

## Brazilian Panorama and the Prospects for International Trade of Bromeliads

Karina Beatriz dos Santos Ferreira<sup>1</sup>, Adilson Anacleto<sup>2</sup>

<sup>1</sup>Postgraduate Researcher Program in Strategic Business Management, Administration Department, Paranaguá Campus - Brazil

<sup>2\*</sup>Administration Department, Associate Professor, Paranaguá Campus/Professor from the Interdisciplinary Postgraduate Program - Society and Development – PPGSeD, Campo Mourão Campus, State University of Paraná, Paraná, Brazil, e-mail: adilson.anacleto@unespar.edu.br.

Corresponding author: Adilson Anacleto

**ABSTRACT :** *The growing demand of flowers, competitive prices on the consumer markets put to an adequate logistics, have given efficiency to the international trade of bromeliads and, although Brazil is amid the greatest world producers of this species, the Brazilian production of bromeliads supplies basically the domestic market, being few and sparse informations about the reason by which international trade of bromeliads is underexplored in Brazil. Thus, with the goal to subsidize the best knowledge of international dynamic market, this study aimed to identify the perspectives of international market of bromeliads with regard to current panorama of Brazilian market. In this context, an exploratory-descriptive research was held from May to December/2018 by 11 flowers wholesalers including the bromeliads wholesalers, whose main focus was the purchase of the great Brazilian producers and other parts of world. The study disclosed the main factors that have affected the international trade of Brazilian bromeliads have been existence of few producers in the field with standard quality of production within the limits required by importer countries, the exception of commercialized plants at Veiling de Holambra cooperative, and the difficulty of new wholesalers insertion in the international trade. It is concluded that the joint establishment amid wholesalers and producers with the production guidance in the field, could act on the professionalization of human resource, improving quality levels of production and the competitiveness of Brazilian production. Lastly the wholesalers performance on intercompany strategy or networking, can reduce the organization risks and facilitate the international trade of bromeliads. So, the shared strategy amid wholesalers and producers exceeds the barrier of commercialization and can result in a modern cooperation system on what competitors become partners, strengthening as a whole the productive chain and raising the competitive levels.*

**KEYWORDS** *floriculture, bromeliads, competitive, export, governance, logistics, tropical flowers.*

Date of Submission: 25-03-2019

Date of acceptance: 05-05-2019

### I. INTRODUCTION

The highest consumption of flowers and ornamental plants in the world occurs in European union, United States and Japan, however, with regard to the international trade, other countries that stand out are Colombia, Ecuador, Costa Rica and China. Therefore, concerning the international trade, The Netherlands is the greatest exporter and importer country for floriculture of the world (COSTA, 2003; BUAINAIN; BATALHA, 2007; EUROPEAN COMMISSION, 2016).

The growing demand of flowers, competitive price in the consumers markets put to an adequate logistics, have given efficiency to these producers and flowers exporter countries, generating employment and incomes, mainly to the small producers (MEDEIROS; FAVERO, 2010; ANDRADE, 2016).

The tropical flowers, under strong growth in the market, have attracted consumers before their favorable characteristics as small perishability and greater resistance in the haulage way under long distance, besides they are also a group of species more resistant against pests and disease, favoring the production (EPAMIG, 2014), other determinant factor is that while flowers under temperate climate has average live of vessel between 05 and 10 days, tropical flowers last between 20 and 30 days (LUZ et al., 2005).

Amid tropical flowers that have received spotlight in the international trade, the bromeliads are emphasized (ANACLETO; NEGRELLE, 2015), that present favorable characteristics to trade, as beauty, flowers exoticism and inflorescence besides their intense colours (LOGES et al., 2005).

The bromeliads are neo-tropical plants largely used as ornamentation, being that their most species found in Americas and Brazil. Their more intense occurrence is the Brazilian Atlantic forest, where there is registration of approximately 1200 species.

In the international trade of bromeliads, United States has enhanced with 12 million of commercialized plants a year. The bromeliads trade is classified as competitive, has high exigency for uniformity and quality (MOREIRA et al., 2006; NEGRELLE et al., 2012; RODRIGUES, 2013.).

The Bromeliads commercial exploration in Brazil according to Anacleto and Negrelle (2015) began in the 70's decade. Since then, the trade is supplied in great part by Veling de Holambra cooperative, the biggest market of flowers in Brazil. The market of this group of flowers already occupied in the 90's decade, the eighth rank in the volume of revenue and sale, therefore the Brazilian production is currently 2.5 millions of bromeliads a year.

The demand by exotic and different species from traditionally species found in the market presents significative and growing value of market, and are in this condition a great number of bromeliads species. The exploration of this potential in the international trade can promote the development of these regions, in special the small producers. (ANACLETO; BORNANCIN, 2018).

Therefore, Brazilian production of bromeliads supplies nowadays basically the domestic market, and there are few and sparse informations about the reason by which the international trade of bromeliads is underexplored in Brazil. Thus, known the representative of this species group in the worldwide market of flowers and with the aim of subsidizing the better understanding of market dynamics, this study aimed to identify the perspective of the international trade of bromeliads with regard to current panorama of Brazilian market.

## II. MATERIALS AND METHOD

Exploratory-descriptive research was held based under bibliographic and documentary study Initially, to elaborate a diagnostic of Brazil bromeliads trade panorama and the trend of international market, the documentations of institutions related to international trade were consulted as Ibraflor, Ministry of Agriculture and others.

From May to December 2018, flowers wholesalers were interviewed whose main focus was the purchase of flowers from great producers in Brazil and other parts of world, that concomitantly according to proposed by Anacleto et. Al (2014) also made bromeliads trade.

Initially, by accessibility, 03 flowers wholesalers from Curitiba/Parana were contacted and as from these wholesalers were identified, by means of auto-generated sample process 16 wholesalers acting in Brazil who performed international trade of flowers.

The totality was contacted for the interview performance, therefore only 11 commercial managers from six Brazilian cities predisposed to answer the interview.

After data collection, a Brazilian production panorama was organized as well trade perspective, for such suggestion followed by Negrelle and Anacleto (2012) evidencing the threat and the opportunities in the external context to analyzed companies.

The expressed opinions by wholesale company managers were organized in a crossed impact matrix, that evaluate each factor cited related to the influence exercised about the scenario, as well the influence suffered from other factors cited on the scenario.

The impact matrix, according to Negrelle and Anacleto (2012), assigned percentual values from 0 to 100 each opinion expressed by interviewers firstly under individual way and lately the informations were crossed of collective way, comparing to the respective exercised and suffered influence, being that the more the index the more the relevance of factor in the trade perspective.

The impact matrix generates a relevance index (importance on the scenario) that can be obtained by equation:

$$IR = \frac{InRn * InPn * 100}{\sum SIsp}$$

IR= Index of relevance of evaluated situation;

InRn = Index of influence received;

Inpn = Index of influence provoked;

SIsp= Sum of index (InRn\* InPn) of all factors analyzed by interviewers.

### III. RESULTS AND DISCUSSIONS

The export of bromeliads from Brazil can be an alternative of agriculture strength in small properties. Besides domestic flowers market in Brazil has presented strong growing taxes of production on last decades, the consumption reported by Anacleto et al. (2017) when compared to European market (average + US\$ 60,00 year), and American market (average = US\$ 37,00 year) still shy (average US\$ 7,50 year) and according to Anacleto and Negrelle (2015) the bromeliads trade obeys the same commercial trend of Brazilian floriculture remaining.

The Brazilian wholesalers who held international trade were located under dispersed way in Brazil, being Sao Paulo state (n=4) with the biggest number, followed by Rio de Janeiro (n=2). All the interviewers reported the practice of international trade related to import, and there were no reports related to bromeliads export to other countries in the last five years.

The main factors according to interviewers would potentialize the international trade of bromeliads produced in Brazil (Table 1) was a diversity of species, the resistance of flowers by the haulage logistics, that check more time of haulage than other conventional flowers, as well international market stability with regard to defined prices and commercial project.

**Table 1. Main factors potentializes in the export of Brazilian bromeliads**

Potentializer factor	IR
1 Diversity of species in Brazil	19,01
2 Resistance of flowers under haulage logistics	17,09
3 International Market stability	17,00
4 Higher index of profitability obtained in export	16,59
5 Strong accept of species in the international market	12,34
6 Diversification of Market	6,08
7 Enlarge Market capacity of Brazilian species	4,43
8 Capacity of production enlarge in all Brazil	3,51
9 Production in the scale and commodities system	2,46
10 High number of producers in Brazil besides last decade decrease	1,49

The main factors according to interviewers affected the international market of Brazilian bromeliads (Table 1) was the existence of few producers in the field with production quality standard on the levels required by importer countries, being expressed the exception of plants marketed from Veiling de Holambra cooperative, that reported by interviewers, are adequate to international standards.

**Table 2. Main factors limiters in the Brazilian bromeliads export**

Limited factor	IR
1 Few producers with production quality standard under levels required by import countries	24,91
2 Difficulty of domain of international trade process and tributary of new wholesalers	22,99
3 Consolidated competitors in the international market and growth of bromeliads production of emerging market such as Colombia, Costa Rica and Kenya	19,08
4 Difficulty of access for and export credit line	11,54
5 Difficulty to close contracts with international partner companies in the consolidation of market in other countries	8,72
6 Lack of incentive to export	8,72
7 High variation of national production with regard to volume of offer	4,45
8 Strong reduction of production fields in all Brazil	3,71
9 Cost of high domestic logistics	2,89
10 Economic crise in Brazil limits investment	1,71

Brazil is worldwide recognized as country with high number of bromeliads produced, besides, the export are insipid. According to Neves and Pinto (2015), significative part of Brazilian flowers production does not reach the quality standard that is required by international market, except the reduced number of producers from Holambra cooperative in the state of Sao Paulo. Nevertheless, it occurs that before the demand and few number of producers, the commercialized production from Veiling de Holambra cooperative is directed to domestic supply, specially of floriculture in Brazil and regions with economic power as Brasilia, Curitiba, Porto Alegre and Sao Paulo city.

The production of bromeliads out of field Holambra/Campinas, specially the yards of production located in the inland of Brazil, presents difficulty with skilled labor, that is scarce and can be contributing to other regions not to reach the production quality in the international level. Anacleto and Negrelle (2015) related that the state of Paraná is traditionally consumer of this group of plants, but the flowers offered to market have low quality standard and for this reason is deferred to those from other regions. Moreover according to the authors, this fact occurs due to lack of producers professionalism, low capacity of production technology and

infrastructure investment and the lack of expertise technicians in the subject to provide instruction to agricultures.

The lack of production calendar can also be acting as limiter in the international trade of bromeliads. Anacleto and Bornancin (2018) describe the Brazilian producer perform the production in according to scenario to be presented, namely, there is no quantity planning, nor the seeding season, nor flowering season, that is decisive to trade, as the domestic market of bromeliads has overproduction of some species on determined period of year and almost total absence of the same species on other months.

The misalignment amid offer and demand many times results overproduction, as a consequence of price reduction and waste of products, provoking prejudice to the producers. On the other hand, the consumer who has been satisfied by buying specific specie does not get easy access during the whole year, this fact promotes that the production besides being directed to support local demand, even so needs to import products (FRANÇA; MAIA, 2008; NEVES; PINTO, 2015).

The international trade of bromeliads is strongly put to production issue, therefore other factors linked to wholesaler market can be contributing to this practice has difficulty of establishment in Brazil. In this aspect, the concurrence already consolidated on other countries, specially in the Netherlands and United States, related to the few background of wholesalers and producers in the international market of bromeliads, generates difficulty to close contracts with partner companies out of Brazil.

Finally, some other factors can be acting as impediment against wholesalers and producers on the process of bromeliads export to other countries, as the difficulty of access for export credit lines related to few domain of international trade process.

The modern world has suffered great transformations, being that on commercial field these informations go beyond countries borders. The economy became global and the trade too. This scenario deeply altered required that companies to develop organizational process, aiming better performance and competitiveness. The products quality also suffered to be measured in a global way, with the clients from different regions of the world comparing the products quality by them accessed in relation to other regions. The technology facilitated this new order of worldwide trade, on what even a small producer with basis on the quality management, can access far and new markets.

Besides the adverse scenario, in relation to Brasil bromeliads agribusiness production, a little thing is noted about partnership establishment that can beyond reach competitive levels, to equalize to products from other countries. The partnership amid wholesalers and producers could be acted on the human resource professionalization, production cost and sale reduction. According to Amato Neto (2000), the change of small organizations in diverse parts of the world such as Italy, France, Spain, Germany, United Kingdom and some regions of United States, allowed by solidary and participative actions that the same had access to technology and incorporated bigger levels of innovation in their trades, modifying not only companies, but also the region where they were inserted.

Beside according to interviewers, the high variation in the national production with regard to volumes of demand in all Brazil, as well the commercial power of competitors ever consolidated in the international market such as The Netherlands and Belgium, put to the growth of emergent market in bromeliads productions as Colombia, Costa Rica and Kenya, also are factors that limit the growth of Brazilian bromeliads international trade.

In general context, when occurs the comparison of Brazilian production from Veiling de Holambra cooperative with bromeliads from other countries, there was no discrepancy in reference of production standard issues, but concerning to plants quality when compared to national production, significative parcel of interviewers (n=63%) affirmed the plants quality from Brazilian yards more specialized are similar of imported bromeliads, but in general context the imported bromeliads present bigger commercial power due to coloration aspects, form of flowers and inflorescence. Thus, In reference to price issue, national plants present high attractiveness

comparing to the imported plants.

Then, two factors can be obstructing with more accentuated way, the efficiency of Brazilian production in the international trade. The first is the fact that production quality in the field, and the second is the access to the external market. In this aspect, an option that can facilitate the reversal of commercial flow and the rank that Brazil is in the international trade of bromeliads, can be on the export consortium. According to Aguiar et al, (2008), the consortium of export can be perfectly developed by small and average entrepreneurs, through the union and attempt of company from the same productive sector, that they organize themselves in a flexible net based in the cooperation of independent companies with the aim of selling their products in the international market. The consorted companies have traditionally kept their way of performance in the domestic market, but to the extent that these companies need to perfect their production to sell to outward, they also get better the offer of product in the domestic market, generating a vicious circle in the bromeliads production and trade.

Finally, it must be emphasized the more organized one sector is, the more is their capacity of generating competitive advantage with regard to their competitors from other regions and countries. A productive chain tends to create lasting competitive advantages when all the segments are equilibrate amid them and all are supported economically. Thus, if the production on the field has not obtained satisfactory quality, it impacts the wholesaler who does not have quality flowers to enlarge their limits of performance.

Thus, it appears as alternative to this scenario where the producer is far from the wholesaler, the necessity of creating a pattern of management, on what the links of productive chain can converge to a single direction. Anacleto and Bornancin (2018) reveal the bromeliads producers apparently do not hold this organization level and they are not able to create strategies that can congregate producer and wholesaler in the direction of international trade.

Therefore, Anacleto (2016) suggests the wholesalers in the branch of floriculture have knowledge about intercompany strategy or networking, that according to Olave and Amato Neto (2001), does not always occurs by intermediate of group legally constituted and are often created by businessmen with specific and common goals, aiming to reduce organization risks under relevant economy activities as international sale is.

The coordinated and cooperated action between companies results in a better competitive capacity, in especial by cost reduction, and can direct to production in the field for the attendance of necessities in terms of international quality required to bromeliads. Thus, the shared strategy amid wholesalers and producers exceed the barrier of commercialization resulting in a modern cooperation system, on what competitors become partners, strengthening as a whole the productive chain and raising the competitive levels.

#### IV. CONCLUSION

The main factors that affected the international trade of Brazilian bromeliads were the existence of few producers in the field with production quality standard under levels required by importer countries, the exception of commercialized plants from Veiling de Holambra cooperative and the difficulty of new wholesalers in the international market insertion.

The establishment of partnerships amid wholesalers and producers with the guidance of production in the field could act on the professionalization of human resource, improving the production quality levels and of Brazilian production competitiveness. Finally, the performance of wholesalers in intercompany strategy or networking performance, can reduce risks of organization and facilitate the international trade of bromeliads.

In this context, the shared strategy amid wholesalers and producers exceed the barrier of commercialization and can result in a modern system of cooperation, on what competitors become partners strengthening as a whole the productive chain and raising the competitive levels.

#### REFERENCES

- [1]. Aguiar, V.M., Cândido, G.A., Araújo, G. M. Fatores críticos de sucesso no processo de formação e desenvolvimento de consórcios de exportação no setor de confecções. *Revista de Administração Mackenzie* 9, 3-7 (2008).
- [2]. Amato Neto, J. Redes de cooperação produtiva e clusters regionais: oportunidades para as pequenas e médias empresas. São Paulo: Atlas (2000).
- [3]. Anacleto, A. Flowers supply chain in Paraná Coast-Brazil: an application of Miles and Snow taxonomy. *Revista Capital científico* 14, 10-25 (2016).
- [4]. Anacleto, A.; Bornancin, A. P. de A. Perfil e comportamento do consumidor de bromélias: orientação a produção rural. *Revista Brasileira de Planejamento e Desenvolvimento* 7, 51-66 (2018).
- [5]. Anacleto, A., Negrelle, R. R. B. Viabilidade econômica do cultivo de bromélias no Estado do Paraná. *Capital Científico* 13, 2-7 (2015).
- [6]. Anacleto, A., Negrelle, R. R. B., Muraro, D., Toyofuku, T.M. Profile and Behavior of the Bromeliads Consumer in Paraná State – Brazil. *Business Management Review*, 5, 12-19 (2014).
- [7]. Andrade, P. F. S. Análise da Conjuntura Agropecuária Safra 2015/16 – Floricultura. Estado do Paraná. Secretaria da Agricultura e do Abastecimento, Departamento de Economia Rural, 19 p. (2016).
- [8]. Buainain, M., Batalha, M. O. Cadeia produtiva de flores e mel. Ministério da Agricultura, Pecuária e Abastecimento, Secretaria de Política Agrícola, Instituto Interamericano de Cooperação para a Agricultura. Brasília: IICA : MAPA/SPA, 2007. Série Agronegócios, v. 9. 140 p. (2007).
- [9]. Costa, M. P. B. Uma análise dos fatores determinantes da competitividade do setor de flores no Estado do Ceará. *Competitividade do setor de flores no Estado do Ceará 2003*. 210 p. Dissertação Mestrado em Negócios Internacionais, Universidade de Fortaleza, Fortaleza (2003).
- [10]. European Commission. Agriculture and Rural Development. Live Plants and Products of Floriculture (2017).
- [11]. Epamig. Pesquisas contribuem na certificação de flores orgânicas (2017).
- [12]. França, C. A. M., Maia, M. B. R. Panorama do Agronegócio de Flores e Plantas Ornamentais no Brasil. XLVI Congresso da Sociedade Brasileira de Economia, Administração e Sociologia Rural (2008).
- [13]. Loges, V., Teixeira, M. C. F.; Castro, A. C. R., Costa, A. S. Colheita, pós-colheita e embalagem de flores tropicais em Pernambuco. *Horticultura Brasileira*, 23, 699-702 (2005).
- [14]. Luz, P.B.; Almeida, E.F.A.; Paiva, P.D.O.; Ribeiro, T.R. Cultivo de flores tropicais. *Informe Agropecuário* 26, 62-72 (2005).
- [15]. Medeiros, F.O., Faverro, L. A. Aspectos da Competitividade Brasileira no Comércio Internacional da Floricultura e Flores de Corte. Campo Grande: 48º Congresso Sociedade Brasileira de Economia, Administração e Sociologia Rural (2009).
- [16]. Moreira, B. A., Wanderley, M. G. L., Cruz-Barros, M. A. V. Bromélias: importância ecológica e diversidade. taxonomia e morfologia. Instituto de Botânica (2006).

- [17]. Negrelle, R. R. B., Anacleto, A. Extrativismo de bromélias no Estado do Paraná. *Ciencia Rural*, 42, 981-986 (2012).
- [18]. Neves, M. F.; Pinto, M. J. A. Mapeamento e Quantificação da Cadeia de Flores e Plantas Ornamentais do Brasil, São Paulo: OCESP, (2015).
- [19]. Rodrigues, P. H. V. Bromélias: aspectos gerais e produção comercial. São Paulo: Universidade de São Paulo (2013).

Karina Beatriz dos Santos Ferreira" Brazilian Panorama and the Prospects for International Trade of Bromeliads" *American Journal of Engineering Research (AJER)*, vol.8, no.05, 2019, pp.36-41