# Chapter 16 The Internationalization of the Space Industry: Anecdotal Evidence from an Italian SME

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#### **ABSTRACT**

Advances in the space industry, with its implications on science, economy and well-being of citizens, is mostly chosen as one of the priority areas for development by developing countries and newly industrialized countries. However, there is already an over-capacity in the global space industry and there are doubts on necessity of additional capacity establishment by developing countries and newly industrialized countries. Drawing on the experience of internationalization of an Italian Small Medium Enterprise, this chapter provides some insights over the challenges experienced by developing countries and newly industrialized countries to attract foreign investments for the establishment of the industry. The study relies on a structured research protocol where primary data was collected from several interviews with the firm and European space agencies.

#### INTRODUCTION

Although many developing countries (DCs) and newly industrialized countries (NICs) are determined in developing space capability, the budget that can be allocated is modest most of the time when compared to the budgets spent by developed countries. The only available market for a newly established space industry of a developing country is the domestic market, however, satisfying

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national needs and competing with international companies are not easy. Although it is generally agreed that the outer space should be used for the benefit of all countries, only a fraction of the countries have the necessary technological capabilities for accessing space (Leloğlu & Kocaoğlan, 2008). The importance of space activities is becoming more and more undeniable (Vecchi & Brennan, 2015). The early exploration of space in the mid-20th century had, in part, a military motivation

however over the last twenty years, in particular with the collapse of the Union of Soviet Socialist Republics (USSR) and the end of the Cold War, the competitive environment has further evolved into a context characterized by a wider variety of actors (Vecchi & Brennan, 2010; Brennan & Vecchi, 2011).

Additionally, the large majority of today hightech applications that are used in everyday life, have their origins in past space-related activities and either became available to the mass market or were destined by national government to civilian operations. The internet communication systems, geo-technologies and satellite imaginary position or the most commonly used satellite navigation system which every day allows millions of people to find the right way in their journeys are just a few examples of the main technological spillovers from the industry. At the same time, this industry, mainly due to the strategic importance that has for national governments worldwide, present some peculiar characteristics, which have been rarely studied by international business scholars (Vecchi & Brennan, 2010; Brennan & Vecchi, 2011; Vecchi & Brennan, 2015).

First, the space industry can be defined as a "hybrid market" - once it was used to be completely dominated by the hegemony of public actors, while in the last couple of decades, as many new actors came along, also many private companies became to have operations completely dedicated to this sector. Nonetheless, public actors still play a crucial role in this sector, as they are in many cases the ones driving space ventures where private investments increasingly tend to play a crucial role (Brennan & Vecchi, 2011). Due to these initiatives, the private sector has become mostly involved by means of prime-contracting activities amongst large multi-national enterprises (MNEs) and sub-contracting very specialized tasks among small-medium enterprises (SMEs).

Second, the space industry represent a viable engine for economic growth. Within this type of industrial settings, which is strongly affected by the important presence of the public actors, many SMEs are operating globally and their presence in the industry has significantly increased over the last 30 years. This greater involvement of SMEs presents a remarkable opportunity for establishing the space industry in developing countries and NICs. Over the same time period, International Business scholars such as Johanson and Vahlne (1977), North (1990) and Carruza (2011), amongst others, developed their main assumptions and formulated a wide array of theories on firms' internationalization processes.

In particular, in recent years the focus in International Business research has been shifted to include two relatively new phenomena. They realized that there was a plethora of SMEs internationalizing their operations without strictly following the processes that were theorized previously (as in the case of the born global approach by Oviatt & McDougall, 1993), and the role of institutional variables as factors influencing the strategic decisions of managers when deciding to enter foreign markets (Makino, Isobe, & Chan, 2004; Dunning & Lundan, 2008; Peng, Sun, Pinkham, & Chen, 2009). Both streams of research are relevant to identify the challenges and the opportunities associated with the internationalization of SMEs within the European space industry. At the European level, the European Space Agency is a major public institution that plays a decisive role in shaping both the market as well as the competition. This organization directs most of the investments related to this industry on the base of specific policies, as agreed by its member states, by so doing defining the nature of market's opportunities in Europe, element which does strongly influence strategic decision-making of those companies which rely on a market seeking strategy (Dunning, 1993) to internationalize.

The aim of this chapter is therefore to investigate the specific challenges and opportunities that are associated with establishing the space sector in developing countries and NICs by drawing on the experience of internationalization of an Italian

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