

Cadeia produtiva de flores no litoral do Paraná -Brasil: uma aplicação da taxonomia de Miles e Snow

Flowers supply chain in Paraná Coast - Brazil: an application of Miles and Snow taxonomy

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Resumo

O litoral do Estado do Paraná já foi grande centro produtor e comercial de flores, porem na ultima década a cadeia produtiva teve redução na área de cultivo e da comercialização. Visando subsidiar uma melhor compreensão do cenário atual da gestão estratégica da cadeia produtiva de flores nas varias regiões brasileiras com base na similaridade encontrada no litoral do Paraná, apresenta-se resultado de pesquisa que buscou identificar os processos de produção, distribuição e comércio na cadeia produtiva de flores no litoral do Paraná, e promover uma classificação estratégica pelo modelo de Miles e Snow. Foi realizado pesquisa exploratória descritiva entre maio de 2014 a abril de 2015, com entrevistas presenciais a 9 produtores rurais, 5 atacadistas e 15 varejistas. Os produtores apresentavam postura estratégica defensiva, os atacadistas postura estratégica analítica e os varejistas postura estratégica reativa, e se constituía o segmento mais forte da cadeia produtiva devido a capacidade de organização. Nos três níveis imperava a rivalidade comercial entre os segmentos. Conclui-se que a cadeia produtiva de flores no litoral do Paraná, necessita urgente de um modelo de governança entre os segmentos que permita realizar práticas cooperativas e combinações comerciais harmônicas para gerar maior competitividade ao setor.

Palavras-chave: Comércio de flores; varejo; comercio atacadista,; agronegócio; floricultura.

Abstract

Paraná Coast had already been a great producer and commercial center of flowers, however in the last decade the supply chain had reduced its cultivation area and marketing. In order to support a better understanding of the strategic management current situation of the flowers production chain in several Brazilian regions based on the similarity found in Paraná Coast, it is presented the results of a research that sought to identify the processes of production, distribution and trade in the flowers supply chain in Paraná Coast, and provide a strategic classification using the Miles and Snow model. It was conducted a descriptive exploratory

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survey between May 2014 to April 2015, with face interviews to nine farmers, five wholesalers and fifteen retailers. The producers had a defensive strategic posture, the wholesalers showed an analytical strategic posture and the retailers had a reactive strategic posture, and they were the strongest segment of the supply chain due to the organizational skills. In these three levels predominated the commercial rivalry among the segments. It was concluded that the flowers supply chain in Paraná Coast, urgently needs a governance model among the segments that allows performing cooperative practices and harmonic business combination to generate greater competitiveness for the sector.

Key words: *Flower trade; retail; wholesale trade; agribusiness; floriculture.*

1 Introduction

The global flower market occupies an estimated area of 190,000 hectares, and moves values close to \$ 60 billion per year, being the largest producers in the world: the Netherlands, Colombia, Italy, Denmark, Belgium, Costa Rica, Ecuador, Australia, Malaysia, Thailand, Israel and the United States (BATT, 2000).

The flowers and ornamental plants world trade has shown in recent decades the tendency to increase the consumption, especially in countries classified as in development (ANACLETO, NEGRELLE, 2013b), like in Latin America, Colombia is the largest producer and second largest world exporter of flowers, and moves approximately \$ 555 million dollars per year, it is emphasized that the Colombian flower market has been shown in evolution constituting one of the main agribusiness sectors in that country (CALDERON, 2014).

The growth of flowers production and consumption in Brazil, is also relevant, since that in the last decade the consumption per capita was US \$ 4.5 per year and nowadays tops \$ 7 per year and with satisfactory growth rates (MACHADO NETO, JASMIM, PONCIANO, 2013).

The financial move in Brazilian flowers market is approximately of 1.3 billion dollars per year, and caused a change in businessmen behavior, which started the search for qualification in production and efficiency in trade practices (MACHADO NETO et al., 2013; SILVA, PAIVA, SANTOS, 2015; JUNQUEIRA, PEETZ, 2015).

The commercialization of flowers and ornamental plants in Brazil involves the efforts of 5,000 producers and over 18,000 points of sale, and the main commercial center is situated in the Holambra, State of São Paulo and this region, responsible for handling nearly 80% of the volume of national flower market (MACHADO NETO et al., 2013; SILVA et al. 2015).

Floriculture in Paraná, according to Anacleto and Negrelle, (2013b) has also been growing, having appeared several producers poles as in Curitiba, Apucarana, Guarapuava, São José dos Pinhais, Cascavel, Londrina, Foz do Iguaçu, Marialva and Corbélia.

Although the indicators reveal the growth of flower market in Paraná, this sector in Paraná Coast has presented opposite trend to that observed in the state scenario, and even with contingents as soil and climatic conditions favorable to the cultivation, proximity to three major consumer centers (Curitiba, Ponta Grossa and Joinville), annual flow of around two million tourists per year, and then, in the last decade the region suffered great decrease levels of production area and quantity produced (ANACLETO, NEGRELLE, 2013a).

Despite the growth of floriculture in Brazil, other regions of Brazil has presented difficulties in production and trade of some species of flowers, similar to what is occurring in

Paraná Coast, as the case of Pernambuco (SILVA, LEITÃO, 2009), Rio de Janeiro (MACHADO NETO et al.,2013) and Ceará (SOARES, SOUZA, BARBOSA, 2013).

The difficulties faced by these regions in the development of the flowers supply chain may be associated to the lack of management strategies, whether at micro or macro environment of the production chain, especially in the flower market in Brazil, which has been developed in an uncoordinated manner, without the support of public or private expert institutions in this sector (ANACLETO et al.,2014).

Understanding the scenario of a supply chain is more easily obtained from the characterization of the agents performance forms involved in the process, and from this knowledge it is possible to establish the similarities and discrepancies within each segment as well as in all supply chain (BATT, 2000; PARNELL, HERSHEY, 2005; ANACLETO, NEGRELLE, 2013a; ANACLETO, NEGRELLE, 2015).

In this way, investigate and understand the relations of strategic management of each manager in his enterprise and among segments of a supply chain becomes essential in proposing governance models that favors the chain as a whole by creating a collaborative relationship and business opportunities (HUNT, ARNETT, 2004; ANACLETO, NEGRELLE, 2013B; CALDERON, 2014; ANACLETO, NEGRELLE, 2015).

Thus, in order to support a better understanding of the current situation of flowers supply chain strategic management in several Brazilian regions based on the similarity found in the flowers supply chain in Parana Coast, it is presented results of research that sought to answer the following questions:

- a) Identify how the production, distribution and trade processes were established, in the flowers supply chain in Paraná Coast.
- b) Identify in each segment what were the strategies adopted that resulted in competitive advantage to the supply chain.
- c) Identify the competitive strategies adopted by managers in the three segments of the flowers supply chain (producers, wholesalers and retailers) and provide a classification of the application of Miles and Snow model.
- d) Discuss on the implications of the reality observed in the context of the flowers supply chain in relation to strategic typology proposed by Miles and Snow.

2 Theoretical Framework

The definition of business strategies in floriculture becomes essential to the development of the activity (BATT. 2000; ANACLETO, NEGRELLE, 2013a; CALDERON, 2014), as the strategic management identifies the short and long term goals and actions to be undertaken in an organization or set of them in line with their mission and vision of future, resulting in designed attitudes that promote the company's interaction with the environment in a competitive way (PORTER, 1991).

The concept of generic strategy is derived from the fact that there are similarities among the several taxonomies of corporate strategies, however, despite the described analogy, there is no a strategies universal classification (HUNT, ARNETT, 2004; HERSHEY, PARNELL, 2005).

In general context, there are many taxonomies that traditionally has been applied to large organizations, however specifically as concerns micro and small businesses, the aforementioned taxonomies had limitations (GIMENEZ et al.,1999; PEINALDO, FERNANDES, 2012) .

The discussion of this application and use of the strategic management in micro and small organizations has become relevant in recent decades, and despite all taxonomies have been efficient, specifically in relation to small and medium companies the strategic taxonomy proposed by Miles and Snow (1978) presents a more appropriate and applicable classification

to the context because it considers the relationship among the strategy adopted by the manager, the available structure and implemented business processes, and allows the identification of the interrelationships of these environments (GIMENEZ et al.,1999; PEINALDO, FERNANDES, 2012).

The combination of the interrelated factors and considered in the typology of Miles and Snow (1978), according to Hambrick (1983) among the several taxonomies tried, the Miles and Snow taxonomy (1978) is among the most used and adopted in the business world, because based on a set of answers given by managers individually, it categorizes the expected behaviors in four types: defensive, prospector, analytical or reactive.

The types of strategic behavior described vary among organizations as the perception that managers have on the environment and set of information which they have, and how they promote adaptations in the organizational environment for the categorization of these four types (defender prospector, analyzer or reactive) are anchored on three central aspects.

The first aspect considered in the taxonomy of Miles and Snow (1978) deals with the decisions of managers, in this context the classification of the organization considers issues associated to the entrepreneurial problem and the products and services choices, and the direction to be made to a market segment (Table 1).

Table 1 - Dimensions of the adaptive cycle and characteristics related to the entrepreneurial problem
Entrepreneurial Problem

	Problem:	Solutions:
Defender	How to seal off a portion of the total market to create a stable set of products and customers.	1. Narrow and stable domain. 2. Aggressive maintenance of domain. 3. Tendency to ignore developments outside of domain. 4. Cautious and incremental growth primarily through market penetration. 5. Some product development but closely related to current goods or services.
Prospector	How to locate and exploit new product and market opportunities.	1. Broad and continuously developing domain. 2. Monitors wide range of environmental conditions and events. 3. Creates change in the industry. 4. Growth through product and market development. 5. Growth may occur in spurts.
Analyzer	How to locate and exploit new product and market opportunities while simultaneously maintaining a firm base of traditional	1. Hybrid domain that is both stable and changing. 2. Surveillance mechanisms mostly limited to marketing; some research and development. 3. Steady growth through market penetration and product-market development.

Source: Miles, Snow, Meyer and Coleman (1978).

The second aspect to be considered in the classification, is associated to the managers decisions in relation to engineering problems, in the case of the flowers supply chain, problems concerning to the choice production technology and logistics of product distribution defined in the entrepreneurial problem (Table 2).

Table 2 - Dimensions of the adaptive cycle and characteristics related to the engineering problem
Engineering Problem

	Problem:	Solutions:
Defender	How to produce and distribute goods or services as efficiently as possible.	1. Cost-efficient technology. 2. Single core technology. 3. Tendency toward vertical integration. 4. Continuous improvements in technology to maintain efficiency.
Prospector	How to avoid long-term commitments to a single technological process.	1. Flexible, prototypical technologies. 2. Multiple technologies. 3. Low degree of routinization and mechanization; technology embedded in people.

Analyzer	How to be efficient in stable portions of the domain and flexible in changing portions.	1. Dual technological core (stable and flexible component). 2. Large and influential applied engineering group. 3. Moderate degree.
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Source: Miles, Snow, Meyer and Coleman (1978).

The third aspect deals with the administrative problem which seeks the organizational efficiency and guide to the solution of the problems described in previous issues as well as guide the organization in the actions for the future related to new products and forms of interaction with the market (Table 3).

Table 3 - Dimensions of the adaptive cycle and characteristics related to the administrative problem
Administrative Problem

	Problem:	Solutions:
Defender	How to facilitate and coordinate numerous and diverse operations.	1. Marketing and research and development experts most powerful members of the dominant coalition. 2. Dominant coalition is large, diverse, and transitory; may include an inner circle. 3. Tenure of dominant coalition not always lengthy; key managers may be hired from outside as well as promoted from within. 4. Planning is comprehensive, problem oriented, and cannot be finalized before action is taken. 5. Tendency toward product structure with low division of labor and low degree of formalization. 6. Decentralized control and short-looped horizontal information systems. 7. Complex coordination mechanisms and conflict resolved through integrators. 8. Organizational performance measured against important competitors; reward system favors marketing and research and development.
Prospector	How to facilitate and coordinate numerous and diverse operations.	1. Marketing and research and development experts most powerful members of the dominant coalition. 2. Dominant coalition is large, diverse, and transitory; may include an inner circle. 3. Tenure of dominant coalition not always lengthy; key managers may be hired from outside as well as promoted from within. 4. Planning is comprehensive, problem oriented, and cannot be finalized before action is taken. 5. Tendency toward product structure with low division of labor and low degree of formalization. 6. Decentralized control and short-looped horizontal information systems. 7. Complex coordination mechanisms and conflict resolved through integrators. 8. Organizational performance measured against important competitors; reward system favors marketing and
Analyzer	How to differentiate the organization's structure and processes to accommodate both stable and dynamic areas of operation.	1. Influential members of dominant coalition, followed closely by production. 2. Intensive planning between marketing and production concerning stable portion of domain; comprehensive planning among marketing, engineering, and product managers concerning new products and markets. 3. Loose matrix structure combining both functional divisions and product groups. 4. Moderately centralized control system with vertical and horizontal feedback loops. 5. Extremely complex and expensive coordination mechanisms; some conflict resolution through product managers, some through normal hierarchical channels. 6. Performance appraisal based on both effectiveness and efficiency measures, most rewards to marketing and engineering.

Source: Miles, Snow, Meyer and Coleman (1978).

The dimensions of the adaptive cycle and characteristics concerning to administrative, entrepreneurs and engineering problems from the type classified as reactive could not be described with similarity to the other strategies (Tables 1, 2, 3), because this strategy model (reactive) according to Gimenes et al. (1999) can show inconsistencies from at least three sources.

The first source is derived from management failures in articulating a viable organizational strategy, the strategy is articulated. The second source may be related to the technology issues, structure and processes not linked to reactive type in a properly manner, and finally in the case of administration to adhere to a particular association between strategy and structure, and this is more relevant in environmental conditions.

The unpredictability in this type of strategy is often actuated by the impulse reaction of the managers who do not answer coherently the pressures and environmental events, while the other three types are considered stable forms of organizational management.

3 Material and Methods

Initially, to obtain information about the production in the various municipalities of Paraná Coast, it was held a visit to the Regional Department of SEAB (Paraná Government Agriculture Department) in Paranaguá.

Then, from May 2014 to April 2015, according to Anacleto and Negrelle (2013b) proposal it was conducted exploratory and descriptive study based on technical visits, participant observation and interviews, in order to identify how were established the production processes and flowers trade in Paraná Coast, in the segments that made up the flowers supply chain, they are:

a) Producers trade

Through visits to the offices of Emater-Paraná, it was identified nine flower producers in Paraná Coast (Morretes and Guaratuba) were recognized by their tradition in this kind of production, and all of them were predisposed to answer the research. In this segment it was evaluated the production system internal organization, cultivated species, harvest prospects, post-harvest procedure and production destination, commercialization systems, the classification of the adopted management system according to the typology of Miles and Snow (1978) as well as identify what were the strategies adopted that resulted in competitive advantage to the floriculture sector.

b) Wholesale trade

During the interviews with retailers and producers, the research sought to identify who were the wholesalers that worked in the region, in flowers purchasing and selling. In total it was identified six wholesalers, from these ones, five answered the survey, being four with central business in Curitiba – PR and one from Joinville – SC.

It sought to identify in this segment, the wholesalers origin, commercial operation system commercialized species, how was the business relationship with retailer and producers, the processes related to the marketing mix, classification of the adopted management system according to Miles and Snow typology (1978), as well as identify what were the strategies adopted that resulted in competitive advantage to the floriculture sector.

c) Retail trade

It was identified in the Municipal Commercial Associations in Paraná Coast 22 (twenty-two) places that commercialize flowers (flower shops, garden centers, markets, kiosks). Of these, by accessibility and responsiveness were interviewed 15 managers or owners in six cities (Pontal do Paraná, Matinhos, Morretes, Antonina, Guaratuba and Paranaguá).

It sought to identify in this segment the most important species to the retail trade, identifying the marketing mix formal processes, promoting the classification of the adopted management system according to the typology of Miles and Snow (1978), as well as identify what were the strategies adopted that resulted in competitive advantage to the floriculture sector.

The characterization of flowers production, distribution and trade processes in Paraná Coast was obtained based in Anacleto and Negrelle (2013a) proposition.

Due to the fact that the respondents were not predisposed to provide accurate data about the number of flowers sold in their companies, the definition of the most important flowers species in the retail segment, it was made an impact matrix, where the respondents answered about the most important flowers, categorizing them hierarchically, and may score up to five different species.

The classification in the three segments (producers, wholesalers and retailers) of the implementation of the strategic model of Miles and Snow was obtained following a predefined script containing 11 (eleven) questions according to Conant, Mokwa and Varadarajan (1990) being made personal interview.

The questionnaire allowed in each question, four alternative answers which directed to the classification according to Miles and Snow typology (defender, analyzer, prospector or reactive) where the respondent could only choose an alternative. According to Peinaldo and Fernandes (2012), if the respondent manager reported in most of alternative solutions on a given type, the ranking strategy was then defined that class.

There was only one case of a tie between the alternative analytical and reactive, and following the proposal of Gimenes et al. (1999) the strategy was classified as reactive.

After being completed data collection in the three segments (producer, wholesale and retail), it was adopted the interpretative analysis, conducted through data triangulation technique with similar groupings. This technique was accomplished with the association of the information collected in interviews, in relation to the data obtained in the analyzed documents, and in the participant observation during the interviews and the time spent on farms and in commercial places.

Data triangulation allowed to make the classification of the set that made up each segment of the supply chain according to Miles and Snow typology (1978) which relates how the organization or set of them compete in a sector .

4 Results

a) Producers trade

The flowers production and trade was recurring activity among respondents, given that the average time of dedication to the production of flowers activity was on average 10.5 years. Among respondents all of them had high school education.

The flower production was the main economic activity in the visited properties, however only in two cases it was observed a formal production planning, in other farms visited, production happened in accordance with the natural availability of seedlings for replanting.

The decision process of what and when plant was discussed when the family members involved in the activity were together, and in most of cases (n = 66%) were based on commercial historical of previous years.

The flowers production was made with the use of family labor which involved an average of four people per property, and in special periods, they hired extra workers, in these periods was generated on average a temporary job for property, however these cases, it was reported by the majority of respondents (n = 88%) that it was very difficult to hire people with qualification in the producing region.

The average production was approximately 5,500 units per year, and the cultivation was carried out in hothouses (n = 22%), greenhouse (n = 17%) and also in the open air (n = 61%), which according to the interviewees affected the quality of the product to be commercialized, despite this, all respondents reported that knowledge and domain of flowers production technology, was in their the opinion, the main competitive advantage for the segment.

In all farms visited it was observed that the planting was open air, the flowers in this case were in the field, and only after the request made by retailers, the flowers were harvested, cleaned and removed the old leaves and defects, aiming let the plants looking better.

This kind of planting was done with agricultural mechanization, soil acidity correction every two or three years, NPK application in planting and sporadic coverage fertilization (when necessary).

The irrigation in hothouses and greenhouses was carried out by spraying, and in the open air cultivation only a part of the area had this irrigation system (n = 50%) in both situations the weed control were done manually or by weeding.

The pest control was performed curatively, and disease control occurred with the use of fungicides in monthly preventive applications.

The species produced were similar in all flowers production units visited, and orchids were the most produced flowers with approximately 45% of individual production, followed by bougainvillea sp with approximately 17%. Other species also formed the production mix, but in smaller quantities, like the dracaenas, palms, bromeliads, ornamental peppers, lily, hibiscus, anthurium and *Brunfelsia uniflora* (manacá).

Regarding to commercialization, the majority of respondents (n = 88%) reported difficulties in performing the sales of the production, thus they hoped that buyers came to their properties to get the production.

Producers also reported that to leave the property and make sales contacts, hampered the production process, so the sale on the property was considered the most important sales channel (n = 88%).

The sales channels were varied, normally the delivery was made in more than one channel, among the most relevant are: owners of flower shops (n = 66%), retailers owners of garden centers (n = 44%), gardening companies (n = 22%), Paraná wholesalers (n = 33%), wholesalers from other regions (n = 22%) and also in fairs direct to the final consumer (n = 33%).

The price was lower than they considered ideal according to all interviewed farmers.

In order to increase the sales the producers performed promotions (n = 88%) what usually was the offering of discounts when the buyer purchased in larger quantities and payment in terms, this fact resulted in price and profitability reduction.

Concerning to the strategic classification using the typology of Miles and Snow (1978) based on the interviews of managers/owners of flowers productive units in Paraná Coast (Table 4), the defensive strategy was the most frequently observed.

Table 4 - Classification of strategies adopted by managers/owners of flowers production units in Paraná Coast.

Strategy	Frequency (%)
Analytical	11
Defensive	89

b) Wholesale trade

The wholesalers time of market was on averaged 16 years, and the average age of the owners/managers was 52 years old, none of the respondents reported have studied in college or having any kind of training or course in the area.

The wholesale sector in Paraná Coast acted in a similar way to that observed in other Brazilian regions, with the acquisition of flowers in *Veiling* from Holambra in São Paulo State and other regions and transfer to local retailers.

The wholesale trade (n = 100%) was made in pre-sales system (email and phone), as well as prompt delivery sale, especially when they have a greater stock of flowers available, in this case this kind of delivery aimed to eliminate the risk of injury.

The routes developed by the wholesalers had dual function, while they have sold flowers with retailers, in return to their property, they bought flowers in the regional producers, thus, besides reducing the buying and selling costs, they enlarged the line of commercialization products. This action constituted in the opinion of respondents (n = 100%) the main wholesaler competitive strategy, as well as dilute the costs with sales and delivery logistics, increasing the profitability levels.

The respondents (n = 100%) also reported that they buy production from Paraná Coast, due to the price being lower than the price in São Paulo, Curitiba and Joinville, and despite the level of flowers quality being inferior from other regions yet the production was capable to enter in the market.

The purchase made by wholesalers from regional farmers was with 30 days for payment, and sales from wholesalers to retailers, due to the risk of default was primarily paid in cash and in special cases the sale was with 30 days for payment.

Related to the strategic classification using the typology of Miles and Snow (1978), with flower wholesalers in Paraná Coast (Table 5), the analytical strategy was the only in the interviews with managers/owners.

Table 5 - Classification of strategies adopted by flowers wholesalers in Paraná Coast.

Strategy	Frecuence (%)
Analytical	100

c) Retail trade

The retail sector was represented especially by flowers shops, which were present in all the cities located in Paraná Coast, 22 establishments have been identified, mostly in Paranagua (n = 6), Matinhos (n = 5), Pontal Paraná (n = 4), Guaratuba (n = 3), Morretes (n = 3), Antonina (n = 1) and Guaraqueçaba (n = 1). At the end of data collection 15 managers/owners answered the field research.

The retail companies, mostly (n = 66%) were consisted of partnership between two people who self-characterized as a micro family business, due to the use of family labor, 2.5 people per unit .

The time of existence of these companies was averaged 10 years, and the average age of the owners was 44.5 years old, and in the most of cases (n = 79%) at least one of the partners had a second income activity.

Although the majority (n = 66%) of the owners or managers interviewed has studied in college, none of them had been training in the commercial area.

The professional development was accomplished with courses and lectures using the internet (93%), visit to Holambra for short courses and subsequent internal training to employees (79%), magazines or specialized books (53%), and participation in funding agencies lectures (n = 19%) as Sebrae, Banco do Brasil, BNDES and others.

Although it was not possible to ascertain the quantities commercialized for species, the most important flowers to the enterprise were roses and orchids, followed by others of lower commercial value, such as violets and chrysanthemums (Table 6).

Table 6 - The most important flowers to retail enterprise, allowed to score up until five different species (n = 15)

Classification	Flowers species	Score
1	Rose	55
2	Orchid	27
3	Violet	22
4	Chrysanthemum	15
5	Daisy	14
6	Llily	12
7	Anthurium	12
8	Azaleia	12
9	Gerbera	11
10	Kalanchoe	11

Relating to the marketing mix, the strategies reported to increase sales were: the offering of diversified products, attractive prices, the purchase commercial species and conducting advertisement by distributing pamphlets, which were reported by all respondents, however other strategic commercial initiatives were also observed: Flower shop website (n=93%), promotion to customers using direct mail or Internet (n=39%), advertising in radio and local newspapers (n=33%) and partnership with designers/companies that organize graduation parties/ landscapers (n = 33%).

The main profit rise strategy was to buy with some bargain in order to reduced prices to increase profitability ratios, this tactic was made by the majority of the respondents (n = 79%) with the adoption of a system of performance in networks where the purchase of products to the stores occurred in a collective buying system between two or three stores in order to obtain progressive discounts by quantity. The collective buying system was made preferably by entrepreneurs who did not have stores in the same neighborhood. Traditionally occurred in special periods (Mother's Day, Woman's Day and others), and with higher demand for flowers, it was also organized joint purchasing directly in Holambra.

Retailers (n = 79%) reported to purchase flowers of producers from the Coast, but always occurred communication with other retailers in order to purchase together and it was also reported that they pay lower prices from Paraná Coast producers in relation to other regions.

The foment mechanisms accessed by managers or owners who supported the commercial development were: Local business associations (n = 100%), Sebrae (n = 53%), BNDES card (n = 39%), and consultation to micro company in Banco do Brasil (n = 33%).

Concerning the strategic classification of retailers using the typology of Miles and Snow (1978), the reactive strategy (Table 7) was the most frequently observed in Paraná Coast.

Table 7 - Classification of strategies adopted by flowers retailers in Paraná Coast

Strategy	Frequence (%)
Analytical	6
Defensive	6
Prospector	28
Reactive	60

5 Discussion

The flowers supply chain in Paraná Coast shows inequality among its segments, first, the producers are effortless and without organization, mostly adopt several retail channels as

means of crop disposal, and it was revealed as the most fragile segment of the supply chain, and they classified as competitive advantage the domain of the production process..

According to the typology of Miles and Snow (1978), in the biggest part of the visited properties, managers were classified in the defensive strategy which is traditionalist.

The organizations belonging to this typology, are highly specialized in a particular area of operation, in this case the production, which confirms the results of the study, however this type of managers have resistance to seek new opportunities, and they privilege those products that are more stable, and that they have already had broad domain of the production system. The control of production flow is based on the economic issue and the market growth or profitability occurs basically by productivity, however the factor highlighted as the segment main competitive advantage apparently determines the producers submission to retailers and wholesalers on trade issues.

The weakness is revealed in little investment in production technology and difficulty in finding people with qualification to work. The production of similar species of flowers in the biggest part of the properties difficult bargaining power, and the result is: the class is commercially dominated by the other segments, which imposes prices when negotiate since they have a high offer of flowers of same varieties.

The management actions of this organization typology are directed to ensure the compliance of other supply chain installments or market segmentation, they focus on the product with the best possible quality. However, in the case of flower producers, there is a non-alignment between strategy and production structure, especially in open air cultivation.

According to Porter (1991) when a production system segment does not develop sustainable competitive advantages such as the flowers producers from the Coast, another segment becomes dominant and determines the conditions and the informal rules of business processes.

The sustainable competitive advantage can be classified as a triumph obtained by a company or business sector arising from strategic decisions, from its acquired skills, its performance and its innovation capacity, but the competitive advantage is sustained only if the concurrence has difficulty in imitating or yet granting bargaining power with other sectors, factor does not observed in flower production.

The more organized a sector, the greater its ability to generate competitive advantage over their competitors, according to Porter (1991) a supply chain tends to create lasting competitive advantage when all segments are balanced among them, and all are supported economically.

The regional flowers production, as well as in other Brazilian regions, has enormous wealth of flora, but it focused on a reduced product options. The decrease in the amount of produced species reduces the producers bargaining power and then other segments, in this case the retail, due to its higher efficiency and organization get the biggest gains, this factor is especially because flowers are perishable and forces the producers sell faster their production.

The quality reduction by the production structure factor (open air cultivation) results in less producers competitive advantage and lower prices than the flowers concurrence from other states, creating a cycle where low profitability does not generate funds for investment in more appropriate production structures, and since there is no appropriate production structures, there is no resource remains for new investments.

According to Gimenez et al. (1999) if there is alignment between the chosen management strategy and structure, the defensive strategy could lead the organization to be effective, creating lasting competitive advantage, factor does not observed in these production units.

Among the alternatives that producers could consider in changing this scenario is the use of region native species, which differ from those traditionally found on the shelves of

flower shops, and also could be more resistant to the low use of technology conditions, then according to Anacleto et al. (2014) may be more adapted to be cultivated in open air.

Paraná Coast region is rich in native ornamental species, and the commercialization may be favored due to the flowers features like the beauty of colors, flower shapes and post-harvest durability, however as in other Brazilian regions nowadays a little bit of this natural wealth is used to generate income to the producers who remains depending of other supply chain segments that are dominant (Anacleto; Negrelle, 2013b).

Native flowers deserve a closer look from the standpoint of production and marketing by producers, as according to Anacleto and Negrelle (2013a) species of region native flowers, due to the fact that there were not among the most traded, they are hardly found in the shelves of large flowers distributors, and therefore they have great potential for consumer acceptance.

The production and appreciation of these native species could significantly increase the commercialization power and strengthen the rural community, and help to reduce the historic exodus of the activity that is taking place with flowers producers from Paraná Coast.

The flowers wholesalers operating in Paraná Coast were classified in the typology of analytical strategy, which is traditionally cautious. The organizations belonging to this typology are those which seek the guarantee and stability of a limited product line, however considers the careful inclusion of other products already tested and that are consolidated by other organizations.

According to Gimenez et al. (1999), is a stable form of organization, considering the several market segmentations considering carefully, and although it is assertive and meticulous in the change process and it is geared to competition, it is flexible in actions that are always focused on profitability and market share growth.

The organizational effectiveness model adopted by the flowers wholesalers which denote competitiveness lies especially on two marketing mix factors.

The first factor which gives organizational effectiveness is the dilution of the route costs between the sale of flowers and other products to the retailers and the purchasing of flowers from regional producers, when they return to their properties.

The second factor is associated to the commercial convenience offered to retailers and in relation to the cost and benefit when the issue is price and in the flower delivery, however on the other hand, the wholesale market suffers with the retailers bargaining power that imposes strong pressure in order to reduce prices, favored by the competition.

The wholesalers as a compensatory measure of this situation put pressure on flowers producers, which disorganized and with similar production among themselves, so they have no choice and give in to negotiate price reduction in order to have a better production flow.

The regional flowers retail trade performs in the same way as in other Brazilian regions, being nowadays the segment that promotes the link between production and wholesalers in order to attend the final consumer, target of this entire supply chain.

The operating model of retailers had two variation of classification:

The first model of retailers action according to the typology of Miles and Snow (1978) is classified as prospector strategy (n = 28%) and it covered the lower part of respondents among retailers. This kind of action demonstrates a behavior associated to innovation and dynamism, and is always looking for business opportunities and is careful to the market trends that experience and finish influencing the competitors, promoting this way the expansion of offerings.

The second categorization in the retail segment, and the most representative (n = 60%) was classified as reactive strategy, which is conservative and it is based on commercial security actions. This kind of action demonstrated behavior that aims to take advantage of the high profitability possibilities that show no apparent risks. This model can be related to a anti-strategy, which involves no risk in new products or services.

To wait is the preferred approach of businessmen who use environmental conditions which are favorable, and there is only any change when they have competitive pressures, in other words, when there is the possibility of a new competitor installation that might put the comfort situation at risk.

According to Gimenez *et al* (1990) usually if there is alignment among the chosen strategy and processes and organizational structures, the defensive, prospectors and analytical strategies can lead a company to be an effective competitor, however this does not happen traditionally in organizations classified as reactive, such as the case of most retailers of flowers sector observed in this study.

According to the typology of Miles and Snow, the reactive show inconsistencies that hinder their competitiveness usually related to management processes failures in the execution of the organizational strategy. Other inconsistency factor may be linked to inadequacy between the technology adopted regarding the structure of production processes, or environmental influences in the internal processes that affect competitiveness.

Gimenez *et al* (1990) when evaluated four different clusters of companies, observed in all kinds that reactive companies had the worst relative performance, including reducing the activities, however studies performed by Snow and Hrebiniak (1980) and Zahra and Pearce II (1990) revealed that companies classified as reactive can succeed and overcome other types of organizations since the environment where they are inserted show few environmental variations.

A little variation of the environment was a factor observed in the retailers of flowers in Paraná Coast and according to Anacleto *et al.* (2014) which traditionally favors the products more easily commercialized due to these business actions need little capacity of innovation.

Similarly the other Brazilian regions, the flowers retail business, according to Junqueira and Peetz (2015) is described as insightful, the supply flows, though plentiful, are concentrated only in small number of species when compared with the potential of Brazilian flora.

The formal commercialization processes by the retail sector, as well as the use of marketing strategies are predictable, and are restricted to small variations guided by the marketing mix: good location of shops, the sale of products with guaranteed consumption and products with low loss levels, product with final consumer acceptability, trivial and uncreative advertising and promotions system, and the item of the marketing mix that deserves the greatest attention from retailers, is the price.

The retail sector has not traditionally commercial strategies to make the consumers buy or visit the flowers shops more times a year, what happens is that the customers go up to the store according to their needs, and in this case the flower retailers promote the expansion of the mix products on the shelves, which are associated with color, shapes and smells, and according to Anacleto *et al.* (2014) conceives a pleasant place that ends up generating consumer impulse buying.

The Brazilian retail sector has shown significant changes in its organizational structure since the 1990s, and according to Anacleto *et al.* (2014) this process of structural change promoted generally a increased competition among companies in the sales of flowers in pursuit of customer's attention, generating the need to create lasting competitive advantages, however this new form of activity is present only in large cities where competition is fierce.

The retail trade in Paraná Coast created a competitive advantage model that became the most energized segment of the supply chain, based on the sector organization. The corporatism results in strengthening the purchasing strategy with lower cost price, increased pressure on other segments of the supply chain and therefore increased profitability.

The business to business strategy or performance in networks, does not always occur through legally constituted groups, they are often created by entrepreneurs with specific and

common goals, and aim to reduce the organization's risks in relevant economic activities as is the case of collective purchasing, such coordination and cooperation among companies result in increased competitiveness particularly by reducing costs.

The model adopted by inter-networks can not be confused with cartel, the cartel practice is resulted of the standardization of prices for all the segment, factor does not observed in the flower retail market.

The shared strategy among the retail segment goes beyond the simple barrier of collective purchasing, but results from a modern system of cooperation where competitors see themselves as partners, resulting in the exchange of information on purchase price and trends of new products, and also creates barriers the entry of new competitors when needed, being the strongest segment of the chain.

The networks model may be acting as an impediment force the entry of new competitors, datum that was not identified in research in companies with little operating time in the regional market and the lifetime of the localized companies was averaged 10 years, according to Porter (1991) although there may be competition, some sectors are organized in order to hinder the entry of new companies that might put in risk the existence of those already installed, resulting in a system of friendly competition.

Also according to Porter (1991) the performance in networks could also be used as a defense mechanism to reduce commercial influences of other segments that sell the flowers substitute products.

The advanced model of performance enabled the retail the imposition of molds of purchasing local flowers production. The acquired flowers as the example of the most produced flower (orchid bamboo) often were not properly resold in their establishments, but led to trade or exchange with wholesalers from Curitiba (PR) and Joinville (SC) for other flowers species.

The strengthening of a supply chain segment can generate the reduction in the bargaining capability of other segments (Batt, 2000; Anacleto ; Negrelle, 2013a; Calderon, 2014) and does not generate favorable processes to development and strengthening of the supply chain.

The strategic alliance among retailers is formed from two up to four small flower shops, the communication among them occurs via email and telephone, when the need for purchasing or hiring involving certain common objectives, in the case of reduction in price of flowers cost.

Thus, the likely reason for the traditionalism and the little creativity in flower retail, can be residing in the protection of networks performance strategy and low prices obtained on the purchase of flowers for resale, as the sector creates defense mechanisms that result in competitive advantage, sustain their positions in the market permanently.

6 Final Considerations

The most flower producers had defensive strategy posture, which resulted in the specialization of the production processes, and that was targeted to species traditionally found in the market, however they have shown failures in commercial processes, and it has been revealed the weakest segment of the supply chain, having little bargaining power in commercial processes with the wholesalers and retailers.

The flowers wholesalers presented analytical strategy posture, and the marketing mix adopted was little creative and it was restricted to prices promotion and the convenience in prompt flowers delivery to the retailers.

The main business strategy of wholesalers was when they deliver the flowers to retailers in Paraná Coast, and in the return they purchase flowers from local producers in

order to dilute the buying and selling costs, and amplified profitability, but this strategy does not contribute to the strengthening of the sector.

The flower retailers had the reactive strategy posture, whose competitive advantages were derived from business to business cooperation model adopted in bargaining in collective purchases at lower prices, resulting in the strongest segment of the flowers supply chain in Paraná Coast.

The study contrasts with that observed in other researches on reactive organizations in the retail market, however the favorable scenario linked to the actuation system confer competitive advantage to retailers in relation to other segments of the supply chain (producers and wholesalers) and therefore retailers acted conservatively and with few investments in new product lines.

It was not observed in the flowers supply chain in Paraná Coast collaborative governance mechanisms or proposal of any of the segments that were intended to strengthen the sector, in the three levels there was the commercial rivalry among them.

The scene reveals the urgent need to conduct cooperative practices and harmonic business combinations among the three segments in order to generate forces to achieve greater sector competitiveness in a global way.

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