

# **Fundamental Problems and the Exporting Initiation Process of SMEs: An Investigation of Existing Research Studies**

**Yannis A. Hajidimitriou**  
*University of Macedonia, Greece*  
**Albertos C. Azaria<sup>1</sup>**  
*University of Macedonia, Greece*

**Abstract.** The vast majority of organizations, institutions, governments, academics, business managers, owners, politicians, and researchers have repeatedly underlined the importance of the existence of SMEs for every country. A large number of empirical research studies focused on the subjects of: a) the most important problems that SMEs face in their efforts to survive and grow in the highly competitive business arena, and b) the export procedure of SMEs. The aim of this paper is to review, assess and categorize the results of these surveys in order to provide a framework for future studies on the specific subject.

**Keywords:** SMEs, Problems, Export procedure

## **1. Introduction**

SMEs have been characterized as the “backbone” of every economy, while at the same time the value of the small business sector is recognized in economies worldwide, irrespective of their economic developmental stage. Small and medium sized enterprises play a significant role for every country and for every government. Their survival and growth constitute two very important goals due to the fact that they (Murphy, 1999, 36-37; Soontiens, 2002, 712; OECD, 2004, 1):

- are the dominant form of business organization in all countries, typically accounting for over 95 percent of the business population,
- form an important dynamic element in all economies as they drive innovation, especially in knowledge-based industries,
- play a key role in driving sustainable economic growth and job creation, while contributing to the social, cultural and environmental capital of nations,
- can raise funds and resources, other than family savings and invested profits,
- have the ability to play an important role in regional growth, contributing to production and distribution,
- represent a large proportion of Gross Domestic Product (GDP) in almost every country,
- can produce for and respond to the needs of small and specialized markets,
- consist an expression for self success and entrepreneurial spirit, and
- raise the competitiveness of the market and form a barrier towards the monopolistic behavior of larger companies.

During 1970s, the science of management began to realize that the role of SMEs in economical growth was more important than it used to be in the past. According to Murphy (1999, 37), in 1971, the Bolton Report was the first complete research to substantiate the view that practitioners and academics of that time were insufficiently informed about the significance of SMEs. The reaction of researchers and business managers to Bolton Report offered a large part of knowledge which formed the framework for small enterprises.

From 1970s until today, several research studies revealed that during periods of depression and economic crisis, larger companies suffered more than smaller

enterprises, while unemployment rate was steady mainly because of the fact that SMEs were healthy and viable. Another conclusion was that a large majority of innovations, a great part of important inventions and the most interesting new products originated mainly from the imagination of small entrepreneurs and less from the research laboratory of large companies.

The innovative ability of small enterprises is based on their flexibility, which is a rare feature for larger companies commonly characterized by bureaucratic incompetence and a strict hierarchical structure. Acs and Preston (1997, 3-4), underlined the fact that an innovator in a large company has very limited property rights protection. The new product, process, etc. generally belongs to the firm, not to the employee who invented it, thus resulting in reducing the incentives for creative employees to innovate for the company. In contrast to innovative employees in large firms, independent innovators can hold clear property rights, can have every incentive to undertake radical innovations and can be largely free of red tape. In that way, SMEs are better in creating radical innovations because they better protect the innovator's property rights.

Audretsch and Vivarelli (1996, 256) conducted a nine year empirical research within twenty distinct Italian regions based on the patent activity of all firms, large, medium, and small. The results of the empirical research showed that while R&D inputs, both from private and public firms, contribute to the generation of innovative output, the spillovers from universities are apparently more important for small-firm innovation than for their larger counterparts. In other words, these findings suggest that small firms are able to innovate by exploiting knowledge created outside the firm. In particular, research associated with universities provides a fertile environment for small-firm innovative activity.

In contrast with Acs and Preston (1997) and Audretsch and Vivarelli (1996), the results of the Third Community Innovation Survey conducted by Lucking (2004) showed the opposite. This report takes place every four years in EU countries to investigate levels of innovation in business. The survey used sample sizes and populations from fourteen EU member countries and covered the period from 1998 to 2000. Results were gathered via a postal questionnaire and firms were categorized based on the number of their employees (Small= 10-49 employees, Medium= 50-249 employees, and Large= 250+ employees). The survey revealed that larger firms showed much higher innovation activity than SMEs (Lucking, 2004, 7). More specifically, the EU average proportion of large enterprises with innovation activity was 80 percent, while medium and small sized firms represented an average proportion of 61 and 41 percent respectively. The difference concerning the innovation activity between large companies and SMEs was quite large and interesting.

Very often, younger firms have to be able to show greater ability for innovation than their competitors in order to survive, especially in sectors like high technology, where the pressure of competition is extremely high and business reorganization is rapid (OECD, 2004, 17). On the other hand, each government must apply specific strategies and policies in order to reassure the configuration of a friendly business environment, supporting entrepreneurship and promoting the quick growth of new innovative enterprises.

Kirchoff (1994) suggested that governments in each country must focus their interests and efforts on the creation of a strong base of SMEs, a base that will help the development of trade and economic activity. The evolution of small industries constitutes the founding assumption of industrialization and constant economic

growth in modern societies. Supplementary to Kirchoff, Soontiens (2002, 712) underlined the fact that in the majority of the developing countries, and especially in South Africa, governments applied strategies that supported the growth and entrepreneurship of SMEs, recognizing in that way the important role they play in the development of the national economy and in the creation of new job openings.

Because of the important role that SMEs play for every national economy, but also due to their dynamic course, special organizations have been founded all over the world, like Small Business Administration (SBA) in the USA and Hellenic Organization of Small and Medium-sized Enterprises and Handicraft (HOSMEH) in Greece, in order to support their activities. More specifically, these organizations act as a supporting team for several issues that SMEs have to deal with, like the development of their managerial skills, the provision of financial aid and technical information, the need for guidance on exporting activities, etc., and as a strategic consultant for possible future problems that might occur during their business mobilization.

The purpose of this paper is to review, assess and categorize the results of several empirical research studies focused on the following subjects: a) the most important problems that SMEs face in their efforts to survive and grow in the highly competitive business arena, and b) the export procedure of SMEs, in order to provide a framework for future studies on the specific subject. In the second section of the paper there is a short description of the fundamental characteristics of SMEs, including their advantages and disadvantages, while the categorized results from the literature review on the subject of the fundamental problems that SMEs face are presented in the third section. The importance of export strategy and the basic elements of its use by SMEs are discussed in the next two sections, followed by the analysis and understanding of the SMEs exporting initiation process. Finally, a summary and the conclusions are presented in the last section.

## **2. Fundamental Characteristics of SMEs**

Despite the category or the business sector they belong to, SMEs show several common elements in the way they operate. According to a large number of international research studies (for example, Robinson et al., 1986, 15; Smeltzer et al., 1988, 61; Lyles et al., 1993, 44; Campbell, 1996, 50; Berry, 1998, 455), the main common characteristics of SMEs are the following:

- Possession of a flexible structure that enables them to adjust to environmental changes faster than their larger counterparts.
- Engagement in less formalized, less strategic, more operational, and more personal planning.
- They show high abilities in the development of innovative products and services.
- They face important barriers in fields like financial and human resources, management, and production.
- Limited devolution.
- Dependence on a small number of clients and competitive presence in limited markets.
- Orientation towards the adaptation of new technologies.
- Collection of information through informal channels and contacts, like friends and colleagues, family, customers, internet, newspapers and magazines, instead of accountants, bankers, and lawyers. Adversely, larger firms scan the business environment and collect information through specialised divisions inside the enterprise or through the sales and public relations department.

The significance and the important role that SMEs play in the global economy, originate mainly from the large number of the advantages they developed in their efforts to compete with larger in size firms. On the other hand, small and medium-sized enterprises are obliged to overcome certain disadvantages-obstacles, in order to survive and grow. The identification of the basic common advantages and disadvantages of SMEs has been an important part of the international literature (for example, Albers and Kumar, 1991; Campbell, 1996, 50; Levy, 1998, 183-184; Recklies, 2001a, 3-5; 2001b, 2; Rao et al., 2003, 13). We present them in Table 1.

**Table 1: Basic Common Advantages and Disadvantages of SMEs**

Advantages	Disadvantages
<ol style="list-style-type: none"> <li>1. Very close relations with customers.</li> <li>2. High innovative ability.</li> <li>3. Targeting specific markets with niche strategies enables them to be specialized.</li> <li>4. Selected staff.</li> <li>5. High level of flexibility and adjustability.</li> <li>6. Low level of bureaucracy.</li> <li>7. Simple organizational structure.</li> <li>8. Low initiation budget.</li> <li>9. Intense feeling of personal responsibility.</li> <li>10. Low level of general expenditures.</li> <li>11. Higher utilization of talents.</li> <li>12. Exploitation of local resources.</li> <li>13. Creation of new job openings.</li> <li>14. Quick reaction to environmental changes.</li> <li>15. High level of communication between the departments of the firm.</li> <li>16. Steady base for the expansion of business activities.</li> <li>17. Ability for cooperation with other firms.</li> <li>18. High level of managerial commitment.</li> <li>19. Existence of high stability.</li> <li>20. High consensus of owners, managers, and workers with the culture of the firm.</li> </ol>	<ol style="list-style-type: none"> <li>1. High percentage of early bankruptcy.</li> <li>2. The owners' fortune is identified as the fortune of the company.</li> <li>3. Low financial credibility.</li> <li>4. Limited ability of self funding.</li> <li>5. Lack of strategic planning and training.</li> <li>6. Lack of exploitation of economies of scale.</li> <li>7. High dependence from the owner.</li> <li>8. Absence of control mechanisms.</li> <li>9. Lack of managerial skills and techniques.</li> <li>10. Difficult adjustment of entrepreneurial culture to new challenges.</li> <li>11. Conflicts between entrepreneurial and personal goals of the owner.</li> <li>12. Extreme emphasis on current business activity.</li> <li>13. Low eagerness for the introduction of more complicated methods of management and production.</li> <li>14. Lack of specialized workers.</li> <li>15. Lack of international experience and credibility in global markets.</li> <li>16. Limited ability for execution of large orders from the customers.</li> <li>17. Expenses for research and development are lower than in larger firms.</li> <li>18. Provision of resources in small quantities, with high cost and moderate quality.</li> <li>19. Low production capacity.</li> </ol>

### 3. Fundamental Problems of SMEs

When large companies face a particular problem they turn either to their large and well equipped R&D departments, or they keep an eye in the research scene looking for new developments of potential benefit. On the other hand, small and medium-sized firms are usually less self sufficient and they tend to rely on their suppliers when they need to solve a particular problem (Woolgar et al., 1997). In order to create a framework on the subject of the fundamental problems that SMEs have to deal with during their activation, a literature review was conducted and the results are presented and categorized in Table 2. The basic problems of SMEs are categorized into two levels (primary and secondary) and next to each category appear the respective references. The aim of this section is to review and categorize the main problems of SMEs, but not to analyze them. For such a purpose, interested readers can turn to the large number of research papers listed in the Reference part of the table.

**Table 2: Categorization of Fundamental Problems of SMEs**

Primary and Secondary Level Categorization	References
<b>1. Administrative Factors</b>	
<b>1a.</b> Owners incompetence <b>1b.</b> Lack of experience and knowledge concerning the business and its products <b>1c.</b> Lack of necessary invested time from administration <b>1d.</b> No acceptance of third party consulting <b>1e.</b> Satisfaction of management with traditional ways of operation and stagnation <b>1f.</b> Contradictory administrative and business goals <b>1g.</b> Misuse of potential international opportunities and activities	Kanellopoulos, 1987; Buckley, 1989; Roth, 1992; Naidu and Prasad, 1994; Campbell, 1996; Winch and McDonald, 1999; Chetty and Campbell-Hunt, 2003; Julien and Ramangalahy, 2003; Go-online, 2004; OECD, 2004.
<b>2. Imperfect and Insufficient Planning</b>	
<b>2a.</b> Difficulty in acquiring information <b>2b.</b> Difficulty in the evaluation of non material innovative activities <b>2c.</b> Uncertainty and difficulty concerning the evaluation of future activities <b>2d.</b> Lack of formal planning and organization of new technologies and products <b>2e.</b> Reduced ability of adjustment in new developments through strategic planning <b>2f.</b> Lack of knowledge or perception regarding site selection and the premises of the company <b>2g.</b> Inability to predict urgent or special financial needs	Reid, 1984; Robinson et al., 1986; Seringhaus, 1987; Buckley, 1989; Christensen, 1991; Roth, 1992; Naidu and Prasad, 1994; Campbell, 1996; Chetty and Campbell-Hunt, 2003; Julien and Ramangalahy, 2003; Go-online, 2004; Lucking, 2004; OECD, 2004.

**Table 2: Categorization of Fundamental Problems of SMEs (continued)**

<b>3. Insufficient Funding</b>	
<p><b>3a.</b> Lack of funds for proper site selection and founding  <b>3b.</b> High administrative expenses  <b>3c.</b> Lack of funds for the correction of some investment mistakes  <b>3d.</b> Difficulty in finding and buying raw materials, since providers tend to prefer larger firms  <b>3e.</b> Difficulty in acquiring long term loans  <b>3f.</b> Low financial credibility of the owner  <b>3g.</b> High operational costs  <b>3h.</b> Low level of sales  <b>3i.</b> High logistic costs  <b>3j.</b> Large number of fixed assets  <b>3k.</b> High interest rates  <b>3l.</b> Difficult access into the banking system  <b>3m.</b> Reduced ability and provision of guarantees towards banks and financial institutions  <b>3n.</b> Inadequate information regarding bank loans and EU funding mechanisms</p>	<p>Robinson et al., 1986; Kanellopoulos, 1987; Buckley, 1989; Christensen, 1991; Roth, 1992; Naidu and Prasad, 1994; Campbell, 1996; Hughes, 1997; Mambula, 2002; Soontiens, 2002; Chetty and Campbell-Hunt, 2003; Go-online, 2004; Lucking, 2004; OECD, 2004.</p>
<b>4. Usage of Old Methods</b>	
<p><b>4a.</b> Lack of modern equipment  <b>4b.</b> Lack of adequate control systems regarding expenses, logistics, and staff  <b>4c.</b> Inadequate information regarding technology and the market  <b>4d.</b> Lack of organized formal planning  <b>4e.</b> Usage of old logistic methods  <b>4f.</b> Inadequate knowledge of modern methods regarding marketing, sales, and advertisement  <b>4g.</b> Lack of differentiation of final products  <b>4h.</b> Limited application of quality insurance methods and programs  <b>4i.</b> Low level development of basic function of management  <b>4j.</b> Lack of cooperation and networking between SMEs  <b>4k.</b> Limited ability of applying modernization programs</p>	<p>Robinson et al., 1986; Kanellopoulos, 1987; Buckley, 1989; Roth, 1992; Naidu and Prasad, 1994; Campbell, 1996; Winch and McDonald, 1999; Mambula, 2002; Chetty and Campbell-Hunt, 2003; Julien and Ramangalahy, 2003; Go-online, 2004; Lucking, 2004.</p>

**Table 2: Categorization of Fundamental Problems of SMEs (continued)**

<b>5. Lack of Specialized Staff</b>	
<p><b>5a.</b> Lack of staff with the appropriate skills  <b>5b.</b> Inability to provide competitive salaries  <b>5c.</b> Inability to delegate authority and responsibilities  <b>5d.</b> Low provision of motives and incentives  <b>5e.</b> Lack of opportunities for professional growth  <b>5f.</b> Existence of multiple responsibilities for the staff  <b>5g.</b> Low level of management skills  <b>5h.</b> Inadequate professional specialization  <b>5i.</b> Low level of training for staff, especially in small firms where training is based solely on practice and experience  <b>5j.</b> Inadequate repetition of training programs  <b>5k.</b> Weak connection between university graduates and SMEs  <b>5l.</b> Low level of consulting services towards SMEs due to lack of support and service centers  <b>5m.</b> Inadequate support of administrative knowledge transition from developed business centers</p>	<p>Kanellopoulos, 1987; Buckley, 1989; Campbell, 1996; Winch and McDonald, 1999; Mambula, 2002; Soontiens, 2002; Chetty and Campbell-Hunt, 2003; Lucking, 2004; OECD, 2004.</p>
<b>6. Lack of Technological Research</b>	
<p><b>6a.</b> Not self sufficient R&amp;D department due to firm size and inadequate financial resources  <b>6b.</b> Low level connection between the educational and research system and the needs of SMEs  <b>6c.</b> Difficult access of SMEs to technological innovation  <b>6d.</b> High maintenance costs for laboratories and specialized scientific staff  <b>6e.</b> Inadequate support of technological knowledge transition from developed business centers</p>	<p>Schumpeter, 1942; Galbraith, 1956; Baldwin and Scott, 1987; Griliches, 1979; Kanellopoulos, 1987; Acs and Audretsch, 1990; Cohen and Klepper, 1991; Scherer, 1991; Cohen and Klepper, 1992; Woolgar et al., 1997; Lucking, 2004; OECD, 2004.</p>
<b>7. Competitive Factors</b>	
<p><b>7a.</b> Manufacturing sector with increasing intensity of competition  <b>7b.</b> Higher organizational and administrative ability of competitors  <b>7c.</b> Opportunistic behavior on the part of suppliers and buyers due to their smaller size and corresponding inability to retaliate  <b>7d.</b> Inability to provide pioneering products and services  <b>7e.</b> Non existence of diversified final products  <b>7f.</b> Inability to create or/and maintain competitive advantage  <b>7g.</b> Inability to find the appropriate market for its products  <b>7h.</b> Limited perception and exploitation of the internationalization and globalization of the market  <b>7i.</b> Less chance to achieve and exploit economies of scale</p>	<p>Gomes-Casseres and Kohn, 1996; Acs and Preston, 1997; Kutschker, 1997; Mambula, 2002; Chetty and Campbell-Hunt, 2003.</p>

**Table 2: Categorization of Fundamental Problems of SMEs (continued)**

<b>8. Complicated Business Environment</b>	
<ul style="list-style-type: none"> <li><b>8a.</b> Excessive environmental bureaucracy</li> <li><b>8b.</b> High level of state intervention</li> <li><b>8c.</b> Corruption of state members</li> <li><b>8d.</b> Complicated legislation</li> <li><b>8e.</b> Rapid environmental changes</li> <li><b>8f.</b> Administrative, environmental, duty, and tax limitations</li> <li><b>8g.</b> Plethora of regulations</li> <li><b>8h.</b> Legislation regarding health and safety of the staff</li> <li><b>8i.</b> Interest and inflation rates</li> <li><b>8j.</b> Fluctuation of exchange rates</li> <li><b>8k.</b> Dangers connected to bank loans</li> <li><b>8l.</b> Inadequate state protection of intellectual property rights</li> <li><b>8m.</b> Different traditions and cultures in the case of the internationalization of the firm</li> </ul>	<p>Buckley, 1989;  Acs and Preston, 1997;  Winch and McDonald, 1999;  Mambula, 2002;  Soontiens, 2002;  Chetty and Campbell-Hunt, 2003.</p>
<b>9. Declining Manufacturing Sector and High Percentage of Early Bankruptcy</b>	
<ul style="list-style-type: none"> <li><b>9a.</b> Entrance and activation in a declining manufacturing sector</li> <li><b>9b.</b> Entrance and activation in a manufacturing sector with low level of growth</li> <li><b>9c.</b> Manufacturing sector with low entry barriers</li> <li><b>9d.</b> Bad management</li> <li><b>9e.</b> High operational costs</li> <li><b>9f.</b> Inadequate collection and payment systems</li> <li><b>9g.</b> Bad site selection</li> <li><b>9h.</b> Competitive weaknesses</li> <li><b>9i.</b> Difficulties and problems regarding logistics</li> <li><b>9j.</b> Large percentage of fixed costs and expenses</li> </ul>	<p>Acs and Preston, 1997;  Kanellopoulos, 1987.</p>

#### **4. The Importance of the Export Strategy**

Export strategy is vital to a country's economic survival and is considered to be a core building block for achieving economic development and growth (Kedia and Chokar, 1986, 33; Soontiens, 2002, 710). In countries with small population there is a further incentive to export in that the domestic market may not provide economies of scale and selling abroad may help (Ramaseshan and Soutar, 1996, 53).

Governments all over the world attribute great importance to exporting because they are aware of the fact that the growth of exporting activity is closely connected to rapid economic development and to the social level of life. Thus, the objective of government policies is twofold, on one hand the growth of the exports volume, and on the other hand the diversification of exporting strategy, not only in relation to exporting products but also in relation to the number of exporting markets. In that way, firms can reduce the level of business uncertainty and danger.

Governments, businessmen, researchers, academics and managers of several developed and developing countries, have already recognized the validity of export strategy by creating extended programs of state support and by forming national strategies oriented to exporting activities (Seringhaus and Botschen, 1991; Dicle and Dicle, 1992; Kotabe and Czinkota, 1992; Seringhaus, 1993).

The significance of export strategy is also evidenced by the extremely large number of research studies that have been conducted on the specific area in international literature (for example, Groke and Kreidle, 1967; Pavord and Bogart, 1975; Bilkey, 1978; McConnel, 1979; Cavusgil, 1984; Cooper and Kleinschmidt, 1985; Cheong and Chong, 1988; Keng and Juana, 1989; Dichtl et al., 1990; Barker and Kaynak, 1992; Calof, 1993; Bijmolt and Zwart, 1994; Ogbuehi and Longfellow, 1994; Kaleka and Katsikeas, 1995; Moini, 1995; Katsikeas and Leonidou, 1996; Leonidou and Katsikeas, 1996; Leonidou, 1998; Julien and Ramangalahy, 2003).

In addition, important evidence consist the large number of managers in firms throughout the world who have selected exporting as the most appropriate strategy of expansion in international markets (Leonidou, 2000, 121). Exporting is the most used and adaptable strategy of internationalization due to a large number of reasons. Some of them are, for example, that exporting promotes the upgrade of technological and quality standards of the firm, it expands the weaponry of the company by adding one more competitive advantage, it creates more profits part of which is being returned to shareholders, it reduces business risk through the export activation of the firm in different markets, it provides a mean of better exploitation of national resources, and it contributes to the improvement of business trade balance (Ramaseshan and Soutar, 1996, 53; Leonidou, 2000, 121).

Companies and organizations are increasingly recognizing the need to export their products and/or services; especially in those cases where supply in the local market is higher than demand for several reasons like the reduction of domestic growth, the expansion of competitive forces in local markets, and the obliteration of some international export barriers. In the same sense, exporting activity provides companies and firms with opportunities for growth, stabilization of demand, and net profits (Ramaseshan and Soutar, 1996, 53).

For these reasons, it is quite clear that exporting strategy is very crucial for the survival and growth of companies and also for strengthening the country's economy. It is of great importance to underline the fact that because of the international instability of foreign markets and of exchange rates, firms are obliged to redefine and pursuit a constant feedback of their export strategy (Sercu and Vanhulle, 1992). Only those firms with long-term managerial commitment, competence and alertness to environmental changes will succeed in the international business arena (Tajzadeh-Namin et al., 1996, 318).

## **5. Basic Elements of Export Strategy Use by SMEs**

Having as a goal the resolution of some important problems, like for example the saturation and the small size of local markets, SMEs choose to adopt an export strategy since a basic advantage is access to new markets and the approach of new customers (Hajidimitriou, 2002, 91). Another important reason, for which SMEs consider exporting as the most appropriate strategy for international expansion, is the low level of required invested capital. This fact solves one of the main problems of SMEs, the existence of limited administrative and financial funds (Nakos and Brouthers, 2002, 48).

Both exporting and SMEs are perceived as very useful and interaction of these core activities in an economy facilitates different dimensions of growth where the positive consequences can be achieved simultaneously (Soontiens, 2002, 710). As a result of competition that emerged with trade liberalization, many SMEs, both exporters and non-exporters, considered exporting an easier option than continuing in the intensely competitive domestic market (Chetty, 1999, 121; Chetty and Campbell-

Hunt, 2003, 6). It is a fact, though, that SMEs not only flourished in the majority of local economies, but also improved their international presence (Acs and Preston, 1997, 2).

Especially for growth oriented SMEs, exporting is a very important strategic choice for achieving constant business development and evolution. Exporting strategy, beyond the increase of sales, the approach of new customers in foreign markets and the need of low investment funds, offers to SMEs a large number of advantages (for interested readers see Recklies, 2001b, 1-2). It has been suggested in international literature that industries with low entry barriers for SMEs are those who offer the greater perspectives for future export growth (Chetty and Hamilton, 1996; Suarez-Ortega, 2003, 403).

On the other hand, and beside the fact that during the period 1995-2005 SMEs have improved their international presence, they still possess a small part of global economy (OECD, 2004, 59). In the context of market globalization, the relatively low level of export involvement by small and medium-sized manufacturing enterprises, and the need to support economic growth through access to foreign markets, are of major concern to both government and researchers (Julien and Ramangalahy, 2003, 227).

Results from research studies on the specific subject of low export involvement of SMEs, revealed that very few of the firms from this category managed to have access to foreign markets (Jaffe et al., 1988; Axinn et al., 1994), even though the majority of the researched firms possessed the operational flexibility to pursue an export strategy (Samiee et al., 1993; Haar and Ortiz-Buonafina, 1995). Also, there is a strong allegation according to which the business sector of SMEs possesses a significant level of dormant and unexplored export potential (Dichtl et al., 1990, 26).

It is clear that information related to the identity of firms with such potential would prove beneficial to public policy makers, entrepreneurs, export-support organizations such as consulting firms, banking institutions, and export intermediaries, and a host of indirect stakeholders such as the labour market and the economy (Morgan, 1997, 69).

## **6. The Exporting Initiation Process of SMEs**

Competition in the international business environment requires harder and more persistent effort by SMEs in local markets (Seringhaus, 1989, 12). Despite the fact that there is ample evidence that small and medium-sized enterprises have improved their international presence, very little is known about the processes by which they participate in the global economy (Acs and Preston, 1997, 2).

Understanding and analysing the process which SMEs use in reaching a decision to implement an export strategy can identify those factors which encourage or hinder the exporting initiation process. Such understanding will enable more firms to think about exporting as an alternative component of their strategy to survive, grow and flourish in today's highly competitive business environment (Tajzadeh-Namin et al., 1996, 317).

For example, Du Pont was a medium-sized industry that produced chemical products in the United States. Du Pont managed to be competitive in the very tough chemical industry because, back in 1978, the managers of the company focused on exporting, when at the same time the value of the US dollar in international markets started to decline. During 1997, the total amount of export sales for Du Pont was 4 billion dollars, 9 percent of the total income of the company. For the year 2003, Du Pont was the 67<sup>th</sup> largest US industrial organization, according to the 500 Fortune

Magazine list, while total income of the company for the same year reached the amount of 27 billion dollars (Ball and McCulloch, 1999, 483; DuPont, 2006).

In most cases, exporting is the best available choice for the internationalization of SMEs (Mittelstaedt et al., 2003, 69). The first step of the exporting process of SMEs is the market selection based on several criteria. Some of them are, for example, the existence of common cultural characteristics, limited psychic distance, low level of competition, access to larger markets, the strategic orientation of the company, the resources of the firm, the experience in choosing foreign markets, and the existence of a network of companies with the same goals.

The next step for SMEs is to choose the export method that suits most their needs and their capabilities (for interested readers see, Hajidimitriou, 2003, 123-150). The choice of the appropriate export method is a very important task for the managers of exporting SMEs, especially after a number of real cases that ended up with significant losses. The fact that there had been a lot of failures in the past, pushed SMEs to learn from their mistakes and to become more cautious, especially regarding the way they choose their distributors and the type of relationship they develop with them. In some cases, it took them 2 to 10 years to develop their own distribution network (Chetty and Campbell-Hunt, 2003, 21).

The last, but not least, stage of exporting initiation process of small and medium-sized enterprises is the restructure of the company in order to achieve a substantial level of change from local to international with exporting orientation (Holzmuller and Kasper, 1991, 57). In local markets, the main reason of SMEs transformation from local to exporting and international is the confrontation of a hostile domestic environment (Chetty and Campbell-Hunt, 2003, 20). This supports Oviatt and McDougall's (1997, 86-88) assertion that such hostile conditions accelerate the pace of SMEs internationalization.

According to Chetty and Campbell-Hunt (2003, 20-21), the export procedure of SMEs and the internationalization from a small country base is both sudden and involves very large scale change. This rapid and large scale change can destabilize the firm because it places enormous pressure on resources and creates managerial challenges. The only feasible way for export managers of SMEs to support internationalization under these conditions is through business networks. They need to realize that they have to collaborate with other firms to obtain resources such as market knowledge, information, technology, and access to distribution networks. By collaborating with others they would be able to achieve international success that they would never succeed on their own. However, managers need to be aware that collaboration not only can facilitate but also hinder the internationalization and export procedure.

Regarding the subject of change from local to international, Recklies (2001b) highlighted the fact that every SME has to understand that international activities do mean more than just finding new customers or suppliers in other countries. The export procedure and the internationalization process of a business involve a profound change. This change requires taking risks, opening up the firm's culture and a great capacity to learn. None of this happens spontaneously but requires planning and clear leadership. Hence, the planning of these internal changes should be part of the planning for international exporting activities.

Despite the fact that planning possesses a very high level of significance, Cavusgil (1990, 155-157) and Suarez-Ortega (2003, 406) underlined the fact that many small and medium-sized companies started the exporting procedure without having carried out much rational analysis or deliberate planning. In a research study

by Robinson et al. (1986, 15), conducted in South Carolina with a sample of 81 retail food companies, the results showed that over 85 percent of the firms studied did not systematically practice strategic planning.

Some other important characteristics of the exporting initiation process of SMEs were revealed from the research study of Julien and Ramangalahy (2003, 241-242), in 346 export manufacturing SMEs in Quebec. More specifically, the study revealed three important characteristics of the export procedure of SMEs: a) the more frequently exporting SMEs use important export-related information sources, the more competitive their export strategy will be, b) the more export competencies exporting SMEs have, the better their competitive strategy will be, and c) the more competitive SMEs' export strategies are, the better they perform.

Campbell (1996, 56-57), after researching 98 small and medium-sized (with less than 100 employees) exporting firms from Ontario, reached to five basic conclusions regarding the subject of exporting initiation process: a) free trade agreements may not exert a large influence on small firms' exporting behavior, b) small Ontario exporters appeared to be making strategic choices about how aggressively they wish to pursue export markets, c) the fundamental issue for SMEs in a free trade environment was where to compete geographically, d) although reactive exporters had more room to expand their sales base through increased exporting, their focus was more on maintaining their current export markets than on expanding into new ones, e) since small firms may not have the internal resources to launch both offensive and defensive strategies and given the influence of internal constraints on the export behavior, the priority for SMEs might best be placed on the defense of their existing markets.

Both Campbell (1996, 57) and Soontiens (2002, 717-718) suggested that governments should create a facility where successful SME exporters, passive exporters and non-exporters can meet, exchange experiences and consider joint ventures in order to increase the SME involvement in exporting and to increase their access to financial and administrative funds. Unless combined and coordinated efforts are made to communicate the potential threat of increased competition, small and medium-sized exporters may find themselves ill-equipped to compete over the long-term.

## **7. Concluding Remarks**

The aim of this paper was to conduct an investigation of the international literature in order: a) to review, categorize, and summarize the fundamental problems that SMEs face during their business activation, and b) to create a solid and cognitive framework on the subject of the exporting initiation process of SMEs.

After a short description of the fundamental characteristics, advantages and disadvantages of SMEs, we presented for the first time a matrix scheme of 9 primary categories of SMEs fundamental problems based on a literature review of related research studies. More specifically, the most important problems that SMEs have to focus their attention and efforts on are administrative factors, imperfect and insufficient planning, insufficient funding, usage of old and over dated methods, lack of specialised staff, lack of technical research, increased competition, existence of complicated business environment, activation in a declining manufacturing sector, and existence of high percentage of early bankruptcy.

Having as a goal the resolution of some fundamental problems, like for example the increased competition and the existence of complicated business environment of local markets, SMEs choose to adopt an export strategy since a basic advantage is access to new markets and the approach of new customers in new business

environments. The importance of export strategy is averred to be true by a large number of factors, but basically is evidenced by the extremely large number of research studies that have been conducted on the specific area in the international business literature.

The exporting initiation process of SMEs consists of three main steps. The first step is the selection of the target-market based on several criteria, like for example the existence of common cultural characteristics, limited psychic distance, low level of competition, access to larger markets, the strategic orientation of the company, the resources of the firm, the experience in choosing foreign markets, and the existence of a network of companies with the same goals. The second step is to choose the export method that suits most their needs and their capabilities, while the third and last step is the restructure of the company in order to achieve a substantial level of change from local to international with exporting orientation.

Beside these three steps, there are some other significant characteristics of the exporting initiation process of SMEs. First, an important element is that hostile domestic environments in local markets lead to an acceleration of the SMEs internationalization pace. It is also important to underline the fact that the export procedure and the internationalization of SMEs from a small country base is both sudden and involves very large scale change which can destabilize the firm because it places enormous pressure on resources and creates managerial challenges. One possible solution for managers of SMEs to support their export procedure is to collaborate and join forces with other firms in order to achieve international success. One more crucial fact is that small and medium-sized companies start the exporting procedure without having carried out much rational analysis or strategic planning.

Some other interesting characteristics are that a) the more frequently exporting SMEs use important export-related information sources, the more competitive their export strategy will be b) the more export competencies exporting SMEs have, the better their competitive strategy will be, and c) the more competitive SMEs' export strategies are, the better they perform.

Finally, of great importance are the findings that free trade agreements may not exert a large influence on small firms' exporting behavior, the fundamental issue for SMEs in a free trade environment is where to compete geographically, the focus of reactive exporters is more on maintaining their current export markets than on expanding into new ones, and the priority for SMEs might best be placed on the defense of their existing markets.

The findings of this paper are assessed and categorized in such a way that will be of hand for a quick reviewing by interested parties. These findings could be of significant usefulness to both government policy makers and top management of non-exporting as well as exporting SMEs. Policy makers could use the findings in formulating policies that aim to motivate SMEs either to initiate exporting activities or to intensify their existing exporting efforts. Entrepreneurs and managers could find them useful in formulating effectively their firm's export initiating procedure and in designing a successful export strategy. It is also suggested that the proposed framework of the exporting initiation process of SMEs can be improved by considering future research contributions.

#### Notes

1. Dr. Yannis Hajidimitriou is Associate Professor at the Department of Business Administration, and Azaria Albertos is PhD Candidate at the Department of Business Administration. Corresponding author: Dr. Yannis Hajidimitriou, University of Macedonia, Egnatia 156, 54006 Thessaloniki, GREECE, Tel. +30-2310-891585 Fax +30-2310-891544, e-mail: hajidim@uom.gr

## References

- Acs, Z.J. and Audretsch, D.B., (1990), *Innovation and Small Firms*, Cambridge, Mass.: MIT Press.
- Acs, Z.J. and Preston, L., (1997), "Small and Medium-Sized Enterprises, Technology, and Globalization: Introduction to a Special Issue on Small and Medium-Sized Enterprises in the Global Economy", *Small Business Economics*, 9(1), 1-6.
- Albers, N. and Kumar, V., (1991), "International Direct Marketing Efforts: Are they Useful to Small Businesses in Establishing Consistent Patterns of Exporting?", *Journal of Direct Marketing*, Autumn, 5(4), 29-38.
- Audretsch, D.B. and Vivarelli, M. (1996), "Firms Size and R&D Spillovers: Evidence from Italy", *Small Business Economics*, 8(3), 249-258.
- Axinn, C.N., Savitt, R., Sinkula, J.M. and Thach, S.V., (1994), "Export Intention, Beliefs and Behaviours in Smaller Industrial Firms", *Journal of Business Research*, 32, 49-55.
- Baldwin, W.L. and Scott, J.T., (1987), *Market Structure and Technological Change*, London: Harwood Academic Publishers.
- Ball, D. and McCulloch, W., (1999), *International Business: The Challenge of Global Competition*, McGraw-Hill, 7<sup>th</sup> Edition.
- Barker, A.T. and Kaynak, E., (1992), "An Empirical Investigation of the Differences Between Initiating and Continuing Exporters", *European Journal of Marketing*, 26(3), 27-36.
- Berry, M., (1998), "Strategic Planning in Small High Tech Companies", *Long Range Planning*, 31(3), 455-466.
- Bijmolt, T.H.A. and Zwart, P., (1994), "The Impact of Internal Factors on the Export Success of Dutch Small and Medium-Sized Firms", *Journal of Small Business Management*, 32(2), 69-83.
- Bilkey, W.J., (1978), "An Attempted Integration of the Literature on the Export Behavior of Firms", *Journal of International Business Studies*, Spring/Summer, 9(1), 33-46.
- Buckley, P.J., (1989), "Foreign Direct Investment by Small and Medium-sized Enterprises: The Theoretical Background", *Small Business Economics*, 1(1), 89-100.
- Calof, J.L., (1993), "The Impact of Size on Internationalization", *Journal of Small Business Management*, 31(4), 60-69.
- Campbell, A.J., (1996), "The Effects of Internal Firm Barriers on the Export Behavior of Small Firms in a Free Trade Environment", *Journal of Small Business Management*, July, 50-58.
- Cavusgil, S.T., (1984), "Organizational Characteristics Associated With Export Activity", *Journal of Management Studies*, 21(1), 3-22.
- Cavusgil, S.T., (1990), "On the Internationalization Process of Firms", in Thorelli, H.B. and Cavusgil, S.T., (eds.), *International Marketing Strategy*, Oxford: Pergamon Press, 147-159.
- Cheong, W.K. and Chong, K.W., (1988), "Export Behaviour of Small Firms in Singapore", *International Small Business Journal*, January-March, 6(2), 34-41.
- Chetty, S.K., (1999), "Dimensions of Internationalization of Manufacturing Firms in the Apparel Industry", *European Journal of Marketing*, 33(1-2), 121-142.
- Chetty, S.K. and Campbell-Hunt, C., (2003), "Explosive International Growth and Problems of Success Amongst Small to Medium-sized Firms", *International Small Business Journal*, 21(1), 5-27.

- Chetty, S.K. and Hamilton, R., (1996), "The Process of Exporting In Owner-controlled Firms", *International Small Business Journal*, 14(3), 12-25.
- Christensen, P.R., (1991), "The Small and Medium-Sized Exporters' Squeeze: Empirical Evidence and Model Reflections", *Entrepreneurship and Regional Development*, 3(1), 49-65.
- Cohen, W.M. and Klepper, S., (1991), "Firm Size versus Diversity in the Achievement of Technological Advance", in Acs, J.Z. and Audretsch, D.B., (eds.) *Innovation and Technological Change: An International Comparison*, Ann Arbor: University of Michigan Press, pp. 182-203.
- Cohen, W.M. and Klepper, S., (1992), "The Tradeoff between Firm Size and Diversity in the Pursuit of Technological Progress", *Small Business Economics*, 4, 1-14.
- Cooper, R.G. and Kleinschmidt, E.J., (1985), "The Impact of Export Strategy on Export Sales Performance", *Journal of International Business Studies*, 16(1), 37-55.
- Dichtl, E., Koeglmayr, H.G. and Mueller, S., (1990), "International Orientation as a Precondition for Export Success", *Journal of International Business Studies*, 21(1), 23-40.
- Dicle, I.A. and Dicle, U., (1992), "Effects of Government Export Policies on Turkish Export Trading Companies", *International Marketing Review*, 9(3), 62-76.
- DuPont (2006), Home Site of Du Pont Corporation, [Site Accessed: 28 January 2006], Available from <http://www.dupont.com>
- Galbraith, J.K., (1956), *American Capitalism: The Concept of Countervailing Power*, Revised Edition, Boston: Houghton Mifflin.
- Go-Online (2004), "Problems of SMEs in Europe", [Site Accessed: December 15, 2004], Available from [http://www.go-online.gr/ebusiness/specials/article.html?article\\_id=3](http://www.go-online.gr/ebusiness/specials/article.html?article_id=3)
- Gomes-Casseres, B. and Kohn, T.O., (1996), "Small Firms in International Competition: A Challenge to Traditional Theory?", in Buckley, P.J. et al. (eds.) *International Technology Transfer by Small and Medium Sized Enterprises: Country Studies*, London: Macmillan.
- Griliches, Z., (1979), "Issues in Assessing the Contribution of R&D to Productivity Growth", *Bell Journal of Economics*, 10, 92-116.
- Groke, P.O. and Kreidle, J.R., (1967), "Export! Why or Why not? Managerial Attitude and Action for Small Sized Business Firms", *Business Society*, Fall, 8, 7-12.
- Haar, J. and Ortiz-Buonafina, M., (1995), "The Internationalization Process and Marketing Activities: The Case of Brazilian Export Firms", *Journal of Business Research*, 32, 175-181.
- Hajidimitriou, Y., (2002). *Introduction to International Business*, Thessaloniki: University of Macedonia Press (in Greek).
- Hajidimitriou, Y., (2003). *International Business*, Thessaloniki: ANIKOULA Press (in Greek).
- Holzmuller, H.H. and Kasper, H., (1991), "On a Theory of Export Performance: Personal and Organizational Determinants of Export Trade Activities Observed in Small and Medium-sized Firms", *Management International Review*, (Special Issue), 31, 54-65.
- Hughes, A., (1997), "Finance for SMEs: A U.K. Perspective", *Small Business Economics*, 9, 151-166.

- Jaffe, E.D., Pasternak, H. and Nebenzahl, I., (1988), "The Export Behaviour of Small Israeli Manufacturers", *Journal of Global Marketing*, 2(2), 27-49.
- Julien, P.A. and Ramangalahy, C., (2003), "Competitive Strategy and Performance of Exporting SMEs: An Empirical Investigation of the Impact of Their Export Information Search and Competencies", *Entrepreneurship Theory and Practice*, Spring, 227-245.
- Kaleka, A. and Katsikeas, C.S., (1995), "Exporting Problems: The Relevance of Export Development", *Journal of Marketing Management*, 5(3), 499-515.
- Kanellopoulos, C.K., (1987), *SMEs Management and Entrepreneurship*, Athens (in Greek).
- Katsikeas, C.S. and Leonidou, L.C., (1996), "Export Market Expansion Strategy: Differences Between Market Concentration and Market Spreading", *Journal of Marketing Management*, 12(1-3), 113-134.
- Kedia, B.L. and Chokar, J., (1986), "Factors Inhibiting Export Performance of Firms: An Empirical Investigation", *Management International Review*, 26(4), 33-43.
- Keng, K.A. and Juan, T.S., (1989), "Differences Between Small and Medium Sized Exporting and Non-exporting Firms: Nature or Nurture?", *International Marketing Review*, 6(4), 27-40.
- Kirchoff, B.A. (1994), *Entrepreneurship and Dynamic Capitalism: The Economics of Business Firm Formation and Growth*, New York, NY, Praegar.
- Kotabe, M. and Czinkota, M.R., (1992), "State Government Promotion of Manufacturing Exports: A Gap Analysis", *Journal of International Business Studies*, 23(4), 637-658.
- Kutschker, M., Baeurle, I. and Schmidt, S., (1997), "International Evolution, International Episodes, and International Epochs – Implications for Managing Internationalization", *Management International Review*, 37(2), 101-124.
- Leonidou, L.C., (1998), "Organizational Determinants of Exporting: Conceptual, Methodological, and Empirical Insights", *Management International Review*, 38(1), 7-52.
- Leonidou, L.C., (2000), "Barriers to Export Management: An Organizational and Internationalization Analysis", *Journal of International Management*, 6(2), 121-148.
- Leonidou, L.C. and Katsikeas, C.S., (1996), "The Export Development Process: An Integrative Review of Empirical Models", *Journal of International Business Studies*, 27(3), 517-551.
- Levy, M., (1998), "SME Flexibility and the Role of Information Systems", *Small Business Economics*, 11(2), 183-196.
- Lucking, B., (2004), *International Comparisons of the Third Community Innovation Survey (CIS3)*, Department of Trade and Industry, Technology-Economics-Statistics-and Evaluation (TESE) Team, October, London.
- Lyles, M.A., Baird, I.S., Orris, J.B. and Kuratko, D.F., (1993), "Formalized Planning in Small Business: Increasing Strategic Choices", *Journal of Small Business Management*, 31(2), 38-50.
- Mambula, C., (2002), "Perceptions of SME Growth Constraints in Nigeria", *Journal of Small Business Management*, 40(1), 58-65.
- McConnel, J.E., (1979), "The Export Decision: An Empirical Study of Firm Behavior", *Economic Geography*, 55(3), 171-183.
- Mittelstaedt, J.D., Harben, G.N. and Ward, W.A., (2003), "How Small Is Too Small? Firm Size as a Barrier to Exporting from the United States", *Journal of Small Business Management*, 41(1), 68-84.

- Moini, A.H., (1995), "An Inquiry Into Successful Exporting: An Empirical Investigation Using a Three-Stage Model", *Journal of Small Business Management*, 33(3), 9-25.
- Morgan, R.E., (1997), "Export Stimuli and Export Barriers: Evidence from Empirical Research Studies", *European Business Review*, 97(2), 68-79.
- Murphy, M., (1999), *SMEs Management*, Athens: Kleidarithmos Publications.
- Naidu, G.M. and Prasad, V.K., (1994), "Predictors of Export Strategy and Performance of Small and Medium Firms", *Journal of Business Research*, 31, 107-115.
- Nakos, G. and Brouthers, K.D., (2002), "Entry Mode Choice of SMEs in Central and Eastern Europe", *Entrepreneurship Theory and Practice*, 27(1), 47-63.
- OECD, (2004), "Fostering the Growth of Innovative and Internationally Competitive SMEs", *2<sup>nd</sup> Ministerial OECD Conference*, Istanbul Ministerial Declaration, Istanbul, Turkey, June 3-5.
- Ogbuehi, A.O. and Longfellow, T.A., (1994), "Perceptions of U.S. Manufacturing SMEs Concerning Exporting: A Comparison Based on Export Experience", *Journal of Small Business Management*, 32(4), 37-47.
- Oviatt, B.M. and McDougall, P.P., (1997), "Challenges for Internationalization Process Theory: The Case of International New Ventures", *Management International Review*, 37(2), 85-99.
- Pavord, W.C. and Bogart, R.G., (1975), "The Dynamics of the Decision to Export", *Akron Business and Economic Review*, Spring, 30, 6-11.
- Ramaseshan, B. and Soutar, G.N., (1996), "Combined Effects on Incentives and Barriers on Firm's Export Decisions", *International Business Review*, February, 5(1), 53-65.
- Rao, S.S., Metts, G. and Monge, C.A.M., (2003), "Electronic Commerce Development in Small and Medium Sized Enterprises: A Stage Model and its Implications", *Business Process Management Journal*, 9(1), 11-32.
- Recklies, D., (2001a), "Small Business – Size as a Chance or Handicap", [Site Accessed: May 16, 2006], Available from <http://www.themanager.org/Knowledgebase/SmallBusiness/index.htm>
- Recklies, D., (2001b), "Impact of Globalization on Small and Medium-Sized Enterprises", [Site Accessed: May 16, 2006], Available from <http://www.themanager.org/Knowledgebase/SmallBusiness/index.htm>
- Reid, S., (1984), "Information Acquisition and Export Entry Decisions in Small Firms", *Journal of Business Research*, 12(2), 141-157.
- Robinson, R.B.Jr., Logan, J.E. and Salem, M.Y., (1986), "Strategic Versus Operational Planning in Small Retail Firms", *American Journal of Small Business*, 10(3), 7-16.
- Roth, K., (1992), "International Configuration and Coordination Archetypes for Medium-Sized Firms in Global Industries", *Journal of International Business Studies*, 23, 533-549.
- Samiee, S., Walters, P.G.P. and Dubois, F.L., (1993), "Exporting as an Innovative Behaviour: An Empirical Investigation", *International Marketing Review*, 10(3), 5-25.
- Scherer, F.M., (1991), "Changing Perspectives on the Firm Size Problem", in Acs, J.Z. and Audretsch, D.B., (eds.) *Innovation and Technological Change: An International Comparison*, Ann Arbor: University of Michigan Press, 24-38.
- Schumpeter, J.A., (1942), *Capitalism, Socialism, and Democracy*, New York: Harper and Row.

- Sercu, P. and Vanhulle, C., (1992), "Exchange Rate Volatility, International Trade, and the Value of Exporting Firms", *Journal of Banking and Finance*, February, 16(1), 155-182.
- Seringhaus, F.H.R., (1987), "The Role of Information Assistance in the Small Firm's Export Involvement", *International Small Business Journal*, 5(2), 26-36.
- Seringhaus, F.H.R., (1989), "Trade Missions in Exporting: State of the Art", *Management International Review*, 29(2), 12.
- Seringhaus, F.H.R., (1993), "Export Promotion in Developing Countries: Status and Prospects", *Journal of Global Marketing*, 6(4), 7-31.
- Seringhaus, F.H.R. and Botschen, G., (1991), "Cross-national Comparison of Export Promotion Services: The Views of Canadian and Australian Companies", *Journal of International Business Studies*, 22(1), 115-133.
- Smeltzer, L.R., Fann, G.L. and Nikolaisen, V.N., (1988), "Environmental Scanning Practices in Small Business", *Journal of Small Business Management*, 26(3), 55-62.
- Soontiens, W., (2002), "Managing International Trade: An Analysis of South African SMEs and Regional Exports", *Management Decision*, 40(7), 710-719.
- Suarez-Ortega, S., (2003), "Export Barriers: Insights from Small and Medium-sized Firms", *International Small Business Journal*, 21(4), 403-419.
- Tajzadeh-Namin, A., Shayan, E. and Gillin, M., (1996), "Barriers to International Trade Between Iran and Australia", *Technovation*, 16(7), 317-325.
- Winch, G. and McDonald, J., (1999), "SMEs in an Environment of Change: Computer-based Tools to Aid Learning and Change Management", *Industrial and Commercial Training*, 31(2), 49-57.
- Woolgar, S., Gomes, P., Vaux, J., Ezingear, J.N. and Grieve, R., (1997), "Abilities and Competencies Required, Particularly by Small Firms, to Identify and Acquire New Technology", *EPSRC Technology Management Initiative*, December, 1-5.