CHALLENGES FACING INDUSTRIAL EXPORTS AMONG SMALL AND MEDIUM-SIZED FIRMS

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1 INTRODUCTION

The purpose of this communication is to understand the main challenges faced by small and medium-sized firms (SMFs) in attempting to increase their share of the Brazilian exports. The relevance of this topic is explained by the growing importance that Brazilian exports have assumed in the economic performance of the country since 2002. Several factors have contributed to this situation, including the alteration of the exchange rate in 1999, the expansion in world trade and the rise in commodity prices. Besides these aspects, a number of internal actions have played a role in the trajectory of exports, such as the structural reforms of the 1990s, the conquest of new markets and the diversification of destinations, accompanied by programmes and measures intended to stimulate the export sector like the programmes of the *Agência de Promoção das Exportações* – APEX (Exports Promotion Agency) , aimed mainly at micro, small and medium-sized firms, and the Kandir Law, which exempts primary and semi-elaborated products from both the Tax on Industrial Products and the Tax on the Circulation of Goods and Services.

The result has been a level of dynamism in exports significantly greater than both the growth in the Gross Domestic Product (GDP) and industrial performance. While between 1996 and 2004 the annual average growth in exports was 8.4%, according to the *Fundação de Comércio Exterior* – Foreign Trade Foundation -, the GDP increased at a rate

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of 2.2% per year according to the *Instituto Brasileiro de Estatísticas* – Brazilian Institute of Statistics – and industrial production at 2.4% per year, according to the monthly industrial survey of the same institute. In the period 2000-2004 the export push is even more evident: Foreign sales grew at an annual average rate of 15%, against an annual average expansion of GDP of 2.6%.

However, despite there having been a generalised expansion of exports with growth in the number of firms of all sizes participating in foreign trade, the small industrial firms have achieved the same performance as the medium-sized and large firms. In fact, small firms account for only 5% of the total exported in 2004, and a mere 13% of the total industrial revenue and in the value of industrial transformation, though the number of people they employ is significant (37.5%). These results contrast with the positive results obtained by various small firms, acting in other countries in the industrial export trade, which are organised into export consortia. In Italy, for example, small and medium-sized firms have a significant share of the international trade: 75% of exports of that country made by small and medium-sized firms, around US$ 250 billion, of which, 20% is exported by consortia.

Given this background, the aim of this communication is to better understand the challenges facing small industrial firms in Brazil in achieving a more positive performance in foreign trade. The present article is divided into three sections, as well as the introduction and conclusion. The first section presents the differentiated performance among the large, medium-sized and small Brazilian industrial firms between 1996 and 2004, through an analysis of a basic index, which compares the value of exports with the proportion of the revenue of industrial firms. The second section identifies the factors relating to success and failure in international and national experiences in exporting among small industrial firms. Based on the identification of these factors, the third section analyses the difficulties faced by the small industrial firms by analysing two export consortia - cotton in Campo Grande, in Paraiba, and lingerie in Nova Friburgo, Rio de Janeiro.

The differentiated performance of small industrial firms in foreign trade

A recent study by IGBE (2006) assessed the differentiated performance among industrial firms by size. The indicator used the coefficient of exports (participation of exports in the total earnings of the firm) for the years 1996, 2000 and 2004. The differences in performance are referred to the comparison with the general industrial indicator. Categories indicating the intensity of export activity were used (high, medium-high, medium-low and low) and the firms segmented by size into small (5 to 99 employees), medium-sized (100 to 499) and large (more than 500 employees). This information is contained in Table 1.

Table 1 – Coefficient of Exports, by size, according to category - 1996-2004

Category	Coefficient of exports by size (%)		
	Small	Medium-sized	Large
1996			
High	12.2	34.8	36.9
Medium-High	4.8	8.8	14.3
Industry-General	3.6	9.4	13.3
Medium-Low	3.2	6.2	9.6
Low	1.0	2.3	2.8
2000			
High	19.4	37.3	46.0
Medium-High	6.3	12.1	21.0
Industry-General	5.1	11.5	18.0
Medium-Low	5.1	10.2	12.2
Low	1.3	4.3	4.1
2004			
High	25.4	33.1	42.7
Medium-High	13.3	14.5	30.7
Industry-General	8.6	13.5	24.8
Medium-Low	7.7	12.8	17.9
Low	2.9	6.0	5.5

Source IBGE, 2006

An increase can be seen in the average coefficient of industrial exports in general between 1996 and 2004 for all the sizes of firms considered, with particular emphasis on the small firms with 138.9% With regard the categories, an increase was registered in the coefficient in the exports of small and large industrial firms in the four categories considered, while the small firms more than doubled these indicators. It can also be highlighted that the small firms showed the lowest coefficients in all the analysed categories in 2004: high (25.4%), medium-high (13.3), medium-low (7.7) and low (2.9).

Table 2 contains a synthesis of the variables analysed by the size of the firm. A clear tendency can be seen towards an increasing concentration of the share large firms in the total value of exports: 74.1% in 1996, 76.4% in 2000 and 80.8% in 2004. In column 5 (value of industrial transformation) it can be seen that this concentration in exports is greater than the value of industrial transformation of these same firms. The tendency observed in relation to the medium-sized firms was a fall in the share of exports (de 20.7% in 1996 to 13.7% in 2000) and among the small firms the maintenance of their share (from 5.2 to 5.4% between 1996 and 2004).

Table 2 – Synthesis of the indicators according to the size of firm - 1996/2004

Size of the firms	Total exports	Nr of Exporting firms	Industrial Revenue	Value of Industrial Trans. (4)	Personnel Occupied (5)	Total Wages (6)	Expenditure on personnel /
1996							
Total	**100.00**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**20.3**
Small	5.2	53.0	15.6	14.7	33.6	18.4	22.3
Medium-sized	20.7	33.7	23.9	23.2	25.4	24.3	20.3
Large	74.1	13.3	60.5	62.1	40.9	57.3	19.8
2000							
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**14.4**
Small	5.1	59.8	14.8	13.3	38.2	21.4	19.1
Medium-sized	18.4	30.0	23.2	20.6	24.8	24.0	15.1
Large	76.4	10.2	62.0	66.1	36.9	54.6	13.1
2004							
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**12.0**
Small	5.4	60.4	12.9	12.1	37.5	21.1	17.3
Medium-sized	13.7	29.0	20.8	18.4	22.6	21.6	12.8
Large	80.8	10.7	66.4	69.4	39.9	57.3	10.7

Source: IBGE, 2006

In relation to the number of exporting firms, Table 2 shows that the small firms are in greater number and continued increasing their relative participation between 1996 and 2004 of 53% to 60.4%. The number of medium-sized firms exporting fell from 33.7% to 29% and the large firms, after a reduction in the number of exporting firms between 1996 and 2000 from 13.3% to 10.2%, settled at around 10.7% in 2004. Once again, these figures reinforce the tendency towards concentration of exports around the large firms in detriment to the small and medium-sized firms, as former, despite the reduction in the number of firms participating in exports, increased their participation, not only in industrial revenue/earnings for 60% to 66.4% between 1996 and 2004, but also in the value of the industrial transformation from 62.1% to 69.4%.

They also show a relative loss among the small firms in relation to others with regard the variables, industrial revenues and value of industrial transformation. On the other hand, they gained share in the total of people occupied and in total wages between 1996 and 2004, from 33.6% to 37.5% and from 18.4% to 21.1% respectively. The last column shows a proxy indicator of cost of work (relation of personnel costs/industrial revenue). The general tendency is of a reduction over the three years of the study for all sizes, although, the reduction is influenced by the size of the firm: while the small firms experienced a reduction of around 5 percentage points, the medium-sized firms saw a reduction of 8 percentage points and the large firms 9. Considering that this indicator is a good representative of competitiveness, it can be inferred that the larger the firm the greater the competitiveness in terms of labour costs.

In summary, the small firms, despite increasing their relative share in terms of the number of firms did not manage to obtain an increase in the share of industrial exports, in contrast to the large firms that, while seeing a reduction in the number of exporting firms, gained relative share in the value of exports. The competitiveness indicator shown suggests the improvement is related the greater productivity of the large firms in terms of labour costs. Below, based on analysis of the literature, other possible explanations for this phenomenon are presented.

Identification of the Factors for Success and Failure in the Exporting Dynamic.

Aguiar (2006) studied 17 articles in which the main objective was to identify the variables that can explain the exporting performance of firms. In general these factors are divided into environmental factors and internal factors of the firms themselves. The former refer to the macro-economic social, physical, cultural and political aspects and are beyond the control of the firms. The internal factors are related to the business environment and the characteristics of the firms, competencies and strategies, mainly those involving participation in the international market and the marketing mix strategy of each firm. Among these internal factors, five studies identified the pro-active attitude of the firms and their management as an important explanatory variable. The other factors identified, which appear in at most two articles, are: exports to various countries, previous experience of acting in the international market, availability of finance for the exporting activity, a marketing mix strategy, and close relationship with the distribution channel.

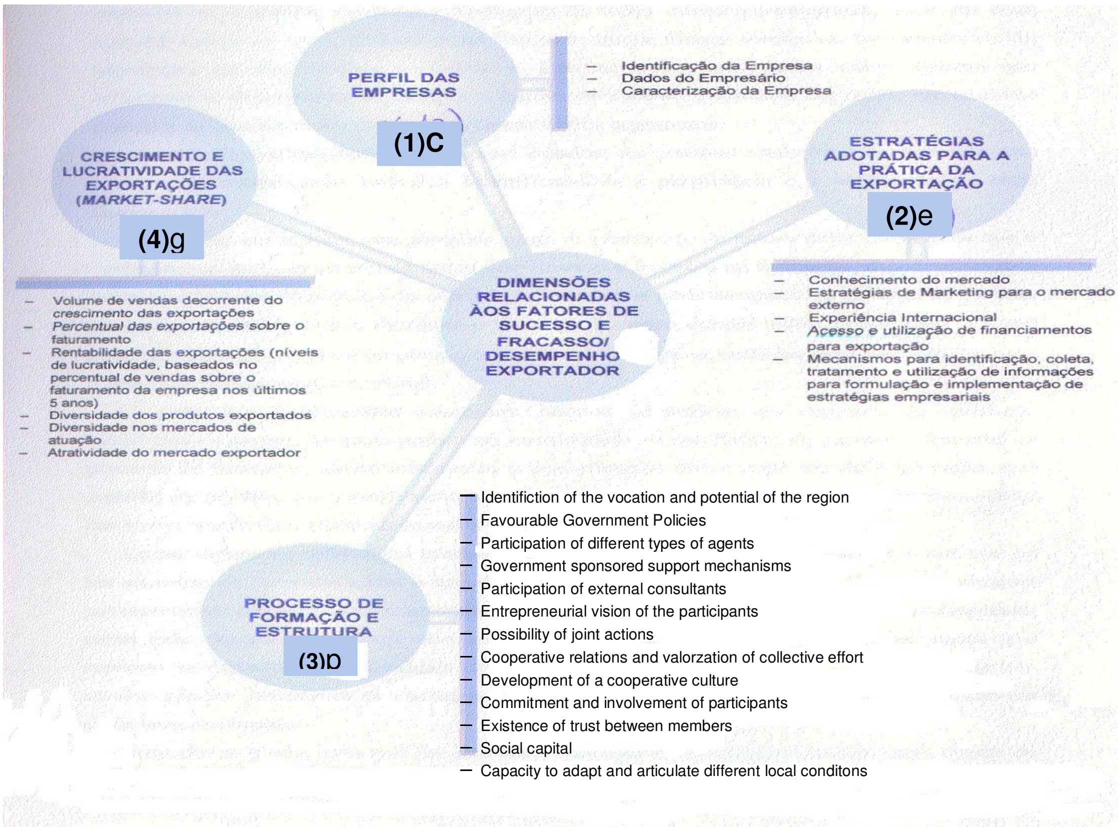
Arbache and Negri (2002), in turn, found that the export performance of Brazilian firms is directly linked to the following variables:

scale of production, technology and the importance of education. These are the main variables explaining the positive entry of firms into international trade and in all these variables the large firms have advantages over the SMFS (La Rovere, 1998).

Aguiar (2006) also made a review of 10 studies in order to identify the most important factors influencing success and failure in the formation and development of export consortia. Among the factors highlighted in nine of the ten studies reviewed are: mutual trust, decision sharing, cooperation and joint actions. External support, such as training, participation in trade fairs, access to credit, government incentives, the support of research institutions and trade associations are also common. Some studies also cite the previous experience of firms in export activities and the need for the firms to adapt technologically and in terms of quality to the demands of the international market. Among the factors leading to failure, the most cited in the studies were mistrust and the individualism of the actors within the consortium (these factors appear in nine of the ten studies). The others are: heterogeneity of the firms in relation to technological development, lack of an exporting culture, short term vision, absence of associative culture, lack of finance, lack of specialised personnel.

Based on this analysis of the literature, Aguiar (2006) proposed an analysis table for the selected cases. The Figure illustrates the main elements considered in the comparative study of the clothing consortia from Paraiba and from Rio de Janeiro, with the aim of detecting the main factors of success and failure in export performance. The Table of analysis is composed of four dimensions: the company profiles, the export adopted strategies, the process of formation and structure, growth and profitability of exports.

Figure – Dimensions related to the Factors influencing Success and Failure and Export Performance in Inter-organisational Networks.



Source: Aguiar, 2006

Analysis of the clothing export consortia: the cases of Paraiba and do Rio de Janeiro

One of the greatest challenges for Brazilian small and medium-sized firms is the distribution of their products in the international market, as highlighted above in the first section, leading to a share in this market of around 5%. Even in the national market, these firms do not in general dominate the distribution channels and are dependent upon them, not having their own brand or direct marketing of their product; while remaining at the mercy of intermediaries who end up consuming up a large part of margins of their marketing. Accordingly, the international market could represent an important source of diversification, reducing the risk of local crises and offering alternative channels of distribution. Nonetheless, as firms of this size confront difficulties in terms on investments in marketing and channels of distribution and these requirements are even more important in the international market, one way to overcome these obstacles would be union through export consortia. This type of arrangement would permit SMFs to increase their capacity to invest in distributions channels, development of the product development of the market through marketing activities.

The formation of export consortia has been one of the initiatives of APEX for stimulation of export efforts among SMFs. The consortium represents a way in which the small-sized firm could overcome the difficulties associated with acting in the export market identified in the previous section. A consortium involves a fixed number of firms that work together in order to facilitate the sales of their own respective products together or of a common product developed specifically for the international market. Through such arrangements it is hoped that the firms can overcome the difficulties encountered in operating in the international market due to their limited size. External savings can be generated by taking collective action capable of compensating the lack of capacity to meet the initial investments necessary for the development of the product and the international market. Formally, the consortium is a coalition of firms with the objective of reaching the international market.

In order to illustrate the results that APEX has had with this tool for promoting small-sized firms in the international market, two case studies in the clothing sector, located in the Northeast and Southeast regions of Brazil were chosen, respectively, the case of Campina Grande, in Paraiba State and Nova Friburgo, in Rio de Janeiro State. Both selected cases are frequently cited in the literature as cases of territories specialised in the clothing manufacture. The following summarised results were obtained by Aguiar (2006).

In relation to the profile of the firms and of the businesspeople it can be concluded that the firms comprising both consortia are small. Most of the business people have higher education and were born in the region where the consortium is located. The business people have worked in the clothes sector more than 11 years, but the business people in Campo Grande are not so specialised in the sector. The most important factor for penetration into the international market, in the view of the business people is quality. And, finally, the business people did not find a significant increase in the exported percentage over the revenue of firm after entry into the consortium.

Regarding the strategies adopted for practicing exports, in the opinion of the business people in both consortia, there was no disagreement about the best way to act. Following formal constitution of the consortium it will be necessary to plan and focus on a strategy, look for specific support from public and private bodies in prospecting markets, adjusting the products and processes, defining the marketing and promotional strategies and initiating exports. The pro-active participation of business people in the prospecting missions, participation in international trade fairs and in the contraction of consultants in order to more quickly obtain knowledge regarding the characteristics of the target markets are considered very important factors in the success of a consortium. Marketing also has an essential role in the success promoting trade sustaining later sales. Another aspect reported as being critical is the search of sharing and cooperation among the members of the consortium, despite the interviewees recognising the problem of the enormous cultural shift required of them as they are accustomed to take decisions individually and competitively. Everyone recognised that there are serious government weaknesses in the financing of exports due to the payment periods, guarantees required and interest rates charged, as well as the differentiated treatment offered to large firms in terms of duties that hamper the success of exports from small firms. The also recognise that there is an insufficient exchange of information between member firms, which impedes mutual confidence and cooperation.

Regarding the process of formation and structure, it was seen that the biggest problems in both consortia were disagreements between firms and the possibility establishing effective governance among the members of the consortium. It became quite clear, despite there being no disagreement among the business people of both consortia regarding what steps should be taken for the success of the consortium and consolidation of its structure, that the disagreement among the agents impeded the real formation of the consortia. The result is that both the consortia analysed were considered by Aguiar (2006) to be potential export consortia and not effective export consortia. In the case of consortium in Paraiba the following problems stand out: the need to improve cooperation in order to reduce the level of mistrust existing between the partners. An example of this lack of cooperation is the distribution of orders that has been occurring unequally among the members and without sufficient transparency. Also, the international market has still not been reached due to the insufficiency of the marketing actions and the lack of focus in the differentiation and in the quality of the product, strategies chosen by the consortium.

The consortium in Nova Friburgo had its activities suspended in 2005 for the following reasons: suspension of the support from APEX, problems in the marketing mix for export, lack of market sedimentation, lack of focus in a single product and differentiated in the initial phase of the consortium, having opted for a price strategy and various products, lack of level between the firms, difficulties obtaining export finance and lack of perseverance among the partners when difficulties arose. In both the consortia there were problems of adapting to the legal structure and sales for the international market.

Finally, on the growth and profitability of exports it was found that the consortia adopted distinct initial strategies: Campina Grande preferred to work with differentiation and quality, while in Nova Friburgo they opted for a low cost strategy as a way to expand exports. In relation to the two other factors – the importance of the relation of the consortium as a distribution channel abroad and the definition of a product strategy based on quality suited to the international market – both agreed with their relevance for obtaining success in that market. However, as seen, neither of the two consortia, for different reasons, managed to reach to achieve these critical factors for profitability of exports.

Final Remarks

Both the analysed cases showed that demonstrating to the business people the measurable benefits arising from cooperative behaviour is quite a complex process and not always successful. The loss of autonomy in the business decision-making process resulting from the need to make collective consensual decisions may not be seen as positive by the business people who are accustomed to making decisions individually. In the consortium, private information about the cost and the management of the firms will have to be shared with the members. In this regard, the business people consulted preferred to continue their sales individually and share only the development of the market.

However, it is known that small size of the firms and their limited productive capacity also represents problems for the attendance of demands from the international market. The various supply firms should, in the case of shared attendance to demands, synchronise their production processes and the product's standard of quality. But, as stated above, the SMFs prefer to work alone, which creates an obstacle to greater participation in the industrial foreign trade.

. Recent measures in the area of equalising duties between large and small firms and greater access to credit for small firms, with the approval of the *Lei Geral das MPES* – General Law of SMFs – at the end of 2006, will certainly be important elements in improving the export performance of small firms. Particular features of this Law that should be highlighted are the exoneration of export activities and the possibility of legally recognising the regulating the export consortium, which, as has been seen, represents one of the sticking points in the effective governance the consortia. Nevertheless, it will still be necessary to defeat the isolationist attitude of the majority of Brazilian SMFs in order that the main challenges pointed out in the literature for this size of firms might be overcome with the formation of consortia and alliances that permit that the scale of the firms, the technology and the qualification of their employees might also be a reality for small firms.

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