Pergamon

European Management Journal Vol. 19, No. 5, pp. 560–569, 2001

0263-2373/01 $20.00

PII: S0263-2373(01)00070-6

Great Expectations?: Brazilian Managerial Perceptions on Prospective European High-Technology Joint Ventures

CLAUDIO DE MATTOS, *Leeds University Business School, UK and Universidade Candido Mendes, Rio de Janeiro*
CESAR GONÇALVES NETO, *COPPEAD, Rio de Janeiro*
STUART SANDERSON, *University of Bradford Management Centre*

In this paper the authors examine the views of Brazilian Managing Directors of prospective high-tech joint ventures with European or US firms. It provides insights on the importance of contributions from a typical local (Brazilian) partner firm, as well as from a typical foreign (European or US) partner firm. It also uses a panel of Specialists in order to classify independently two groups of firms: the *most suitable* and the *least suitable* to international joint ventures. Several differences concerning the perceived importance of prospective contributions were identified between the two groups of local firms.

Keywords: Managerial perceptions, Joint ventures, High-technology, Partner contributions, Emerging markets

Introduction

Emerging economies, in particular those associated with large potential customer bases in China, Brazil, India and Mexico are increasing their importance in the global economic environment. In a recent article in this Journal, Govindarajan and Gupta (2000) indicated the increasing importance of large emerging economies such as Brazil, China, India and Mexico in the international economic environment. Such economies are expected to be home to a number of the world's 500 largest enterprises in the next 20 years. Even more striking is their suggestion that during this period the economic centre of gravity of the world will shift towards countries that are currently classified as developing countries. The trend is expected to speed up in coming years due to the fast relative growth of the economy of the developing versus developed countries, and the strategies of firms trying to secure first-mover advantages in emerging markets, benefiting from economies of scale, and locational advantages.

These developments are not limited to low- and medium-technology initiatives as is frequently assumed in the literature on international business, but include a number of areas of high-technology. Emerging economies, in particular in Latin America and in countries in transition, are expected to show strong technology-driven growth (Simos, 2000). In a Survey sponsored by Fleet-Boston Financial, more than 50 per cent of 200 senior multinational executives indicated technology and telecommunications sectors fuelling Latin America's growth over the next four years (cited in America's Network, 2000). Regional groupings of high technology enterprises are expected to attract a large number of these investors in emerging economies, as is the case of Campinas in Brazil (Business Week, 1998).

Biotechnology is one of the areas about which policy makers in these large emerging economies are particularly enthusiastic.

Modern biotechnology, normally associated with genetic engineering, emerges at the end of this century as promoting an unparalleled technological revolution (OTA, 1984; EU White Paper, 1994). Although well advanced in developed countries, this biotechnological revolution has only started to reach emerging economies. Joint ventures may be one way to integrate emerging economies in its development. The use of various forms of co-operation between firms of emerging economies and firms of developed countries, including the **Joint Venture**, can accelerate the process of transfer and adaptation of advances already reached in developed countries, as well as the development of new products and processes. It is particularly important when considering that biotechnology could solve humanity's major problems clearly concentrated in developing countries.

Brazil can be seen as representative of other large emerging economies (China, Mexico, India and Poland) relative to high technology, or biotechnology in particular. Because its legislation was only modified to allow patenting of genetic engineered microorganisms in 1997, Brazil does not have a significant number of alliances in modern biotechnology (Agostinho, 1991). There has been a substantial increase in the inflow of foreign investments in this area since 1997, particularly from large companies such as Monsanto, Hoechst-Schering, Dow Chemical and Du Pont (Chemical Week, 1999, 2000a). Small- and medium-sized enterprises are also expected to benefit from these changes. The recognition of pharmaceutical patents (including biotechnological products) in Brazil is expected to act as an incentive for the internal development of this technology, or its adaptation to the local market (see World Bank, 1998, pp. 26–27). The importance of this Study derives also from the fact that there is very little work in English about Brazilian business, and very few joint ventures in Brazil.

The Biotechnology Sector in Brazil

Intermediary[1] biotechnology in Brazil is well advanced in universities and private and governmental research centres. In modern biotechnology, however, the Brazilian picture is modest (Paes de Carvalho, 1993; Ramalho *et al.*, 1990). Brazil has not been strongly participating in technological development in this field (Vasconcellos *et al.*, 1990, p. 36). Nonetheless, some genetically modified products are expected to reach the market very soon as Brazil and other Latin American countries adjust to changes in patent regulation that affect the biotechnology sector (Cunningham, 1999).

As the world's largest producer of coffee, second largest producer of soya beans, and third largest producer of corn (Chemical Week, 1999; Chemical Week, 2000a,b), Brazil has an enormous potential market for agricultural biotechnology products.

It also has a high potential for growth in other biotechnology areas. According to an estimate by ABRABI (Biotechnology Brazilian Association) the Brazilian market for modern biotechnology products was over US$ 600 million per year in 1992, with an estimated growth to US$ 6 billion by the end of the 1990s, that is a 6 per cent of the projected global market for modern biotechnology in the year 2000 (Paes de Carvalho, 1993). Vasconcellos *et al.* (1990, p. 29) confirm a large potential market by pointing out that the Brazilian market of pharmaceutical products was US$ 2 billion/year (in 1989). Growth potential is large considering that the consumption per capita in a developed country reaches US$ 110/year, and that figure in Brazil is less than US$14/year. This places Brazil as one of the three largest potential markets in the world. According to the same author (p. 35) the market for veterinary products was around US$ 300 million/year (in 1989), the fifth in the world. It is expected that the Brazilian Market for pharmaceutical products will become the 5th or 6th in the world in the 21st century (CODETEC, 1991, p. 67).

Joint Ventures

By examining the gap in technology between developed and emerging economies, and consequent problems of the expansion of technological knowledge, there is a possible answer: co-operation among firms, in general, and, especially international alliances and joint ventures. Alliances are suggested by Lorange and Roos (1993, p.9) as the most promising business strategy of the future. Hennart (1988, p. 361) also acknowledges the increasing importance of international co-operations, in the form of joint ventures. Co-operation opportunities between small and large established firms can be found, according to Shan *et al.* (1994, p. 387), especially in emerging industries. Lorange and Roos (1993, p. 15) also point out that these practices are frequently found in international business strategies of smaller companies. Such co-operative agreements may be used to enter emerging economies' markets as well as to transfer technological knowledge. In their research, Raveed and Renforth (1983, p. 55) support this view, emphasising that multinational executives, local executives, as well as host country government officials agree that in most cases, a joint venture associating a multinational firm and a private local firm, is the best arrangement to establish foreign direct investment for both the multinational and the host country.