

WHAT CONTRIBUTIONS ARE EXPECTED OF HIGH-TECHNOLOGY ALLIANCE PARTNERS IN EMERGING ECONOMIES? AN EXPLORATORY STUDY OF MANAGERIAL PERCEPTIONS IN THE UNITED KINGDOM AND GERMANY¹

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This paper examines the perceptions of British and German Managing Directors, linked to biotechnology, regarding the importance of potential (future) contributions to an alliance in an emerging economy. The case of Brazil is taken as an example. The research is exploratory, based on suggestions of extra contributions that are not yet identified in the literature. The suggestions are tentatively arranged in four categories: market, knowledge/expertise, management attitude, and infrastructure. Through the exploratory and qualitative approach of the study, relevant insights for both academics and practitioners relative to partner selection criteria emerged. Based on these results, new avenues for further investigation are also proposed.

BACKGROUND

Modern biotechnology, normally associated with genetic engineering, emerged at the beginning of the 21st century and is

¹ We are indebted to the comments and suggestions of three referees who carried out a blind refereed process of this paper.

seen as capable of promoting an unparalleled technological revolution for humanity. It has been portrayed as a way to solve humanity's major problems: malnutrition, disease, energy, and pollution, as well as a very promising technology for sustainable development in the 21st century (UK House of Commons 2003, EU White Paper 1994, OTA 1984). As the development of this technology is mostly confined to a few developed countries (Madhok & Osegowitsch 2000, Shan & Song 1997), and humanity's major problems are concentrated in less developed economies, it becomes important to find ways to facilitate the transfer of this knowledge.

COLLABORATIVE AGREEMENTS AND ALLIANCES

By examining the gap in technology between developed and emerging economies, and the consequent problems associated with the expansion of technological knowledge, a possible answer to the problem of knowledge transfer emerges: co-operation among firms and, particularly, the transnational alliance. The use of various forms of collaborative agreements between firms of emerging economies and firms of developed countries, amongst which is the **Transnational Strategic Alliance**² (TSA), can accelerate the process of transfer and adaptation of technological advances already reached in developed countries, as well as the development of new products and processes.

A number of authors acknowledged that the importance of the TSAs has been increasing in the last 15 years (Dunning 1997; Lorange & Roos 1993; Hennart 1988; among others). These

² This study adopts the following definition from Buckley (1996, p. 484): strategic alliances are "inter-firm collaborations over a given economic space and time for the attainment of mutually defined goals." A Transnational Strategic Alliance is a Strategic Alliance between firms based in different countries.

agreements involve not only large established Transnational Corporations (TNCs), but also Small and Medium-Sized Enterprises (SMEs) (Shan, Walker & Kogut 1994). This is also particularly evident in the biotechnology sector. Moreover, Lorange and Roos (1993) point out that these practices are frequently found in the international business strategies of smaller companies. These co-operative agreements may be used to enter emerging economy markets as well as to expand the technological knowledge available to such economies.

The characteristics of the management of the alliance are expected to influence its success (Buckley & Casson 1988). Drawing on this idea, it is assumed in this paper that certain expectations of the executives of the partners' firms, prior to the start of the alliance, will influence, either in a positive or negative way, the future prospects of the partnership.

BIOTECHNOLOGY

Having originated in the United States, and expanded, later, to other developed countries, the biotechnological revolution has only started to reach emerging economies. The use of various forms of co-operation between firms of emerging economies and firms of developed countries, among which is the alliance, 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.

This paper investigates the perception of senior executives of British and German firms regarding potential (future) contributions to a TSA from a typical Brazilian partner firm. Probably because of legislation, only recently modified to allow patenting of genetic engineered micro-organisms (1996), Brazil does not have a significant number of alliances connected to modern biotechnology (see Agostinho 1991). A change is expected in this trend, as the

country integrates the development of this promising scientific area. It is expected that the Brazilian market for pharmaceutical products becomes the fifth or sixth largest in the world in the twenty-first century (CODETEC 1991). 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).

Considering the similarities of Brazil to other emerging economies, the findings of this study may be of use to biotechnology firms operating in or considering commencing operations in those countries, or by firms in emerging economies searching for partners in developed economies.

THE RELEVANT LITERATURE: PARTNERS' POTENTIAL CONTRIBUTIONS

The available literature on partner selection criteria in emerging economies, of which the potential contributions could be seen as a subset, is limited. A few publications contain detailed lists of potential contributions or, using Beamish (1987) terminology, (potential) needs of the partners. These are: Stopford and Wells (1972); Raveed and Renforth (1983); Beamish (1987); Erden (1997); Dong, Buckley and Mirza (1997); De Mattos, Gonçalves Neto and Sanderson (2001); and De Mattos, Sanderson and Ghauri (2002). Two other papers published in Brazil supplement this information, although they do not present lists of contributions: Vasconcelos and Henriques (1988) and Vasconcellos and Waack (1989).

A list of the 18 most relevant contributions from the local economy partners was compiled from the literature. They are commented on below. Please refer to De Mattos and Sanderson

(2000) or De Mattos, Gonçalves Neto and Sanderson (2001) for a more detailed analysis of partner contributions to alliances.

C1. Accessing capital: This may be a contribution from one or all partner firms of the alliance. It is understood as capital originating from either partner's established businesses.

C2. Accessing raw materials: This can also be a contribution from any partner firm. It indicates the capability of the firm to prevail over difficulties of obtaining the necessary raw materials for production lines. These difficulties could be caused by factors such as governmental restrictions, geographic distances, tariffs, previous agreements with suppliers, distribution systems, etc.

C3. Gaining access to general knowledge of the economy, politics, and customs: This item, given the appropriate qualification, may be a contribution either from the local partner or from the foreign partner. Hence, when focusing on the local partner's "knowledge," this refers to the *local* economy, politics, and customs. As pointed out by Vasconcellos and Waack (1989) in their study about the association Vallée-Mérieur, this is an important contribution of the local partner. However, it may be a contribution from the foreign partner, in which case "knowledge" refers to the country where the foreign firm is based. This could prove valuable to the local partner if the TSA plans to export.

C4. Gaining access to knowledge of local finance: This applies to the local partner. It is concerned with raising capital from third parties in the local market. It differs from the item "capital," which is the use of the firm's own capital. Established firms would usually be expected to make this type of contribution to the venture. Having "knowledge of local finance" could be expected in a firm on good terms with banks or development agencies. These situations could occur together or independently.

C5. Guide to important persons in the local scene: This contribution could be expected from the local partner. It includes not only government officials and employees, but also those

connected to research centres and universities. This knowledge in both the political and technical areas could be valuable for the establishment of the alliance.

C6. Avoid political interventions: This is another contribution usually expected from the local partner. The foreign partner's risk of political interventions, such as expropriation, is reduced by the association with a local partner. Moreover, the risk of other interventions, such as price controls or the establishment of governmental firms in the sector, is also reduced.

C7. To attain political advantages: This applies to both the local and the foreign partner. With local partners, this item is associated with "guide to important persons," not encompassing, however, persons in the technical area. As for foreign partners, this contribution is understood as permission *from foreign governments* relative to the use of certain technologies, special tariffs, etc.

C8. To meet governmental (legal) requirements for local ownership: This is confined to the local partner. It is associated with regulations or policies of the host country, such as import substitution, or the commercialisation of certain products, etc. With regard to Brazil, [Vasconcellos and Waack \(1989\)](#) point out that it is easier to receive permission to commercialise or produce pharmaceuticals products when the multinational (foreign firm) has an association with a local firm. Government requirements concerning biotechnological products are included in this factor.

C9. Faster entry into the local market, considering the existing alternatives to the foreign partner: This is a very important contribution from the local partner. It has been used by other authors ([Stopford & Wells 1972](#); [Beamish 1987](#)) in a broad sense. By comparing with other existing entry modes in a foreign market (exporting, licensing, and wholly owned subsidiary), this item's objective is made clearer.

C10. Better access to the local market for goods produced by the alliance than would have been possible with a wholly owned

subsidiary: This is a subset of the previous item. It makes the comparison between the alliance and the establishment of a subsidiary more explicit. Local partner contributions, such as channels of distribution and administrative infrastructure, are also included here.

C11. Better access to the local market for goods produced abroad by the foreign partner: This item is a potential advantage for the foreign partner. Its importance will depend on factors such as established channels of distribution and business infrastructure on the part of the local partner. When modified so as to represent the perspective of the local partner, it shows an easier access to a foreign market for goods produced locally.

C12. Better export opportunities for goods produced by the alliance: This could be perceived as a possible contribution from either partner. Each partner might be able to contribute knowledge of trading in its base country, as well as in other markets in which the firm is already operating. The firms can also be seen as “spring boards” to regional markets (*e.g.*, EU or Mercosur). The local partner can also be essential for raising export incentives from the host government.

C13. Appointing a suitable Managing Director: This can be seen as a potential contribution of the local partner. It is considered that the alliance will benefit with an experienced executive who is used to local practices (see [Vasconcellos & Waack 1989](#); [Beamish 1987](#)). On the other hand, a foreign executive could contribute by introducing up-to-date managerial practices to the venture.

C14. Appointing a suitable marketing manager: This item is similar to the previous one, but concentrating on the marketing position. The knowledge of cultural aspects might be essential for the development of a marketing strategy. In this case, the choice of a local marketing manager could be more sound.

C15. Appointing suitable managers or experts in production, R&D or other technical areas: This is usually perceived as a

contribution of the foreign partner, because it is related to technology. It was pointed out by [Vasconcellos and Waack \(1989\)](#) as an important contribution of the local partner. This is particularly significant when the venture involves technology transfer or product adaptation. It seems reasonable that a qualified team on the reception side would facilitate the process.

C16. Hiring inexpensive labour: This can be seen as a contribution more dependent on the host country conditions than on the local partner firm. [Beamish \(1987\)](#) points out that local partners of an alliance would be able to provide inexpensive labour more easily than a MNE operating with its own subsidiary.

C17. Adopting advanced technology: Surprisingly, this contribution was ignored by [Raveed and Renforth \(1983\)](#) and also by [Stopford and Wells \(1972\)](#). In contrast, both [Beamish \(1987\)](#) and [Vasconcellos and Waack \(1989\)](#) present it as one of the most important contributions of the foreign partner. [Beamish \(1987\)](#) emphasises that the successful transfer of equipment or technology does not guarantee the alliance success. It is also mentioned that firms from developed countries establish ventures with local partners as a way to disseminate their technology to as many markets as possible.

C18. To bring complementary product lines to the venture: This could be a potential future contribution of either partner. It was not tested, however, by any of the studies mentioned. [Stopford and Wells](#) mention it as a suggestion from the executives interviewed. The work of [Vasconcellos and Waack \(1989\)](#) suggests that it is an important contribution from the foreign partner.

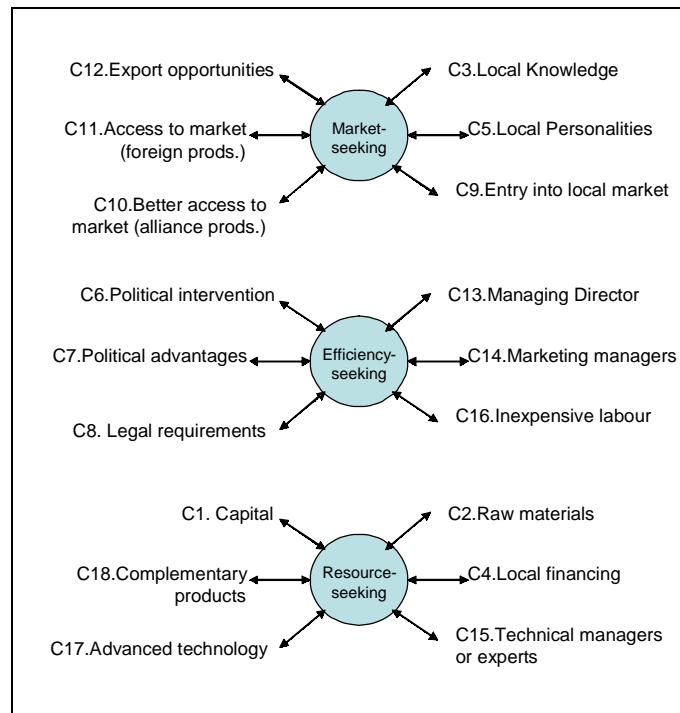
All of the above partner contributions may be aggregated further by using a simple model for categorising FDI motives initially suggested by [Buckley and Mathew \(1980\)](#). The model is shown in [Figure 1](#). The partner contributions taken from the

literature are further categorised as Market-seeking, Efficiency-seeking, and Resource-seeking.

DATA COLLECTION AND METHODOLOGY

The data in this study were collected using questionnaires completed during executive personal semi-structured interviews. In particular, the comments surrounding the contributions from the partner firm of the emerging economy are examined.

Figure 1: Grouping alliance-partner contributions



The data in this study were collected from 55 senior executives, comprising 29 British executives and 26 German executives.³ The firms may be classified as SMEs according to the UNCTAD (1998) classification of a maximum of 500 employees, although the great majority (over 90%) of the firms would be within a stricter limit of 250 employees used by other authors (*e.g.*, Buckley, Newbould & Thurwell 1988, Storey 1994), several had fewer than 15 employees, as is common in small biotechnology firms. The UK firms were located mainly in the South of England, whereas the German firms were contacted in three areas that are known to have a high concentration in the biotechnology sector: Berlin, Düsseldorf, and Munich. The firms were sampled randomly from two directories: Bio Technologie Jahr- und Adressbuch (1996) and Coombs and Alstn (1996). Approximately 65% of the firms contacted by fax and telephone agreed to participate in the survey.

Germany and the UK were selected for this study, because they were considered to be the two most active countries in the European biotechnology sector (Ernst & Young 1995). Brazil was chosen as representing “emerging economies” presenting large potential markets. Moreover, this choice was assisted by the researcher’s existing knowledge of that country, from conducting previous studies of the Brazilian biotechnology sector.

Although this study was exploratory in nature, the interviews were semi-structured in order to better focus on certain points and maximise the collection of information. Specifically in the case of contributions, observations were welcomed when respondents felt it appropriate to comment. The interviews were tape-recorded,

³ “British” and “German” refer here to executives operating respectively in the United Kingdom and Germany. However, the nationalities follow the respective country of operations in the United Kingdom. In Germany, two firms had non-German executives who had nevertheless been living in the country for more than 15 years.

after obtaining prior consent from the interviewees. This method was accompanied by taking hand-written notes during the interview. The language of communication was English. It is worth pointing out that all of the German executives were quite fluent English speakers. After the completion of the interviews, selected sections were transcribed verbatim.

The study began with the list of 18 potential contributions from a typical partner in an emerging economy described above. During the interviews, this list was shown to the respondents. Subsequently, they were asked to suggest other contributions not listed. The data examined in this study were collected by asking the executives being interviewed, after they assigned scores to the specified contributions from the emerging partner firm, whether they would have suggestions of important contributions that were not listed in that section of the survey (refer to the previous section). A qualitative analysis was then carried out and the suggested contributions were divided into four main categories: market, knowledge/expertise, management attitude and infrastructure.

The software NU-DIST [Non-numerical Unstructured Data Indexing Searching and Theorizing] for qualitative analysis was used to define the categories by grouping tentatively associated suggestions of contributions. This is a very basic use of this software. NU-DIST is designed for supporting qualitative analysis of non-numeric and unstructured data. In our analysis, the software facilitated the tentative creation and regrouping of categories. For instance, two executives suggested contributions regarding “intellectual property” and “patents” legislation. Two other executives indicated contributions with regard to “environment” legislation. These two sub-categories were jointly classified as pertaining to “regulatory” procedures, a higher level sub-category. Another executive introduced the need for support over regulations in general. The suggestion was also counted in the same sub-

category “regulatory.” A further category encompassing “regulatory” was then created as “legislation” (another executive’s suggestion was made at this higher level), which was located under the more general umbrella of the category “knowledge/expertise.” Finally, all of the suggestions under the category “knowledge/expertise” and its various levels of sub-categories were organised as a “tree” of contributions.

Furthermore, all suggestions were considered, regardless of their frequency of occurrence. This reflects the belief that important factors could emerge based on the executives’ experience, or their serendipity. Nevertheless, the respective frequency of responses and the aggregated time respondents spent explaining each category were computed as an indirect indication of the importance of each category (please refer to [Table 1](#)).

Table 1: Frequency and timing of responses: results per category of alliance-partner extra contributions

	Category	Frequency of responses	Time duration of explanations re extra contributions
1	Market	15 (41%)	7 mins. 09 secs. (54%)
2	Knowledge/expertise	13(36%)	3 mins. 17 secs. (25%)
3	Management attitude	6(17%)	2 mins. 28 secs. (18.5%)
4	Infrastructure	2(5%)	20 secs (2.5%)
	Total	36(100%)	13 mins. 14 secs (100%)

In order to assure the validity and reliability of the analysis, as well as to avoid bias, the following was considered. First, the categories arrived at were verified by two other colleagues, both different cultural backgrounds in terms of nationality. Second, direct quotations from the executives interviewed were used in the text, providing the reader with first-hand information, from which it is possible to verify conclusions of the analysis. Third, the findings were compared with those in the literature. This should raise the internal validity of the study (Eisenhardt 1989).

Buckley and Chapman (1996b) note the difficulties connected to language in comparative research. In this study, these difficulties are minimised, in that, first, most of the literature used in connection to partners' contributions is in English; second, the biotechnology sector, perhaps because it has its origin in the US, could be said to have English as its "official" language.

Differences between quantitative (positivist) and qualitative (interpretative, ethnographic, naturalistic, humanistic, phenomenological, etc.) research methodologies have attracted a growing number of social scientists whose findings are related to international business (e.g., Marschan-Piekkari & Welch 2004, Buckley & Chapman 1996a and 1996b, D'Iribarne 1997, Guba & Lincoln 1998, McCracken 1988, Miles & Huberman 1994, Usunier 1998, and Yin 1994). The researcher should try to identify the most suitable method according to the objectives of the project, as well as the constraints relative to the data or topic. In our case, a qualitative method was an obvious choice, because the focus of the study was the identification of those partners' contributions that were not found previously in the literature. In other words, a quantitative survey would be less suitable in this case, because the categories of contributions were not known prior to the research. Moreover, qualitative methods may be used to gain deeper understanding about already well studied topics (Strauss & Corbin 1990). The focus of our study, alliance partners' contributions, may

be seen as having already drawn the attention of a number of researchers, and therefore our effort may be seen as an attempt to gain a better understanding of the topic.

DATA ANALYSIS AND DISCUSSION

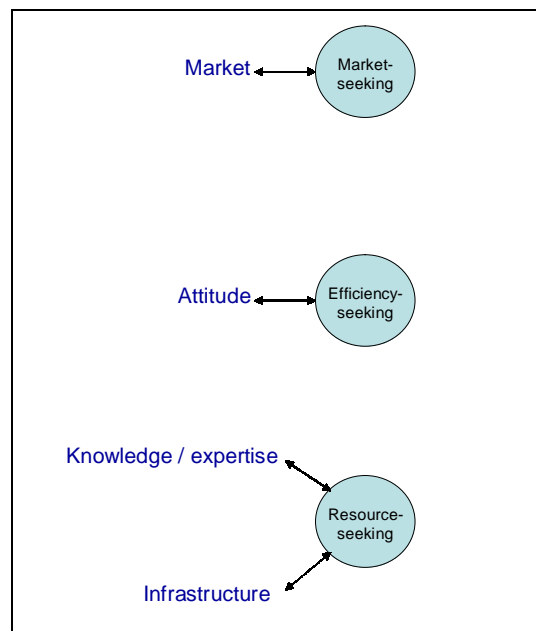
Twenty-seven out of 55 European executives volunteered a total of 36 suggestions of extra contributions. These were grouped into four categories, indicating their main focus, namely: market, knowledge/expertise, management attitude, and infrastructure. The majority of the suggestions referred to the market (41%), followed very closely by concerns related to knowledge/expertise (36%) in certain areas (there is an overlap between these two categories). The third general category of suggestions showed a concern for management attitude (17%) of the partner (connected particularly to the attitude of the senior management).

Finally, there were two suggestions of contributions from the emerging economy partner firm pertaining to infrastructure. By using the categories presented in [Figure 1](#), it is possible to note the following. Besides the obvious link of market with *market-seeking*, it would seem that both “knowledge/expertise” and “infrastructure” could be associated with *resource-seeking*. The remaining category, “management attitude,” could be interpreted as a missing dimension relative to *efficiency-seeking* (see [Figure 2](#)). The relative importance is evinced not only by the frequency of responses, but also by how long the suggestions of extra contributions were discussed (please refer to [Table 1](#)).

With regard to the frequency of suggestions per category, there were no significant differences between German and British respondents. For instance, for the category “market,” there were exactly seven suggestions coming from executives of each nationality, whereas in the category “knowledge/expertise,” there were six suggestions from British executives against five from

German executives. The differences in time duration of the explanations are more conspicuous. With the category “market,” the aggregate time duration of explanations of British executives was approximately three times that of German executives. In the case of “knowledge/expertise,” the difference between the timing of British executives and German executives rises to over four times.

Figure 2: Categorising extra contributions



In the “market” category, the majority of respondents’ answers present connections to listed contributions regarding both the local

market (C9,C10,C11),⁴ and the export market (C12).⁵ The latter referred particularly to the *regional* export market, represented to a great extent by Mercosur,⁶ or, as explained by a British executive,

*You need to be able to have a system in place whereby once you made these goods you can get them out of the country, [in] to the country you want to export them to.*⁷

Most suggestions may be seen as factors leading to or affecting a certain listed contribution, or, in other words, factors that could influence positively towards the attainment of a listed contribution. For instance, three respondents indicated concern for a “*distribution network*” on the part of the emerging partner firm. Using the words of two German executives,

Brazil is a very huge country and it would be good if he [the partner] would have people in different cities, [a large distribution net]

and

It is not too much said about [...] distribution.

This is a factor leading to the feasibility of a “faster entry into the local market” (C9), which is a contribution listed on the survey. A “*well structured sales system*,” based on a “*network of clients*” with efficient procedures for retrieving “*technical feedback from users*” can also be interpreted as factors connected to the same final expectations as listed by the contributions linked to the

⁴ C9: “Faster entry into the local market, considering the existing alternatives to the foreign partner.”

C10: “Better access to the local market for goods produced by the alliance than would have been possible with a wholly owned subsidiary.”

C11: “Better access to the local market for goods produced abroad by the foreign partner.”

⁵ C12: “Better export opportunities for goods produced by the alliance.”

⁶ Mercosur comprises Brazil, Argentina, Uruguay and Paraguay, enlarged by Chile and Bolivia (associates).

⁷ In this section, expressions in *italics* are taken directly from the verbatim transcription of the interviews.

market. Or, as explained by one of the German respondents regarding feedback from customers,

We get some information about our product, its usage, its technology [...]. The client will say [how] you can change something, [and/or how] you can improve something. If you use the product you get more information ... and if we have some new information [...]. Yes, it is very important.

Moreover, a number of suggestions strengthen the idea that having access to “key people” in the biotechnology scientific community is important. Or, as one British executive puts it,

Within an industry like we are in no one person holds the keys to all the doors; it is a combination, you know, you’ve got to have a whole balance of people to produce a (new) product, to produce (new) technology, etc.

Or,

You would hope that through that company and your presence therefore in the market place you can access the pool of talent which is resident in Universities, [...] I mean any type of Research Institute, obviously to your benefit.

These contacts would be used as part of sales or marketing strategies. Likewise, this may be seen as interrelated with the listed contribution “guide to important persons in the local scene” (C5). This contribution was defined as comprising key people both in the scientific scene and in the political scene. The fact that several respondents emphasised the importance of the former as opposed to the latter indicates the need to separate it into two contributions.

This idea of a breakdown of activities that would lead to an expected good performance in a certain area, *e.g.*, a distribution network facilitating “faster entry into the local market,” strengthens the notion of partnering as a relationship creation process (Millson, Raj & Wilemon 1996) and points towards the natural progression of actions to be carried out by the executives involved. This process starts by identifying potential alliance partners. At this

stage, the executive would probably have more vague expectations, which later would naturally become more specific expectations. In considering this setting, at least two possibilities may be pointed out. On the one hand, it could be seen positively: thus, executives having previous experience with similar problems would be thinking ahead on the process. They would already be at the stage when there is a need for those more specific factors. On the other hand, and here it could be seen as a negative perspective, it would be the product of his previous knowledge of the firm's weak points, and the effort to compensate for them. It seems reasonable to assume that this could cause a distortion in the manager's perception of a range of necessary factors connected to the attainment of a more general objective. The executive would focus on whatever factor is a weak point of the firm, disregarding other necessary factors, *e.g.*, focusing on the "distribution network" and disregarding "*information about customers*," which would also be a factor leading to the same end result, that is, a "faster entry into the local market." This would influence the executive's ability to assess the suitability of a prospective partner.

"*Potential of the [emerging economy] market*," a suggestion from another executive, does not follow the same reasoning. It is a contribution that any partner from a specific emerging economy would bring to the partnership. In a way, it places itself at a more general level than the listed contributions. Another suggestion of expected contributions was "*incentives*," both from the emerging economy's government and from the regional government (here assuming Mercosur as a supranational regional entity). Or, directly quoting an interviewee,

Anywhere where you get a financial advantage for doing something, then you will be looking at doing it. Even manufacturing – if you can manufacture in one place at less cost than you can manufacture in another place, you have to

look at it. Yes. So this idea of capital and subsidies actually I think [is] pretty important.

Again, in most cases, one would expect that any partner operating in that economy would be able to bring this contribution. Therefore, although seemingly important, this contribution would not be expected to influence the choice of a partner.

A number of suggestions categorised under “knowledge/expertise” showed a concern for legislation expertise and assistance or, as one executive explains,

In terms of the areas that we are working in now, control is crucial [...], [for example] knowledge of the legislation [...] being applied [in these areas].

It was the intention of the researcher to ensure that respondents understood the meaning of the original 18 categories (and explanations were often necessary during the interview). However, under the contribution “to meet governmental requirements for local ownership” (C8), judging by the number of executives mentioning it (approximately 50% of the suggestions referring to knowledge/expertise), this could be seen as particularly important to the biotechnology area, overriding all other concerns around the more general idea of meeting government requirement for local ownership. These comments could be organised into two categories: (1) regulatory support in regard to patenting or, quoting a British executive,

Assistance with patents would be important. I mean it might be included in these [previous] questions [or list of contributions] but patents are very important for companies

(2) regulatory assistance in regard to environmental laws. The latter would meet, particularly, the interests of firms dealing with environment (which is a small percentage of the biotechnology firms in our sample).

“Communications” was another contribution pointed out under knowledge/expertise. Or, quoting an executive,

You have an alliance in the country you must be able to have good communications with them.

It should be noted that this contribution might be more important in some emerging economies than in others. This suggestion was made in regard to language skills (in this case, surprisingly, English was pointed out as the desirable language by a German executive), and of the available communication technology in the particular country.

A concern for the “management attitude” of the partner was shown by both British and German executives. Notions of “trust,” cited by three respondents, are intrinsically connected to the time duration of the relationship. Illustrating it through quotes from two executives we have:

Trust is one of the most important [contributions of the local partner]

and

[...] and so I think the base of trust between the companies probably based on the trust between the management of both companies is very important.

Trust may be seen as the result of the mutual fulfilment of arrangements between partners or the observation of those actions by spectators (which would strengthen the actors’ reputations) (Buckley & Casson 1988). In both cases, it would take place during a certain period of time. In our case, it is assumed that the developed country partner firm would not have much exposure to the relevant emerging economy, *i.e.*, the Brazilian economy. Thus, in considering the expected contributions from an emerging economy partner firm at an early stage in the partnership process (consideration of the possible strategies to enter a market and the selection of a partner), it does not seem to be something to be expected. In fact this “a priori” expectation of trust in the partner could lead to a higher disposition to the arrangement’s failure (Buckley & Casson 1988).

Similar comments could be made regarding “commitment,” another mentioned possible contribution from the emerging economy partner firm. Moreover, around both ideas (trust and commitment), Buckley and Casson (1988) point out the value of providing a series of decision-making opportunities where the parties could be exposed to conflicts between their own interests and those of their partner. In addition, joint R&D, which could be seen as the expected outcome after a series of less complex arrangements between two biotechnology partners, would depend on the sharing of ideas, and could lead to the sharing of values (Buckley & Casson 1988).

Another contribution listed is the concern with the partners’ product quality implied by the comment, “*quality should be trustworthy.*” It has been noted (Buckley & Casson 1988) that quality uncertainty could result in both partners reciprocally opening up their operations “after a certain degree of trust has been attained,” and in consequence establishing a natural route for the progression of their relationship.

Another interesting suggestion within this group was having the “*same equal partnership – no one in the leadership.*” The capability of sharing leadership will probably depend on characteristics of the executive in charge of the negotiation and implementation of the arrangement. To the extent that this contribution depends on assessment over time, it falls into a similar pattern as trust and commitment. Only a sequence of events or conflicts between the partners will provide opportunities for reciprocal assessment.

Finally, two suggestions dealing with stability and credibility may be assessed more easily by means of the partner firm’s recent history, through its capability of formalising a business plan, and by its financial references (*e.g.*, bank references). Or, as one German executive expands the later idea,

I think [that] for a small biotech company getting into a market involves lots of money, is a very expensive item. The financial security of the deal is extremely important. As you probably know, it is extremely difficult if there are any disputes on the quality of the material or on payment, once you are outside your own country, even in Europe legal follow-up gets extremely expensive. [...] dealing say with Italian customers it has nothing to do with the fact [that] you are Italian it has to do with the payment morale... basically you can wait years to be paid. And we have to pay within 20 days so we have to have some sort of compromise because even if we get the payment fully if we have to wait years for our money, we [become] bankrupt.

As mentioned earlier, two suggestions were categorised as “infrastructure.” One of these refers to the availability of raw materials, which was listed on the survey. Although it does not apply to many biotechnology areas, the mention of specific raw materials calls our attention to its importance to some firms, particularly those working in some niche (*e.g.*, certain veterinary products) where the necessary raw materials are non-existent, as a result either of regulations or of practices in their home (developed) countries.

The other suggestion is connected to the provision of infrastructure for expatriate managers (*e.g.*, schools for children in their native language) or, quoting a respondent,

And, of course, infrastructure for the people (employees and families) who are working [with the company,] [such as] school, education.

Although this provision of infrastructure has not been mentioned in the literature as a possible contribution from the emerging economy partner firm, it could nevertheless be important, especially in the case of small- and medium-sized firms, as the reduced number of experienced executives available would

influence considerations of a prospective partner. In this regard, [Bower and Whittaker \(1993\)](#), in studying biotechnology SMEs in the UK, affirm that all firms had taken full advantage of the attractiveness of living and working in places which offer “quality of life.” In addition, it has been said ([Schneider & Barsoux 1997](#)) that the idea of an international executive stereotype whose attachment to the company’s interests prevail over his or her country or family does not reflect reality.

SUMMARY AND CONCLUSION

The extra suggestions of contributions were classified into four categories: market, knowledge/expertise, management attitude, and infrastructure. Most of the suggestions fell within the categories “market” and “knowledge/expertise.” These could usually be linked to the attainment of a certain listed contribution. Moreover, better definitions of a certain listed contribution were considered (*e.g.*, separating important personalities in the scientific scene from those of the political scene). A concern for the partner’s management attitude was also shown. The notion of trust and commitment was strongly associated to it. Finally, a contribution merged that could have importance, particularly when considering the limited personnel availability of small- and medium-sized companies: the infrastructure provided to expatriate executives (*e.g.*, schools for children in their native language). It seems reasonable to assume that the possibility of maintaining the same “quality of life” as in their home country could make executives and scientists more enthusiastic about becoming expatriates, at least temporarily, thus promoting alliances.

This study suggests that there are some contributions that could be expected from potential partners in emerging economies but that have not yet received much attention from researchers. These contributions may influence decision-makers to select a

partner in an emerging economy market. This research is exploratory in nature and has been designed primarily to help generate research topics for future research. It would be interesting, for instance, to make a breakdown of a general contribution into smaller, associated contributions. These associated contributions would lead the way towards the attainment of the respective general contribution.

Although trust and commitment have been the subject of recent studies, they would seem of particular importance concerning emerging economies. Country or culture specific studies on both trust and commitment regarding alliances should expand this knowledge.

Furthermore, the “quality of life” that an expatriate manager or scientist perceives in a specific country or region seems to be important in the decision of entry in that market. This could be of utmost importance to high-technology ventures that are dependent on state-of-art knowledge from a few key scientists. This is interesting from a policy standpoint: is this a way to attract more foreign scientists?

One way to explain the distribution of suggestions over the four categories could be associated to the influence of the intensity of reflection the executives have dedicated to the idea of targeting an emerging economy. It would seem that, if a venture in an emerging market is still a remote possibility, the executive would initially be motivated by the most obvious factor, the market. At a later stage, after some reflection he or she would be concerned with difficulties in acquiring knowledge of the region. Next, the management attitude of indigenous potential partners or personnel would become an issue of importance. Finally, specific aspects of infrastructure and “quality of life” would be considered. This idea could be explored as a model of increasing commitment on the part of the executive. Moreover, the interconnection or synergy of certain contributions could also be explored further.

This study is expected to summon up efforts for the development of links between biotechnology firms in developed countries and their counterparts in emerging economies.

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