department, most of the exporting activities are handled within the department because it is a self-contained and self-sufficient unit and export operations are performed by personnel with international experience and committed to exporting. In addition, this department can have a high degree of flexibility in terms of its location (i.e. sometimes this department has to be located in international business centres).

Export Sales Subsidiary

When firms want to distinguish the export marketing activities from domestic operations, they establish an export sales subsidiary as a separate corporation. In this way, the manufacturer is able to ascertain the profitability of its foreign business and minimise internal conflicts faced in domestic departments. However, since this subsidiary has to buy the products it sells from the parent manufacturers, the manufacturer has to develop an internal transfer pricing system, which can become extremely difficult to establish, due to two main reasons: firstly, the method of setting up the transfer prices (e.g. affected by distance, decentralisation of authority, taxes, government regulations etc.); and, secondly, the authority that makes the final decision (i.e. either the corporate management or the selling or buying unit or other).

Foreign Sales Branch

A foreign sales branch is used when the exporter needs close supervision over the sales made in a particular market area. This branch handles all sales, distribution and promotional work and sells primarily to marketing organisations (i.e. wholesalers or dealers) or, in special occasions, to industrial users. Often, this branch has storage and warehousing facilities so that it can maintain an inventory of the product itself, replacement parts, maintenance supplies or operating supplies. A foreign sales branch can also be used as a facility for displaying a manufacturer's product line or as a service centre, which is particularly important in cases where specialised knowledge is required. However, operating a foreign branch is a costly activity (e.g. personnel, facilities etc.) and, consequently, it is best suited for large and financially established manufacturers.

Overseas Storage or Warehousing Facilities

Storage or warehousing facilities is a powerful marketing tool offering higher convenience of handling larger volumes of products and, usually it is used as a central distribution point serving a wide area. Often, these facilities are located in a free port or a trade zone (e.g. New York, Hong Kong, Rotterdam etc.) to avoid usual custom procedures and regulations that countries impose.

Foreign Sales Subsidiary

A foreign sales subsidiary is similar in operation to a foreign sales branch office but it enjoys greater autonomy and, often, it has broader responsibilities by performing many activities beyond those of a foreign sales office. It is a flexible type of organisation in terms of its physical facilities and operating activities and the main

factors affecting their establishment in a particular overseas country are taxes (e.g. tax advantages when the headquarters are in a highly-taxed country), business practices (e.g. restrictions concerning ownership, availability of local stuff etc.) and country conditions (e.g. good banking connections, political stability, clarity in legal rulings etc.). Usually, a subsidiary purchases the products from the parent company at cost or some other price (i.e. usually set by the internal transfer policy employed by each company) and then sells them to foreign buyers at normal wholesale or retail prices.

Travelling Salesperson

Travelling salespersons usually reside in the home country of the employer (i.e. the exporter) and travel abroad to perform sales duties. Exporters employ well-trained travelling salespersons when they aim to generate new orders. Further use of these salespersons is highly dependent on their relative costs and returns (i.e. sales generation). Usually, a travelling salesperson performs the selling activity, communicates the product information to the customers, obtains orders and aims in improving company's position with customers and the general public. In addition, a salesperson can gather information for market needs and competitors' moves (i.e. first line intelligence agent), as well as information on product performance and future predictions for market changes. However, when customer relations are critically important, travelling salespersons are less likely to be the best method of direct exporting because, in general, there would be not enough customer contact (except when they are specialised in this area, e.g. demonstrators or tutors). Nevertheless, they can assist the exporter's foreign agents or distributors by operating as trouble-shooters or they can work as information gatherers and communicators for the exporters (e.g. to help advertise planning, trade promotion programs etc).

Foreign Based Distributors and Agents/Representatives

Independent marketing organisations (i.e. agents or distributors) can also be used in direct exporting and have the same functions as in indirect exporting. The only difference arises that in direct exporting these organisations are foreign based, while in indirect exporting they are based in the exporter's home country.

Table 3.3 provides a systematic summary of the alternative options that exporters have when they follow a direct export entry strategy. In particular, each alternative form is analysed on the basis of the amount of investment required, the exporting stage, the firm size favoured, the degree of independence in marketing activities and the basis country.

Table 3.3: Direct Exporting

Direct Exporting	Amount of Investment Required	Exporting Stage[3]	Firm Size Favoured by This Form	Degree of Independence in Marketing Activities	Basis Country[4]
Built-in Department	SMALL	INITIAL	SMALL	SMALL	HOME
Separate Export Department	MEDIUM	ESTABLISHED	MEDIUM OR LARGE	MEDIUM	HOME
Export Sales Subsidiary	HIGH	ESTABLISHED	LARGE	HIGH	HOST
Foreign Sales Branch	HIGH	ESTABLISHED	LARGE	HIGH	HOST
Overseas Storage or Warehousing Facilities	MEDIUM	ESTABLISHED OR MATURE	MEDIUM OR LARGE	MEDIUM	HOST
Foreign Sales Subsidiary	MEDIUM (flexible)	ESTABLISHED OR MATURE	MEDIUM OR LARGE	MEDIUM	HOST
Travelling Salesperson	MINIMAL	INITIAL	SMALL/ MEDIUM	NONE	HOME
Foreign Based Distributors and Agents	NONE	INITIAL OR ESTABLISHED	MEDIUM OR LARGE	HIGH (disadvantage[5])	HOST

[3] This column shows for which exporting stage each form is best fitted.

[4] In relation to the exporter's home country (e.g. if Greece is the exporter's home country then HOME implies that the business entity is based in Greece, as well).

[5] This is a disadvantage in this case, because the marketing activities are operated by a company not related to the home based exporter (i.e. completely independent company employed by the exporter) and, thus, the exporter has little control over international activities. In all other cases, the exporter is directly related (i.e. owns) with the form employed.

3.3 The Innovation-Related Internationalisation Models

Many r esearchers e xamine t he e volution o f i nternational i nvolvement b y f irms a nd

suggest that it consists of a sequence of discrete stages (stepwise process - Dalli,

1994) and between these stages, firms generate an appropriate resource base enabling

them to proceed to the next internationalisation stage (Morgan and Katsikeas, 1997b).

The innovation adoption framework describes the selection of an innovation as the

best alternative in a given point in time and it was first developed within the export

decision making by Simmonds and Smith (1968) and Bilkey and Tesar (1977) who

concluded that export development is separated in distinct stages with various factors

affecting decision making at each stage.

The most well-known models related to the internationalisation process from an

innovation-related perspective are those of Bilkey and Tesar (1977), Cavusgil (1980),

Reid (1981) and Czinkota (1982), analysed in Table 3.4. Other models include those

of Lim *et al.* (1991), Rao and Naidu (1992), and Wortzel and Wortzel (1981).

Table 3.4: The Innovation-Related Internationalisation Models.

Bilkey and Tesar, 1977	Cavusgil, 1980	Reid, 1981	Czinkota, 1982
Stage 1: Management is not interested in exporting. **Stage 2**: Management is willing to fill unsolicited orders but makes no effort to explore the feasibility of active exporting. **Stage 3**: Management actively explores the feasibility of active exporting. **Stage 4**: The firm exports on experimental basis to some psychologically close country. **Stage 5**: The firm is an experienced exporter. **Stage 6**: Management explores the feasibility of exporting to other more psychologically distant countries.	**Stage 1**: Domestic marketing: The firm sells only to the home market. **Stage 2**: Pre–export stage: The firm searches information and evaluates the feasibility of undertaking exporting. **Stage 3**: Experimental Involvement: The firm starts exporting on a limited basis to some psychologically close country. **Stage 4**: Active Involvement: Exporting to more new countries – direct exporting – increase in sales volume. **Stage 5**: Committed involvement: Management constantly makes choices in allocating limited resources between domestic and foreign markets.	**Stage 1**: Export awareness: Problem of opportunity recognition, arousal of need. **Stage 2**: Export intention: Motivation, attitude, beliefs, and expectancy about export. **Stage 3**: Export trial: Personal experience from limited exporting. **Stage 4**: Export evaluation: Results from engaging in exporting. **Stage 5**: Export acceptance: Adoption of exporting / Rejection of exporting	**Stage 1**: The completely uninterested firm. **Stage 2**: The partially interested firm. **Stage 3**: The exploring firm. **Stage 4**: the experienced small exporter. **Stage 6**: The experienced large exporter.

Source: Andersen (1993).

The internationalisation models are derived from Roger's (1962) stages of the adoption process; they have a behavioural orientation and focus on the learning sequence in connection with adopting an innovation (i.e. innovative perspective). Bilkey and Tesar (1977) and Czinkota (1982) assume that initially firms are not interested in exporting and the export decision is initiated by an external change agent ("push" mechanism). In contrast, Cavusgil (1980) and Reid (1981) assume that firms are more interested and active during the initial stages of their internationalisation and

an internal change agent ("pull" mechanism) explains better firms' movement to the subsequent stages (Andersen, 1993).

In Table 3.4, Bilkey and Tesar (1977) explain the export development process through six different export development stages based on firms' increasing involvement in exporting in psychologically more distant markets. Instead, Cavusgil (1980) suggests five stages in export development process and, on the basis of empirical evidence, he concludes that several firm-specific characteristics and managerial factors determine the progress of firms from one stage to the other. Reid (1981) uses an explicit innovation adoption sequence of exporting with five stages and he concludes that export adoption is mainly influenced by management attitude towards exporting, the available foreign market opportunities and by the firm's spare resource capacity. Czinkota (1982) segments firms in six distinct groups according to their government export assistance requirements, while empirical investigation reveals that firms differ in terms of their organisational and managerial characteristics in the different stages.

In addition, Wortzel and Wortzel (1981) identify five stages to international market entry and expansion, each of which is distinguished by the degree of control exercised in foreign activities by the exporter. Their taxonomy reveals several issues influencing the final choice of international involvement and, in particular, it is argued that each stage represents a different degree of vertical integration where firms internalise functions (e.g. marketing, production, administration etc.) previously operated by foreign market based intermediaries. Lim et al. (1991) expands Reid's (1981) work and identifies four levels of export innovation (export awareness, export interest, export intention and export adoption), which are supported by strong evidence and

have considerable applicability in export decision making. Finally, Rao and Naidu (1992) create a taxonomy identifying the distinct attributes of firm's internationalisation activities at each stage. This taxonomy has four stages, namely non-exporters, export intenders, sporadic exporters and regular exporters.

3.4 Determinants of Export Marketing Performance

According to Stewart and McAuley (1999), export marketing strategy and performance is influenced by several factors, which can be separated in two groups: the business's external environment (e.g. technology factors, market factors etc.) and internal environment (e.g. market orientation, capabilities, experience etc.).

The importance of external environment characteristics is highlighted in the industrial organisation-based theory, which bases on Porter's (1980) "five-force" industrial analysis and refers to the structure-conduct-performance (SCP) paradigm of Bain, (1951, 1956). According to the SCP paradigm, the external environment of the industry determines businesses' strategy, which then determines final economic performance and profitability (Scherer and Ross, 1990). The "industrial organisation" theory is largely rationalised by the "principle of coalignment", which refers to the importance of the "fit" between business strategy and the external environment (Venkatraman and Prescott, 1990). Yip's (1989) normative contingency framework is directly linked to this principle where a firm's global strategy depends on the industry's globalisation potential as defined by market, cost, governmental, and competitive factors.

Barney (1991) identified two underlying assumptions of "industrial organisation" theory. First, firms operating in an industry control identical strategic resources (Porter, 1980; Rumelt, 1984); second, if these resources are heterogeneous, then a new entry might suspend this heterogeneity due to the resources' high mobility (Barney, 1986; Barney, 1991). These assumptions treat the firm as an abstract economic entity (or, often, as a black box) and not as a social institution with an economic purpose (Bartlett and Ghoshal, 1991) and emphasise the importance of the external environment in determining the requirements to which a firm should adapt, in contrast to internal organisational factors, which become insignificant.

The acquisition of a competitive advantage within the global strategy distinguishes successful businesses from those doomed to failure (Collis, 1991). According to Porter (1980, 1985), competitive advantage is possessed by a business either by offering undifferentiated products at low prices or by offering differentiated products for which customers are willing to pay a premium. Moreover, a competitive advantage can be acquired by several strategic tools, such as erecting barriers to entry, accomplishing economies of scale, gaining experience (learning curve effects) or by raising buyer-switching costs.

The most influential theories in the "industrial organisation" literature are the neo-classical perfect competition paradigm,[6] the Bain's industrial organisation,[7] the

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[6] Neoclassical Perfect Competition Theory: Firm combines resources to produce an end product (in the Neoclassical model the inputs combined are labour and capital). Perfect competition theory assumes that the "right" mix can be readily ascertained, the marginal contribution of each input is easily calculated, all parties have perfect information, and resources are completely mobile and divisible (Conner, 1991).

[7] Bain's industrial organisation: Firm exists to restrain production output through exercising monopoly power or by colluding with other firms so as to drive up market price and make a profit (the difference between an "artificially" high market price and its costs (Conner, 1991). The main hypothesis of this theory assumes that industry structure (e.g. number of sellers and buyers, barriers to entry etc.)

Schumpeterian view,[8] the Chicago tradition,[9] and the transaction cost economics[10] (Conner, 1991). All these theories use different means to accomplish the ultimate goal of profit maximisation by placing importance on external factors (e.g. government regulations, industry technological intensity and level of instability etc.).

In contrast, the "resource based" view emphasises internal strategic resources (e.g. assets, capabilities, organisational processes, business attributes, information, knowledge, etc.) where these idiosyncratic internal organisational characteristics determine the success of the strategy and the business performance (Bartlett and Ghoshal, 1988; Collis, 1991; Prahalad and Hamel, 1990; Tallman, 1991; Zou and Cavusgil, 1996). This perspective gained rapid acceptance by *inter alia* Barney (1989), Barney (1991), Collis (1991), Conner (1991), Grant (1991), Mahoney and Pandian (1992), Prahalad and Hamel (1990), Wernerfelt (1984), and Wernerfelt (1989), because competitive advantage and global strategy are extremely well modelled (Barney, 1991; Conner, 1991).

The internal resources of a business are different and numerous. Some of these resources are defined as assets, capabilities, organisational processes, business attributes, information, and knowledge (Barney, 1991; Daft, 1983). Barney (1991)

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determines firm conduct (e.g. formation of marketing mix), which in turn determines economic performance (Bain, 1950; Bain, 1951; Bain, 1954; Scherer, 1980; Tirole, 1988).

[8] Schumpeterian view: Firms aim to seize competitive opportunity by creating or adopting innovations that make rival's position obsolete (Conner, 1991). In contrast to Bain-type industrial organisation, Schumpeter (1950) suggests that firms' scale and scope is to seek radical innovation in order to achieve the possession of monopoly power.

[9] Chicago tradition: Firms exist to enhance efficiency in production and distribution. A theory based on a renewed application of the price theory (Conner, 1991).

[10] The transaction cost economics: Firms exist to minimise the costs of conducting the same exchange between autonomous contractors. A firm will expand until the costs of organising an extra transaction by means of an exchange on the open market or the costs of organising in another firm (Williamson, 1975; Williamson, 1989).

attempts to categorise internal organisational resources suggesting three categories: physical c apital, h uman capital a nd o rganisational c apital. However, s ome o f t hese internal resources might be strategically irrelevant and the most critical resources are those which are superior in use, hard to imitate, and difficult to substitute and they arise from long experience or from acquisition from outside the firm (Porter, 1991).

Barney (1991) identifies two underlying assumptions in the "resource based" theory, which are similar to those of the "industrial organisation" theory. First, firms that operate in the same industry might control heterogeneous strategic resources and, second, the internal resources might not be entirely mobile and this heterogeneity could be long lasting. Thus, internal drivers are the most important determinants of global strategy, which is viewed as a means to capitalise on business's idiosyncratic endowment of strategic resources (Barney, 1991; Lado *et al.*, 1992; Wernerfelt, 1984).

The ultimate goal of businesses is to use internal resources in such a way so as to maintain the distinctive nature of products, in terms of customer perceptions, or sell identical products with those of the competing firms, but at a lower cost (Porter, 1985). Collis (1991) identifies two hypotheses about global competition which relate to the "resource based" theory: first, global strategic choice and market outcomes are affected by the historical evolution of the firm; and, second, global choice could be a source of sustained competitive advantage affecting organisational structure independently of global strategy (referred as complex social phenomena or "invisible" assets). Others including Hamel and Prahalad (1989) and Prahalad and Hamel (1990) conclude that the core competencies of corporations, with the management process of

exploiting these competencies, are means of success in the global competition. In addition, Porter (1991) notes the importance of "resource based" theory and his belief that it is the most promising theory of rationalising the longitudinal nature of competitive strategy and performance.

However, both "industrial organisation" and "resource based" theories are increasingly c hallenged by m arket r eality and e mpirical e vidence i ndicates t hat t he external and internal environments simultaneously determine business performance and global strategy (Bartlett and Ghoshal, 1988; Bartlett and Ghoshal, 1991; Collis, 1991; Hamel and Prahalad, 1985). Therefore, an integrated framework of global strategy is required to develop a more complete explanation of the determinants of strategy and performance. Zou and Cavusgil (1996) first linked the two perspectives into a unified conceptual framework. Their model is based on both theories and they introduce simultaneously the business internal and external factors as determinants of strategy.

In particular, they extend Yip's (1989) five dimensions (major market participation, product standardisation, activity concentration, uniform marketing, and integrated competitive moves) of global strategy by adding a sixth dimension (Collis, 1991), namely the co-ordination of value-adding activities (e.g. R&D, manufacturing, marketing) noted by Porter (1986). The final six-dimension model effectively integrates the diverse perspectives of the literature into a unified conceptual framework where global strategy is the means by which corporations respond to external industry drivers and internal organisational factors are constraints in either

the creation of the global strategy (Barney, 1991; Porter, 1991; Wernerfelt, 1984) or

the implementation of this strategy (Barney, 1989, 1991).

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The external industry globalisation drivers of the conceptual framework's model are

gathered in a group of five factors. These are the market (e.g. emergence of global

customers with homogenised needs and wants, existence of global marketing

channels, transferability of marketing practices), cost (e.g. economies of scale in

marketing and production, economies of scope, synergies in value-adding activities

like sourcing or transportation), competition (e.g. leverage of competitive position

across markets), technology, and environmental factors (e.g. government regulations

or incentives) (Cavusgil and Zou, 1994; Hax, 1989; Jain, 1989; Levitt, 1983; Yip,

1989).

Similarly, the most important internal organisational factors are those that are difficult

to imitate and substitute and they are grouped in five types, namely market orientation

(i.e. degree of response to market intelligence), managerial orientation and

commitment (e.g. exploit the synergies of multinational operations), organisational

culture (i.e. values and ideologies influencing organisations' beliefs and behaviours),

organisational capabilities (i.e. means of encouraging collective learning, transfer

information and skills, facilitate innovation) and international experience (Collis,

1991; Jaworski and Kohli, 1993; Kohli and Jaworski, 1990; Levitt, 1983; Lusch and

Laczniak, 1987; Narver and Slater, 1990; Ohmae, 1989; Perlmutter, 1969; Porter,

1991).

The "industrial organisation" theory, the "resource based" theory, and Yip's framework help us understand how the internal and external environment influence export marketing performance and develop our final export marketing performance model. Figure 3.1 shows a generic view of this integrated model used to examine how internal and external environment impact on the formation of export marketing strategy and export performance. More specifically, export performance (the outcome) is both indirectly and directly influenced by the internal and external environment (background forces, i.e. managerial, organisational, environmental forces) and directly influenced by marketing strategy elements (intervening forces, i.e. strategic orientation, marketing mix etc.).

Figure 3.1: Export Marketing Performance Model
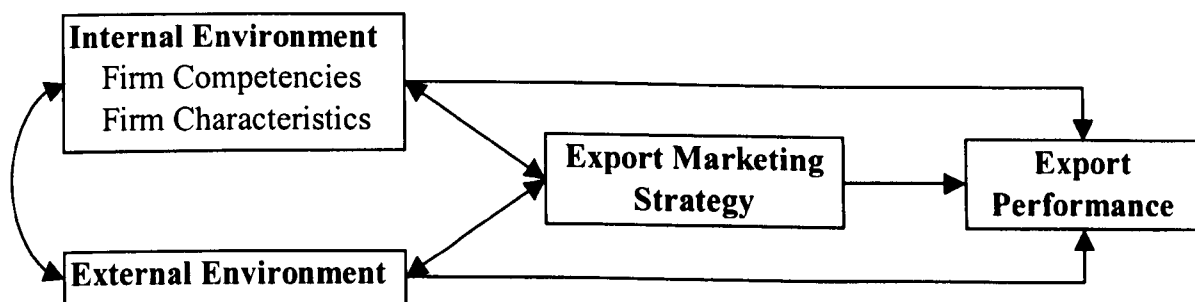
In terms of the export marketing strategy, although individual efforts have enriched understanding, many results are contradictory and inconsistent and thus create ambiguity and confusion and thus application of this knowledge in practice is infeasible (Zou and Cavusgil, 1996). Aaby and Slater (1989), Cavusgil and Zou (1994), and Leonidou and Katsikeas (1996) conclude that the lack of synthesis and assimilation of the fragmented knowledge acquired by the sheer number of publications related to exporting is the main reason behind the ambiguity and the unclear conclusions within the literature.

A review of the export marketing literature also shows that another major problem is its core focus on highly industrialised countries (like US or Canada). Therefore, generalisations of the findings might be misleading, especially for a small (i.e. less industrialised, small domestic market, different external environment etc.) country like Greece (Katsikeas *et al.*, 1996). In addition, as Walters and Samiee (1990) note, it is difficult to suggest universally valid prescriptions for export success because geographic or country-specific situations affect export marketing behaviour models. Moreover, several studies focus on single factors affecting export behaviour (e.g. export motivation, export problems, export performance, management characteristics etc.) with a few exceptions, which use a range of relevant factors (Cavusgil and Nevin, 1981; Cavusgil and Zou, 1994; Cooper and Kleinschmidt, 1985; Katsikeas *et al.*, 1996; Moon and Lee, 1990).

In particular, Madsen (1989) identifies that a methodological problem often encountered is the mis-specified model (i.e. a few explanatory variables relating export marketing policy to the firm and the market and few export profitability measures used in the specification of dependent variable). This can lead to specification problems and reduced contingency analysis possibilities. In addition, the presence of specification errors lead to contradictory findings between different studies and, usually, it is impossible to use cross-sectional generalisations in developing best practices.

Yet, multiple factors are important in firm's export behaviour and, therefore, the interaction among those independent variables determining export performance

should b e c onsidered. A nother p roblem b ehind t he a mbiguity and c onfusion o f t he literature is that insufficient attention is given to specific characteristics of the exporting situation such as the export market entry mode, export destination, export stage development, or industrial sector (Katsikeas *et al.*, 1996).

Similar models that try to link strategy and business performance have also been developed. For example, the Profit Impact of Marketing Strategy (PIMS) competitive strategy paradigm identifies how key dimensions of strategy affect profitability and growth by documenting the actual experiences of various businesses, operating in different market and competitive settings (Buzzell and Gale, 1987). In particular, in the PIMS research program, which was initiated in 1972, over 450 companies contributed information on more than 2,600 strategic business units for the periods from two to twelve years and for each of these businesses three kinds of information are collected: a description of market conditions in which the business operates; the business unit's competitive positions in its marketplace; and various measures of the financial and operating performance, annually (Buzzell and Gale, 1987, pp. 1-3).

The PIMS competitive strategy paradigm suggests that business performance depends on three main factors: the characteristics of the market in which the business competes, the business's competitive position in that market place, and the strategy it pursues (Figure 3.2). It incorporates ideas from several important research traditions and viewpoints, such as the industrial organisation economics and authorities in the field of business policy. In Figure 3.2, the arrows indicate that market structure and competitive position affect strategy and tactics and performance, while over some time competitive position is shaped by past strategies and performances and each of

these contributes to changes in market structure. To explore the relationships among the various factors of the model, standard statistical methods are employed, primarily multiple linear regression analysis.

Figure 3.2: The PIMS Competitive Strategy Paradigm

Market Structure:
- Market differentiation
- Market growth rate
- Entry conditions
- Unionization
- Capital intensity
- Purchase amount

Strategy and Tactics:
- Pricing
- R&D spending
- New product introductions
- Change in relative quality and variety of products/services
- Marketing expenses
- Distribution channels
- Relative vertical integration

Performance:
- Profitability
- Growth
- Cash flow
- Value enhancement
- Stock price

Competitive Position:
- Relative perceived quality
- Relative market share
- Relative capital intensity
- Relative cost

In the following sections, the different elements affecting the external environment, the internal environment and the export marketing strategy, as shown in Figure 3.1, are considered and analysed and, furthermore, the types of export performance measures are discussed.

3.4.1 The External Environment

The external environment consists of macro-economic, social, physical, cultural, and political aspects that influence export marketing strategy and performance. Individual exporters can rarely influence this environment and consider the macro-parameters as given constraints.

In the external environment, export market characteristics (Madsen, 1989) and type of industry (Amine and Cavusgil, 1986; Piercy, 1982; Schlegelmilch, 1986) influence export marketing performance. In particular, export market attractiveness strongly impacts on export sales and typically markets with high growth and small competition, not only affect sales significantly (positively) but also create higher commitment to the firm itself resulting in better adaptation, planning, and control, closer personal market contact and better performance (Madsen, 1989). In addition, industry differences distinguish between exporters and non-exporters, with significant effects on export profitability (Bilkey, 1985, 1987).

A negative association is also present between domestic market attractiveness and export sales because large domestic sales and profit discourage export efforts (Karafakioglu, 1986; Kaynak and Kothari, 1984; Madsen, 1989). The lower export intensity is more evident in firms being in their initial internationalisation stage, particularly for those based in large domestic markets like United States (Madsen, 1989). In contrast to these findings, Cooper and Kleinschmidt (1985) argue that there is a positive correlation between export intensity and domestic market potential and market growth.

Another important element of market characteristics is export barriers, which are represented by either direct trade barriers or physical and psychological/cultural distance to the target market (Madsen, 1989). For example, Kotler (1986) suggests that export barriers might include discriminatory legal requirements, political favouritism, cartel agreements, social and cultural barriers, unfriendly distribution channels, and refusal to cooperate by both business executives and foreign

governments. Many studies of exporting behaviour concern with attitudinal, structural or operational barriers that inhibit potential exporters (e.g. Leonidou, 1995a; Lim *et al.*, 1993; Rao and Naidu, 1992), and the actual problems encountered during the development of exporting activities (e.g. Burton and Schlegelmilch, 1987; Diamantopoulos and Schlegelmilch, 1990; Dichtl *et al.*, 1990; Katsikeas, 1994; Yang *et al.*, 1992; Yarpak, 1985).

Export barriers have an indirect negative association with export performance and sales (Cavusgil, 1984b; Kaynak and Kothari, 1984; Madsen, 1989) because markets with high export barriers are directly linked with high market growth and thus only large, highly committed firms with strong products targeted in a well-defined target group can penetrate such markets. Nevertheless, Gripsrud (1990) shows that trade barriers do not have any significant effect on export attitudes, behaviour and performance. In addition, firms' external financial incentives, e.g. export assistance and tax incentives, are perceived to be less important for exporting firms than for non-exporting firms (Bauerschmidt *et al.*, 1985; Kaynak and Kothari, 1984; Kaynak and Stevenson, 1982; Malekzadeh and Nahavandi, 1985).

3.4.2 The Internal Environment

The internal environment includes firm capabilities within a firm's control and it can be divided to firm characteristics and firm competencies.

Firm Competencies

In the internal environment are the firm competencies are management abilities to apply appropriate technology, to establish committed personnel, to acquire international knowledge, to set consistent and realistic export objectives, to develop an export policy and to establish essential management control systems (Aaby and Slater, 1989). Some aspects of firm competencies are analysed in terms of their influence in export initiation and export performance.

For example, technology influences the propensity to export (Aaby and Slater, 1989; Cavusgil, 1984b; Cavusgil and Nevin, 1981; Cooper and Kleinschmidt, 1985; Daniels and Robles, 1982; Joynt, 1982; McGuinness and Little, 1981). In contrast, Reid (1986) finds a weak relationship, while Christensen *et al.* (1987) reveals no relationship between technology and export performance. Reid (1986) argues that the possession of specialised knowledge does not create a competitive advantage except if this knowledge is properly exploited, while Christensen *et al.* (1987) finds no relationship possibly because firms in less developed countries are examined where other sources of competitive advantage (e.g. low cost) are more important.

The ability of management to implement a process and systematically explore, analyse, and plan export activity is a discriminator between successful exporting firms and firms that have either abandoned their exporting efforts or do not export at all (Aaby and Slater, 1989; Cavusgil, 1984a; Cavusgil, 1984b; Christensen *et al.*, 1987; Daniels and Robles, 1982; Malekzadeh and Nahavandi, 1985; Piercy, 1981a; Piercy, 1981b; Reid, 1983; Reid, 1986). Therefore, not only better export performance should be attributed to management superior work, but poor export performance should be

blamed upon the management (Zou and Stan, 1998). In addition, Reid (1981) notes that exporting is a dynamic process and not static or unchangeable. Therefore, since the context of a firm changes continually throughout its exporting ventures (e.g. firm's external environment changes as competitors enter and leave the market), managers have to diagnose and make adaptations as these changes occur. To accomplish that, they should try to develop the ability to monitor these environmental changes and behave in a manner that allows them to be proactive and flexible in their strategic choices (Robertson and Chetty, 2000). This is particularly important for Greek exporters, because there are considerable differences between their domestic market and export markets (i.e. usually EU or USA markets) (Katsikeas and Piercy, 1990) and thus they have to employ more sophisticated marketing practices and provide adequate resource commitment for exporting (e.g. organisation, planning and control, export marketing research and regular export market visits).

In particular, a much higher propensity to export is also identified among firms with formal market planning or export exploration procedures, or large export staff (Burton and Schlegelmilch, 1987; Cavusgil, 1984b; Cavusgil and Nevin, 1981; Denis and Depelteau, 1985; Diamantopoulos and Inglis, 1988; Malekzadeh and Nahavandi, 1985). Export success is usually linked with effective formal control systems for monitoring performance in export markets (Burton and Schlegelmilch, 1987; Kirpalani and Macintosh, 1980), decentralised decision-making (Christensen et al., 1987), good formal education and training programmes for management (Burton and Schlegelmilch, 1987). Furthermore, the quality control function, along with business organisation and manager's qualification, seem to play an important role in export success (Burton and Schlegelmilch, 1987; Christensen et al., 1987).

Firm characteristics are critical in export marketing strategy formation. An important firm characteristic is top management support and the status of internal export organisation (Madsen, 1989). Several studies, including Bello and Barksdale (1986), Cavusgil (1984a), Cavusgil et al. (1979), Gronhaug and Lorenzen (1982), Katsikeas et al. (1996), Kirpalani and Macintosh (1980), Rosson and Ford (1982), and Sullivan and Bauerschmidt (1989) refer to the importance of resource commitment in terms of top management support in a firm's initial stages of the internationalisation. In particular, export goal consistency among management is important to export success while a lack of willingness by management to commit resources often has a negative impact on performance (Cavusgil and Nevin, 1981; Gronhaug and Lorenzen, 1982).

In addition, management (mis)perceptions, disposition, awareness and attitudes influence export propensity and performance. Specifically, management attitudes towards risk-taking seem to influence positively export performance (Axinn, 1988; Bauerschmidt et al., 1985; Cavusgil, 1984a), while good perceptions related to domestic market situation e.g. domestic opportunities or a few domestic supply problems, predict a poorer export performance (Cooper and Kleinschmidt, 1985; Kaynak and Stevenson, 1982; McConnell, 1979; Rabino, 1980; Sullivan and Bauerschmidt, 1989).

Some interesting, but statistically insignificant, conclusions made by Madsen (1989) highlight the importance of good top management support in exports to very close markets (neighbouring countries) or very distant markets and reveal the negative effects of decentralisation in responsibility and decision power to overall

performance. This happens because, in very close markets, top management is a qualified decision-making participant able to understand market mechanisms through analogy, while in very distant markets market ignorance and uncertainty is so high that only top management support can maintain the highly significant commitment in the whole organisation.

On the other hand, when exporting to other countries in the same region, decentralisation impacts on export performance positively, while top management support has a negative impact because it attempts to understand market mechanisms through analogy, which are sometimes misleading due to the market differences (domestic vs. target market). Therefore, decentralisation seems to be the most effective way to succeed in this type of target market and it can be acquired through passing the decision-making power to the lower levels of management who have a better understanding of the market.

A foreign language competence can also contribute to export success through the facilitation of initial contact and subsequent social interaction, the development of sound relations based on mutual trust and respect, the provision of a good understanding related to foreign business culture and practices, and the improvement of the selling and negotiating abilities of the firms (Clarke, 2000). In the export literature, the importance of foreign language skills is emphasised for export achievement (Bilkey, 1978; Reid, 1981; Schlegelmilch and Ross, 1987; Simmonds and Smith, 1968; Turnball and Welham, 1985) and a few studies conclude that firms managed by decision makers with greater language capabilities (or those who employ more foreign language specialists) tend to perform better in exporting (Burton and

Schlegelmilch, 1987; Dichtl *et al.*, 1990; Dichtl *et al.*, 1984; Enderwick and Akourie, 1994; Holzmuller and Kasper, 1990; Weaver and Pak, 1990).

In particular, Sullivan and Bauerschmidt (1989) note that language capabilities are vital, with English being the most important international language for the majority of international communications. Clarke's (2000) study, of the use of foreign languages by Irish exporting firms, also suggests that English is accepted as the normal language of business communications world-wide, with German and French following, and he notes that although most of the exporters believe that foreign language skills are very important for export success, very few use them to a significant extent during their day-to-day activities. Furthermore, he finds that the tasks conducted in a foreign language are relatively low-level basic exchanges of information (e.g. telephone calls, fax messages, routine letters etc.) rather than activities requiring proficient language skills (e.g. negotiating contracts, discussion of technical specifications etc.).

Firm Characteristics

Successful export marketing management is also directly linked to firm's export experience and the extent of export experience related to the target country (Amine and Cavusgil, 1986; Cavusgil, 1984b; Denis and Depelteau, 1985; Madsen, 1989; Reid, 1982). Similar findings are present in the study of Dominguez and Sequeira (1993), where export experience is positively linked to a firm's degree of internationalisation, and Gripsrud (1990), where export experience is positively linked to a firm's attitudes towards export initiation. Export experience is enhanced either through experiential or objective knowledge. Experiential knowledge development refers to information acquired through direct market and customer contact, like trade

fairs/missions, personal foreign visits etc., while objective knowledge[11] is acquired

through indirect foreign market information, such as governmental published reports,

statistics etc. (Johanson and Vahlne, 1990; Seringhaus, 1993; Seringhaus, 1986/87).

The importance of the foreign market experience is also highlighted in the Uppsala

internationalisation model (Johanson and Vahlne, 1990) (see Chapter 2).

According to Erramilli (1991) export experience influences uncertainty and, usually,

less experienced exporting firms are likely to perceive higher uncertainty, which in

turn affects their perceptions for potential risks and returns in foreign markets and

operations (Agarwal and Ramaswami, 1992; Davidson, 1982). Specifically, there is a

tendency by firms with no prior experience and usually of small size and with

relatively few years in business to overstress some of the export barriers addressed

(Dean et al., 2000; Leonidou, 1995a). Furthermore, Madsen (1989) observes that the

process by which export experience affects firm's performance is that increased target

country experience leads to an improved understanding of market mechanisms (and

declining uncertainty), while a network of personal contacts leads to improved

product decisions, agent/distributor decision, communication with market participants

and to superior performance.

Consequently, firms should attempt to exploit previously targeted export markets

instead of widening their target export market and this can be accomplished through

either the extension of the export product-mix or by internalising more export

marketing functions, that is, by gaining greater share of the value chain (Madsen,

1989). Nevertheless, contradictory empirical evidence is also evident in the

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[11] Objective knowledge can be taught, while experiential knowledge can only be acquired through personal experience (Penrose, 1959).

relationship between export experience and performance and, in particular, Cavusgil (1984a), Diamantopoulos and Inglis (1988), and Moon and Lee (1990) find no association, while Cooper and Kleinschmidt (1985) and Naidu and Prasad (1994) indicate a negative relation.

Firm size is also another important determinant of export behaviour and performance and generally, the larger is the firm, the more likely it is to initiate export activities with better overall performance (Cavusgil and Naor, 1987; Christensen et al., 1987; Katsikeas et al., 1996; Kaynak and Kuan, 1993; Reid, 1982; Reid, 1983). For example, Culpan (1989), Dean et al. (2000), and Nakos et al. (1998) suggest that firm size dictates differences in terms of export performance and information needs. Similarly, Cavusgil and Nevin (1981), Christensen et al. (1987), and Gronhaug and Lorenzen (1982) find size related differences between exporters and non-exporters. In particular, larger exporting firms are usually more advantaged in terms of their organisational resources (i.e. possess more financial and human resources), they enjoy greater e conomies o f s cale, a nd t hey p erceive l ower l evels o f r isk i n i nitiating a nd maintaining an international activity (Bonaccorsi, 1992; Katsikeas et al., 1996). Thus, their s ize-related advantageous p osition l eads t o a b etter u nderstanding of o verseas market characteristics and to a better response to overseas customers' needs leading to superior export performance.

Bonaccorsi (1992) s ummarises t he f indings o f five s tudies t hat r eview the e xisting literature (Aaby and Slater, 1989; Bilkey, 1987; Gemunden, 1991; Missenbock, 1988; Reid, 1982) and concludes that the empirical findings show a mixed and inconsistent relationship between firm size and export intensity. In particular, he argues that

usually very small firms tend not to export, up to a certain minimum size the probability of exporting rises with increasing size, but beyond this limit there is only a weak association of size and exporting.

Similarly, other studies investigating the relationship of firm size and exporting produce mixed results. For example, results by Czinkota and Johnston (1983) and Reid (1985) suggest that firm size does not influence export activity, while Gripsrud (1990) estimates a negative relationship between firm size and attitude towards future exports. In terms of the relationship of firm's size and export intensity, Auquier (1980 - in French firms) and Culpan (1989) and Ito and Pucik (1993) (in Japanese firms) find a positive effect, Diamantopoulos and Inglis (1988) conclude that there is no relationship, while Cooper and Kleinschmidt (1985) establish a negative relationship.

Finally, important firm characteristics are the number of years the firm is in business and the type of industry in which the company is active. In particular, Kaynak and Kuan (1993) find that the number of years in business is positively related to export sales, while Porter (1980, 1985) shows the importance of the industry characteristic and its impact on the competitiveness of firms, and highlights some situational factors that can aid firms to become successful in less attractive industries. In this context, the concept of revealed comparative advantage arises (Winkelmann et al., 1995), originally developed by Balassa (1965, 1977), which is a potent measure of industrial competitiveness that identifies industrial sectors for which a country has comparative advantages and disadvantages[12]. The notion of revealed comparative advantage has

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[12] The revealed comparative advantage of a country for any particular good is its share of the international market for that good, divided by its share of the international market for all goods and this fraction is multiplied by 100 for ease of presentation.

been widely used in agri-food industries (Lange, 1989) and specific sub-sectors are identified as highly competitive for each country (Winkelmann et al., 1995). For example, Greece has a high revealed comparative advantage for fruit, vegetables, nuts and vegetable fats and oils (among others) and Greek exporters operating in these specific sub-sectors are in an advantageous position, in relation to exporters from other countries, and consequently are expected to have a higher export performance.

3.4.3 The Export Marketing Strategy

At the initial stages of internationalisation and export expansion, export marketing researchers distinguish between proactive and reactive export stimuli and they indicate that firms may be driven by either one of these stimuli or by elements of both (Johnston and Czinkota, 1982; Piercy, 1981b). Proactive stimuli demonstrate a firm's aggressive behaviour and a deliberate search for means of expanding its operations (i.e. pull factors), while reactive stimuli indicate a passive attitude towards changing conditions in domestic and overseas markets, where export involvement is either accidental or fortuitous (push factors) (Katsikeas et al., 1996). Since these two motivation types are associated with different patterns of export attitudes and behaviour, they affect export marketing performance in a different manner. In particular, Johnston and Czinkota (1982) suggest a positive relation between proactive export stimuli and export performance and the opposite for reactive stimuli.

In addition, export problems usually prevent export development and success and, therefore, firms need to identify the most important problems influencing their marketing performance and try to develop the necessary means and capacity to

manage them. Katsikeas and Piercy (1990) highlight that Greek manufacturers follow an opportunistic and non-methodological approach for their export activities, which limits their capability to comprehend and face the various export problems, often leading to unsatisfactory export performance. In particular, Katsikeas *et al.* (1996) indicates a negative impact of export problems on export performance, highlighting the lack of information and communication with the export market as the most important problem.

An important element of a successful export marketing strategy is appropriate target market selection. Denis and Depelteau (1985) show that slow growth exporters usually target less developed country markets while higher growth exporters target developed (mature) markets and Cooper and Kleinschmidt (1985) find that world orientated exporters realise more rapid export sales' growth. Similarly, Diamantopoulos and Inglis (1988) note that high-involvement exporters have much broader world market coverage.

In addition, Katsikeas *et al.* (1996) highlight the importance of competitive advantage in targeted overseas market in the sense that a firm's export performance is enhanced by its propensity and capacity to establish and maintain regular exporting activity along with its ability to serve overseas markets better than competitors. They also mention that under the intensifying competitive climate in the European Union (EU), the direct linkage of marketing capability with export performance can be connected with the importance, and considered as a prerequisite for the adoption of market-led strategies (Piercy, 1989) as a means of survival and long-term viability in export markets.

Thus, firms can choose between different ways to compete in export markets and each pattern of competitive export strategy has both advantages and disadvantages (Namiki, 1988). In turn, the market character of export destination might influence the export competitive pattern used by firms, often leading to export survival and success (Aaby and Slater, 1989). However, in order effectively to design and implement such strategies, other firm competencies, e.g. production capability, product superiority, competitive pricing, not directly linked to export performance, might be essential. This suggests that export marketing strategy can play a moderating role between the possession of competitive advantage and export performance which, in turn, explains the lack of significant relationships between export performance and competitive advantage dimensions found in some studies (Katsikeas *et al.*, 1996).

In the following sections, various elements of the export marketing strategy are further discussed and analysed. In particular, they relate to export planning and organisation, export strategy targeting, entrepreneurial orientation, and marketing research utilisation, and the marketing mix.

Export Planning and Organisation

When firms have a good understanding of the factors affecting their internal and external environment, they can develop an export marketing strategy by setting export aims and by planning the marketing-mix. Export planning substantially influences export performance and growth. However, many companies initiate their exporting activities without much rational analysis of deliberate planning (McAuley, 1993; Suntook, 1978). For example, according to the study of Lee and Brasch (1978) in

small manufacturing firms in Nebraska, most exporters follow non-rational decision processes, which is associated with the lack of sophisticated information planning and control systems within the firms. This happens because the gathering of information for exporting requires a substantial amount of financial and human resources, especially when firms export for the first time. Wiedersheim-Paul *et al.* (1978) note that this resource commitment starts before the actual exporting and, in particular, in their model of internationalisation, they incorporate a pre-export information-gathering activities' stage. These costs of export planning in certain situations explain some negative findings, between export planning and export performance, found in the export marketing literature (e.g. Aaby and Slater, 1989; Katsikeas *et al.*, 1996; Zou and Stan, 1998).

Bonaccorsi (1993), Katsikeas *et al.* (1996), Yang *et al.* (1992), and Yarpak (1985) reveal information/communication with the export market as a serious barrier in export behaviour which firms have to overcome in order to maintain regular business activities and to succeed in export markets. Within the study of export behaviour it is suggested that information (e.g. for the target market, regulations, special local traits etc.) is of great value for the decision makers and, typically, a planned information-based approach in exporting is highly related with export success (McAuley, 1993; Walters and Samiee, 1990). Czinkota and Johnston (1985) also find that export related communication problems, especially in small and medium businesses, are ranked among their principal obstacles in exporting.

Similarly, Cavusgil (1980) notes that it is critical to search for information and evaluate the feasibility of undertaking an international marketing activity, especially

when the firm is new to exporting. However, the anticipated benefits of exporting, along with any reluctance of key management personnel to commit adequate resources might limit the effectiveness of such research and act as a significant barrier. Consequently, decision making is often influenced by management perceptions regarding export attractiveness, instead of depending on sound information. However, when firms use the information-gathering phase of exporting effectively, they have substantial benefits, such as good knowledge of export market characteristics and their needs, a greater capability to deal with exporting logistics, potential problems etc. (Welch and Wiedersheim-Paul, 1980).

McAuley's (1993) study, of the information-gathering practices used by a sample of firms drawn from the 1989 winners of the "Queen's Award for Export Achievement", suggests that good interaction with the overseas markets (e.g. personal visits, personal contacts, trade fairs, etc.) can aid export planning by providing information to develop the product, assess risks of the target market, motivate agents, and support the actual process of sales negotiations and customer liaison. Firms usually use a range of information sources, such as friends, business acquaintances, banks, trade associations, chambers of commerce, trade press, libraries, enterprise agencies, consultants, foreign embassies etc. The more experienced exporting firms usually emphasise on personal visits to target markets and information taken from representatives (or subsidiaries) (McAuley, 1993). In addition, the importance of personal contacts in the exporting process is a key factor in successful exporting for firms of all sizes (Cunningham and Spiegel, 1971). Other studies that emphasise on the importance of personal visits and contacts in the foreign market to exporting success are those of Brooks and Rosson (1982), Joynt (1982), and Walters (1983).

However, W ood a nd G oolsby (1987) h ighlight t hat t he i nformation o verload c ould become one of the most frustrating features of foreign market evaluation.

Finally, good export organisation seems beneficial in terms of export performance and customer satisfaction, but there are also some studies that find the effect of this factor insignificant (Zou and Stan, 1998).

Export Strategy Targeting

In this case, the relationship of export strategy targeting and performance is examined in terms of the firm's internationalisation stage (e.g. first mover or a follower), the concentration or diversification strategy, and market segmentation. Usually, the type of export strategy targeting seems to be unimportant and, in most cases, multiple strategic approaches to exporting are successful if they fit the particular circumstances of export operations (Madsen, 1987; Zou and Stan, 1998). Export targeting refers to the number and types of export markets that a firm might select and its further segmentation activities within each export market (Albaum *et al.*, 1994). In general, two export targeting aspects are identified in the literature: export expansion and market segmentation (Leonidou *et al.*, 2002).

Export expansion strategy refers to the strategic decision of the firm regarding the rate of export market expansion and the allocation of marketing efforts among various export markets (Ayal and Zif, 1979; Lee and Yang, 1989). Firms have two alternatives: either market concentration (marketing to a small number of export markets), or market spreading (marketing as many export markets as possible) (Piercy, 1981c).

Market concentration benefits arise from the reduction in transaction costs imposed on export marketing (uncertainty due to ignorance between buyer/seller) (Madsen, 1989) and help the firm to gain large market shares, which enhance its long-run profitability (Day, 1976; Tookey, 1975). Day (1976) and Tookey (1975) recommend a concentration strategy, which can aid firms to acquire larger market shares and thus achieve a more intensive development. Furthermore, Leonidou *et al.* (2002) in their meta-analytic study suggest that the use of a market concentration strategy is positively related to overall export performance and sales-based performance indicators in general, while weak association is revealed with export market share.

Instead, Ayal and Zif (1979), Dean *et al.* (2000), and Piercy (1981a, 1981c) oppose a market concentration strategy, especially for the SMEs, and emphasise the importance of a market spreading strategy that covers as many export markets as possible, so as to reduce the risk of collapsing by poorly performing in a certain export market. Similarly, Cooper and Kleinschmidt (1985) suggest that firms with a world-wide orientation are associated with higher export growth and level of exports, while Amine and Cavusgil (1986), Beamish *et al.* (1993), Diamantopoulos and Inglis (1988), Kaynak and Kuan (1993), Lee and Yang (1989), and Piercy (1981a) indicate a positive relationship between the number of the export markets and export sales contribution. Nevertheless, Lee and Yang (1989) conclude that market diversification is associated with higher level of exports, but neither market concentration nor diversification is related to export growth and profitability.

However, others (e.g. Ayal and Zif, 1979; Fenwick and Amine, 1979; Madsen, 1989; Piercy, 1981c; Piercy, 1982) suggest that the appropriate export market expansion strategy depends on situational factors, such as company, market, product and other marketing factors. For example, a firm might concentrate on a few key markets when the degree of product standardisation is low in these markets or it might utilise a technical advantage in a worldwide basis.

In terms of market segmentation, the literature suggests a two-stage process, where first homogeneous groups of countries are identified based on common environmental characteristics and second these national markets are further segmented to clusters of customers with similar responses to marketing strategies (Leonidou et al., 2002). In particular, findings indicate a positive relationship between segmenting international markets and export performance, particularly according to export sales growth, intensity and profitability.

Entrepreneurial Orientation

In the marketing literature, the interface between entrepreneurial orientation and marketing orientation has been widely examined (Davis et al., 1991; Morris et al., 1988; Simmonds, 1986; Zeithaml and Zeithaml, 1984). These studies suggest that entrepreneurial orientation is related to the level of marketing orientation and both affect the strategic response of a firm towards environmental uncertainty. In the entrepreneurship literature there are two main streams: the first focuses on the individual entrepreneur as the unit of analysis (i.e. traits that distinguish successful from less successful entrepreneurs) (Gratner, 1988, 1989) and the second, views

entrepreneurial activities from the firm level perspective (Covin and Slevin, 1991; Yeoh and Jeong, 1995).

Entrepreneurial orientation is usually conceptualised under three dimensions: innovativeness (e.g. innovations in processes and technologies, new markets etc.), "risk taking" (i.e. willingness of management to commit resources under uncertainty), and proactiveness (i.e. firm's propensity to compete with its rivals) (Covin and Slevin, 1989; Miller, 1983; Miller and Friesen, 1983; Naman and Slevin, 1993). In general, conservative firms tend to be risk-averse, non-innovative and re-active, while entrepreneurial firms are risk-takers, innovative and proactive (Yeoh and Jeong, 1995).

Findings from different studies show that exporting firms can be differentiated according to their level of entrepreneurial orientation (da Rocha *et al.*, 1990; Eshghi, 1992; Johnston and Czinkota, 1982; Piercy, 1981a; Tesar and Tarleton, 1982). That is, while some exporters tend to be active, proactive, aggressive, and innate in terms of overseas opportunities (i.e. entrepreneurial firms), others are more reactive, passive, conservative, and adoptive (i.e. conservative firms). Usually, different levels of entrepreneurial orientation are appropriate for different types of external environment. In the literature, the most common dimensions that conceptualise the external environment are hostility, heterogeneity, and dynamism (Miller, 1983; Yeoh, 1994), turbulence (Naman and Slevin, 1993; Robertson and Chetty, 2000), and volatility (Mckee *et al.*, 1989).

Typically, an entrepreneurial strategic orientation contributes to greater performance when firms are faced with hostile, volatile and uncertain environments (Karagozoglu and Brown, 1988; Pierce and Delbecq, 1977; Yeoh and Jeong, 1995). In contrast, a conservative strategic orientation appears to promote performance in benign environments, particularly among small firms (Covin and Slevin, 1989; Miller and Toulouse, 1986; Robertson and Chetty, 2000; Webster, 1981). An entrepreneurial strategic orientation can be particularly beneficial to small exporting firms within uncertain environments, because such environments present fewer investment and marketing opportunities and are highly competitive. Therefore, firms have to be more aggressive and innovative in their exporting endeavours by consuming a large amount of resources in order to gain and maintain competitive advantage in overseas markets (Yeoh and Jeong, 1995). On the other hand, in benign environments, where foreign markets are more predictable, an entrepreneurial strategic orientation does not necessarily lead to a superior performance and it can even present an unwarranted risk for smaller firms, because the engagement of highly resource consuming endeavours to maintain the viability of exports is not so important as previously (Covin and Slevin, 1990; Karagozoglu and Brown, 1988; Miller and Friesen, 1983; Robertson and Chetty, 2000; Yeoh and Jeong, 1995).

Export channel structure is a key dimension which moderates the relationship between a firm's strategic orientation and export performance and refers to various structural characteristics important in carrying out export marketing activities, such as alternative channel modes and administrative arrangements along with the associated relationships arising from these channel arrangements (Anderson and Narus, 1990; Bello et al., 1991; Frazier and Kale, 1989). Likewise, Covin and Slevin (1991) define

export channel structure as the arrangement of workflow, communication and authority links between the exporters and the distributors. Maintaining effective channel partnerships is important in export success in terms of joint decision-making and close and frequent contact with distributors (Rosson and Ford, 1982; Yeoh and Jeong, 1995).

As indicated by Burns and Stalker (1961), a firm's export channel structure can be measured according to the original level of structural organicity, which is conceptualised along a mechanistic-organic continuum. In particular, organic structures refer to highly responsive and flat export structures (e.g. flexible, interdependent and reciprocal) and they are characterised by decentralised decision-making, flexibility in administrative relations, and authority invested in situation expertise (Covin and Slevin, 1988; Robertson and Chetty, 2000). On the other hand, mechanistic structures refer to more stable and formalised structures (e.g. formalised procedures and other control mechanisms), characterised by centralised decision-making, rigidity in administrative relations, and strict commitment to practices and principles (Covin and Slevin, 1988).

Typically, organic structures facilitate entrepreneurial orientations because such structures make decision makers aware of the need for change and further provide the resources, expertise and collaborative framework necessary for the change (Miller, 1983). In contrast, highly formalised firms (i.e. mechanistic structures) discourage entrepreneurial endeavours, because extensive descriptions of functional responsibilities inhibit their ability to maintain competitive advantages through entrepreneurial marketing activities (Covin and Slevin, 1988; Stevenson and

Gumpert, 1985). Therefore, an organic export channel structure is positively related to export performance for entrepreneurial exporting firms, while a mechanistic structure is better for conservative exporting firms (Yeoh and Jeong, 1995).

Marketing Research Utilisation

According to Madsen (1987) and Zou and Stan (1998), most of the studies of marketing research show that a firm's utilisation of international marketing research positively affects export performance (e.g. in terms of sales, growth or other composite measures). This strong positive relationship between export marketing research and export performance is explained by the fact that marketing research aids foreign market information acquisition, reduces the "psychic distance" (i.e. limited control), enhances knowledge of export market practices (Douglas and Craig, 1989; Seringhaus, 1986) and, consequently, it generates business opportunities that drive the internationalisation process (Johanson and Vahlne, 1990). In addition, Katsikeas *et al.* (1996) show that the application of export marketing research (e.g. analysis of market size, growth etc.) is particularly important in export marketing strategy before the initiation of export activity. In contrast, Madsen (1989) finds little or no effect on export performance, which might be due to the fact that this prior market research is not able to rationalise crucial market mechanisms, while Walters and Samiee (1990) observe a negative relation.

Marketing Mix

First, several studies refer to the importance of product adaptation and product strength (including the actual and augmented product), along with product uniqueness and product quality in determining export marketing strategy and performance (e.g.

(Cavusgil and Zou, 1994; Kaynak and Kuan, 1993; McGuinness and Little, 1981). In particular, product design is considered to be important for successful exporting, because it can be used as a means of differentiation from competitors' offerings and therefore influence overseas customer attitudes (Albaum et al., 1994).

In general, adapted products better satisfy foreign consumers' needs and preferences while a strong product allows the firm to transfer it more easily to the foreign markets (Zou and Stan, 1998). In contrast, a few studies report either insignificant effects or even n egative e ffects, e xplained m ainly b y t he cost o f p roduct a daptation (Kaynak and Kuan, 1993). Product strength directly influences export performance through better s atisfaction o f customer n eeds (Leonidou et a l., 2 002) a nd i t c an also a ffect export performance indirectly by improving a firm's ability to find good agents/distributors (attract better agents) and create a greater commitment within the firm, leading to a better contact with the market and a higher degree of channel support (Madsen, 1989). Furthermore, high product quality is positively associated with export performance (Leonidou et al., 2002) and it can assist in reducing buyer uncertainty, especially in foreign markets, by conveying seller credibility and reliability. In contrast however, Malekzadeh and Nahavandi (1985) show that product quality does not discriminate between successful exporters and non-exporters and, Louter et al. (1991) find that although good quality is necessary, it does not have to be best quality.

Another element of product strength is branding, which entails decisions relating to the name, sign, symbol, design or a combination of these to identify and differentiate exported products in international markets (Kaynak and Kuan, 1993; Namiki, 1988).

Leonidou *et al.* (2002) highlight that branding and export performance are significantly associated, but there are variations in the type of relationship according to the time of study and its geographic focus. In general, most branding variables were positively correlated to export performance, export intensity and export profitability, while only packaging and labelling were found to have no effect.

Product related advantages, usually linked to superior attributes (e.g. luxury, prestige, quality etc.), seem to play a key role in export performance (Leonidou *et al.*, 2002), because they cannot be easily copied by competitors and thus this can lead to export positional advantage, development and success (Beamish and Munro, 1986). In addition, Burton and Schlegelmilch (1987), Cavusgil and Nevin (1981), and McGuinness and Little (1981) highlight the importance of unique product attributes and programmes for adapting products to local markets (high degree of adaptation), while Christensen *et al.* (1987) finds standardised products as being more successful. According to Aaby and Slater (1989), an important mediator of product characteristics and export success is the development of products for selected target markets, to accommodate differences in environmental forces, consumer behaviour, usage patterns and competitive situations. Leonidou *et al.* (2002) indicate that product adaptation is linked to superior export performance (particularly in terms of export sales) and it can result in greater customer satisfaction and in additional new products for the domestic and overseas markets of the firm (McGuinness and Little, 1981).

In terms of the product line, Christensen *et al.* (1987) conclude that companies with multiple product lines have more successful export activities because, by developing a graduated line of brands, they can market and pursue a differential pricing strategy,

which allows for better exploitation of different price elasticities among customers and they can spread exporting costs over a number of products (Beamish and Munro, 1986). In contrast, Kirpalani and Macintosh (1980) note that narrow product lines can result in higher export sales and that successful exporters employ alternative price "packages" through tag price, discounts and credit where their aim is to create an attractive deal to the foreign customer.

Second, Kirpalani and Macintosh (1980) find that firms perceive promotion as an important activity of their export operations, while Yarpak (1985) notes that exporters are more confident in their export promotion activities when compared with non-exporters. The promotion related variables often analysed in the export literature are advertising, sales promotion (e.g. coupons, samples, premiums etc.), personal selling, trade fairs personal visits and promotion adaptation. Leonidou et al. (2002) indicate that they are all positively associated with export performance and intensity (Zou and Stan, 1998).

For example, trade fairs assist the improvement of export performance by testing the sales potential in an overseas market, by offering access to possible distributors or other collaborative initiatives in export markets, and by providing market research information (e.g. market reaction to competitive developments, information regarding the competitor's offerings etc.) (Bello and Barksdale, 1986; Karafakioglu, 1986; Styles and Ambler, 1994). In addition, personal visits to export markets are important, because they provide special information and experience of the opportunities and threats of export markets, they help communication and personalised relationships

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with customers abroad, and provide quick response and support of the export venture's needs (Kaynak and Kothari, 1984; Tookey, 1964).

Promotion adaptation (e.g. to government restrictions, competitive practices, communication infrastructure etc.) seems to have mixed effects on export performance which could be explained by researchers measuring the extent of promotion adaptation as opposed to the extent to which the adapted promotion meet foreign consumers' preferences. However, Leonidou *et al.* (2002) suggest that promotion adaptation exhibited a strong positive association with overall export performance, irrespective of time, place, and products focused.

Third, distribution is found to impact positively on export propensity and export performance (Bello and Williamson, 1985; Bilkey, 1982; Gronhaug and Lorenzen, 1982; Rabino, 1980; Rosson and Ford, 1982; Yarpak, 1985). Likewise, other studies confirm that management perceives distribution, delivery and service as critical export success factors (Bello and Williamson, 1985; Bilkey, 1982; Brooks and Rosson, 1 982; G ottko a nd M cMahon, 1 988; Jo hnston a nd C zinkota, 1 985; K aynak and Stevenson, 1982; McConnell, 1979; Sullivan and Bauerschmidt, 1989; Tesar and Tarleton, 1982). However, Leonidou *et al.* (2002) suggest that the appropriateness of a particular distributional channel is not static, but it depends on foreign market conditions (e.g. economic situation, distribution structure) and competitive structures. For example, Cavusgil and Zou (1994) suggest that good dealer support can lead to better export performance by developing productive and long-lasting business relations, and Leonidou *et al.* (2002) indicate that efficient delivery time leads to positive performance. In particular, Madsen (1989) shows that communication

intensity and channel support are interrelated with other variables, such as product strength, planning, control intensity and export experience and good personal contact, with joint decision-making with the channel members affecting export performance positively because firms understand better customer and channel member needs and behaviour. This can improve target market selection, adaptation of marketing strategy, relation to channel members and consequently, lead to improved performance (Madsen, 1989; Rosson and Ford, 1982). In addition, good personal contact with the export market (i.e. monitor of market changes) and close relationships with channel members enhance firms' planning and control activities and hence, export performance and growth (Kirpalani and Macintosh, 1980; Madsen, 1989).

Distribution channel adaptation indicates the degree of adjustments of the exporting firms' channel design in export markets. These adjustments relate to differences among business environments (e.g. legislation, economic situation etc.) and distribution infrastructure (i.e. number of middlemen, types of outlets etc.). It is suggested that there is a strong positive linkage with export performance (Leonidou et al., 2002).

Fourth, in terms of the price variable of export marketing strategy, there are weak and uncertain findings that provide mixed correlations with export performance. Some studies report a positive relation between price competitiveness and export performance (Zou and Stan, 1998). However, a low price might lead to increased buyer uncertainty and increasing concern by the firm regarding the fulfilment of its obligations at such levels (Kirpalani and Macintosh, 1980; Madsen, 1989). Similarly, Bourandas and Halikias (1991) find that a differential price advantage is not

significant in discriminating between systematic and non-systematic exporters, while Dominguez and Sequeira (1993) report that the importance of competitive pricing for less d eveloped c ountries' e xports d iminish a s a firm p rogresses t hrough t he e xport development path. In contrast, Christensen *et al.* (1987) conclude that successful exporters rely on international competitive prices as a benchmark without claiming premiums for exchange or extraordinary risks and Albaum *et al.* (1994) suggest that low and competitive prices can help in penetrating more easily an export market by gaining a larger market share and thus cash in on the scale economies achieved.

In terms of the pricing method, Leonidou *et al.* (2002) suggest that from the two most common methods (i.e. market-based pricing method or cost-plus method), market-based pricing method is associated with more positive results in export success. This is because the market-based approach is more responsive to changes in overseas market conditions, competitive situations, and environmental forces and thus it improves the chance of export development and success (Christensen *et al.*, 1987). In addition, Evangelista (1994) suggests that a competitive credit policy is positively linked to export success because it ultimately leads to more and better satisfied customers and this is also confirmed by Leonidou *et al.* (2002).

Finally, the effect of price adjustment due to various reasons (e.g. economic, political-legal, price controls, environmental forces, trade barriers etc.) has a strong positive link to export performance (Leonidou *et al.*, 2002). In particular, Louter *et al.* (1991) notes that the diversity of factors influencing overseas market pricing requires the use of price adaptation in order to sustain and enhance export operations.

3.4.4 The Export Performance

The most common indicator in assessing the success of export marketing strategy is export performance and it has received broad attention at both conceptual and empirical level (Aaby and Slater, 1989; Chetty and Hamilton, 1993; Deshpande *et al.*, 1993; Dess and Robinson, 1984; Jaworski and Kohli, 1993; Leonidou *et al.*, 2002; Madsen, 1 987; S later a nd N arver, 1 994; Venkatraman and R amanujam, 1 987; Zou and Stan, 1998). However, a definite and reliable set of factors influencing business performance is still lacking and research issues, such as defining and understanding performance, remain underdeveloped (Katsikeas *et al.*, 2000b). Partially, this can explained by the difficulties arisen in conceptualising, operationalising, and measuring the export performance construct, which often lead to inconsistent and conflicting results (Axinn, 1994; Walters and Samiee, 1990).

Aaby and Slater (1989) note, there are two fundamental approaches in examining export performance. In the first, the distinction between exporting and non-exporting firms is examined based on the implicit assumption that exporting attaches an element of success to the firm (Cavusgil and Naor, 1987; Cavusgil and Nevin, 1981; Yarpak, 1985). Nevertheless, this approach does not consider the potential differences between different exporter groups in terms of export performance (Aaby and Slater, 1989).

In the second, the focus is on the individual exporting firms and measures other criteria related to the export position of the firm. For example, common parameters examined are export-to-total sales ratio or export intensity (Beamish and Munro, 1986; Dominguez and Sequeira, 1993; Leonidou *et al.*, 2002), export sales volume

(Czinkota and Johnston, 1983; Madsen, 1989), export sales growth (Cooper and Kleinschmidt, 1 985; M adsen, 1 989), e xport p rofitability (Bilkey, 1 978; D ominguez and Sequeira, 1993), export market share (Leonidou et al., 2002), and the multi-measure approaches (Beamish and Munro, 1987; Craig and Beamish, 1989; Dominguez and Sequeira, 1993; Samiee and Walters, 1990).

The literature on export performance assessment reveals two main concepts: the first refers to the mode of performance assessment (Dess and Robinson, 1984; Venkatraman and Ramanujam, 1987) while the second refers to the choice of performance dimensions that should be measured. In terms of the mode of performance assessment, Katsikeas et al. (1996) note two principal modes: the objective, e.g. company profitability, export sales, etc., and the subjective, e.g. executive's perceptions. These differences in the methods used to assess export performance lead to the discrepancies often found in the literature (Cavusgil and Zou, 1994; Katsikeas et al., 1996; Walters and Samiee, 1990).

Many studies use objective measures to assess performance, but this often creates problems that limit the accuracy of the results (e.g. mis-specifications etc.) (Aaby and Slater, 1989). An important constraint using objective measures is that formal company financial statements and reports rarely distinguish between domestic and export activities, i.e. exporting is perceived as an extension of domestic operations, and that the inherent measurement weaknesses result in a serious comparability issue. For example, the way in which profitability (or export profitability) is measured represents internal accounting practices that vary from firm to firm and, thus, objective indicators of export performance between different firms are not

comparable. Similarly, as Covin (1991) notes, objective export performance indicators, e.g. sales volume, sales growth, market share etc., have limited accuracy when the firms examined belong to different industry or product groups and face different market characteristics, i.e. competition, technology intensiveness, market structure etc. In addition, objective financial data on all sampled firms is not publicly available, and thus it would be impossible to check the accuracy of any reported financial performance figures (Robertson and Chetty, 2000).

Another serious constraint underlying the use of objective measures is the fact that managers perceive the internal and external environments of the firm as more relevant to organisational behaviour, than the objective reality of these environments (Katsikeas *et al.*, 1996). Specifically, managers are those who control the process of strategy formulation and implementation and choose where and how to compete. Moreover, the marketing and strategy literature has demonstrated that there is a consistent relationship between decision-maker cognitive biases and values, and perception of strategic situations and strategic choice outcomes (Child, 1972; Hambrick and Mason, 1984; March and Simon, 1958). In addition, Bourgeois (1980) makes reference to performance evaluation and argues that management action is driven by perceptions of firm performance rather than by a firm's objective performance measures, which grants exceptional credibility in the use of perceptual measures in examining export performance.

In the subjective mode, the measures used to assess export performance are parameters such as executive's belief regarding export contribution to the firm's overall profitability and reputation (Raven *et al.*, 1994; Zou and Stan, 1998),

executive's overall satisfaction with firm's export performance (Evangelista, 1994; Zou and Stan, 1998), and executive's assessment in terms of the attainment of export objectives or other financial objectives (Katsikeas *et al.*, 1996; Louter *et al.*, 1991). Fenwick and Amine (1979) are also in favour of a subjective mode and, in particular, they note that the success of a firm's policy can only be assessed through its ability to meet its specific goals. Furthermore, evidence in the strategic management literature supports the general reliability of subjective mode (Dess and Robinson, 1984; Venkatraman and Ramanujam, 1987) and this is substantiated from the fact that only export managers have precise knowledge of their performance and are able to employ this information to develop or fine-tune their export marketing strategies, since the unit of analysis is the firm (Leonidou *et al.*, 2002).

Nevertheless, sometimes people perceive things differently and, consequently, what one export manager considers being an excellent success, another may condemn as rather poor. In addition, there are various sources of bias in the subjective mode. For example, firm officials may be reluctant to disclose confidential information to outsiders while the majority of the exporters are small or medium sized firms and thus, in most cases, they lack appropriate export accounting mechanisms for reporting purposes (frequent problem in the Greek food and beverage sector). Moreover, managers are under no obligation to publicly disclose export sales or allied performance data (Leonidou *et al.*, 2002).

Therefore, a multi-measure approach is required, so as to exploit the advantages of both the objective and subjective modes and limit their shortcomings. Aaby and Slater (1989), Buckley *et al.* (1988), and Cavusgil and Zou (1994) support the multi-

measure approach as the most appropriate method of assessing performance and they recommend the use of composite export performance measures, which consider the underlying relationships between the different export performance facets. For example, if export profitability is considered, export sales volume cannot capture profitability sacrifices, in contrast to export market share sustenance or improvement, which can entail potential profitability alteration (Buckley *et al.*, 1990).

According to Aaby and Slater (1989), a firm's export performance should also be assessed on the basis of the achievement of export objectives, as outlined in their export marketing strategy, and as Buckley *et al.* (1990) and Madsen (1989) note, the characteristics of the exporting framework should also be considered before selecting the appropriate export performance measures. Moreover, destination level could also play a key role due to the structural differences among various export markets like export stimuli, exporting problems, competitive advantages etc. (Buckley *et al.*, 1990).

3.5 Good Practice of Export Marketing Strategy

Madsen (1989) notes that empirical analysis of alternative practices aids the development of guidelines for successful export marketing management. Several authors attempt to form prescriptions for export marketing strategy, but in most cases the results show that there is not any consensus in the literature regarding the significance of various variables identified as determinants of export success (Aaby and Slater, 1989; Bilkey, 1978; Chetty and Hamilton, 1993; Katsikeas *et al.*, 1996).

In particular, as Walters and Samiee (1990) note, universally valid prescriptions for export success are unlikely to be found and, usually, account has to be taken of the nature of the firm's business position and the environmental context. Similarly, Walters (1993) argues that it is dangerous to assume that specific policies or traits of the firm (i.e. its managers, the operating environment etc.) are always leading to successful export operations. Instead, it suggests that great concern should be given to the specific situation of the firm and the industry in which it is operating.

However, Levitt (1983) argues that global markets are now more homogeneous due to advances in communication and transportation, along with growing worldwide travel and the consequent culture interaction. Accordingly, he suggests that a firm's optimum global strategy should aim to standardise product portfolio and marketing practices so as to generate competitive advantages that allow the offering of high quality products in premium prices (Burton and Schlegelmilch, 1987; Cooper and Kleinschmidt, 1985; Jain, 1989; Kirpalani and Macintosh, 1980; McGuinness and Little, 1981). Hout *et al.* (1982) emphasise the use of other approaches to improve synergy across the activities of the business such as exploiting economies of scale through global volume, taking a pre-emptive position through quick and large investments, and managing interdependencies. Furthermore, Hamel and Prahalad (1985), in contrast to Levitt's (1983) standardised product, recommend a well-diversified product portfolio (similar to Amine and Cavusgil, 1986; Christensen *et al.*, 1987; Tookey, 1964) and highlight the importance of cross-subsidisation across technologies, brand names or distribution channels used for businesses' products.[13]

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[13] In terms of food consumption habits, homogenisation is absent even within relatively homogeneous populations (e.g. European Union), since there are different consumption patterns and, therefore, regional diversity is important (EC, 1988).

Kogut (1985) stresses the importance of strategic flexibility and urges that the use of financial imperfections (e.g. disequilibria or imperfections in financial and information markets) of the world economy could become a way of gaining comparative advantage. In addition, Porter (1986) highlights the interdependency among various country markets and the significance of accomplishing integration of the business's comparative advantage across all entered markets.

Quelch and Hoff (1986) adopt an alternative perspective, emphasising local market condition responsiveness. Their strategy is adaptive and focuses on building a special organisational structure within a business where information can be transferred easily through the different levels of the business so as to maintain high product development and effective local market delivery. Ghoshal (1987) also develops a framework of successful international marketing strategy, which focuses on strategic goals (e.g. production efficiency, reduce risk, develop internal learning) through an effective interaction of firm capabilities (e.g. use of economies of scale, exploitation of synergies or economies of scope).

Bartlett and Ghoshal (1988, 1991) find that businesses are influenced simultaneously by global and local forces and firms have to accomplish global efficiency and national flexibility concurrently. They conclude that businesses can only face global competition by maintaining global integration and retaining local flexibility. Yip (1989) stresses the significance of external industry/market forces in international marketing strategy where businesses should match the industry's cost, market,

government, and competitive environments to improve their performance and profitability.

Collis (1991) summarises the conclusions made in the international marketing strategy literature highlighting the importance of a global strategy when there are interdependencies in businesses' competitive position in different countries. The sources of these interdependencies are economies of scale (Levitt, 1983), international experience and internal learning process (Douglas and Craig, 1989; Porter, 1985), increased brand recognition (Levitt, 1983; Ohmae, 1985), and cross-subsidisation across the different markets (Hamel and Prahalad, 1985). He also contends that a global strategy consists of two main dimensions: the configuration of value adding activities, and the co-ordination of the activities across the different markets (Porter, 1986). These should be integrated in the organisational structure of the business (Chandler, 1962).

3.6 Summary and conclusions

Many studies in export marketing strategy to date attempt to uncover various correlates or determinants of export marketing performance classified as either internal or external to the firm. Most of them focus on simple, bivariate relationships by assuming that the independent variables of interest have a direct effect on export performance, without incorporating effects of other important contextual factors that either strengthen or weaken such relationships (Yeoh and Jeong, 1995). Such simplistic assumptions related to export performance are likely to be responsible for the discrepancy and inconsistency of empirical findings met throughout these studies

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(Aaby and Slater, 1989; Kammath *et al.*, 1987; Zou and Stan, 1998). Furthermore, it is clear in the various research efforts that multiple factors play an important role in a firm's export behaviour and Katsikeas *et al.* (1996) note that it is essential to consider the interaction of the different dimensions involved in the determination of export performance.

In addition, according to Bilkey (1978), Cavusgil, (1984a), Katsikeas and Morgan (1994), and Sullivan and Bauerschmidt (1988), several marketing studies face problems of sample heterogeneity that often undermine the power of empirical conclusions and theoretical implications. Therefore, it is good to limit the research in specific and homogeneous samples (i.e. study a single industry like the Greek agri-food industry) so as to achieve a significant minimisation of sample heterogeneity.

In light of such research problems, this thesis employs an integrated export marketing performance model that incorporates all the dimensions discussed within this chapter, which are summarised in Tables 3.5 and 3.6. Table 3.5 summarises the literature research findings in terms of the determinants of export marketing performance and their effect on export performance and success. In particular, various authors' findings are presented for every export related determinant in terms of the type of relationships (i.e. positive/negative and direct/indirect) and the export performance indicators they use in their analysis.

Table 3.5: Literature Review Chart

EXPORT RELATED DETERMINANTS	AUTHORS	TYPE OF RELATIOSHIP	VARIABLES INFLUENCED
"Psychic distance" i.e. Dissimilarity of export and domestic markets (Analysed in Chapter 2)	- Johanson and Wiedersheim-Paul (1975) (Uppsala internationalisation model) - Johanson and Mattsson, 1988; Bilkey, 1978; Davidson, 1980b	- Direct (-) - Indirect (-)	Export performance Success, Control
Export market attractiveness	- Madsen (1989) - Bilkey (1985, 1987)	- Direct (+) - Direct (+)	Export sales Export profitability
Domestic market attractiveness	- Karafakioglu, 1986; Kaynak and Kothari, 1984; Madsen, 1989 - Cooper and Kleinschmidt (1985)	- Direct (-) - Direct (+)	Export sales Export intensity
Export barriers	- Leonidou, 1995a; Lim et al., 1993 - Cavusgil, 1984a; Kaynak and Kothari, 1984; Madsen, 1989 - Gripsrud (1990)	- Indirect (-) - Direct (-) - (n.s.)	Exporting Export sales and performance Export behaviour and performance
Export Competencies: - Technology - Planning and control activities - Marketing capability - Production capability, product superiority, competitive pricing	- Aaby and Slater, 1989; Cavusgil, 1984a; Cavusgil and Nevin, 1981; Cooper and Kleinschmidt, 1985; Daniels and Robles, 1982; Joynt, 1982; McGuinness and Little, 1981 - Christensen et al. (1987) - Burton and Schlegelmilch, 1987; Christensen et al., 1987; Kirpalani and Macintosh, 1980 - Aaby and Slater, 1989; Katsikeas et al., 1996; Zou and Stan, 1998 - Katsikeas et al. (1996) - Katsikeas et al. (1996)	- Indirect (+) - Direct (n.s.) - Direct (+) - Direct (-) - Direct (+) - Indirect (+)	Export propensity Export performance Export success Export performance Export performance Export performance
Export management competencies (e.g. export monitoring, decentralised decision-making, good formal education and training, support of exports, commitment etc.)	- Cavusgil and Nevin, 1981; Gronhaug and Lorenzen, 1982; Zou and Stan, 1998 - Burton and Schlegelmilch, 1987; Dichtl et al., 1990; Dichtl et al., 1984; Enderwick and Akourie, 1994; Holzmuller and Kasper, 1990; Katsikeas et al., 1996; Madsen, 1989; Weaver and Pak, 1990	- Direct (+) - Indirect (+)	Export performance Export success
Foreign language competence	- Clarke (2000) - Burton and Schlegelmilch, 1987; Dichtl et al., 1990; Dichtl et al., 1984; Enderwick and Akourie, 1994; Holzmuller and Kasper, 1990; Weaver and Pak, 1990	- Indirect (+) - Direct (+)	Export success Export performance
Export experience	- Amine and Cavusgil, 1986; Cavusgil, 1984b; Denis and Depelteau, 1985; Madsen, 1989; Reid, 1982 - Dominguez and Sequeira, 1993; Gripsrud, 1990 - Agarwal and Ramaswami, 1992; Davidson, 1982; Dean et al., 2000; Leonidou, 1995a	- Direct (+) - Direct (+) - Indirect (+)	Export marketing management Export initiation Export initiation

Export experience	- Madsen (1989)	- Direct (+)	Export performance
	- Cavusgil, 1984a; Diamantopoulos and Inglis, 1988; Moon and Lee, 1990	- Direct (n.s.)	Export performance
	- Cooper and Kleinschmidt, 1985; Naidu and Prasad, 1994	- Direct (-)	Export performance
Firm size	- Cavusgil and Naor, 1987; Christensen *et al.*, 1987; Katsikeas *et al.*, 1996; Kaynak and Kuan, 1993; Reid, 1982; Reid, 1983	- Direct (+)	Export performance
	- Bonaccorsi, 1992; Katsikeas *et al.*, 1996	- Direct (+)	Export initiation and maintenance
	- Czinkota and Johnston, 1983; Reid, 1985	- Direct (n.s.)	Export activity
	- Auquier, 1980; Culpan, 1989; Ito and Pucik, 1993	- Direct (+)	Export intensity
	- Diamantopoulos and Inglis (1988)	- Direct (n.s.)	Export intensity
	- Cooper and Kleinschmidt, 1985; Diamantopoulos and Inglis, 1988	- Direct (-)	Export intensity
Export stimulus: - Proactive stimuli	- Johnston and Czinkota (1982)	- Indirect (+)	Export performance
- Reactive stimuli	- Johnston and Czinkota (1982)	- Indirect (-)	Export performance
Export problems	- Katsikeas *et al.* (1996)	- Direct (-)	Export performance
	- Katsikeas and Piercy (1990)	- Indirect (-)	Export performance
Information sources:	- Bonaccorsi, 1993; Katsikeas *et al.*, 1996; McAuley, 1993; Walters and Samiee, 1990; Yang *et al.*, 1992; Yarpak, 1985	- Direct (+)	Export success
	- Cavusgil, 1980; Welch and Wiedersheim-Paul, 1980	- Indirect (+)	Export success feasibility (new exporters
- Personal visits and contacts with the export target market	- Brooks and Rosson, 1982; Cunningham and Spiegel, 1971; Joynt, 1982; McAuley, 1993; Walters, 1983	- Direct (+)	Export success
Export targeting: - Market concentration strategy	- Day, 1976; Leonidou *et al.*, 2002; Tookey, 1975	- Direct (+)	Export performance
	- Lee and Yang (1989)	- Direct (n.s.)	Export growth and profitability
	- Leonidou *et al.* (2002)	- Direct (n.s.)	Export market share
- Market spreading strategy	- Leonidou *et al.* (2002)	- Direct (+)	Export performance
	-Cooper and Kleinschmidt, 1985; Leonidou *et al.*, 2002	- Direct (+)	Export sales growth
	-Amine and Cavusgil, 1986; Beamish *et al.*, 1993; Diamantopoulos and Inglis, 1988; Kaynak and Kuan, 1993; Lee and Yang, 1989; Leonidou *et al.*, 2002; Piercy, 1981a	- Direct (+)	Number of export markets and export sales contribution
	- Lee and Yang (1989)	- Direct (n.s.)	Export growth and profitability
- Market segmentation	- Leonidou *et al.* (2002)	- Direct (+)	Export performance (export sales growth, intensity and profitability)
Entrepreneurial Orientation (i.e. innovativeness, risk taking, proactiveness)	- Karagozoglu and Brown, 1988; Pierce and Delbecq, 1977; Yeoh and Jeong, 1995	- Direct (+)	Export performance (in competitive/ volatile/ uncertain environments)
	- Covin and Slevin, 1990; Karagozoglu and Brown, 1988; Miller and Friesen,	- Direct (n.s.)	Export performance

Entrepreneurial Orientation	1983; Robertson and Chetty, 2000; Yeoh and Jeong, 1995		
International marketing research	- Madsen, 1987; Zou and Stan, 1998	- Direct (+)	Export performance
	- Douglas and Craig, 1989; Katsikeas *et al.*, 1996; Seringhaus, 1986	- Indirect (+)	Export performance
	- Madsen (1989)	- Direct (n.s.)	Export performance
	- Walters and Samiee, 1990	- Direct (-)	Export performance
Marketing mix:			
- Product strength	- Burton and Schlegelmilch, 1987; Cavusgil and Nevin, 1981; McGuinness and Little, 1981	- Direct (+)	Export performance
	- Madsen (1989)	- Indirect (+)	Export performance
1. Product design	- Leonidou *et al.* (2002)	- Direct (+)	Export performance
2. Product quality	- Leonidou *et al.* (2002)	- Direct (+)	Export performance
	- Louter *et al.*, 1991; Malekzadeh and Nahavandi, 1985	- Direct (n.s.)	Export success
3. Branding	- Leonidou *et al.* (2002)	- Direct (situational)	Export performance
4. Product uniqueness	- Leonidou *et al.* (2002)	- Direct (+)	Export performance
5. Product adaptation	- Christensen *et al.* (1987)	- Direct (+)	Export success
	- Leonidou *et al.* (2002)	- Direct (+)	Export sales
6. Multiple product lines	- Beamish and Munro, 1986; Christensen *et al.*, 1987	- Direct (+)	Export performance and success
	- Kirpalani and Macintosh (1980)	- Direct (-)	Export sales and export success
- Promotion intensity	- Leonidou *et al.*, 2002; Zou and Stan, 1998	- Direct (+)	Export performance
1. Trade fairs	- Bello and Barksdale, 1986; Karafakioglu, 1986; Styles and Ambler, 1994	- Direct (+)	Export performance
2. Personal visits	- Kaynak and Kothari, 1984; Tookey, 1964	- Direct (+)	Export performance
3. Promotion adaptation	- Leonidou *et al.* (2002)	- Direct (+)	Export performance
- Distribution			
1. Dealer support	- Cavusgil and Zou (1994)	- Direct (+)	Export performance
	- Kirpalani and Macintosh, 1980; Madsen, 1989	- Indirect (+)	Export performance and export growth
2. Delivery time	- Leonidou *et al.* (2002)	- Direct (+)	Export performance
3. Distribution adaptation	- Leonidou *et al.* (2002)	- Direct (+)	Export performance
- Price competitiveness	- Albaum *et al.*, 1994; Christensen *et al.*, 1987; Zou and Stan, 1998	- Direct (+)	Export performance
	- Kirpalani and Macintosh, 1980; Madsen, 1989	- Indirect (-)	Export sales
	- Bourandas and Halikias (1991)	- Indirect (n.s.)	Export success
1. Pricing strategy (market-based pricing approach)	- Christensen *et al.*, 1987; Leonidou *et al.*, 2002	- Direct (+)	Export success and development
2. Competitive credit policy	- Evangelista, 1994; Leonidou *et al.*, 2002	- Direct (+)	Export success
3. Price adaptation	- Leonidou *et al.*, 2002; Louter *et al.*, 1991	- Direct (+)	Export performance

Notation: Type of relationship: (+): Positive, (-): Negative, (n.s.): Not significant.

Table 3.6 considers literature review findings for export performance measures. In particular, it shows the performance measures employed by various authors in the

exporting literature and highlights the main limitations for each group of measures i.e.

the objective and subjective measures.

Table 3.6: Literature Review Chart for Measures of Export Performance

EXPORT PERFORMANCE PARAMETERS	AUTHORS	PROBLEMS ENCOUNTERED
Objective measures: - Export to total sales ratio or export intensity - Exports sales volume - Exports sales growth - Export profitability - Export market share - Multi-measure approach	- Beamish and Munro, 1986; Dominguez and Sequeira, 1993; - Czinkota and Johnston, 1983; Madsen, 1989 - Cooper and Kleinschmidt, 1985; Madsen, 1989 - Bilkey, 1978; Dominguez and Sequeira, 1993 - Leonidou et al. (2002) - Beamish and Munro, 1987; Craig and Beamish, 1989; Dominguez and Sequeira, 1993; Samiee and Walters, 1990	1. Mis-specifications 2. Formal financial statements and reports rarely distinguish between domestic and export operations 3. Different internal accounting practices between firms 4. Limited comparability for firms belonging to different industry sectors or product groups 5. Impossible to assess the accuracy of reported financial performance figures (i.e. often confidential)
Subjective measures: Executive's perceptions regarding: - Export contribution - Executive's overall satisfaction - Attainment of export objectives	- Raven et al., 1994; Zou and Stan, 1998 - Evangelista, 1994; Zou and Stan, 1998 - Katsikeas et al., 1996; Louter et al., 1991	1. Interviewees are reluctant to disclose confidential information to outsiders 2. Interviewee's bias 3. Measures are influenced by the cognitive biases and values and perceptions related to firm objectives and goals

Following the theoretical rationale presented in Table 3.5, the following hypothesis

are developed:

- **Hypothesis 1:** There is a positive causal effect from "export marketing mix" to "export performance".

- **Hypothesis 1a:** There is positive causal effect from "export management competencies" to "export marketing mix".

- **Hypothesis 1b:** There is a positive causal effect from "export competencies" to "export marketing mix".

- **Hypothesis 1c:** There is a positive causal effect from "export market attractiveness" to "export marketing mix".

- **Hypothesis 1d:** There is a positive causal effect from "similarity of export and domestic markets" to "export marketing mix".

- **Hypothesis 2:** There is a positive causal effect from "usefulness of information sources" to "export performance".

- **Hypothesis 3:** There is a positive causal effect from "entrepreneurial orientation" to "export performance".

- **Hypothesis 4:** There is a positive causal effect from "firm size" to "export performance".

- **Hypothesis 5:** There is a positive causal effect from "export stimulus" to "export performance".

- **Hypothesis 6:** There is a positive causal effect from "export to total sales ratio" to "export performance".

- **Hypothesis 7:** There is a positive causal effect from "export experience" to "export performance".

- **Hypothesis 8:** There is a negative causal effect from "export problems" to "export performance".

- **Hypothesis 9:** There is a positive causal effect from "importance of trade barriers" to "export performance".

These hypotheses are established on the basis of the theory outlined in this chapter and they provide the foundations of the first draft of the questionnaire. In Chapter 8, these hypotheses are tested in the integrated export marketing performance model through the quantitative technique of structural equation modelling.

Furthermore, this thesis focuses on a single's country industrial sector, namely the Greek food and beverage industry. The Greek food and beverage industry is a traditional exporting sector and possesses the largest number of individual firms in comparison to all other industries. Information and characteristics related to the Greek food and beverage industry are considered and analysed in the following chapter (Chapter 4).

Chapter 4: The Greek Food and Beverage Sector

4.1 Introduction

Greece has a mixed capitalist economy with limited state intervention, bounded by the rules of international organisations, such as the World Trade Organisation and the European Union (EU) (ACCI, 2001c). It has been a member of European Community since 1981 (after November 1993, the EU) and, in June 2000, joined the European Monetary Union (EMU) after substantial progress in stabilising its economy.

This stability contributed to an increase of 4.1% in the actual gross domestic product (GDP) in 2000, which exceeded the euro area average for the fourth consecutive year (OECD, 2001b). Monetary policy played a decisive role in curbing inflation and establishing conditions of monetary and exchange rate stability, and ensured both transition to the single currency and correspondence of domestic interest rates to those in the euro area. However, Greece is still one of the less-developed countries in the EU and it must maintain a strict macroeconomic policy to keep within the European Integration Plan while reducing unemployment and bringing *per capita* income closer to the EU average [Association of Greek Industries (SEV, 2001)].

The sustained improvement in the performance of the Greek economy is partly attributed to the expansion of industrial activity, which increased by 8% in 2000 (ACCI, 2001a). Greek manufacturing has overcome a period of relative stagnation and is becoming the main driving force of growth in industrial production:

manufacturing production increased by 6% in 2000, while the cumulative increase for the period 1995-2000 was 15%, compared with negative growth in 1990-1994 (SEV, 2001). One of the most important manufacturing sectors is food and beverage, which grew by 4% in 2000 (ACCI, 2001a), contributing to key economic indicators, such as the GDP, employment, investments, private domestic consumption and foreign trade.

Despite various problems, like bureaucracy, which characterise Greek business environment, food and beverage firms have generally managed to adapt to recent competitive demands. Favourable natural conditions (i.e. unique climatic conditions for the production of agricultural products) combined with the investments in modern technology and technical know-how, and improvements in quality, packaging and standardisation have resulted in a sharp increase of the sector's competitiveness. However, this competitiveness is still below those of other EU states and this poses problems for the negative trade balance, which continues to widen (Petkanopoulos, 2000).

Greece produces a wide variety of food and beverages, which are primarily exported to Europe, the Balkan States, North America, Australia, and Japan and contributed more than 20% of total exports in 2000. With some of the largest and most advanced firms in the country, the food and beverage sector is poised for further developments. It seems likely to continue its long-term process of technological modernisation, adoption of international business practices, expansion of infrastructure into new markets, and production of high quality products. Greece's food and beverage firms will remain critical to the country's future growth (Voutsadakis, 2000).

The purpose of this chapter is to provide a background of the Greek economic and business environment with special reference to the food and beverage sector. It is organised as follows: Section 4.2 presents an overview of the Greek economy; Section 4.3 discusses the Greek food and beverage industry with reference to the Greek trade balance; and Section 4.4 summarises.

4.2 The Greek Economy and Industry

In late 1990s, the Greek economy made substantial progress with GDP growth reaching 4% in 2000 [Bank of Greece - (BoG, 2001)]. Figure 4.1 shows the levels of real GDP, exports and imports for 1990-2000. The annual average growth of GDP between 1990-2000 was 2.5%. The services sector remains the most important, contributing 69% of total GDP, while agriculture, forests and fishery, and industry contribute 8% and 23%, respectively. Exports and imports of goods and services have increased at a similar rate (average annual growth rates are 6.3% and 5.7%, respectively) and the trade deficit has slightly reduced during 1990-2000, although it is still substantial (2.4 trillion GRD in 2000).

Figure 4.1:   GDP and Trade (1990-2000)

A line chart plotting Billion Greek Drachmas (GRD) (1992 constant prices) on the y-axis (0 to 35000) against Year (1990–2000) on the x-axis. GDP rises from about 25000 in 1990 to about 32000 in 2000. Imports of goods and services rise from about 5500 to about 9500. Exports of goods and services rise from about 4000 to about 7000.
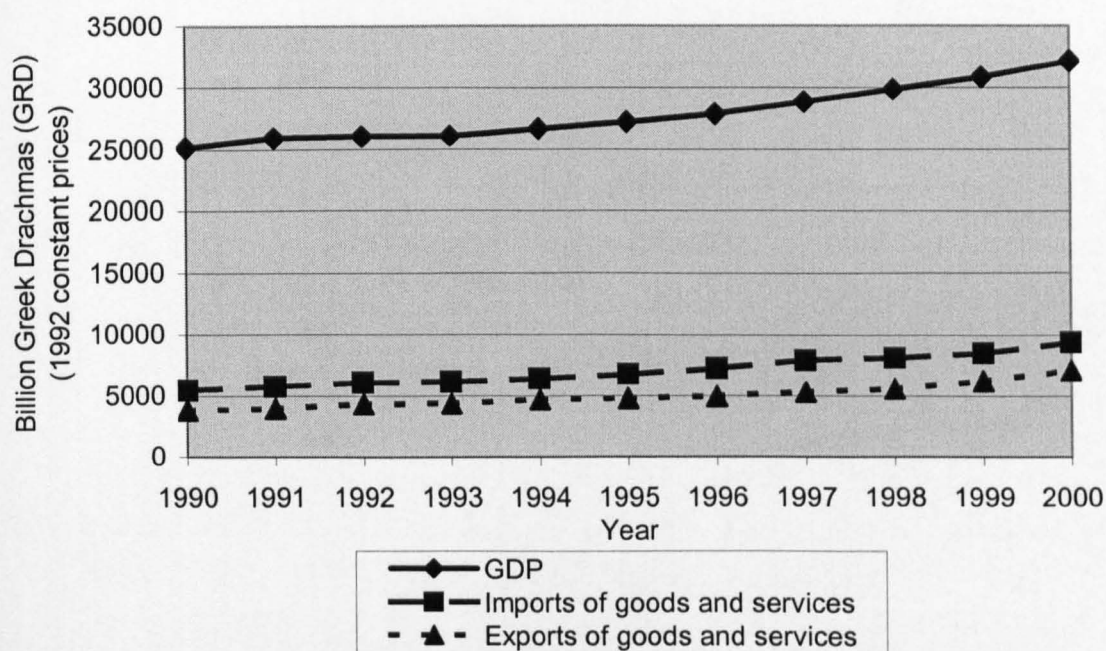
Source: World Bank Development Indicators (WDI, 2001).

A critical feature of the Greek economy in the 1990s was the reduction in inflation, which assisted in meeting the relevant convergence criterion and gaining access to the EMU (Figure 4.2). In 2000, inflation accelerated in all EMU states due to the rise of oil prices and the appreciation of US$ against the euro and reached 2% on average, compared with 1% in 1999 (BoG, 2001). Similar pressures were also evident in the Greek economy that increased the current account deficit and made the conduct of anti-inflationary monetary policy more difficult, particularly in the final stage of transition to the single currency. Annual inflation was 4% in December of 2000[1] (BoG, 2001).

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[1] In comparison, the United Kingdom (UK) recorded the lowest inflation at 0.8% in 2000, France had 1.8% and the highest was in Ireland at 5.3% (OECD, 2001a).

Figure 4.2:   Consumer Price Inflation (1990-2000)

The positive performance of the Greek economy between 1990-2000, and particularly during 2000, is partly attributed to the improvement of industry. The general index of productivity (including electricity, natural gas, and water supply) increased by 8% in 2000, compared with 3% in 1999 (ACCI, 2001a). An important development in the manufacturing sector during 2000 was the substantial increase in production of 6% compared with 0.7% in the previous year (SEV, 2001). Figure 4.3 shows the upward trend in the manufacturing production index between 1990-2000 with an average annual increase of 1.1%.

Figure 4.3: Industrial Production Index (1990-2000)
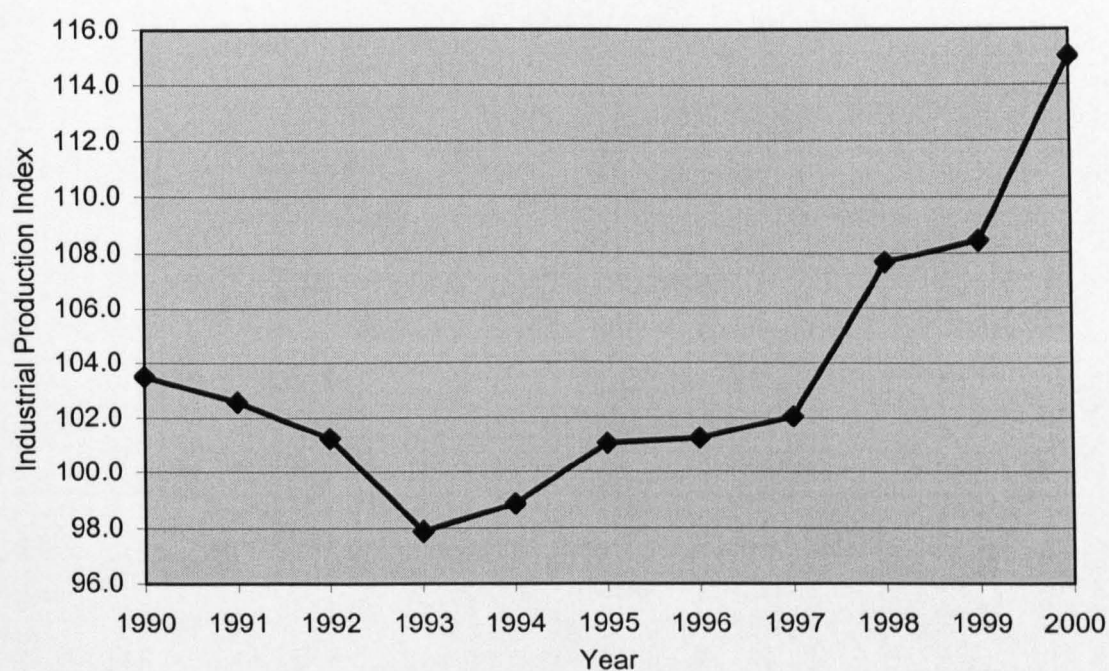
Source: Association of Greek Industries (SEV, 2001).

In addition, a "Research on Economic Conditions" conducted by the Greek "Foundation for Economic and Industrial Research" provides evidence that the competitiveness (according to estimates from the firms themselves) of the Greek industry improved slightly during the last quarter of 2000. In particular, 12% of the manufacturing firms revealed a slight improvement in their competitiveness within the domestic market, while 8% and 5% of firms improved their competitiveness in the EU and the rest of the world, respectively (ACCI, 2001a).

However, according to the International Institute of Management Development, which produces an annual report regarding the competitiveness of the economy and industry of 47 countries, based on 246 unspecified criteria, Greece is ranked in the 31st place (Italy is 30th and Portugal is 28th) (Petkanopoulos, 2000). Furthermore, the competitiveness of the Greek products, based on the revealed comparative advantage

index of each of the European Union country's trade, is last in terms of the 1998 figures (Table 4.1).

Table 4.1: Product Competitiveness for EU-countries (1998)

	REVEALED COMPARATIVE ADVANTAGE INDEX OF TRADE
Ireland	0.208
Finland	0.140
Sweden	0.110
Germany	0.077
Italy	0.056
Belgium	0.035
Holland	0.031
Denmark	0.025
France	0.021
Austria	- 0.053
Great Britain	- 0.080
Spain	- 0.089
Portugal	- 0.208
Greece	*- 0.433*
EU Average	**0.022**

Note: Index developed according to a complex formulae of unspecified measures. For more information see Petkanopoulos (2000).

In summary, the manufacturing sector is one of the most dynamic sectors of the Greek industry and it could become one of the main driving forces in assisting the country's future development and achieving real convergence with the other EU-countries. However, it still has structural weaknesses that constrain its progress. The reduction or even elimination of these weaknesses could support the gradual establishment of a dynamic group of firms with strong export orientation, seeking to improve their production capacity by introducing new production technologies and improving the effectiveness of the existing ones.

4.3 The Greek Food and Beverage Sector

According to the Minister of Development, food and beverage sector constitutes "... a national priority field, since, on one hand, nourishment is directly linked to the citizens' quality of life and, on the other hand, the contribution of this specific sector to the national economy is particularly increased. Moreover, the sector can overcome the difficulties arising from the increased international competition and it has very promising perspectives" (Christodoulakis, 2001, p.128). He adds that the sector appears as the most profitable in the domestic market and, characteristically, refers to the sector's constantly increasing contribution to total Greek exports, which today is around 21% (in sales value terms), including 7% contribution from unprocessed products (FaB, 2001a).

The food and beverage sector is a dynamic sector and, along with the tourism and shipping sectors, embody Greece's national "diamond", in the determinants of national competitive advantage (Porter, 1998). In particular, the creation of a competitive advantage derives from four national attributes that shape the environment in which local firms compete, namely factor conditions, demand conditions, related and supporting industries, and firm strategy, structure, and rivalry (Figure 4.4).

Figure 4.4: The Determinants of National Advantage – Complete System
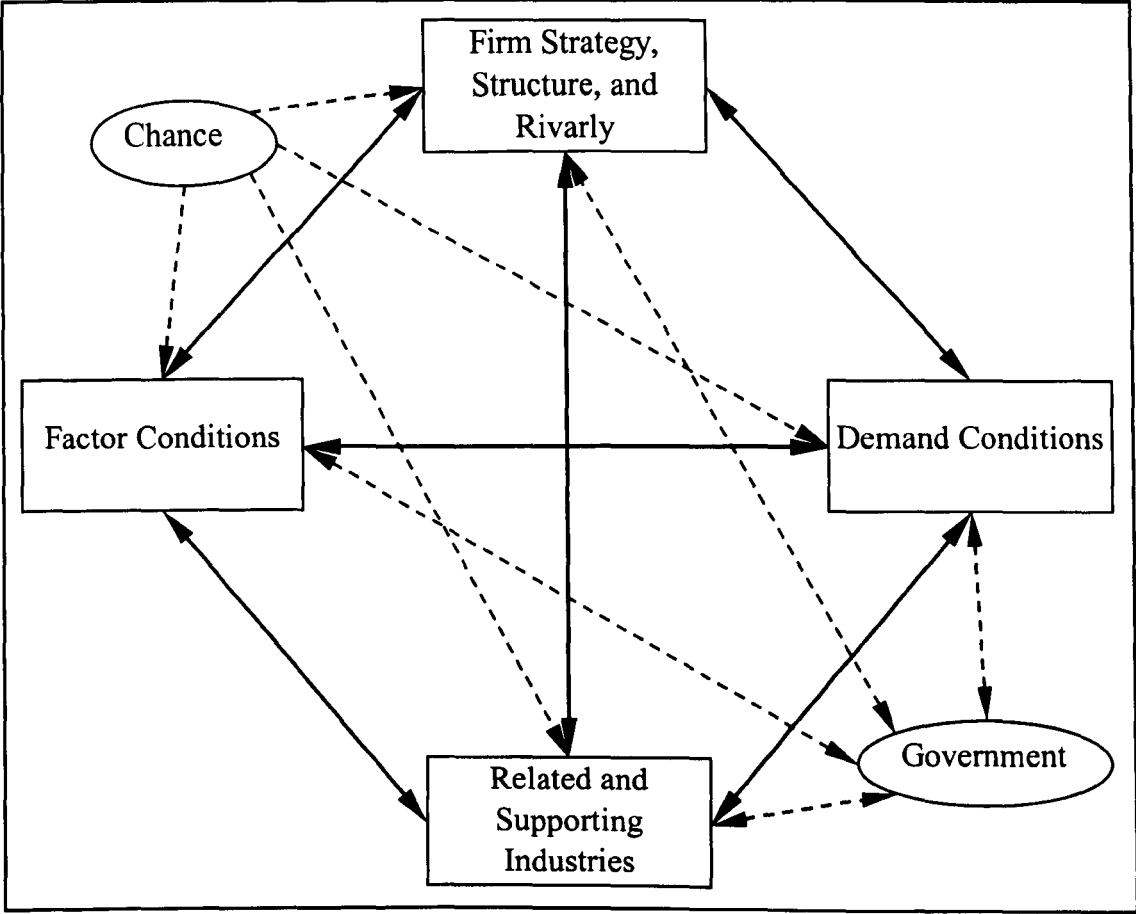
Source: Porter (1998).

Factor c onditions r efer t o t he n ation's availability of f actors o f p roduction t hat a re necessary to compete in a given industry (e.g. skilled labour, infrastructure etc.). Demand conditions relate to the nature of domestic demand for the industry's product or service while related and supporting industries are internationally competitive "input" supply industries. Firm strategy, structure, and rivalry are the conditions under which companies are created, organised, and managed, and the nature of domestic rivalry. Two additional traits influencing the system are chance and government. Chance refers to developments in the economic or business environment that are outside the control of the firms (e.g. external political developments, wars, pure

inventions etc.), while government can either improve or detract from national advantage by influencing all the elements of the "diamond" (e.g. new regulation influences demand conditions, government purchases can stimulate related or supporting industries etc.). However, favourable system conditions do not ensure that all firms in a specific sector will achieve a competitive advantage. In fact, the more dynamic is the national environment, the more likely it is that some firms will fail because they do not have equal skills and resources nor do they exploit the national environment equally well (Porter, 1998).

Focusing on the Greek food and beverage sector, all the elements of the "diamond" system coincide and form a relative competitive advantage. For example, related and supporting industries of Greek agriculture provide high quality and relatively low-priced raw materials to the food and beverage sector, while Greece's unique location on a major trading route between the three continents of Europe, Asia and Africa play a unique role in foreign market accessibility. Also important are the continuous improvement in the infrastructure and the relatively low-cost and highly skilled labour, along with the cheap emigrant labour from the northern neighbouring countries (e.g. Albania, Bulgaria). Many firms also invested in automation or have moved the labour-intensive parts of their production to north neighbouring countries, where cheap labour is readily available and there are incentives for foreign investments (ACCI, 2000).

According to Porter (1998), national passions translate into internationally competitive industries with striking regularity (i.e. demand conditions in the system). In particular, Greece has a long dietary tradition whose roots can be found in the

Hippocratic or Mediterranean diet, and many distinctive food and beverage products, such as feta cheese or alcoholic drinks like ouzo and tsipouro, enjoy strong demand in domestic and foreign markets. In addition, domestic demand conditions in the food and beverage sector are especially stringent and challenging because consumers are sophisticated. Specifically, Greeks spend the largest part of their income for their dietary needs (around 40% which is the highest in Europe) and are sensitive in terms of the quality, healthiness, and cost of the food and beverage products they buy (FFG, 1999). These circumstances push local firms to continuously improve their products (i.e. upgrade their competitive advantage) and thus move into new and more advanced methods of production that enhance quality, while at the same time reduce the cost. Exports of Greek food and beverages is also aided by the large number of emigrants (e.g. Germany, USA, Australia) and that Greeks have a long tradition in travelling, transferring cultural and dietary characteristics to foreign countries. Moreover, more than 10 million tourists each year visit Greece and consume Greek food and beverages.

A chance feature is that food and beverage firms acquired large amounts of capital (236.2 billion GRD) following the unprecedented rise in Greek stock market prices during 1997-1999, which they used for various business activities (e.g. takeovers, reduction of bank debt, funding of large investments). This resulted in product improvement and reduced costs (ACCI, 2000). Furthermore, government assists food and beverage firms' development by improving public services and tax policy (e.g. incentives for investment that improve production efficiency), easing the legal requirements for exports and the red tape in their transactions with the state and by subsidising their expansion with funds from the EU.

Finally, the other two national "diamond" sectors, tourism and shipping, account for 11% and 7% of GDP, respectively (ACCI, 2001c). In particular, in recent years Greece attracts more tourists than its inhabitants and the official policy is to promote quality rather than quantity tourism and thus public resources are allocated for the development of alternative forms of tourism (e.g. yachting, ecological or cultural tourism etc.). The shipping sector's contribution in the Greek economy is rather small in view of the fact that Greece has a long tradition in seafaring and the world largest beneficiary-owned shipping fleet. This is mainly due to the fact that many Greek ship owners register their vessels in other countries' shipping register due to special Greek rules (e.g. high proportion of expensive Greek nationals as crew etc.) (ACCI, 2001c).

4.3.1 Structure

In 2000, the food and beverage sector's production volume increased by around 4%, after stagnation in 1999 (0.8% increase) (SEV, 2001). This development is partly attributed to the expansion in the percentage use of plant capacity that reached 75% in 2000, compared to 73% in 1999 (ACCI, 2001a).

The number of firms in the food and beverage sector steadily increased (overall increase during 1990-98 was 41.9%), while personnel numbers had large fluctuations, yet with a positive overall trend of 6.4% overall increase during 1990-98 (Figure 4.5) (Voutsadakis, 2000). Thus there was a decline in the sector's average personnel requirements, and a subsequent improvement in the competitiveness of the sector, which is due to the modernisation of production techniques. However, average annual

change in personnel requirement of food and beverage sector (0.82%) is still greater that the Greek industry as a whole (-1.3%), indicating that it is probably a relatively more labour-intensive sector.

Figure 4.5:   Food and Beverage: Number of Firms and Employees (1990-1998)
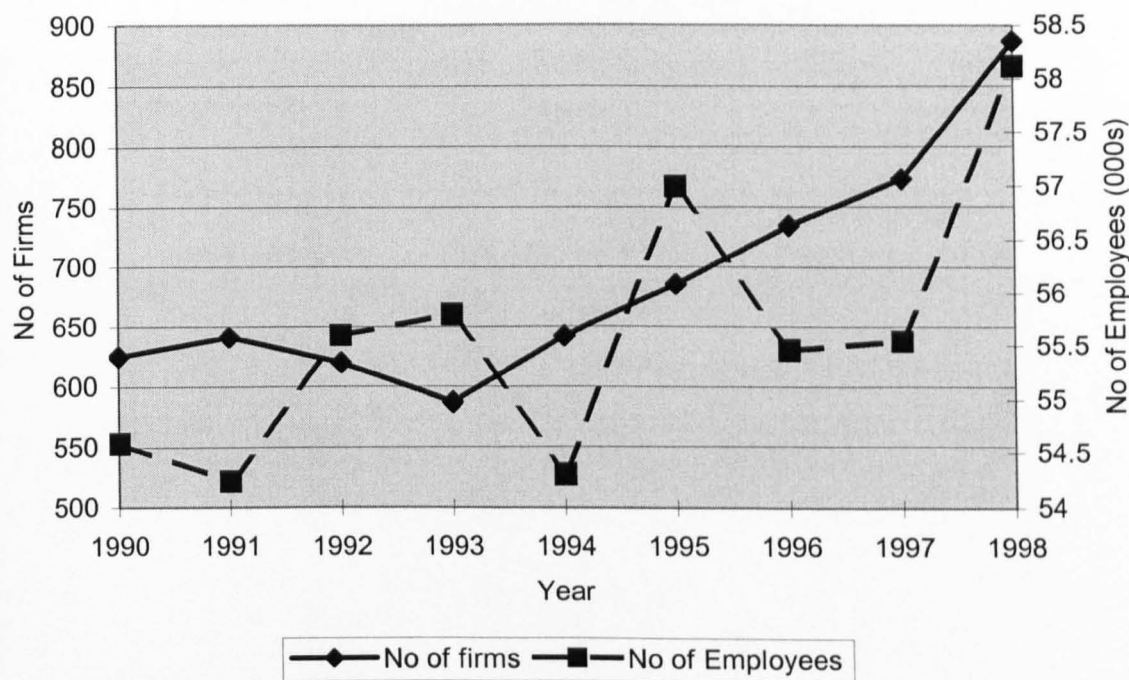
Source: ICAP cited in (Voutsadakis, 2000).

In terms of its contribution to total industry, the food and beverage sector has 23% of the overall number of firms and employs 20% of the industry's personnel (Voutsadakis, 2000).

During 1990s, a spectacular transformation was observed in the Greek industry, particularly in dynamic sectors, such as the food and beverage, with major advancements in terms of productivity and competitiveness. The basic element of the transformation has been technology transfer via import of capital equipment, foreign direct investment and licensing. Technology transfer was considered one of the main

tools to improve competitiveness of Greek firms, especially during a period of globalisation of competition, of integration into the European Community and trade liberalisation. However, in some cases, low export intensity of recipient firms, the weak performance of Greek manufacturing and the increasing deterioration of the competitive position of Greece in technologically advanced activities, raise serious questions about the extent to which firms succeeded to exploit technology transfer in order to upgrade their technological and organisational capabilities (Giannitsis, 1991).

In the food and beverage sector, large investments in technology, technical know-how, and specialised personnel, along with improvements in quality, packaging and standardisation of products (e.g. product certification - HACCP) steadily improve its competitiveness domestically and internationally, particularly after 1997 where the sector managed to accumulate substantial amounts of capital through the increase in stock market prices (ACCI, 2000). Investments focused on improving the existing production methods or on introducing new ones and assisted the increase of production capacity for the existing products and the development of new products that aim to gain access to new markets through diversification of goods produced. Furthermore, technological development and modernisation in the area of information technology aided the sector's forecasting and organisation capabilities, as well as the final trade ability with the new technique of electronic trade.

4.3.2   Production and Performance

Figure 4.6 shows that total assets, total equity and net profits of the food and beverage sector increased steadily during 1990-1998. The average annual increase is 7% in

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assets, 17% in equity, and 16% in net profits (Voutsadakis, 2000). Again, the substantial increase in stock market prices, during 1997-1999, affected these figures (ACCI, 2000). Compared to the rest of the industry, the food and beverage sector' assets and equity grew faster, while net profits lagged slightly behind. This implies a weakness in the sector's return on equity and assets relatively to the industry as a whole.

Figure 4.6: **Food and Beverage Sector: Total Assets, Total Equity and Net Profits in Real Terms (1990-1998)**
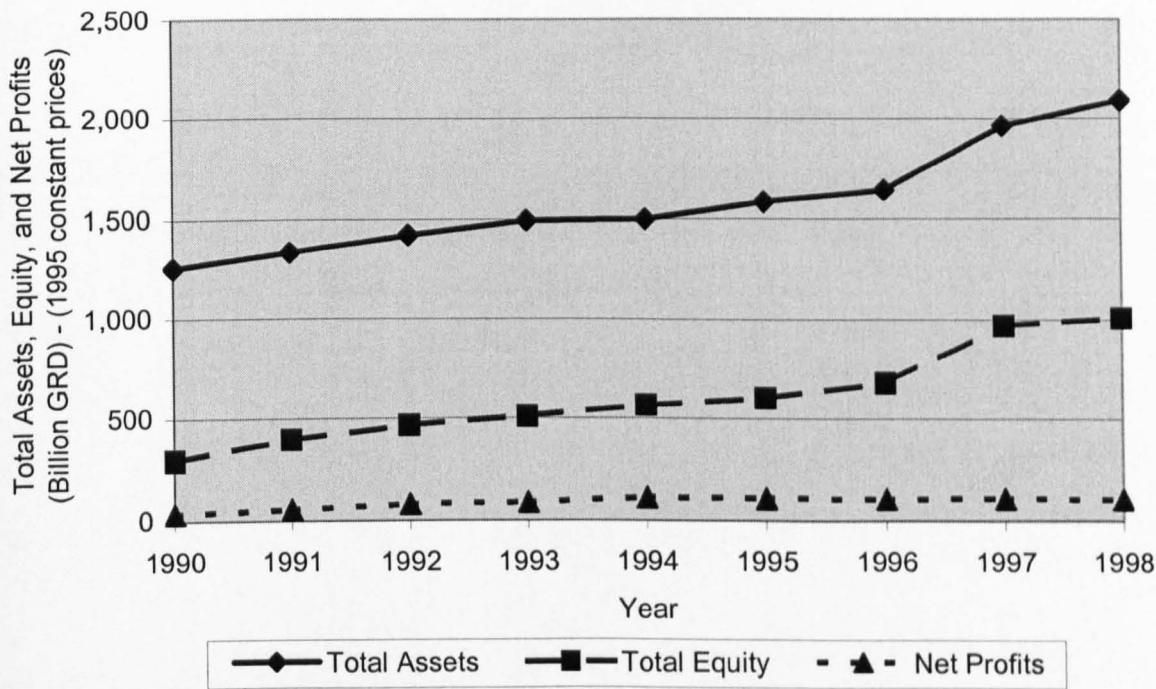
Source: ICAP cited in (Voutsadakis, 2000).

Figure 4.7 highlights the contribution of the sector to the industry in terms of total assets, equity, and net profits and further strengthens the evidence that underlines the importance of the sector to the Greek industry. Throughout 1990-1998, the contribution of total assets and equity grew steadily, while the contribution of net profits increased substantially and peaked in 1994 to 43% and then fell back to around

25%, probably due to the increasing competition. In 1998, the sector contributed around a quarter of total assets, total equity, and net profits (Voutsadakis, 2000).

Figure 4.7: **Food and Beverage Sector: Total Assets, Total Equity and Net Profits (% of Total Industry)**
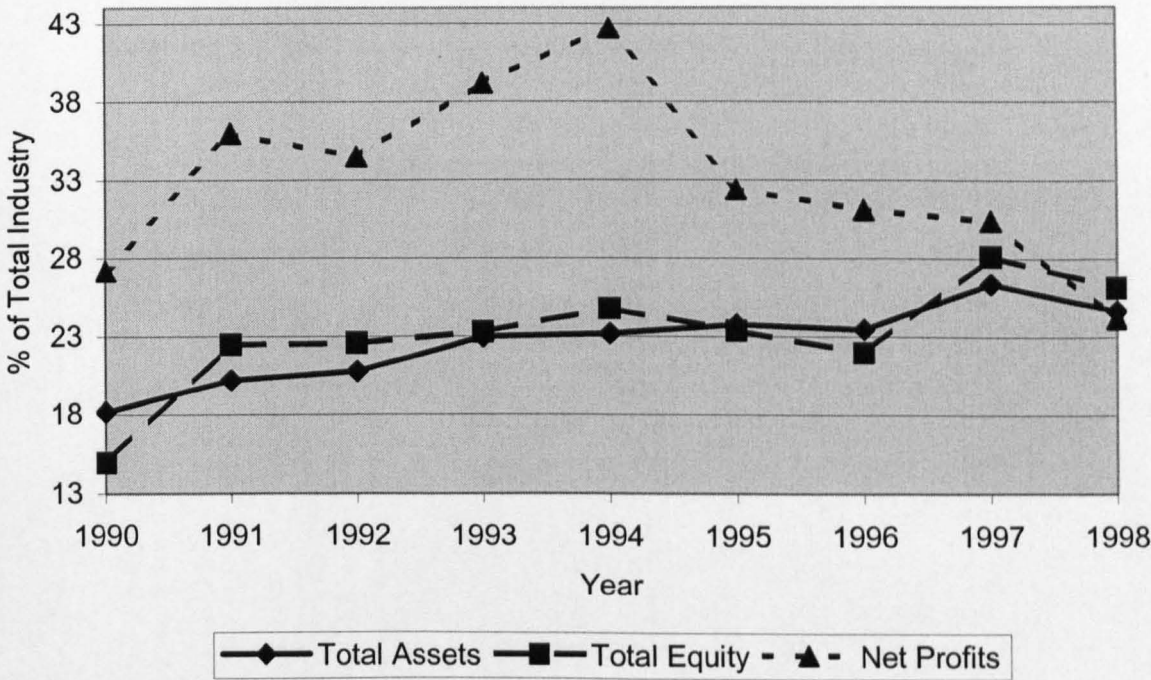
Source: ICAP cited in (Voutsadakis, 2000).

4.3.2.1 The Food Sector

During 2000, the food sector remained one of the most important in the Greek economy. It is characterised by large firms or group of companies that control a substantial share of domestic market, with a strong international presence, with the five largest firms having more than 21% of the sector's turnover. Table 4.2 highlights the main financial indications of the ten largest firms in the sector. In 2000, Nestle and ELAIS had the highest net profits, Thraki, MEVGAL, and Sogias Mills enjoyed

high development rates in sales terms (17%, 9%, and 9%, respectively), while FAGE

and Chipita International experienced the largest investment activities (14.5 billion

GRD and 10.1 billion GRD, respectively) because they are manufacturers and not

only traders as is Nestle's operational status in Greece (Kantor, 2000).

Table 4.2: Ten Largest Food Firms in Sales Terms (million GRD) in 2000.

FIRM	SALES	ASSETS	EQUITY	NET PROFIT	FIRM TRAITS
Nestle Hellas S.A	102,464	37,325	9,248	19,249	MNE-subsidiary / Trading
FAGE S.A	96,033	70,800	16,796	1,014	Greek Manufacturer
Greek Sugar Industry S.A.	84,783	45,650	35,612	729	Greek Manufacturer
Delta S.A	79,249	57,439	44,995	3,415	Greek Manufacturer
ELAIS S.A	57,430	36,757	18,491	8,109	MNE-subsidiary/ Trading and Manufacturing
Sogia Hellas S.A	57,133	21,081	5,513	341	Greek Manufacturer
MEVGAL S.A	43,861	27,256	5,032	363	Greek Manufacturer
Thraki S.A	43,263	43,857	13,537	2,011	Greek Manufacturer
Sogias Mills S.A	39,434	19,236	4,446	736	Greek Manufacturer
Chipita International S.A	32,331	61,746	33,419	1,927	Greek Manufacturer

Source: ICAP cited in (Kantor, 2000).

4.3.2.2 The Beverage Sector

In 2 000, t he b everage s ector h ad a g rowth r ate o f 1 3% i n s ales. H owever, i t f aces

problems from the growing national and international competition. It is an export-

oriented sector, although its export growth shows a decreasing trend. The sector's

business environment is relatively hostile and unstable and few firms manage to

overcome successfully the intense competition. This is usually attained through

acquisitions a nd m ergers t hat a id t he a ccumulation o f n ew c omparative a dvantages

and the achievement of economies of scale. In 2000, sales reached 496.7 billion GRD

or 4% of the overall Greek industrial turnover (ranked eighth most important sector)

(Kantor, 2000).

The profitability of the beverage sector is ranked fourth after the industrial sectors of

foods, non-metallic minerals and oil by-products and it is concentrated in two large

firms, 3E and Athenian Brewery, which account for 83% of the sector's total

profitability and enjoy high development rates (Kantor, 2000). Table 4.3 shows the

ten largest firms of the sector. In terms of investment, 3E dominates the sector with

over 784.7 billion GRD (Kantor, 2000).

Table 4.3: Ten Largest Beverage Firms in Terms of Sales (million GRD) in 2000.

FIRM	SALES	ASSETS	EQUITY	NET PROFIT	FIRM TRAITS
Coca Cola 3E S.A	191,362	1,190,647	943,127	33,134	MNE-subsidiary / Trading and Manufacturing
Athenian Brewery S.A	121,132	81,952	35,922	26,639	Subsidiary/ Foreign Manufacturer
Pepsico-HBH S.A	30,943	27,208	15,120	-1,863	MNE-subsidiary / Trading
Tsantalis E. S.A	14,262	17,712	7,250	730	Greek Manufacturer
TELEREX S.A	10,776	2,928	1,053	1,175	Foreign Manufacturer
Metaxa S. & H. & A. S.A	9,727	10,037	6,690	1,858	Greek Manufacturer
Kourtakis D. Greek Winery S.A	9,568	12,297	4,360	425	Greek Manufacturer
Achaia Clauss Winery S.A	7,621	12,608	5,403	974	Greek Manufacturer
Boutaris I. & Son Winery S.A	7,471	11,256	5,446	608	Greek Manufacturer
Mythos Brewery S.A	6,965	18,841	11,884	1,139	Greek Manufacturer

Source: ICAP cited in Kantor (2000).

4.3.3   Exports

The main food and beverage products exported are the products of the olive tree and the vine, sheep and goat-raising products, along with cured meat and more recently fishery and honey (in sales terms). The sector has also shown rapid advances in the production of ready and semi-ready foods, which meet the dietary needs of consumers. Some of these are available in traditional tin form, while others are available in new technology packaging. In terms of value in 2001, exports of olive oil are the largest followed by fresh fruit and vegetables, while wine exports are third (HEPO, 2002).

Tinned fruit and jams have an important share of exports, since tinned peaches and apricots have for many years ranked highly among European consumer preferences. In terms of tinned vegetables, tomatoes are the most important exported product and, specifically, most of the Greek tomato concentrate is absorbed by the international market in branded packaging. Other exported products are appetizers and delicatessen products, such as smoked trout and eels, snails where Greece is one of the largest producers and exporters, pickles and piccalillis, asparagus, and mushrooms. In the pasta industry, the technological advancements and the excellent quality of the Greek durum wheat, led to the production and export of a broad variety of pasta products. An export capability is also evident in the aromatic herb and spice processing industry, which exploits the abundance of the country's herbs. Impressive growth has also been registered by exports of Greek cured meats, which have a marked taste difference with lower-fat content [Food and Beverages (FaB, 2001b)].

The bottled water sector exploits the mountain springs of mineral and naturally sparkling water of Greece. In addition, Greek fruit juices and soft drinks, such as orange, peach and apricot juices, already have a brand presence and are in demand in most of the Balkan and Central European markets. Finally, honey has small but increasing exports (NSSG, 2002).

In 2000, Greek exports recovered after large falls in recent years: the value of exports for the first ten months of 2000 reached 2,800 billion GRD, while the value of total exports is expected to reach 3,400 billion GRD in 2001 (ACCI, 2001b). This growth is 6%, which is high relatively to the other EU countries, where only Ireland, Finland and Luxemburg had higher growth rates of 9%, 8%, and 7%, respectively. However, the President of the Pan Hellenic Exporters' Association, Mrs. Sakellaridi, notes that: "… although 2000 was one of the best years in the last decade for the world economy and for international trade, Greece's export performance was not satisfactory. Exports should have a much higher growth, since the common currency has fallen to low levels compared with the US$ and Japanese yen" (Papadosifaki, 2001b, p.20).

Table 4.4 shows the trade balance of EU countries and their external trade. Greece is ranked last in terms of both total external trade and trade balance figures where exports are a third of total imports. This highlights the severe problems that Greek industry faces and the significant efforts that it has to make to improve its international competitiveness.

Table 4.4: Trade Balance, Total External Trade of EU-Countries in 1998

COUNTRY/€BILLION	IMPORTS (M)	EXPORTS (X)	X - M	X / M
Ireland	38	58	20	1.53
Finland	29	39	10	1.35
Sweden	60	74	14	1.24
Germany	413	482	69	1.17
Italy	193	216	23	1.12
Belgium	149	160	11	1.08
Holland	179	191	12	1.07
Denmark	42	44	2	1.05
France	275	286	11	1.04
Austria	62	57	-5	0.92
Great Britain	286	244	-42	0.86
Spain	112	93	-18	0.83
Portugal	33	22	-11	0.67
Greece	*25*	*9*	*-16*	*0.36*
Total EU	**1,896**	**1,976**	**80**	**1.05**

Source: (Petkanopoulos, 2000).

Figure 4.8 shows the destination countries of Greek exports. The EU remains the main importer of Greek products, importing about 53% of total exports, followed by Balkan States, which import 16% (Petkanopoulos, 2000). The current enlargement of the EU is expected to benefit Greek trade, particularly exports, since the country's trade links with the six new members are likely to be further strengthened.

Figure 4.8:   Greek Export Destinations (1998 and 1999)
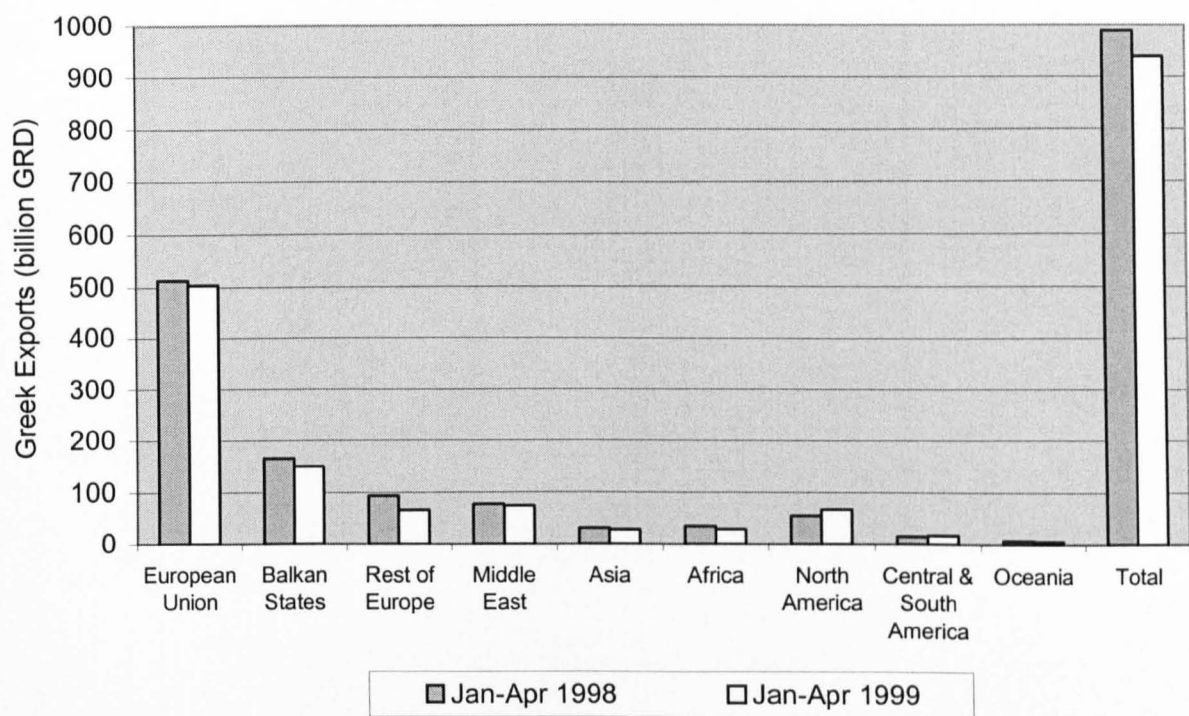
Figure 4.9 shows that between 1995-2000 exports of Greek food and beverages sector fluctuated in both value (8% average annual increase between 1995-2000) and volume (2.6% average annual increase) with an overall rise that is particularly steep after 1997. Processed foods is the largest sub-sector in terms of total exports with 15% of the value of the total exported products or 141.4 billion GRD in 1999 (Petkanopoulos, 2000).

Figure 4.9:   Greek Food and Beverage Exports in Real Terms (1995-2000)
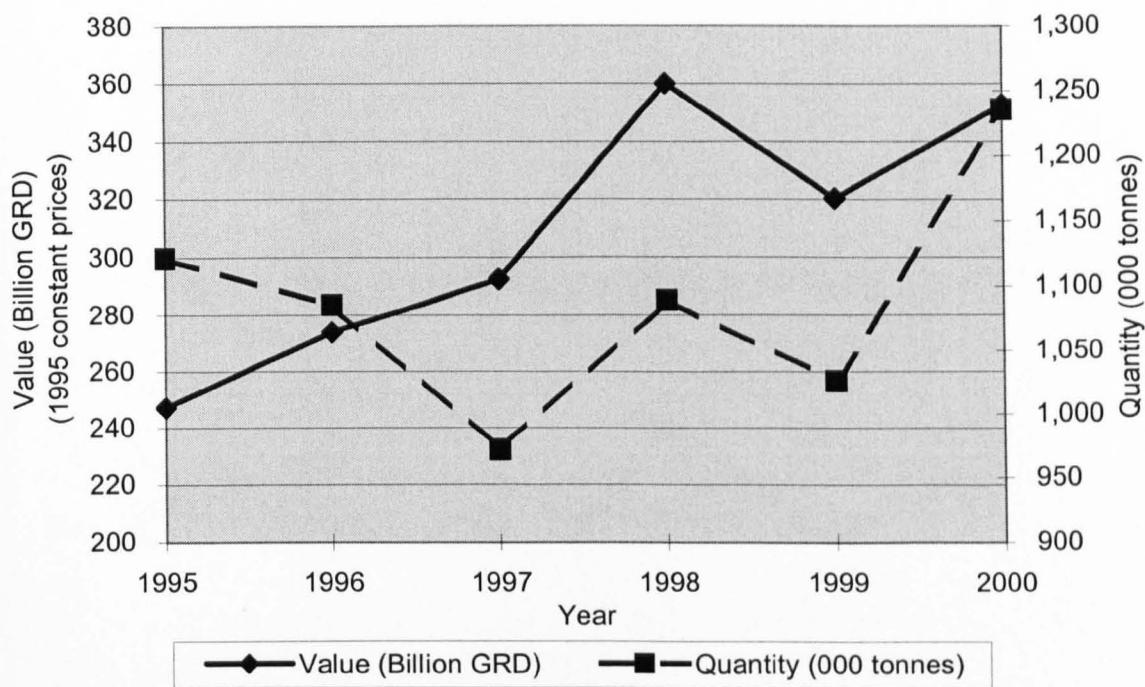
Source: National Statistical Service of Greece (NSSG, 2002).

The main food and beverage products exported are olive oil, dairy products, fish products, wine, fruit juices, bottled water, and honey. Olive oil is the most important exported product of Greece in value and it is internationally acknowledged for its distinctive quality. Production of olive oil in Greece during 1996-1999 contributed to 18% of the average international production (2.25 million tonnes) and reached 410,000 tonnes and is third largest in the world (Berzovitis, 2001). Greece is among the largest exporting countries of olive oil internationally and, in 2001, the nominal value of olive oil exports reached 49.6 billion GRD, while the volume reached 107,000 tonnes (Figure 4.10). Between 1993-2001, the average annual increase in exports value was 2%, while in export volume was 8% (NSSG, 2001). In 2001, 82% of olive oil exports were to Italy, while smaller quantities were directed to USA (4%), Germany (3%), and UK (3%) (HEPO, 2002). Major firms are Elais, Elaiourgiki, Minerva, Mega Oil, Agro.Vim, and Olympia-Xenia.

Figure 4.10:   Olive Oil Exports in Real Terms (1993-2001)
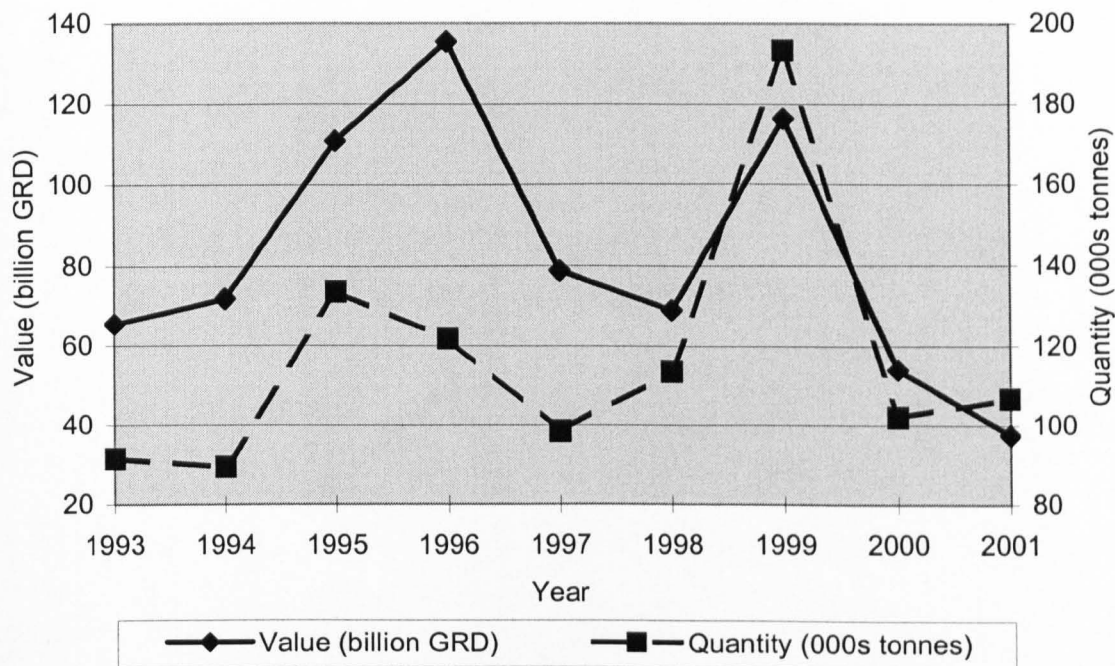
Greek dairy is also an important exporting sector with cheese and yoghurt being particularly important. Figure 4.11 shows the export value and volume of cheese during 1993-2001. In 2001, the nominal value of cheese exports was 36.5 billion GRD, while the volume was 33,000 tonnes. Between 1993-2001, the average annual increase in exports value was 7%, while volume increased by 17%, indicating the competitiveness problems of the sector. In terms of cheese exports, Germany absorbs 46% followed by USA (10%), UK (8%), and Italy (8%) (HEPO, 2002). Major firms are FAGE, Delta, MEVGAL, Kolios, and Tiras.

Figure 4.11:   Cheese Exports in Real Terms (1993-2001)
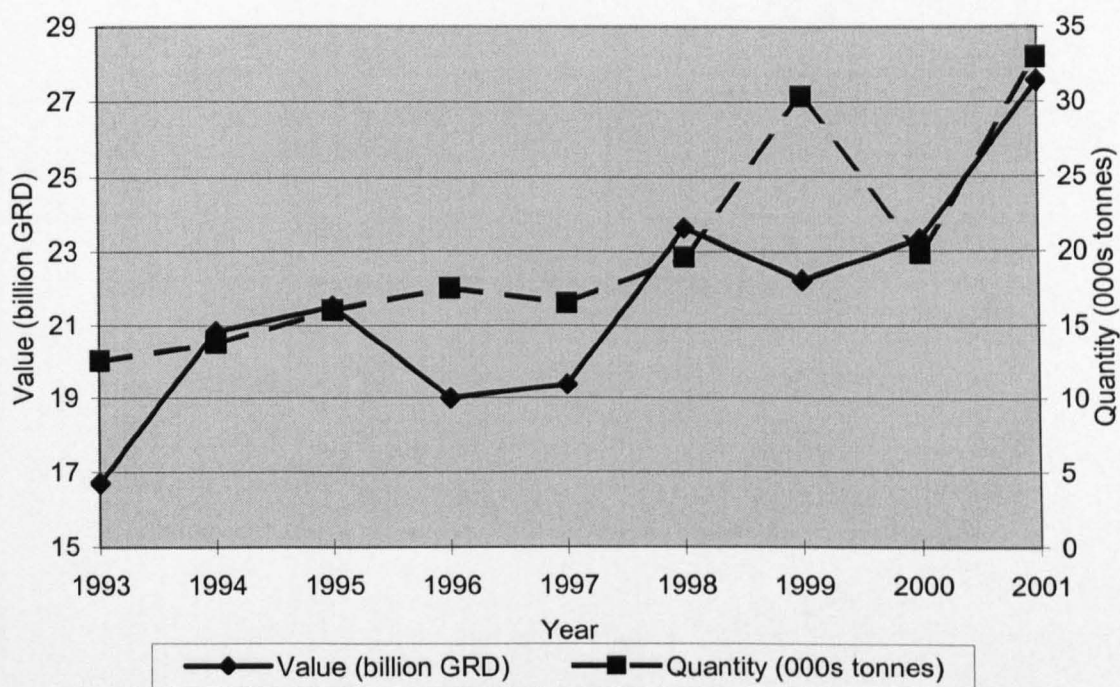
Similarly, Figure 4.12 shows the export value and volume of yoghurt between 1993-2001. In 2001, the value of yoghurt exports was 7.7 billion GRD, while volume was 9,835 tonnes. During 1993-2001, the average annual increase in both value and volume was almost 7% each. In terms of yoghurt exports, UK absorbs 42% of Greek exports followed by Germany (16%), Italy (14%), and Denmark (5%) (HEPO, 2002). Major firms are FAGE, Delta, and MEVGAL.

Figure 4.12: Yoghurt Exports in Real Terms (1993-2001)
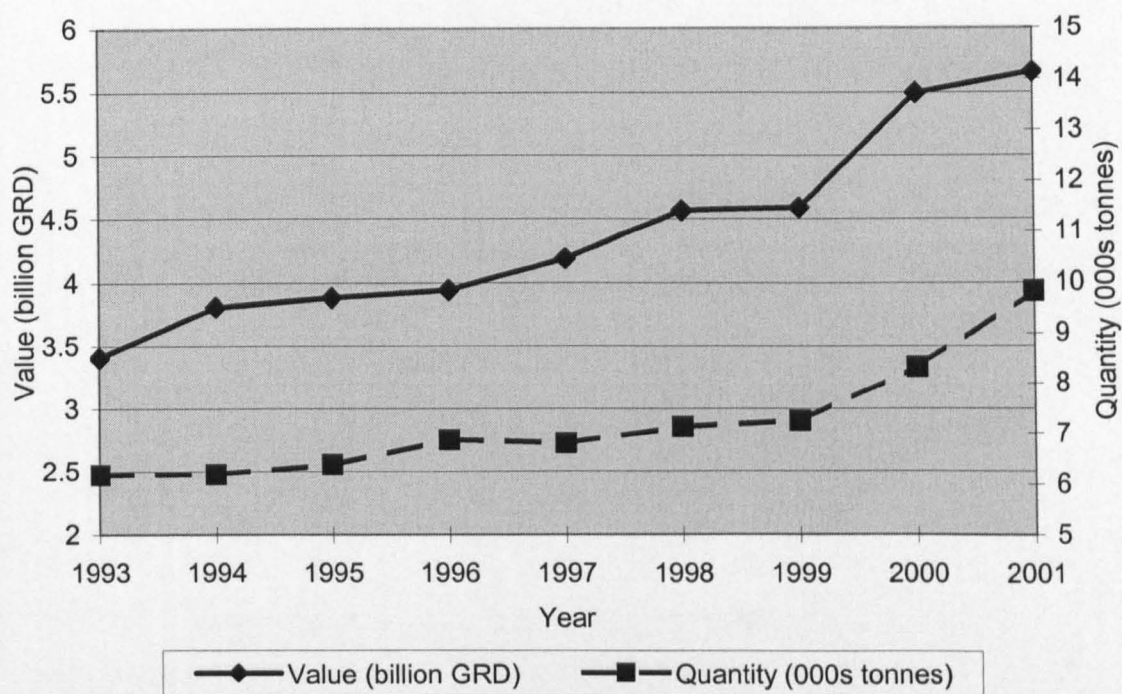
Note: Value in 1995 constant prices. Figures between 1990-1992 are not available.
Source: Hellenic Export Promotion Organisation (HEPO, 2002).

The Greek fish-farming sector, mainly sea bream and sea bass, is very export-oriented, and 80% of its production is exported to Italy, Spain, France, Britain, Germany and the USA. In Figure 4.13, fish farming product exports were 60 billion GRD (nominal value) or 94,000 tonnes in 2001 (HEPO, 2002). The average annual increase in exports during 1993-2001 was 5% by value and 18% by volume, implying again slight competitiveness problems (Figure 4.13). In general, fish farming strengthened i ts p lace i n t he m ain E uropean m arkets b etween 1 993-2001, s etting a strong base for further internationalisation. Major firms are Nireas, Selonta, Seafarm Ionian, Greek Fish-Farms.

Figure 4.13:   Fishery Product Exports in Real Terms (1993-2001)
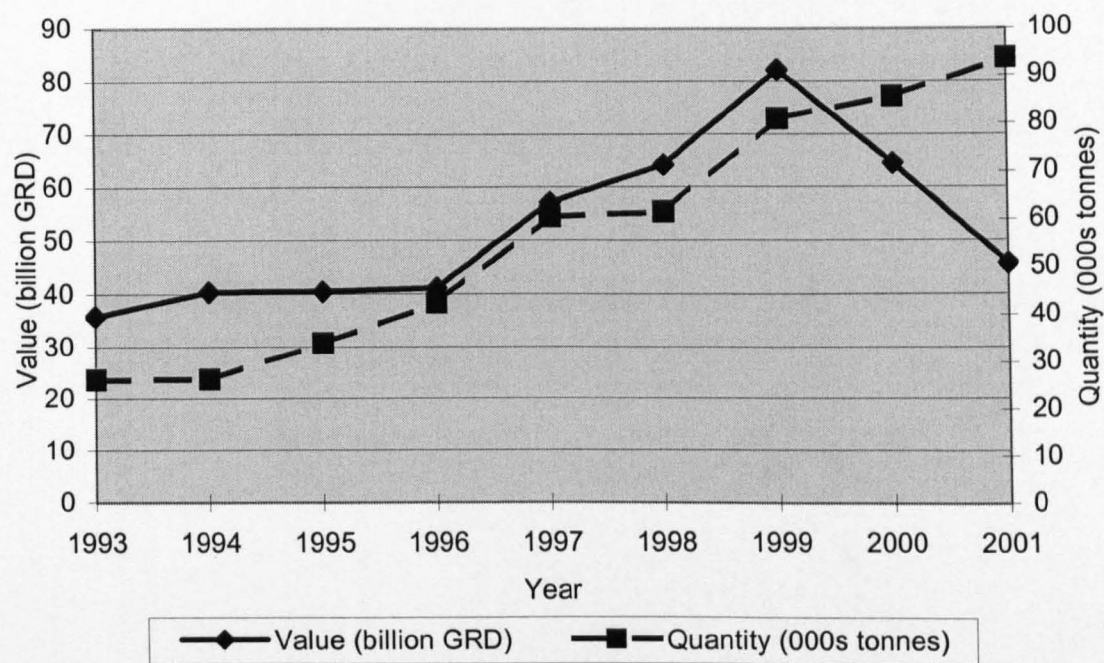
Wine is another important product with increasing exports that reached 87,000 tonnes

or 20 billion GRD (nominal value) in 2001 (HEPO, 2002). Figure 4.14 shows that the

sector's exports have fluctuated, but on the whole they slightly decreased in terms of

value: the average annual change in exports during 1993-2001 was –0.2% by value

and 22% by volume, again implying competitiveness problems (NSSG, 2002). The

most important export destinations are Germany (45%), USA (10%), France (10%),

and Canada (5%) (NSSG, 2002). Major firms are Xatzimixalis, Boutaris, Tsantalis,

Kourtakis, and Achaia Clauss.

Figure 4.14: Wine Exports in Real Terms (1993-2001)
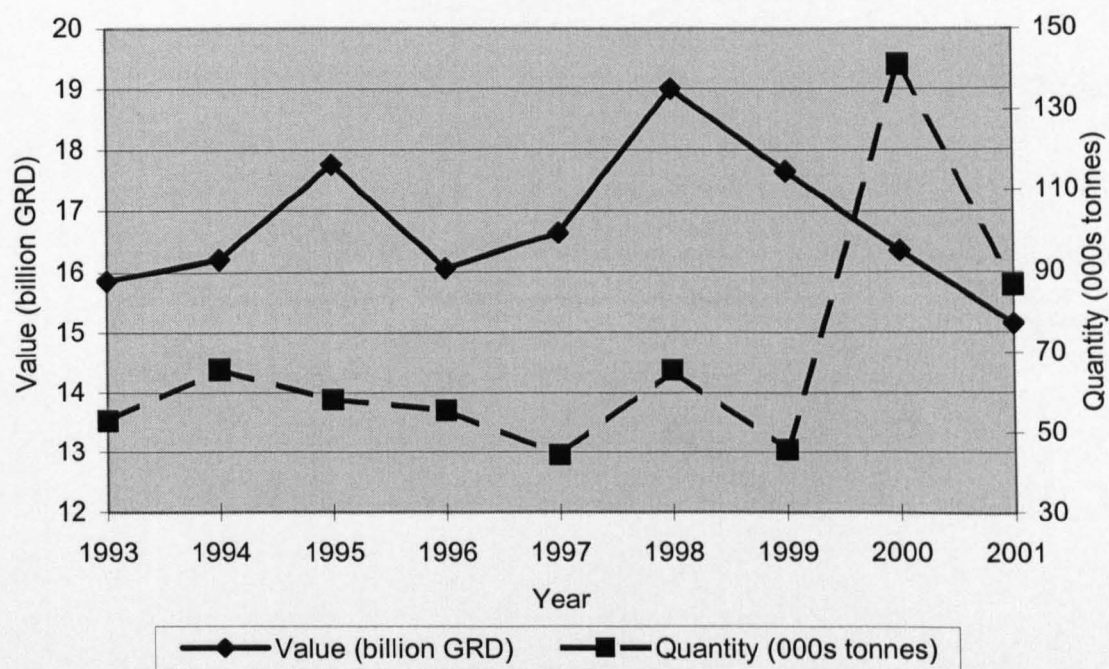
Note: Value in 1995 constant prices. Figures between 1990-1992 are not available.
Source: Hellenic Export Promotion Organisation (HEPO, 2002).

Greek fruit juices have a strong brand presence in foreign markets. On-going investments in know-how, mechanical equipment, and marketing, and the creation of differentiated products allow the fruit juice sector to supply the world m arket with prime quality products. The variety of fruit juices and their combinations is large, and responds to the trends characterizing modern consumer dietary habits for a healthier diet. The main Greek exporters are Delta, 3E, and Al. Honeos - Florina. In 2001, fruit juice exports by value were 5.7 billion GRD (nominal value) or 20,000 tonnes. During 1993-2001, there were strong fluctuations in fruit juice exports with an overall positive trend: the average annual increase in exports value was 8.2% and 6.5% by volume, indicating an improvement in competitiveness. Main EU destinations are the Netherlands (23%), Norway (13%), and Italy (9%), while the main bulk of Greek fruit juices and fruit pulp (61% in 1998) was destined to third countries, with Russia, Bulgaria, Yugoslavia and Albania being most important (NSSG, 2002).

Figure 4.15: Fruit Juice Exports in Real Terms (1993-2001)
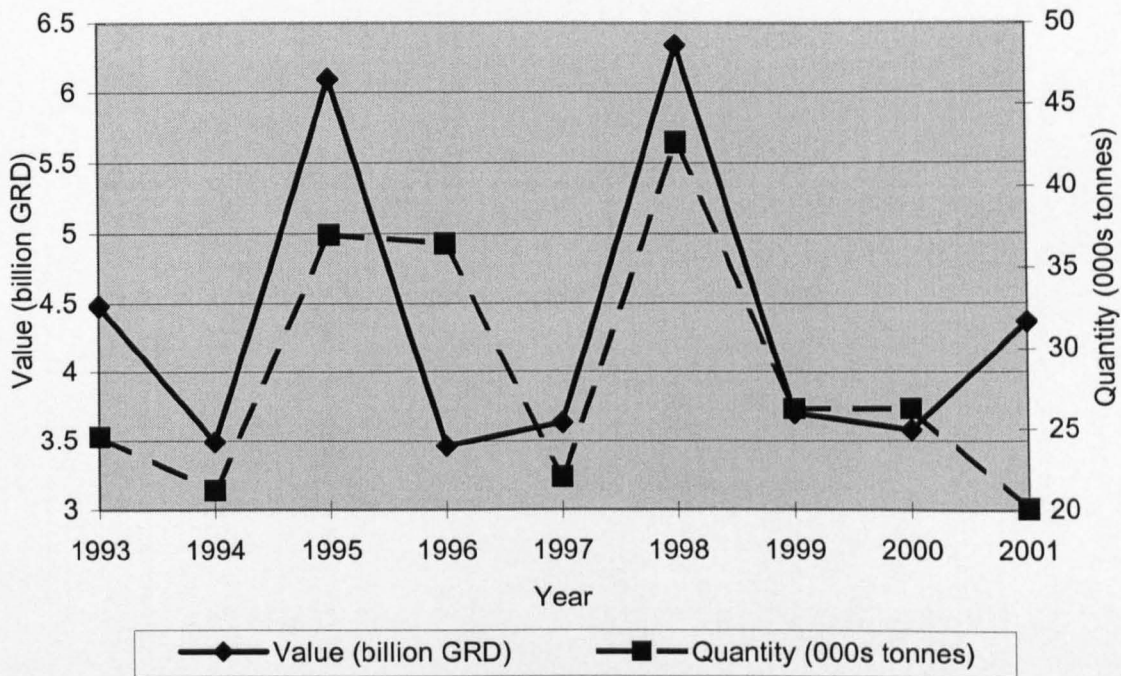
Mineral water production is approaching 600 million litres, and its annual average rate of growth is about 3% (FFG, 1999). Exports of bottled water are fluctuating with an overall positive trend: the average annual increase in exports value was 34.6% and 17.4% by volume, indicating a substantial improvement in overall competitiveness (Figure 4.16). In 2001, exports reached 3.5 billion GRD (nominal value) or 98,000 tonnes, which is a relatively small quantity compared to the domestic sales (HEPO, 2002). Greek bottled water exports are mainly destined for Formerly Yugoslavian Republic of Macedonia (FYROM) (46%), Cyprus (23%), Albania (14%), and Germany 7%) (NSSG, 2002). There are over a hundred firms in Greece involved in bottling water from approved springs, but only a few large have nation-wide coverage and carry out export activities, namely Athenian Breweries, Nestle Hellas, 3E, Iris, and Al. Honeos - Florina.

Figure 4.16: Bottled Water Exports in Real Terms (1993-2001)
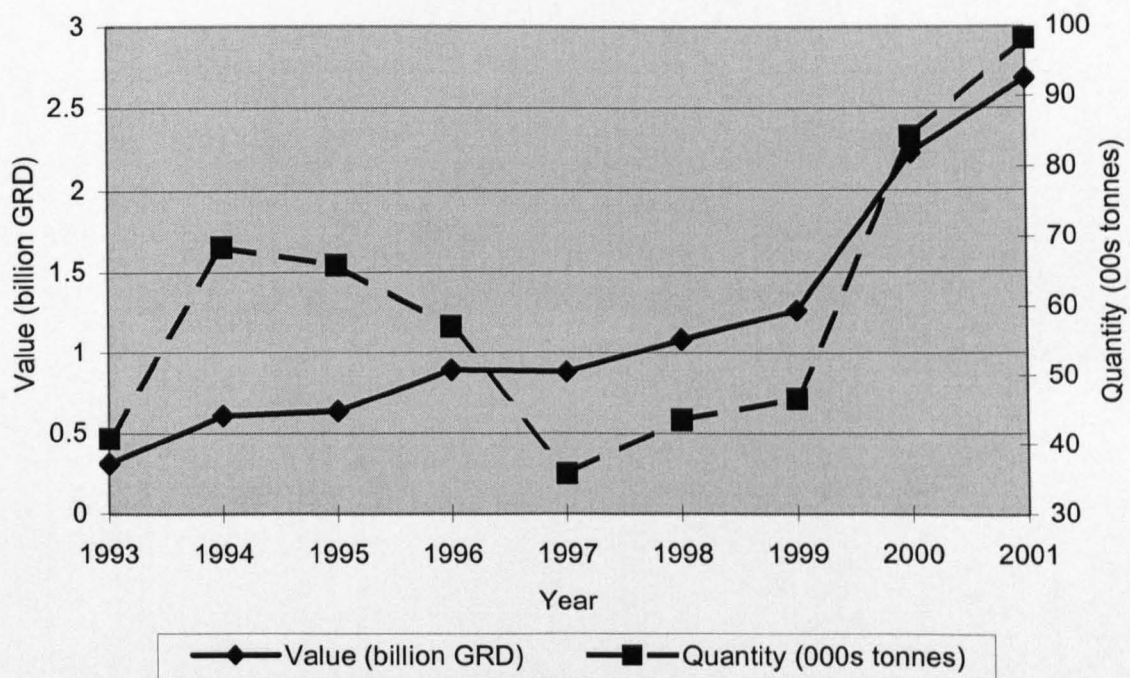
Greek honey has gained international recognition due to its distinct biological and organoleptic characteristics. A large number of large and small apiculture companies collect and standardize honey which, due to the advanced know-how, supply to international markets and guaranteed a natural product that meets all present-day scientific specifications and the requirements of the modern way of life. Greek honey is mainly exported in branded packaging to Germany (49%), USA (14%), and UK (12%). In Figure 4.17, exports of honey show strong fluctuations with an overall positive trend: the average annual increase in export value was 22% and 59% by volume, indicating a competitiveness improvement. In 2001, exports doubled in to 858 million GRD (nominal value) or 879 tonnes (HEPO, 2002). This is small relative to the domestic sales. The major exporters are Attiki-Pitta, Dinas-Elina - M. Damianakis, Melissokomiki Synetairistiki of Northern Greece, and Apiculture Co-operatives of Northern Greece.

Figure 4.17: Honey Exports in Real Terms (1993-2001)
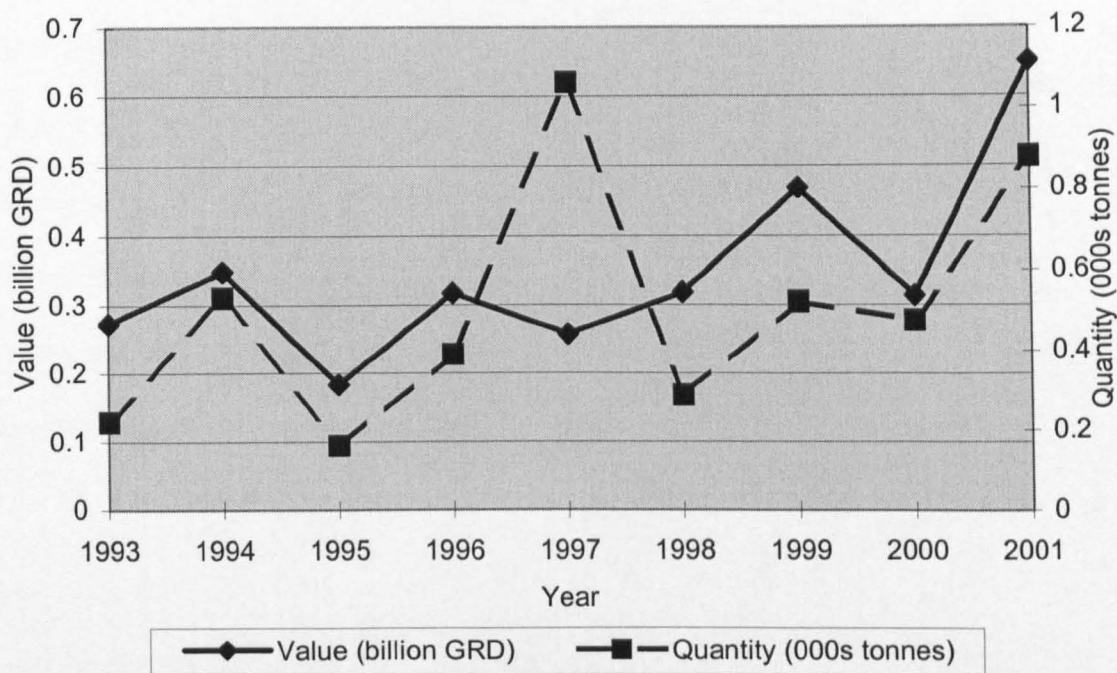
4.4 Summary

Greek food and beverage firms are the most dynamic in the Greek economy. The sector contributes substantially to the Greek economy and industry and realises significant growth. Investments in modern technology, technical know-how, and specialised personnel, along with improvements in quality, packaging and standardisation of products (e.g. product certification - HACCP) steadily improve its competitiveness domestically and internationally. These investments contributed to the d evelopment o f a n ew g eneration o f p roducts w ith d istinctive f eatures, s uch a s flavour, taste, and healthiness, which are able to face international competition (FFG, 1999). The sector also provides products that meet modern-day requirements for healthier lifestyles, since they combine science and food technology, along with the Greek dietary tradition.

Greece's accession to EMU provides incentives for food and beverage firms to expand and further opportunities are also evolving with the EU enlargement. The family structure of many Greek companies is also trying to adapt to new, advanced forms of organisation to exploit better the opportunities of the market, while the use of new techniques and tools (e.g. electronic trade) is another goal of the Greek food and beverage enterprises (Papadosifaki, 2001a).

However, the competitiveness of the Greek products is still substantially below those realized by the other EU-member states and this results in significant problems to Greece's trade deficit, which continues to widen. Increased competitiveness is critical to ensure a smooth and rapid adaptation to the new environment and to exploit opportunities provided from the participation of Greece in the EMU.

Greek exporters have already realised that competition will increase in the future and they are trying to adapt their practices to the new environment formed within the EU. In particular, they are trying to improve the quality of their products, keeping constant information feedback from their export markets, creating new label products, exploiting opportunities in new markets, and increasing market share in existing markets. To improve export performance, it is critical for food and beverage firms to employ successful export marketing strategies that will emphasise and utilise their relative comparative advantages and, simultaneously, limit the consequences of any comparative disadvantage.

Chapter 5: Research Methodology

5.1 Introduction

This thesis examines the nature of the interdependencies between firms' internal and external environment, export marketing strategy and performance in the context of the Greek food and beverage industry. Following Bilkey (1985), the development of a best practice is a four-stage process. First, methodologies are developed for gathering firm-specific information; second, international marketing models are formed; third, export marketing experiments are conducted; and, fourth, periodic export marketing surveys help management attain an optimal export marketing practice. This thesis aims to identify objective empirical information to generate and test previous researchers' findings in other environments to derive laws that have universal validity. This will help to develop export marketing strategies and identify marketing practices that Greek firms could use to improve their export performance and competitiveness.

Figure 5.1 indicates our research strategy. First, secondary data and a literature review aid in identifying the determinants of export marketing strategy and performance and developing the first draft of the questionnaire. Second, qualitative in-depth interviews provide information about other parameters that may affect export marketing strategies and performance and assist in developing the final questionnaire. Third, primary data from the survey are analysed quantitatively where exploratory factor analysis and structural equation modelling identify the nature of interdependencies between export performance and its determinants to develop best practice guidelines.

Figure 5.1: **Research Strategy**
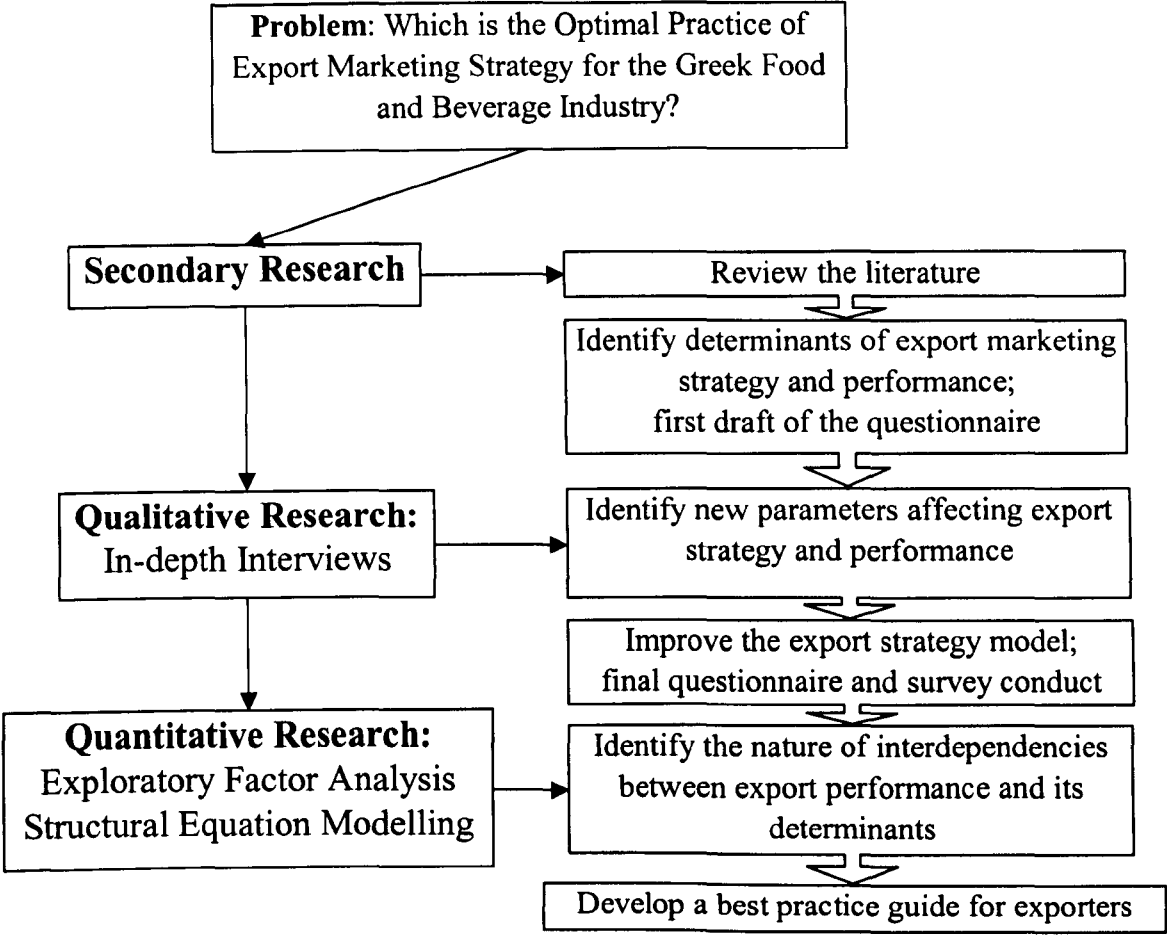
We develop a methodological approach by combining three research techniques: the qualitative instrument of in-depth interviews, and the quantitative multivariate analysis methods of exploratory factor analysis and structural equation modelling (i.e. confirmatory factor analysis and path model estimation). This approach is innovative and offers the advantage of mutual utilisation of the positive aspects of each technique. In particular, the qualitative analysis ensures the quality of the data employed in the subsequent quantitative analysis, where confirmatory methods ensure statistical significance of final results.

In the quantitative analysis, the multivariate methods of exploratory factor analysis and the structural equation modelling techniques of confirmatory factor analysis and path model estimation are used. In the exploratory factor analysis, the main objective is to reduce the primary data by describing it in a smaller number of dimensions that are more manageable for the subsequent analysis of path model estimation to reveal the structure of relationships between the variables. Five constructs affecting export marketing strategy and performance are examined, namely the export stimulus, export problems, comparative advantage, information sources, and entrepreneurial orientation.

Structural equation modelling, in the form of confirmatory factor analysis, assesses the significance of the results from the exploratory factor analysis and provides information of the magnitude of the relations. Finally, structural equation modelling, in the form of path model estimation, assesses the integrated export marketing performance model and identifies interrelationships between the variables.

This chapter examines the research design and methodologies used for the analysis of various characteristics influencing export marketing strategy and performance. Section 5.2 discusses the in-depth interviews and questionnaire design; Sections 5.3 and 5.4 focus on exploratory factor analysis and structural equation modelling.

5.2 Qualitative Technique: In-Depth Interviews and Questionnaire

This stage aims to provide an understanding of marketing practices employed by Greek exporters in the food and beverage industry to design an effective questionnaire

that yields the necessary information for subsequent quantitative analyses. First, secondary and qualitative research are applied to develop an understanding of the practices employed by such firms and this is used to improve the efficiency and effectiveness of subsequent quantitative research. In particular, the relevant literature was reviewed to identify factors that operationalise export marketing strategy and performance (Aaby and Slater, 1989; Bilkey, 1978; Clarke, 2000; Gemunden, 1991; Katsikeas *et al.*, 2000a; Katsikeas *et al.*, 1996; Madsen, 1987; Madsen, 1989; McAuley, 1993; Robertson and Chetty, 2000; Yeoh and Jeong, 1995; Zou and Cavusgil, 1996; Zou and Stan, 1998).

Second, following many researchers' strategy, 13 qualitative, in-depth interviews were conducted to formulate both open and closed-ended questions. The interviews were conducted with academics, export related associations representatives, export managers, marketing executives, and general managers (if a formal marketing department did not exist) of firms actively engaged in exporting (Appendix Table A5.1). They took place between June – December 2001 and informed the first draft of the questionnaire. In addition, in-depth interviews were semi-structured and provided an understanding of interviewees' perspectives in terms of the problems faced. The main issues regarding export marketing strategies were distinguished and interviewees were encouraged to be open and spontaneous by outlining their own ideas and thoughts (Foddy, 1993).

The first draft of the questionnaire was then pretested in a small-scale pilot survey conducted prior to the main survey with the collaboration of four business professionals (i.e. export experts) from the Greek food and beverage industry and

three academics familiar with research in international marketing and export marketing (Appendix Table A5.2). Each respondent completed a questionnaire in my presence and was questioned about its clarity. Reviewing the draft questionnaire assisted in its development in terms of accessibility, quality, and suitability of questions. Concern was also given to its organisation and to the relevance and wording of the questions to ensure precision. The aim was that potential respondents would have a good understanding of the information requested to provide accurate data. The final questionnaire was then translated with the assistance of two academics and two export managers (Appendix Table A5.3) fluent in English and Greek to ensure that both versions were clearly understood and had exactly the same meaning.

During the in-depth interviews, control is important and semi-structured interviews were employed because they are more efficient and the interviewer can intervene and limit the discussion to the research problem area (Thomas, 1995). Moreover, other forms of data collection supplemented the interview e.g. interviewees were asked to provide supporting data. In some cases, I had to deal with problems of interviewing elites (e.g. top corporate executives) or discussing sensitive issues, such as confidentiality of company aims and strategies, illegal actions, trade secrets etc. Therefore, care was given to various interviewing parameters, such as confidentiality, identifying appropriate interviewees and approaching them, planning, and methods of undertaking interviews and discussing sensitive issues.

In-depth interviewing was based on an interview guide (i.e. plan of questions), open-ended questions and informal probing to facilitate a discussion of issues in a semi-structured manner (Devine, 2002). I explored interviewees' subjective experiences,

along with the meanings they attach to their experiences by allowing them to talk freely. However, top managers do not always know what is happening at all levels of the company and, therefore, concern was given to ensure that the executives interviewed were able to respond to all questions (Useem, 1995). Thus, in some cases interviews did not start with executives, but with employees in lower levels and I was then redirected to more appropriate individuals.

Domhoff (1967) notes that corporate executives are enmeshed in social, political, economic, religious and family networks made up of other corporate executives, and the interviews were used as an opportunity to use those networks. For example, these networks worked well during sample construction and the selection of the most appropriate managers to be interviewed; mostly, they were established during trade fairs where export managers meet and socialise. In every interview, executives were asked about people they thought that should be incorporated in the sample. Finally, the formal close of the interview did not necessary mean the end of the interaction with the executive: the opportunity to conduct follow-up interviews was raised for clarification or to discuss final results.

When gathering qualitative data through interviews or surveys, an important consideration is the interviewers' influence (bias). The interviewer is an important factor regarding the value of the data and its accuracy is influenced by the manner in which questions are put. In addition, research is a social activity and it is affected by the enthusiasm and motivation of the researcher and the context in which it takes place. Therefore, no matter how impartial the researcher might be, his/ her ideas, theoretical persuasions, and personal interests are always present. Furthermore,

although the research design is chosen to address research objectives, it often suits the interests or speciality of the researcher. Therefore, concern was given to act in a neutral way during the interviews and establish rapport with respondents.

The use of questionnaires is a widely accepted low-cost method of gathering information about past behaviour and experiences, private actions and motives, and beliefs, values and attitudes (Foddy, 1993). The questionnaire was designed for export or general managers who generally have a good education and can understand issues regarding exporting and export marketing in particular. In addition, a well-established strategy of questionnaire design is the use of a mix of open- and close-ended questions. This strategy was used here: the questions are mainly close-ended i.e. questions where the respondents are offered a choice of alternative replies (e.g. asked to tick one) with some open-ended questions i.e. respondents answer freely, to cover topics where close-ended questions could not be employed (e.g. refer to strategies or objectives etc.). Almost all close-ended questions are initially open (apart from those where certain alternatives are the only ones possible) and, after some pilot work, I attempted to provide a set of multiple choices that fitted the range of answers expected so that information loss was minimised (Oppenheim, 1992).

All responses are coded by a classification process that requires drawing up a system of response categories, the coding frame. This is straightforward for close-ended questions where pre-coded responses are provided, but for open-ended questions processing is more difficult since it entails the coding of the main issues raised by respondents. Concern was given in question wording so that the required information was clearly defined and that each respondent understood the content of each question.

The survey took place during March-April, 2002, and the sample was developed using sources from various trade associations or chambers indicated in Appendix Table A5.4. Our focus was on exporting firms that employed some degree of marketing functions and on firms that were active in exporting during 1999-2001. The total number of questionnaires administered was 155.

All 155 firms were initially contacted by telephone to be informed about the aims and objectives of the research. Here the most appropriate individual to answer the questionnaire was identified: the export manager, the marketing manager, or the general manager. The questionnaire was then administered and a reminder telephone call was made to non-respondents one month after initial mailing. In some cases, telephone follow-ups did not result in an increase in the total number of responses and thus several more telephone follow-ups were made or interviews were personally administered to improve both the respondent participation and the quality of the primary data. The survey yielded 103 usable questionnaires or a 62% response rate.

Finally, follow-up interviews were conducted during February 2003 with three export experts, which discussed the empirical analysis results and revealed dimensions and interpretations that required sector specific knowledge and experience. Details regarding the interviewees' details are provided in Appendix Table A5.5.

5.3 Exploratory Factor Analysis

Exploratory factor analysis (EFA) is useful in searching for structure among a set of variables or as a data reduction technique for large samples in which variables are metric and strongly correlated (Hair *et al.*, 1998). It is an interdependence technique where all variables are simultaneously analysed, while employing the concept of a variate which is the linear composite of variables. Moreover, it identifies the underlying structure in a data matrix by analysing the interrelations (correlations) among the variables and defining a set of common dimensions or factors. The factors are derived hierarchically i.e. the first factor is more important than subsequent factors, and are formed to maximise their explanation of the entire variable set rather than predicting a dependent variable. Hence, the data are described in a smaller number of constructs than the original variables.

Hair *et al.* (1998) note that large samples are appropriate and, in general, a sample of less than 50 observations should not be used; preferably the sample size should be 100 or larger. As a general rule, the minimum sample size is at least five times as many observations as there are variables, while a more acceptable range is 10:1 to minimise the probability of "overfitting" i.e. deriving sample specific factors with little generality.

Following Chatfield and Collins (1980) and Everitt and Dunn (1983), the source of information about the sample data comes from the variances and covariances of the original variables X_i (i=1,...,p) and these measures of dispersion show the interdependencies between them. The variance-covariance matrix, Σ, is symmetric

where the diagonal terms are the variances σ_{ii} (i=1,...,p) and the off-diagonal terms are the covariances σ_{ij} (i,j=1,...,p and i≠ j). To avoid scaling problems from differences in units of measurement, the correlation matrix is used where the original variables have been standardised to have zero mean and unit variance; the elements are the correlations between each variable with itself and other variables i.e. r_{ij} is the correlation between X_i and X_j for i,j=1,...,p.

The basic model assumes that the original variables X_i (i=1,...,p) are determined by a linear combination of common factors f_s (s=1,...,k and k<p) and the influence of a unique factor (i.e. specific to the original variable), the error term, e_i (i=1,...,p):

$$X_1 = \lambda_{11}f_1 + \lambda_{12}f_2 + ... + \lambda_{1k}f_k + e_1$$
$$X_2 = \lambda_{21}f_1 + \lambda_{22}f_2 + ... + \lambda_{2k}f_k + e_2$$
$$\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots$$
$$X_p = \lambda_{p1}f_1 + \lambda_{p2}f_2 + ... + \lambda_{pk}f_k + e_p$$

The weights λ_{is} (i=1,...,p and s=1,...,k) are factor loadings indicating the correlation between the original variable and the factors. The variate e_i (i=1,...,p) describes the residual variation specific to the ith variable. The model can be rewritten in matrix terms as:

$$X = \Lambda f + e \tag{5.1}$$

where X is a (p×1) column vector, Λ is a (p×k) matrix, f is a (k×1) column vector, and e is a (p×1) vector:

$$\begin{bmatrix} X_1 \\ X_2 \\ \cdot \\ X_p \end{bmatrix} = \begin{bmatrix} \lambda_{11} & \lambda_{12} & \cdots & \lambda_{1k} \\ \lambda_{21} & \lambda_{22} & \cdots & \lambda_{2k} \\ \cdot & \cdot & \cdots & \cdot \\ \lambda_{p1} & \lambda_{p2} & \cdots & \lambda_{pk} \end{bmatrix} \begin{bmatrix} f_1 \\ f_2 \\ \cdot \\ f_k \end{bmatrix} + \begin{bmatrix} e_1 \\ e_2 \\ \cdot \\ e_p \end{bmatrix}$$

Assume that $X_i \sim N(0,1)$, $f_s \sim N(0,1)$, the covariances between f_s and f_n are zero so that their correlations are zero i.e. $E(f_s f_n) = 0$, (s,n=1,…,k, s≠ n); f_s and e_i are uncorrelated i.e. $E(f_s e_i) = 0$, and the covariance between e_i and e_j is zero that is they are pairwise independent i.e. $E(e_i e_j) = 0$, (i,j=1,…,p, i≠ j).

In the variance-covariance model of the original variables, the total variance is composed of a common variance, which is the variance shared with other variables, and a unique variance which is the variance associated with only a specific variable due to data or measurement errors and is not explained by, or associated with other variables in factor analysis (Everitt and Dunn, 1991). The variance covariance matrix of the original variables is defined as:

$$\Sigma = \Lambda \Lambda^T + \Psi \tag{5.2}$$

where Ψ is the variance-covariance matrix of the unique factors and explains the specific variance and error variance of the original variables of the squared factor loadings ($\Lambda \Lambda^T$) i.e. the common variance, and T is the transpose of a matrix.

Since Σ is derived from the original data set, the variances are not explained exactly because they include the error term. In contrast, covariances are explained exactly because they do not have such a term. The variance of X_i is given by:

$$\text{var}(X_i) = \sum_{s=1}^{k} \lambda_{is}^2 + \psi_i \qquad i=1,\ldots,p \text{ and } s=1,\ldots,k \qquad\qquad (5.3)$$

where ψ_i is the variance of e_i. The covariance between X_i and X_j is given by:

$$\text{cov}(X_i, X_j) = \sum_{s=1}^{k} \lambda_{is}\lambda_{js} \quad i,j=1,\ldots,p \text{ and } s=1,\ldots,k \qquad\qquad (5.4)$$

The factors (or components) are based only on the common variance of the original variables and, therefore, only the exact explained covariances of the original data are explained by the factors.

Communality, h_i^2, is the share of the variance of an original variable explained by the common factors and is employed to assess the significance of EFA results i.e. the significance of relations between the original variables (X_i) and the common factors (f_s). It is given by the squared multiple correlation of the original variable and the factors emerged from the analysis and it estimates the common variance among variables, while unique variance is assumed to be zero (Kinnear and Gray, 2000). Communality is defined as the sum of the squared factor loadings in the variance in (5.3):

$$h_i^2 = \sum_{s=1}^{k} \lambda_{is}^2 \qquad i=1,\ldots,p \text{ and } s=1,\ldots,k \qquad\qquad (5.5)$$

Estimation of (5.3) requires the specification of the number of factors (k). The estimation procedure obtains estimates of Λ and Ψ that satisfy (5.1) and (5.2). A unique solution requires that the variables are standardised so that $h_i^2 + \psi_i = 1$, and that each factor is independent and derived in descending order of importance.

There are six steps in EFA. The first issue in applying EFA is to choose a set of variables that are linked to a common theme. This choice depends on the context of the research and the focus of analysis. For example, the most obvious is to choose a set of variables that represent a set of attribute scales linked to a construct. Second, EFA requires that the data are metric. There is a need to justify this either with respect to the explicit measurement properties of the data or by assuming that the data are metric. In the latter situation, the data may be not strictly metric but are assumed to be for simplicity.

Third, the original data set must also be correlated. If the variables are uncorrelated, factor analysis is invalid because it produces components that are close to the original variables arranged in decreasing order of variance[1] (Chatfield and Collins, 1980). To test the interdependence of the original variables, two tests are employed: Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. Hair *et al.* (1998) note that Bartlett's test is used to examine the presence of correlations among variables and provides the statistical probability that the correlation matrix has significant correlations in at least some of the variables; the larger the sample size, the more sensitive the test is in detecting correlations. The null hypothesis here is that none of the variables are correlated (i.e. the correlation matrix

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[1] The same happens when original variables are almost uncorrelated (i.e. small degree of correlations) and thus it is required to have significant correlations in at least some of the variables.

is an identity matrix), while the alternative hypothesis is that the variables are correlated (i.e. correlation matrix is not an identity matrix). The KMO measure shows inter-correlations between variables ranging from zero to unity and it is unity when each variable is perfectly predicted by the other variables without error. The KMO value increases when the sample size increases, when the average correlations increase, when the number of variables increase, or when the number of factors decreases. It is acceptable for values over 0.5 (Hair *et al.*, 1998), and the closer KMO value is to unity, the more confident we are in Bartlett's test.

The fourth step in the analysis deals with the evaluation of the goodness of fit of the factor analysis solution. The communalities h_i^2 in (5.5) are first examined to see how well the model fits the data. In particular, it is important to have as large values as possible for h_i^2, since extraction coefficients show the percentage of the common variance explained. Values of $h_i^2 > 0.4$ are usually acceptable and large values indicate that a significant amount of common variance of a variable is extracted by the factor solution.

If there is an acceptable goodness of fit, then the number of components to be derived has to be chosen in the fifth step. The higher the number of components, the more total variance is explained and the less data reduction is achieved. Therefore, it is important to derive a number of factors that provide good data reduction (i.e. few factors) and a limited loss of information (i.e. explain as much variance as possible). There are consequences for selecting either too many or too few components to represent the data: if too few components are derived, the correct structure is not revealed and important dimensions are excluded, while if too many components are

derived, interpretation is difficult. The number of components is based on three basic elements: eigenvalues, the contribution that each component makes and the cumulative criterion, and the scree-test criterion (Everitt and Dunn, 1991; Hair *et al.*, 1998).

According to the eigenvalue criterion, components having eigenvalues less than unity are considered insignificant and are disregarded (Kinnear and Gray, 2000). However, the eigenvalue criterion is more reliable for $20 \leq p \leq 50$(Hair *et al.*, 1998). If p<20, there is a tendency to extract too few components. The variance criterion chooses the number of components by examining the cumulative percentages of the variance extracted by successive components and practical significance must be ensured for the derived components. There is no absolute cumulative percentage of variance to be targeted but usually a 60% or more cumulative percentage of the total variance is satisfactory (Hair *et al.*, 1998). The scree-test identifies the optimum number of components that can be extracted before the amount of unique variance begins to dominate the common variance structure (Everitt and Dunn, 1991). This test is derived by plotting the eigenvalues against the number of factors in order of extraction and the resulting curve indicates how many components to derive. At the point where the curve begins to straighten out, the maximum number of factors to extract is indicated (Kinnear and Gray, 2000).

A satisfactory data reduction is achieved by replacing all variables in the analysis with a specific number of components that explain a significant amount of the original total variance. The sixth step in the analysis involves the choice of the method of extraction and rotation. There are several extraction methods such as principal components,

principal axis factoring, maximum likelihood, alpha factoring, and generalised/unweighted least squares (SPSS, 2000). The most widely used method, and that which is used here, is that of principal components method (Katsikeas *et al.*, 1996; Katsikeas *et al.*, 2000b; Thirkell and Dau, 1998).

Rotation assists in the interpretation of factors by rotating the factor matrix so as to redistribute the variance from earlier factors to later ones thus achieving a simpler and more meaningful factor pattern (Hair *et al.*, 1998). Rotation does not affect communalities or the total variance explained, but does affect eigenvalues and variances (Chatfield and Collins, 1980). Figure 5.2 shows an example of principal factor analysis for three variables (X_1, X_2, X_3) with a two-factor solution (f_1 and f_2). Here, the axes measure the correlation of the original variables (i.e. X_1, X_2, X_3) to f_1 and f_2 i.e. the factor loading for the original variables. In the initial solution, some variables are associated with both factors. But for a clearer interpretation, it is more appropriate to assess the unique associations between variables and factors and thus the rotated solution is easier to interpret. The link between variables and factors separates so that variables X_1 and X_2 are strongly associated with f_2' (i.e. the rotated factor f_2), while variable X_3 is strongly associated with f_1' (i.e. the rotated factor f_1) (Everitt and Dunn, 1983).

Figure 5.2:   Example of a Two-Factor Solution
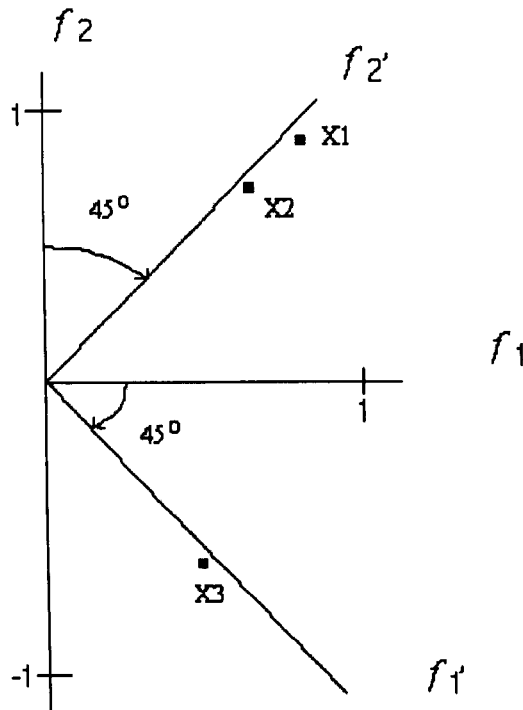
In orthogonal rotation, the factor axes are maintained at $90°$ and are not correlated. There are several methods of orthogonal rotation like varimax, quartimax and equimax. Orthogonal varimax rotation concentrates on the columns of the factor loadings matrix and tries to maximise the sum of variances of required loadings of the factor matrix and, in this way, either high loadings close to -1 or 1 (i.e. those which indicate a strong negative or positive association between variable and factor) or loadings near zero (i.e. indicating no association) are produced in each column of the matrix.[2] The main distinction between the rotated and the unrotated model is that, in the former, each variable does not load significantly onto more than one factor, while in the rotated solution, each variable has significant loadings on more than one factor. Empirical evidence suggests that the varimax method produces loadings that are

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[2] The quartimax method rotates the initial factor so that a variable loads high on one factor and as low as possible on all other factors, simplifying the rows of a factor matrix. The equimax method is a combination of the two other methods and is used infrequently.

easier to be interpreted and it has become the most commonly used method (Hair *et al.*, 1998). In contrast, oblique rotation does not require zero correlations and independence between the rotated factors. Oblique rotation has similar objectives to orthogonal rotation with the additional feature of correlated factors and the most popular method of oblique rotation is Oblimin (Everitt and Dunn, 1983).

Of the two rotation methods (i.e. orthogonal and oblique), Hair *et al.* (1998) state that orthogonal approaches are more widely and frequently employed because the analytical procedures for performing oblique rotations are not as well developed and are under considerable controversy. Apart from this, there is no compelling reason for favouring one rotational method over another. Orthogonal rotation is more appropriate when the purpose is to reduce the number of original variables, regardless of how meaningful the resulting factors may be, or when the researcher tries to reduce a large number of variables to a smaller set of uncorrelated variables for subsequent multivariate techniques. Following many studies, including those in the export marketing literature, (e.g. Katsikeas and Morgan, 1994; Katsikeas *et al.*, 1996), orthogonal rotation using the varimax method with Kaiser normalisation is used here.

Finally, to interpret the components, the significant loadings for each component are identified. According to Hair *et al.* (1998), for a sample size of 100 respondents, statistical significance is achieved for factor loadings greater than $|0.55|$ since factor loadings have substantially larger standard errors than typical correlations and therefore stricter rules are required to evaluate them. However, statistical significance based on this criterion might be too conservative and, usually, practical significance is realized from lower factor loadings with a minimal level $>|0.3|$, with more important

loadings of >|0.4|, and "practical significance" at >|0.5|. In general, the larger the sample size, the smaller is the significant loading; the larger the number of variables analysed, the smaller is the significant loading; and the larger the number of components extracted, the larger the size of loading required on later factors to attain significance for interpretation (Hair *et al.*, 1998). Consequently, since the sample size is 103, we adopt a statistical significance is achieved for factor loadings of over |0.55|, but lower loadings are also considered separately. If any variable has insignificant loadings to all factors (i.e. less than |0.3|), it is omitted from subsequent analysis and the analysis is repeated under a new revised set of variables that excludes it.

5.4 Structural Equation Modelling

5.4.1 Introduction

Structural equation modelling (SEM) is a multivariate technique that combines aspects of multiple regression and factor analysis to estimate simultaneously a series of interrelated dependence relationships (Hair *et al.*, 1998). In particular, it estimates a series of separate, but interdependent, multiple regression equations simultaneously by specifying a structural model. SEM was developed from econometric multi-equation modelling and measurement principles of psychology and sociology (Bentler, 1980; Hair *et al.*, 1998; Kaplan, 2000).

SEM, as generally practised in the social and behavioural sciences, is characterised in Figure 5.3. First the theory is examined, and the model is then specified where

structural equations, as represented in a path diagram, are seen as one-to-one representations of the theory. The sample is then selected and measures of variables are obtained and estimation of the parameters of the model follows. Finally, the model's goodness of fit is assessed and model respecification takes place if necessary and so on. A feature of the conventional approach is the connection between theory and model specification where the only difference is an error term. Obtaining a better fit by modifying the model is driven by the view that better fit suggests closer alignment with the theory. However, this does not mean that the ultimate purpose is to improve the fit of the model, because better fit might suggest closer alignment with the data but not necessarily with the theory (Kaplan, 2000).

Figure 5.3:   Conventional Approach to SEM
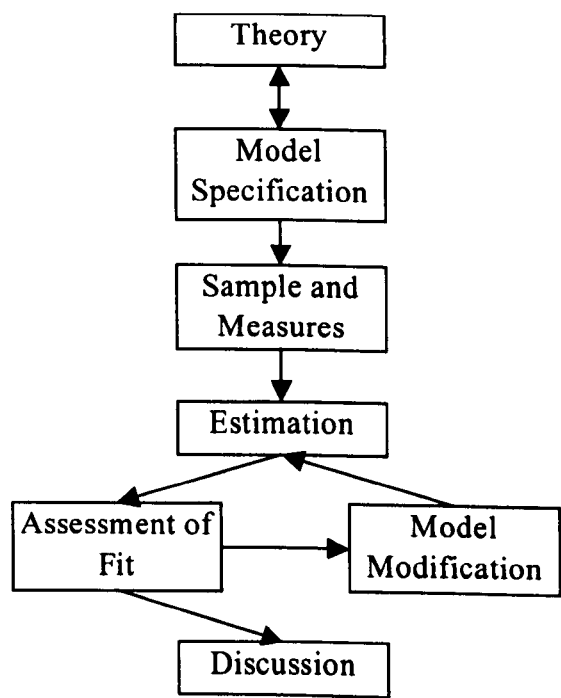
Source: (Kaplan, 2000, p. 8).

In SEM, the interdependent nature of the model expresses relationships among independent and dependent variables, even where dependent variables become

independent variables in subsequent relationships (Hair *et al.*, 1998). Consequently, the relationships are translated into a series of structural equations for each dependent variable thereby accommodating multiple dependent variables and allowing only a single relationship between dependent and independent variables.

SEM can also incorporate latent variables (i.e. hypothesized, unobserved concepts) that can be approximated by observable or measurable variables, such as manifest variables (Everitt, 1984; Hair *et al.*, 1998). This improves statistical estimation, better represents theoretical concepts, and reflects measurement error. In addition, since the specification of indicators for each construct can be controlled, SEM can play a confirmatory role in the form of confirmatory factor analysis by examining the significance of the exploratory factor results through the statistical testing of goodness of fit of the confirmatory factor solution.

The general structural equation model consists of two parts: the measurement part that links the observed variables via a confirmatory factor model; and the structural part, linking latent variables to each other via systems of simultaneous equations. Figure 5.4 shows a simple two-factor measurement model used for confirmatory factor analysis, where e_m (m=1,..., 4) are residuals for each indicator, and X_1, X_2 and X_3, X_4 (i.e. original variables) are the indicators for factors f_1 and f_2, respectively. The arrows represent relationships between constructs: a straight arrow indicates a direct causal relationship from one construct to another, while a curved arrow between constructs indicates their correlation. Correlation between factors f_1 and f_2 is permitted and RW1, RW2, RW3, RW4 are the regression weights or factor loadings, in this case of each indicator (i.e. X_m, m=1,...,4) to its corresponding factor. In some cases, residuals are

allowed to correlate and they are part of the measurement model. In addition, one of

the features of the statistical program employed is that it sets the scale of the residuals

to unity and shows this on the path diagram (AMOS 4, Arbuckle, 1999).

Figure 5.4:   Example of a Two-Factor Structural Equation Model
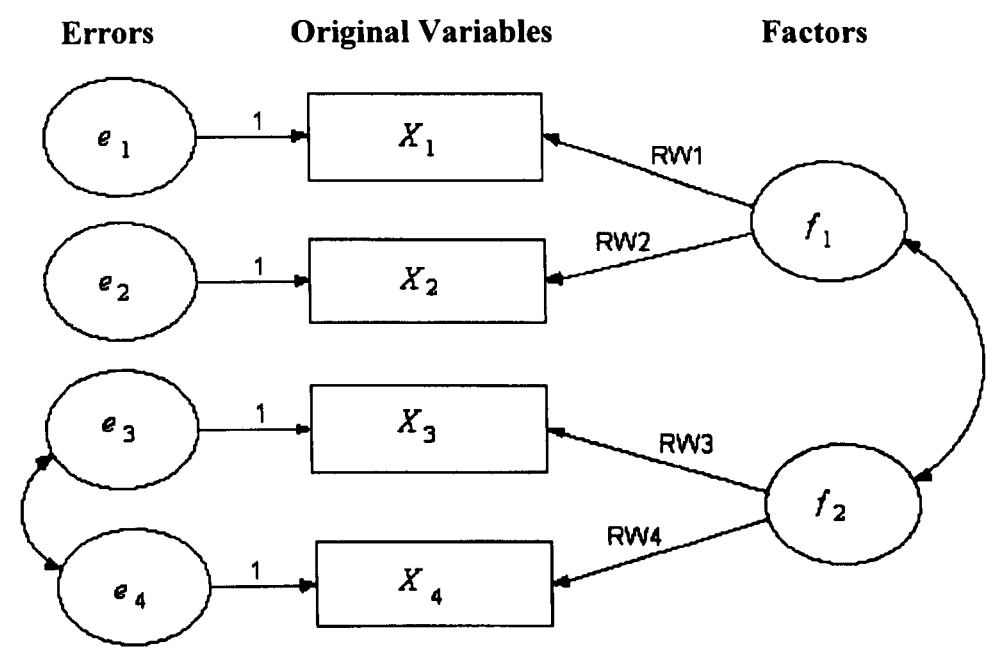
SEM can address a wide variety of causal relationships and the most common types of

analysis performed are confirmatory factor analysis (CFA) and the estimation of a

series of structural equations, or path model estimation (PME). CFA is particularly

useful in validating scales for the measurement of specific constructs in SEM. In

contrast to EFA, SEM provides full control over the specification of indicators for

each construct and allows for a statistical test of the goodness of fit for the

confirmatory solution (Hair *et al.*, 1998). In addition, when a path model is estimated,

the structural model provides an understanding of the relative importance of various

indicators (e.g. competitive advantages, information sources etc.) towards specific

exogenous constructs (e.g. export performance). In addition, CFA allows the

researcher to specify which indicators load on which factors and it also allows the fixing the loadings for some indicators.[3] Furthermore, the intercorrelated factors can be specified, as well as correlation magnitudes.[4] Finally, CFA allows correlated errors in indicators (Pedhazur and Schmelkin, 1991).[5] Thus, CFA can be viewed as a sub-model of the SEM approach where a model of relations between indicators (i.e. manifest variables) and factors (i.e. latent variables) is examined, along with relations of the latter. CFA is also more appropriate for internal and cross-structural analysis in the process of construct validation.

Hair *et al.* (1998) note that SEM differs from other multivariate techniques in that it uses only the variance-covariance or correlation matrix of indicators as input data. Its assumptions are independent observations, random sampling of respondents, and linearity of relationships. SEM is also more sensitive relative to other multivariate techniques to the distributional characteristics of the data such as kurtosis or departures from multivariate normality, which can substantially inflate the χ^2 statistics for determining coefficient significance, and create upward bias in critical values. Common transformations to achieve multivariate normality, when the data violate the assumptions, include using the inverse for problems of kurtosis or the square root or logarithms for problems of skewed distributions (Hair *et al.*, 1998). After transformation, the new variables should be reassessed to see whether the desired remedy was achieved. Generalised least squares estimation is an alternative estimation method for adjusting estimates when using non-normal data, but this method becomes impractical as the model size and complexity increase. Finally, if

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[3] In EFA all indicators have loadings on all factors, which is not necessarily meaningful.
[4] In EFA, it is not possible to specify that only some factors are intercorrelated i.e. either all or no factors are correlated.
[5] In EFA, the errors in indicators are not correlated.

none of the above remedies can fulfil the assumptions of multivariate normality then, to achieve reliable estimates, the ratio of observations to estimated parameters needs to increase to 5:1 for maximum likelihood estimation (Settoon *et al.*, 1996) or 15:1 to minimise the sampling error's impact (Hair *et al.*, 1998).

5.4.2 Model Specification

According to Hoyle and Panter (1995), the first step in SEM application is to develop a model (i.e. a system of relations) based on theory and/or prior research (e.g. EFA results). The model can include relations among measured variables and latent variables (i.e. factors, constructs) as well as non-directional (i.e. curved arrows) and directional (i.e. straight arrow - direct and indirect) relations. In CFA, the extracted factors of EFA are the exogenous constructs in SEM, while the indicators (i.e. independent variables) are the endogenous constructs. Similarly, the path diagram provides the basis for specification of the structural equations and the proposed correlation between exogenous constructs and between structural equations.

During SEM specification, a common problem is identification, that is the inability of the model to generate unique estimates. To identify the model, the size of the covariance or correlation matrix relative to t he n umber of estimated coefficients is examined and their difference is the degrees of freedom (df):

$$df = \frac{1}{2}[(w + g)(w + g + 1)] - t \qquad (5.6)$$

where w is the number of endogenous indicators, which are predicted by one or more

indicators; g is the number of exogenous indicators i.e. source or independent

variables not predicted by other variables in model; and t is the number of estimated

coefficients in the model. The first term on the right-hand side of (5.6) is calculated

from the non-redundant size of the covariance or correlation matrix i.e. lower or upper

triangular half of the matrix plus the diagonal elements, and each estimated

coefficient reduces the df by one. Note that in contrast to other multivariate

techniques, sample size does not affect the df (Hair *et al.*, 1998).

Two rules of identification are the order and rank conditions. The order condition is

that df $\geq$ 0: an over-identified model is where df $>$ 0 while a just-identified model is

where df = 0 (Everitt and Dunn, 1991; Hair *et al.*, 1998). Just-identified models have

a perfect fit but do not have a generalised solution. Thus, the aim is to develop an

over-identified model where the data matrix has more information than the number of

parameters to be estimated. If an acceptable fit is achieved, the larger the number of

df, then the more general is the model. An under-identified model is where df $<$ 0 and

can only be estimated if some parameters are fixed or constrained. The rank condition

requires determining algebraically if each parameter is uniquely identified (Hair *et al.*,

1998). Usually, constructs with three or more indicators and recursive models[6] with

identified constructs, can be identified.

Identification problems can be detected through diagnostic procedures. Common

identification problems arise when multiple variables are hypothesised to be

indicators for two or more constructs (in CFA) or when reciprocal relationships are

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[6] Models with no reciprocal relationships in the structural model (Hair *et al.*, 1998)

specified between endogenous variables (in PME). In CFA, the chance of occurrence of such problems is minimised by the use of strong theoretical foundations to specify the measurement problem, while in PME, reciprocal relationships are estimated through model constraints in other aspects of structural equations (Hair *et al.*, 1998).

SEM accommodates both covariance and correlation matrices as input matrix type. In CFA, since interrelationships are examined, correlations are preferred. In PME, where a series of causal relationships are tested, covariances are the preferred input matrix but in the following analysis correlations are used for practical and theoretical reasons. Practically, correlations are more easily interpreted with more direct results and, theoretically, since the analysis examines the pattern of relationships among the exogenous and endogenous constructs, the correlation matrix is an acceptable input matrix (Hair *et al.*, 1998). Furthermore, it is more likely that specification error is evident, s ince w e c annot i ncorporate e very r elevant v ariable a nd, t hus, conclusions should be drawn only about the patterns of relationships rather than the predictive ability of the constructs.

The statistical program used for the estimation of the measurement model and the construct correlations is AMOS 4 (Arbuckle, 1999). When estimating a proposed model with constructs with more than one variable, the construct's indicators must be standardised so as to have comparable constructs. To achieve this, two approaches are used, producing the same estimates: either one of the loadings in each construct can be set to unity (Kaplan, 2000), or the construct variance is estimated directly (Hair *et al.*, 1998) and we use the former.

5.4.3 Evaluating Goodness of Fit

To evaluate the goodness of fit of the model, first the results are examined to identify any "offending estimates." Offending estimates are coefficients in either the structural or the measurement models that exceed acceptable limits and, usually, they are identified as: negative error variances or insignificant error variances for any construct; standardised coefficients exceeding or very close to unity; or very large standard errors associated with any estimated coefficient (Hair *et al.*, 1998). Where such estimates are identified, then each must be resolved before evaluating the results.

To resolve these problems, any possible identification problems must be corrected and if the problem persists, other remedies are available e.g. negative error variances (Heywood cases) can be set to a very small positive value (0.005); and for correlations exceeding unity, or when two estimates are correlated highly, then elimination of one of the constructs should be considered or a true discriminant validity among constructs should be ensured (Hair *et al.*, 1998). Although, these remedies meet only the practical requirement of the estimation process, they must be considered when interpreting the results to avoid models without theoretical justification.

If the model has acceptable estimates, then the goodness of fit is assessed in different levels: first for the overall model and then for the measurement and the structural models, separately. In the overall model, goodness of fit measures the correspondence of the actual or observed input (through the covariance or correlation matrix) with that predicted by the proposed model. A particular problem that might arise in model

development is "overfitting" and to avoid this, an approximate ratio of five respondents per estimated coefficient should be maintained (Hair *et al.*, 1998). Furthermore, the best possible model fit for each estimated coefficient (i.e. parsimony) is desirable by seeking the largest possible number of df, *ceteris paribus*. The better fit achieved with fewer coefficients, the better the test of the model and the more certain is that the results are not a consequence of "overfitting" (Jöreskog, 1993).

Goodness of fit measures are of three types: absolute fit measures, which assess only the overall model fit without accounting for the "overfitting" problem; incremental fit measures that compare the proposed model with another; and parsimonious fit measures, which modify the measures of fit to provide a comparison between models with differing numbers of estimated coefficients (i.e. degree of parsimony) (Hair *et al.*, 1998).

We calculate fit measures for each of the three following models: the "default" model, which is specified by the user; and the "saturated" and "independence" model specified by the program. The "saturated" model is like a non-constrained version of a "default" AMOS model and is the most general model possible, since it guarantees to fit any data set perfectly. In contrast, in the "independence" model, the observed variables are assumed to be uncorrelated with each other and the means of all observed variables are fixed at zero when other means are being estimated or constrained. Hence, the "independence" model is so strictly constrained that it is expected to provide a poor fit to any set of data. In general, the "saturated" and

"independence" models are the polar extremes between which the "default" model lies (Arbuckle and Worthke, 1999).

The absolute fit measures used are the χ^2-statistic, the root mean square residual (RMR), the root mean square error of approximation (RMSEA), and the goodness of fit index (GFI). The χ^2-statistic is the only statistically based measure of goodness of fit in SEM. It indicates the minimum value of discrepancy, and the associated p-value specifies the probability of obtaining as large a discrepancy as occurred with the present sample (under appropriate distributional assumptions and assuming a correctly specified model) and tests the null hypothesis that the model fits perfectly (Hair *et al.*, 1998). Large χ^2-values imply that the observed and the estimated matrices differ considerably. However, the ultimate objective in SEM is to obtain insignificant differences between the actual and predicted matrices i.e. low χ^2-values with a significance level of at least 0.05 but p-values more than 0.1 or 0.2 are deemed as more appropriate (Hair *et al.*, 1998). Thus, χ^2 is a badness of fit measure in the sense that a small χ^2 corresponds to a good fit, while a large χ^2 corresponds to bad fit (Jöreskog, 1993).

Statistical insignificance however does not guarantee that the "correct" or best model has been identified, but only that the proposed model fits the observed covariances and correlations well. It should also be noted that the use of the χ^2-statistic is appropriate for sample sizes between 100 and 200, with the significance of the test becoming less reliable with sample size outside this range, especially when sample size exceeds 200 respondents (Hair *et al.*, 1998). In case of a small sample (i.e. <100), an alternative hypothesis that departs from the null hypothesis may still have a small

probability of yielding a significant χ^2-value, while with a very large sample (i.e. >200), small and unimportant departures from null hypothesis are almost certain to be detected (Bentler and Bonett, 1980; Browne and Cudeck, 1993; Everitt, 1984; Gerbing and Anderson, 1993; Jöreskog, 1993). According to Gerbing and Anderson (1993), the p-value level associated with the χ^2-statistic is also confounded by sample size: in large samples, good fitting models are rejected on the basis of trivial misspecification, while in small samples, the probability level is too forgiving of important misspecifications. They also add that many researchers (e.g. Anderson and Gerbing, 1984; Boumsma, 1982) discovered that nearly all models they tested with reasonable sample sizes failed to fit the data. Therefore, other goodness of fit measures should be used so as to complement the χ^2-statistic.

We use three other absolute fit measures. The RMR is the square root of the average squared amount by which the sample variances and covariances differ from their estimates obtained under the assumption that the model examined is correct. Smaller RMRs are preferred while RMR=0 indicates a perfect fit (Arbuckle and Worthke, 1999). The RMSEA is the root mean square error of approximation and has to be about 0.05 or less to have a "close fit" of the model, while values of 0.08 or less are also acceptable and values between 0.08 and 0.1 are indicative of mediocre fit (Browne and Cudeck, 1993; Jöreskog, 1993; Kaplan, 2000). The GFI is a non-statistical measure, ranging between 0 and 1, with unity indicating a perfect fit, and representing the overall degree of fit i.e. the squared residuals from prediction compared with the actual data (Arbuckle and Worthke, 1999; Hair et al., 1998). For GFI equal or greater than 0.9 or 0.8 usually indicates a good fit (Pedhazur and Schmelkin, 1991).

The incremental fit measures assess the incremental fit of the model compared with a null model, which in our case is the "independence" model. The incremental fit measures used are: the adjusted goodness of fit index (AGFI), the normed fit index (NFI), the relative fit index (RFI), the incremental fit index (IFI), the comparative fit index (CFI), and the Tucker-Lewis coefficient (TLI). The AGFI is an extension of the GFI measure, which takes into account the df available for testing the model, and the recommended acceptable level is GFI$\geq$ 0.9 (Arbuckle and Worthke, 1999; Hair et al., 1998) or GFI$\geq$ 0.8 (Pedhazur and Schmelkin, 1991). The NFI ranges from 0 (i.e. no fit) to 1 (i.e. perfect fit) and while there is no absolute value indicating acceptable fit, a commonly recommended value is 0.9 or greater (based on researchers' indications) (Arbuckle and Worthke, 1999; Bentler and Bonett, 1980; Hair et al., 1998; Kaplan, 2000; Pedhazur and Schmelkin, 1991; Wheaton et al., 1977). The RFI, the IFI, and the CFI represent comparisons between the estimated and a null or independence model and lie between 0 and 1, with larger values indicating higher levels of goodness of fit (Hair et al., 1998). The TLI usually lies between 0 and 1, but it is not limited to that range and values close to unity indicate a very good fit and a recommended value is 0.9 or greater (Arbuckle and Worthke, 1999; Hair et al., 1998).

However, a problem that arises with NFI, GFI, and TLI, which indicate the degree that the model accounts for the sample covariances, is that improved fit can be obtained by freeing more parameters until df = 0 when "perfect fit" is attained (Gerbing and Anderson, 1993). Thus, parsimonious fit measures are required to explain as much as possible with as few parameters as possible. The parsimonious fit measure used here is the relative-χ^2 or normed-χ^2 which is defined as χ^2/df. This

measure's values provide two ways to assess inappropriate models: a model that might be either "overfitted", quantified by a value of less than unity, or a model not yet truly representative of the observed data and thus required to be improved, quantified by a value greater than the upper threshold of either two (Byrne, 1989) or three (Carmines and McIver, 1981), or the more liberal limit of five (Hair et al., 1998; Marsh and Hocevar, 1985; Wheaton et al., 1977). Thus the most appropriate range for the normed-χ^2 is between unity and two. Nevertheless, Wheaton et al. (1977) and Hoelter (1983) point out that the normed-χ^2 is affected by sample size, ceteris paribus, and they argue against its use as an index of fit.

In general, there are shortcomings of most fit measures and their use and interpretation should be based on theoretical justification and experience. For example, according to the Monte Carlo study by Gerbing and Anderson (1993), sample size influences some goodness of fit measures (i.e. NFI, GFI and AGFI) by downward biasing their values. In addition, although TLI is not affected by sample size, the variability of TLI estimates, along with TLI standard deviation and standard errors, are seriously influenced by sample size and thus its accuracy is questioned. Gerbing and Anderson (1993) also state that during CFA, fit indices, such as GFI and AGFI, indicate less fit as the number of factors in the model or the number of indicators per factor increase, with the exception of TLI which is relatively robust to this effect. Therefore, they indicate that "for a sample of size 100... even with a perfectly specified model, 5% of the values obtained were below .887... a value the researcher could use to judge model acceptability" (Gerbing and Anderson, 1993, pp. 50-51). Moreover, in terms of the RMR, Babakus et al. (1987) note that values were substantially greater under non-normality, while Bentler (1990) indicates a downward

bias of CFI for various sample sizes (e.g. 50, 100, 200 etc.), although not as substantial as in other fit measures.

The assessment of the overall goodness of fit for structural equation models is not straightforward as with other multivariate techniques because there is no single statistical test that best describes the significance of predictions. A number of goodness of fit measures have been developed which must be combined to assess the results from three perspectives i.e. overall fit, comparative fit to a null model and model parsimony. Furthermore, even if there are guidelines for acceptable range of values, no absolute tests or rigid cut-off values are available and evaluation of fit is subjective. Thus, evaluation must be based on good awareness of factors affecting these fit measures (Hair *et al.*, 1998). Table 5.1 shows in summary the goodness fit measures used here, along with the suggested levels of acceptance.

Table 5.1: Various Fit Measures and Level of Acceptance

MEASURES	MEANING OF FIT MEASURES	ACCEPTANCE LEVEL
DF NPAR	Degrees of freedom Number of parameters	
~ABSOLUTE FIT MEASURES		
X^2 (CMIN) P-value RMR RMSEA GFI	Chi-square Probability level Root mean square residual Root mean square error of approximation Goodness of fit index	As low as possible At least .05 - values >.1 or >.2 better As low as possible Values < 0.08 Values >0.90
~INCREMENTAL FIT MEASURES		
AGFI NFI RFI IFI TLI CFI	Adjusted goodness of fit index Normed fit index Relative fit index Incremental fit index Tucker-Lewis index Comparative fit index	Values >0.90 Values >0.90 Values >0.90 Values >0.90 Values >0.90 Values >0.90
~PARSIMONIOUS FIT MEASURES		
Normed-χ^2	χ^2/ degrees of freedom (df)[7]	Lower limit: 1 - Upper limit: 2/3 or 5

5.4.4 Model Assessment

An acceptable overall goodness of fit however does not guarantee that all constructs meet the requirements for model fit, nor that the structural model is fully supported. The measurement of each construct has to be assessed for reliability, i.e. internal consistency of construct indicators, and validity, i.e. the extent to which the indicators accurately measure what they are supposed to measure. The issue of validity rests on the researcher's specification of indicators for a latent construct. For reliability, Cronbach's alpha is a commonly used measure (Hair *et al.*, 1998) with a threshold value for acceptance of more than 0.7, but this is not an absolute standard.[8]

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[7] The normed-χ^2 is presented in AMOS 4 results (in the analysis) as CMIN/df instead of χ^2/df.
[8] Sometimes Cronbach's alpha values below 0.7 are deemed acceptable if the research in explanatory in nature.

Following Hair *et al.* (1998), construct reliability (*CR*) can be calculated as:

$$CR = \frac{\sum (SL)^2}{\sum (SL)^2 + \sum e_i}$$

(5.7)

where standardised loadings (*SL*) are obtained directly from AMOS and e_i is the measurement error for each indicator. The variable $e_i = 1 - R_i$ where $R_i = SL_i^2$ ($i=1,...,p$). A complementary measure of construct reliability is the variance extracted (*VE*), which reflects the overall variance in the indicators accounted for by the latent construct; it is calculated as:

$$VE = \frac{\sum (SL^2)}{\sum (SL^2) + \sum e_i}$$

(5.8)

Higher variance extracted shows that the indicators are more representative of the latent construct and an acceptable value for a construct should exceed 0.5.

An analysis of the structural model involves examining the estimated coefficients and assessing their statistical significance. If statistical significance is not achieved, then either the indicator is omitted or it is transformed so as to better fit the construct. The results of SEM can also be affected by multicollinearity and if large values (>0.8) appear in the correlation matrix of the estimated values of the latent constructs, corrective action should be taken, such as the deletion of one construct or reformulation of causal relationships (Hair *et al.*, 1998, p. 613).

If there is an acceptable goodness of fit, then we assess whether the SEM results correspond to the theory and two issues of interpretation are considered: first the use of standardised versus non-standardised solutions, and second, model respecification. The former is related to the comparability of the coefficients, while the latter attempts to identify possible methods for improving model fit and/or its correspondence to the underlying theory.

The interpretation of the results can be based on either the variance-covariance matrix or the correlation matrix. The variance-covariance matrix provides valid comparisons between populations or samples, but its interpretation is more difficult since the coefficients must be interpreted in terms of the units of measure of the constructs. In contrast, the correlation matrix cannot provide comparisons between populations or samples, but it makes possible direct comparisons of the coefficients within a model because it is similar to a "standardised" variance-covariance matrix where the scale measurement of each variable is removed by dividing the variances or covariances by the product of standard deviations. Thus, the correlation matrix is more commonly used since coefficients range from −1 to +1 (Hair *et al.*, 1998).

The use of the correlation matrix is appropriate when the researcher seeks to understand the pattern of relationships between constructs, rather than to explain the total variance of a construct, or when comparisons across different variables are made. The reason is that the measurement scale affects the covariances and this is not possible through the variance-covariance matrix. Moreover, there is evidence that the correlation matrix provides more conservative estimates of coefficient significance, which are not biased (Dillon *et al.*, 1987).

Once the model is deemed acceptable and interpretation is complete, it is important to find means of improving model fit and/or its correspondence to the underlying theory. To achieve that, we respecify the model by adding or deleting estimated parameters from the original model. However, it should be noted that each modification needs to be supported by theory and, usually, only relationships that are added to provide fit should be considered (Pedhazur and Schmelkin, 1991).

An indication for possible respecification can arise from the standardised residuals, which represent the differences between the observed correlation or covariance and the estimated correlation or covariance. In particular, residual values greater than ±2.58 are considered to be statistically significant at the 0.05 level, indicating substantial prediction error for a pair of indicators[9] (Hair *et al.*, 1998; Pedhazur and Schmelkin, 1991). Another way of improving model fit is through modification indices (MI), which are calculated for each non-estimated relationship. The MI-value corresponds to the reduction of the χ^2, if the additional parameter were indeed added (Arbuckle and Worthke, 1999); a large fall in χ^2, compared to the difference in df, indicates that the model modifications represent a real improvement, while a fall of χ^2 close to the difference in the number of df indicates that fit improvement is obtained by "capitalising on chance" or that the added parameters are without real significance and meaning (Pedhazur and Schmelkin, 1991).

Apart from MI, AMOS provides an expected change parameter (Par Change) that denotes the magnitude and the direction of non-estimated parameter. This parameter differs from the MI in that it does not indicate the change in overall model fit (χ^2) but

shows the change in the actual parameter value (Hair *et al.*, 1998). If model modifications take place, then the modified model has to be re-evaluated for goodness of fit. However, it should be noted that models that are revised exclusively on the basis of MI often result in the "process of indiscriminate, even thoughtless, improvement of models" and the postulation of correlated errors create an illusion of an explanation i.e. covering up the problem and "legitimising the analysis" (Browne, 1982, p.101) rather than addressing the issue of misspecification (Pedhazur and Schmelkin, 1991). Therefore, models should not be revised exclusively on the basis of MI, but modifications should be theoretically justified.

Hair *et al.* (1998) note that the estimation and interpretation of SEM results are affected by sample size, which provides a basis for estimating sampling error. Common factors affecting sample size requirements are model misspecification, model size, departures from normality, and the estimation procedure. All structural equation models suffer from specification error because every potential construct and indicator cannot be included and sample size impacts on model estimation and the identification of specification error. Thus, if there are concerns about specification error, sample size requirements should generally be greater. In addition, as model complexity increases, so too does the requirement for an increased sample size and, typically, the minimum acceptable ratio is five respondents for each estimated parameter, with a ratio of 10 respondents per parameter considered ideal. Moreover, if the data violate the assumptions of multivariate normality, this ratio should increase further to 15 respondents per parameter. Finally, maximum likelihood estimation (MLE) (i.e. most common estimation procedure) can provide valid results with small

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[9] It should be noted that at the 95% confidence internal, there is an acceptable range of one statistically significant residual exceeding the threshold value for every 20 residuals, strictly by chance.

sizes (e.g. 50), but, in general, the appropriate use of MLE requires a minimum sample of 100 to 150. If sample size is further increased, then MLE becomes more sensitive in detecting differences among the data.

5.5 Summary

The purpose of this chapter is to provide an overview of the research strategy used and to introduce important aspects of the qualitative and quantitative techniques employed. Three research techniques are used: qualitative in-depth interviews, and the quantitative techniques of both exploratory factor analysis and structural equation modelling (i.e. confirmatory factor analysis and path model estimation).

In the first section, we examine how in-depth interviews along with the secondary data collection can assist in developing the survey questionnaire. We then consider the methods employed to analyse the primary data collected by the survey and we examine the objectives and assumptions of EFA, extraction and rotation methods in EFA and the interpretation of results. Finally, we outline the theory of estimating SEMs, including methods for developing a path diagram of causal relationships, choosing input matrix type and estimation procedure, assessing the identification of the structural model, evaluating the goodness of fit of the model, and interpreting the results.

The following thee chapters present the results obtained from the questionnaire and the quantitative analysis of EFA and SEM. In particular, the questionnaire chapter focuses on information related to the sample and the characteristics affecting export

marketing performance; the chapter on EFA summarises the data obtained for specific

constructs to a few factors; and, SEM assesses the results obtained through EFA and

tests the validity of the final integrated model of export marketing performance.

Chapter 5: Appendix

Table A5.1:   In-Depth Interviewees

NAME	FIRM-UNIVERSITY-ASSOCIATION	POSITION
Mr. Xintaropoulos Panagiotis	Papadopoulos S.A.	General Manager
Mr. Zogos Nikolaos	Papadopoulos S.A.	Export Manager
Dr. Tsaoussis	PANTEIO University of Athens	Senior Lecturer
Mr. Goltzis Antonios	ELAIS S.A.	Marketing Executive
Dr. Kassimati	PANTEIO University of Athens	Senior Lecturer
Mr. Zafeiris Vassilios	Association of Greek Food Industries	Managing Director
Mrs. Pitta-Chazapi Alexandra	1. Honey Attiki-Pitta 2. Pan Hellenic Exporters' Association	Managing Director Member of Board of Directors
Ms. Kokkinou Vassiliki	Honey Attiki-Pitta	Export Manager
Mr. Sygkelakis	Pan Hellenic Exporters' Association	Managing Director
Mr. Deligiannis Lefteris	Delta S.A.	Marketing Director
Mr. Oikonomou and Mrs. Spyridou Rea	Association of Greek Manufacturers of Packaged Olive Oil (SEVITEL)	Managing Director - Assistant
Mr. Apostolidis and Mrs. Kountouri	Greek Agro-Exports	Managing Director - Assistant
Mr. Karantonis	Greek Olive Oil Small Industry Association (ESVITE)	Managing Director

Table A5.2:   Small-scale Pilot Survey

NAME	FIRM-UNIVERSITY-ASSOCIATION	POSITION
Mr. Xintaropoulos Panagiotis	Papadopoulos S.A.	General Manager
Mr. Zogos Nikolaos	Papadopoulos S.A.	Export Manager
Dr. Tsaoussis	PANTEIO University of Athens	Senior Lecturer
Mr. Goltzis Antonios	ELAIS S.A.	Marketing Executive
Dr. Kassimati	PANTEIO University of Athens	Senior Lecturer
Mr. Deligiannis Lefteris	Delta S.A.	Marketing Director
Dr. Michael Bourlakis	University of Newcastle upon Tyne	Lecturer

Table A5.3:   Translation of Final Questionnaire

NAME	FIRM-UNIVERSITY-ASSOCIATION	POSITION
Ms. Kokkinou Vassiliki	Honey Attiki-Pitta	Export Manager
Mr. Zogos Nikolaos	Papadopoulos S.A.	Export Manager
Dr. Tsaoussis	PANTEIO University of Athens	Senior Lecturer
Dr. Michael Bourlakis	University of Newcastle upon Tyne	Lecturer

Table A5.4: Firms' Sample Sources

ASSOCIATION NAME	DIRECTORY
Hellenic Export Promotion Association (HEPO)	Food and Beverage Exporters
Athens Chamber of Commerce and industry (ACCI)	Greek Exporters (1999-2002)
Association of Greek Food Industries (SEVT)	Firms' Database
Greek Olive Oil Small Industry Association (ESVITE)	Firms' Database
Association of Greek Manufacturers of Packaged Olive Oil (SEVITEL)	Firms' Database
Pan Hellenic Exporters' Association (PSE)	Firms' Database
Greek Agro-Exports	Firms' Database
Association of Exporters of North Greece (SEVE)	Firms' Database

Table A5.5: Firm – Association, Position and Names of Interviewees

NAME	FIRM-ASSOCIATION	POSITION
Mr. Xintaropoulos Panagiotis	Papadopoulos S.A.	General Manager
Mr. Zogos Nikolaos	Papadopoulos S.A.	Export Manager
Mr. Goltzis Antonios	ELAIS S.A.	Marketing Executive

Chapter 6: The Questionnaire

6.1 Introduction

The questionnaire consists of a mix of open and close-ended questions and it is designed for targeting an educated group of respondents (i.e. export managers, marketing managers etc.) that have a substantial knowledge about issues of exporting and export marketing. Measures of all constructs were developed from a literature review and in-depth interviews. The survey was conducted between March and April 2002 in 155 Greek food and beverage firms, which are actively involved in exporting and yielded 103 usable questionnaires (62% response rate). There were a few unanswered questions either because respondents missed those questions or because they were reluctant to provide the information required but their number is extremely small to influence the final quantitative analysis results.

The English version of the questionnaire is presented in Appendix 6.1 and consists of five sections. Section A are general questions (i.e. types of products produced, export stimulus etc.); Section B are questions about the internal environment of the firm (i.e. firm competencies and firm characteristics); Section C are questions about the external environment (i.e. trade barriers, export market attractiveness etc.); Section D are questions regarding firm's export marketing strategy (i.e. export entry mode, export marketing mix etc.); and, Section E are questions assessing final export performance (i.e. objective and subjective measures of export performance).

This chapter is structured as follows: Section 6.2 provides information about the demographic c haracteristics of the sample; Sections 6.3 discusses the questionnaire results; and Section 6.4 summarises.

6.2 Sample

The majority of firms surveyed are in the food sector and account for 85.3% of the sample, while beverage firms, and food and beverage firms account for 8.8% and 5.9%, respectively (Table 6.1).

Table 6.1: Food and Beverage Industry Sectors

Sector		Frequency	Percent	Valid Percent	Cumulative Percent
	Foods	87	85.3	85.3	85.3
	Beverages	9	8.8	5.9	94.1
	Food and Beverages	6	5.9	8.8	100.0
	Total	102	100.0	100.0	
Missing	Values	1	1.0		
Total		103	100.0		

Notes: 1. Calculations for cumulative percent might not add up exactly, because of rounding error.
2. There is one missing value because one respondent did not respond in the corresponding question.

During the sample frame construction, concern was given to incorporate food and beverage firms from as many sectors of the food and beverage industry as possible. In Table 6.2, olive oil accounts for 21% of total exported products, followed by olives (10.2%) and dairy products (10.2%).

Table 6.2: Exported Food and Beverage Product Categories

Product Categories	Frequency	Percent	Cumulative Percent
Olive Oil	33	21.0	21.0
Olives	16	10.2	31.2
Dairy Products	16	10.2	41.4
Other Food Products*	15	9.6	51.0
Confectionery and Bakery Products	13	8.3	59.2
Fishery Products	12	7.6	66.9
Wine	11	7.0	73.9
Canned Foods - Compote	8	5.1	79.0
Edible Oils	6	3.8	82.8
Spirits incuding Ouzo	5	3.2	86.0
Other Beverage Products**	5	3.2	89.2
Pastry Products	4	2.5	91.7
Snacks	4	2.5	94.3
Halva	3	1.9	96.2
Ready Made Foods	3	1.9	98.1
Meat Products	3	1.9	100.0
Total	157	100.0	

* Other Food Products: Sea Salt, Margarines, Frozen Vegetables, Ice-cream, Marmalade, Dry Nuts, Tomato Products, Sweets, Sauce and Soup, Snail, Spice, and Honey.
** Other Beverage Products: Water and Juices.

Note as for Table 6.1. Some firms are involved in the production of more than one product categories.

In Table 6.3 and 6.4, 66% of the firms surveyed are family-owned and from these, 67.6% of respondents indicate that family members are highly involved in the management of the firm, while only 4.4% indicate that family members are not involved at all.

Table 6.3: Family Ownership of the Firm

	Frequency	Percent	Cumulative Percent
Yes	68	66.0	66.0
No	35	34.0	100.0
Total	103	100.0	

Table 6.4: Family Involvement in Firm's Management

	Frequency	Percent	Valid Percent	Cumulative Percent
1 (Not at all)	3	2.9	4.4	4.4
2	1	1.0	1.5	5.9
3	4	3.9	5.9	11.8
4	2	1.9	2.9	14.7
5	6	5.8	8.8	23.5
6	6	5.8	8.8	32.4
7 (Very)	46	44.7	67.6	100.0
Total	68	66.0	100.0	
Missing Values	35	34.0		
Total	103	100.0		

Note as for Table 6.1.

The average number of employees directly involved with export administration is more than four employees with a range of 0-16. In addition, 75.7% of the respondents indicated that they have a separate export department, 68% indicated that they have a separate sales administration for exports, and 21.4% indicated that they have an international marketing sub-department (Table 6.5).

Table 6.5: Export Administration

	Export department existence		Existence of separate sales administration for exports		Existence of international marketing sub-department	
	Count	%	Count	%	Count	%
Yes	78	75.7	70	68.0	22	21.4
No	25	24.3	33	32.0	81	78.6

In Table 6.6, for firms that employ a separate export department, 61% indicated that their export department reports to the general manager, 18.2% to the commercial manager, 9.1% to the export manager, and 6.5% to the marketing manager. In Table 6.7, the export marketing plans are mainly developed by the export manager (39.8%), followed by the general manager (25.2%), the marketing manager (11.7%), the commercial manager (7.8%), and the sales manager (6.8%).

Table 6.6: Person to Whom Export Department Reports

	Frequency	Percent	Valid Percent	Cumulative Percent
General Manager	47	45.6	61.0	61.0
Commercial Manager	14	13.6	18.2	79.2
Export Manager	7	6.8	9.1	88.3
Marketing Manager	5	4.9	6.5	94.8
Sales Manager	3	2.9	3.9	98.7
International Operations Manager	1	1.0	1.3	100.0
Total	77	74.8	100.0	
Missing Values	26	25.2		
Total	103	100.0		

Note: Missing values in this case represent both missing values and non-responses.

Table 6.7: Export Marketing Planner

	Frequency	Percent	Cumulative Percent
Export Manager	41	39.8	39.8
General Manager	26	25.2	65.0
Marketing Manager	12	11.7	76.7
Not Specified	9	8.7	85.4
Commercial Manager	8	7.8	93.2
Sales Manager	7	6.8	100.0
Total	103	100.0	

In Table 6.8, 39.8% of the firms surveyed indicated that their firm's top management is either very willing or almost very willing (options 6-7 on a 7-point scale) to commit resources to develop export activities, while only 8.7% of the respondents indicated that their firm is reluctant (options 1-2) to commit any resources.

Table 6.8: Top Management Willingness to Commit Resources for Exports

	Frequency	Percent	Cumulative Percent
1 (Not at all willing to commit resources)	3	2.9	2.9
2	6	5.8	8.7
3	10	9.7	18.4
4	19	18.4	36.9
5	24	23.3	60.2
6	25	24.3	84.5
7 (Very willing to commit resources)	16	15.5	100.0
Total	103	100.0	

Note as for Table 6.1.

The average number of export destinations is 13, ranging from 1-60 destinations. As shown in Figure 6.1, the most frequent export destination is USA, while Germany, UK, Albania and FYROM follow. Other important destinations include Canada, Australia, and Cyprus where there is a substantial number of Greek emigrants.

Figure 6.1: Frequent, Important Export Destinations
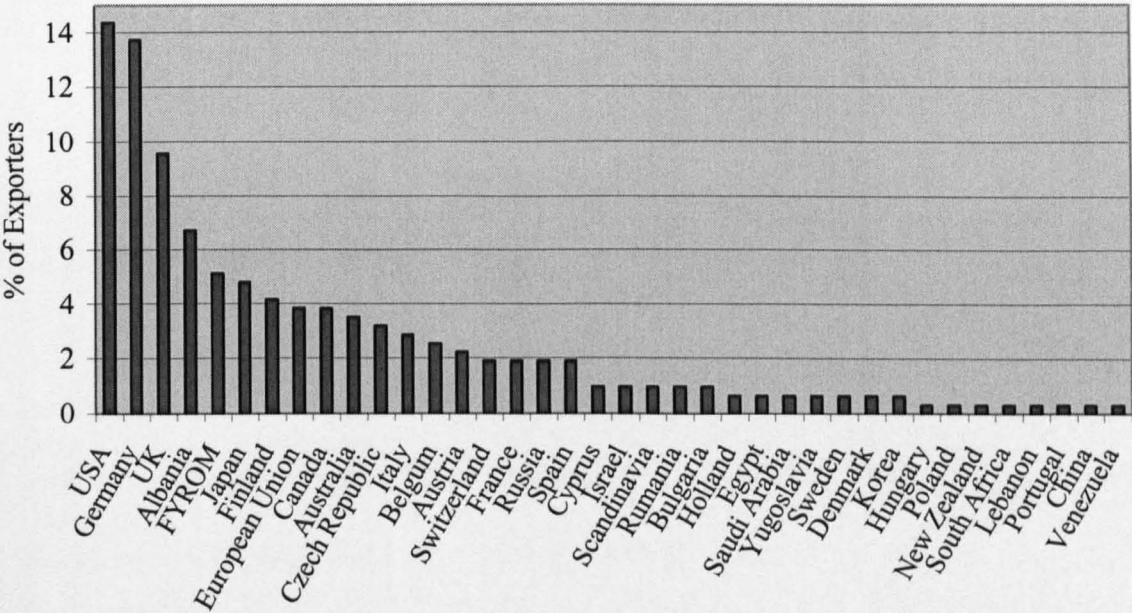
Table 6.9 shows that the most frequent types of export entry mode are the use of host-country collaborators (29.7%) and agents (28.5%). Less frequent export entry modes include trading companies (14.5%), travelling salespersons (9.3%), a home-country based department (7%), or an own host-country commercial subsidiary (5.2%). Other methods of entering a new export market are through exhibitions or fairs, personal visits, or by directly responding to customers' demand.

Table 6.9: **Type of Export Entry Mode**

	Frequency	Percent	Cumulative Percent
Host-country collaborators	51	29.7	29.7
Agent	49	28.5	58.2
Tradind company	25	14.5	72.7
Travelling salesperson	16	9.3	82.0
Home-country based department	12	7.0	89.0
Own host-country commercial subsidiary	9	5.2	94.2
Exhibition-fair	5	2.9	97.1
Personal visits	3	1.7	98.9
Responce to customers' demand	2	1.2	100.0
Total	172	100.0	

Note as for Table 6.1.

6.3 Questionnaire Results

This section briefly discusses the questionnaire results for Sections A-E, while more detailed information is provided in Appendix 6.2. Some of the questions are grouped according to the issues they consider (i.e. constructs). The constructs examined in each section are: export experience, export stimulus, and export problems in Section A; export competencies, firm size, and export management competencies in Section B; similarity of export and domestic markets, importance of trade barriers, and export market attractiveness in Section C; usefulness of information sources, entrepreneurial orientation, export marketing mix, and adaptation of marketing mix in Section D; and subjective measures of export performance and objective measures of export performance in Section E. All questions incorporating metric data are also examined for normality using measures of skewness and kurtosis (for more details on these normality tests see Hair *et al.*, 1998, pp. 70-71).

6.3.1 Section A: General Questions

This section examines some general characteristics that affect export marketing strategy and performance and, in particular, it includes questions related to the export experience of the firm, the export stimuli that led in the initiation of export activities and the formation of export marketing strategy, the importance of foreign languages, and the frequency of facing common export problems.

In terms of firm experience, sample firms are well established with an average age in the discrete range of 16-20 years, while the length of their involvement in export activities averages at the discrete range of 11-15 years. They also indicate that it has been 7-10 years since their export activities started playing an important role in their sales strategy, while they have a regular presence in over seven export country markets.

The most important factors that motivated firms to expand in overseas markets are unsolicited orders from abroad and favourable international climate, and to a lesser extent managerial willingness to commit resources for exports and risk reduction which indicates a reactive rather than proactive stance towards exports. The least important factors are diminishing domestic sales and the effect of a saturated domestic market, indicating that there is still potential in the domestic market, even if the Greek market is mature. Another issue highlighted is that many respondents rated state development programmes unimportant in export expansion and that is particularly interesting, since Greece currently runs a large joint state and EU development programme (3rd Community Support Framework) which has the ultimate objective of

real convergence with all EU-countries by assisting in the funding of large infrastructure projects and by assisting Greek firms to become more competitive.

Foreign languages seem to be very important for export activities and many firms' success depends on information translated into a foreign language. The most important foreign language for export transactions is English (indicated by all respondents), followed by German, French and Italian.

In terms of the export problems, the most frequent is strong international competition, since Greek firms have to compete with strong competitors in world markets, and the Greek government is unable to assist Greek exporters in their export tasks (e.g. exporters highlight that the public institutions are not very helpful for assisting exports, and there are ineffective (or lack) of national export promotion programmes). The least frequent problem specified by the exporters is the ability to adapt to new challenges, which indicates that since Greek firms are relatively small, they have the advantage of being more flexible and thus are more able to change to markets needs.

6.3.2 Section B: Internal Environment

This section examines various dimensions of firms' internal environment. Questions relate to: the importance of quality control certification for export activities; export competencies; competitive advantages and the extent that these are exploited; the average time of production, order processing and credit for exports; firm size; export management competencies; the application of export marketing research, export

control and planning; and the country of origin effect on quality perception of products exported.

Most of the sample firms indicated that they have a quality control certification and that this is important for their export activities. The most frequent certification obtained is HACCP, followed by ISO9001 and ISO9002. In terms of export competitiveness, respondents indicated that they are in a more advantageous position relative to the competition in export markets in terms of safety of production and products, production know-how, traceability of products, and ability to recall products all of which represent quality control practices related to their production and the quality control certifications. On the other hand, they provided a lower rating (4 in a 7-point range) for proximity to foreign markets, average cost of production, and the product categories they offer to export markets, indicating that the competitive characteristics for which they are in a more disadvantageous position relative to the competition. In most cases, exporters also suggested that their products are differentiated due to their high overall quality and uniqueness in export markets and that these advantages are properly exploited. Furthermore, country of origin affects the quality perception of their products abroad.

The average time to produce an export order takes about seven days, the average processing time is nine days, and the export credit is around 48 days. In terms of firm size, results indicate that on average firms have a discrete range of 51-100 employees (i.e. medium sized firms), while turnover is about 5.1-10 billion drachmas (~ €15-30 million). In addition, exporters indicated that their export management is capable and they rated higher for its commitment to procedures and practices for controlling and

maintaining export activities, its ability to monitor export performance, and its flexibility. In contrast, they provided a lower rating for the decentralisation of decision-making indicating that management structures are relatively centralised to the highest places of a firm's hierarchy. Most of the respondents specified that they employ formal export planning, control, and maintenance procedures, they make regular visits to their export target markets, and that they research new export market destinations before entry.

6.3.3   Section C: External Environment

This section focuses on the external environment characteristics and examines the similarity of the export and domestic markets, the importance of trade barriers for export activities, and the extent to which export markets are more attractive than the domestic market. In terms of the external environment characteristics, respondents indicated that the export and domestic markets are quite dissimilar, rating higher for distribution channel characteristics, and consumer buying characteristics and lower for customer purchasing power and consumer behaviour. In addition, exporters revealed t hat t rade b arriers a re m ildly i mportant a nd, i n p articular, m ore i mportant trade barriers are the lack of adequate distribution channels and the political situation in the export target market, while of lesser importance are quotas, and social and cultural barriers. Finally, exporters indicated that export markets are more attractive than the domestic market in terms of market size and long-term growth, while they are less attractive in terms of overall competition.

6.3.4 Section D: Export Marketing Strategy

This section examines issues related to the export marketing strategy of the firm. It first considers the main objectives of the firm after entering a new export market and the most frequent objectives are brand awareness, followed by market share growth, sales growth, and access to distribution channels. It then considers the usefulness of various information sources for the expansion of export activities and the most important information is obtained through personal contacts and overseas agents, while t he l east u seful i nformation i s o btained t hrough p ublic l ibraries, p rofessional institutions (e.g. commercial libraries, universities etc.), and the Greek ministry of development or agriculture. In addition, respondents suggested that the cost and easiness of acquiring the information affects substantially their decision to research export markets.

Exporters also indicated that they do not follow an entrepreneurial orientation for their activities since they are r eluctant to g et involved in high risk export markets (risk-taking dimension) and their products offered to domestic and export markets are quite similar (innovativeness dimension). However, they seem to be proactive since they rated higher for the implementation of export product and market research before entering new export markets (proactiveness dimension).

In terms of the export marketing mix, exporters rated higher for their products' quality superiority and the provision of additional benefits (i.e. augmented product), and lower for export product uniqueness and the success of export promotion campaigns. Moreover, exporters indicated that their marketing mix is quite adapted and, in

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particular, it is more adapted in terms of the use of existing distribution channels and less in terms of the pricing policy.

6.3.5   Section E: Export Performance

This section examines issues related to export performance. The main export objectives after entering a new export market highlighted by the exporters are to increase market share and sales volume, and improve profitability. They also indicated that there is still growth potential in their major export markets. In addition, subjective and objective measures of export performance are examined. In terms of subjective measures, exporters indicated that, during 1999-2001, they were more satisfied with export sales value growth and less satisfied with export profitability growth, although there is more than average satisfaction for all subjective measures of export performance. From the objective measures, two indicators arise, namely the export sales growth and the export to total sales ratio. From the first, there is an above average growth that continuously improves during 1999-2001, while from the second, there was a fall in export to total sales ratio between 1999 and 2000 and a slight rise in 2000-2001.

6.4 Summary

This chapter presented information about the sample and questionnaire results that relate to various characteristics affecting export marketing strategy and export performance. The first section examines some general characteristics of the sample; the second section examines the internal environment characteristics (i.e. structure,

organisation and competencies); the third section considers the external environment; the fourth reflects on various export marketing strategy characteristics; and, finally, the fifth examines objective and subjective measures of export performance. The questionnaire is presented in Appendix 6.1 and detailed results in tabular form is presented in Appendix 6.2.

Good Practice of Export Marketing Strategy in the Greek Agri-Food Sector.

I am Miltiadis Mavrogiannis, a Ph. D student at the "University of Newcastle upon Tyne." This questionnaire is part of my Ph.D research aiming to identify best practice of export marketing in the Greek agri-food industry.

I would be most grateful if you would complete the enclosed questionnaire - it will take about 20 minutes. In case you need more space in any of the open questions, use the back of the sheet and please label the number of the question. In addition, if you have opposite views in any of the questions respond with a generic view.

Your responses will remain anonymous and confidential and will only be used in aggregate for statistical purposes. I am interested just in your opinions - there are no right or wrong answers. I will send you an executive summary of the survey results if you leave your business card in the envelope provided.

Please contact me on 0938208589 if you have any questions. Thank you in advance for your participation.

A. General Questions

1: **a.** What was the year of establishment of your firm? _____ (year)

    b. When did you initiate your export activities? _____ (year)

    c. When did your export activities become important (in terms of sales value) for your business operations? _____ (year)

2: What types of products you export? (**refer to general categories**)

    Foods: _____

    Beverages: _____

3: How important were the following factors for the initiation of your export activities and your export marketing strategy formation? (**tick one for each statement**)

Meaning of your optional choices: 1: Not at all important / 2: Quite unimportant / 3: Mildly unimportant / 4: Neither important nor unimportant / 5: Mildly important / 6: Quite important / 7: Very important.

Please use all the possible options according to your beliefs.

Not at all important 1 2 3 4 5 6 7 Very important

Statements	1	2	3	4	5	6	7
Diminishing domestic sales							
Saturated domestic market							
Unsolicited orders from abroad							
Excess production capacity							
Managerial willingness to commit resources for exports							
State development programmes for exports							
Favourable exchange rates							
Firm's strategy to reduce the risk							
Favourable international climate							

4: **a.** How important is the knowledge of foreign languages for your export activities? (**tick one**)

    Not at all important □ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7 **Very important**

    b. Tick the most important foreign languages for your export transactions (**tick one or more**)? □English- □German- □French- □ Spanish- □Italian- □Russian - □Arabic- □Romanian- □Other(s) (**please specify**) _____

    c. To what extent does your firm depend for its success in exporting on information translated into a foreign language? (**tick one**)

    Not at all □ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7 **Very**

5: How frequently do you face the following problems during your export activities?

(tick one for each statement)

Never 1 2 3 4 5 6 7 Always

Statements	1	2	3	4	5	6	7
Insufficient information for overseas markets							
Expensive information for overseas markets							
Difficulty to identify capable collaborators in the host country							
Lack of information about overseas distributors							
Poor identification of the firm's international competitiveness							
Strong international competition							
Lack of personnel qualified for exporting							
Lack of capable Greek export consultants							
High transportation costs							
Financial risks (e.g. country-related risk and business risk)							
Lack of European Union policy regulations to assist exports							
Ability of the company to adopt to the new challenges							
Ineffective (or lack) of national export promotion programmes							
Inability of Greek public institutions to assist exports							

B. Internal Environment: Firm Competencies and Firm Characteristics

1: a. Does your firm have any quality control certification (e.g. ISO 9001, HACCP etc.)?   ☐ **Yes** - ☐ **No**

(if yes, please specify) _____

b. Do you find important to have such certification to run your export activities?

Not at all important ☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5   ☐ 6   ☐ 7   **Very important**

2: What do you think is your firm's position in the export markets relative to the competition, for each of the following factors? **(tick one for each statement)**

Major disadvantage 1 2 3 4 5 6 7 Major advantage

Statements	1	2	3	4	5	6	7
Safety of production and products							
Traceability of products							
Ability to recall products							
Production Know-how							
Research and development capability							
Average cost of production							
Product uniqueness							
Product categories available							
Quality of personnel							
Export market knowledge							
Export marketing knowledge							
Company reputation/ Goodwill							
Company culture							
Proximity to foreign markets							

3: a. What do you consider to be your firm's major competitive advantage?

(Please refer to the two most important)?

_____

b. Do you think that it is properly exploited? **(tick one)**

Not at all exploited ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 **Very well exploited**

In the following three questions (i.e. B₄, B₅, B₆), please respond in terms of days.

4: What is the average time of producing for an export order? _____

5: How long does it take to process an export order? _____

6: What is the average time of credit in your exports? _____

7: a. What is your firm's total number of employees? ☐ 0-50 / ☐ 51-100 / ☐ >100

- Provide specific number **(if available)**: _____

b. What is your firm's turnover? (in billions drachmas) **(tick one)**

☐ **0-1** ☐ 1.1-2 ☐ 2.1- 5 ☐ 5.1-10 ☐ 10.1-20 ☐ 20.1-30 ☐ >30

8: How many manufacturing plants do you have? _____

9: a. Is your firm family-owned (tick one): ☐ **Yes** - ☐ **No**

    b. If it is, to what degree are family members involved in the management of the firm? (tick one)

        Not at all ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 **Very**

10: How many employees in your firm run your export activities? _____

11: a. Do you have an export department? (tick one) ☐ **Yes** - ☐ **No**

    b. If you have an export department to who does it report? _____

    c. Do you have a separate sales administration for your exports? ☐ **Yes** - ☐ **No**

    d. Do you have an international marketing sub-department? ☐ **Yes** - ☐ **No**

    e. Who does the export marketing plans in your firm? _____

12: To what extent is your firm's top management willing to commit resources for your export activities? (tick one)

        Not at all ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 **Very**

13: a. Do you have formal procedures or practices for controlling and maintaining your export activities? (tick one) ☐ **Yes** - ☐ **No**

    b. If you do, to what extent do you think that your export management is committed to those practices and procedures? (tick one)

        Not at all ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 **Very**

14: Do you think that your firm's export management (personnel responsible to run your export operations) is: (tick one for each feature)

                          Not at all 1 2 3 4 5 6 7 **Very**

Features	1	2	3	4	5	6	7
Proactive?							
flexible?							
able to monitor performance of exports?							
decentralised (in terms of decision-making)?							
well trained to face export challenges?							
able to budget every export activity?							

15: a. In how many countries are you regularly exporting? _____ (number)

    b. Specify the four most important (in terms of sales value): 1._____

  2._____ **3.**_____ **4.**_____

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16: a. Do you make regular export market visits? **(tick one)**   Yes ☐ - No ☐

   b. Do you employ any export marketing research before entry?   Yes ☐ - No ☐

   c. Do you employ export planning activities? **(tick one)**   Yes ☐ - No ☐

   d. Do you employ export control activities? **(tick one)**   Yes ☐ - No ☐

17: To what degree do you think that the country of origin affects the quality perception of the products exported? **(tick one)**

Not at all   ☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5   ☐ 6   ☐ 7   **Very**

C. External Environment

1: How similar is your major export market(s) to the domestic market in terms of: **(tick one for each characteristic)**

Not similar at all 1 2 3 4 5 6 7 Very similar

Characteristics	1	2	3	4	5	6	7
Consumer product behaviour							
Consumer buying characteristics							
Customer purchasing power							
Socio-economic characteristics							
Legal framework							
Distribution channel characteristics							

2: How important do you think are the following trade barriers in formulating your export marketing strategy? **(tick one for every type of barrier)**

Not important at all 1 2 3 4 5 6 7 Very important

Barriers	1	2	3	4	5	6	7
Tariffs							
Quotas							
Political situation of export target country							
Social and cultural barriers							
Lack of the adequate distribution channels							

3: To what extent are your major export market(s) more attractive than your domestic market, in terms of: **(tick one for each factor)**

Not at all (the opposite) 1 2 3 4 5 6 7 Very much

Factors	1	2	3	4	5	6	7
Long-term profitability levels							
Long-term growth							
Level of competition							
Market size							
Market share							

D. Export Marketing Strategy

1: What are your objectives after entering a new export market? **(refer to the three most important)**

_____

_____

2: How useful do you think are the following sources of information for your export activities expansion? **(tick one for each statement)**

Not useful at all 1 2 3 4 5 6 7 Very useful

Statements	1	2	3	4	5	6	7
Personal contacts							
Overseas agent							
Trade associations							
Greek ministries of Development / Agriculture							
Chambers of commerce							
Greek embassies in foreign countries							
Public libraries							
Professional institutions (e.g. commercial libraries, universities)							
Information obtained from the internet							

3: Does the easiness and the cost of acquiring information for a specific foreign market affect your decision to research this market? **(tick one)**

Not at all ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 Very much

4: a. What type of export entry mode do you usually use **(tick one or more)**?

☐Travelling salesperson -☐Agent -☐Home-country based department -☐Host-country collaborators (e.g. important distributors) -☐Own host country commercial subsidiary ☐Trading company -☐ Other **(please specify):** _____

b. To what extent do you carry out your own export marketing functions **(tick one)**?

Not at all   ☐1   ☐2   ☐3   ☐4   ☐5   ☐6   ☐7   **Very much**

5: a. Are your products sold in the domestic market similar to those offered in the export markets? **(tick one)**

Completely similar   ☐1   ☐2   ☐3   ☐4   ☐5   ☐6   ☐7   **Completely dissimilar**

b. How often do you develop new products for your export markets? **(tick one)**

☐ Never   ☐ Every   ☐ Every   ☐Yearly   ☐ Every 6   ☐ Every 3   ☐ Monthly
            5 years   2 years   months   months

c. Do the new products emerge from product or market research in the export market? **(tick one)**

Never   ☐1   ☐2   ☐3   ☐4   ☐5   ☐6   ☐7   **Always**

d. How often do you implement export market research? **(tick one)**

Never   ☐1   ☐2   ☐3   ☐4   ☐5   ☐6   ☐7   **Always**

e. To what extent do you involve in export activities to high-risk countries (in terms of political situation and credit rating)? **(tick one)**

Not at all   ☐1   ☐2   ☐3   ☐4   ☐5   ☐6   ☐7   **Very much**

f. How often do you test the new products in the export market? **(tick one)**

Never   ☐1   ☐2   ☐3   ☐4   ☐5   ☐6   ☐7   **Always**

6: Please refer to your export marketing mix characteristics: **(tick one for each statement)**

Not at all 1 2 3 4 5 6 7 Very much/Certainly

Statements	1	2	3	4	5	6	7
Are your export products unique?							
Are your export products of superior quality?							
How important are the additional benefits (e.g. credit, guarantees)?							
Are your export product prices competitive?							
Are your export promotion campaigns successful?							
Do you have good personal contacts with export middlemen?							

7: To what degree do you:

(tick one for each statement)　　　　　　　　　　Not at all　1　2　3　4　5　6　7　Very much

Statements	1	2	3	4	5	6	7
adapt your products to those of competition?							
adapt your pricing policies to those of competition?							
adapt your promotion strategies to those of competition?							
Use the existing distribution channels of the target country?							

E. Export Performance

1: Which are your main objectives when entering a new export market (tick one or more)?

☐Sales Volume - ☐Sales Value - ☐Profitability - ☐Market Share - ☐Handle excess

capacity - ☐Other (please specify) _____

2: Do you think that there is still potential for growth in your major export markets?

Not at all　☐1　☐2　☐3　☐4　☐5　☐6　☐7　Definitely

3: To what degree are you satisfied with the achievement of your export objectives **in**

the three previous years, in terms of: (tick one for each statement)

1999-2001	Not at all satisfied						Very satisfied
Export market share	☐1	☐2	☐3	☐4	☐5	☐6	☐7
Export market share growth	☐1	☐2	☐3	☐4	☐5	☐6	☐7
Export sales value	☐1	☐2	☐3	☐4	☐5	☐6	☐7
Export sales volume	☐1	☐2	☐3	☐4	☐5	☐6	☐7
Export sales value growth	☐1	☐2	☐3	☐4	☐5	☐6	☐7
Export sales volume growth	☐1	☐2	☐3	☐4	☐5	☐6	☐7
Export profitability	☐1	☐2	☐3	☐4	☐5	☐6	☐7
Export profitability growth	☐1	☐2	☐3	☐4	☐5	☐6	☐7
New country market penetration	☐1	☐2	☐3	☐4	☐5	☐6	☐7

4:　a. What was your firm's turnover in the previous three years?

(in millions drachmas) 1999: _____ - **2000:** _____ - **2001:** _____

b. What were your total export sales in the previous three years?

(in millions drachmas) 1999: _____ - **2000:** _____ - **2001:** _____

c. What was your firm's export profitability in the previous three years?

(in millions drachmas) 1999: _____ - **2000:** _____ - **2001:** _____

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Appendix 6.2: Questionnaire Results

6.2.1 Section A: General Questions

1. Export Experience

At the beginning of this section there are three questions that relate to export experience: the length of time since the establishment of the firm, the length of time since export activities' initiation, the length of time since export activities became important (in sales value terms) in business operations. Another question is also analysed in this section (question 15 of Section B), because it is related to export experience (i.e. total number of export country destinations). The scale for the first three variables is classified into seven categories according to the time period in years: score 1 = < 3 years; score 2 = 3-6 years; score 3 = 7-10 years; score 4 = 11-15 years; score 5 = 16-20 years; score 6 = 21-40 years; and, score 7 = >40 years. The scale for the last variable is classified into seven categories according to the number of export country destinations: score 1 = < 4 countries; score 2 = 4-6 countries; score 3 = 7-10 countries; score 4 = 11-15 countries; score 5 = 16-20 countries; score 6 = 21-40 countries; and, score 7 = >40 countries. These scale categories were developed after examining the descriptive statistics of the results and through consultation with exporters and association managers, so as to derive reasonable groups of exporters according to their experience. The conversion to a 7-point scale was applied to make this variable's scale comparable to the other exporting variables' scale.

In Table A6.1, the average time period since the establishment of the exporting firms is a discrete range of 16-20 years,[1] the average time period since their export initiation is a discrete range of 11-15 years,[1] the average time period since their exports became important is a discrete range of 7-10 years,[1] and the average number of export destinations is a discrete range of 7-10 countries.[1] All variables have a Z-value for skewness below the critical value, while Z-values for kurtosis are close or below the critical value.[2] Since the significant Z-values are close to the critical value, transformations to improve these values were not examined.

Table A6.1: Export Experience

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Length of time since the establishment of the firm	101	1 - 7	5.158	1.707	-2.381	-1.405
Length of time since export activities initiated	102	1 - 7	4.010	1.848	0.019	-2.721*
Length of time since export activities became important (in sales value terms)	101	1 - 7	3.109	1.886	1.953	-2.406
Total number of export country destinations	102	1 - 7	3.343	1.848	1.363	-2.646*

Notes: 1. N=number of valid cases
    2. The Z-value for skewness and Kurtosis is calculated based on formulas provided in Hair *et al.*, (1998, pp. 70-71).
    3. The highlighted Z-values (*) for either skewness or kurtosis denote significance at the 95% confidence interval where the critical value is ±2.58.

2. Export Product Categories

Discussed in Section 6.2.

3. Export Stimulus

This question examines the stimuli that led exporters to initiate their export activities and develop their export marketing strategy, namely: diminishing domestic sales;

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[1] This range denotes a discrete range of years or countries because the responses were categorised.
[2] Normality can only be assessed in metric variables and, according to the procedure followed (i.e. development of groups of responses to achieve the 7-point scale), the variables in Table A 6.1 have been transformed to non-metric variables (i.e. categorical variables). However, for the purposes of the analysis, it can be assumed that they are metric and that is why they are tested for normality.

saturated domestic market; unsolicited orders from abroad; excess production capacity; managerial willingness to commit resources for exports; state development programs for exports; favourable exchange rates; firm's strategy to reduce risk; and, favourable international climate. The scale for all variables employed is classified into seven categories (i.e. a 7-point scale) according to the importance of each factor in export expansion (ranging from 1 "not important at all" to 7 "very important"). Table A6.2 shows that the highest mean value (5.495) is for unsolicited orders from abroad, while the lowest mean value (2.796) is for diminishing domestic sales. The Z-values for skewness and kurtosis for most variables are below the critical value, apart from the highlighted values that indicate non-normality. All usual transformations have been applied without any significant improvement and all variables are retained in their original form.

Table A6.2: Export Stimulus

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Importance of diminishing domestic sales	103	1 - 7	2.796	1.932	2.638*	-1.863
Importance of saturated domestic market	103	1 - 7	3.398	2.184	1.521	-2.728*
Unsolicited orders from abroad	103	1 - 7	5.495	1.662	-4.632*	1.043
Excess production capacity	103	1 - 7	4.058	2.048	-0.718	-2.537
Managerial willingness to commit resources for exports	103	1 - 7	4.689	1.905	-1.982	-1.669
State development programmes for exports	103	1 - 7	3.194	2.020	1.249	-2.844*
Favourable exchange rates	103	1 - 7	3.689	1.863	0.241	-2.271
Firm's strategy to reduce risk	103	1 - 7	4.379	2.092	-1.789	-2.192
Favourable international climate	103	1 - 7	5.262	1.651	-4.329*	0.919

Notes as for Table A6.1.

4. Importance of Foreign Languages

This section examines the importance of foreign languages in export activities and, in particular, respondents were asked two questions: the first refers to the importance of

knowing a foreign language for export activities, and the second refers to firms' dependence on information translated into a foreign language for their success in exporting. Both questions provide a 7-point scale ranging from 1 (not at all important) to 7 (very important). Table A6.3 highlights the importance of foreign language knowledge: 94.2% of the respondents selected the two higher options of the scale (i.e. 6 and 7), while only 1% selected the opposite two lowest options (i.e. 1 and 2). Similarly, in Table A6.4, 80.6% of the respondents indicated that firm success is highly dependent on information translated into a foreign language by selecting the three higher options of the scale (i.e. 5-7).

Table A6.3: Importance of Foreign Language

	Frequency	Percent	Cumulative Percent
1 (Unimportant)	0	0.0	0.0
2	1	1.0	1.0
3	0	0.0	0.0
4	1	1.0	1.9
5	4	3.9	5.8
6	11	10.7	16.5
7 (Very important)	86	83.5	100.0
Total	103	100.0	

Note as for Table 6.1.

Table A6.4: Dependence of Firm Success on Information Translated into a Foreign Language

	Frequency	Percent	Cumulative Percent
1 (Not at all)	3	2.9	2.9
2	7	6.8	9.7
3	2	1.9	11.7
4	8	7.8	19.4
5	24	23.3	42.7
6	31	30.1	72.8
7 (Very)	28	27.2	100.0
Total	103	100.0	

Note as for Table 6.1.

As shown in Figure A6.1, the important foreign languages for export transactions are English (100%), followed by German (59.2%), French (35.9%), and Italian (28.2%).

Figure A6.1: Important Foreign Languages
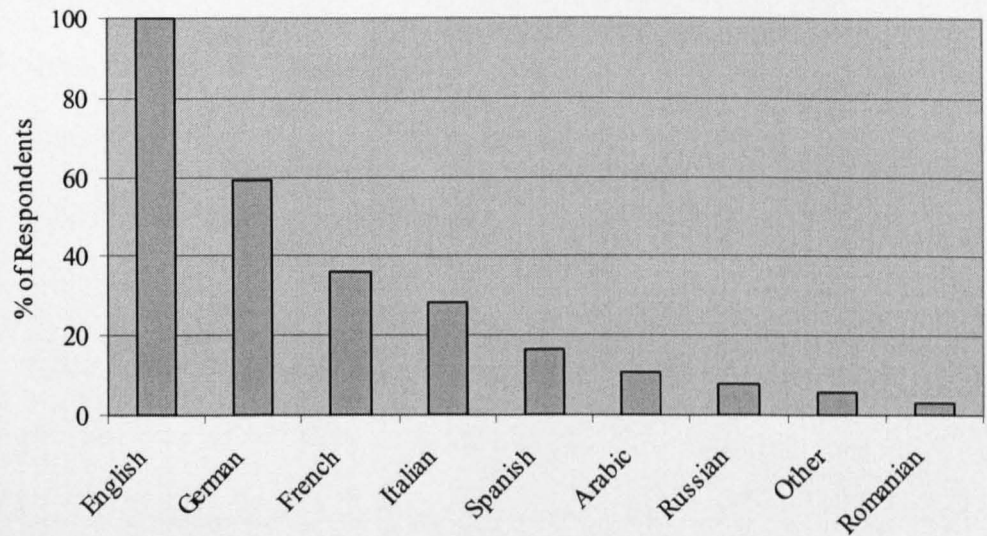
5. Export Problems

This question examines the frequency that exporters face the following problems: insufficient information on overseas markets; expensive information on overseas markets; difficulty to identify capable collaborators in the host country; lack of information about overseas distributors; poor identification of the firm's international competitiveness; strong international competition; lack of personnel qualified for exporting; lack of capable Greek export consultants; high transportation costs; financial risks (e.g. country related risk and business risk); lack of EU policy regulations to assist exports; ability of the company to adopt to the new challenges; ineffective (or lack) of national export promotion programmes; and, inability of Greek public institutions to assist exports. The scale for all variables employed is classified

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into seven categories according to the frequency that each problem is encountered, ranging from 1 indicating "never" to 7 indicating "always".

Table A6.5 shows that the highest mean value is shown for strong international competition (5.893), while the lowest mean value is provided for ability of the company to adapt to the new challenges (2.777). Furthermore, most Z-values for skewness and kurtosis are close or below the critical value, apart from those highlighted, for which usual transformations have been applied without any improvement and thus they are retained in their original form.

Table A6.5: Export Problems

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Insufficient information for overseas markets	103	1 - 7	4.252	1.570	-0.565	-1.378
Expensive information for overseas markets	103	1 - 7	4.223	1.668	-0.546	-1.446
Difficulty to identify capable collaborators in the host country	103	1 - 7	5.010	1.492	-3.033*	-0.212
Lack of information about overseas distributors	103	1 - 7	4.272	1.579	-0.784	-1.319
Poor identification of the firm's international competitiveness	103	1 - 7	3.854	1.683	0.666	-1.971
Strong international competition	103	1 - 7	5.893	1.328	-5.408*	2.584
Lack of personnel qualified for exporting	103	1 - 7	4.019	1.884	-0.648	-2.250
Lack of capable Greek export consultants	103	1 - 7	4.117	2.001	-0.498	-2.710*
High transportation costs	103	1 - 7	4.553	1.589	-1.738	-1.177
Financial risks (i.e. country/ business related risk)	103	1 - 7	4.563	1.769	-1.379	-2.315
Lack of European Union policy regulations to assist exports	103	1 - 7	3.796	1.762	1.149	-1.879
Ability of the company to adapt to the new challenges	103	1 - 7	2.777	1.608	2.716*	-1.617
Ineffective (or lack) of national export promotion programmes	103	1 - 7	5.243	1.774	-3.886*	-0.178
Inability of Greek public institutions to assist exports	103	1 - 7	5.544	1.570	-4.089*	0.445

Notes as for Table A6.1.

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6.2.2 Section B: Internal Environment

1. Quality Control Certification

Most of the firms (71.8%) indicated that they have at least one quality control certification, while 28.2% indicated that they do not have any quality certification at all (Table A6.6). The most frequent quality control certification obtained by the food and beverage exporters is HACCP (33.9%), followed by ISO 9001 (25.4%) and ISO 9002 (21.2%) (Table A6.7).

Table A6.6: Quality Control Certification

	Frequency	Percent	Cumulative Percent
Yes	74	71.8	71.8
No	29	28.2	100.0
Total	103	100.0	

Table A6.7: Quality Control Certifications

	Frequency	Percent	Cumulative Percent
HACCP	40	33.9	33.9
ISO 9001	30	25.4	59.3
ISO 9002	25	21.2	80.5
TUV	8	6.8	87.3
ISO 14001	6	5.1	92.4
ELOT	4	3.4	95.8
IQNET	1	0.8	96.6
EFSIS	1	0.8	97.5
BRC	1	0.8	98.3
LLOYD'S REGISTER QUALITY ASSURANCE	1	0.8	99.2
ISO 14002	1	0.8	100.0
Total	118	100.0	

Notes: 1. Calculations for cumulative percent might not add up exactly, because of rounding error.
2. Interpretation of quality control certifications: HACCP: Hazard Analysis Critical Control Point, ISO: International Organisation for Standardisation, TUV (German): TÜV German Rheinland (Berlin Brandenburg Group), ELOT (Greek): Hellenic Organisation for Standardisation, IQNET: International Certification Network, EFSIS: European Food Standards Inspection Service, BRC: British Retail Consortium.

In Table A6.8, 81.6% of the exporters indicated that it is very important to have quality control certifications to run their export activities by selecting two of the highest values (i.e. 6 and 7) on a 7-point scale, while only 2.9% indicated that such certifications are either unimportant or almost unimportant (i.e. 1 and 2).

Table A6.8: Importance of Quality Control Certifications

	Frequency	Percent	Cumulative Percent
1 (Not at all)	1	1.0	1.0
2	2	1.9	2.9
3	2	1.9	4.9
4	4	3.9	8.7
5	10	9.7	18.4
6	22	21.4	39.8
7 (Very important)	62	60.2	100.0
Total	103	100.0	

Note as for Table 6.1.

2. Export Competencies

This question examines exporters' position in the export markets relatively to the competition in terms of the following competencies: safety of production and products; traceability of products; ability to recall products; production know-how; research and development capability; average cost of production; product uniqueness; product categories available; quality of personnel; export market knowledge; export marketing knowledge; company reputation/goodwill; company culture; and, proximity to foreign markets. The 7-point scale is used according to the degree of enjoying an advantageous position in export markets for the above characteristics, ranging from 1 indicating "major disadvantage" to 7 indicating "major advantage".

Table A6.9 shows that the highest mean value (6.262) is shown for safety of production and products, while the lowest mean value (4.117) is provided for

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proximity to foreign markets. The highlighted Z-values for skewness and kurtosis indicate non-normal data. The transformations applied did not bring any improvement and all variables are retained in their original form.

Table A6.9: Export Competencies

	N	Range	Mean	Std. Deviation	Skewness Z value	Kurtosis Z value
Safety of production and products	103	1 - 7	6.262	1.009	-9.421*	15.567*
Traceability of products	103	1 - 7	5.786	1.439	-5.998*	2.995*
Ability to recall products	103	1 - 7	5.359	1.754	-4.580*	0.447
Production know-how	103	1 - 7	6.107	1.028	-4.163*	0.621
Research and development capability	103	1 - 7	5.058	1.638	-2.810*	-0.669
Average cost of production	103	1 - 7	4.660	1.758	-1.608	-1.884
Product uniqueness	103	1 - 7	4.961	1.686	-2.265	-1.159
Product categories available	103	1 - 7	4.903	1.587	-1.776	-1.394
Quality of personnel	103	1 - 7	5.437	1.288	-3.880*	1.707
Export market knowledge	103	1 - 7	5.408	1.530	-4.141*	0.454
Export marketing knowledge	103	1 - 7	4.922	1.564	-2.548	-0.220
Company reputation/ Goodwill	103	1 - 7	5.621	1.429	-3.988*	0.718
Company culture	103	1 - 7	5.359	1.420	-3.484*	0.165
Proximity to foreign markets	103	1 - 7	4.117	1.641	-0.458	-1.405

Notes as for Table A6.1.

3. Major Competitive Advantages

In Table A6.10, the most frequent competitive advantage mentioned by exporters is overall product quality (34.9%), followed by product uniqueness (11.2%), brand name (8.6%), customer satisfaction (7.2%), and price (5.3%).

Table A6.10: Firms' Major Competitive Advantage

	Frequency	Percent	Valid Percent	Cumulative Percent
Overall Product Quality	53	34.9	34.9	34.9
Product Uniqueness	17	11.2	11.2	46.1
Brand Name	13	8.6	8.6	54.6
Customer Satisfaction	11	7.2	7.2	61.8
Price	8	5.3	5.3	67.1
Country of Origin - Greece & Mediter. Healthy Diet	7	4.6	4.6	71.7
Just-in-time Delivery	6	3.9	3.9	75.7
Market Knowledge	5	3.3	3.3	78.9
Flexibility	5	3.3	3.3	82.2
Credibility	4	2.6	2.6	84.9
Product Assortment	4	2.6	2.6	87.5
Firm's Personnel	3	2.0	2.0	89.5
Production Know-how	3	2.0	2.0	91.4
Speed of Responce to International Competition	2	1.3	1.3	92.8
Innovative Products	2	1.3	1.3	94.1
Vertical Integration of Production	2	1.3	1.3	95.4
Good Quality for Value	1	0.7	0.7	96.1
Access to Distribution Channels	1	0.7	0.7	96.7
Fast Feedback	1	0.7	0.7	97.4
Product Packaging	1	0.7	0.7	98.0
Marketing Strategy	1	0.7	0.7	98.7
Production Cost	1	0.7	0.7	99.3
Traditional Greek Products	1	0.7	0.7	100.0
Total	152	100.0		

Note as for Table 6.1.

In terms of the extent to which competitive advantages are properly exploited, Table A6.11 shows that 60% of the respondents selected the two highest values of a 7-point scale (i.e. 6-7), indicating that they make the most of their competitive advantages, while only 3% of the respondents (selecting the two smallest values i.e. 1-2) indicated that they are not able to cash in on their competitive advantage.

Table A6.11: Degree of Exploiting Firms' Major Competitive Advantage

	Frequency	Percent	Valid Percent	Cumulative Percent
1 (Not at all)	2	1.9	2.0	2.0
2	1	1.0	1.0	3.0
3	7	6.8	7.0	10.0
4	8	7.8	8.0	18.0
5	22	21.4	22.0	40.0
6	33	32.0	33.0	73.0
7 (Certainly)	27	26.2	27.0	100.0
Total	100	97.1	100.0	
Missing Values	3	2.9		
Total	103	100.0		

4-6. Average Time of Order Production, Order Processing, and Exports' Credit

In Table A6.12, the average time of producing and export order is 7.32 days (range 1-30), the average time to process an export order is 9.75 days (range 1-45), and the average time of credit is 48.13 days (range 0-120).

Table A6.12: Order Production, Order Processing, and Credit

	N	Range	Mean	Std. Deviation
Average time to produce an export order (days)	102	1 - 30	7.324	6.103
Length of processing an export order (days)	102	1 - 45	9.745	8.646
Average time of credit in exports (days)	102	0 - 120	48.127	22.253

7. Firm Size

This question has two parts that relate to the firm size: firm's total number of employees, and firm's turnover. The scale for the first is classified into three categories according to the number of employees: score 1 = <51 employees; score 4 = 51-100 employees; score 7 = >100 employees.[3] The scale for the latter variable is

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[3] In this case, only three categories are employed and these categories are scaled 1, 4, and 7 in order to attain a 7-point scale required in the following multivariate analysis. This method of distinguishing between small, medium, and large firms is commonly used.

classified to seven categories according to firm's turnover in billion drachmas (1 € = 340.75 drachmas): score 1 = 0-1; score 2 = 1.1-2; score 3 = 2.1-5; score 4 = 5.1-10; score 5 = 10.1-20; score 6 = 20.1-30; and, score 7 = >30. These scale categories were developed through consultation with exporters and association managers and after examining the sample's statistical results to derive reasonable groups of exporters according to their size.

Table A6.13 shows that the average number of employees is a discrete range of 51-100, and the average turnover is a discrete range of 5.1-10 billion drachmas (about €15-30 million). Most of the Z-values for skewness and kurtosis are below the critical value, apart from the value highlighted.[4] Various transformations have been applied to attain normality for the specific variable without success.

Table A6.13: Firm Size

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Total number of employees	103	1 - 7	4.553	2.747	-1.586	-3.640*
Firm' turnover	102	1 - 7	3.618	1.840	1.254	-1.580

Notes as for Table A6.1.

8. Number of Manufacturing Plants

The average number of manufacturing plants is 2.18 with a range of 1-13.

9. Family Ownership and Involvement in the Management of the Firm

Discussed in Section 6.2.

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[4] Similarly to footnote 2, normality tests cannot be applied to these variables since they are categorical but we assume that they are metric for the analysis purposes (similarly to export experience).

10-12. Export Administration

Discussed in Section 6.2.

13-14. Export Management Competencies

This question examines the characteristics of export management (i.e. personnel responsible to run export operations), namely their: commitment to procedures and practices for controlling and maintaining export activities; proactiveness; flexibility; ability to monitor performance of exports; decentralisation in terms of decision-making; training to face export challenges; and, ability to budget every export activity. Again, a 7-point scale is used, indicating the degree of attaining every characteristic and ranging from 1 indicating "not at all" to 7 indicating "very".

Table A6.14 shows that the respondents rated higher (i.e. mean value of 5.847) the export management's commitment to practices and procedures for controlling and maintaining export activities, and lower the export management's decentralisation in decision-making (i.e. mean value of 4.466). The highlighted Z-values for skewness and kurtosis indicate non-normal data and the transformations applied to all the variables did not bring any substantial improvement and all variables are retained in their original form.

Table A6.14: Export Management Competencies

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Commitment to procedures and practices for controlling and maintaining export activities	85	1 - 7	5.847	1.086	-3.840*	2.292
Proactiveness	103	1 - 7	5.417	1.295	-4.735*	3.010*
Flexibility	103	1 - 7	5.553	1.266	-3.683*	0.888
Ability to monitor export performance	103	1 - 7	5.602	1.231	-3.910*	0.893
Decentralisation in terms of decision-making	103	1 - 7	4.466	1.904	-1.567	-2.340
Well-trained to face export challenges	103	1 - 7	5.204	1.471	-4.447*	1.586
Ability to budget every export activity	103	1 - 7	5.466	1.413	-4.307*	1.827

Notes as for Table A6.1.

15. Export Country Destinations

Discussed in Section 6.2.

16. Export Marketing Research, Export Control and Planning

In Table A6.15, 82.5% of respondents indicated that formal export control and maintenance procedures are employed within their firm, 71.8% indicated that make regular visits to their export target markets, 50.5% research their new export market destinations before entering these markets, while 67% and 66% employ export planning and control activities, respectively.

Table A6.15: Other Administrative Characteristics

	Employment of formal export control and maintenance procedures		Regularity of export market visits		Export marketing research before entry		Employment of export planning activities		Employment of export control activities	
	Count	%	Count	%	Count	%	Count	%	Count	%
Yes	85	82.5	74	71.8	52	50.5	69	67.0	68	66.0
No	18	17.5	29	28.2	51	49.5	34	33.0	35	34.0

17. Country of Origin Effect

In Table A6.16, 63.1% of respondents indicated that the country of origin affects substantially (options 6-7 on a 7-point scale) the quality perception of the products exported, while only 3.9% indicated that there is either very little or no effect at all (options 1-2).

Table A6.16: Country of Origin Effect

	Frequency	Percent	Cumulative Percent
1 (Not at all)	3	2.9	2.9
2	1	1.0	3.9
3	3	2.9	6.8
4	9	8.7	15.5
5	22	21.4	36.9
6	40	38.8	75.7
7 (Very)	25	24.3	100.0
Total	103	100.0	

6.2.3   Section C: External Environment

1. Similarity of Export and Domestic Markets

This question considers the similarity between major export markets and the domestic market in terms of: consumer product behaviour; consumer buying characteristics; customer purchasing power; socio-economic characteristics; legal framework; and, distribution channel characteristics. The scale for all variables employed is classified into seven categories according to the degree of similarity for every characteristic and ranges from 1 indicating "not similar at all" to 7 indicating "very similar". Table A6.17 indicates that the highest mean value (3.961) is shown for distribution channel characteristics and the lowest mean value (2.961) is provided for customer purchasing

power. All Z-values for skewness and kurtosis are below the critical value, apart from the highlighted one where transformations did not improve non-normality.

Table A6.17: Similarity of Export and Domestic Markets

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Consumer product behaviour	103	1 - 7	3.049	1.536	1.946	-1.135
Consumer buying characteristics	103	1 - 7	3.883	1.536	0.351	-1.479
Customer purchasing power	103	1 - 7	2.961	1.521	3.149*	0.123
Socio-economic characteristics	103	1 - 7	3.262	1.448	1.424	-1.197
Legal framework	103	1 - 7	3.563	1.545	0.690	-1.430
Distribution channel characteristics	103	1 - 7	3.961	1.627	-0.669	-1.434

Notes as for Table A6.1.

2. Importance of Export Trade barriers

This question tries to identify the importance of various trade barriers in export activities. The trade barriers considered are: tariffs; quotas; the political situation in target market; social and cultural barriers; and lack of adequate distribution channels. A 7-point scale is employed for all variables according to their degree of importance (ranging from score 1 "not at all important" to score 7 "very important"). Table A6.18 shows that the most important trade barrier indicated, is the lack of adequate distribution channels (mean value 5.408), while the least important barrier is quotas (mean value 4.66). The highlighted Z-values for skewness and kurtosis indicate non-normal data but transformations did not improve non-normality.

Table A6.18: Importance of Trade Barriers

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Importance of tariffs	103	1 - 7	4.990	1.993	-2.651*	-1.835
Importance of quotas	103	1 - 7	4.660	2.126	-1.962	-2.541
Importance of political situation	103	1 - 7	4.922	1.764	-2.572	-1.419
Importance of social and cultural barriers	103	1 - 7	4.748	1.819	-2.408	-1.262
Lack of the adequate distribution channels	103	1 - 7	5.408	1.677	-4.739*	1.326

Notes as for Table A6.1.

3. Export Market Attractiveness

This question examines the extent to which major export markets are more attractive than the domestic market, in terms of: long-term profitability levels; log-term growth; level of competition; market size; and market share. A 7-point scale is employed according to the degree of attractiveness of export markets relatively to the domestic market for every characteristic (ranging from 1 "not at all – unattractive" to 7 "very attractive"). Table A6.19 shows that from the characteristics outlined, the highest mean value (6.126) is shown for market size and the lowest (3.631) provided for level of competition. There are some Z-values for skewness and kurtosis above the critical value, which are highlighted in Table A6.19 and the transformations did not improve non-normality.

Table A6.19: Export Market Attractiveness

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Long-term profitability levels	103	1 - 7	5.223	1.481	-3.051*	0.536
Long-term growth	103	1 - 7	5.874	1.160	-6.367*	6.946*
Level of competition	103	1 - 7	3.631	1.428	1.463	-0.020
Market size	103	1 - 7	6.126	1.152	-7.489*	8.891*
Firm's market share	103	1 - 7	4.942	1.759	-2.816*	-0.759

Notes as for Table A6.1.

6.2.4 Section D: Export Marketing Strategy

1. Main Objectives after Entering a New Export Market

In Table A6.20, the main objective after entering a new export market is brand awareness (15%), followed by market share growth (13.7%), sales growth (12.8%), and access to distribution channels (12.3%).

Table A6.20: Main Objective after Entering a New Export Market

	Frequency	Percent	Cumulative Percent
Brand Awareness	34	15.0	15.0
Market Share Growth	31	13.7	28.6
Sales Growth	29	12.8	41.4
Access to Distribution Channels	28	12.3	53.7
Offer a Wider Product Assortment	15	6.6	60.4
Profitability Growth	12	5.3	65.6
Improve Product Quality	8	3.5	69.2
Co-operation with Foreign Agents	8	3.5	72.7
Credibility	7	3.1	75.8
Secure Payment	7	3.1	78.9
Educate the Market for Products' Attributes	6	2.6	81.5
Customer Satisfaction	6	2.6	84.1
In-store Promotion	5	2.2	86.3
Advertisement	5	2.2	88.5
Access to Large S/M Chains	4	1.8	90.3
Improve Marketing Activities	4	1.8	92.1
Market Leadership of Greek Exported Products	4	1.8	93.8
Improve Customer Service	3	1.3	95.2
Access to a Large Number of Small Customers	3	1.3	96.5
Establish Local Production	3	1.3	97.8
New Product Development	3	1.3	99.1
Achieve the P&L Budget	2	0.9	100.0
Total	227	100.0	

Note as for Table 6.1.

2. Usefulness of Information Sources for Export Activities' Expansion

This question examines the usefulness of information sources for export activities' expansion. The sources considered are: personal contacts; overseas agents; trade associations; Greek ministries of development/agriculture; chambers of commerce;

Greek embassies in foreign countries; public libraries; professional institutions (e.g. commercial libraries, universities etc.); and the internet. Again, a 7-point scale is employed according to the usefulness of each source of information acquisition (ranging from 1 "not useful at all" to 7 "very useful"). Table A6.21 shows that the highest mean value (6.291) is shown for personal contacts, while the lowest (2.573) is provided for public libraries. The highlighted Z-values indicate non-normal data and transformations did not improve non-normality.

Table A6.21: Usefulness of Information Sources

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Personal contacts' information	103	1 - 7	6.291	0.935	-8.138*	11.312*
Overseas agent's information	103	1 - 7	5.864	1.121	-6.196*	7.412*
Trade associations' information	103	1 - 7	4.058	1.494	-0.955	-0.759
Greek ministry of development/agriculture	103	1 - 7	3.068	1.503	2.028	-0.699
Chamber of commerce's information	103	1 - 7	3.456	1.460	1.179	-0.527
Overseas Greek embassies	103	1 - 7	3.369	1.621	1.601	-1.181
Public libraries' information	103	1 - 7	2.573	1.512	4.216*	1.385
Professional institutions' information	103	1 - 7	3.000	1.566	2.825*	0.134
Internet's information	103	1 - 7	4.816	1.426	-2.948*	0.450

Notes as for Table A6.1.

3. Influence of Cost and Easiness to Acquire Information

Table A6.22 shows that the cost and easiness to acquire information for an export market seems to affect substantially the decision to research it: 35% of the respondents selected options 6 and 7 in a 7-point scale (including option 5 the percentage of respondents elevates to 60.2%), in contrast to 15.5% of the respondents that selected options 1 and 2 (i.e. very little or no effect at all).

Table A6.22: Influence of Cost and Easiness in Acquiring Information

	Frequency	Percent	Cumulative Percent
1 (Not at all)	6	5.8	5.8
2	10	9.7	15.5
3	11	10.7	26.2
4	14	13.6	39.8
5	26	25.2	65.0
6	21	20.4	85.4
7 (Very much)	15	14.6	100.0
Total	103	100.0	

4. Type of Export Entry Mode

Discussed in Section 6.2.

5. Entrepreneurial Orientation

This group of questions examine dimensions of entrepreneurial orientation, namely the extent of carrying out own export marketing functions; similarity of products sold in domestic market and those offered in export markets; frequency of developing new products for the export markets; extent to which new products emerge from product or market research in the export market; frequency of export market research; involvement in export activities to high-risk countries (e.g. in terms of political situation or credit rating etc.); and frequency of testing new products in the export market. The scale for all variables is classified into seven categories ranging from 1 "not at all - never" to 7 "very much – monthly – always". Table A6.23 shows that the highest mean value (5.524) is shown for the degree of carrying out own marketing functions, while the lowest mean value (2.460) is for the similarity of products offered to domestic and export markets. Non-normal data is indicated by the highlighted Z values for skewness and kurtosis and transformations did not improve non-normality.

Table A6.23: Entrepreneurial Orientation

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Degree of carrying out own marketing functions	103	1 - 7	5.524	1.685	-5.553*	1.994
Similarity of products offered to domestic & export markets	103	1 - 7	2.460	1.507	-4.892*	1.920
Frequency of new product development	103	1 - 7	3.272	1.402	0.557	-0.549
Degree that new products emerge from product/market research	88	1 - 7	5.193	1.748	-4.064*	0.370
Degree of implementation of export market research	103	1 - 7	4.485	1.883	-2.168	-1.613
Degree of involvement in export activities to high risk export markets	102	1 - 7	2.912	1.786	2.657*	-1.681
Degree of testing new products in export markets	90	1 - 7	5.300	1.826	-3.227*	-0.825

Notes as for Table A6.1.

6. Export Marketing Mix

This question examines marketing mix characteristics of the exporters, namely: export product uniqueness; export product quality superiority; the provision of additional benefits (e.g. credit, guarantees etc. – i.e. augmented product); export product price competitiveness; success of export promotion campaigns; and access to export middlemen. A 7-point scale is employed according to the degree of attaining the above characteristics (ranging from 1 "not at all" to 7 "very much - certainly"). Table A6.24 shows that from the characteristics outlined, the highest mean value (6.136) is shown for export product quality superiority and the lowest (4.330) for export product uniqueness, while the highlighted Z-values indicate non-normal data and transformations did not improve non-normality.

Table A6.24: Export Marketing Mix

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Export product uniqueness	103	1 - 7	4.330	1.932	-1.007	-2.303
Export product quality superiority	103	1 - 7	6.136	1.076	-5.410*	3.152*
Provision of additional benefits	103	1 - 7	5.641	1.290	-4.569*	2.261
Export product price competitiveness	103	1 - 7	5.019	1.615	-1.931	-1.440
Export promotion campaigns success	103	1 - 7	4.971	1.317	-3.413*	1.703
Access to export middlemen	103	1 - 7	5.563	1.613	-5.715*	2.753*

Notes as for Table A6.1.

7. Adaptation of Marketing Mix

This q uestion c onsiders the e xtent t o w hich e xporters adapt t heir e xport m arketing mix t o foreign competition, assessed through the following characteristics: product adaptation; pricing policy adaptation; promotion strategy adaptation; and use of existing distribution channels in export target country. A 7-point scale is employed according to the degree of adaptation (ranging from 1 "not at all" to 7 "very much"). Table A6.25 shows that the highest mean value (5.282) is shown for the use of existing distribution channels and the lowest (4.583) for the adaptation of pricing policies. Furthermore, the highlighted Z-values for skewness and kurtosis indicate non-normal data and transformations did not improve non-normality.

Table A6.25: Adaptation of Marketing Mix

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Product adaptation	103	1 - 7	4.806	1.521	-3.170*	0.475
Pricing policy adaptation	103	1 - 7	4.583	1.660	-1.116	-1.804
Promotion strategy adaptation	103	1 - 7	4.621	1.560	-1.034	-1.230
Use of existing distribution channels	103	1 - 7	5.282	1.504	-4.521*	1.924

Notes as for Table A6.1.

6.2.5 Section E: Export Performance

1. Main Objectives after Entering a New Export Market

Table A6.26 shows that the main objectives of the exporters after entering a new

export market are to increase their market share (32.7%), to increase their sales

volume (27.1%), and improve their profitability (22.1%).

Table A6.26: Objectives after Entering a New Export Market

	Frequency	Percent	Cumulative Percent
Market share	65	32.7	32.7
Sales volume	54	27.1	59.8
Profitability	44	22.1	81.9
Sales value	19	9.5	91.5
Market share	14	7.0	98.5
Handle excess capacity	3	1.5	100.0
Total	199	100	

Note as for Table 6.1.

2. Growth Potential in Export Markets

Table A6.27 shows that 78.7% of respondents indicated that there is growth potential

in their major export markets (i.e. selected options 6-7 in a 7-point scale), in contrast

to only 5.8% of respondents that indicated very little or no growth potential.

Table A6.27: Growth Potential in Export Markets

	Frequency	Percent	Cumulative Percent
1 (Not at all)	0	0.0	0.0
2	0	0.0	0.0
3	2	1.9	1.9
4	4	3.9	5.8
5	16	15.5	21.4
6	42	40.8	62.1
7 (Definitely)	39	37.9	100.0
Total	103	100.0	

Note as for Table 6.1.

3. Subjective Measures of Export Performance

This question examines the degree of exporters satisfaction regarding the achievement of export objectives between 1999-2001 in terms of: export market share; export market share growth; export sales value; export sales value growth; export sales volume; export sales volume growth; export profitability; export profitability growth; and, new country market penetration. A 7-point scale is employed according to the degree of satisfaction (ranging from 1 "not at all satisfied" to 7 "very satisfied"). Table A6.28 shows that the highest mean value (5.136) is shown for export sales value growth and the lowest (4.476) for export profitability growth. Furthermore, the highlighted Z values indicate non-normal data and transformations did not improve non-normality.

Table A6.28: Subjective Measures of Export Performance

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Export market share	103	1 - 7	4.748	1.391	-1.885	-1.221
Export market share growth	103	1 - 7	5.010	1.431	-2.738*	-0.060
Export sales value	103	1 - 7	5.010	1.425	-3.474*	0.451
Export sales value growth	103	1 - 7	5.136	1.476	-2.888*	-0.268
Export sales volume	103	1 - 7	4.981	1.508	-2.579	-1.082
Export sales volume growth	103	1 - 7	5.000	1.448	-3.401*	0.229
Export profitability	103	1 - 7	4.689	1.515	-2.862*	-0.752
Export profitability growth	103	1 - 7	4.476	1.589	-2.259	-1.369
New country market penetration	103	1 - 7	4.796	1.549	-1.317	-1.739

Notes as for Table A6.1.

4. Objective Measures of Export performance

The objective measure examined is export sales growth, in terms of export sales growth during 1999-2000, export sales growth during 2000-2001, and export sales growth during 1999-2001 All variables have a range of values between 0 and 2 (some values that slightly exceeded 2 were constrained to 2) and, for the analysis purposes, these variables were transformed through a formula that redistributes values evenly to a scale of 1 to 7.[5] Table A6.29 shows that the highest mean value (5.286) is shown for export s ales g rowth b etween 2 001 a nd 1 999 w hile t he l owest (4.548) i s f or e xport sales growth between 2001 and 2000. Z-values indicate that all variables meet the assumptions of normality.

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[5] The formulae employed is $3\beta + 1$, where β is the initial value of export sales growth (ranging 0-2) obtained by dividing export sales in 2000 by export sales in 1999 and so on (i.e. 01/00 and 01/99). The conversion to a 7-point scale was applied to make this variable's scale comparable to the other exporting variables' scale.

Table A6.29: Export Sales Growth

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Export sales growth (99-00)	80	1 - 7	4.921	1.107	1.798	0.440
Export sales growth (00-01)	80	1 - 7	4.548	0.872	2.289	2.558
Export sales growth (99-01)	79	1 - 7	5.286	1.282	-1.150	-0.450

Notes as for Table A6.1.

Another important measure arising from the objective measures of export performance is the export to total sales ratio, which indicates the importance of exports (in sales value terms) for firm's total turnover. It is determined by three variables: export to total sales ratio in 1999; export to total sales ratio in 2000; and export to total sales ratio in 2001. Initially, this metric scale had a range of 0 to 1, but for analysis purposes, these variables were transformed through a formula that redistributes values evenly to a scale that ranges from 1 to 7.[6] Table A6.30 shows that there is a steady increase in the importance of export sales relatively to the total firm sales between 1999-2001 from a mean value of 3.271 in 1999 to 3.424 in 2001. Furthermore, the Z-values for skewness and kurtosis indicate that all variables meet the assumptions of normality.

Table A6.30: Export to Total Sales Ratio

	N	Range	Mean	Std. Deviation	Skewness Z-value	Kurtosis Z-value
Export/Total Sales Ratio 99	80	1 - 7	3.271	2.069	2.602*	-1.909
Export/Total Sales Ratio 00	81	1 - 7	3.375	1.983	2.315	-1.824
Export/Total Sales Ratio 01	80	1 - 7	3.424	2.001	2.136	-1.949

Notes as for Table A6.1.

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[6] The formulae employed is $6\alpha + 1$, where α is the initial value obtained by dividing export sales by total sales for each year. The conversion to a 7-point scale was applied to make this variable's scale comparable to the other exporting variables' scale.

Chapter 7: Exploratory Factor Analysis

7.1 Introduction

The purpose of this chapter is to analyse the primary data with the multivariate technique of exploratory factor analysis (EFA). We attempt to reduce the primary data by describing it in a much smaller number of dimensions to reveal the structure of relationships between variables. In particular, the underlying dimensions of five multidimensional constructs - export stimulus, export problems, export competencies, usefulness of information sources, and entrepreneurial orientation - are established using SPSS (2000). With the exception of entrepreneurial orientation where there are a few missing values in two construct indicators, the survey yielded 103 usable responses.

For all the aforementioned variables, a Likert scale is employed. According to Proctor (1997), the Likert method provides a series of statements and interviewees are questioned to rate each statement on the basis of the strength of their personal feelings toward it. The numbers assigned to the responses are numerical values. Therefore, the data could be either ordinal (i.e. non-metric) or interval (i.e. metric). An ordinal scale involves ranking and determines if an object has less, more or the same amount of an attribute as some other objects. It has no property of distance between numbers and it does not possess the characteristic of absolute zero. In contrast, an interval scale reflects how much more an object has of an attribute than another object, it has properties of order and distance, but it does not possess the characteristic of the absolute (zero) origin. EFA requires that the data are metric and is important to justify

either by examining the scale's measurement properties or by assumption. In our case, we cannot be sure of the type of scale, but since all constructs have obvious metric characteristics, it is assumed that the data are metric.

Recall for Chapter 5 that the data must be correlated and two tests employed to examine this are the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. Both tests examine the null hypothesis that none of the variables are correlated while the alternative is that variables are correlated. For Bartlett's test the p-value is examined, while the second requires a value of over 0.5 to indicate correlated data and support more confidently Bartlett's test's result. Communalities (h_i^2) are also used to evaluate the goodness of fit of the factor analysis solution, with values over 0.4 indicating an acceptable result. The analysis provides the rotated component matrix for each of the constructs and the total explained variance tables and scree plots are presented in the Appendix.

The chapter is structured as follows. Sections 7.2-7.7 discuss factor analysis for each of the five constructs and Section 7.8 summarises the important results which are used in the subsequent analysis of structural equation modelling in Chapter 8.

7.2 Export Stimulus Construct

To initiate factor analysis, the original data set must be correlated. Bartlett's test for export stimulus is 141.80 (p-value: 0.00) and the data are correlated. The KMO value is 0.67 substantiating that the data are correlated. In evaluating goodness of fit, Table 7.1 shows that all communalities, h_i^2 >0.4 and there is an acceptable goodness of fit.

In terms of the number of components to be derived, the eigenvalue criterion indicates that three components should be derived since their eigenvalues are more than unity; the variance criterion also indicates that three components should be derived because they account for almost 57% of total variation as shown in the Appendix, Table A7.1; and the scree-test reveals two components to be derived (Appendix, Figure A7.1). However, there are only nine variables for export stimulus and there is a tendency for the eigenvalue criterion to extract too few components. On balance, an appropriate choice seems to derive three components for export stimulus variables.

Table 7.1 shows the factor equations for each variable. For example, the factor equation for the first variable (i.e. favourable exchange rates) is:

Favourable exchange rates = 0.76 C1 + 0.13 C2 + 0.04 C3

where C1, C2, C3 are the derived components. This equation indicates that the first component, C1, is highly influenced by the export stimulus' indicator of favourable exchange rates, while the other components, C2 and C3, are influenced to a much lesser extent. Similarly, in Table 7.1, the most important loadings for each component are identified and highlighted for the rest of the export stimulus' indicators.

Table 7.1: Rotated Component Matrix for Export Stimulus

MEASURES OF EXPORT STIMULATION	COMPONENT			h^2
	1	2	3	
Favourable exchange rates	0.76	0.13	0.04	0.60
Favourable international climate	0.72	-0.08	-0.09	0.53
State development programmes for exports	0.67	0.11	0.03	0.46
Firm's strategy to reduce risk	0.49	0.26	0.41	0.47
Importance of saturated domestic market	0.06	0.82	0.15	0.69
Importance of diminishing domestic sales	0.19	0.79	-0.19	0.69
Excess production capacity	-0.08	0.46	0.46	0.42
Unsolicited orders from abroad	0.10	0.20	-0.76	0.62
Managerial willingness to commit resources for exports	0.39	0.36	0.58	0.61
Eigenvalue	1.99	1.77	1.34	
% of Variance	22.08	19.65	14.92	
Cumulative % of Variance	22.08	41.73	56.65	

Notes: 1. Cumulative % of variance might not add up exactly because of rounding error.
2. Extraction method: Principal component analysis.
3. Rotation method: Varimax with Kaiser normalization.
4. Rotation converged in 5 iterations.
5. h^2: Communality.

Component 1 has three significant loadings for the variables, "favourable exchange rates", "favourable international climate", and "state development programmes for exports". There is also a factor loading for the variable "firm's strategy to reduce risk" of 0.49 that approaches significance. This component is labelled "opportunities for export expansion" or ES1. The variables vary together and they are all positively correlated to ES1.

Component 2 has two significant loadings for the variables, "importance of saturated domestic market", and "importance of diminishing domestic sales". There is also a loading for variable "excess production capacity" of 0.46 that approaches significance. This component is labelled "reactive export expansion" or ES2. Again, all variables vary together and are all positively correlated to ES2.

Component 3 is correlated with the variables, "unsolicited orders from abroad", and "managerial willingness to commit resources for exports". This component is labelled

"proactive export expansion" or ES3. The variables vary together, but inversely and while "managerial willingness to commit resources for exports" is positively correlated to ES3, "unsolicited orders from abroad" is negatively correlated to ES3. Hence, the higher the willingness of management to commit resources for exports, the less are unsolicited orders from abroad and *vice versa*. This accords with intuition because the former is related to a more proactive stance towards exporting while the latter is related to a more reactive stance towards exporting.

The results imply that exporters in the Greek food and beverage industry are stimulated to initiate exports mainly by: opportunities for export expansion i.e. favourable exchange rates and international climate, and state development programmes; reactive export expansion i.e. saturated domestic market, diminishing domestic sales, excess production capacity; and, proactive export expansion i.e. managerial willingness to commit resources for exports or unsolicited orders from abroad (in descending order of importance).

7.3 Export Problems Construct

This construct presents information regarding common export problems. Bartlett's test produces a value of 410.03 (p-value 0.00) and the data are correlated and this is substantiated by the KMO value of 0.79. The communalities (h_i^2) are then examined to see how well the model fits the data. The variables "Strong international competition" and "Ability of the company to adopt to the new challenges" have communalities of 0.37 and 0.36 and do not meet acceptable levels of common variance explained by the factor solution. This latter variable has a low communality,

perhaps because export managers misunderstood the question, linking it directly with their ability to adapt to new challenges. Recall also its mean is 2.78 on the 7-point scale and more than 56% (58) of respondents chose the two smallest responses (i.e. 1 and 2). Thus, it is highly likely that the high concentration and low mean level relatively to the other export problems' variables do not allow this variable to load significantly to any of the components extracted. Since it has the lowest value, it is omitted.

The revised set of variables without "Ability of the company to adopt to the new challenges" collectively meets the criteria for both the Bartlett's test (383.59, p-value: 0.00) and the KMO measure of sampling adequacy (0.78). In Table 7.2, each variable exceeds the threshold value of 0.4 and we continue by choosing the number of components to derive. The eigenvalue criterion and the variance criterion indicate that three components should be derived because they have eigenvalues greater than unity and they account for more than 55% of the total variation (Appendix Table A7.2). A caveat is that there are only 13 variables in the analysis. Finally, the scree-test suggests that four components should be derived (Appendix Figure A7.2). On balance, an appropriate choice seems to derive three components for export problems' variables. To interpret the components, the significant loadings for each component are highlighted in Table 7.2.

Table 7.2: Rotated Component Matrix for Export Problems

MEASURES OF EXPORT PROBLEMS	COMPONENT			h^2
	1	2	3	
Lack of information about overseas distributors	0.73	0.08	0.23	0.59
Insufficient information for overseas markets	0.71	0.05	0.18	0.54
Lack of EU policy regulations to assist exports	0.65	0.13	0.08	0.44
Poor identification of the firm's international competitiveness	0.64	0.10	0.03	0.42
Lack of personnel qualified for exporting	0.61	0.18	-0.18	0.44
Lack of capable Greek export consultants	0.61	0.35	-0.34	0.61
Difficulty to identify capable collaborators in the host country	0.59	0.13	0.38	0.51
Expensive information for overseas markets	0.56	0.05	0.49	0.56
Ineffective (or lack) of national export promotion programmes	0.09	0.86	-0.08	0.76
Inability of Greek public institutions to assist exports	0.15	0.84	0.10	0.74
Strong international competition	0.19	0.54	0.29	0.41
High transportation costs	-0.14	0.13	0.73	0.57
Financial risks (i.e. country/ business related risk)	0.32	0.02	0.71	0.61
Eigenvalue	3.46	1.97	1.76	
% of Variance	26.63	15.15	13.54	
Cumulative % of Variance	26.63	41.78	55.32	

Notes as for Table 7.1. Rotation converged in 7 iterations.

Component 1 has eight significant loadings for the variables: "lack of information about overseas distributors"; "insufficient information for overseas market"; "lack of European Union policy regulations"; "poor identification of the firm's international competitiveness"; "lack of personnel qualified for exporting"; "lack of capable Greek export consultants"; "difficulty to identify capable collaborators in the host country"; and "expensive information for overseas market". This component is labelled "lack of communication with export market and export expert assistance" or EPR1. The variables vary together and are positively correlated to EPR1.

Component 2 has two significant loadings for variables: "ineffective (or lack) of national export promotion programmes"; and "inability of Greek public institutions to assist exports". There is also a lower loading of 0.54, which is almost significant, for variable "strong international competition". This component is labelled "exogenous constraints" or EPR2. Again, all variables vary together and are positively correlated to EPR2.

Component 3 is correlated to the variables: "high transportation costs"; and "financial risks (country/ business related risk)". This component is labelled "target country related constraints" or EPR3. Both variables vary together and are positively correlated to EPR3.

The results imply that exporters face difficulties mainly in communicating and acquiring information for the export target market, as well as finding skilled personnel to assist their export expansion. Other common problems they face are the lack of national policy for export assistance, strong international competition, and target country related constraints e.g. transportation costs or other financial risks related to the export market.

7.4 Export Competencies Construct

The data reveals Greek exporters' position relatively to the competition on specific competitive advantages. Bartlett's test for export competencies is 492.68 (p-value: 0.00) and the KMO value of 0.77, both showing that the data are correlated. Evaluating the goodness of fit of the solution, Table 7.3 shows that $h_i^2 > 0.4$ for all variables, showing acceptable fit.

To choose how many components to derive, the eigenvalue criterion and the variance criterion indicate four components since their eigenvalues are more than unity and they account for more than 62% of the total variation (Appendix Table A7.3). A caveat is that there are only 14 export competencies' variables in the analysis. The scree-test identifies four components as the optimum number of components to be

extracted (Appendix Figure A7.3). On balance, an appropriate choice is to derive four components for export competencies.

Table 7.3 provides the rotated solution and to interpret the components, the highly significant loadings for each component are highlighted.

Table 7.3: Rotated Component Matrix for Export Competencies

MEASURES OF EXPORT PROBLEMS	COMPONENT				h^2
	1	2	3	4	
Export market knowledge	0.88	0.11	-0.03	0.09	0.80
Export marketing knowledge	0.81	0.04	0.11	0.17	0.71
Company reputation/ Goodwill	0.68	0.25	0.25	0.26	0.66
Research and development capability	0.65	0.16	0.22	0.10	0.47
Production Know-how	0.58	0.17	0.47	-0.04	0.58
Quality of personnel	0.53	0.40	0.08	-0.01	0.45
Safety of production and products	0.11	0.79	-0.12	0.07	0.65
Traceability of products	0.24	0.78	0.25	-0.03	0.70
Ability to recall products	0.10	0.71	0.21	0.13	0.55
Proximity to foreign markets	0.08	0.12	0.83	0.10	0.70
Average cost of production	0.26	0.03	0.58	-0.11	0.42
Product uniqueness	0.12	0.00	-0.19	0.88	0.83
Product categories available	0.43	0.12	0.17	0.63	0.64
Company culture	0.05	0.34	0.45	0.49	0.52
Eigenvalue	3.17	2.14	1.79	1.59	
% of Variance	22.64	15.26	12.76	11.39	
Cumulative % of Variance	22.64	37.90	50.66	62.05	

Notes as for Table 7.1. Rotation converged in 6 iterations.

Component 1 has five significant loadings for the variables: "export market knowledge"; "export marketing knowledge"; "company reputation (goodwill)"; "research and development capability"; and "production know-how". There is also a lower, although practically significant, loading for "quality of personnel" of 0.53. This component is labelled "production and marketing capability" or EC1. The above variables vary together and are positively correlated to EC1.

Component 2 has three significant loadings for the variables: "safety of production and products"; "traceability of products"; and "ability to recall products". This component is labelled "safety and control practices" or EC2. These three variables vary together and are positively correlated to EC2.

Component 3 has two significant loadings for the variables: "proximity to foreign markets"; and "average cost of production". This component is labelled "competitive pricing" or EC3. Again, both variables vary together and are positively correlated to EC3.

Component 4 is correlated with the variables: "product uniqueness"; and "product categories available". There is also an important loading for variable "company culture" of 0.49. This component is labelled "product superiority" or EC4. Both variables vary together and are positively correlated to EC4.

The results imply that exporters suggest that their export competitive advantages are mainly related to their: production and marketing capability i.e. production know-how, research and development capability, export marketing knowledge etc.; safety and control practices i.e. safety in production and products, traceability etc.; ability to have competitive prices for their products i.e. cost of production, transportation cost; and their product superiority i.e. product uniqueness, product categories available (in descending order of importance).

7.5 Usefulness of Information Sources Construct

This construct reveals details about the usefulness of common information sources used for export expansion. Bartlett's test has a value of 522.12 (p-value: 0.00) and the KMO test has a value of 0.80 and both indicate that the data are correlated. Communalities indicate that this set of variables meets the fundamental requirement (i.e. $h_i^2 > 0.4$) for continuing with the subsequent stages of factor analysis (Table 7.4). The eigenvalue criterion and the variance criterion indicate that three components should be derived: three components have eigenvalues more than unity and account for approximately 66% of the total variation (Appendix Table A7.4). However, there are only 11 variables in the analysis. The scree test specifies two components (Appendix Figure A7.4). On balance, an appropriate choice is to derive three components for the usefulness of information sources' variables. The rotated solution is shown in Table 7.4 and to interpret the components, the significant loadings for each component are highlighted.

Table 7.4: Rotated Component Matrix for Usefulness of Information Sources

MEASURE OF USEFULNESS OF INFORMATION SOURCES	COMPONENT			h^2
	1	2	3	
Importance of chamber of commerce's information for export growth	0.84	0.24	0.09	0.77
Importance of information from Greek ministry of development/agriculture	0.82	0.38	0.10	0.83
Importance of information from overseas Greek embassies for export growth	0.78	0.34	0.02	0.72
Importance of trade associations' information for export growth	0.77	0.03	0.23	0.65
Importance of professional institutions' information for export growth	0.25	0.87	0.01	0.82
Importance of public libraries' information for export growth	0.37	0.80	0.08	0.79
Importance of internet's information for export growth	0.11	0.73	0.21	0.59
Importance of overseas agent's information for export growth	0.08	0.10	0.86	0.76
Importance of personal contacts' information for export growth	0.15	0.11	0.81	0.69
Eigenvalue	2.83	2.28	1.52	
% of Variance	31.44	25.28	16.87	
Cumulative % of Variance	31.44	56.72	73.59	

Notes as for Table 7.1. Rotation converged in 6 iterations.

Component 1 has four significant loadings: "importance of chamber of commerce's information for export growth or export growth"; "importance of information from Greek ministry of development/agriculture"; "importance of information from overseas Greek embassies for export growth"; and "importance of trade associations' information for export growth". This component is labelled "advanced methods of information acquisition" or IS1. All variables vary together and are positively correlated to IS1.

Component 2 has three significant loadings: "importance of professional institutions' information for export growth"; "importance of public libraries' information for export growth"; and "importance of internet's information for export growth". This component is labelled "principal methods of information acquisition" or IS2. The variables vary together and are positively correlated to IS2.

Component 3 is correlated with the variables: "importance of overseas agent's information for export growth"; and "importance of personal contacts' information for export growth". This component is labelled "communication with export market" or IS3. All variables vary together and are positively correlated to IS3.

The results imply that exporters acquire information by using mainly advanced methods (e.g. ministry of development/agriculture, chamber of commerce etc.) or principal methods (e.g. public libraries, professional institution, internet etc.), and by directly communicating with the export market (i.e. through overseas agents or personal contacts).

7.6 Entrepreneurial Orientation Construct

Bartlett's test for entrepreneurial orientation construct produces the value of 112.56 (p-value: 0.00) and the KMO value is 0.61 and the data are correlated; $h_i^2 > 0.4$ for all variables (Table 7.5). The eigenvalue and variance criterion indicate that three components should be derived since they have eigenvalues more than unity and they account for more than 74% of the total variation (Appendix Table A7.5), although there are only seven variables in the analysis. The scree-test suggests four components (Appendix Figure A7.5), but on balance, three components are derived. In Table 7.5, the rotated factor solution is provided and to interpret the components, the significant loadings are highlighted.

Table 7.5: Rotated Component Matrix for Entrepreneurial Orientation

MEASURES OF ENTREPRENEURIAL ORIENTATION	COMPONENT			h^2
	1	2	3	
Degree that new products emerge from product/market research	0.85	-0.06	-0.10	0.73
Degree of implementation of export market research	0.80	0.37	-0.08	0.78
Degree of testing new products in export markets	0.73	-0.10	0.11	0.56
Degree of involvement in export activities to high risk export markets	-0.19	0.86	-0.08	0.79
Degree of carrying out own marketing functions	0.34	0.56	0.30	0.52
Similarity of products offered to domestic & export markets	-0.31	-0.24	0.76	0.73
Frequency of new product development	0.20	0.31	0.72	0.65
Eigenvalue	2.18	1.35	1.21	
% of Variance	31.10	19.34	17.34	
Cumulative % of Variance	31.10	50.44	67.78	

Notes as for Table 7.1. Rotation converged in 8 iterations.

Component 1 has three significant loadings: "degree that new products emerge from product/market research"; "degree of implementation of export market research"; and "degree of testing new products in export markets". This component is labelled "proactiveness" or EO1. All variables vary together and are positively correlated to EO1.

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Component 2 is correlated with the variable: "degree of involvement in export activities to high risk export markets"; and "degree of carrying out own marketing functions". This component is labelled "risk-taking" or EO2. Both variables vary together and are positively correlated to EO2.

Component 3 has two significant loadings: "similarity of products offered to domestic and export markets"; and "frequency of new product development". This component is labelled "innovativeness" or EO3. Both variables vary together and are positively correlated to EO3.

The results imply that three main constructs of entrepreneurship developed are proactiveness i.e. employment of product/market research, export market research implementation etc., innovativeness i.e. new product development, product adaptation to export market needs, and risk-taking i.e. export to high risk export markets and degree of carrying out own marketing functions. Proactiveness is the main underlying construct of entrepreneurial orientation, while risk-taking and innovativeness follow.

7.7 Summary

Exploratory factor analysis (EFA) seeks a small number of logical combinations, which help to understand better the interrelationships between the original variables that can be used to summarise the data, without loosing much information. Using this method, a set of correlated variables is transformed to a set of uncorrelated variables. Thus, it is important to be certain of the correlation of the original variables, because if they are not correlated, the analysis is inappropriate.

From the results, the application of EFA to export stimulus resulted in three components: "exogenous market conditions", "domestic market pressures", and "proactive export expansion". Export problems established three components: "lack of communication with export market and export expert assistance", "exogenous constraints", and "target country related constraints". Export competencies revealed four components: "production and marketing capability", "safety and control practices", "competitive pricing", and "product superiority". Usefulness of information sources indicated three components: "advanced methods of information acquisition", "principal methods of information acquisition", and "communication with the target market". Entrepreneurial orientation produced three components: "proactiveness", "risk-taking", and "innovativeness".

EFA provides an empirical basis for judging the structure of the original variables which can be used to interpret the results of subsequent statistical techniques. To test the significance of the exploratory factor results, confirmatory factor analysis is used in Chapter 8 through structural equation modelling technique.

Chapter 7: Appendix

Table A7.1: Total Variance Explained for Export Stimulus

Component	INITIAL EIGENVALUES			ROTATION SUMS OF SQUARED LOADINGS		
	Total	% of Variance	Cumulative % of Variance	Total	% of Variance	Cumulative % of Variance
1	2.61	28.98	28.98	1.99	22.08	22.08
2	1.36	15.09	44.08	1.77	19.65	41.73
3	1.13	12.58	56.65	1.34	14.92	56.65
4	0.97	10.77	67.42			
5	0.78	8.61	76.03			
6	0.68	7.57	83.61			
7	0.55	6.15	89.76			
8	0.53	5.90	95.66			
9	0.39	4.34	100.00			

Note: 1. Cumulative % of variance might not add up exactly, because of rounding error.
2. Extraction Method: Principal Component Analysis.

Figure A7.1: Scree Plot for Export Stimulus
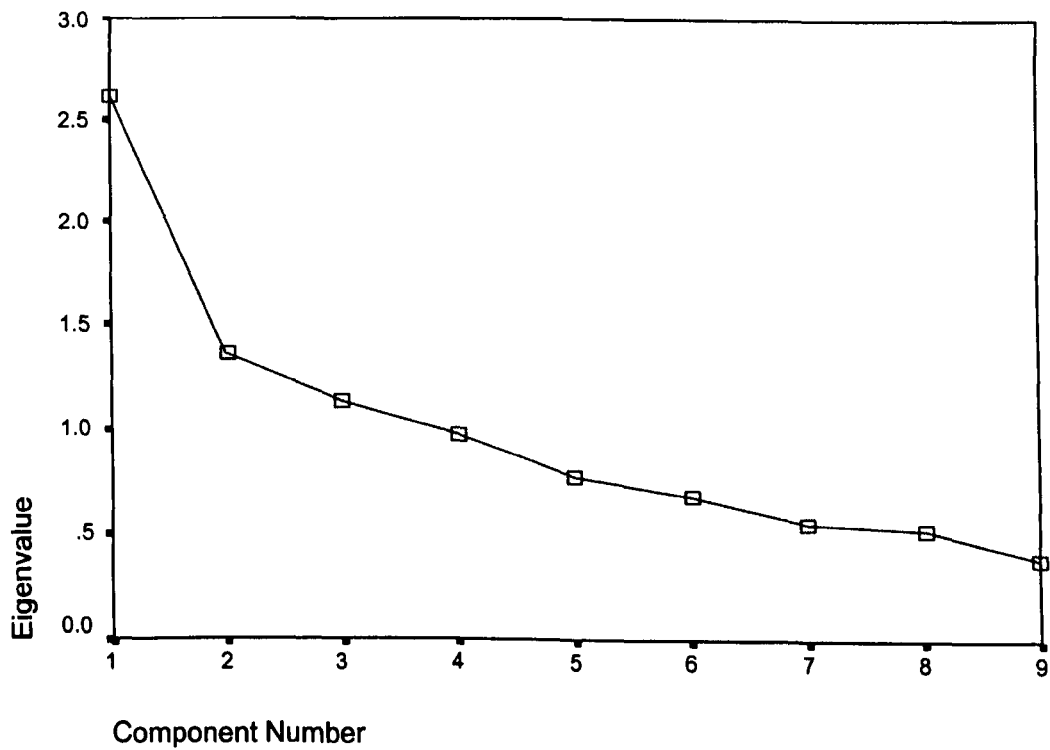
Table A7.2: Total Variance Explained for Export Problems

Component	INITIAL EIGENVALUES			ROTATION SUMS OF SQUARED LOADINGS		
	Total	% of Variance	Cumulative % of Variance	Total	% of Variance	Cumulative % of Variance
1	4.18	32.17	32.17	3.46	26.63	26.63
2	1.61	12.35	44.52	1.97	15.15	41.78
3	1.40	10.80	55.32	1.76	13.54	55.32
4	0.99	7.64	62.96			
5	0.86	6.62	69.58			
6	0.76	5.86	75.44			
7	0.62	4.73	80.17			
8	0.60	4.58	84.75			
9	0.55	4.22	88.97			
10	0.44	3.40	92.37			
11	0.40	3.10	95.47			
12	0.30	2.28	97.75			
13	0.29	2.25	100.00			

Note as for Table A7.1.

Figure A7.2: Scree Plot for Export Problems

Component Number
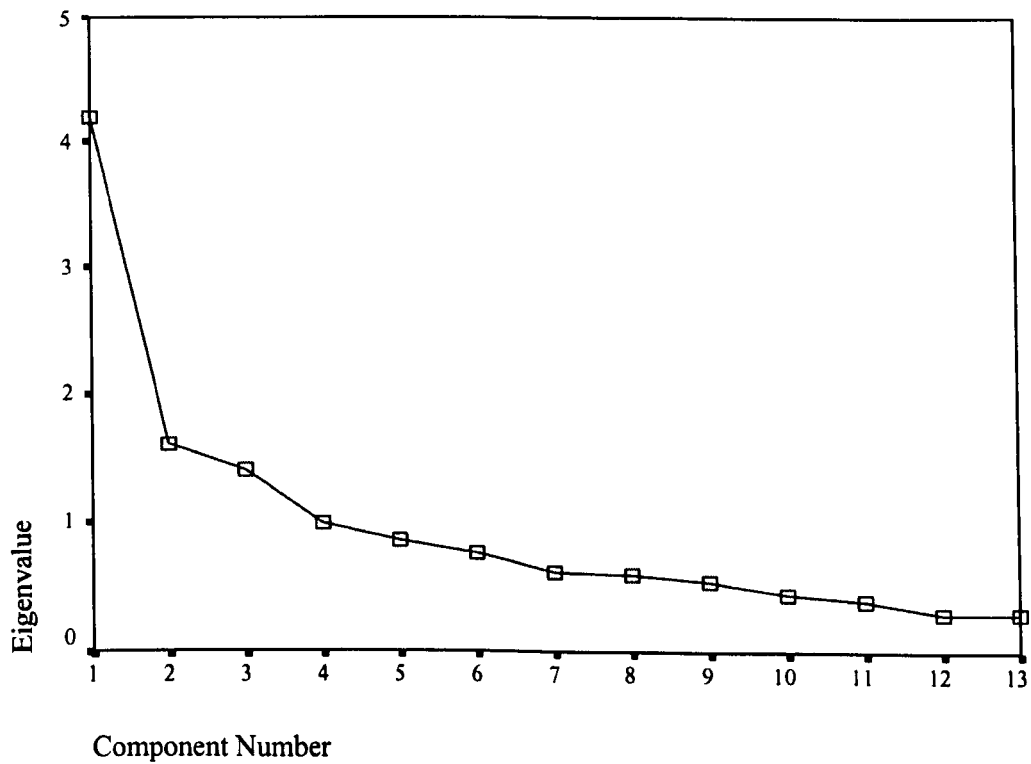
Table A7.3:   Total Variance Explained for Export Competencies

Component	INITIAL EIGENVALUES			ROTATION SUMS OF SQUARED LOADINGS		
	Total	% of Variance	Cumulative % of Variance	Total	% of Variance	Cumulative % of Variance
1	4.83	34.51	34.51	3.17	22.64	22.64
2	1.51	10.75	45.27	2.14	15.26	37.90
3	1.32	9.43	54.70	1.79	12.76	50.66
4	1.03	7.36	62.05	1.59	11.39	62.05
5	0.93	6.61	68.66			
6	0.81	5.78	74.44			
7	0.67	4.77	79.21			
8	0.61	4.36	83.57			
9	0.57	4.04	87.61			
10	0.47	3.38	90.98			
11	0.45	3.21	94.19			
12	0.35	2.49	96.69			
13	0.31	2.20	98.89			
14	0.16	1.11	100.00			

Note as for Table A7.1.

Figure A7.3:   Scree Plot for Export Competencies
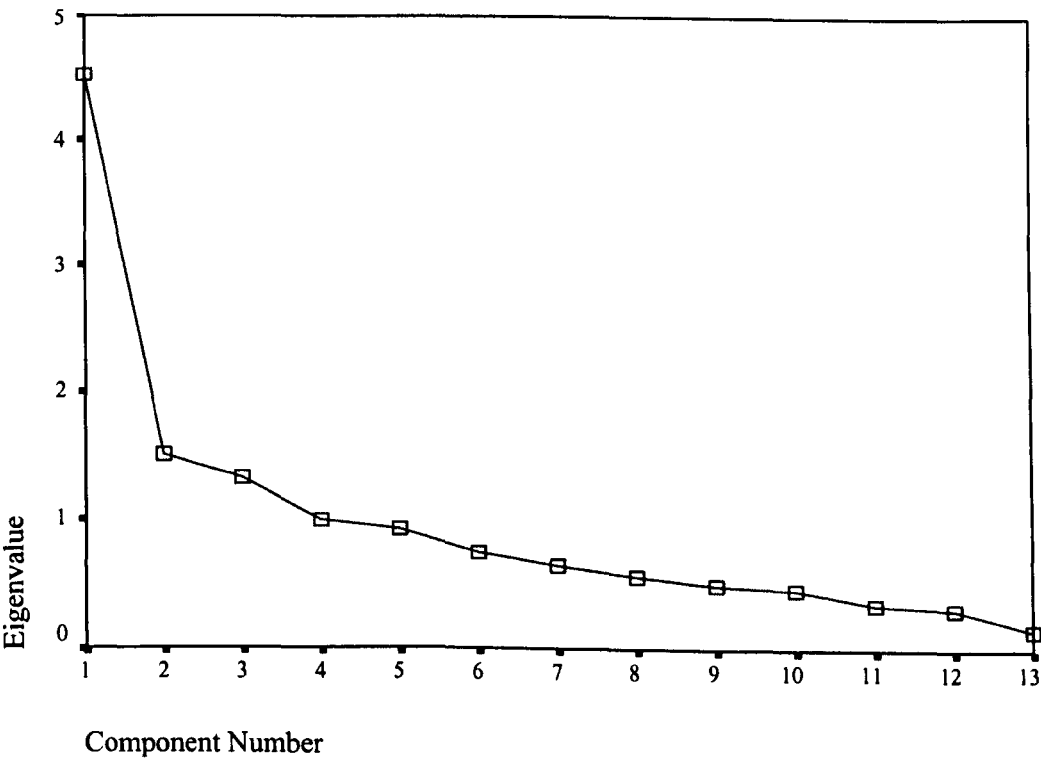
Table A7.4:   Total Variance Explained for Usefulness of Information Sources

Component	INITIAL EIGENVALUES			ROTATION SUMS OF SQUARED LOADINGS		
	Total	% of Variance	Cumulative % of Variance	Total	% of Variance	Cumulative % of Variance
1	4.21	46.79	46.79	2.83	31.44	31.44
2	1.31	14.55	61.34	2.28	25.28	56.72
3	1.10	12.25	73.59	1.52	16.87	73.59
4	0.74	8.20	81.79			
5	0.51	5.68	87.46			
6	0.47	5.19	92.65			
7	0.30	3.36	96.01			
8	0.20	2.18	98.19			
9	0.16	1.81	100.00			

Note as for Table A7.1.

Figure A7.4:   Scree Plot for Usefulness of Information Sources

Component Number
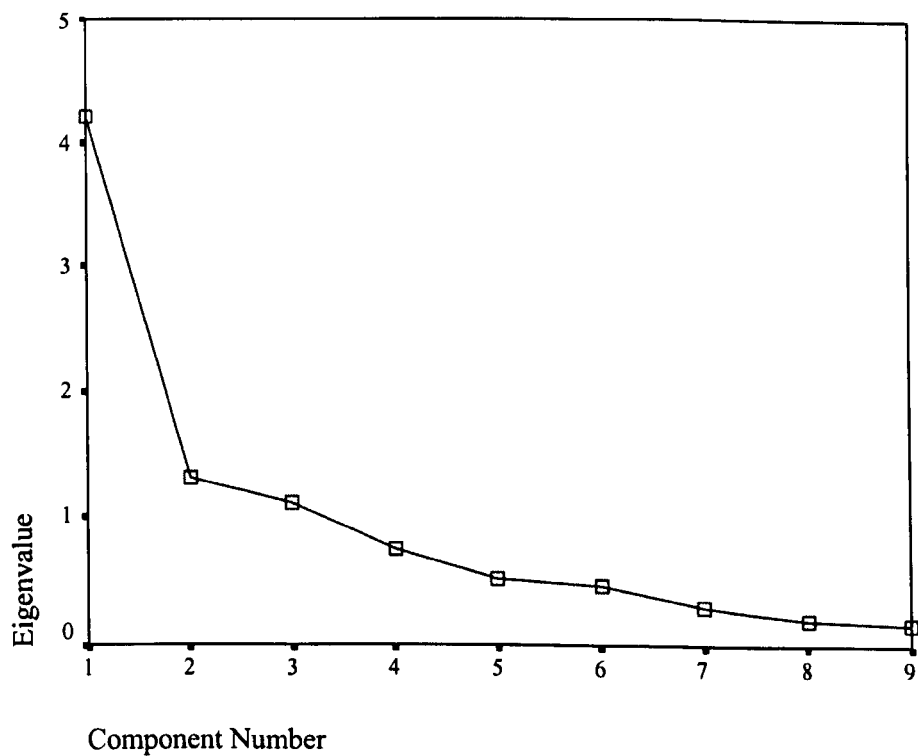
Table A7.5:   Total Variance Explained for Entrepreneurial Orientation

Component	INITIAL EIGENVALUES			ROTATION SUMS OF SQUARED LOADINGS		
	Total	% of Variance	Cumulative % of Variance	Total	% of Variance	Cumulative % of Variance
1	2.29	32.74	32.74	2.18	31.10	31.10
2	1.33	19.03	51.77	1.35	19.34	50.44
3	1.12	16.01	67.78	1.21	17.34	67.78
4	0.74	10.52	78.30			
5	0.64	9.15	87.45			
6	0.62	8.80	96.24			
7	0.26	3.76	100.00			

Note as for Table A7.1.

Figure A7.5:   Scree Plot for Entrepreneurial Orientation

Component Number
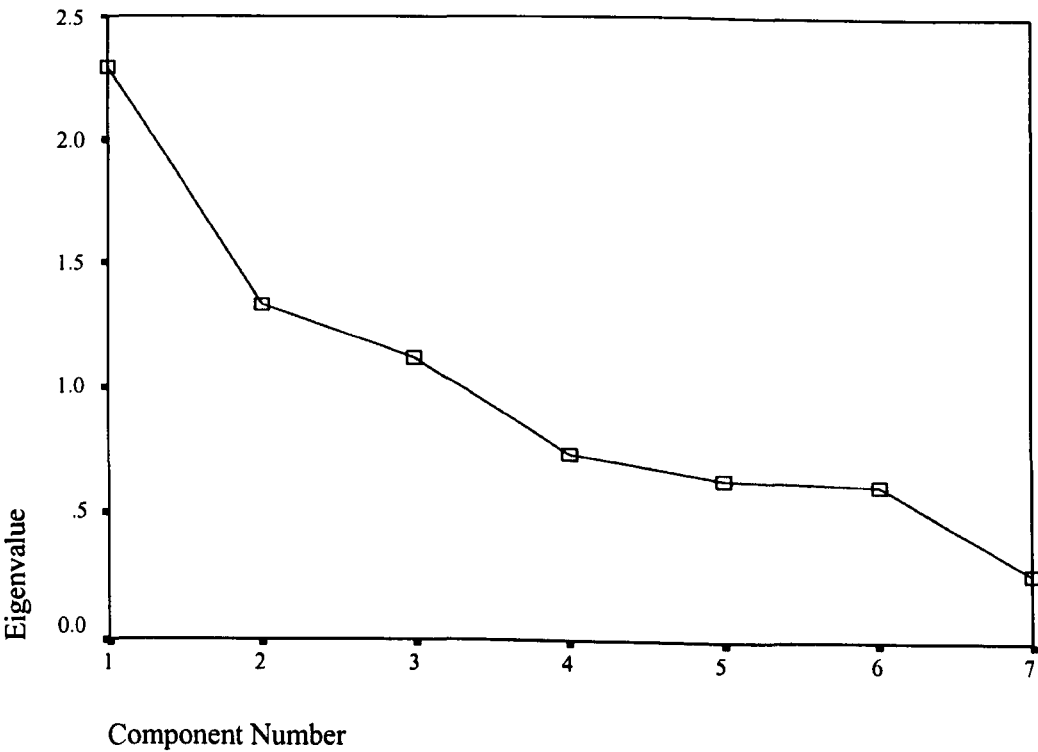
Chapter 8: Structural Equation Modelling

8.1 Introduction

The purpose of this chapter is to analyse the data collected through the survey with the multivariate technique of structural equation modelling (SEM) and examine the significance of the exploratory factor results through confirmatory factor analysis (CFA). With the exception of entrepreneurial orientation, where there are a few missing values in two indicators, the survey yielded 103 usable responses. All constructs are incorporated in an integrated structural model that is tested through the SEM technique of path model estimation (PME). The statistical program used is AMOS 4 (Arbuckle, 1999).

In our analysis, a two-step approach is followed, which has been developed by Anderson and Gerbing (1988). This approach suggests that the simultaneous estimation of the measurement and structural models may create difficulties in assigning meaning to theoretical constructs. Therefore, in the first stage, to minimise the potential for interpretational confounding, the measurement models are developed and evaluated separately from the full structural equation model that simultaneously models measurement and structural relations. This is essential because the achievement of unidimensional measurement is a critical aspect of testing structural equation models and is a "necessary condition for assigning meaning to estimated constructs" (Anderson and Gerbing 1988, p.414). To treat problematic indicators four approaches are usually employed: omitting the variable from the model; relating the indicator to another latent construct, relating the indicator to more than one latent

construct and allowing error variances to correlate. Apart from the first approach (i.e. omitting the variable from the model), all these methods violate unidimensionality. In particular, by omitting problematic variables, researchers can develop unidimensional measures on substantive grounds and thus provide a statistical assessment of the adequacy of the theoretical model tested. The second stage of the two-step approach involves the estimation of a conditional structural equation model. Specifically, the measurement model in conjunction with the structural model (i.e. the integrated export marketing performance model) makes a comprehensive confirmatory assessment of the construct validity, possible.

Here, CFA is applied to five multidimensional constructs i.e. "export stimulus", export problems, export competencies, usefulness of information sources, and entrepreneurial orientation. The CFA results are then employed in PME where along with seven unidimensional constructs – export management competencies, export market attractiveness, similarity of export and domestic markets, firm size, export to total sales ratio, export experience, importance of trade barriers – a structural model is developed and its overall fit is assessed to identify the significance and the magnitude of the relationships among the constructs.

This chapter organised as follows: Section 8.2 discusses the application of CFA to the multidimensional constructs and examines the significance of the EFA results; Section 8.3 analyses PME in an integrated structural model of export marketing performance; and Section 8.4 summarises and concludes.

8.2.1 Export Stimulus Construct

Recall from Chapter 7 that EFA identified three underlying dimensions for "export stimulus". We now use C FA to assess these r esults and Figure 8.1 shows the path diagram of causal relationships in the export stimulus measurement model based on EFA results.

Figure 8.1: **Path Diagram of Export Stimulus (Model A1)**
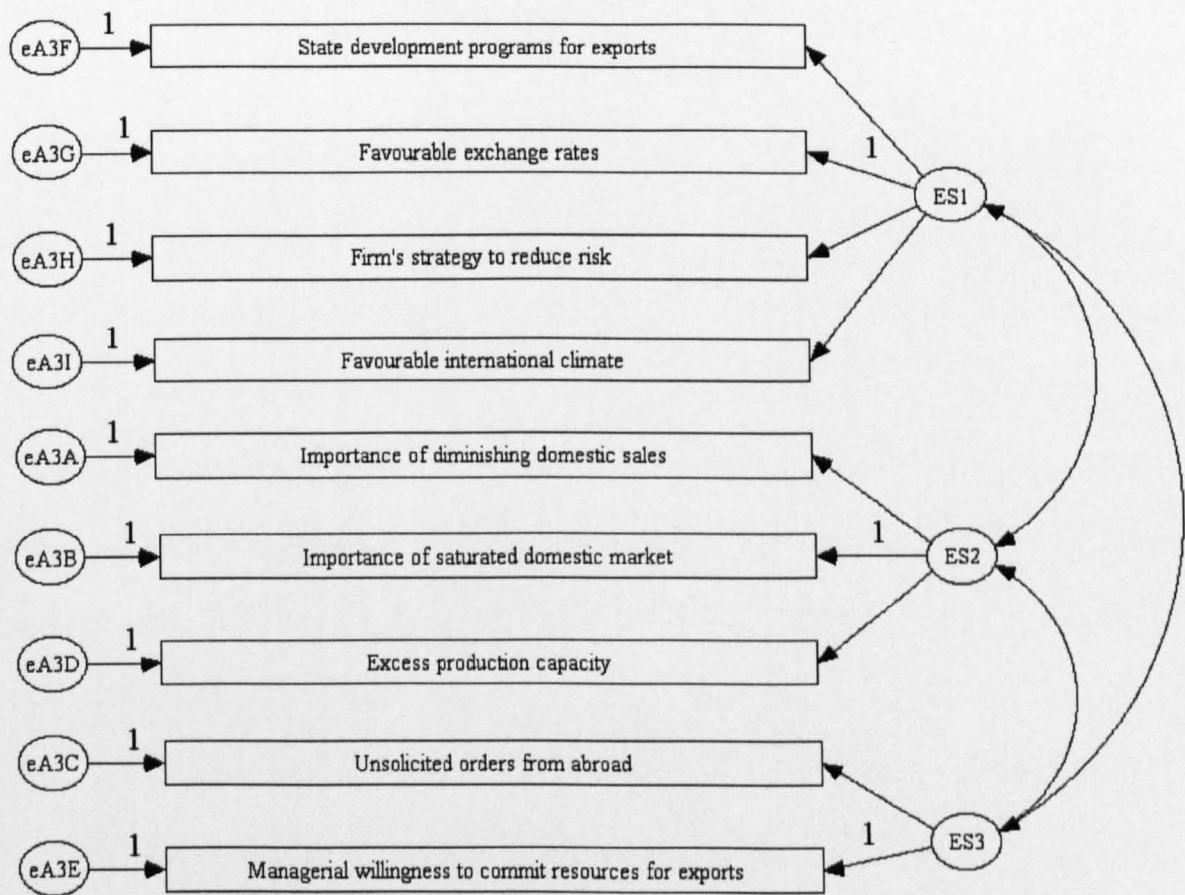
The terms eA3A-eA3I on the left are the corresponding error terms for each indicator. The indicators or endogenous constructs of the measurement model, i.e. original variables, are shown in the centre. They are: "state development programs for exports" (A3F), "favourable exchange rates" (A3G), "firm's strategy to reduce risk"

(A3H), "favourable international climate" (A3I), "importance of diminishing domestic sales" (A3A), "importance of saturated domestic market" (A3B), "excess production capacity" (A3D), "unsolicited orders from abroad" (A3C), and "managerial willingness to commit resources for exports" (A3E). The exogenous constructs on the right are: "opportunities for export expansion" (ES1), "reactive export expansion" (ES2), and "proactive export expansion" (ES3). To standardise the constructs' indicators, one of the loadings for each construct is set to unity (in this case, variables A3G, A3B, and A3E); and for identification purposes, the path coefficient of each error to the respective indicator is fixed to unity.

SEM can accommodate either covariance or correlation matrix as input data type, but since we aim to explore the pattern of interrelationships, the correlation matrix is preferred and it is shown in Appendix Table A8.1. The diagnostic procedures do not detect any identification problems and we evaluate goodness of fit by looking for any "offending estimates." "Offending estimates" are insignificant variance estimates that fail to exceed the minimum 1.96 critical value at the 5% significance level (Arbuckle and Worthke, 1999): they are for the exogenous construct ES3 and the measurement errors eA3B and eA3E which are starred in Table 8.1. Such estimates are theoretically inappropriate and must be corrected before the model can be interpreted and goodness of fit assessed. In this situation, all variables are retained and the small error variances of 1.29 and 0.66 are set to 0.005.[1] Table 8.2 shows the standardised regression weights, where an insignificant loading is present for indicator A3C (to ES3) while all other construct loadings are significant. We re-examined whether A3C could be linked to the other two exogenous constructs (ES1 or ES2), but it does not load

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[1] Error variances are first constrained and we examine how the exogenous construct's variance is then influenced.

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significantly to either. Thus, we exclude the variable A3C from the analysis and the

measurement model is re-estimated.

Table 8.1: Variance Estimates, Standard Errors and Critical Ratios (Model A1)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
ES1: Exogenous Market Conditions	2.24	0.64	3.49
ES2: Domestic Market Pressures	3.60	1.13	3.19
ES3: Proactive Export Expansion	2.06	2.37	0.87*
eA3A: Error A3A	2.44	0.48	5.13
eA3B: Error A3B	1.21	0.94	1.29*
eA3C: Error A3C	2.70	0.38	7.09
eA3D: Error A3D	3.73	0.54	6.87
eA3E: Error A3E	1.54	2.34	0.66*
eA3F: Error A3F	3.09	0.49	6.28
eA3G: Error A3G	1.50	0.47	3.16
eA3H: Error A3H	3.21	0.52	6.16
eA3I: Error A3I	2.19	0.34	6.49

Notes: 1. Critical ratio = Variance estimate/Standard error
    2. * Insignificant values (i.e. offending estimates)
    3. Critical ratio (C.R.) is the product of dividing the variance estimate by standard error

Table 8.2: Standardised Regression Weights (Model A1)

VARIABLES	ES1	ES2	ES3	C.R.
A3A: Importance of diminishing domestic sales		0.59		3.48
A3B: Importance of saturated domestic market		0.87		**
A3C: Unsolicited orders from abroad			-0.12	-0.83*
A3D: Excess production capacity		0.32		2.54
A3E: Managerial willingness to commit resources for exports			0.76	**
A3F: State development programmes for exports	0.49			3.79
A3G: Favourable exchange rates	0.77			**
A3H: Firm's strategy to reduce the risk	0.51			3.91
A3I: Favourable international climate	0.44			3.50

Notes: 1. * Insignificant values
    2. ** Values were not calculated because loading was set to unity to fix construct variance
    3. Critical ratio (C.R.) is the product of dividing the variance estimate by standard error

Figure 8.2 shows the respecified model which has no "offending estimates" as shown

in Appendix Tables A8.2 and A8.3.

Figure 8.2:   Respecified Path Diagram of Export Stimulus (Model A2)
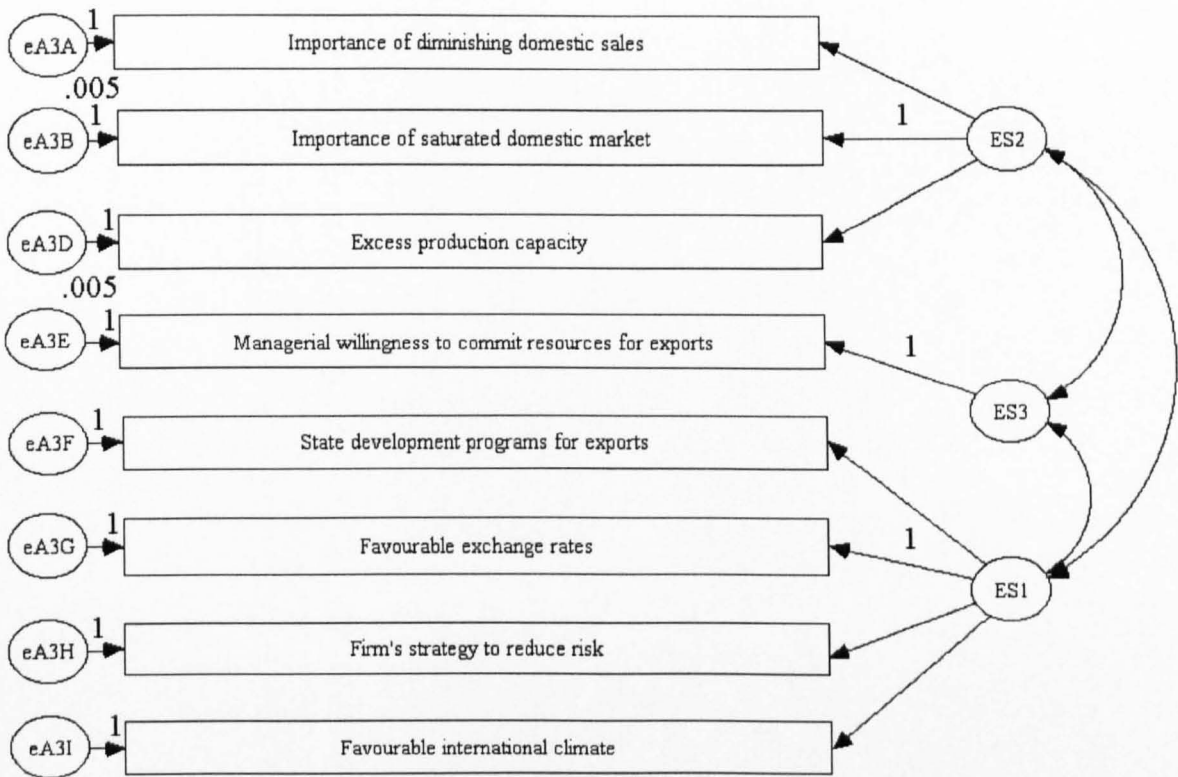
The respecified model (Model A2) has no "offending estimates" but one of the exogenous constructs, ES3, has a single indicator, which is inappropriate. In addition, examination of the modification indices (MI) and the standardised residuals indicates that the variable A3H has a significantly higher loading for ES3, instead of ES1 (in EFA, A3H had an almost significant loading in component ES1, and a lower, although important, loading for ES3). Since this variable fits equally well to ES3's dimension (i.e. proactive export expansion), the model is respecified so that the ES3 exogenous construct has two indicators (i.e. A3E and A3H) as shown in Model A3 in Table 8.3.

Figure 8.3: **Respecified Path Diagram of Export Stimulus (Model A3)**
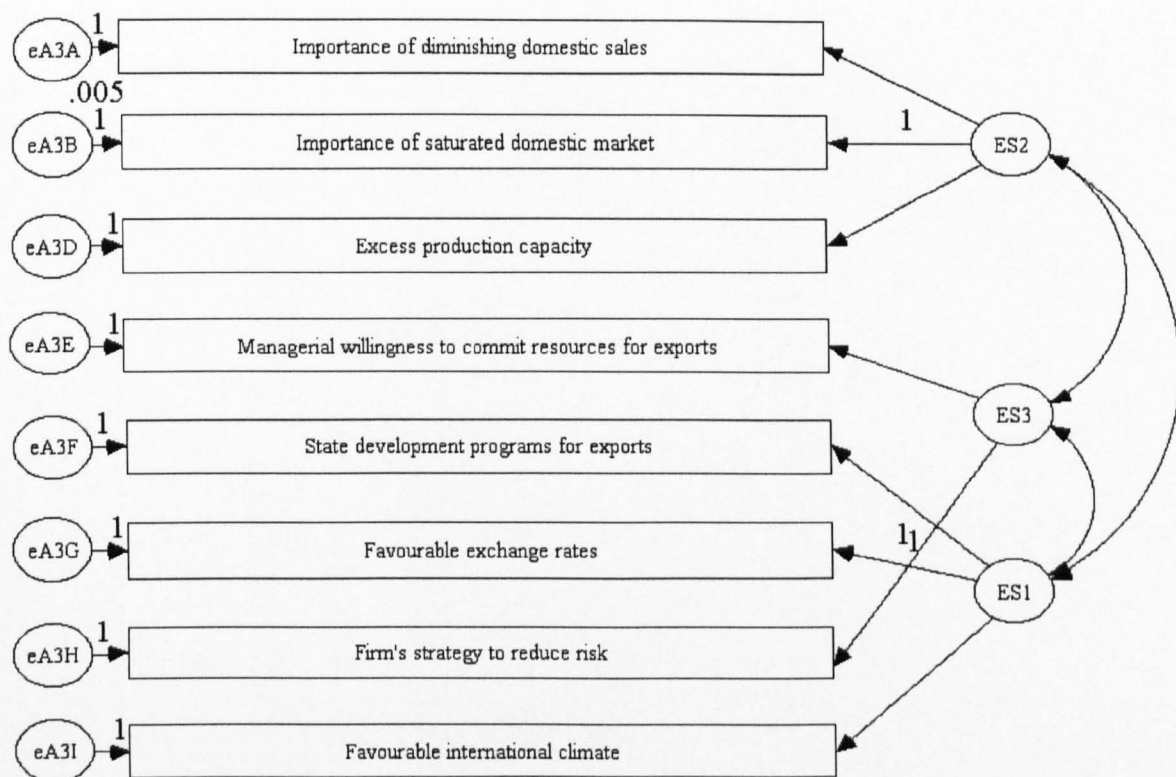
The variance estimates for all latent constructs in the respecified Model A3 in Figure 8.4 are shown in Table 8.3 and there are no "offending estimates" and the analysis continues by examining model fit.

Table 8.3: Variance Estimates, Standard Errors and Critical Ratios (Model A3)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
ES1: Opportunities for export expansion	1.75	0.59	2.96
ES2: Reactive export expansion	4.60	0.65	7.13
ES3: Proactive export expansion	1.76	0.67	2.64
eA3A: Error A3A	2.73	0.38	7.14
eA3B: Error A3B	0.01	-	-
eA3D: Error A3D	3.80	0.53	7.14
eA3E: Error A3E	2.16	0.40	5.40
eA3F: Error A3F	2.93	0.48	6.07
eA3G: Error A3G	1.14	0.49	2.34
eA3H: Error A3H	2.51	0.58	4.34
eA3I: Error A3I	2.07	0.33	6.30

Notes as for Table 8.1.

Figure 8.4:   Standardised E stimates o f E xport S timulus Measurement M odel (Model A3)

Standardized estimates
Chi-square=21.490 (18 df), p=.255

Goodness of Fit Measures: NPAR=18
~Absolute measures: RMR=.295, RMSEA=.044, GFI=.952
~Incremental measures: AGFI=.904, NFI=.843, RFI=.755,
                                        IFI=.971, TLI=.950, CFI=.968
~Parsimonious measures: CMIN/DF=1.194
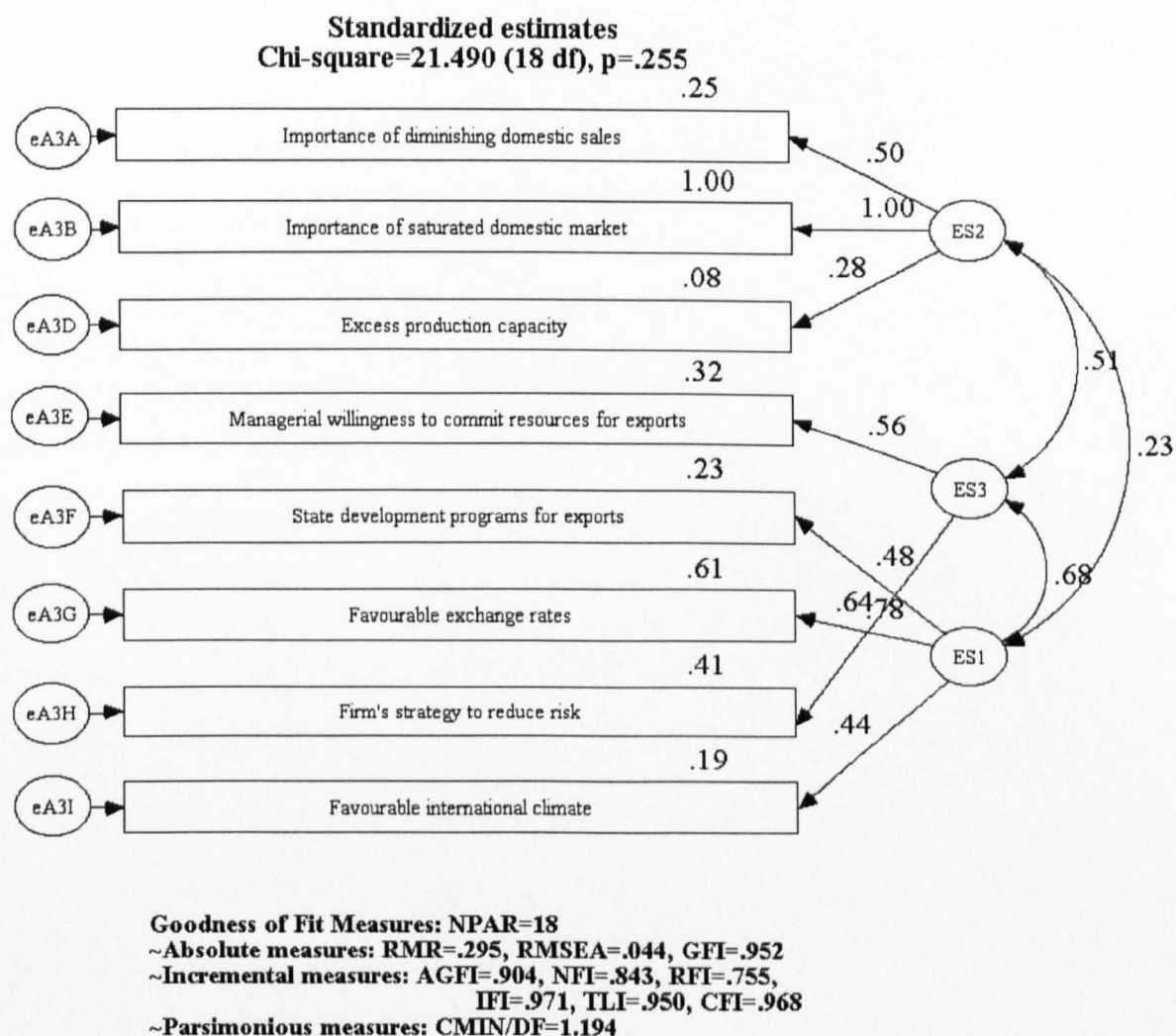
Figure 8.4 shows the results for various fit measures for Model A3. Most of the fit measures reveal a good fit with the exception of RMR, NFI, and RFI.[2] In particular, RMR is high and NFI and RFI values are slightly less than the target value of 0.9. However, non-normal data and low sample size bias these results.

In Figure 8.4, double headed arrows indicate correlations while single headed arrows indicate standardised regression weights, and the values printed over the observed

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[2] Goodness of fit measures are described as: RMR: Root mean square residual, RMSEA: Root mean square error of approximation, GFI: Goodness of fit index, AGFI: Adjusted goodness of fit index, NFI: Normed fit index, RFI: Relative fit index, IFI: Incremental fit index, TLI: Tucker-Lewis index, CFI: Comparative fit index, CMIN/DF: χ^2-statistic/df.

variables, middle right, are the lower-bound reliability estimates. For example, 25% of the variance of A3A variable is accounted for by the variance in ES2, while the remaining 75% of the variance of A3A cannot be explained by this model and it is thus attributed to the unique factor e A3A. However, the term eA3A may comprise systematic unique variance components in addition to random error and so the value 0.25 is regarded as a lower bound estimate for reliability (Arbuckle and Worthke, 1999). In terms of importance, i.e. regression weight and variance explained, variables A3G, A3F, and A3I in descending order influence ES1, variables A3B, A3A and A3D in descending order influence ES2, and variables A3H and A3E in descending order influence ES3.

Since the overall model is accepted, each of the constructs is evaluated separately for the statistical significance of their indicator loadings, their reliability and their variance extracted. Table 8.4 shows that all variables are significantly related to their specified exogenous constructs.

Table 8.4: Standardised Regression Weights (Model A3)

VARIABLES	ES1	ES2	ES3	C.R.
A3A: Importance of diminishing domestic sales		0.50		5.90
A3B: Importance of saturated domestic market		1.00		**
A3D: Excess production capacity		0.28		3.00
A3E: Managerial willingness to commit resources for exports			0.56	3.69
A3F: State development programmes for exports	0.48			3.18
A3G: Favourable exchange rates	0.78			**
A3H: Firm's strategy to reduce the risk			0.64	**
A3I: Favourable international climate	0.44			3.20

Notes as for Table 8.2.

The reliability and the variance-extracted measures for each construct assess whether the specified indicators are sufficient in representing the exogenous constructs. ES1,

ES2, and ES3 have reliability values of 0.59, 0.66, and 0.53 using (5.7) and variance-extracted values of 0.35, 0.52, and 0.29 using (5.8). The relatively low reliability and variance-extracted values of ES1 and ES3 indicate that a substantial amount of variance is not accounted for by the indicators of these constructs, which suggests that we should explore additional loadings for these indicators on other constructs. Examination of these additional loadings shows no evidence of improvement and Model A3 is preferred.[3] Other estimated coefficients in the measurement model are the correlations between the constructs; all coefficients are significant, apart from the correlation between ES1 and ES2. The critical ratio of the ES1-ES2 correlation coefficient (1.85) falls slightly below the critical value of 1.96 (at the 5% significance level) and there is weaker support (at the 10% significance level) that ES1 and ES2 are correlated.

The overall model goodness of fit results and the measurement model assessment lend support for confirming the three-factor model. However, even if acceptable results are achieved with this model, possible modifications could be made to improve these results if they are theoretically justified. Normalised residuals and modification indices are examined, but there is no indication for any justified model respecification that improves overall fit.

A second-order factor model is also examined to explore whether the first-order factors estimated are actually sub-dimensions of a broader construct, in this case, "export stimulus" (ES).[4] This is shown in Figure 8.5, which also shows the

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[3] None of these changes are theoretically justified.
[4] This is required for the PME analysis applied later in Section 8.3 where both the first and second-order factors are used.

standardised estimates of the second-order factor model of export stimulus (i.e. Model A4).

Figure 8.5: Standardised Estimates of Second-order Factor Model of Export Stimulus (Model A4)

Standardized estimates
Chi-square=28.198 (20 df), p=.105

Goodness of Fit Measures: NPAR=16
~Absolute measures: RMR=.357, RMSEA=.063, GFI=.935
~Incremental measures: AGFI=.882, NFI=.794, RFI=.711,
IFI=.930, TLI=.894, CFI=.925
~Parsimonious measures: CMIN/DF=1.410
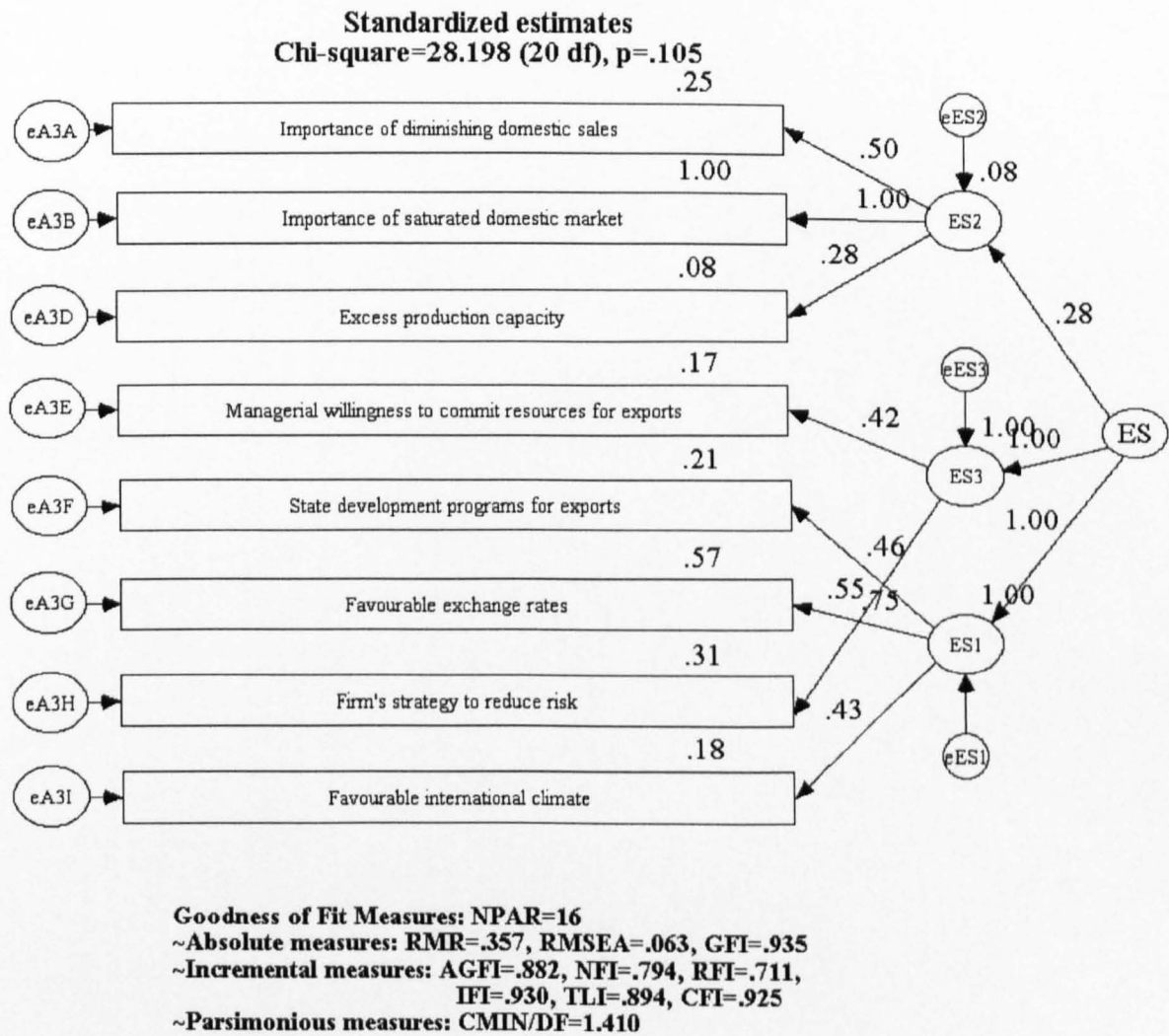
In Model A4, there are no "offending estimates" (Appendix Table A8.4, A8.5) and the model has a reasonably good fit, even if there are minor problems with the RMR, NFI and RFI measures that are due to non-normality and a low sample size. Since there is a reasonable fit, the three first-order factors (i.e. ES1: "Opportunities for export expansion", ES2: "Reactive export expansion", and ES3: "Proactive export expansion") load significantly on the second-order factor of "export stimulus". Figure

8.5 a lso s hows t hat t he m ost i mportant f irst-order f actors f or E S a re E S1 a nd E S3 while ES2 follows and that the importance of the indicators towards first-order factors follows a similar pattern to the first-order measurement model (Model A3).

8.2.2 Export Problems Construct

Recall from Chapter 7 that EFA identified three underlying dimensions for export problems. W e n ow u se CFA t o a ssess t hese r esults a nd F igure 8 .6 s hows t he p ath diagram of causal relationships.

Figure 8.6: Path Diagram of Export Problems (Model B1)
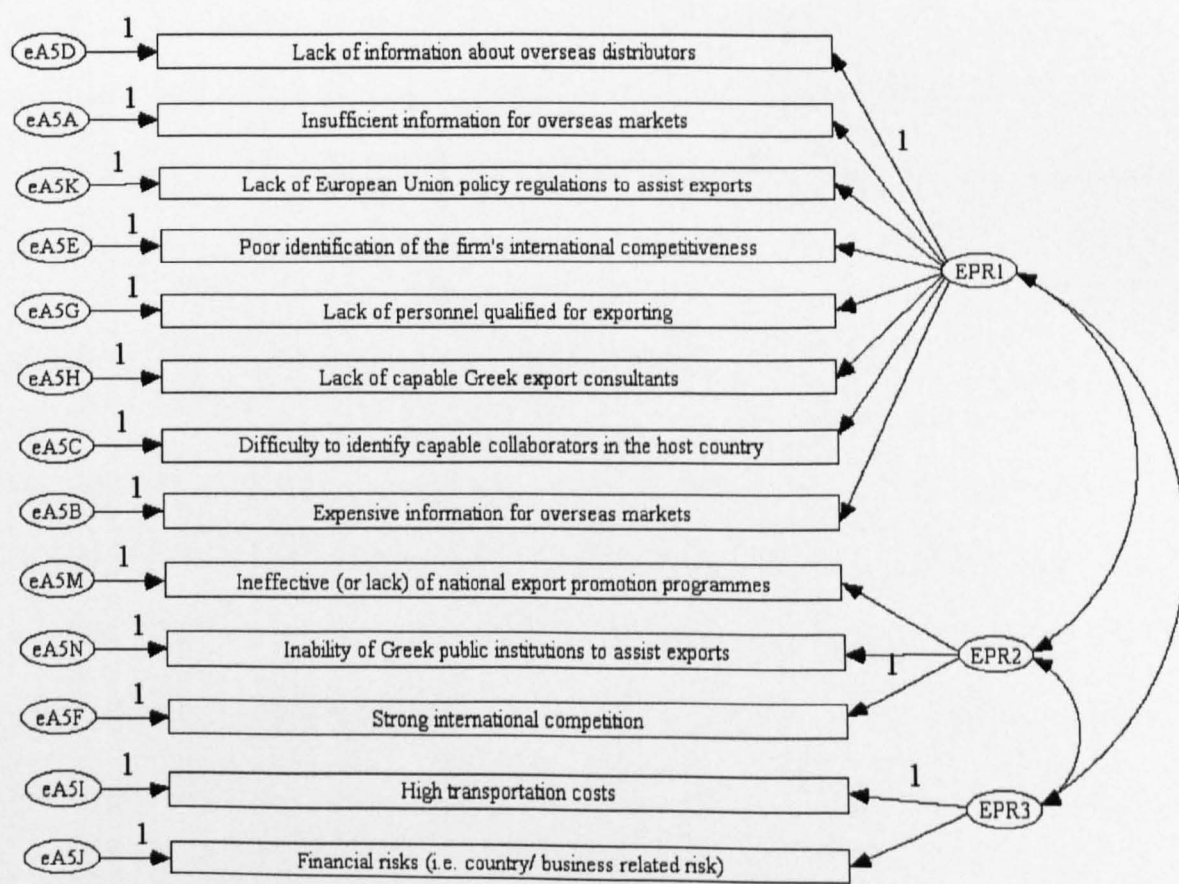
The terms eA5A-eA5N are the corresponding error terms for each indicator. The variables are the indicators or endogenous c onstructs (i.e. original variables) of the

measurement model: "lack of information about overseas distributors" (A5D), "insufficient information for overseas markets" (A5A), "lack of EU policy regulations to assist exports" (A5K), "poor identification of the firm's international competitiveness" (A5E), "lack of personnel qualified for exporting" (A5G), "lack of capable Greek export consultants" (A5H), "difficulty to identify capable collaborators in the host country" (A5C), "expensive information for overseas markets" (A5B), "ineffective (or lack) of national export promotion programmes" (A5M), "inability of Greek public institutions to assist exports" (A5N), "strong international competition" (A5F), "high transportation costs" (A5I), and "financial risks (i.e. country/ business related risk)" (A5J). The exogenous constructs are: "lack of communication with the export market and export expert assistance" (EPR1), "exogenous constraints" (EPR2), and "target country related constraints" (EPR3). To standardise the construct indicators, one of the loadings for each construct is set to unity (in this case, for variables A5D, A5F, and A5I) and for identification purposes, the path coefficient of each error to the respective indicator is fixed to unity.

Appendix Table A8.6 shows the correlation matrix for export problems. There are no identification problems and goodness of fit is examined by looking for possible "offending estimates." There is only one "offending estimate" for the exogenous estimate EPR3 which is starred in Table 8.5 but it approaches significance. Table 8.6 shows the standardised regression weights of Model B1, and all construct loadings are significant.

Table 8.5: Variance Estimates, Standard Errors and Critical Ratios (Model B1)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
EPR1: Communication with export market and export expert assistance	1.46	0.36	4.08
EPR2: Exogenous constraints	0.68	0.25	2.76
EPR3: Target country related constraints	0.90	0.47	1.91*
eA5A: Error A5A	1.33	0.22	5.93
eA5B: Error A5B	1.70	0.27	6.24
eA5C: Error A5C	1.34	0.22	6.20
eA5D: Error A5D	1.17	0.22	5.43
eA5E: Error A5E	1.93	0.30	6.51
eA5F: Error A5F	1.43	0.23	6.17
eA5G: Error A5G	2.69	0.40	6.72
eA5H: Error A5H	2.96	0.44	6.68
eA5I: Error A5I	1.77	0.45	3.90
eA5J: Error A5J	1.87	0.51	3.69
eA5K: Error A5K	2.03	0.32	6.39
eA5M: Error A5M	1.42	0.34	4.15
eA5N: Error A5N	0.74	0.30	2.45

Notes as for Table 8.1.

Table 8.6: Standardised Regression Weights (Model B1)

VARIABLES	EPR1	EPR2	EPR3	C.R.
A5A: Insufficient information for overseas markets	0.69			6.34
A5B: Expensive information for overseas markets	0.63			5.86
A5C: Difficulty to identify capable collaborators in the host country	0.64			5.94
A5D: Lack of information about overseas distributors	0.75			**
A5E: Poor identification of the firm's international competitiveness	0.57			5.25
A5F: Strong international competition		0.57		**
A5G: Lack of personnel qualified for exporting	0.49			4.53
A5H: Lack of capable Greek export consultants	0.50			4.69
A5I: High transportation costs			0.58	**
A5J: Financial risks (e.g. country/ business related risk)			0.60	2.36
A5K: Lack of European Union policy regulations to assist exports	0.60			5.54
A5M: Ineffective (or lack) of national export promotion programmes		0.73		4.92
A5N: Inability of Greek public institutions to assist exports		0.84		4.72

Notes as for Table 8.2.

By examining the standardised residuals and the modification indices (MI), possible modifications are examined. The standardised residuals do not provide any indication because there are only two values exceeding 2.58, which fall within the acceptable range of one in 20 residuals exceeding 2.58 strictly by chance. Accordingly, MI values greater than four are examined and the modifications indicated by re-

specifying the model in stages, which are in accordance with theory and export experts' suggestions,[5] are the following correlations between errors: eA5G and eA5H (MI=15.80; Par Change=1.17), measurement errors of A5G ("lack of personnel qualified for exporting") and A5H ("lack of capable Greek export consultants"), respectively; and eA5M and eA5N (MI=6.05; Par Change=0.59), measurement errors of A 5M (ineffective (or l ack) o f n ational export p romotion p rogrammes) a nd A 5N ("inability of Greek public institutions to assist exports"). These correlations accord with intuition, because Greek export consultants are qualified exporting personnel and Greek public institutions are incapable of assisting exports which leads to unsuccessful national export promotion programmes.

Figure 8.7 shows the measurement model with the modifications. The variance estimates for all latent constructs of the respecified Model B2 are shown in Appendix Table A8.7 and the standardised regression weights are provided in Appendix Table A8.8; there are no "offending estimates."

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[5] Suggestions were provided from the last phase of the in-depth interviews with export experts.

Figure 8.7: Respecified Path Diagram of Export Problems (Model B2)
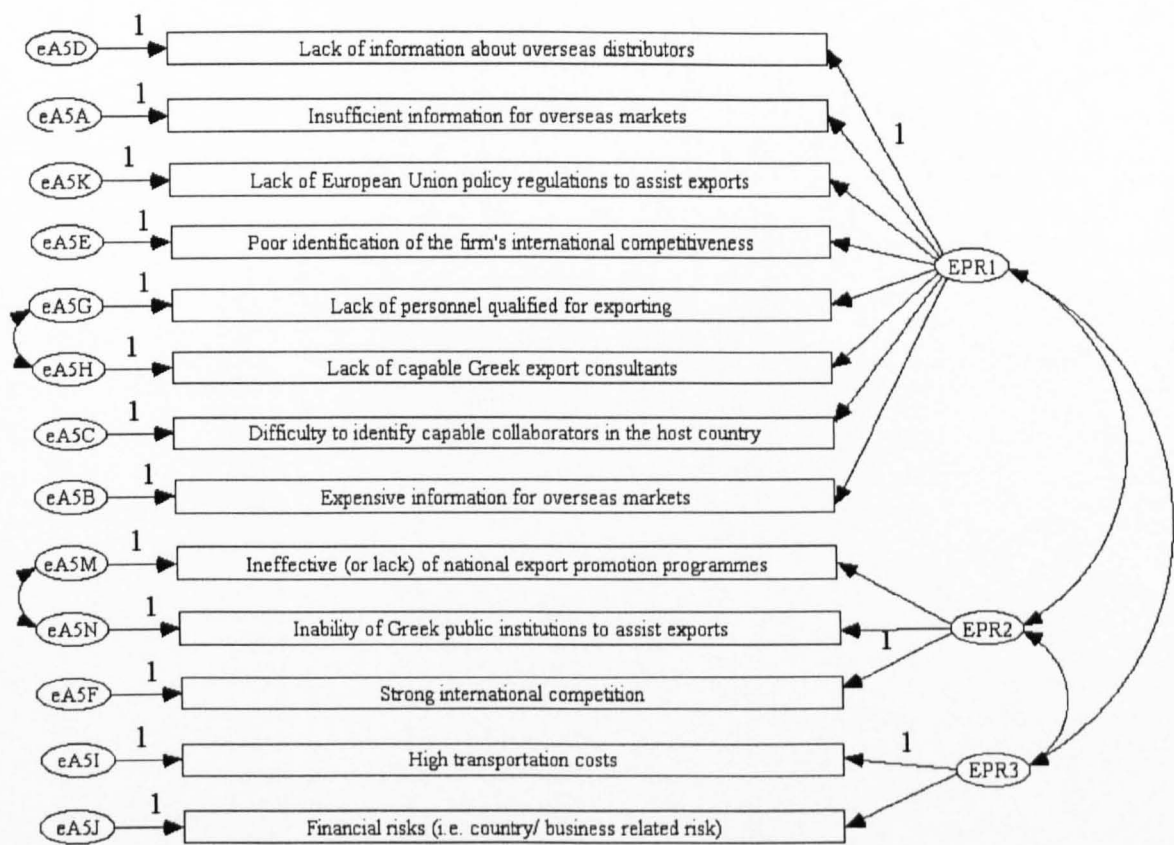
Figure 8.8 shows the standardised estimates of the respecified model (Model B2). A reasonably good fit is revealed from most of the measures with the exception of AGFI, NFI, RFI, and the p-value. AGFI, NFI, and RFI values are slightly less than the target value of 0.9 and the p-value is less than the lower critical value of 0.05. Again, non-normality and low sample size might be the cause.

Figure 8.8: Standardised Estimates of Export Problems' Measurement Model (Model B2)
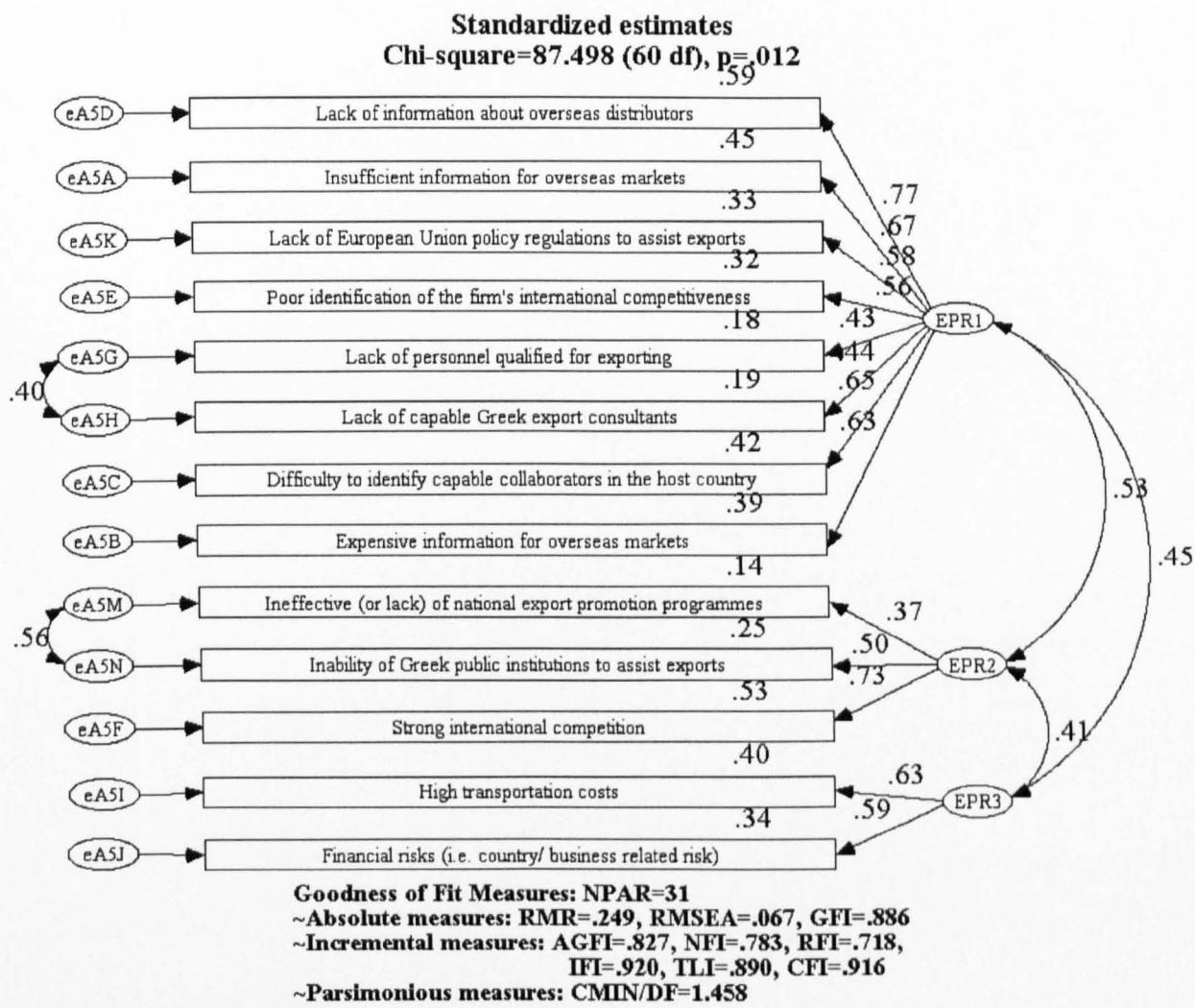
Standardized estimates
Chi-square=87.498 (60 df), p=.012

Goodness of Fit Measures: NPAR=31
~Absolute measures: RMR=.249, RMSEA=.067, GFI=.886
~Incremental measures: AGFI=.827, NFI=.783, RFI=.718,
IFI=.920, TLI=.890, CFI=.916
~Parsimonious measures: CMIN/DF=1.458

Since the overall model has a reasonable fit, each construct is evaluated separately for the statistical significance of its indicator loadings, its reliability and its variance extracted. EPR1, EPR2, and EPR3 have reliability values of 0.81, 0.55, and 0.54 and variance-extracted values of 0.62, 0.29, and 0.31. The relatively low reliability and variance-extracted value of EPR2 and EPR3 indicate that a substantial amount of variance is not accounted for by the indicators of these constructs. This suggests an examination of additional loadings for these indicators on other constructs, but there is no evidence of improvement and we maintain Model B2.[6] Other estimated

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[6] None of these changes are theoretically justified.

coefficients in the measurement model are the correlations between latent constructs, which are significant. A stronger correlation is revealed between EPR1-EPR2 (0.53) and a weaker one is between EPR2-EPR3 (0.41). In terms of importance, i.e. regression weight and variance explained, variables A5D, A5A, A5C, A5B, A5K, A5E, A5H and A5G (in descending order) influence EPR1, variables A5F, A5N, and A5M (in descending order) influence EPR2, and variables A5I and A5J (in descending order) influence EPR3.

The overall goodness of fit and measurement model assessment lend support for confirming the three-factor model. The normalised residuals and the modification indices are examined again for further modification but there is no indication for any justified model respecification.

A second-order factor model is also examined to explore whether these first-order factors are sub-dimensions of a broader construct, in this case, "export problems" (EPR). Figure 8.9 shows the standardised estimates of the second-order factor model of export stimulus (i.e. Model B3).

Figure 8.9: **Standardised Estimates of Second-order Factor Model of Export Problems (Model B3)**

Standardized estimates
Chi-square=92.907 (62 df), p=.007

Goodness of Fit Measures: NPAR=29
~Absolute measures: RMR=.303, RMSEA=.070, GFI=.878
~Incremental measures: AGFI=.821, NFI=.770, RFI=.711,
IFI=.910, TLI=.881, CFI=.905
~Parsimonious measures: CMIN/DF=1.499
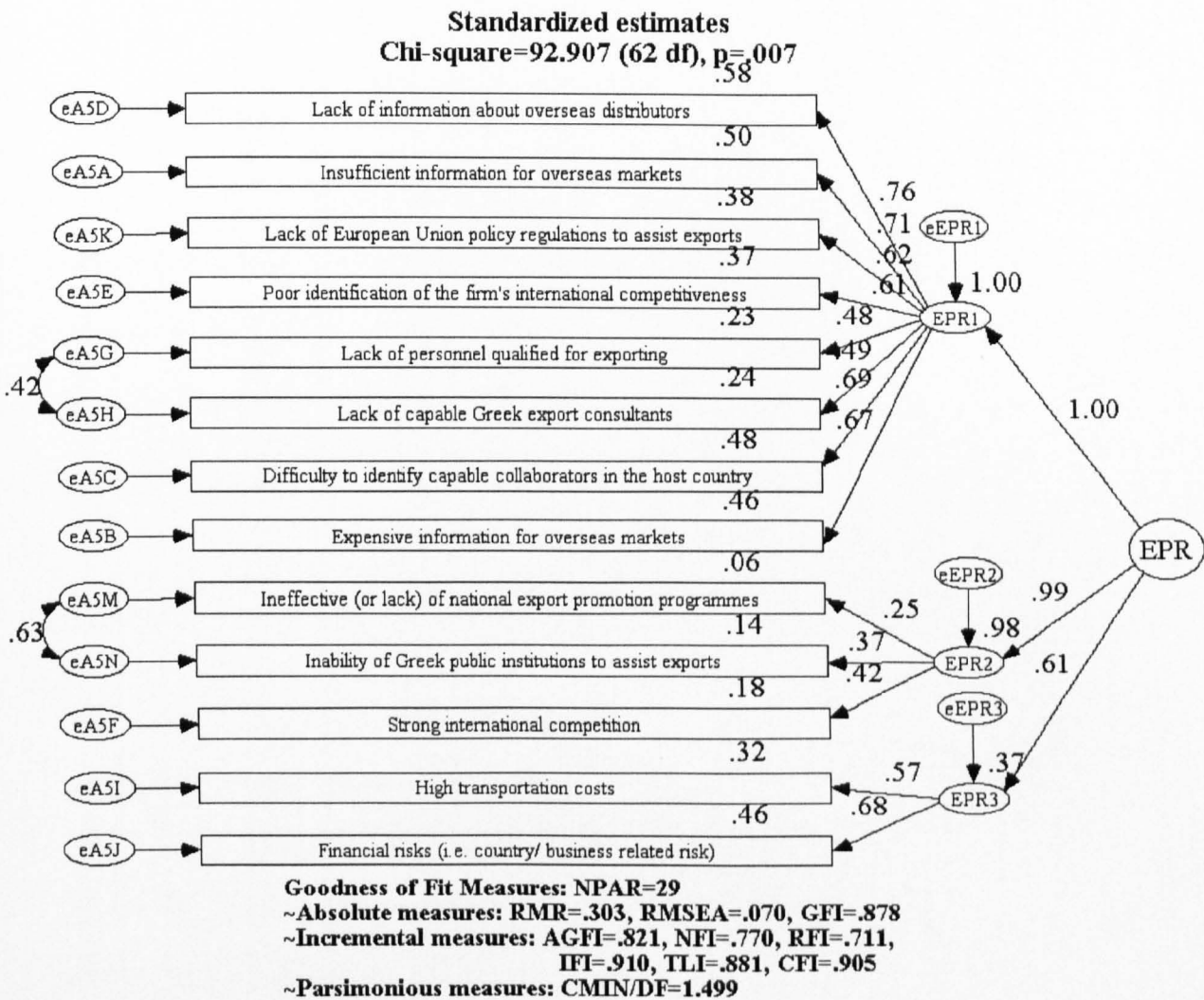
There are no "offending estimates" (Appendix Tables A8.9, A810) and the model has

a reasonable fit, with minor problems with the RMR, AGFI, NFI and RFI measures,

which are probably biased due to small sample size and non-normality. On balance,

there are three first-order factors (i.e. EPR1: "Lack of communication with the export

market and export expert assistance", EPR2: "Exogenous constraints", and EPR3:

"Target country related constraints") which load significantly on the second-order

factor of "export problems" (i.e. EPR). Figure 8.9 also shows that the most important

first-order factor for EPR is EPR1, followed by EPR2 and EPR3, and that the

importance of the indicators towards first-order factors follows a similar pattern to the

first-order measurement model (Model B2), apart in the case of EPR3 where it is the opposite.

8.2.3 Export Competencies Construct

Recall from Chapter 7 that EFA identified four underlying dimensions for export competencies. We now use CFA to assess these results. Figure 8.10 shows the path diagram of causal relationships in the export competencies' measurement model based on EFA results.

Figure 8.10:   Path Diagram of Export Competencies (Model C1)
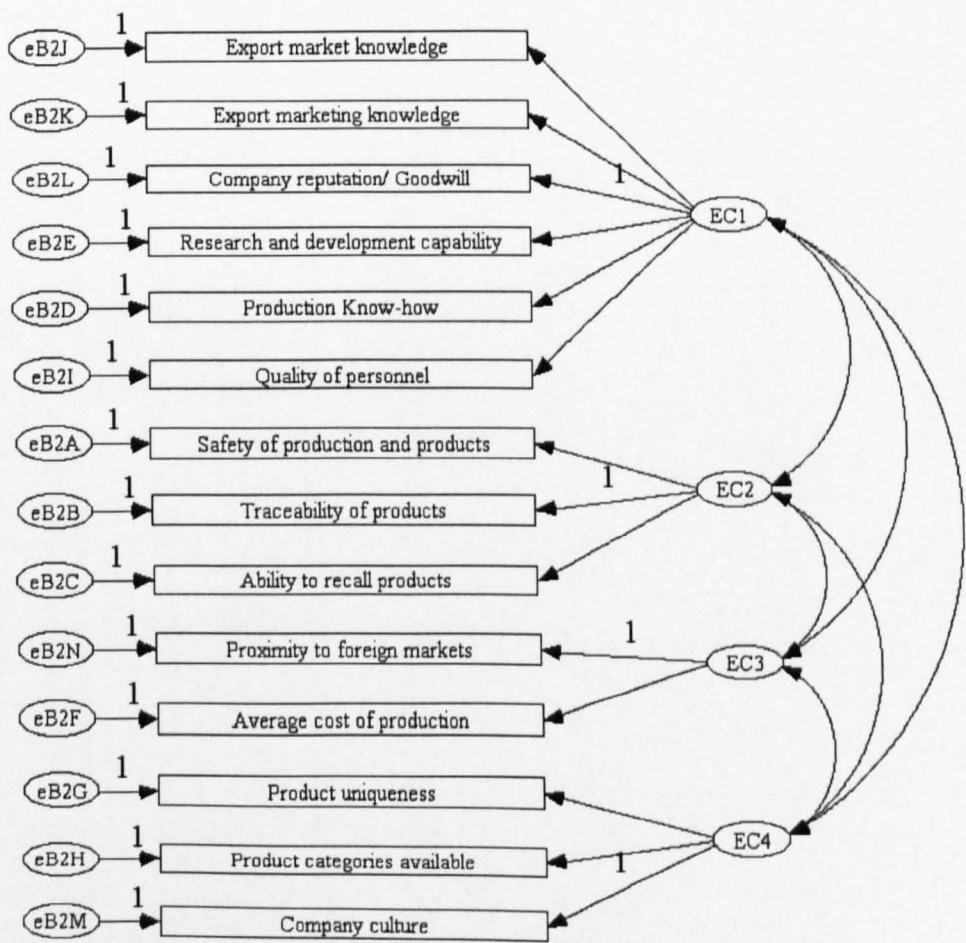
The terms eB2A-eB2N are the corresponding error terms for each indicator. The variables in rectangles are the indicators or endogenous constructs i.e. original variables, of the measurement model: "export market knowledge" (B2J), "export marketing knowledge" (B2K), "company reputation/goodwill" (B2L), "research and development capability" (B2E), "production know-how" (B2D), "quality of personnel" (B2I), "safety of production and products" (B2A), "traceability of products" (B2B), "ability to recall products" (B2C), "proximity to foreign markets" (B2N), "average cost of production" (B2F), "product uniqueness" (B2G), "product categories available" (B2H), and "company culture" (B2M). The exogenous constructs are: "production and marketing capability" (EC1), "safety and control practices" (EC2), "competitive pricing" (EC3), and "product superiority" (EC4). To standardise the construct indicators, one of the loadings for each construct is set to unity (variables B2L, B2B, B2N, and B2M) and for identification purposes, the path coefficient of each error to the respective indicator is fixed to unity.

Appendix Table A8.11 shows the correlation matrix for export problems. There are no identification problems and goodness of fit is examined by looking for possible "offending estimates." There is only one "offending estimate" for EC3, starred in Table 8.7. Table 8.8 presents the standardised regression weights and all construct loadings are significant.

Table 8.7: Variance Estimates, Standard Errors and Critical Ratios (Model C1)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
EC1: Production and marketing capability	1.21	0.26	4.58
EC2: Safety and control practices	1.38	0.37	3.69
EC3: Competitive pricing	1.49	0.84	1.77*
EC4: Product superiority	0.83	0.33	2.54
eB2A: Error B2A	0.77	0.12	6.41
eB2B: Error B2B	0.59	0.28	2.13
eB2C: Error B2C	2.12	0.35	6.08
eB2D: Error B2D	0.66	0.10	6.50
eB2E: Error B2E	1.70	0.26	6.53
eB2F: Error B2F	2.66	0.41	6.43
eB2G: Error B2G	2.54	0.37	6.87
eB2H: Error B2H	1.86	0.30	6.30
eB2I: Error B2I	1.19	0.18	6.72
eB2J: Error B2J	0.73	0.14	5.22
eB2K: Error B2K	1.06	0.18	5.89
eB2L: Error B2L	0.71	0.13	5.42
eB2M: Error B2M	1.25	0.29	4.34
eB2N: Error B2N	1.69	0.79	2.14

Notes as for Table 8.1.

Table 8.8: Standardised Regression Weights (Model C1)

VARIABLES	EC1	EC2	EC3	EC4	C.R.
B2A: Safety of production and products		0.48			3.75
B2B: Traceability of products		0.84			**
B2C: Ability to recall products		0.54			4.06
B2D: Production know-how	0.63				6.32
B2E: Research and development capability	0.62				6.22
B2F: Average cost of production			0.34		1.97
B2G: Product uniqueness				0.28	2.25
B2H: Product categories available				0.45	3.32
B2I: Quality of personnel	0.55				5.45
B2J: Export market knowledge	0.81				8.49
B2K: Export marketing knowledge	0.75				7.73
B2L: Company reputation/ goodwill	0.79				**
B2M: Company culture				0.63	**
B2N: Proximity to foreign markets			0.69		**

Notes as for Table 8.2.

Possible modifications are considered by examining the standardised residuals and the modification indices (MI). Standardised residuals do not indicate any modifications because there is only one value exceeding 2.58 and this falls within the acceptable range of one in 20 residuals by chance. On the other hand, MI indicate modifications

by re-specifying the model in stages and those which accord with theory and export experts' suggestions are the correlation between errors: eB2J and eB2K (MI=24.17; Par Change=0.52), measurement errors of B2J ("export market knowledge") and B2K ("export marketing knowledge"), respectively.

These correlations accord with intuition because "export marketing knowledge" entails "export market knowledge" and exporters possibly did not understand the distinction of the two. In addition, MI=24.17 which is extremely high and indicates the importance of this modification.

Figure 8.11 shows the measurement model after imposing these modifications (Model C2).

Figure 8.11: Respecified Path Diagram of Export Competencies (Model C2)
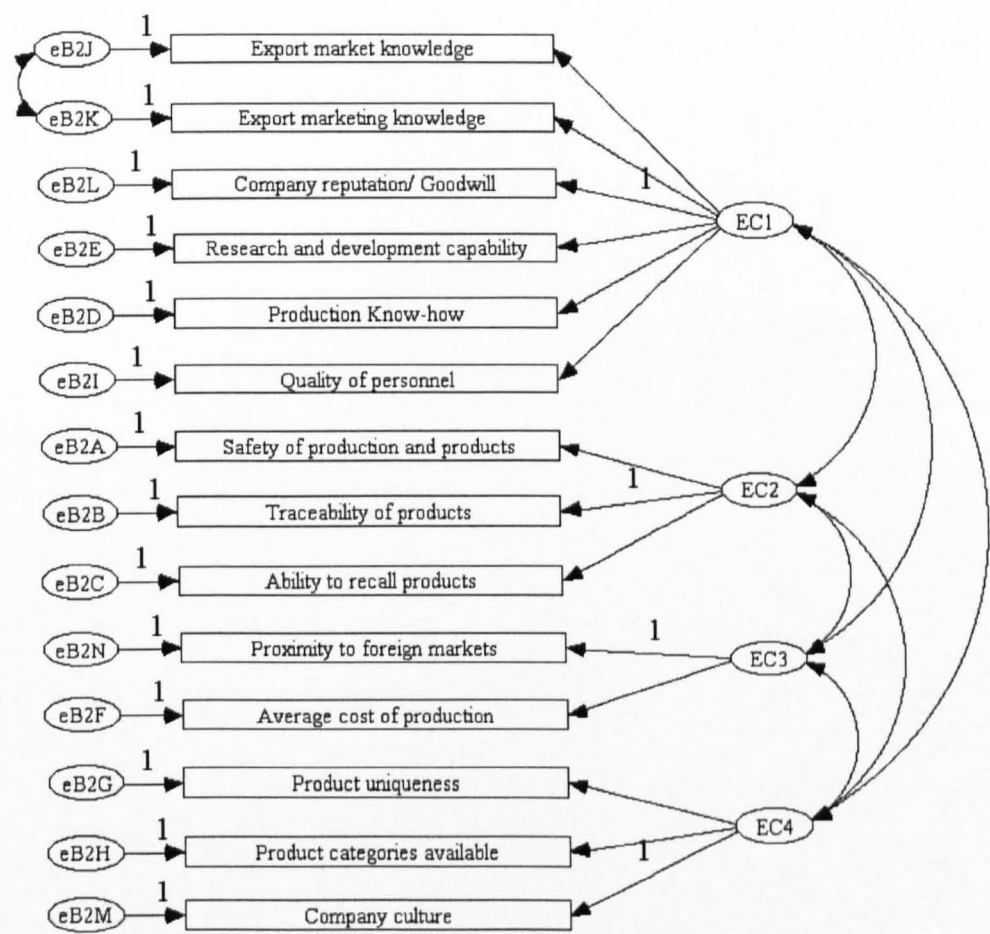
The variance estimates for all latent constructs of the respecified Model C2 are shown in Appendix Table A8.12 and the standardised regression weights are provided in Appendix Table A8.13 and there are no "offending estimates."

Figure 8.12 shows the standardised estimates of the respecified model (Model C2).

Figure 8.12: Standardised Estimates of Export Competencies' Measurement Model (Model C2)

Standardized estimates
Chi-square=111.266 (70 df), p=.001

Goodness of Fit Measures: NPAR=35
~Absolute measures: RMR=.183, RMSEA=.076, GFI=.878
~Incremental measures: AGFI=.818, NFI=.784, RFI=.719,
IFI=.907, TLI=.874, CFI=.903
~Parsimonious measures: CMIN/DF=1.590
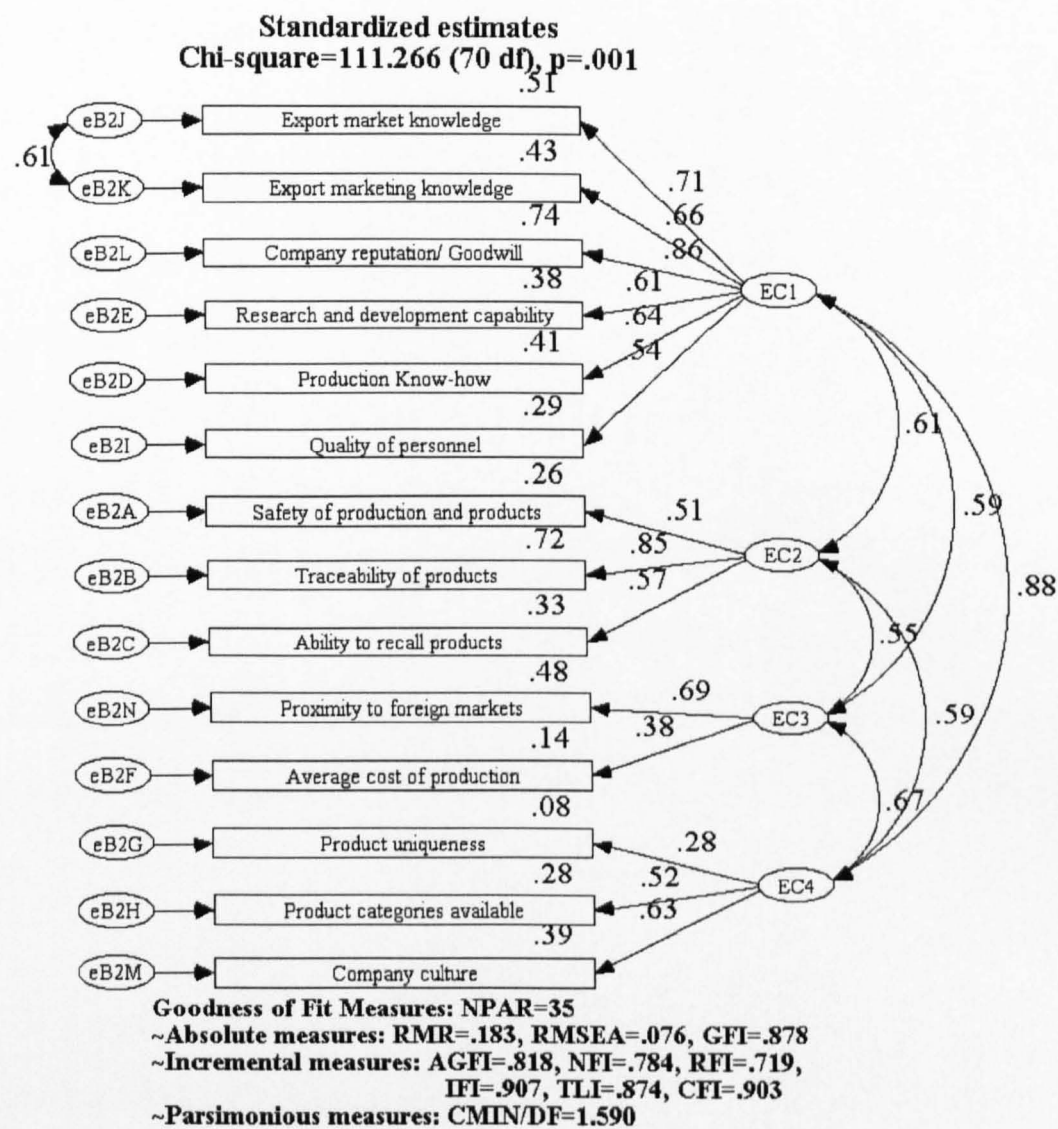
The model has a significant χ^2-statistic but a reasonable fit is revealed from most measures with the exception of AGFI, NFI, and RFI while GFI and TLI are very close to the target value of 0.9. In particular, AGFI, NFI, and RFI values are less than the target value of 0.9 but again non-normality, which inflates substantially the χ^2-statistic, and low sample size might be the cause.

Since the overall model has a reasonable fit, each construct is evaluated separately for the statistical significance of its indicator loadings, its reliability and its variance

extracted. EC1, EC2, EC3 and EC4 have reliability values of 0.83, 0.69, 0.45, and 0.48 and variance-extracted values of 0.70, 0.50, 0.22, and 0.20. The relatively low reliability and variance-extracted value of EC3 and EC4 indicate that a substantial amount of variance is not accounted for by the indicators of these constructs. This suggests that additional loadings for these indicators on the other constructs should be examined, but there is no evidence of improvement and Model C2 is preferred.[7] Other estimated coefficients in the measurement model are the correlations between constructs and all are significant. A stronger correlation is between EC1-EC4 (0.88) and a weaker one is between EC2-EC3 (0.55). In addition, in terms of importance, i.e. regression weight and variance explained, variables B2L, B2J, B2K, B2D, B2E, and B2I (in descending order) influence EC1, variables B2B, B2C, and B2A (in descending order) influence EC2, variables B2N, and B2F (in descending order) influence EC3, and variables B2M, B2H, and B2G (in descending order) influence EC4.

The overall model goodness of fit results and the measurement model assessments lend support for confirming the four-factor model. The normalised residuals and the modification indices are examined again for further modification, but there is no indication for any justified respecification. A second-order factor model is also examined to explore whether the first-order factors estimated are sub-dimensions of a broader construct, in this case, "export competencies" (EC). Figure 8.13 shows the standardised estimates of the second-order factor model of export stimulus (i.e. Model C3). "Offending estimates" for eB2N, B2N, eEC1, and eEC4 are constrained to 0.005.

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[7] None of these changes are theoretically justified.

After these changes there are no "offending estimates" (Appendix Tables A8.14, A8.15).

Figure 8.13: Standardised Estimates of Second-order Factor Model of Export Competencies (Model C3)

Standardized estimates
Chi-square=120.791 (76 df), p=.001

.48
eB2J → Export market knowledge
.56
.41
eB2K → Export marketing knowledge
.74
.69
.64
eEC1
eB2L → Company reputation/ Goodwill
.40
.86
1.00
eB2E → Research and development capability
.63
.66
EC1
.43
.55
eB2D → Production Know-how
.30
1.00
eB2I → Quality of personnel
.24
eEC2
eB2A → Safety of production and products
.49
.25
1.00
1.00
eB2B → Traceability of products
.51
EC2
.50
.26
eB2C → Ability to recall products
eEC3
1.00
.37
eB2N → Proximity to foreign markets
1.00
.14
.09
.30
EC3
1.00
eB2F → Average cost of production
.06
eEC4
eB2G → Product uniqueness
.24
.99
.31
.55
eB2H → Product categories available
.51
EC4
.26
eB2M → Company culture

EC

Goodness of Fit Measures: NPAR=29
~Absolute measures: RMR=.209, RMSEA=.076, GFI=.870
~Incremental measures: AGFI=.820, NFI=.766, RFI=.719,
IFI=.898, TLI=.874, CFI=.894
~Parsimonious measures: CMIN/DF=1.589

The model has a reasonable fit, even if there is a significant χ^2-statistic (χ^2=120.79, p=0.001) and there are minor problems with the AGFI, NFI and RFI fit measures that are due non-normality and the small sample size. On balance, the four first-order factors i.e. EC1: "Production and marketing capability", EC2: "Safety and control

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practices", EC3: "Competitive pricing", and EC4: "Product superiority", load

significantly on the second-order factor of "export competencies" (i.e. EC). Figure

8.13 also shows that the most important first-order factors for EC are EC1 and EC4,

followed by EC2 and EC3, and that the importance of the indicators towards first-

order factors is explained in a similar method used for the first-order measurement

model (Model C2).

8.2.4 Usefulness of Information Sources Construct

In Chapter 7, EFA identified three underlying dimensions for usefulness of

information sources. We now use CFA to assess these results and Figure 8.10 shows

the path diagram of causal relationships.

Figure 8.14: Path Diagram of Usefulness of Information Sources (Model D1)
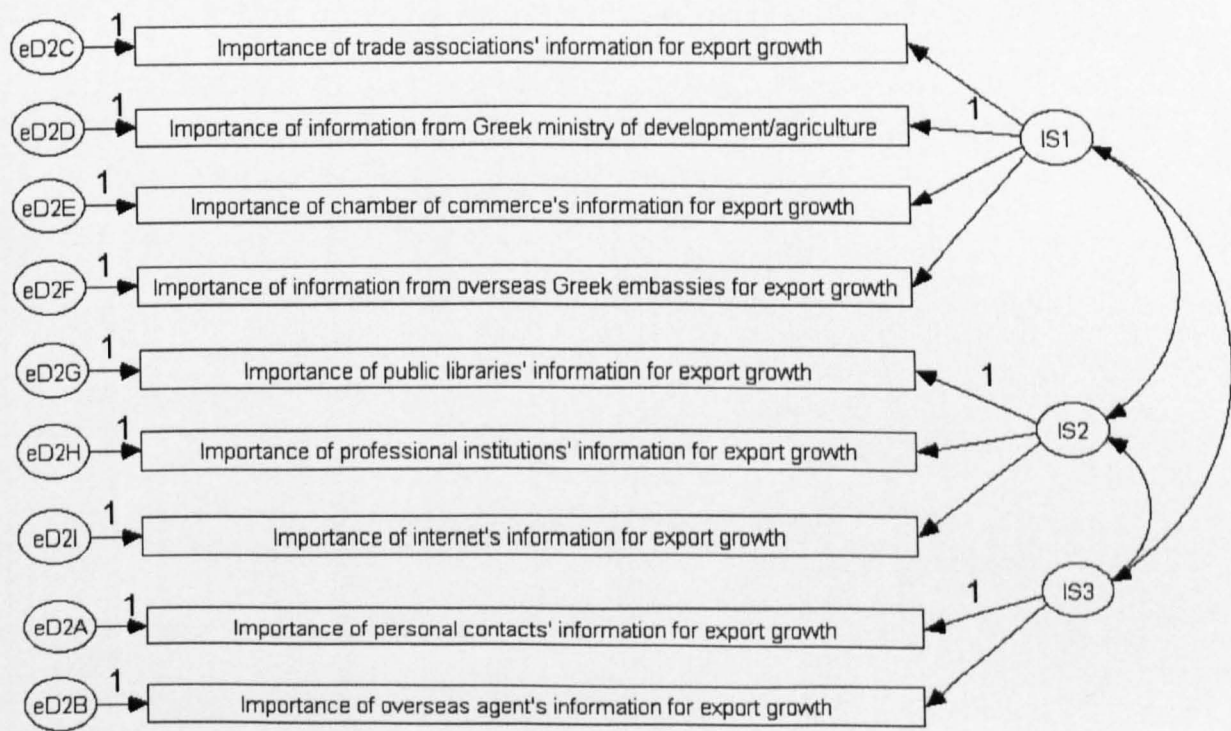
The terms eD2A-eD2J are the corresponding error terms for each indicator. The variables are the indicators or endogenous constructs (i.e. original variables) of the measurement model: "importance of trade associations' information for export growth" (D2C), "importance of information from Greek ministry of development/agriculture" (D2D), "importance of chamber of commerce's information for export growth" (D2E), "importance of information from overseas Greek embassies for export growth" (D2F), "importance of public libraries' information for export growth" (D2G), "importance of professional institutions' information for export growth" (D2H), "importance of internet's information for export growth" (D2I), "importance of personal contacts' information for export growth" (D2A), and "importance of overseas agent's information for export growth" (D2B). The exogenous constructs are: "advanced methods of information acquisition" (IS1), "principal information of information acquisition" (IS2), "communication with export market" (IS3). To standardise construct indicators, one of the loadings for each construct is set to unity (variables D2D, D2G, D2A) and for identification purposes, the path coefficient of each error to the respective indicator is fixed to unity.

Appendix Table A8.16 shows the correlation matrix for export problems. There are no identification problems and the goodness of fit is examined by looking for possible "offending estimates." There are two "offending estimates" for measurement error eD2A and for the exogenous construct IS3 which are starred in Table 8.9. To correct for these, the corresponding error variance is set to 0.005 and the model is re-estimated. The respecified model in Figure 8.15 (Model D2) has no "offending estimates" as shown in Appendix Table A8.17 and A8.18.

Table 8.9: Variance Estimates, Standard Errors and Critical Ratios (Model D1)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
IS1: Advanced methods of information acquisition	1.82	0.31	5.91
IS2: Principal methods of information acquisition	1.81	0.33	5.49
IS3: Communication with export market	0.87	0.58	1.51*
eD2A: Error D2A	0.03	0.56	0.05*
eD2B: Error D2B	1.00	0.22	4.46
eD2C: Error D2C	1.40	0.21	6.77
eD2D: Error D2D	0.30	0.10	2.93
eD2E: Error D2E	0.65	0.12	5.47
eD2F: Error D2F	0.97	0.16	5.97
eD2G: Error D2G	0.35	0.15	2.31
eD2H: Error D2H	0.62	0.16	3.85
eD2I: Error D2I	1.45	0.21	6.84

Notes as for Table 8.1.

Figure 8.15: Respecified Path Diagram of Usefulness of Information Sources (Model D2)
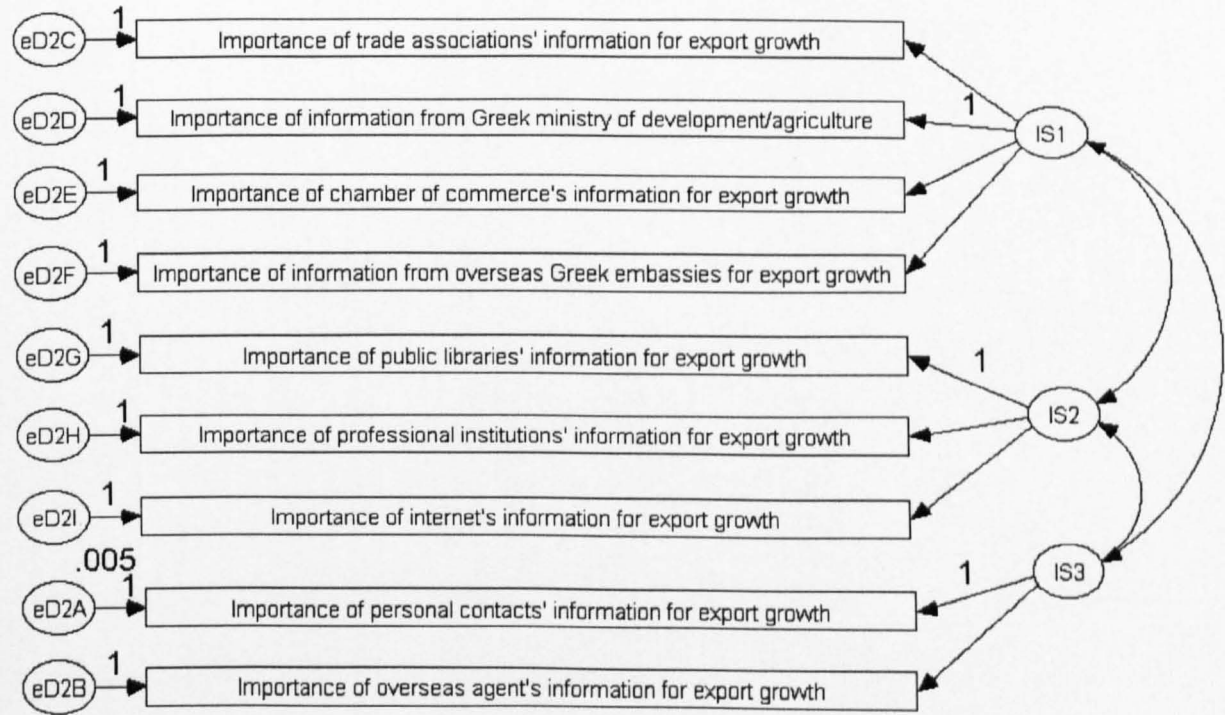
Possible m odifications a re a lso considered b y e xamining t he s tandardised r esiduals and modification indices (MI). Standardised residuals do not provide any indication for modifications because no value exceeds 2.58. On the other hand, MI indicate modifications and those which are in accordance export experts' suggestions are the

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following correlations between errors: eD2H and eD2I, measurement errors of D2H (professional institutions) and D2I (internet), and eD2G and eD2H, measurement errors of D2G (public libraries) and D2H, respectively. These correlations accord with intuition because these sources of information are related. Figure 8.16 shows the measurement model after the modification (Model D3).

Figure 8.16: Respecified Path Diagram of Usefulness of Information Sources (Model D3)

The variance estimates for all latent constructs of the respecified Model D3 are shown in Appendix Table A8.19 and the standardised regression weights are provided in Appendix Table A8.20 and there are no "offending estimates."

Figure 8.17 reveals the standardised estimates of the respecified model (Model D3).

Figure 8.17: Standardised Estimates of Usefulness of Information Sources' Measurement Model (Model D3)

Standardized estimates
Chi-square=37.293 (23 df), p=.030

Goodness of Fit Measures: NPAR=22
~Absolute measures: RMR=.304, RMSEA=.078, GFI=.930
~Incremental measures: AGFI=.863, NFI=.920, RFI=.875,
IFI=.968, TLI=.948, CFI=.967
~Parsimonious measures: CMIN/DF=1.621
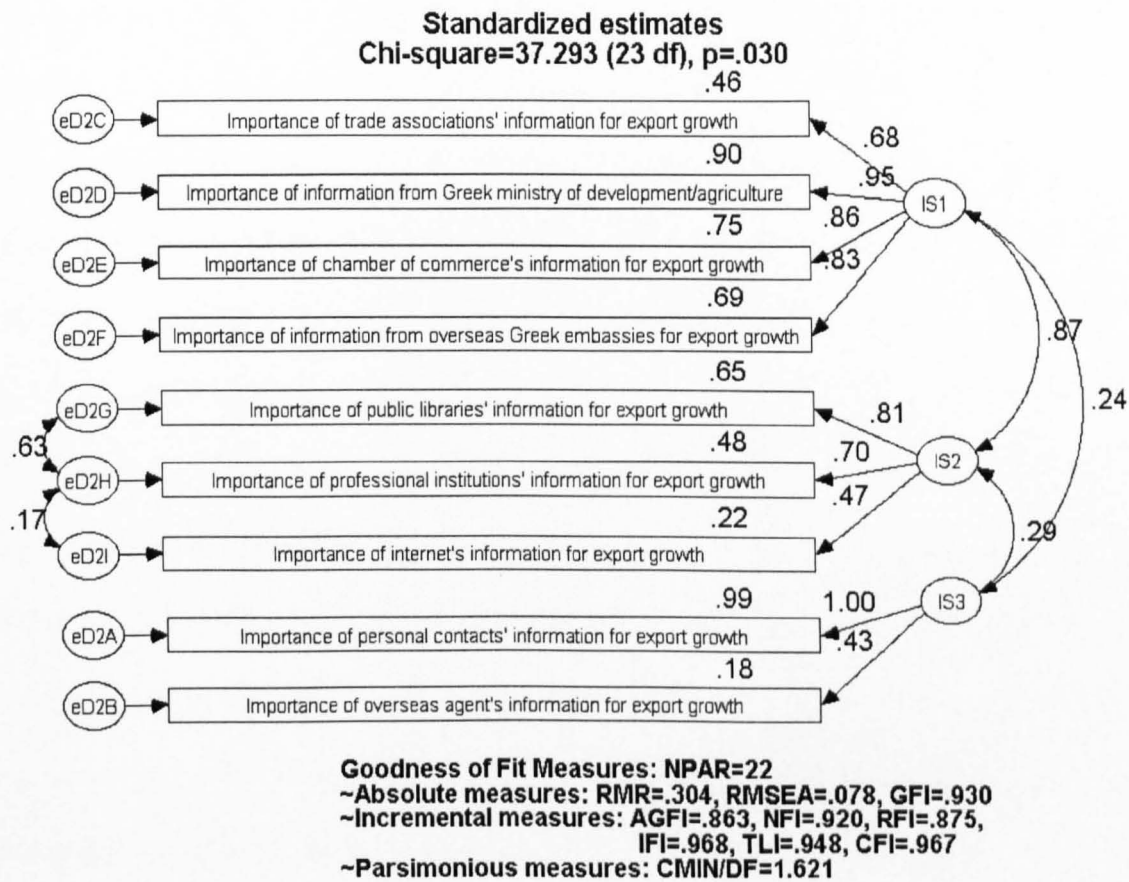
A good fit is revealed for most of the measures with the exception of RMR and the p-value while AGFI and RFI are very close to the target value of 0.9, although, RMR is not very high and the p-value is close to the lower critical value of 0.05. Since the overall model has a good fit, each of the constructs are evaluated separately for the statistical significance of their indicator loadings: IS1, IS2, and IS3 have reliability values of 0.90, 0.70, and 0.71 and variance-extracted values of 0.87, 0.53, and 0.63, indicating acceptable values. Other estimated coefficients in the measurement model are the construct correlations, which are all significant. A stronger correlation is revealed between IS1-IS2 (0.87) and a weaker one is between IS1-IS3 (0.24). In terms of importance, i.e. regression weight and variance explained, variables D2D,

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D2E, D2F, and D2C (in descending order) influence IS1, variables D2G, D2H, and

D2I (in descending order) influence IS2, and variables D2A, and D2B (in descending

order) influence IS3.

The overall goodness of fit and measurement model assessment lend support for

confirming the three-factor model. The normalised residuals and the modification

indices are examined again for further modification but there is no justified

respecification. A second-order factor model is also examined to explore whether the

estimated first-order factors are sub-dimensions of a broader construct, in this case,

"usefulness of information sources" (IS). Figure 8.18 shows the standardised

estimates of the second-order factor model of "usefulness of information sources" (i.e.

Model D4). "Offending estimates" for eB2N, B2N, eEC1, and eEC4 have been

constrained to 0.005. After these changes the model parameters are re-estimated and

there are no "offending estimates" (see Appendix Table A8.21 and A8.22).

Figure 8.18: **Standardised Estimates of Second-order Factor Model for Usefulness of Information Sources (Model D4)**

Standardized estimates
Chi-square=37.437 (25 df), p=.052

Goodness of Fit Measures: NPAR=20
~Absolute measures: RMR=.151, RMSEA=.070, GFI=.930
~Incremental measures: AGFI=.873, NFI=.920, RFI=.884,
IFI=.972, TLI=.958, CFI=.971
~Parsimonious measures: CMIN/DF=1.497
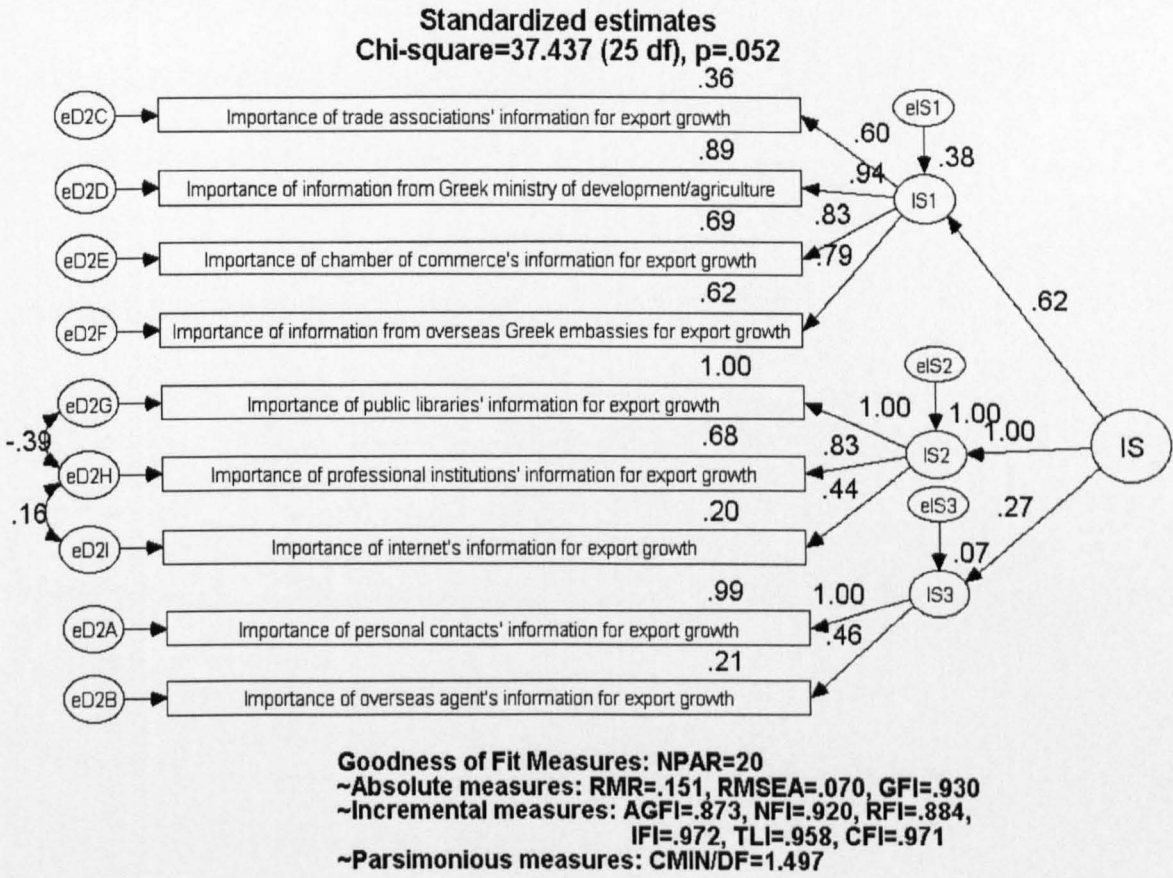
The model has a good fit, even if there are minor problems with AGFI, and RFI measures and again the cause is non-normality and the small sample size. On balance, the three first-order factors i.e. IS1: "Advanced methods of information acquisition", IS2: "Principal methods of information acquisition", and IS3: "Communication with export market", load significantly on the second-order factor of usefulness of information sources (i.e. IS). Figure 8.18 also shows that the most important first-order factor for IS is IS2, followed by IS1 and IS3, and that the importance of the indicators towards first-order factors follows a similar pattern to the first-order measurement model (Model D3).

8.2.5 Entrepreneurial Orientation Construct

In Chapter 7, EFA identified three underlying dimensions for entrepreneurial orientation. We now use CFA to assess these results and Figure 8.19 shows the path diagram of causal relationships.

Figure 8.19: Path Diagram of Usefulness of Information Sources (Model E1)

Note: The null value over the ellipses is the mean which is set to this value due to missing values.

The terms eD4B and eD5A-eD5F are the corresponding error terms for each indicator. The variables are the indicators or endogenous constructs of the measurement model: "degree that new products emerge from product/market research" (D5C), "degree of implementation of export market research" (D5D), "degree of testing new products in export markets" (D5F), "similarity of products offered to domestic and export markets" (D5A), "frequency of new product development" (D5B), "degree of involvement in export activities to high risk export markets" (D5E), and "degree of carrying out own marketing functions" (D4B). The

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exogenous constructs are "proactiveness" (EO1), "risk-taking" (EO2), and "innovativeness" (EO3). To standardise the construct indicators, one of the loadings for each construct is set to unity (variables D52C, D5B, D4B) and for identification purposes, the path coefficient of each error to the respective indicator is fixed to unity.

Appendix Table A8.23 shows the implied correlation matrix for entrepreneurial orientation.[8] There are no identification problems and the goodness of fit is examined by looking for possible "offending estimates." There are four "offending estimates" starred in Table 8.10.

Table 8.10: **Variance Estimates, Standard Errors and Critical Ratios (Model E1)**

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
EO1: Proactiveness	1.51	0.47	3.23
EO2: Risk-taking	0.62	0.55	1.12*
EO3: Innovativeness	1.79	4.11	0.44*
eD4B: Error D4B	2.22	0.58	3.81
eD5A: Error D5A	2.22	0.32	7.01
eD5B: Error D5B	0.14	4.10	0.03*
eD5C: Error D5C	1.69	0.35	4.86
eD5D: Error D5D	0.14	0.52	0.26*
eD5E: Error D5E	2.95	0.44	6.71
eD5F: Error D5F	2.76	0.43	6.49

Notes as for Table 8.1.

To correct the "offending estimates", the insignificant error variances are set to 0.005 and the model is re-estimated, but there is no improvement. Other modifications are considered by examining the standardised residuals and the modification indices (MI). Standardised residuals provide no indication for modifications because no value exceeds 2.58. On the other hand, MI indicate a modification which is in accordance with exporters' suggestions i.e. indicator D5D ("degree of implementation of export

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[8] Sample correlation matrix is not available due to missing values.

market research") is linked to EO3 ("innovativeness") instead of EO1 ("proactiveness"). This change seems appropriate, because the variable (i.e. D5D) is a measure of innovativeness.

Figure 8.20 shows the measurement model after this modification (Model E2).

Figure 8.20: Respecified Path Diagram of Entrepreneurial Orientation (Model E2)

Note as for Table 8.19.

The variance estimates for all latent constructs of the respecified Model E2 are shown in Table 8.11 and the standardised regression weights are provided in Table 8.12, where there is an "offending estimate" i.e. the insignificant variance for exogenous construct E O2 ("risk-taking"). S everal m odifications w ere a pplied t o t ry to r esolve this problem but there was no improvement and model E2 is preferred.

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Table 8.11: **Variance Estimates, Standard Errors and Critical Ratios (Model E2)**

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
EO1: Proactiveness	2.33	0.61	3.85
EO2: Risk-taking	0.78	0.53	1.48*
EO3: Innovativeness	3.65	0.51	7.13
eD4B: Error D4B	2.22	0.54	4.10
eD5A: Error D5A	2.09	0.29	7.14
eD5B: Error D5B	1.75	0.24	7.14
eD5C: Error D5C	0.84	0.42	1.99
eD5D: Error D5D	0.01	-	-
eD5E: Error D5E	2.79	0.42	6.57
eD5F: Error D5F	2.43	0.39	6.16

Notes as for Table 8.1.

Table 8.12: **Standardised Regression Weights (Model E2)**

VARIABLES	EO1	EO2	EO3	C.R.
D4B: Degree of carrying out own marketing functions		0.51		**
D5A: Similarity of products offered in domestic and export markets			0.26	**
D5B: Frequency of new product development			0.33	3.49
D5C: Degree that new products emerge from product/market research	0.86			**
D5D: Degree of implementation of export market research			1.00	2.75
D5E: Degree of involvement in export activities in high-risk export markets		0.30		2.41
D5F: Degree of testing new products in export markets	0.52			4.35

Notes as for Table 8.2.

Figure 8.21 reveals the standardised estimates of the respecified model (Model E2). An assessment of the model fit in the overall model (i.e. Model E2) indicates an excellent fit for all goodness of fit measures. Other estimated coefficients in the measurement model are the construct correlations, which are all significant. A stronger correlation is between EO1-EO3 (0.78) and a weaker one is between EO1-EO3 (0.21). In terms of importance, i.e. regression weight and variance explained, variables D5C and D5F (in descending order) influence EO1, variables D5D, D5B, and D5A (in descending order) influence EO2, and variables D4B, and D5E (in descending order) influence EO3.

Figure 8.21: Standardised Estimates of Entrepreneurial Orientation Measurement Model (Model E2)

Standardized estimates
Chi-square=18.757 (12 df), p=.095

.74
eD5C → Degree that new products emerge from product/market research
.86
1.00
eD5D → Degree of implementation of export market research
EO1
.52
.27
eD5F → Degree of testing new products in export markets
1.00
.07
eD5A → Similarity of products offered to domestic & export markets
.26
.78
.11 .33
EO3
.21
eD5B → Frequency of new product development
.09
.75
eD5E → Degree of involvement in export activities to high risk export markets
.30
.26 .51
EO2
eD4B → Degree of carrying out own marketing functions

Goodness of Fit Measures: Npar=23
~Absolute measures: RMR=na*, RMSEA=.074, GFI=na*
~Incremental measures: AGFI=na*, NFI=.988, RFI=.972,
IFI=.996, TLI=.990, CFI=.996
~Parsimonious measures: CMIN/DF=1.563

Note: Measures with (na*) indicate that they are not defined due to missing values.

Figure 8.22 presents the standardised estimates for the second-order factor model (Model E3) and the goodness of fit measures show a poor fit since there is a significant χ^2-statistic (p-value=0.000), RMSEA=0.15 which is substantially higher than the 0.08 cut-off point, and χ^2/df-statistic is higher than both the lower threshold of 2.00 and the upper threshold of 3.00. Therefore, this path model is not supported i.e. there is no evidence that the three first-order factor constructs are linked to a second-order factor of "entrepreneurial orientation" (ENOR). Hence, only the measurement model of first-order factors is supported indicating that there are three components of entrepreneurial orientation i.e. "proactiveness" (EO1), "risk-taking" (EO2), and "innovativeness" (EO3).

Figure 8.22: Standardised Estimates of Entrepreneurial Orientation Model (Model E3)

Standardized estimates
Chi-square=49.321 (15 df), p=.000

eD5C → Degree that new products emerge from product/market research	1.00
eD5D → Degree of implementation of export market research	1.00
eD5F → Degree of testing new products in export markets	.27
eD5A → Similarity of products offered to domestic & export markets	.06
eD5B → Frequency of new product development	.10
eD5E → Degree of involvement in export activities to high risk export markets	.04
eD4B → Degree of carrying out own marketing functions	.14

Goodness of Fit Measures: Npar=20
~Absolute measures: RMR=na*, RMSEA=.150, GFI=na*
~Incremental measures: AGFI=na*, NFI=.969, RFI=.941,
IFI=.978, TLI=.959, CFI=.978
~Parsimonious measures: CMIN/DF=3.288

8.3 PME of the Integrated Export Marketing Performance Model

We now attempt to incorporate the five models of Section 8.2 with other variables into an integrated structural equation model. In particular, the constructs incorporated in the model are: "export management competencies"; "export competencies" (with four sub-constructs); "export market attractiveness"; "similarity of export and domestic markets"; "usefulness of information sources" (with three sub-constructs); "entrepreneurial orientation"; "firm size"; "export stimulus" (with three sub-constructs); "export to total sales ratio"; "export experience"; "export problems" (with three sub-constructs); and "importance of trade barriers". In addition, there are two main constructs: the "export marketing mix" determined by two sub-constructs, the "export marketing mix" and the "adaptation of marketing mix"; and the "export

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performance" determined by two sub-constructs i.e. "subjective measures of export performance" and "objective measures of export performance", as Figure 8.23 illustrates. We now use SEM to investigate the importance of these constructs for export marketing performance.

Figure 8.23:   Integrated Export Marketing Performance Model (Model F1)
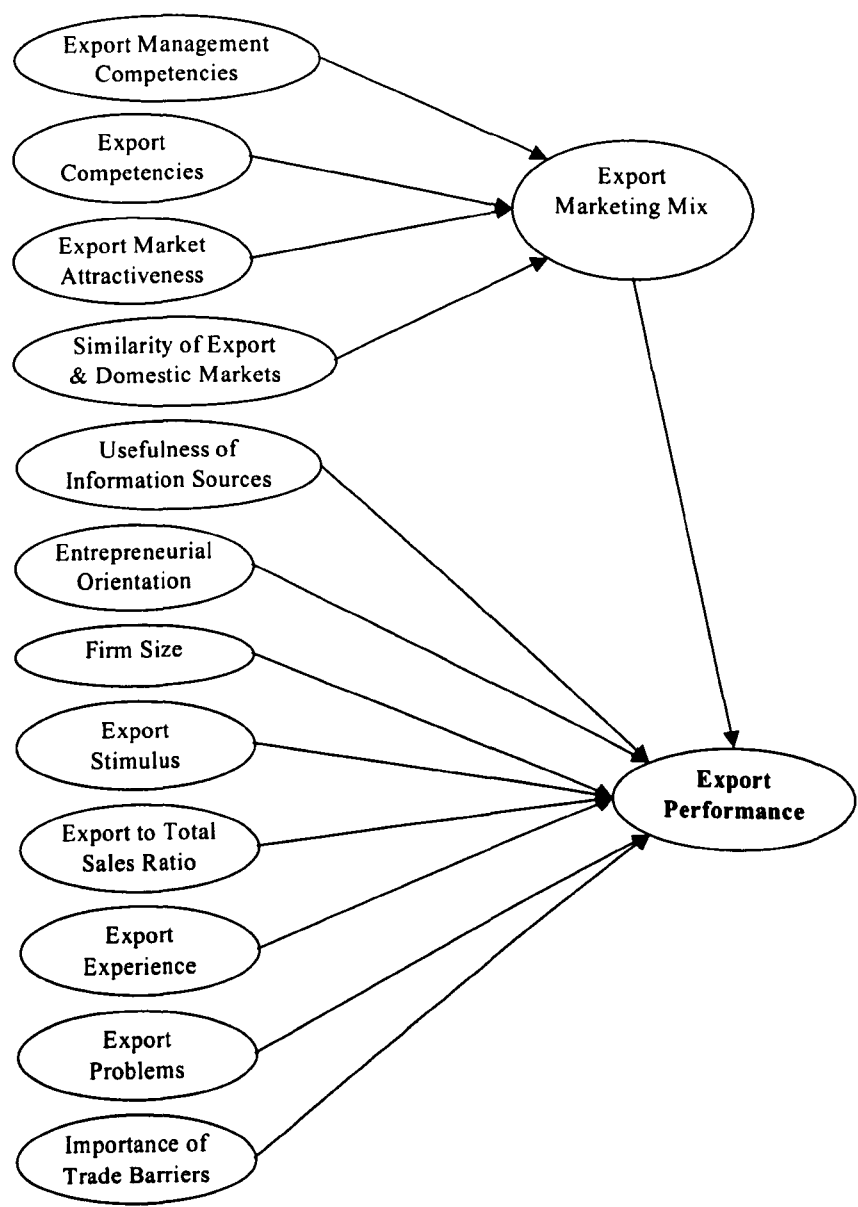
Since we have 96 manifest indicators (i.e. observed variables) and a sample size of 103 observations, a parsimonious estimation strategy is necessary to estimate the structural model. There are two reasons for choosing to use scale scores as indicators

instead of individual items as indicators of latent variables: first, there are computing difficulties in fitting models with more than 30 manifest indicators (Moorman, 1991; Settoon *et al.*, 1996; Williams and Hazer, 1986); and second, the number of estimated parameters relative to sample size is an important determinant of convergence, standard errors, and model fit with a sample size to parameter ratio of five or more to one being sufficient to achieve reliable estimates (Settoon *et al.*, 1996). According to Fitzerald *et al.* (1997), this approach greatly reduces the number of parameters that are estimated and produces measurement properties superior to those of single-item indicators, like those employed in Section 8.2. Moreover, the distribution of averaged scales, as a sum of several items, tends toward the normal distribution, due to the central limit theorem.

The parsimonious estimation strategy involves creating manifest indicators for each latent variable by averaging the items for each scale (for unidimensional constructs) or each sub-scale (for higher order constructs i.e. the second-order factors established in CFA) (Fitzerald *et al.*, 1997; Settoon *et al.*, 1996; Skarmeas *et al.*, 2002; Williams and Hazer, 1986). For unidimensional constructs, the path from each latent variable to its manifest indicator is set at the square root of the reliability (Cronbach's alpha or α) of the manifest variable and the error variance is set at one minus the reliability score. All reliability α-values are calculated with SPSS (2000) and the results for each multidimensional construct are presented in Appendix Table A 8.26 while these for each unidimensional construct are presented in Appendix Table A 8.27. The results show that the reliability α-values for unidimensional constructs exceed the recommended value of 0.70, indicating strong reliability; some α-values for the

multidimensional constructs are lower (e.g. "export stimulus"), but in general they exceed 0.60.

In Section 8.2, CFA was applied to all multidimensional constructs – "export stimulus", "export problems", "export competencies", "usefulness of information sources", and "entrepreneurial orientation" – and the CFA results indicate a good fit for all. A second-order confirmatory factor model was also estimated for the multidimensional constructs, where evidence supports the conceptualisation of most multidimensional constructs as higher-order constructs. The only exception is that of "entrepreneurial orientation" (ENOR) where the measurement model supported the three sub-constructs of ENOR, but there is no support for the second-order factor model. Thus it is treated as a unidimensional construct (i.e. by averaging all items under a single construct i.e. entrepreneurial orientation ENOR) (Appendix Table A8.26) (Settoon *et al.*, 1996).

Two additional measurement models are estimated so that the results can be used in the integrated export marketing performance model. The first contains 19 indicators measuring the unidimensional constructs of "entrepreneurial orientation", "firm size", "exports to total sales ratio", "export experience" and "importance of trade barriers". The second contains 18 indicators measuring the unidimensional constructs of "export management competencies", "export market attractiveness", and "similarity of export and domestic markets". The results of the first model with df=145 are: χ^2=261.58 (p=0.00), NPAR=64, RMSEA=0.089, NFI=0.943, RFI=0.926, IFI=0.974, TLI=0.966, CFI=0.974, and χ^2/DF=1.804. Those for the second with 132 df=132 are: χ^2=206.61 (p=0.00), NPAR=57, RMSEA=0.074, NFI=0.960, RFI=0.948, IFI=0.985, TLI=0.980,

CFI=0.985, and χ^2/DF=1.565. Both models have no "offending estimates" and the results suggest a good model fit since most of the measures are acceptable, except for the χ^2-statistic which is significant in both models.

Although the exogenous constructs affecting export marketing performance are assumed to be distinct, some of these constructs are shared and thus there are correlations between them. A new path diagram, in Figure 8.24, incorporates these intercorrelations between the exogenous constructs which are established either through theory or though consultation with export experts.

Figure 8.24: Integrated Export Marketing Performance Model (Model F2)
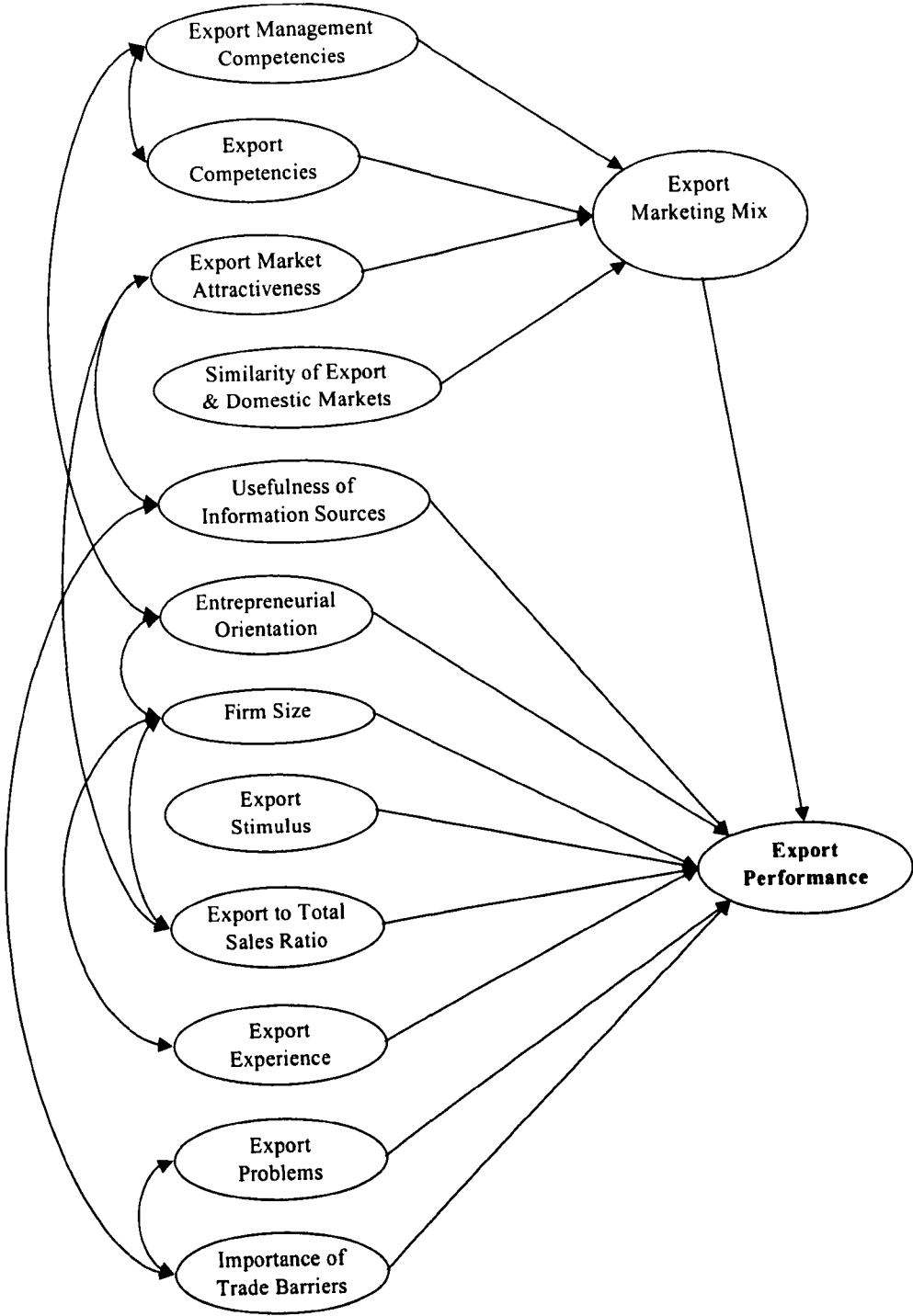
To make the constructs scale invariant, the loading of one indicator per multidimensional construct is set to unity. There are no identification problems and the overall fit is examined for possible "offending estimates." Examination of the

standardised estimates reveals three "offending estimates" (i.e. insignificant measurement error variances)[9] which are fixed to 0.005 and the model is re-estimated. The standardised estimates of the respecified model reveal no "offending estimates" (Table 8.13 and Appendix Table A8.28).

In Figure 8.25, the overall fit is assessed. A reasonably good fit is revealed for most indicators.[10] Although χ^2= 442 (p=0.000), all other measures are within acceptable ranges – the RMSEA value is close to the 0.08 cut-off point and all other measures exceed 0.9 – the fit is good. Finally, possible modifications to improve model fit were applied, but none did so.

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[9] "Offending estimates" are identified in the measurement errors of sub-constructs "lack of communication with export market and export expert assistance" and "subjective measures of export performance", and the measurement error of the main construct "export marketing mix".
[10] The RMR, GFI, and AGFI measures are not calculated due to missing values.

Table 8.13: Standardised Regression Weights (Model F2)

HYPOTHESIZED PATH	STANDARDISED ESTIMATE	CRITICAL RATIO
Export competencies (EC) → Export marketing mix	0.43	2.08
Export management competencies → Export marketing mix	0.42	2.11
Export market attractiveness → Export marketing mix	0.61	4.12
Similarity of export and domestic markets → Export marketing mix	-0.06	-0.47*
Export marketing mix → Export performance	0.37	2.28
Export problems (EPR) → Export performance	-0.17	-2.14
Importance of trade barriers → Export performance	0.22	2.19
Firm size → Export performance	-0.06	-0.50*
Export stimulus (ES) → Export performance	-0.13	-1.27*
Export to total sales ratio → Export performance	0.00	0.02*
Entrepreneurial orientation (ENOR) → Export performance	0.32	1.95
Usefulness of information sources (IS) → Export performance	-0.01	-0.06*
Export experience → Export performance	0.16	1.57*
Communication with the export market → IS	0.39	3.27
Advanced methods of information acquisition → IS	0.73	**
Principal methods of information acquisition → IS	0.74	4.86
Indicator → ENOR	0.74	γ
Indicator → Firm size	0.97	γ
Indicator → Export to total sales ratio	1.00	γ
Indicator → Export experience	0.96	γ
Indicator → Export management competencies	0.90	γ
Indicator → Export market attractiveness	0.86	γ
Indicator → Importance of trade barriers	0.97	γ
Indicator → Similarity of export and domestic markets	0.90	γ
Product superiority → EC	0.57	5.12
Competitive pricing → EC	0.40	3.69
Production and marketing capability → EC	0.86	**
Safety and control practices → EC	0.49	4.46
Target country related constraints → EPR	0.27	2.82
Exogenous constraints → EPR	0.38	4.13
Lack of communication with export market and export expert assistance → EPR	1.00	**
Opportunities for export expansion → ES	0.47	3.20
Proactive export expansion → ES	0.73	2.98
Reactive export expansion → ES	0.59	**
Subjective measures of export performance → Export performance	1.00	**
Objective measures of export performance → Export performance	0.22	1.98
Indicator of export marketing mix → Export marketing mix	0.59	**
Adaptation of export marketing mix → Export marketing mix	0.41	3.52

Notes: 1. * Insignificant values.
2. ** Values were not calculated because loading was set to unity to fix construct variance.
3. γ indicates that the loading was set to the square value of reliability of the construct (i.e. parsimonious strategy).
4. The → symbol indicates the cause effect.
5. For the unidimensional constructs, we use the term "indicator" because the indicators and the second-order factors have the same label.

Figure 8.25: Standardised Estimates of Integrated Export Marketing Performance Model (Model F2)
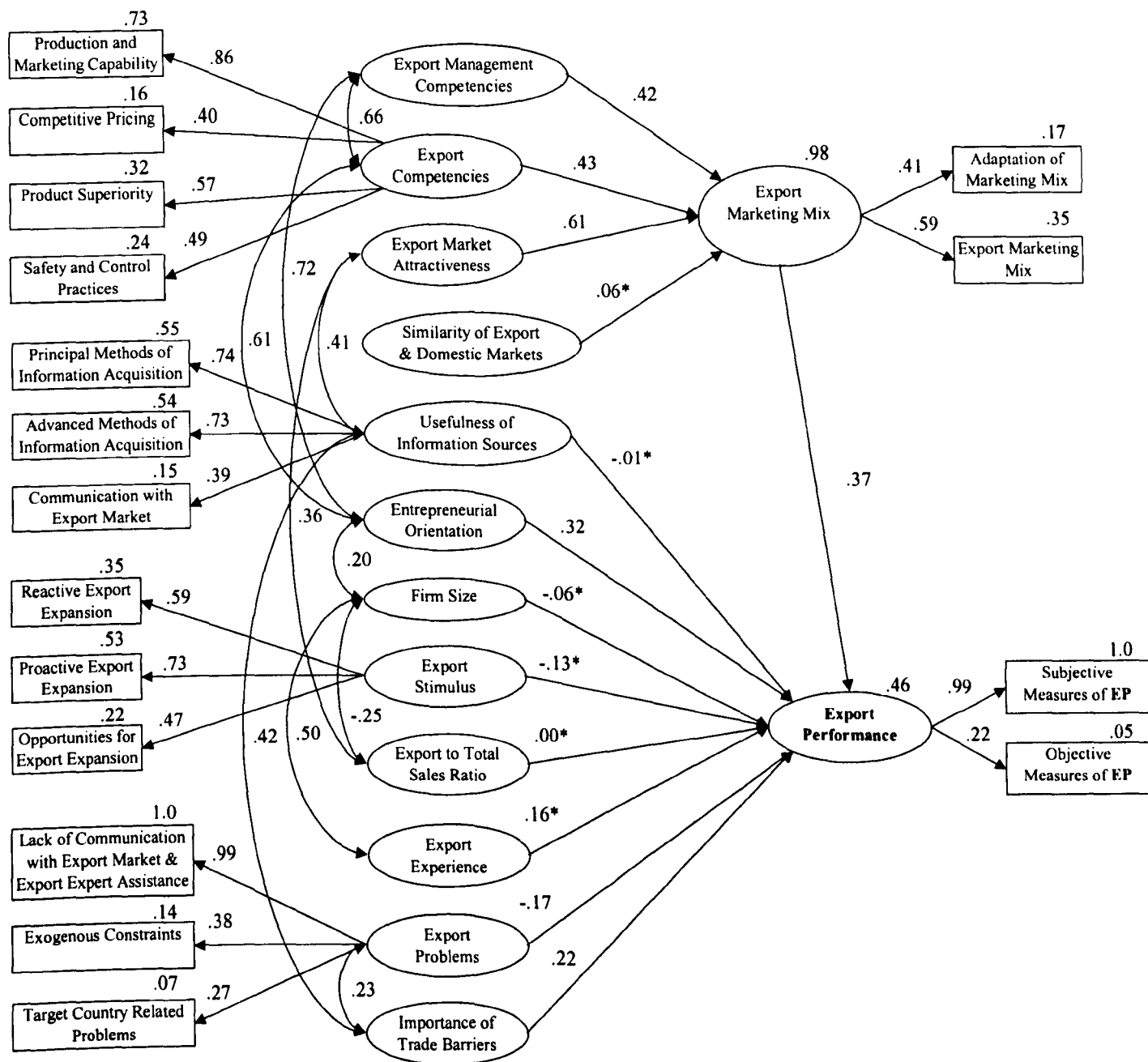
Notes: 1. * Non-significant estimates
2. Chi-square = 442 (263df), p = .000 (NPAR = 87)
3. Goodness of fit measures: RMSEA=.082, NFI=.942, RFI=.929, IFI=.976, TLI=.97, CFI=.976, CMIN/DF=1.681

Table 8.13 shows the standardised estimate and the critical ratio for each structural path, while insignificant critical ratios are starred. According to the hypotheses developed in Chapter 3, hypotheses 1, 1a, 1b, 1c, 3, 8, and 9 are supported by the

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integrated export marketing performance model, while hypotheses 1d, 2, 4, 5, 6, and 7 are not supported. In particular, "Export competencies", "export management competencies", "export market attractiveness", and "similarity of export and domestic markets" are all associated positively with "export marketing mix", although the latter is insignificant (C.R.)=-0.47). In addition, "entrepreneurial orientation", "export experience", and "importance of trade barriers" are positively associated with "export performance", although the second is insignificant (C.R.=1.57) and approaches significance. In contrast, "usefulness of information sources" (C.R.=-0.06), "firm size" (C.R.=-0.50), "export stimulus" (C.R.=-1.27), and "export problems" are all negatively associated with "export performance", although only the relationship between "export problems" and "export performance" is significant. Finally, "exports to total sales ratio" shows no relationship to "export performance" (C.R.=0.02).

By focusing on the main constructs, the hypothesized model shows that the subjective and objective measures of export performance are significantly and positively related with export performance, the former accounting for 99% of the observed variance in export performance and the latter for 22%. Likewise, the indicators of export marketing mix and the adaptation of export marketing mix are significant and positively related to export marketing mix, the former accounting for 59% of the observed variance and the latter for 49%.

According to Cavusgil and Zou (1994), the magnitude of the path coefficient (loading) indicates the strength of the relationship: a coefficient with a absolute value greater than 0.25 suggests a strong relationship, a coefficient with an absolute value between 0.15 and 0.25 suggests a moderate relationship, and a coefficient with an

absolute value below 0.15 suggests a weak (or no) relationship. Figure 8.25 shows that "export performance" is influenced strongly by "export marketing mix" and "entrepreneurial o rientation"; m oderately by t he "importance o f t rade b arriers" a nd "export problems" ("export experience" has an insignificant effect); and weakly and insignificantly by the other constructs i.e. "export stimulus", "firm size", "usefulness of information", and "export to total sales ratio". Likewise, "export marketing mix" is strongly influenced by "export market attractiveness", "export competencies", and "export management competencies"; and weakly and insignificantly by "similarity of export and domestic markets".

In terms of multidimensional constructs (i.e. "export competencies", "usefulness of information sources", "export stimulus", and "export problems"), all sub-constructs are significant and positively related to their corresponding constructs. In particular, "production and marketing capability", "product superiority", "safety and control practices", and "competitive pricing" (in descending order of importance) are related to "export competencies" while "principal methods of information acquisition", "advanced methods of information acquisition", and "communication with export market" (in descending order of importance) are related to "usefulness of information sources". Furthermore, "opportunities for export expansion", "proactive export expansion", and "reactive export expansion" (in descending order of importance) are associated with "export stimulus" and, "lack of c ommunication with export market and export expert assistance", "exogenous constraints", and "target country related constraints" (in descending order of importance) are related to "importance of trade barriers".

We now examine the estimated coefficients for their practical and theoretical implications. Recall from Table 8.13 and Figure 8.25 that only the constructs of "export marketing mix", "entrepreneurial orientation", "importance of trade barriers", and "export problems" (in descending order of importance) have a statistically significant effect and thus they impact on either improving or worsening (in case of export problems) "export performance". Thus, although exporters must not ignore the other constructs affecting export performance, emphasis should be placed on developing a competent export marketing mix, becoming more entrepreneurial oriented, and being able to address more effectively the consequences of trade barriers and other export problems. The combined effect of the factors used in the integrated export marketing performance model achieves 46% of the variance of "export performance".

In terms of the "export marketing mix", the constructs that have a statistically significant impact on export marketing mix are "export market attractiveness", "export competencies", and "export management competencies" (in descending order of importance). Therefore, although exporters must not disregard the "similarity of export and domestic markets", it is important to research export markets to identify their potential (i.e. export market attractiveness), to improve their competencies and the managerial skills of the export personnel. The combined effect of all those constructs achieves 98% of the variance in "export marketing mix".[11]

Also of interest are the correlations between the constructs linked to "export marketing mix" and "export performance" (Figure 8.25). All construct correlations

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[11] This figure is high because the measurement error of this construct was set to 0.005 to address the insignificant variance.

are significant, revealing that whereas some constructs are fundamental in influencing "export performance", others indirectly impact on "export performance" and firms should not focus exclusively on specific constructs. Moreover, the results of the correlations between estimated constructs are examined for possible inappropriate intercorrelations and all correlations are relatively acceptably low. In descending order of importance, the construct intercorrelations are: "export management competencies" and "entrepreneurial orientation" (standardised estimate: 0.72); "export management competencies" and "export competencies" (0.62); "export competencies" and "entrepreneurial orientation" (0.61); "firm size" and "export experience" (0.50); "usefulness of information sources" and "importance of trade barriers" (0.42); "export market attractiveness" and "usefulness of information sources" (0.41); "export market attractiveness" and "export to total sales ratio" (0.36); "firm size" and "export to total sales ratio" (-0.25); "export problems" and "importance of trade barriers" (0.23); and "firm size" and "entrepreneurial orientation" (0.20).

The measurement model provides information about the factors that influence the multidimensional constructs of "export competencies", "usefulness of information sources", "export stimulus", and "export problems". Each set of factors influencing these four constructs has statistically significant loadings, thus supporting the theoretical basis for assigning these factors to each construct (see Table 8.13). In this way, it provides a meaning for each multidimensional construct based on the significance and the magnitude of the relationships with each factor.

8.4 Summary and Conclusions

In this chapter, CFA and PME are applied in the context of SEM. In particular, CFA is applied to the EFA results of Chapter 7 to examine whether the proposed EFA models – for "export stimulus", "export problems", "export competencies", "usefulness of information sources", and "entrepreneurial orientation" – are supported. All first-order models have a reasonable fit, thus supporting the dimensions developed in EFA. Likewise, the second-order factor models are supported, with the exception of the entrepreneurial orientation model, which has an inadequate fit. This indicates that, apart from "entrepreneurial orientation", the other four constructs have a set of sub-dimensions or first-order factors that provide a distinct meaning to each construct. Specifically, "proactive export expansion", "reactive export expansion", and "opportunities for export expansion" (in descending order of importance) are the sub-dimensions of "export stimulus" and "lack of communication with export market and export expert assistance", "exogenous constraints", "target country related constraints" (in descending order of importance) are the sub-dimensions of "export problems". In addition, "production and marketing capability", "product superiority", "safety and control practices", and "competitive pricing" (in descending order of importance) are the sub-dimensions of "export competencies" while "principal methods of information acquisition", "advanced methods of information acquisition", and "communication with export market" (in descending order of importance) are the sub-dimensions of "usefulness of information sources". A caveat is that all models have some data inconsistencies (i.e. "offending estimates") which are probably caused by non-normal data and, therefore, it would be appropriate to collect additional data to increase the sample size.

The subsequent PME of the structural integrated export marketing performance model investigates a series of causal relationships with interrelated (endogenous) constructs. The estimated model, while not achieving the recommended level of fit for all goodness of fit measures, represents a reasonable fit. According to the PME results, the significant constructs explain 46% of the variance in "export performance" and, in descending order of importance, are: "export marketing mix", "entrepreneurial orientation", "importance of trade barriers" and "export problems". Similarly, the significant constructs impacting on "export marketing mix" are: "export market attractiveness", "export competencies", and "export management competencies" (in descending order of importance). In addition, there are significant correlations between some of the constructs, indicating that they might influence "export performance" indirectly. Finally, it should also be noted that although the estimation of the integrated structural model resulted in adequate fit, the sample size to estimated parameter ratio is less than 2:1; this was achieved through a parsimonious strategy but this ratio is well below the generally accepted ratio of 5:1.

Table A8.1: CFA Results: Correlation Matrix of Export Stimulus

	A3A	A3B	A3C	A3D	A3E	A3F	A3G	A3H	A3I
A3A: Importance of diminishing domestic sales	1.00								
A3B: Importance of saturated domestic market	0.51	1.00							
A3C: Unsolicited orders from abroad	0.09	-0.07	1.00						
A3D: Excess production capacity	0.07	0.29	0.00	1.00					
A3E: Managerial willingness to commit resources for exports	0.27	0.28	-0.18	0.31	1.00				
A3F: State development programmes for exports	0.22	0.13	-0.01	0.03	0.29	1.00			
A3G: Favourable exchange rates	0.17	0.15	0.11	0.10	0.32	0.36	1.00		
A3H: Firm's strategy to reduce the risk	0.18	0.27	-0.07	0.20	0.38	0.20	0.36	1.00	
A3I: Favourable international climate	0.11	0.07	0.03	-0.05	0.13	0.27	0.35	0.22	1.00

Table A8.2: Variance Estimates, Standard Errors and Critical Ratios for Export Stimulus (Model A2)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
ES1: Exogenous Market Conditions	1.63	0.51	3.20
ES2: Domestic Market Pressures	4.51	0.63	7.13
ES3: Proactive Export Expansion	2.80	0.39	7.13
eA3A: Error A3A	2.80	0.39	7.14
eA3B: Error A3B	0.01	-	-
eA3D: Error A3D	3.73	0.54	6.87
eA3E: Error A3E	0.01	-	-
eA3F: Error A3F	3.14	0.50	6.31
eA3G: Error A3G	1.52	0.39	3.85
eA3H: Error A3H	3.21	0.52	6.15
eA3I: Error A3I	2.24	0.34	6.54

Notes: 1. Critical ratio = Variance estimate/Standard error
2. * Insignificant values (i.e. offending estimates)
3. Constructs with constrained variance (0.01) have no SE or CR (-).

Table A8.3: Standardised Regression Weights (Model A2)

VARIABLES	ES1	ES2	ES3	C.R.
A3A: Importance of diminishing domestic sales		0.47		5.42
A3B: Importance of saturated domestic market		0.99		**
A3D: Excess production capacity		0.26		2.69
A3E: Managerial willingness to commit resources for exports			n.a.	**
A3F: State development programmes for exports	0.46			3.55
A3G: Favourable exchange rates	0.72			**
A3H: Firm's strategy to reduce the risk	0.50			3.72
A3I: Favourable international climate	0.41			3.20

Notes: 1. * Insignificant values
2. ** Values were not calculated because loading was set to unity to fix construct variance
3. Critical ratio (C.R.) is the product of dividing the variance estimate by standard error.

Table A8.4: **Variance Estimates, Standard Errors and Critical Ratios for Export Stimulus (Model A4)**

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
ES: Second-order factor	1.89	0.57	3.30
eES1: Error ES1	0.01	-	-
eES2: Error ES2	4.32	0.63	6.89
eES3: Error ES3	0.01	-	-
eA3A: Error A3A	2.75	0.39	7.14
eA3B: Error A3B	0.01	-	-
eA3D: Error A3D	3.83	0.54	7.14
eA3E: Error A3E	2.80	0.43	6.51
eA3F: Error A3F	3.11	0.49	6.34
eA3G: Error A3G	1.44	0.44	3.29
eA3H: Error A3H	2.97	0.52	5.74
eA3I: Error A3I	2.17	0.33	6.48

Notes as for Table A8.2.

Table A8.5: **Standardised Regression Weights (Model A4)**

VARIABLES	ES1	ES2	ES3	ES	C.R.
ES1: Opportunities for export expansion				1.00	3.93
ES2: Reactive export expansion				0.28	2.29
ES3: Proactive export expansion				1.00	**
A3A: Importance of diminishing domestic sales		0.50			5.86
A3B: Importance of saturated domestic market		1.00			**
A3D: Excess production capacity		0.28			2.93
A3E: Managerial willingness to commit resources for exports			0.42		3.09
A3F: State development programmes for exports	0.46				3.49
A3G: Favourable exchange rates	0.75				**
A3H: Firm's strategy to reduce the risk			0.55		**
A3I: Favourable international climate	0.43				3.30

Notes as for Table A8.3.

Table A8.6:   CFA Results: Correlation Matrix of Export Problems

	A5A	A5B	A5C	A5D	A5E	A5F	A5G
A5A: Insufficient information for overseas markets	1.00						
A5B: Expensive information for overseas markets	0.52	1.00					
A5C: Difficulty to identify capable collaborators in the host country	0.39	0.41	1.00				
A5D: Lack of information about overaseas distributors	0.48	0.44	0.54	1.00			
A5E: Poor identification of the firm's international competitiveness	0.26	0.27	0.41	0.49	1.00		
A5F: Strong international competition	0.16	0.18	0.28	0.23	0.26	1.00	
A5G: Lack of personnel qualified for exporting	0.29	0.30	0.33	0.27	0.30	0.14	1.00
A5H: Lack of capable Greek export consultants	0.41	0.15	0.19	0.33	0.31	0.20	0.52
A5I: High transportation costs	0.10	0.24	0.11	0.02	-0.05	0.13	-0.03
A5J: Financial risks (e.g. country/ business related risk)	0.25	0.39	0.39	0.36	0.21	0.25	0.13
A5K: Lack of European Union policy regulations to assist exports	0.49	0.38	0.24	0.41	0.34	0.23	0.25
A5M: Ineffective (or lack) of national export promotion programmes	0.12	0.12	0.12	0.18	0.08	0.28	0.20
A5N: Inability of Greek public institutions to assist exports	0.21	0.20	0.27	0.21	0.23	0.35	0.16
	A5H	A5I	A5J	A5K	A5M	A5N	
A5H: Lack of capable Greek export consultants	1.00						
A5I: High transportation costs	-0.06	1.00					
A5J: Financial risks (e.g. country/ business related risk)	0.05	0.34	1.00				
A5K: Lack of European Union policy regulations to assist exports	0.35	-0.02	0.29	1.00			
A5M: Ineffective (or lack) of national export promotion programmes	0.33	0.03	0.02	0.19	1.00		
A5N: Inability of Greek public institutions to assist exports	0.26	0.09	0.12	0.20	0.62	1.00	

Table A8.7:   Variance Estimates, Standard Errors and Critical Ratios for Export Problems (Model B2)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
EPR1: Communication with export market and export expert assistance	1.54	0.36	4.24
EPR2: Exogenous constraints	0.95	0.41	2.33
EPR3: Target country related constraints	1.07	0.52	2.04
eA5A: Error A5A	1.34	0.22	5.99
eA5B: Error A5B	1.68	0.27	6.24
eA5C: Error A5C	1.29	0.21	6.15
eA5D: Error A5D	1.07	0.21	5.14
eA5E: Error A5E	1.92	0.30	6.50
eA5F: Error A5F	0.85	0.36	2.32
eA5G: Error A5G	2.87	0.42	6.83
eA5H: Error A5H	3.19	0.47	6.81
eA5I: Error A5I	1.62	0.49	3.34
eA5J: Error A5J	1.98	0.50	3.97
eA5K: Error A5K	2.05	0.32	6.45
eA5M: Error A5M	2.67	0.42	6.29
eA5N: Error A5N	1.82	0.34	5.42

Notes as for Table A8.2.

Table A8.8: Standardised Regression Weights (Model B2)

VARIABLES	EPR1	EPR2	EPR3	C.R.
A5A: Insufficient information for overseas markets	0.67			6.36
A5B: Expensive information for overseas markets	0.63			5.92
A5C: Difficulty to identify capable collaborators in the host country	0.65			6.10
A5D: Lack of information about overseas distributors	0.77			**
A5E: Poor identification of the firm's international competitiveness	0.56			5.30
A5F: Strong international competition		0.73		**
A5G: Lack of personnel qualified for exporting	0.43			3.98
A5H: Lack of capable Greek export consultants	0.44			4.12
A5I: High transportation costs			0.63	**
A5J: Financial risks (e.g. country/ business related risk)			0.59	2.45
A5K: Lack of European Union policy regulations to assist exports	0.58			5.45
A5M: Ineffective (or lack) of national export promotion programmes		0.37		2.64
A5N: Inability of Greek public institutions to assist exports		0.50		**

Notes as for Table A8.3.

Table A8.9: Variance Estimates, Standard Errors and Critical Ratios for Export Problems (Model B3)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
EPR: Second-order factor	1.62	0.38	4.26
EPR1: Communication with export market and export expert assistance	0.01	-	-
EPR2: Exogenous constraints	0.01	-	-
EPR3: Target country related constraints	0.56	0.28	2.05
eA5A: Error A5A	1.35	0.22	6.00
eA5B: Error A5B	1.65	0.27	6.20
eA5C: Error A5C	1.29	0.21	6.12
eA5D: Error A5D	1.18	0.21	5.59
eA5E: Error A5E	1.92	0.30	6.49
eA5F: Error A5F	1.49	0.22	6.88
eA5G: Error A5G	2.82	0.41	6.80
eA5H: Error A5H	3.11	0.46	6.78
eA5I: Error A5I	1.88	0.38	4.96
eA5J: Error A5J	1.72	0.50	3.42
eA5K: Error A5K	2.07	0.32	6.44
eA5M: Error A5M	2.88	0.41	7.05
eA5N: Error A5N	2.04	0.29	6.94

Notes as for Table A8.2.

Table A8.10: Standardised Regression Weights (Model B3)

VARIABLES	EPR1	EPR2	EPR3	EPR	C.R.
EPR1: Communication with the export market and export expert assistance				1.00	**
EPR2: Exogenous constraints				0.99	3.97
EPR3: Target country related constraints				0.61	3.29
A5A: Insufficient information for overseas markets	0.71				6.90
A5B: Expensive information for overseas markets	0.67				6.56
A5C: Difficulty to identify capable collaborators in the host country	0.69				6.71
A5D: Lack of information about overseas distributors	0.76				
A5E: Poor identification of the firm's international competitiveness	0.61				5.85
A5F: Strong international competition		0.42			
A5G: Lack of personnel qualified for exporting	0.48				4.60
A5H: Lack of capable Greek export consultants	0.49				4.70
A5I: High transportation costs			0.57		
A5J: Financial risks (e.g. country/ business related risk)			0.68		3.16
A5K: Lack of European Union policy regulations to assist exports	0.62				5.98
A5M: Ineffective (or lack) of national export promotion programmes		0.25			2.12
A5N: Inability of Greek public institutions to assist exports		0.37			2.82

Notes as for Table A8.3.

Table A8.11: CFA Results: Correlation Matrix of Export Competencies

	B2A	B2B	B2C	B2D	B2E	B2F	B2G
B2A: Safety of production and products	1.00						
B2B: Traceability of products	0.48	1.00					
B2C: Ability to recall products	0.33	0.51	1.00				
B2D: Production know-how	0.14	0.38	0.26	1.00			
B2E: Research and development capability	0.19	0.32	0.21	0.45	1.00		
B2F: Average cost of production	0.16	0.22	0.10	0.35	0.22	1.00	
B2G: Product uniqueness	0.14	-0.02	0.08	0.02	0.11	-0.04	1.00
B2H: Product categories available	0.16	0.31	0.22	0.35	0.43	0.21	0.48
B2I: Quality of personnel	0.29	0.35	0.23	0.35	0.25	0.20	0.07
B2J: Export market knowledge	0.11	0.29	0.26	0.43	0.47	0.16	0.20
B2K: Export marketing knowledge	0.16	0.24	0.17	0.37	0.42	0.29	0.20
B2L: Company reputation/ goodwill	0.25	0.35	0.31	0.55	0.50	0.19	0.21
B2M: Company culture	0.22	0.32	0.34	0.24	0.22	0.13	0.23
B2N: Proximity to foreign markets	0.06	0.30	0.31	0.30	0.26	0.30	-0.02

	B2H	B2I	B2J	B2K	B2L	B2M	B2N
B2H: Product categories available	1.00						
B2I: Quality of personnel	0.28	1.00					
B2J: Export market knowledge	0.32	0.41	1.00				
B2K: Export marketing knowledge	0.43	0.39	0.76	1.00			
B2L: Company reputation/ goodwill	0.43	0.45	0.62	0.53	1.00		
B2M: Company culture	0.25	0.29	0.20	0.26	0.43	1.00	
B2N: Proximity to foreign markets	0.19	0.17	0.12	0.20	0.28	0.32	1.00

Table A8.12: Variance Estimates, Standard Errors and Critical Ratios for Export Competencies (Model C2)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
EC1: Production and marketing capability	1.44	0.28	5.09
EC2: Safety and control practices	1.42	0.35	4.04
EC3: Competitive pricing	1.41	0.69	2.05
EC4: Product superiority	0.82	0.29	2.80
eB2A: Error B2A	0.73	0.12	6.41
eB2B: Error B2B	0.55	0.24	2.28
eB2C: Error B2C	1.99	0.33	6.04
eB2D: Error B2D	0.61	0.10	6.38
eB2E: Error B2E	1.67	0.26	6.49
eB2F: Error B2F	2.57	0.40	6.40
eB2G: Error B2G	2.54	0.37	6.94
eB2H: Error B2H	1.65	0.27	6.09
eB2I: Error B2I	1.18	0.18	6.70
eB2J: Error B2J	1.13	0.19	5.98
eB2K: Error B2K	1.35	0.22	6.27
eB2L: Error B2L	0.51	0.13	4.07
eB2M: Error B2M	1.26	0.25	5.03
eB2N: Error B2N	1.55	0.63	2.46

Notes as for Table A8.2.

Table A8.13: Standardised Regression Weights (Model C2)

VARIABLES	EC1	EC2	EC3	EC4	C.R.
B2A: Safety of production and products		0.51			4.64
B2B: Traceability of products		0.85			**
B2C: Ability to recall products		0.57			4.64
B2D: Production know-how	0.64				6.76
B2E: Research and development capability	0.61				6.39
B2F: Average cost of production			0.38		2.35
B2G: Product uniqueness				0.28	2.44
B2H: Product categories available				0.52	4.16
B2I: Quality of personnel	0.54				5.49
B2J: Export market knowledge	0.71				7.65
B2K: Export marketing knowledge	0.66				6.87
B2L: Company reputation/ goodwill	0.86				**
B2M: Company culture				0.63	**
B2N: Proximity to foreign markets			0.69		**

Notes as for Table A8.3.

Table A8.14: Variance Estimates, Standard Errors and Critical Ratios for Export Competencies (Model C3)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
EC: Second-order factor	1.40	0.27	5.14
EC1: Production and marketing capability	0.01	-	-
EC2: Safety and control practices	1.54	0.23	6.78
EC3: Competitive pricing	2.40	0.35	6.96
EC4: Product superiority	0.01	-	-
eB2A: Error B2A	0.77	0.11	7.14
eB2B: Error B2B	0.01	-	-
eB2C: Error B2C	2.24	0.31	7.14
eB2D: Error B2D	0.59	0.09	6.35
eB2E: Error B2E	1.59	0.25	6.46
eB2F: Error B2F	2.79	0.39	7.14
eB2G: Error B2G	2.63	0.37	7.08
eB2H: Error B2H	1.69	0.25	6.66
eB2I: Error B2I	1.15	0.17	6.71
eB2J: Error B2J	1.20	0.20	6.17
eB2K: Error B2K	1.42	0.22	6.38
eB2L: Error B2L	0.48	0.12	4.16
eB2M: Error B2M	1.52	0.22	6.76
eB2N: Error B2N	0.01	-	-

Notes as for Table A8.2.

Table A8.15: Standardised Regression Weights (Model C3)

VARIABLES	EC1	EC2	EC3	EC4	EC	C.R.
EC1: Production and marketing capability					1.00	**
EC2: Safety and control practices					0.50	5.00
EC3: Competitive pricing					0.37	3.64
EC4: Product superiority					1.00	5.15
B2A: Safety of production and products		0.49				5.59
B2B: Traceability of products		1.00				**
B2C: Ability to recall products		0.51				6.04
B2D: Production know-how	0.66					7.05
B2E: Research and development capability	0.63					6.69
B2F: Average cost of production			0.30			3.13
B2G: Product uniqueness				0.24		2.15
B2H: Product categories available				0.55		4.13
B2I: Quality of personnel	0.55					5.61
B2J: Export market knowledge	0.69					7.47
B2K: Export marketing knowledge	0.64					6.78
B2L: Company reputation/ goodwill	0.86					**
B2M: Company culture				0.51		**
B2N: Proximity to foreign markets			1.00			**

Notes as for Table A8.3.

Table A8.16: CFA Results: Correlation Matrix of Usefulness of Information Sources

VARIABLES	D2A	D2B	D2C	D2D	D2E	D2F	D2G	D2H	D2I
D2A: Personal contacts	1								
D2B: Overseas agents	0.47	1.00							
D2C: Trade associations	0.26	0.23	1.00						
D2D: Greek Ministries of Development/Agriculture	0.22	0.23	0.55	1.00					
D2E: Chambers of commerce	0.23	0.19	0.53	0.79	1.00				
D2F: Greek embassies in foreign countries	0.18	0.13	0.51	0.74	0.65	1.00			
D2G: Public libraries	0.26	0.14	0.39	0.58	0.47	0.49	1.00		
D2H: Professional institutions (e.g. commercial libraries)	0.19	0.10	0.26	0.51	0.45	0.41	0.80	1.00	
D2I: The internet	0.14	0.29	0.20	0.40	0.27	0.43	0.46	0.48	1.00

Table A8.17: Variance Estimates, Standard Errors and Critical Ratios for Usefulness of Information Sources (Model D2)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
IS1: Advanced methods of information acquisition	1.72	0.29	6.02
IS2: Principal methods of information acquisition	1.61	0.28	5.75
IS3: Communication with export market	0.84	0.12	7.10
eD2A: Error D2A	0.01	-	-
eD2B: Error D2B	1.00	0.14	7.13
eD2C: Error D2C	1.41	0.21	6.77
eD2D: Error D2D	0.27	0.08	3.19
eD2E: Error D2E	0.56	0.10	5.48
eD2F: Error D2F	0.95	0.16	6.07
eD2G: Error D2G	0.24	0.12	2.01
eD2H: Error D2H	0.75	0.15	5.11
eD2I: Error D2I	1.53	0.22	6.92

Notes as for Table A8.2.

Table A8.18: Standardised Regression Weights (Model D2)

VARIABLES	IS1	IS2	IS3	C.R.
D2A: Personal contacts			1.00	**
D2B: Overseas agents			0.44	4.89
D2C: Trade associations	0.62			7.13
D2D: Greek Ministries of Development/Agriculture	0.93			**
D2E: Chambers of commerce	0.84			11.93
D2F: Greek embassies in foreign countries	0.79			10.58
D2G: Public libraries		0.93		**
D2H: Professional institutions (e.g. commercial libraries)		0.81		9.59
D2I: The internet		0.48		4.96

Notes as for Table A8.3.

Table A8.19: Variance Estimates, Standard Errors and Critical Ratios for Usefulness of Information Sources (Model D3)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
IS1: Advanced methods of information acquisition	2.48	0.39	6.34
IS2: Principal methods of information acquisition	1.73	0.47	3.67
IS3: Communication with export market	0.84	0.12	7.10
eD2A: Error D2A	0.01	-	-
eD2B: Error D2B	1.02	0.14	7.13
eD2C: Error D2C	1.42	0.21	6.76
eD2D: Error D2D	0.26	0.09	2.86
eD2E: Error D2E	0.62	0.11	5.62
eD2F: Error D2F	0.94	0.16	6.03
eD2G: Error D2G	0.92	0.34	2.69
eD2H: Error D2H	1.37	0.30	4.59
eD2I: Error D2I	1.58	0.24	6.70

Notes as for Table A8.2.

Table A8.20: Standardised Regression Weights (Model D3)

VARIABLES	IS1	IS2	IS3	C.R.
D2A: Personal contacts			1.00	**
D2B: Overseas agents			0.43	4.76
D2C: Trade associations	0.68			8.44
D2D: Greek ministries of Development/Agriculture	0.95			**
D2E: Chambers of commerce	0.86			13.74
D2F: Greek embassies in foreign countries	0.83			12.58
D2G: Public libraries		0.81		**
D2H: Professional institutions (e.g. Commercial libraries)		0.70		10.61
D2I: The internet		0.47		4.25

Notes as for Table A8.3.

Table A8.21: Variance Estimates, Standard Errors and Critical Ratios for Usefulness of Information Sources (Model D4)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
IS: Second-order factor	2.16	0.30	7.11
IS1: Advanced methods of information acquisition	1.25	0.22	5.76
IS2: Principal methods of information acquisition	0.01	-	-
IS3: Communication with export market	0.01	-	-
eD2A: Error D2A	0.01	-	-
eD2B: Error D2B	0.98	0.14	7.13
eD2C: Error D2C	1.42	0.21	6.82
eD2D: Error D2D	0.25	0.10	2.54
eD2E: Error D2E	0.64	0.11	5.58
eD2F: Error D2F	0.96	0.16	6.06
eD2G: Error D2G	0.01	-	-
eD2H: Error D2H	0.67	0.27	2.52
eD2I: Error D2I	1.57	0.22	7.14

Notes as for Table A8.2.

Table A8.22: Standardised Regression Weights (Model D4)

VARIABLES	IS1	IS2	IS3	IS	C.R.
IS1: Advanced methods of information acquisition				0.62	7.34
IS2: Principal methods of information acquisition				1.00	**
IS3: Communication with export market				0.27	2.79
D2A: Personal contacts			1.00		**
D2B: Overseas agents			0.46		5.24
D2C: Trade associations	0.60				6.82
D2D: Greek Ministries of Development/Agriculture	0.94				**
D2E: Chambers of commerce	0.83				11.64
D2F: Greek embassies in foreign countries	0.79				10.59
D2G: Public libraries		1.00			**
D2H: Professional institutions (e.g. commercial libraries)		0.83			8.97
D2I: The internet		0.44			5.00

Notes as for Table A8.3.

Table A8.23: CFA Results: Implied Correlations' Matrix of Entrepreneurial Orientation

	D4B	D5A	D5B	D5C	D5D	D5E	D5F
D4B: Degree of carrying out own marketing functions	1.00						
D5A: Similarity of products offered in domestic and export markets	-0.03	1.00					
D5B: Frequency of new product development	0.26	-0.11	1.00				
D5C: Degree that new products emerge from product/market research	0.27	-0.03	0.22	1.00			
D5D: Degree of implementation of export market research	0.38	-0.04	0.31	0.67	1.00		
D5E: Degree of involvement in export activities in high-risk export markets	0.11	-0.02	0.14	0.14	0.20	1.00	
D5F: Degree of testing new products in export markets	0.17	-0.02	0.13	0.29	0.41	0.09	1.00

Note: Sample correlation matrix is not available due to missing values.

Table A8.24: Variance Estimates, Standard Errors and Critical Ratios for Entrepreneurial Orientation (Model E2)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
EO1: Proactiveness	2.33	0.61	3.85
EO2: Risk-taking	0.78	0.53	1.48*
EO3: Innovativeness	3.65	0.51	7.13
eD4B: Error D4B	2.22	0.54	4.10
eD5A: Error D5A	2.09	0.29	7.14
eD5B: Error D5B	1.75	0.24	7.14
eD5C: Error D5C	0.84	0.42	1.99
eD5D: Error D5D	0.01	-	-
eD5E: Error D5E	2.79	0.42	6.57
eD5F: Error D5F	2.43	0.39	6.16

Notes as for Table A8.2.

Table A8.25: Standardised Regression Weights (Model E2)

VARIABLES	EO1	EO2	EO3	C.R.
D4B: Degree of carrying out own marketing functions		0.51		**
D5A: Similarity of products offered in domestic and export markets			0.26	**
D5B: Frequency of new product development			0.33	3.49
D5C: Degree that new products emerge from product/market research	0.86			**
D5D: Degree of implementation of export market research			1.00	2.75
D5E: Degree of involvement in export activities in high-risk export markets		0.30		2.41
D5F: Degree of testing new products in export markets	0.52			4.35
D4B: Degree of carrying out own marketing functions		0.51		**
D5A: Similarity of products offered in domestic and export markets			0.26	**

Notes as for Table A8.3.

Table A8.26: Measures of Multidimensional Constructs

MULTIDIMENSIONAL CONSTRUCTS AND SUBSCALES	RELIABILITY ALPHA (α)
Export Stimulus (ES):	
- ES1: Opportunities for export expansion	0.59
A3F: State development programmes for exports	
A3G: Favourable exchange rates	
A3I: Favourable international climate	
- ES2: Reactive export expansion	0.55
A3A: Importance of diminishing domestic sales	
A3B: Importance of saturated domestic market	
A3D: Excess production capacity	
- ES3: Proactive export expansion	0.55
A3E: Managerial willingness to commit resources for exports	
A3H: Firm's strategy to reduce the risk	
Export Problems (EPR):	
- EPR1: Lack of communication with the export market and export expert assistance	0.81
A5A: Insufficient information for overseas markets	
A5B: Expensive information for overseas markets	
A5C: Difficulty to identify capable collaborators in the host country	
A5D: Lack of information about overseas distributors	
A5E: Poor identification of the firm's international competitiveness	
A5G: Lack of personnel qualified for exporting	
A5H: Lack of capable Greek export consultants	
A5K: Lack of European Union policy regulations to assist exports	
- EPR2: Exogenous constraints	0.69
A5F: Strong international competition	
A5M: Ineffective (or lack) of national export promotion programmes	
A5N: Inability of Greek public institutions to assist exports	
- EPR3: Target country related constraints	0.51
A5I: High transportation costs	
A5J: Financial risks (e.g. country/ business related risk)	
Export Competencies (EC):	
- EC1: Production and marketing capability	0.84
B2D: Production know-how	
B2E: Research and development capability	
B2I: Quality of personnel	
B2J: Export market knowledge	
B2K: Export marketing knowledge	
B2L: Company reputation/ goodwill	
- EC2: Safety and control practices	0.68
B2A: Safety of production and products	
B2B: Traceability of products	
B2C: Ability to recall products	
- EC3: Competitive pricing	0.46
B2F: Average cost of production	
B2N: Proximity to foreign markets	
- EC4: Product superiority	0.59
B2G: Product uniqueness	
B2H: Product categories available	
B2M: Company culture	
Usefulness of information sources (IS):	
- IS1: Advanced methods of information acquisition	0.87
D2C: Trade associations	
D2D: Greek ministries of Development/Agriculture	
D2E: Chambers of commerce	
D2F: Greek embassies in foreign countries	

- IS2: Principal methods of information acquisition	0.81
D2G: Public libraries	
D2H: Professional institutions (e.g. Commercial libraries)	
D2I: The internet	
- IS3: Communication with export market	0.63
D2A: Personal contacts	
D2B: Overseas agents	
Entrepreneurial orientation (ENOR):	0.61
- D4B: Degree of carrying out own marketing functions	
- D5A: Similarity of products offered in domestic and export markets	
- D5B: Frequency of new product development	
- D5C: Degree that new products emerge from product/market research	
- D5D: Degree of implementation of export market research	
- D5E: Degree of involvement in export activities in high-risk export markets	
- D5F: Degree of testing new products in export markets	
MAIN CONSTRUCTS	
Export marketing mix:	
- Adaptation of marketing mix	0.63
Product adaptation	
Pricing policy adaptation	
Promotion strategy adaptation	
Use of existing distribution channels	
- Export marketing mix	0.63
Export product uniqueness	
Export product quality superiority	
Provision of additional benefits	
Export product price competitiveness	
Export promotion campaigns success	
Access to export middlemen	
Export performance:	
- Subjective measures of export performance	0.96
Export market share	
Export market share growth	
Export sales value	
Export sales value growth	
Export sales volume	
Export sales volume growth	
Export profitability	
Export profitability growth	
New country market penetration	
- Objective measures of export performance	0.86
Export sales growth (1999-2000)	
Export sales growth (2000-2001)	
Export sales growth (1999-2001)	

Table A8.27: Measures of Unidimensional Constructs

MULTIDIMENSIONAL CONSTRUCTS AND SUBSCALES	RELIABILITY ALPHA (α)
Export management competencies: - Commitment to procedures and practices for controlling and maintaining export activities - Proactiveness - Flexibility - Ability to monitor export performance - Decentralisation in terms of decision-making - Well-trained to face export challenges - Ability to budget every export activity	0.80
Export market attractiveness: - Long-term profitability levels - Long-term growth - Level of competition - Market size - Firm's market share	0.75
Similarity of export and domestic markets: - Consumer product behaviour - Consumer buying characteristics - Customer purchasing power - Socio-economic characteristics - Legal framework - Distribution channel characteristics	0.78
Firm size: - Total number of employees (cat.) - Firm' turnover	0.78
Export to total sales ratio: - Export/Total sales ratio 1999 - Export/Total sales ratio 2000 - Export/Total sales ratio 2001	0.99
Export experience: - Length of time since the establishment of the firm - Length of time since export activities initiated - Length of time since export activities became important (in sales value terms) - Total number of export country destinations	0.82
Importance of trade barriers: - Importance of tariffs - Importance of quotas - Importance of political situation - Importance of social and cultural barriers - Lack of the adequate distribution channels	0.87

Table A8.28: Variance Estimates, Standard Errors and Critical Ratios for Integrated Export Marketing Performance Model (Model F2)

LATENT CONSTRUCTS	VARIANCE ESTIMATE	STANDARD ERROR	CRITICAL RATIO
Usefulness of information sources	0.88	0.26	3.44
Entrepreneurial orientation	3.60	0.90	4.01
Firm size	10.46	1.52	6.91
Export to total sales ratio	3.90	0.61	6.39
Export experience	4.31	0.66	6.54
Export management competencies	2.06	0.36	5.79
Export market attractiveness	2.28	0.43	5.30
Importance of trade barriers	3.86	0.57	6.77
Similarity of export and domestic markets	2.38	0.41	5.76
Export competencies	0.88	0.20	4.48
Export problems	1.25	0.18	7.11
Export stimulus	0.80	0.36	2.27
Error of export marketing mix	0.01	-	-
Error of export performance	0.62	0.10	6.04
Error of firm size	0.22	-	δ
Error of export to total sales ratio	0.01	-	δ
Error of export experience	0.18	-	δ
Error of export management competencies	0.20	-	δ
Error of similarity of export and domestic markets	0.22	-	δ
Error of importance of trade barriers	0.13	-	δ
Error of export market attractiveness	0.25	-	δ
Error of entrepreneurial orientation	0.39	-	δ
Error of lack of communication with export market and export expert assistance	0.01	-	-
Error of subjective measures of export performance	0.01	-	-
Error of export marketing mix	0.45	0.07	6.44
Error of adaptation of marketing mix	0.91	0.13	6.87
Error of principal methods of information acquisition	0.71	0.18	3.88
Error of advanced methods of information acquisition	0.75	0.19	3.95
Error of communication with export market	0.65	0.10	6.71
Error of competitive pricing	1.58	0.23	6.83
Error of product superiority	0.90	0.14	6.32
Error of reactive export expansion	1.50	0.33	4.51
Error of proactive export expansion	1.24	0.47	2.62
Error of opportunities for export expansion	1.42	0.24	5.93
Error of exogenous constraints	1.28	0.18	7.14
Error of target country related constraints	1.74	0.24	7.14
Error of production and marketing capability	0.32	0.12	2.67
Error of safety and control practices	0.94	0.14	6.62
Error of objective measures of export performance	0.88	0.14	6.33

Notes: 1. Critical ratio = Variance estimate/Standard error.
  2. * Insignificant values (i.e. offending estimates) (Arbuckle and Worthke, 1999).
  3. Constructs with constrained variance (0.01) have no SE or CR (-).
  4. δ indicates that the error variances have been constrained to 1-reliability of the construct (i.e. parsimonious strategy).

Chapter 9: Summary and Conclusions

9.1 Summary

This thesis examines the relationship between firms' internal environment (i.e. firm competencies and characteristics), firms' external environment (i.e. export market characteristics), export marketing and the final performance of firms exporting from a specific region and industrial sector. The focus is on the Greek food and beverage industry which is one of the most export oriented (21% of total exports) and important sectors in Greece, contributing substantially to the economy and society (employs 20% of industrial workforce). Increasingly, Greek food and beverage firms are looking beyond their traditional domestic markets towards export markets not only to grow, but also to improve competitiveness. In addition, since foreign markets are more hostile and competitive than the domestic market, export indicators provide firms with measures of future domestic performance as the first signs of declining competitiveness are always evident in the overseas markets.

The Greek government and Greek industries recognise the importance of exports and they endeavour to improve export focus and performance. This is not just a local phenomenon, but it is the ultimate purpose of many other countries and, in this context, export marketing performance and its determinants have been the subject of considerable research and debate. Greek export competitiveness is continuously decreasing and this impacts on both the economy (i.e. growing trade deficit) and society (i.e. increasing unemployment).

As such, it is essential to understand factors influencing export marketing performance to facilitate improved Greek export performance. In particular, the antecedents of export marketing performance are identified and examined in the Greek food and beverage industry, aiming to improve its overall performance. Furthermore, since our understanding of the determinants of export performance is rather fragmentary and often conflicting (Aaby and Slater, 1989; Cavusgil and Zou, 1994), this thesis contributes to the empirical development of the export marketing literature by incorporating a substantial number of factors influencing export marketing performance simultaneously, where previously they were examined individually.

Data were collected though a mail survey of Greek food export manufacturers. A respondent pool of 103 usable questionnaires was generated by the survey representing an overall response rate of 62%. The focus on regular exporting firms from a single industry of a specific country has been chosen to maintain low sample heterogeneity and thus achieve greater meaningfulness of the findings. While the majority of the sample firms are in the food sector, the sample frame incorporates those in both the food and beverage product categories. A substantial number are family owned, with family members involved in the management of the firm, and they have separate export departments and sales administration for exports (although few have an international marketing sub-departments). In most cases, the export department reports to the general manager while export managers develop export marketing plans. On average, exporters have 13 export target markets, with the USA and EU markets being the most frequent destinations, while the most common export entry mode used is through host country collaborators and agents.

In terms of the research objectives, the current economic and business environment in Greece is presented in Chapter 4 which discusses the Greek economy and industry, the Greek food and beverage sector and its importance in the economy and exports in particular, as well as the most important food and beverages exported. The literature review (Chapters 2 and 3) and by means of the qualitative in-depth interviews and the questionnaire results (Chapter 6), an integrated framework is provided for examining the export marketing practices and characteristics employed by exporting firms, and by Greek food and beverage exporters in particular.

To analyse the survey data, quantitative techniques of exploratory factor analysis (Chapter 7) and structural equation modelling (Chapter 8) are employed. These techniques specify the nature of interdependencies between the various factors affecting export strategy and export performance and identify the most important variables in formulating a successful export marketing strategy.

9.2 Conclusions

Greek food and beverage exporters are well established, with a typical length of export experience of 16-20 years and a regular presence in seven export markets. Foreign languages are important for export operations and the most important is English, followed by German and French. Consistent with Burton and Schlegelmilch (1987) and Christensen *et al.* (1987), most firms indicated that they have a quality control certification, which is important to run their export activities and the most frequent certification obtained is HACCP, followed by ISO9001 and ISO9002. They

also reveal that the country of origin influences the perceived quality of their products abroad. Furthermore, their main objectives of Greek exporters after entering a new export market are brand awareness, market share growth, sales growth, and access to distribution channels.

In this thesis, a model of export marketing performance is developed which is motivated by the importance attached in the export marketing literature to internal factors, external factors and export marketing strategy factors as determinants of final export performance. The model is novel in that it integrates key firm competencies and characteristics, common export constraints, and other export related variables while the relationships of these constructs with export performance are examined simultaneously rather than on a bivariate basis. The research strategy provides information not only for the marketing strategy variables associated with better performance, but also it examines the spectrum of export performance highlighting determinants of export failure.

The structural integrated export marketing performance model achieved a reasonably good fit while the constructs explain a considerable variance (46%) of export performance and, in descending order of importance, are: "export marketing mix", "entrepreneurial orientation", "importance of trade barriers" and "export problems".

The "export marketing mix" is the most important determinant of "export performance" having a strong positive effect and this finding is consistent with previous results in the literature (e.g. Madsen, 1989). The "export marketing mix" is in turn determined by the degree of success in export marketing mix characteristics

and the degree of adapting the export marketing mix. The former determinant is more important having a strong positive effect on export marketing mix and explaining a greater amount of variance. Likewise, the latter has a strong positive effect but it explains half as much of the variance. This indicates that although the uniqueness and success of export marketing mix is important, the adaptation of some elements of the export marketing mix to competition (i.e. market) is also required to achieve a competitive and effective marketing mix, in accordance with Christensen *et al.* (1987), Leonidou *et al.* (2002) and Louter *et al.* (1991).

Exporters rated high their products' quality and the provision of additional benefits (i.e. augmented product such export credit), and lower their export product uniqueness and t he s uccess o f e xport p romotion c ampaigns. E xporters a lso i ndicated t hat t heir marketing mix is on average adapted and, in particular, it is more adapted in terms of the use of existing distribution channels and less in terms of pricing policy. Most respondents specified that they employ formal export planning, control and maintenance procedures, they make regular visits to export target markets, and that they research new export markets before entry. This finding is consistent with Katsikeas *et al.* (1996) and Seringhaus (1986) who suggest that acquiring foreign market information reduces the "psychic distance," assists in developing better export marketing practices, and generates business opportunities thereby driving the internationalisation process (Johanson and Vahlne, 1990).

"Entrepreneurial orientation" is the second strongest direct effect on "export performance" and this is consistent with most other research results (e.g. Karagozoglu and Brown, 1988; Pierce and Delbecq, 1977; Yeoh and Jeong, 1995). Furthermore, in

accordance with other findings (e.g. Covin and Slevin, 1989; Miller, 1983; Miller and Friesen, 1983; Naman and Slevin, 1993), we established three dimensions of entrepreneurial orientation, namely "proactiveness", "innovativeness" and "risk-taking". However, Greek food and beverage exporters indicate that they do not follow an entrepreneurial orientation for their activities since they are reluctant to get involved in high risk export markets and their products offered to domestic and export markets are similar. The only dimension of entrepreneurial orientation they follow is proactiveness, since they rated high for the implementation of export product and market research before entering new export markets.

Exporters revealed that "trade barriers" are important for their operations and the results also indicate that they have a moderate positive effect on "export performance", which is consistent with literature findings (e.g. Cavusgil, 1984a; Kaynak and Kothari, 1984; Madsen, 1989). The important trade barriers are the lack of adequate distribution channels and the political situation in the export target market, while of lesser importance are quotas, and social and cultural barriers.

In accordance with internationalisation theory, which indicates that managerial perceptions of export problems affect firm behaviour in overseas markets (Johanson and Vahlne, 1990), we find a significant negative relationship between export problems and export performance. The largest export problem is a "lack of communication with the export market and export expert assistance". This problem relates to the lack (or insufficiency) and cost of information obtained on overseas markets and distributors, the lack of EU policy regulations to assist exports, the lack of personnel qualified for exporting or the lack of capable Greek export consultants,

the difficulty in identifying capable collaborators in the host country, and the poor identification of the firm's international competitiveness. This finding is consistent with previous evidence (e.g. Kotabe and Czinkota, 1992; Seringhaus, 1986; Seringhaus and Botschen, 1991).

Lesser problems are "exogenous constraints" which relate to the strong international competition, the inability of Greek public institutions to assist exporters, and the ineffective (or lack) of national export promotion programmes and "target country related problems" such as high transportation costs and financial or business risk. According to Greek exporters, strong international competition causes problems in some cases because Greek firms have to compete with strong competitors in world markets and the Greek government is unable or unwilling to assist Greek exporters since there are no public institutions capable of supporting exports and there are ineffective or no national export promotion programmes. The least frequent problem specified is the ability to adapt to new challenges, which indicates that since Greek firms are relatively small, they have the advantage of being more flexible and can quickly change according to markets needs.

The significant constructs influencing "export marketing mix" are "export market attractiveness", "export competencies", and "export management competencies" (in descending order of importance). This suggests that export marketing plays a moderating role between these three constructs (i.e. "export market attractiveness", "export competencies", and "export management competencies") and "export performance". From these constructs, "export market attractiveness" has the strongest positive effect on "export marketing mix", influencing "export performance"

indirectly. This is in accordance to Madsen (1989) and Bilkey (1985, 1987), although they establish a direct relationship to "export performance". Furthermore, this finding is consistent with others suggesting that domestic market attractiveness is negatively associated to export sales because large domestic sales and profits discourage export efforts (e.g. Karafakioglu, 1986; Kaynak and Kothari, 1984; Madsen, 1989). Greek exporters also indicate that export markets are more attractive than the domestic market in terms of market size and long-term growth, while they are less attractive in terms of overall competition.

In light of the intensifying international competition, "export competencies" have a strong positive effect on the development of an "export marketing mix" and although they are not directly linked to "export performance", they are essential. The most important "export competence" is the "production and marketing capability" such as export market and marketing knowledge, company reputation/goodwill, research and development capability, production know-how, and quality of personnel. Other "export competencies" are the "product superiority", "safety and control practices" and "competitive pricing". "Product superiority" is the second most important factor of "export competencies" and relates to product uniqueness, the product categories available and the company culture. Third is "safety and control practices" and relates to the safety of production and products, traceability, and the ability to recall products. Fourth is "competitive pricing" which relates to the average cost of production and the proximity to foreign markets (i.e. lower end-price due to lower transportation costs) and although it has a lower loading than the other constructs, it strongly influences the "export marketing mix".

In terms of export competitiveness, respondents indicate that they are in a more advantageous position relative to the competition in export markets in terms of safety of production and products, production know-how, traceability of products, and the ability to recall products. These variables represent quality control practices. On the other hand, they provided a lower rating for proximity to foreign markets, average cost of production, and the product categories they offer to export markets, which reveals the competitive characteristics exporters perceive as disadvantages relatively to competition.

"Export management competencies" also strongly impact on "export marketing mix" and this is consistent with several authors' findings that reveal an indirect positive effect on export performance (e.g. Burton and Schlegelmilch, 1987; Dichtl et al., 1990; Dichtl et al., 1984; Enderwick and Akourie, 1994; Holzmuller and Kasper, 1990; Katsikeas et al., 1996; Madsen, 1989; Weaver and Pak, 1990). Exporters indicate that their export management is capable and they rated high for its commitment to procedures and practices for controlling and maintaining export activities, its ability to monitor export performance, and its flexibility but they provided a lower rating for the decentralisation of decision-making, indicating that management structures are relatively centralised within a firm's hierarchy. The constructs that failed to reach significance are the "usefulness of information sources", "firm size", "export stimulus", "export to total sales ratio", "export experience", and "similarity of export and domestic markets".

In contrast to other findings (e.g. Bonaccorsi, 1993; Katsikeas et al., 1996; McAuley, 1993; Walters and Samiee, 1990; Yang et al., 1992; Yarpak, 1985), our results

indicate that information sources have an insignificant effect on export performance. The most important information sources revealed by the exporters are personal contacts and overseas agents, while the least useful information is obtained through public libraries, professional institutions (e.g. commercial libraries, universities etc.), and the Greek Ministries of Development and Agriculture. In addition, respondents suggested that the cost and ease of acquiring information affects substantially their decision to research export markets.

The evidence provided here suggests that there is an insignificant relationship between "firm size" and "export performance". This finding supports the arguments of Bonaccorsi (1992) and Katsikeas *et al.* (1996) against the widely accepted proposition of a positive relationship between "firm size" and "export performance". Furthermore, the importance of exports relative to total sales also has an insignificant effect on export performance. Exporters indicated that there was a fall in export to total sales ratio between 1999 and 2000 and a slight rise in 2000-2001. In terms of the export experience, our results are consistent with Cavusgil (1984a), Diamantopoulos and Inglis (1988) and Moon and Lee (1990) and they support those of Katsikeas *et al.* (1996) from the Greek business environment. However, they contradict the majority of findings in the literature that indicate that firms with greater experiential knowledge are likely to perform better in export markets i.e. that there is a direct positive effect of export experience in export marketing management and performance (e.g. Amine and Cavusgil, 1986; Cavusgil, 1984b; Denis and Depelteau, 1985; Madsen, 1989; Reid, 1982).

Although many studies have investigated the effect of various stimuli on exporting, few focus on the relationship between "export stimulus" and "export performance". Our results indicate that "export stimuli" are not significantly related to "export performance" and this is in accordance with Katsikeas *et al.* (1996) finding that suggest a direct and insignificant relationship (apart in the case of national export policy). Furthermore, consistent with Katsikeas *et al.* (1996) is that three types of export stimuli are established, namely "proactive export expansion", "reactive export expansion", and "opportunities for export expansion".

However, exporters indicated that the most important factors motivating firms to expand in overseas markets are unsolicited orders from abroad, a favourable international climate, and to a lesser extent managerial willingness to commit resources for exports and risk reduction, which indicates a reactive rather than proactive stance towards exports. The least important factors are diminishing domestic sales and the effect of a saturated domestic market, indicating a domestic market growth potential, even within the mature Greek market. Of particular interest here is that many exporters rated state development programmes as unimportant in their export expansion. This is a counter-intuitive finding because a large joint state-EU development programme (3rd Community Support Framework) is currently running in Greece, which aims to assist exporters to become more competitive by subsidising new investment and improving infrastructure.

In terms of the "similarity of export and domestic markets", our results indicate an insignificant relationship with "export performance" and this contradicts research findings (e.g. Johanson and Wiedersheim-Paul, 1975; Johanson and Mattsson, 1988;

Bilkey, 1978; Davidson, 1980b) which suggest that exporters should first target export markets with a smaller "psychic distance" (i.e. nearby, more similar), where perceived market uncertainty is smaller. Exporters also indicate that their major export and domestic markets are quite dissimilar, rating high (similar) for distribution channel characteristics, and consumer buying characteristics and lower (dissimilar) for customer purchasing power and consumer behaviour.

However, there are significant correlations between some constructs, indicating that they might influence "export performance" indirectly. For example, although "usefulness of information sources" and "export to total sales ratio" have insignificant effects on "export performance", they are correlated with "export market attractiveness", indicating an indirect effect. This may be explained by exporters needing for useful information on export markets to examine their attractiveness, while the more attractive is an export market, the higher are the exports and thus the higher the "exports to total sales ratio". In addition, there is a strong correlation between "export competencies" and "export management competencies" and "entrepreneurial orientation", as well as between "export management competencies" and "entrepreneurial orientation". This accords with intuition because some dimensions of "entrepreneurial orientation" (i.e. proactiveness and innovativeness) are perceived as "export competencies" and are directly linked with some "export management competencies" (e.g. management proactiveness etc.). "Entrepreneurial orientation" is also strongly correlated with "firm size", indicating that larger firms are usually able to follow entrepreneurial oriented strategies because they have the resources to follow innovative and risk-taking strategies. Thus "firm size" indirectly effects "export performance".

Another intuitive correlation is that between "firm size" and "export experience" which indicates that larger firms have greater experiential knowledge and *vice versa*. The "importance of trade barriers" is also strongly correlated to "usefulness of information sources" and moderately to "export problems", indicating that the lack of useful information sources lead to greater trade barriers and that trade barriers are a significant export problem. Finally, the only negative moderate correlation is between "firm size" and "export to total sales ratio", indicating that the larger the firm, the less contribution exports have to total sales. This can be substantiated by the fact that larger firms usually have adequate resources to employ more direct foreign entry modes (e.g. joint venture), other than exporting.

Finally, "export performance" is determined by "subjective" and "objective measures of export performance". In our case, subjective measures explain most of the variance of export performance because they examine several dimensions of performance, in terms of export volume, market share, growth etc., while objective measures have a moderate effect because only the dimension of "export sales growth" was examined. In terms of subjective measures, exporters indicate an above average satisfaction and, in particular, they are more satisfied with export sales value growth and less satisfied with export profitability growth. The objective measure of "export sales growth" has an above average growth, continuously improving in 1999-2001.

9.3 Managerial Implications and Guidelines for Good Practice

The research results are of strategic importance for firms in the Greek food and beverage sector, providing guidelines in formulating and implementing export marketing plans and national export promotion programmes. A central implication of our analysis is that the implementation of a well-designed export marketing strategy can determine success in export markets since the marketing strategy constructs (e.g. "export marketing mix", "entrepreneurial orientation" etc.) are significantly associated with overall "export performance". Therefore, exporting firms should optimally allocate their resources to the most appropriate elements of their strategy, according to their long-term objectives, to achieve and sustain better export performance. However, the crucial role of government in facilitating export performance is also highlighted and it is thus necessary that effective national export policies are formulated and that these are regularly assessed and reformulated to fit market developments and exporter needs (Katsikeas *et al.*, 1996).

Our research findings justify specific directions for the export managers and policy makers. First, "export performance" can be enhanced substantially through a successful "export marketing mix". The elements of the "export marketing mix", however, have to be determined by both internal and external forces i.e. by the "adaptation of a marketing mix". Furthermore, exporters are advised to intensify formal export planning, control, and maintenance procedures, undertake regular export market visits, as well as export market research, particularly before market entry.

The "export marketing mix" in turn is also influenced by "export market attractiveness", "export competencies", and "export management competencies". Thus, information should be obtained on how attractive is each export market in terms of long-term profitability levels and growth, the competition level, market size etc. Firm "export competencies" are important for the development of a successful "export marketing mix", particularly for "production and marketing capability", "product superiority" and "safety and control practices". This suggests that exporters should adopt market-led strategies i.e. employ continuous export marketing and market research (Katsikeas *et al.*, 1996). Since market-led export strategies are essential, exporters should also develop their export marketing skills. Consistent with Madsen's (1989) findings, exporters should also try to improve the quality of their products and elements of their augmented product such as export credit. Exporters that commit adequate resources for export market research are more likely to perform well because they reduce the risk of exporting, even if there are difficulties and costs involved.

Exporters should also focus on gaining a competitive edge in their production know-how by improving research and development practices, and employing safety and control practices to monitor continuously their operations and performance. In this context, the use of quality control certifications is highly advisable (particularly HACCP or ISO9001) if not essential to ensure that customers in export markets are aware of and certain of Greek exporters' quality practices.[1] Managers are also advised to develop a network of competent foreign distributors as well as provide adequate

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[1] Most of the importers, particularly in the USA and EU markets, already demand that their suppliers have such certifications.

support and training to improve their distribution and customer service functions. Export firms can also seek "competitive pricing" even if this is the last "export competence" element they should consider. Moreover, although successful promotion is not identified as an "export competence" factor, it should not be neglected and decisions taken for promotion should be based on sound analyse of costs, benefits and competitive market considerations.

"Export management competencies" also play a key role in export marketing and firms have full control over this construct. Perhaps the best investment firms can make is to develop and strengthen their human resource capabilities and/or hire already trained and qualified personnel in exporting. Given the amount of learning required for successful international marketing operations, exporters can also employ export consultants to gain valuable experience and expertise to exploit more effectively their international market opportunities. In this way, export management will be educated and exposed to other managers and experts who will accelerate understanding of operating in overseas markets (Thirkell and Dau, 1998).

Exporters in the Greek food and beverage sector are also advised to employ more decentralised approaches in their export management organisation, particularly in terms of decision-making. More decentralised approaches will pass the decision-making power to lower levels of management who often have better understanding of the export markets, in contrast to the top management that usually attempts to understand market mechanisms through analogy, which is sometimes misleading due to market differences (i.e. domestic vs. export markets) (Madsen, 1989). Consistent with Robertson and Chetty's (2000) findings, export management should also develop

the ability to monitor environmental changes in export markets and behave in a manner that allows them to be proactive and flexible in their strategic choices.

Furthermore and consistent with Clarke's (2000) findings, the importance of foreign language for export operations shows that export management should be trained to be fluent in one or more foreign languages, preferably in English but also in German and French. This is because foreign language skills can assist export managers to appreciate better the export target market culture and thus, for example, produce more effective communications programmes (Thirkell and Dau, 1998). Moreover, good language skills facilitate initial contact and subsequent social interaction, contribute in the development of sound relations with individuals in export markets, provide a good understanding of foreign business culture and practices, and improve the selling and negotiating abilities of the firm (Clarke, 2000).

Second, our findings suggest that entrepreneurial firms are expected to achieve higher performance levels. Thus, since Greek exporters indicate that they have only a substantial degree of proactiveness, they should try to become more innovative and risk-takers. In this way, they will be able to take more proactive and flexible strategic choices enabling them to overcome quickly and effectively export problems and barriers. In addition, since organic structures enhance entrepreneurial orientation (Yeoh and Jeong, 1995), exporters should also try to establish flat and highly responsive structures (i.e. organic), characterised by decentralised decision-making, flexibility in administrative relations, and authority invested in situation expertise (Covin and Slevin, 1988; Robertson and Chetty, 2000). In this context, the role of the government in promoting entrepreneurship among exporting firms is also important

and the government should support innovative exporters and try to reduce the risks in operating in uncertain environments. However, it should be noted that "entrepreneurial orientation" is also moderately associated with "firm size", indicating that large firms are more likely to be able to follow an entrepreneurial strategy due to the high demand on resources.

Third, government export policies can also assist exporters to face problems and trade barriers by providing them with information about overseas markets and capable collaborators in the host country or by educating business practitioners how to design and implement sound export marketing strategies. An initial step has already been done through the Hellenic Export Promotion Organisation (HEPO), which has similar aims, but the results so far are rather poor[2] possibly because of its personnel and the lack of exporting experts or capable export consultants in Greece. Furthermore, since Greece is a full member of EU, the development of any policy should be considered and integrated in the context of major programmes organised under the aegis of EU.

Our research findings also indicate that "information sources" are not directly associated with "export performance", but are strongly correlated and vary with "export market attractiveness" and "importance of trade barriers". Thus, a balance is required between obtaining information and doing business, and exporters should not neglect the importance of information sources in identifying export market potential and reducing the uncertainty of undertaking export operations. However, export managers should avoid spending too much time in acquiring information so that they have no time for exporting (McAuley, 1993).

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[2] There are government plans to close down HEPO because it under-performs and has substantial running costs.

In accordance with a small number of previous studies (e.g. Cooper and Kleinschmidt, 1985; Diamantopoulos and Inglis, 1988; Katsikeas *et al.*, 1996; Naidu and Prasad, 1994), the lack of significance in the relationships of "firm size", "export experience", and "export to total sales ratio" with "export performance" indicate that smaller firms, less experienced exporters or even firms where exports represent a small part of their activities can perform equally well in export activities. Therefore, the top management of such firms should not consider these characteristics as a disadvantage. However, "export experience" approaches significance and since this thesis focuses on regular exporters, further research is required to examine this issue across different export development stages before attempting to draw definitive policy recommendations.

"Similarity of export and domestic markets" is also insignificant, indicating that either "close" or "distant" markets do not affect the "export marketing mix". Thus, exporters should not be reluctant to exploit new market opportunities, even if these new markets are dissimilar to existing domestic market and/or export markets. This contradicts Johanson and Mattsson's (1988) idea that initially the internalisation takes place in foreign markets with similar characteristics to the home market (Johanson and Mattsson, 1988). Furthermore, "export stimuli" are also insignificantly related to "export performance" indicating that the ultimate export performance is not affected by the factors that direct export initiation and export marketing strategy formation in the first place.

9.4 Limitations and Implications for Future Research

The evidence reported in this thesis should be interpreted in the light of some limitations. In particular, the focus of the research is restricted to manufacturing firms with r egular e xport a ctivities (i.e. a ctive f or a t least t he t hree-year p eriod o f 1 999-2001) of a certain industrial sector (i.e. food and beverage sector) within a specific country context (i.e. Greece) and we warn against generalising the research findings too broadly. Further research should examine the validity of our model in other countries and/or industry environments (i.e. cross- national and cross-industry investigation), to achieve external validity.

In addition, this study has a time-specific background, namely 1999-2001 and export activity is a dynamic and evolutionary process; variables involved in the model might diverge in the long run. Thus, although it might be costly and time-consuming to follow a longitudinal approach, such a study could reveal further insights particularly in the dynamics of export marketing strategy and performance. Moreover, it would be interesting to examine our model for exporters in different stages of export development to understand the changes in the export marketing performance relationships. For example, Leonidou *et al.* (2002) suggest that the firm's stage of export development is associated with the degree of control over its export marketing strategy and, therefore, its performance.

Another limitation of our study is that there are some non-normal variables in the survey data. However, alternative transformations have been applied without any significant improvement in skewness and kurtosis values and thus a caveat is required

particularly in the structural equation modelling, which is more sensitive to the distributional characteristics of the data and especially to departures from multivariate normality. Moreover, a future research might employ "bootstrapping" to evaluate more accurately the empirical sampling distribution of parameter estimates (for more details see Arbuckle and Worthke 1999, pp.349-378). This however requires a higher sample size than the one used here.

It should also be noted that although the estimation of the integrated structural model resulted in adequate fit, the sample size to estimated parameter ratio was less than 2:1; this was achieved through a parsimonious strategy but this ratio is well below the generally accepted ratio of 5:1 and additional sample size is preferable. However, during sample construction, the aim was to include every firm in the Greek food and beverage sector that fits our criteria and in general this was achieved.

The direction of causality between the export marketing variables and export performance variables also requires special attention. In particular, we employ a single t ype o f m ulti-item m easure i .e. "reflective" i ndicators,[3] w hich a re c onsistent with most other studies (Diamantopoulos, 1999). However, as Bollen (1989, p. 65) notes, apart from "reflective" indicators, there are the "cause" (or formative) indicators,[4] which are often "neglected despite their appropriateness." In future research, a formative approach could be used which might result in richer export marketing performance measures.

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[3] In "reflective" indicators, the latent variable causes the observed variable (Bollen, 1989).
[4] "Cause" indicators are observed variables assumed to cause a latent variable (Bollen, 1989).

Future research can also be directed in assessing export success not only with common export performance measures, but though additional indicators, such as the achievement of firms' long-term aims and objectives or the use of future performance expectations' indicators, which may influence current performance level (Katsikeas *et al.*, 1996). This may be particularly important for export success assessment because exports are considered as an extension of domestic operations and future expectations of export performance affect export management decisions. In addition, consistent with Kim and Hwang (1992), long-term aims and objectives might force managers to violate economic efficiency maximisation of a particular business unit, either for creating strategic outposts for future expansion, or for developing a global sourcing site, or for attacking actual and potential global competitors. For example, this was revealed in the qualitative in-depth interviews where it was noted that there are cases where exporting has been used as a "suicide mission," sometimes with products sold below cost, to gain access to and information about a new market, with the firm's ultimate objective a more direct investment strategy (e.g. joint venture etc.).

In addition, despite the large number of variables included in our model, not all potentially relevant variables have been explored and future research might pursue refinements and improvements in the measurements of the constructs. The introduction of new constructs (e.g. technology intensiveness) or a higher number of determining variables for each construct, particularly for those with few indicator variables such as entrepreneurial orientation, could provide a higher degree of explained variance at both the construct level and in the overall structural model. However, the introduction of additional variables in the questionnaire should be

applied with caution because more questions might result in a less user-friendly questionnaire, which may worsen the response rate.

Finally, future research can also be directed towards other useful multivariate techniques. For example, cluster analysis could be employed to explore the idea of segmentation of Greek food and beverage exporters by finding groups of exporters that have similar characteristics and requirements and employ similar export marketing s trategies. M oreover, t he a ssessment of t he r elationship b etween v arious categorical variables and each cluster could also extend this analysis (i.e. cross-tabulation).

9.5 Final Comment

Evangelista (1994) and Leonidou *et al.* (2002, p. 64) note that, "... studies relating the full set of marketing strategy variables ... to various facets of export performance within the context of an integrated model would be of immense value." This task is attempted in this thesis where an integrated export marketing performance model incorporates many export related variables outlined in the literature and uses both subjective and objective export performance measures. A more comprehensive understanding of the success factors in export marketing performance is thereby attained. In addition, as revealed in literature review and consistent with others (e.g. Aaby and Slater, 1989; Cavusgil and Zou, 1994; Chetty and Hamilton, 1993; Katsikeas *et al.*, 1996), there is much controversy and many conflicting results in the literature and "... it is surprising that so few solid conclusions are available" on export practice (Aaby and Slater, 1989, p. 23). This thesis attempts to address this issue.

Our findings can assist business managers to formulate sound export marketing strategies and succeed in international markets. The knowledge gained from the use of an integrated model that incorporates many export related variables provides guidance on various decisions necessary for exporting. However, exporters should always account for the characteristics of their specific export markets and their specific export marketing objectives. In addition, export managers should always bear in mind that the design and implementation of a coherent export marketing strategy is a dynamic task that requires constant monitoring, evaluation, and revision according to the specific export market conditions (Leonidou *et al.*, 2002). Firms should also not expect to optimise and excel in all components of export marketing strategy: this is unrealistic and it is certain that most firms lack the necessary resources and capabilities to accomplish such a complex task.

Finally, Mr. N. Christodoulakis, Minister of Economy and Treasury Department, recently acknowledged the failure of the government's export policies. Specifically, he notes that "... in the past, exports were usually supported by devaluating the Greek currency, which seemed to work at least in the short run, and thus the need for restructuring of export orientation has been overlooked" (Naftemporiki, 23-5-2003). He also adds that the Greek export policy requires a new strategy and approach that will ultimately assist the improvement of exporters' competitiveness, without removing income from the working population (through currency devaluation), and it will support and further enhance employment rates. This thesis facilitates this task by defining the areas on which the government should focus to assist exporters improve their competitiveness and achieve export success.

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