

Influence of the 4Ps in the Buying Behavior of Elderly Consumers Flowers in Paraná Coast - Brazil

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Abstract— The consumption of flowers among the class of consumers called the old age is elevated in countries such as Japan, United States of America, Italy, France and others in Europe, but in Brazil, the consumption of flowers among the people of 60 years or more is still too low when compared with more developed markets. The factors that may be influencing this gap are still unknown, and in this context, in order to subsidize the establishment of marketing actions for the commercial segment floricultural production chain retailer, this study investigated the influence of the 4Ps, namely: price, place, promotion and product of the buying behavior of elderly consumers. The study was conducted from 169 interviews with elders of both genres at the time they bought flowers in 22 florists of the coast of Paraná. The female gender was identified as the majoritarian consumer, and roses, violets and orchids their preferred species among this class of consumers. The retail trade of flowers did not attend the expectation of the customers of the old age, especially in relation to price, offered species and quality of production. The main products which replaced the flowers on consumer preference in old age when they could not find the desired flowers were clothes, perfumes and chocolates, just by the facility to be acquired in many different locations.

Keywords— *Agribusiness, flower trade, ornamental plants, retail trade, cut flowers and florist.*

I. INTRODUCTION

Commercial floriculture can be understood as the professional and business activity of production and distribution of ornamental plants and flowers grown with commercial purpose (JUNQUEIRA and PEETZ, 2011).

The trade of flowers and ornamental plants throughout the world is increasing over the past few years (LANDGRAF; P, 2009) and the rate of worldwide import and export of floriculture products compared to annual growth of 2009 to 2013 has increased 2% to an annual rate of growth (SEBRAE, 2015), being the main markets, Europe, Japan and United States that together represent 85% of the global consumption (Hernandez et al., 2013).

Specifically in relation to the Latin America, the main flower merchant countries are Colombia (52%), Ecuador (17%), Mexico (4%) and Costa Rica (3%) (HERNANDEZ et al., 2013), being that in these countries, the increase in the trade of flowers has occurred in the export to the European Union, where the florist is a consolidated market, not struggling only through seasonal periods (GRANDSON, et al., 2013).

The flower trade has also expanded rapidly in Brazil, where it is done through 18 thousand wholesalers' centers and 28 sales points, according to Junqueira and Peetz (2014) and SEBRAE (2015a).

The Brazilian production is focused primarily on the supply of the internal market, to which are directed 96.5% of the entire volume (JUNQUEIRA and PEETZ, 2014), to meet seasonal demands as all souls' day, mother's day, Christmas, international women's day and Valentine's day, periods in which the flowers are most valued by consumers (SEBRAE, 2015b).

The flower trade of 2015 moved R\$ 5.64 billion, being 8% higher than the previous year (SEBRAE, 2015b), but despite the amounts generated by the activity, when associated with the consumer of the third age, does not present significant public accession, existing gaps about why this factor occurs, as in other countries the trade of flowers is well structured with strong adhesion to the third age public.

Despite the flower shop in Brazil to present growth rates, Anacleto et al., (2014) describes the growth of products that replace the flowers in the taste of the consumer, especially when to present as beverages, books, clothes and chocolates, present

market growth more than the double presented by the florist and suggests that the senior audience is more susceptible to these substitutes.

The difficulty of expanding trade of flowers according to Mielke et al., (2008) is associated with the low consumption of these products by Brazilians, thereby, consumer orientation measures are necessary in order to reach new consumer classes and increase the market growth levels.

According to Blackwell et al., (2006) in order to expand consumption, often we have to provoke consumer incentives to change consumer habits passing to consume more than usual, but to do so, the consumer should feel the need or desire to dispose of the object.

The consumer perception of the old age in relation to trade and cost benefit of a product is generally higher in the present day, being that they are more active and economically active and connected with commercial reality and are seeking a better quality of life and products that fit themselves. In this context, the market must be attentive to the concerns of this class of consumers (SILVA; XAVIER, 2012).

The flower retail trade needs to seek ways to understand what are the environmental factors that act upon the consumer of this product, especially the seniors, and from this knowledge, shape the service system and the supply of products in order to awaken the desire of purchasing of the product.

According to Malhotra (2010) the correct knowledge of the decision-making process for the purchase of a group or class of consumers, is the first step to understand what leads people to buy or reject certain product or service.

Specifically in relation to the consumption of flowers, the consumers of the old age can be strategic in market expansion. According Anacleto et al., (2014) the increase in the consumption of flowers among these consumers has been occurring for a long time in more stabilized markets such as Europe and represents a niche to agribusiness floriculture in Brazil.

The senior consumer under general context, must have direct marketing systems specifically for the class (Anacleto et al., 2014) since in this new stage of life between adulthood passing the age with greater life experience, people become more demanding for consumption (Bakshi, 2012).

According to Anacleto et al., (2014) in the case of consumption of flowers by this class, the factors that influence consumer preference are unknown to most ornamental species, and information on how to think and what does this consumer can help delimit the greater ability of marketing a product, scheduling strategic actions that can change the decisions to purchase of a specific class of the final consumer.

For this reason, this research investigated the behaviour of consumer of flowers in the old age on the coast of the State of Paraná, and which factors are associated with the marketing compound influenced the averages and what products are the main competitors of flowers among this class of consumers. His introduction of the paper should explain the nature of the problem, previous work, purpose, and the contribution of the paper. The contents of each section may be provided to understand easily about the paper.

II. MATERIALS AND METHODS

The study was made by interviews with persons belonging to the social classification known as old age, whose individuals are 60 years or more (Statute of the elderly, 2014) in the coast of Paraná.

The research developed in this article can be characterized as descriptive exploratory and employed the quantitative method using a questionnaire as data collection instrument, that have been applied between January to March of 2015. (SCHIMMENTI et al.,, 2013)

The population sample was of 169 elderly, and answered the guidance of marketing research and consumer profile when the population is unknown (MALHOTRA, 2010).

The sampling in accordance, as proposed by Anacleto et al . , (2014) required that the consumer of the old age had bought flowers at least once in the last 12 months, and to present agreement to participate in the unidentified research.

The marketing compound (price, place, promotion, and product) was evaluated considering the level of consumer satisfaction obtained by the Kano Model attractive and binding quality (KANO et al., 1984). In this case, the respondent attributed Notes to the aspects that he classified as required prior to consumption, as well as scores from 0 to 10 attributed after the consumption:

- a) If the expectation of prerequisites prior to purchase is greater than the post-purchase satisfaction, the product requirements must undergo improvements.
- (b) If pre-and post-purchase attributes are equivalent, the costumer will only avoid being dissatisfied (neutral attributes).
- (c) If the prerequisites before purchasing are less than post-consumer satisfaction, it means the product is at optimal levels relative to the market (positive attributes) and meets the needs and wishes of the consumer.

The possible expansion of the consumption of flowers and the influence of the substitutes the flowers were obtained through the hierarchical categorization which provided indications of the 5 most relevant factors.

III. RESULTS AND DISCUSSION

The overall average of flower purchases among seniors is 5.81 times a year, divided into flowers for own use and as gift.

Most flower consumers on the third age investigated, were females ($n = 78.7\%$), which had a higher frequency of purchase (Average =4.03 in the past 12 months) when the flowers were for their own use, however when the purchase of flowers had the purpose to be given as gift, there were no differences.

Regarding the purpose and use of flowers, the purchases were aimed at greater relevance for the decoration of graves of family members, home decorations, garden decoration and desktop decoration.

The research revealed that the birthdays of people of living of the elderly was the main reason for buying flowers when to present, It is also described by respondents regarding the dates personal achievements of loved ones, wedding and women's day.

The roses, orchids, violets, c, Daisy chrysanthemum and bromeliads were the species most cited by the senior class in the purchase of flowers, both for their own use, as for presenting.

It was evidenced that the main factors that would lead the consumer in old age to buy more flowers were the price, greater variety, accessibility of the shops, Difficulty to find flowers in greater quantity and greater amount of flower shops.

Composite analysis of marketing showed that in the class of consumers of flowers of the old age, there is a predominance of consumer dissatisfaction in the factors associated with price, place, product and promotions. Emphasis was observed among consumers, in the attributes associated with the square, especially facilitated parking lot and accessibility of the floriculture (Table 1).

The biggest negative influence factor in marketing compound on trade of flowers in old age on the coast of Paraná was referring to price, (Table 1). The price in any commercial activity is the first barrier to be overcome by the merchant in the process of influencing the consumer, since, if the price is rated as high, the consumer tends to seek other alternative products to satisfy his desires.

TABLE 1
ATTRACTIVE QUALITY SATISFACTION RATINGS AND MANDATORY SENIOR CONSUMER IN RELATION TO THE MARKETING OF COMPOUND FLOWER TRADE-KANO MODEL (1984) (N = 169).

		Prerequisite to the consumption (average rating)	Post-purchase satisfaction (average rating)	Index the attribute	Attribute classification	MSD *
Price	Price	3,64 a	3,32 b	-0.32	Negative	0.28458
	Availability to pay in instalments	2,80 a	3,00 a	+ 0.20	Positive	0.20250
Square	Availability of the desired amount	3,54 a	3,53 a	-0.01	Negative	0.00000
	Easiness to find the desired flower	3,47 a	3,48 a	-0.01	Negative	0.00000
	Access to shop	3,48 a	3,22 b	-0.26	Negative	0.25979
	Accessibility	3,63 a	3,11 b	-0.52	Negative	0.23450
	Parking lot	3,71 a	3,25 b	-0.54	Negative	0.25153
	Resting places within the store	3,23 a	3,21 a	-0.02	Negative	0.00000
	The store environment	3,57 a	3,46 a	-0.11	Negative	0.20340
Promotions	Promotions	3,37 a	3,34 a	+ 0.06	Positive	0.00000
Product	Number of open flowers	3,17 b	3,53 a	+ 0.36	Positive	0.28363
	Information of the origin of flowers	2,45 b	3,09 a	+ 0.24	Positive	0.28668
	Number of units per pack	3,22 b	3,52 a	+ 0.30	Positive	0.27141
	Quality of attendance	3,92 a	3,48 b	-0.44	Negative	0.28060
	Appearance of the flowers	3,98 a	3,98 a	0	Neutral	0.00000
	Standardization of flowers	3,44 a	3,67 a	+ 0.23	Positive	0.27758
	Color of the flowers	3,90 a	3,90 a	0	Neutral	0.00000
	Appearance of the packaging	3,82 a	3,79 a	-0.06	Negative	0.00000

* MSD = minimum significant Difference by Student's t test. ^{a,b} Same Letters do not differ statistically between them < p 0.05.

The management of prices in retail stores is not limited only to the question of costs of purchase, but also to factors such as competition and the State of the economy of the region, which also influence the consumption habits of the population, the retail trade of flowers must be aware of the conditions occurring in regions that may impact in the trade and create ways to reduce this negative impact.

Consumers belonging to elderly respondents ($n = 169$) in its entirety have revealed that before the high prices, they had the habit of Exchange with neighbours and friends the seedlings of flowers and other ornamental plant species as a way to save its resources, directing part of the values of purchases with flowers to other products.

When the price is consumption limiter, the mitigation factor would be the supply of more affordable flowers to the consumer class, thus the retail trade could lead to a change in the frequency of purchase through price reduction or even with other species of lower cost.

The cost is a limiter for the consumer especially in relation to the first purchase, acquisition frequency and in the loyalty of the consumed product, so the retail market should be aware about the price issue, since lower prices as reported by the respondents could result in increased amounts of repurchase of flowers.

The consumer, generally, suffers the influence of internal and external factors at the time they carry out his purchases, Urdan and Urdan (2010) describe the buyback follows the model stimulus-processing-answers and consumer behavior. According to the author, the external factors involve the economic value, availability of certain products in the region and conditions of the local economy, however, other factors must also be considered, as the social and demographic issues, beyond the questions of gender, income and age, and finally the marketing mix (product, price, promotion and square) which features interrelationships with all factors cited, enlarging or reducing the commercial ability of a product.

The flower consumer in the third age also obeys the stimuli – processing – responses, and requires attention in relation to other factors associated with the marketing compound.

Beyond the issue of price, retailers should be aware of the difficulties reported by consumers to find the flower desired by them, as well as the required amount. The greater the effort required to find the desired species, the more easily it is influenced by substitutes of the flowers, emphasizing also that notably much of this audience presents limited capacity of locomotion and mobility.

Among the flowers desired by consumers, which the same show they cannot find for purchase, were cited: the Tulip ($n = 8\%$ of respondents) and exotic orchids ($n = 9\%$ of respondents). In these cases, the purchase of flowers was then replaced by another product. The clothes were the main product substituting the flowers when the senior consumer could not find the desired flower. (Table 2).

TABLE 2
MAIN PRODUCTS ACQUIRED BY THE CLASS OF CONSUMERS OF THE OLD AGE WHEN THEY COULD NOT FIND THE FLOWER THEY WANTED TO PURCHASE: SUBSTITUTES. ($N = 169$)

Substitute products		Index of relevance
1	Clothes	94
2	Perfumes	94
3	Chocolates/sweets	86
4	Jewelry/Costume jewelry	51
5	Cosmetics	27
6	Gift voucher	25
7	Home utilities	21
8	Books	18
9	Artificial flowers	18
10	Shoes	17

Issue with concurrent choices

The greatest preference for these products may be occurring due to the fact they can be found abundantly, practically in all cities.

Clothes are among the main products that replace the flowers in the budget of the elderly, and they are among the other preferential categories of substitutes, the likely explanation for this fact, according to Caplow (1982) might be the fact that

clothes differentiate individuals between genre, gender, appearance and style, giving the feeling of exclusivity at the time of purchase by the consumer.

Another factor that may be contributing to the power of substitution of flowers for the clothes can reside in the fact that according to IBGE (2013), the garment business is in the 5th position in the distribution of average monthly spending by families, therefore, there is a habit in buying clothes monthly. Thus, when the flowers purchase suffer the influence of negative factors, particularly the issues associated with the price, accessibility or quality of treatment, the accessibility to the substitute product becomes obviously a limiter to the loyalty of the consumption of flowers.

The elderly are currently most active and most demanding, and apparently, the biggest information coupled to the fact that according to Silva and Xavier (2012) there was a growth in purchasing power in the recent decades, which has caused greater purchasing power and greater ability to search for the products desired by them, which may also be influencing the substitutes of the flowers.

According to Urdan and Urdan (2010) If the barriers to consumption are raised to the client, there might be the waiver of the consumption depending on the trial of other products that will replace the object initially desired, in the case of flowers the situation may be more serious, considering that consumers of the old age also reported difficulties in finding the desired species (Table 2), and that when informed the establishment about the desired flower, received little or no interest from entrepreneurs to meet this demand.

According to Kotler (2012) a consumer's decision to modify, postpone or reject a purchase is highly influenced by the perceived risk of buying in three situations. The first risk is the risk that, when the product does not correspond to the expectations desired by the client. The second is the financial risk, when the product is not worth the price paid by the consumer's review. The third is the risk of time, when the inefficiency of the product results in an affordable opportunity cost (lowest cost and time) to find a satisfactory replacement product.

The high supply of substitutes results inevitably in comparative quality and consumer satisfaction, considering that the flowers are perishable, whereas other similar cost, as in the case of clothes, present greater durability. The products involved in this kind of substitution, as is the case of flowers, are pressured to have an excellent cost benefit to the client or reduce its price to be attractive.

The higher the price pressure caused by surrogates, which are found in abundance on the market, the greater the fall in the price of the product being replaced, in case, the flowers. Nowadays customers are more demanding influence of the 4Ps, namely: price, place, promotion and product of the buying behavior of elderly consumers aware in relation to prices and the cost benefit of a given product, and given the wide range of substitutes to them offered in similar price conditions, the biggest challenge of the consumer loyalty is constituted.

In this approach, the retailer in the customer service of flowers in old age, must overcome the limits of law nº 10,048/01 that reports that the elderly aged 60 or more years has priority in attendance, to conquer and retain such clients it is necessary a differentiated service, offering quality products and presenting significant cost benefits in purchasing.

Thus, the attendance to this clientele of flowers requires special attention with regards to the form of detailed service and more explanatory, as well as the physical structure of the site, which should be adapted in order to accommodate them in a comfortable and correct way.

Attention should be special about women, because they are the majority among flowers consumers in the class, in this context, the retailer needs to offer a service system that consider this set of features, seeking to understand their thoughts, feelings, in addition to offering customer service communication systems and transmission of messages to this audience. This adaptation is essential to better serve this type of clientele and expand the consumption of flowers to similar levels of trade rates of flowers among customers in the elderly age in other well-established markets such as Europe and the United States.

The increase in the consumption of flowers in the old age, would require traders and retailers who are responsible for servicing and selling, a change in corporate behavior, especially regarding prices, quality of flowers offered and accessibility to elderly consumer.

Consumer behavior in old age, can only be changed with the adjustment measures described, that if attended could influence the sequence of activities in the procurement and consumption including decision-making procedures that precede and succeed the stock acquisition.

According to Blackwell *et al.*, (2006) the action of a person in the purchase depends on the motivation that she receives and the perception that she might have on a situation.

The constraints of the situation will make the consumer in old age take a stand, so the intervention of retailers regarding the reasons for dissatisfaction can influence the consumer about the attitude of buying flowers, and through the repurchase, create loyalty processes of consumption.

The correct issue of consumer information of flowers in old age at the time of purchase should be cause for caution by traders, as it is the need for in-depth knowledge of the seller about the characteristics and care about the flowers, especially with regards to cultural practices, the form of extension of flowering and phytosanitary measures to prevent the occurrence of pests and diseases and the expansion of the longevity of the flowers, seeking to remedy the questions carefully to the consumer of the old age may represent a different form of approach to this class, and from these approaches overcome the expectations of these consumers.

IV. CONCLUSION

The price and species offered in the context of marketing were the main negative factors that limited the consumption of flowers in the senior class.

The main products that replaced the flowers on consumer preference in old age when there were no desired flowers were clothes, perfumes and chocolates, just by the facility to be acquired in many different locations.

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