

Future Scenarios for the brand name phytosanitary agrochemical industry in the floriculture of Bogotá

Escenarios futuros de la industria de productos agroquímicos fitosanitarios de marca para la floricultura en Bogotá

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Abstract. Using the description of the importance of the floriculture sector and contrasting the identification of the behavior of brand name and generic products in the flower sector, future scenarios were identified for the creation of strategies of market permanence and positioning for brand name agrochemical products. In this case, representatives with broad experience in the floriculture sector of La Sabana de Bogotá D.C. were selected, with whom the state of and possible projections for agrochemical products for the sector were evaluated with a prospective methodology. As a result, strategies were generated for achieving market permanence and positioning for brand name agrochemical products.

Key words: Strategy, positioning, prospective, marketing, brand name, future.

Resumen. A partir de la descripción de la importancia del sector floricultor, en contraste con la identificación del comportamiento de los productos de marca y genéricos en el sector de las flores, se realiza la identificación de escenarios futuros para proponer estrategias de posicionamiento y permanencia en el mercado de los productos agroquímicos de marca. En este caso se eligieron representantes de amplia experiencia en el segmento de la floricultura de la Sabana de Bogotá D.C., con quienes se evaluó el estado y las posibles proyecciones de los productos agroquímicos para el sector mediante metodología de prospectiva. Es así como se generaron estrategias para lograr el posicionamiento y permanencia en el mercado de los productos agroquímicos de marca.

Palabras claves: Estrategia, posicionamiento, prospectiva, marketing, marca, futuro.

In general, the competitiveness of the flower agroindustry sector has faced relevant challenges in the last decade due to the volatility of the dollar to Colombian peso exchange rate in recent years and to the increase in the price of supplies because many are derived from petroleum, which has a historically high price. In addition, low international prices for flowers have determined the strategies, the decisions and the course of action that floriculture businesses are taking in order to be competitive in the global market and to guarantee their permanence in the sector. The low demand for flowers in various regions due to the global financial crisis that started at the end of 2008 has resulted in a supply that is higher than demand, with a consequent decrease in prices that flower exporters in various regions will pay (Ojeda, 2009). With these considerations, the present document aimed to identify future scenarios for the distribution activities of brand name agrochemical products for the flower sector and the viability of strategies for market permanence and positioning. According to Santiago and Montoya (2011), the

floriculture sector in Colombia has been one of the more important sectors at the export level. In 2009, exports topped out at USD\$1.05 billion, as compared to USD\$1.114 billion in 2007, a decrease of almost 6% in just two years. In 2010, there was a recovery, for a total of USD\$1.240 billion. Asocolflores (2009) established that, in 2009, the cultivated area was 7,200 hectares and, according to the data of Asocolflores (2010), the cultivated area for 2010 was 6,800 hectares, resulting in a huge decrease in the 2008-2010 period, from 7,509 hectares in 2008 to 6,800 in 2010, a decrease of 709 hectares or 9.4% (Santiago and Montoya, 2011). Dinero.com said in an article in 2013 that, according to data from Trade Map, "[...] in 2012, Colombia was the leading exporter of carnations in the world and the second largest exporter of flowers worldwide, with US \$ 1,279 million exported. Between January and June 2013, exports totaled US \$ 744 million, 9.1 % above the total recorded in the same period of 2012, according to information from the Ministry of Commerce, Industry and Tourism with Dane data" (Dinero, 2013). This sector, at its best, has had a

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significant impact on manual labor. According to the data of Asocolflores, for 2005, floriculture generated 94,271 direct jobs and 80,130 indirect jobs, forming a decidedly export industry (more than 95% of the flower production of Colombia is exported) and it is worth mentioning that, in just 35 years, the sector became the second global exporter of fresh-cut flowers, with a participation of 14% in the total commerce, after the Netherlands, which has 56% participation (Ojeda, 2009). The export dynamics of this sector for Colombia, could be searched by United Nations Commodity Trade code product number name 0603 corresponding to cut flowers and flower buds of a kind suitable for bouquets or for ornamental purposes, fresh, dried,

dyed, bleached, impregnated or otherwise prepared, and data of this code are available through the Trade Map service from the International Trade Center ITC (www.trademap.org). The figures below are the result of consultations on the value of exports and their amounts, which were generated by Trade Map based on information from the CCI Corporación Colombia Internacional (CCI used UN Comtrade until January 2014 and afterwards used DIAN). As can be observed, the sector has been recovering since 2010 in terms of the exported value. The principal destinations are the United States, Russia, and Japan, with Valentine's Day remaining the high season, as can be seen in Table 1. The preferred export flower is the rose, with almost a 28%

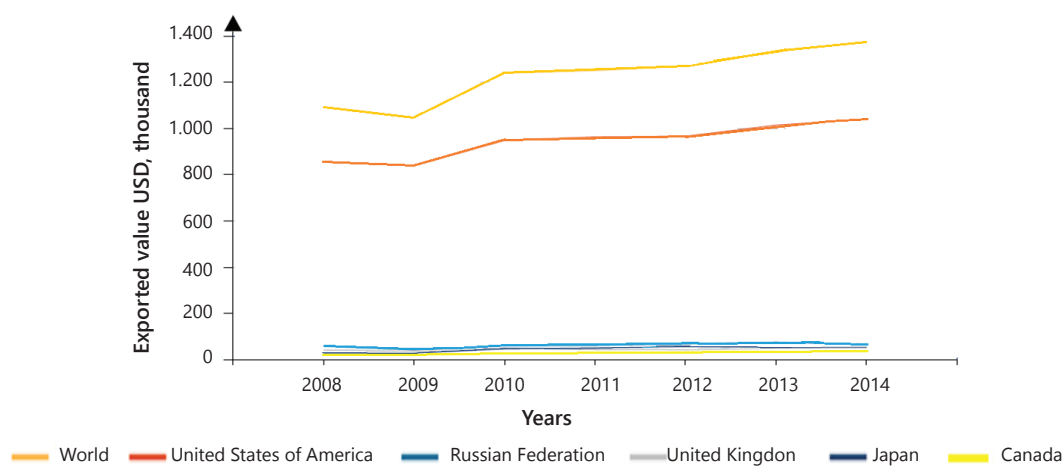


Figure 1. List of importing markets for fresh cut flowers exported by Colombia (exported values). Source: ITM- World Map (2015).

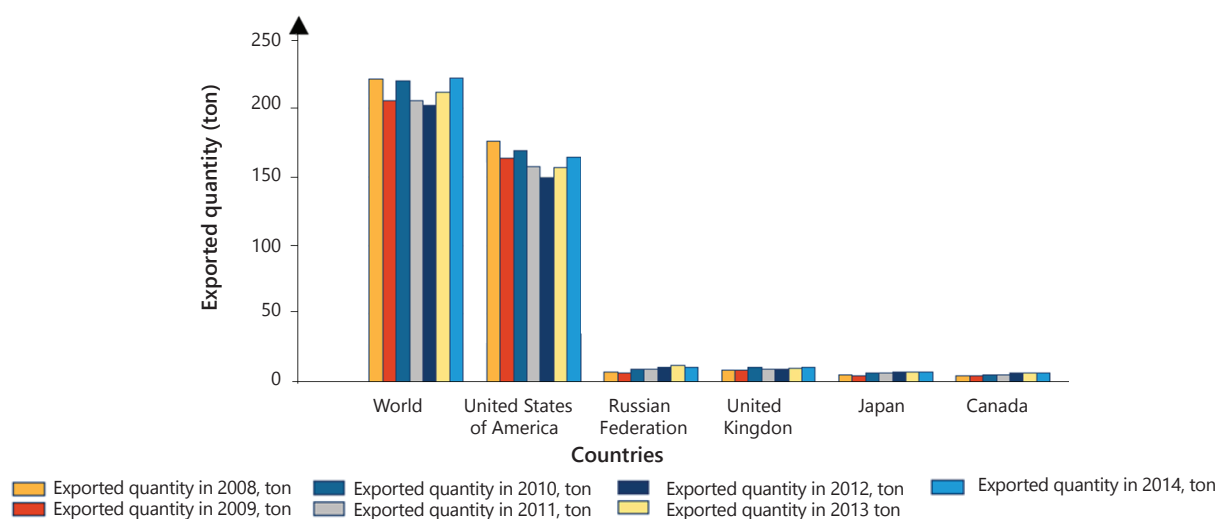


Figure 2. List of importing markets for fresh cut flowers exported by Colombia (exported quantity).

share of the total sales (January- November period, 2013) and 24% of the total sold tonnage, followed by the standard Carnation with 13% in tons and 11% in USD values. These shares of the total annual tonnage and dollar value listed in

Table 1. Exports destinations for fresh cut flowers (Ccde UN Commodity trade 0603) from Colombia (in US Dolars), January-November period.

Destination country	2013 (\$)	2014 (\$)	Annual variation (%)	Share of total 2014 exports (%)
USA	954,970,526.25	976,346,019.40	2.24	75.78
Russia	70,470,120.98	63,291,678.98	-10.19	4.91
Japan	46,674,041.19	49,541,376.96	6.14	3.85
UK	45,261,457.61	48,808,311.67	7.84	3.79
Canada	32,488,606.48	34,729,256.46	6.90	2.70
Holland	25,169,695.46	27,028,148.26	7.38	2.10
Spain	16,939,895.62	17,227,369.36	1.70	1.34
Other countries	61,404,752.35	71,362,374.07	16.22	5.54
Total	1,253,379,095.94	1,288,334,535.16	2.79	100.00

Source: Asocolflores, 2015

Table 2 were calculated with data from Asocolflores (2015). According to the information collected by Ojeda (2009), for that year, more than 300 agribusinesses (80% Colombian capital, approximately) indicated that they generated 195,000 direct and indirect jobs and the industry represented 85% of the international air

Table 2. Exports from Colombia by species, freshy cut flowers 0603 (in US dolars), Jan-Nov. period.

Species	Values (US dollars)			Weight (ton)			Values		ton	
	2013 (\$)	2014 (\$)	Var. 2013-2014 (%)	2013	2014	Var. 2013-2014 (%)	Annual share 2013	Annual share 2014	Annual share 2013	Annual share 2014
Rose	346,611,552.23	349,726,712.67	0.9	47475	50284	5.9	28	27	24	24
Std. Carnation	142,137,265.58	141,855,795.75	-0.2	25469	25796	1.3	11	11	13	12
Pompom	103,601,101.80	105,967,050.87	2.3	25979	27419	5.5	8	8	13	13
Alstroemeria	68,265,859.79	70,704,817.75	3.6	16078	15275	-5.0	5	5	8	7
mini Carnation	68,215,891.96	65,693,407.92	-3.7	12289	12386	0.8	5	5	6	6
Chrysanthemum	33,217,524.97	35,198,785.67	6.0	6189	6293	1.7	3	3	3	3
Other	9,605,719.60	10,746,557.69	11.9	222	251	13.1	1	1	0	0
Aster	8,594,378.63	9,004,005.80	4.8	1682	1900	13.0	1	1	1	1
Gerbera	5,623,866.01	6,129,782.75	9.0	1180	1072	-9.2	0	0	1	1
Gypsophila	2,060,659.27	2,564,465.90	24.4	443	548	23.7	0	0	0	0
Orchid	42,559.25	63,330.38	48.8	3.2	3.1	-3.1	0	0	0	0
Other	465,402,716.85	490,679,822.01	5.4	60381	66027	9.4	37	38	31	32
Total	1,253,379,095.94	1,288,334,535.16	2.8	197390	207252	5.0	100	100	100	100

Source: Asocolflores, 2015.

cargo of Colombia and 16% of the Gross Domestic Product (GDP) in Bogotá, D.C. and Cundinamarca. Lastly, Ojeda stated that through programs called "Florverde" (Greenflower) and "Cultivemos la paz" (Cultivating Peace), the resolution of familial conflicts has been strengthened through training of the workers, of which 70% are head-of-household females. Primary and secondary education

programs have been carried out by financing 70% of the studies, guaranteeing transport to the workers' homes, and facilitating the acquisition or improvement of homes, among others (Ojeda, 2009). The crisis of 2008 led to flower companies trying to recover their competitiveness and profitability through practices such as reductions in the costs of agrochemical supplies, which represent

around 6% of the total cost of flower production (Ojeda, 2009). This resulted in a mass introduction of generic agrochemicals, providing lower production costs due to their lower market value. At the same time, the companies are continuously searching for economic alternatives for phytosanitation management, with the cost of production used for phytosanitation control being a management indicator in various companies; even though it is not the factor with the most relevance in the cost structure for the production of flowers, it occupies a privileged position due to the relative ease with which the resources can be managed and assigned, which reflects the significant importance of costs for the technical decisions of some companies.

Behavior of brand name and generic products in the flower sector. As part of the cost reduction initiative, the floriculture sector has increased the use of generic agrochemical products because of the revaluation of the peso to the dollar and the increase in the price of agricultural supplies that are mostly derived from petroleum, which has historically high prices. Therefore, floriculturalists have started using these products as a more favorable alternative, assuming, in some cases, the risk of sacrificing quality for price, among other things, because one of the factors for maintaining competitiveness in any business is maintaining the cost structure (Ojeda, 2009). In the flower market, and probably in the agricultural sector as well as other sectors, there is not a clear differentiation between different brand name products and their respective generic ones, - providing an opportunity for generic product companies that do not participate in this market and that have generic molecules or product versions

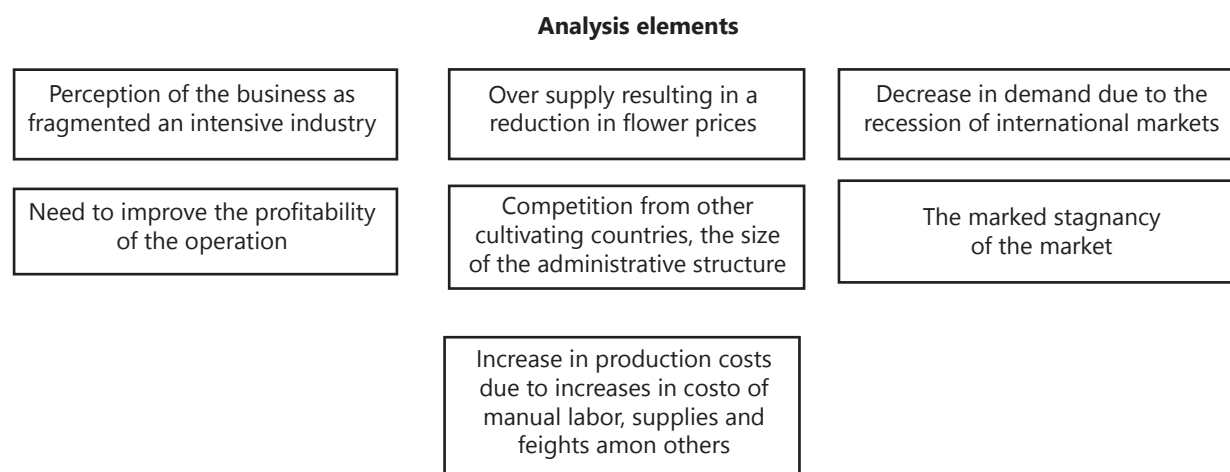
of brand name products that are already registered for sale in the flower market to enter a market and quickly obtain a share (Ojeda, 2009). This situation resulted from a decrease in innovation for new molecules due to a decrease in resources for research and development or disinterest on the part of companies to bring new molecules to the market due to a limited incentive of recovery of their cost of development through the sale of brand name products. It is evident that the use of generic products is resulting in a change of the concepts and behavior of the market, not just for product use decisions, but also for the channels of market distribution (Ojeda, 2009). According to (Ojeda, 2009), the market contains generic products with a value that, in some cases, is 50% or less of the brand name products, resulting in a "price war" and an erosion of the market value. Generic agrochemicals are chemical and/or biological compounds that maintain the same synthetic, dynamic, and technical characteristics of a brand name agrochemical that has lost its patent protection, that is to say, they have the same active ingredient, the same physical consistency, and the same bioequivalence (Olivas, 2008, García, E. (2003), Olivas M. (2008), Ojeda, 2009).

Priority problems for the analysis of future scenarios.

The analysis performed by Ojeda (2009), using prospective techniques such as the Delphi Method (oriented to complete successive rounds of questions to seek convergence on identifying elements of analysis by 12 experts), demonstrated that the following elements are the ones of most concern to floriculturists, as shown in Table 3.

The importance of carrying out a prospective analysis of the principal future scenarios (Sánchez *et al.*, 2013) for an initiative of brand name agrochemical supplies was established.

Table 3. Analysis elements identified by experts.



Source: Ojeda, 2009.

METHODOLOGY, INSTRUMENTS AND STUDY COVERAGE

Table 4 shows the methodology used for the prospective analysis, with a voluntarist approach. This table includes the expected results and the techniques used in the methodology.

Processing and analysis of the information. A semi-structured interview was used with a group of 12 relevant individuals (experts from industry and academic sectors), with a SWOT analysis, as well as an interview on topics related to brand name and generic products, by means of a technique called the Delphi Method. As a result of successive rounds with

Table 4. Integrated prospective methodology.

Stage	Results	Technique
1. Definition of the environment characteristics	Recognition of the current situation and the potential conditions of the topic being studied.	Literature review and definition of priority problems.
2. Identification of "strategic variables"	Detection of the more important and more governable components of the topic.	Application of the IGO matrix (importance and governability) with the concepts of the experts.
3. Estimation and design of scenarios	Obtain a probable scenario, various alternative scenarios and a "wager scenario"	Peter Schwartz's axes
4. Construction of strategies to achieve the wager scenario	Identification of objectives and actions per objective	Strategical formulation: identification of objectives and actions per objective.

Source: Adapted from (Godet, 1996).

Table 5. Identification of the analysis elements.

1- Availability	A constant and/or sufficient offering of a determined product over time.
2- Generic product	A product that is manufactured with the same active ingredient as an original product that has lost its patent.
3- New or innovative product	A result of the R&D process that some companies have, which generates products different from the existing ones and that are protected by patents as a reward for the investment made by the innovative company in order to recover the invested capital.
4- Confidence or homogeneity	The probability that a product from a manufacture works well regardless of the production lot or place of manufacture.
5- Quality	A combination of characteristics and properties of a product that allow it to be defined, qualified and compared with others of the same market segment or niche.
6- Cost-benefit ratio	The benefit perceived by a consumer for a determined product in relation to the money paid to acquire it.
7- Low toxicological level	Physicochemical characteristics that present a low risk of toxicity in different species with a biological target or control objective.
8- Waiting period	Time that must pass before people can safely enter a crop after the application of an agrochemical product.
9- Economic situation	The global crisis affected the export market for flowers with the principal markets being developed countries such as the United States, England, Japan, Russia, and the EU, where the demand for flowers can be affected, along with the market value, by the direct effect of loss of individual purchasing power as caused by the recession or competition between producers that participate in the market; uncertainty in the exchange rate also reflects the economic situation.
10- Low price	A competitiveness strategy where users seek to decrease the budget assigned to the agrochemicals to reduce their presence in the cost structure.
11- Commercial Negotiation	Proposal that seeks to sell a high quantity of a determined product by offering a decreased price per unit or a high quantity of product units for the same price. The objective is to increase or defend the participation of a product in a particular niche or market at a determined time.
12- Costs	Quantity of capital earmarked to cover the needs of a company in order to maintain the production process.
13- Aggregate value	Combination of activities and/or services, including support, training, assistance, control, etc., before, during and after the use of products from a determined company, which seek to impress the users and thereby win their brand loyalty.
14- Product rotation	Activity carried out by the users responsible for agrochemicals in order to minimize the risk of resistance due to the permanent use of one or a few active ingredients that, if not properly rotated, run the risk of some of the active ingredients starting to generate resistance due to an increased selection pressure exerted by a failure to rotate the active ingredients in the population of a determined pathogen.

Source: Ojeda, 2009

the experts, convergence was achieved around 14 key elements and their respective definitions:

Priorization of key analysis elements. The above analysis elements or key variables were qualified from 0 to 10, for both Importance and Governance, by a group of experts. The rating of importance refers to the degree of relevance that the expert panel attached to each key element, so that a score of 10/10 means high relevancy, while a rating of 1/10 means that the item is rated as low in priority. For its part, the governance refers to the degree of interference with the industry, in the hands of its participants, to make significant changes in each key element. A high score of governance means that is likely to achieve qualitative changes in the key element, while a low rating of governance means that is unlikely to change that element in the short and medium term. After this evaluation, the average value of each of the analysis elements or key variables was obtained for both importance and governance, which are presented below.

With the results obtained from Table 6, it was possible to create a two-axes graph, displaying the importance

and governance ratings and establishing quadrants for the qualitative analysis. The following figure exhibits these results.

The IGO analysis provided four zones or quadrants wherein the analysis elements were classified in the following manner:

Strategic variable, Quadrant I: contained the variables that obtained a value above the average for both importance and governance, which were considered strategic variables, the more important variables. They are expected to have the largest impact on the development of a project from the point of view of the consulted experts. For the effects of this study, the strategic variables included the following:

- 6. Cost-benefit ratio.
- 10. Low Price.
- 11. Commercial negotiation.
- 14. Product rotation.

Challenging Variables, Quadrant II: According to the methodology (Godet 1996; Mojica 2002, smIDA, 2004, Riascos, 2012), some variables exist that are considered challenges, those that have

Table 6. Qualification of importance and governance of the analysis elements or key variables: Importance – Governance matrix results.

Analysis elements or key variables	Evaluation averages		Quadrant
	Importance	Governability	
6. Cost-benefit ratio	8.8	7	I
10. Competitive price	8.8	5	I
11. Commercial negotiation	9	7.4	I
14. Product rotation	8	8.9	I
4. Confidence	8.6	1.5	II
5. Quality	8.3	1.4	II
1. Availability	6.3	2	III
2. Generic Product	5.9	4.1	III
3. New Product	6.5	3.6	III
8. Waiting period	5.5	3.6	III
9. Economic situation	6.5	1.3	III
7. Low toxicological level	7.1	4.9	IV
12. Costs	7.5	7.4	IV
13. Aggregate value	7.1	5.3	IV
Average = auxiliary axis	7.4	4.5	

Source: Ojeda (2009)

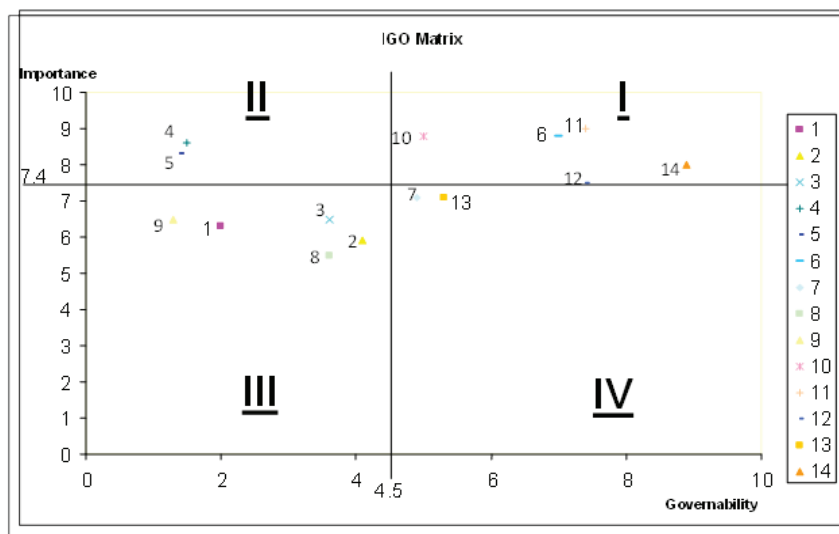


Figure 3. Quadrants from the results of the I- Go in Table 6.

importance above the average but have governance below the average. Challenging variables form the characteristics that must be strengthened immediately and for the long-term. In this case, they included:

- 4. Confidence.
- 5. Quality.

Variables of little importance or exclusion, Quadrant III: the following variables were qualified as being below the respective averages both for importance and governance, meaning they are the variables that require less attention in relation to the rest of the identified variables:

- 1. Availability.
- 2. Generic Product.
- 3. New Product.
- 8. Waiting period.
- 9. Economic situation.

Governable or exit variables, Quadrant IV: there are some variables that were qualified as being above the average for governance but below the average for importance, meaning that they possibly depend on an administrative decision for their implementation; the following variables were in this quadrant:

- 7. Low toxicological level.
- 12. Costs.
- 13. Aggregate value.

According to this study and the results obtained with the IGO matrix in quadrants I and II, these variables can be used as inputs for Peter Schwartz's axes. This way, the variables of quadrant I (strategic variables) and those of quadrant II (challenges variables) can be grouped into two sets of categories, according to the observations of the consulted experts: the attributes of the market, and the attributes of the product.

Using the methodology for constructing the Schwartz axes (following the methodology proposed by Mojica,

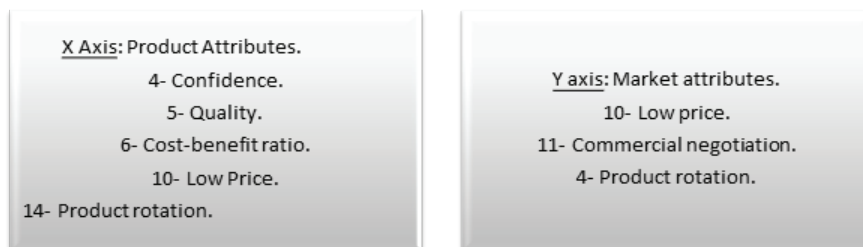


Figure 4. Peter Schwartz's axes.

2002), the X axis was assigned the attributes of the product and the Y axis was assigned the attributes of the market, using the previously-identified variables. It was observed that a large part of the strategic variables and the challenged variables were cataloged as product attributes, meaning that the majority of

actions must be geared toward the product; that is to say, the most important differentiator was the product (Ojeda, 2009).

With this categorization, the description of the scenarios proceeded based on the Schwartz axes technique.

<p>Scenario 1 LIFE IS BEAUTIFUL The standardization in the manufacture processes of the products will be guaranteed in order to increase confidence. This will be achieved by assigning resources to R&D for the improvement of the products. The brand name companies will invest the money necessary for the administration of the life-cycle of the products, maintaining their relevance and evolution. The sector will have long-term vision. The brand name companies will remain competitive by finding an efficient way to transmit differentiating concepts to the users. This will be achieved by focusing the efforts of the brand name companies on the end users, seeking understanding of the clients and thereby being able to offer an immediate and personalized response to their needs. The perception of the prices should change due to constant work with the clients that seek to position the product and differentiate it so that it is no longer a commodity. This will be achieved with differentiation and positioning strategies for the agrochemical products, which can be observed and which have been executed in other production sectors where these processes result from the maturation of the industry. The companies will be interested in developing new molecules for this sector because the market recognizes and needs these tools and will be willing to pay for them. The brand name companies always look for, research, and develop new molecules that are required by R&D processes specific for each crop, in accordance with the priorities they have and the calculated potential. Relatively low prices will be set, but that are sufficiently attractive for the brand name companies to be interested in participating in the flower market because there is a net export vocation that in some way requires the companies to offer products with superior technical and commercial characteristics. This will be achieved by seeking the information of prices, conditions, characteristics, and benefits that will be appraised by floriculture entities that have a clearly technical, nonfinancial vocation which would generate distortions in the market. The users will obtain negotiating power due to the consolidation processes of any matured market or economic sector that seeks formulas in order to remain competitive as can be seen in scaled economies, negotiating power, or shortening of the distribution chain. New business models can be sought that can contain options for cutting the intermediary chain. There will be the option of molecules or formulas of new products that will bring environmental and technical benefits, which are internationally demanded by the purchasing countries of quality flowers. This can be implemented, justified by the need to give traceability to the flowers in the international markets in accordance with the quality certifications that have been implemented and that, with the passage of time, are becoming more necessary.</p>	<p>Scenario 2 THE WAGER CONTINUES The standardization of the manufacture processes of the products will be guaranteed in order to increase confidence. The companies will invest in technology in order to increase the quality of their products, improving formulas for example. The companies will administer the life-cycle of the products, seeking to improve them through investments in various fields. The prices will become competitive with respect to their generic substitutes. The companies will develop new molecules because the market recognizes and needs these tools, in addition, it is willing to pay for them. The value of the flower market will lower to the levels of markets of products of domestic consumption. The brand name companies will not give in to pressure from large companies to negotiate products at a lower price than that of the market. With the current products, they will determine that they cover their immediate needs in the rotation of agrochemicals and they will not be willing to pay for innovative products of a higher value; they will not require a flower register, only the ICA register.</p> <hr/> <p>Scenario 3 The Maturation Crisis Investments will not be made for improving the confidence of the products; the companies will not invest in improving the technology of the products because they have become commodities. The cost-benefit ratio will decrease because the products will be in a saturated market. The companies will not invest more because the life-cycle will be in a state of decline. The prices will not decrease sufficiently for the treatments to be economically viable. New molecules will not be introduced because of a low market value that does not cover the cost of developing market products. The price of the products will adjust to be competitive and the flower market will continue to attract more companies. The clients will acquire more negotiating power because they will consolidate into a few groups. It is necessary to have new products for the rotation of agrochemicals; with a flower register as a differentiating factor due to the brands they have in the crops' aggregate value.</p> <hr/> <p>Scenario 4 CHRONICLE OF A PROCLAIMED DEATH There will be no investments for increasing the confidence of the products. The companies will not invest in improving the technology of the products because they have become commodities. The cost-benefit ratio will decrease because the products will be in a saturated market. The companies will not invest in them due to the fact that the life-cycle will be in a state of decline. The prices will not lower sufficiently for the treatments to be economically viable. New molecules will not be introduced because the market value will be very low and will not cover the cost of developing products in the market. The value of the flower market will lower to the levels of markets of products of domestic consumption. The groups will not consolidate and there will not be a scaled economy in the acquisition of supplies; with the current products, they will determine that their immediate needs are covered in the rotation of agrochemicals and they will not be willing to pay for innovative products of a higher value; they will not require a flower register, only the ICS register.</p>
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Figure 5. Proposed Scenarios. Source: adapted from Ojeda (2009).

Table 7. Action plan for achieving the desired scenario.

Variable	Strategic Objective	Actions to achieve the strategic objective
Confidence	Guarantee product homogeneity over time.	Implement processes such as six sigma that seek to decrease the weaknesses in different areas of the company until they become zero, both for production and in R&D, which contribute to the innovation of companies.
Quality	Maintain a cutting-edge quality in the processes geared toward implementation of a continuous improvement philosophy.	Brand name companies must invest part of their resources of time and money for people to facilitate training and the implementation and generation of appropriation processes that are geared toward seeking excellence and efficiency in the processes that are key to generating competitiveness and innovation.

Continuation Table 7

Variable	Strategic Objective	Actions to achieve the strategic objective
Cost-benefit ratio	That the users of the products have a clear picture of the benefits that they receive when buying a determined product at a fair price.	Invest a significant part of the resources in fieldwork and market research in order to understand what the users want from the brand name products they purchase in order to break the market paradigms and be able to work on the positioning and differentiation of brand name products.
Low Price	Change the perception of the prices through permanent work with the users, seeking to position the product and differentiate it so that it is no longer a commodity.	Use differentiation and positioning strategies for brand name agrochemical products, which are not different from those executed in other economic sectors that have seen how the arrival of market maturity manifested itself in these type of circumstances, which are not new, quite the contrary; sufficient information exists on how to overcome this type of threat for brand companies, in accordance with how they want to administer the life-cycle of their products.
Product rotation	Have new molecules in high value segments that, due to their technical characteristics, distance themselves from the competition.	Invest in R&D in order to generate knowledge and innovation, which can bring new molecules to the market, such as innovation in the formulas that seek to use less active ingredients per hectare, to be selective for beneficial organisms for example.
Commercial negotiation	Generate long-term business wherein win-win situations are sought in order to construct profitable, loyal, long-term business.	Seek and/or implement new business methods that stimulate loyalty to the products, with financial benefits for the parties.

In the desired scenario (X,+; Y,+), *LIFE IS BEAUTIFUL*, the following strategies, formed as objectives and actions, are proposed with a voluntarist approach:

Actions to pass from the probable scenario. The Wager Continues, to the desired scenario, Life is Beautiful. Due to the fact that the probable scenario, The Wager Continues, is the tendency, it is relevant to indicate actions that could change this scenario

to the Life is Beautiful scenario. To achieve this, it is necessary to achieve actions that impact the identified variables that correspond to the grouping on the Y axis, which include a low price, commercial negotiation, and product rotation. With the participation of the expert panel and iterative rounds of answers, the necessary objectives for changing the probable scenario to the desired scenario are established below for each of the indicated variables:

Table 8. Actions for changing the scenario.

Variable	Objective	Actions
Low Price	Achieve levels of competitive profitability in the market, which would allow for maintaining a permanent presence and solid participation in the market.	Establish commercial alliances that seek scaled economies and/or agreements for the development of more efficient distribution channels.
Commercial negotiation	Favor the achievement of financial support programs for the clients and other aggregate value services.	Design new business and marketing strategies and adopt and adapt those of other industries that have overcome challenges where the maturity of the market required innovative forms of doing business in order to guarantee adaptation to new challenges and opportunities.
Product rotation	Favor shared development between producers and clients of new products that satisfy needs at an obtainable price.	Favor programs that link businesses, financed externally and with government support for the development of programs of innovation, research, and development.

CONCLUSIONS

The competition between brand name products and generic products tends to demonstrate itself as an alternative in the segmentation of mature industries, and so, companies will have to do more work in various fields, such as, for example, in the segmentation of clients, in order to protect themselves from mass attacks by the competition; they will also have to differentiate and position the brand, respond quickly to new challenges in the market, provide client information for breaking the paradigm that generic products are the same as the brand products but cheaper (a product is more than just the active ingredient), and find ways of making the products into concepts in order to decrease the possibility of substitution by a generic product. Agrochemical products that have lost their patent now compete with substitutes that possess the same active ingredient but are produced by other companies called generics, which are placed on the market at a lower cost for the following reasons:

- They only manufacture successful molecules at large-sale volumes.
- Investment in research and development is almost nothing because it is only necessary to demonstrate the corresponding formula of a registered brand name product.
- Manufacturers of these products use facilities in China and India to start, where production cost and sometimes quality control are very low (Ojeda, 2009).

It is necessary to know the client in order to really know if they respond to elements such as quality, security, control, price, availability, opportunity, and support.

At this time, the market is demonstrating an instinctive response to the current situation, the revaluation of the Colombian peso, the recession in the target markets of these products, and the increase in the price of fuels, etc. These elements make reinvestment all the more critical and, for this reason, emergent strategies are returning, such as lowering production costs and seeking efficient technical alternatives at a lower cost, among others (Ojeda, 2009).

With time, the market will differentiate brand name products and generic products as well as good-quality generic products and bad-quality generic

products in relation to their attributes or worth (Ojeda, 2009). From the scenario projection, it is expected that the industry could present cyclical periods of alternation between generic and branded products: After a major proliferation of low-cost generic products, a rise of emerging strategies based on product differentiation that will give prominence to brand agrochemicals is anticipated, which may lead to a favorable trend towards branded products by means of promoting their effectiveness among customers. The expectation is that this cycle will present alternations between strategic groups of generic and brand name competitors. It is relevant to carry out further studies to highlight the advantages and disadvantages of an industry with generic and branded products, such as a fragmented industry with strategic groups. Moreover, it is also important to perform new studies that consider the validity of the experts' claim that the preeminence of the costs is the only valid argument for using branded products. The existence of factors such as resistance and toxicity should also be considered, not only within the context of a competitive industry, but also inside the development of agriculture as an integral and sustainable activity.

REFERENCES

- Asocolflores. 2009. Colombian floriculture, 2009. <http://www.asocolflores.org/>. Accessed, May 2015.
- Asocolflores. 2010. Colombian floriculture. 2010. <http://www.asocolflores.org/>. Accessed, May 2015.
- Asocolflores. 2015. Boletin_exportaciones-2014_Enero-noviembre_2014. http://www.asocolflores.org/aym_document/BOLETINES/Boletin_exportaciones-2014_Enero-noviembre_2014.pdf. Accessed, May 2015.
- CCI Corporación Colombia Internacional. 2014. In International Trade Center ITC. <http://ww.trademap.org>. Accessed, May 2015.
- Dinero. 2013. Encantados con las flores colombianas, Disponible en: <http://www.dinero.com/pais/articulo/encantados-flores-colombianas/185089>. Accessed, May, 2015.
- García, E.R. 2003. Una mirada a la propiedad intelectual de agroquímicos desde la perspectiva Latinoamericana. *Revista e-Mercatoria*, (1): 68-82. <http://dialnet.unirioja.es/servlet/articulo?codigo=3628456>

Godet, M. 1996. De la Anticipación a la Acción. Editorial Alfaomega. Bogotá, Colombia.

ITM. Trademap. 2015. Estadísticas del comercio para el desarrollo internacional de las empresas. <http://www.trademap.org/Index.aspx>, Accessed, May 2015.

Mojica, F. 2002. La prospectiva. Técnicas para visualizar el futuro. Editorial Legis. Bogotá Colombia.

Ojeda, H. 2009. Análisis de escenarios futuros de la industria de productos agroquímicos fitosanitarios de marca para la floricultura de la sabana de Bogotá. Tesis de Grado Magister en Ciencias Agrarias, énfasis en desarrollo Empresarial Agropecuario. Facultad de Agronomía, Universidad Nacional de Colombia.

Olivas M. 2008. Genéricos o marcas? El dilema de los productos agroquímicos. Upanic. La Revista Agropecuaria (Nicaragua) (8): 4-6.

Riascos S. 2012. Knowledge Management: Uma Ferramenta Efetiva Para A Construção De Cenários Na

Perspectiva Tecnológica. Revista Facultad de Ciencias Económicas: Investigación y Reflexión, 20(1): 107-121. <http://www.redalyc.org/articulo.oa?id=90924279008>

Sánchez, B., I. Montoya y A. Montoya. 2013. Aplicación del enfoque integrado de prospectiva y estrategia para el mejoramiento al proceso de selección docente de la universidad nacional de Colombia. Universidad Nacional de Colombia. Revista INNOVAR 23(48): 43-54. <http://www.revistas.unal.edu.co/index.php/innovar/article/view/40489/42326>

Santiago, D. y I. Montoya. 2011. El perfil competitivo local como factor determinante para el desarrollo de la floricultura en Madrid Cundinamarca. Revista Facultad de Ciencias Económicas: Investigación y Reflexión, Universidad Militar Nueva Granada. Bogotá. http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0121-68052011000200003&lng=pt&nrm=iso&tlng=pt

Smida, A. 2004. Utilisation des ingrédients de prospective comme leviers de stratégie. Innovar 23: 24-39. <http://www.redalyc.org/articulo.oa?id=81802303>

