SERIA POSSÍVEL AS FEIRAS LIVRES RECUPERAREM SUA IMPORTÂNCIA COMO DISTRIBUIDORES DE ALIMENTOS? PROPOSTA DE AÇÕES BASEADAS NO CASO DE TUPÃ, SP, BRASIL

CAN FARMERS MARKETS RECOVER THEIR IMPORTANCE AS FOOD RETAILERS? PROPOSING ACTIONS BASED ON THE CASE OF TUPA, SP, BRAZIL

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Resumo: O objetivo da pesquisa foi analisar o comportamento do consumidor de FLV nas feiras livres em Tupã-SP, Brasil. Para isso, foram identificados o perfil demográfico e socioeconômico e os hábitos de consumo dos frequentadores das feiras livres e verificada a influência dos fatores sociais e pessoais sobre o comportamento desses consumidores. Foram entrevistadas 227 pessoas, definidas por amostragem não probabilística e de conveniência, distribuídas proporcionalmente entre as feiras. Verificou-se que o comportamento de compra dos consumidores de FLV é influenciado por fatores sociais (família e amigos) e pessoais (sexo, idade, renda familiar, grau de instrução e estado civil). A baixa fidelidade dos consumidores evidencia a necessidade de ações que valorizem as vantagens de se comprar em feiras livres, quando comparados a outros locais. Os resultados permitiram a compreensão do comportamento dos consumidores entrevistados, conduzindo à identificação de questões relacionadas ao desenvolvimento das feiras livres, fomentando a economia da cidade.
Palavras-chave: Feiras livres; FFV; Hábitos de consumo; Perfil do consumidor.

Abstract: The aim of this research was to analyze consumers' behavior regard fresh fruits and vegetables (FFV) in the farmers market in Tupa-SP, Brazil. For this, we identified demographic and socioeconomic profiles and the consumption behavior of the farmers market's visitors, and verified the influence of social and personal factors over the behavior of these comsumers. We interviewed 227 customers, defined by non-probabilistic convinience sampling, distributed proportionately among the farmers markets. We observed that the FFV consumer behavior is influenciated by social factors (family and friends) and personal ones (gender, age, family income, education level, marital status). The low fidelity of consumers shows the need for actions that enhance the benefits of buying in the farmers markets, when compared with other places. Our analysis enabled a better understanding of the interviewed consumers' behavior, leading us to identify questions related to the development of the farmers market, in turn promoting the city's economy.
Keywords: Consumer profile; Consumption habits; Farmers market; FFV.

INTRODUCTION

The study of consumer behavior includes the process of decision making by individuals to spend their resources (time, money and effort) on items related to consumption, encompassing questions about what, why, when, where and how often consumers buy, and how they use what they buy (ENGEL; BLACKWELL; MINIARD, 2000, p. 4).

The understanding of the factors that influence consumer behavior allows insight into the dynamics of purchase, while allowing the use of marketing incentives in order to create customer value and create positive results in purchase behavior, producing satisfaction with the product and, consequently, the consumer involvement with the purchase (PINHEIRO, 2004).

According to Coutinho, Neves and Silva (2006), farmers markets are considered an important structure of cities' food supply, especially inner cities, for promoting economic and social development, bolstering the economy of small towns. These markets always offer fresh products, and enable the exercise of bargaining power between consumers and producers.

The open-air market also facilitates the farmers role as consumers themselves, generating income to buy products for household consumption, contributing to an important distributive policy, allowing the income of the population to remain in the city, adding to its development (SILVESTRE *et al.*, 2006).

There are few studies in the literature that attempt to identify efforts of farmers markets to recover their importance as food retailers, while maintaining the tradition as open-air markets. Thus, it is necessary to investigate the relevant factors to consumers when buying FFV, in view of the change in consumption habits in recent years.

In this sense, the general aim of this research was to analyze consumer behavior toward fresh fruits and vegetables (FFV) in the farmers markets of Tupa, SP, Brazil, in relation to consumers' profiles and consumption habits. Therefore, it was necessary to: (i) identify the demographic and socioeconomic profile of the farmers market visitors, (ii) identify these visitors' consumption behavior, and (iii) verify the influence of social and personal factors over these consumers' behavior.

This paperis structured into four sections beyond this introduction. In the following section, we present a theoretical review of the issues addressed in this study, as the concept and the factors that influence consumer behavior. It also presents the role of food retail in the FFV trade. In the third section, we describe the research method used. In the next one, we present the survey results. Finally, we offer the conclusions of the research.

1 FACTORS INFLUENCING CONSUMER BEHAVIOR

According to Engel, Blackwell and Miniard (2000, p. 4), consumer behavior can be defined as "the summation of the activities directly involved obtaining and consuming products and services, including the decision processes that precede and succeed these actions".

Bretzke (2006) noted that changes in demographic and technological scenarios resulted in substantial changes in customer behavior, especially in the desires, needs, and consequently, in the lifestyle of those who started demanding products and services with more quality and extra value. Accordingly, Chetthamrongchai and Davies (2000) suggested that, with increased competition in the market, the need for precise targeting becomes greater, given the increasing expectations of the consumer.

Consumers are shaped by their environment insofar as they live and work in it, while changing the environment with their behavior (ENGEL; BLACKWELL; MINIARD, 2000). According Bretzke (2006), family and business units are affected by advertising actions differently, and many factors influence how they make their purchasing decisions.

Understanding the factors that influence consumer behavior allows insight into the dynamics of purchase while also considering the use of marketing stimuli, in order to create customer value and generate positive results in purchase behavior, resulting in product satisfaction and consumer involvement with the purchase (PINHEIRO, 2004).

The ways that these influences can change consumer behavior were classified by Kotler and Keller (2006) using four factors: cultural, social, personal and psychological. Among these, the cultural factors are the ones that exert the greatest and deepest influence.

From a young age, people experience deep influences of culture and society in which they live. Culture is the basic determinant of the needs and behaviors of a person (BRETZKE, 2006). Consumer behavior is influenced by social factors like reference groups, family, social roles and status (KOTLER; KELLER, 2006). According Bretzke (2006), the most important social factors that act on the customer's decision-making process, are the reference groups, which from an early age, shape the person to influence and change their purchasing behavior.

The buyer's decisions are also influenced by personal characteristics such as age and life cycle stage, occupation, economic circumstances, personality, self-image, lifestyle and values,

leading people to buy different items and services during their lifetime. A set of psychological factors combined with certain characteristics of the consumer forms the purchase decision process: motivation, perception, learning and memory (KOTLER; KELLER, 2006).

2 THE ROLE OF FOOD RETAILING IN THE MARKETING OF FFV

In recent years, important changes in food consumption habits have been observed, as a result of the growth of the female labor force in the job market, the reduction of family size, the aging population, the search for greater convenience, and more recently, concerns about food safety (BLEIL, 1998 *Apud* OLIVEIRA; LIMA FILHO, 2006).

These changes reflect the consumer's profile, which is more and more demanding with regard to nutritional aspects, the possibility of serious diseases, and concerns for aesthetics and obesity. These concerns influence the population's purchase decisions, as they choose places that offer more comfort, convenience, cleanliness, security and flexible hours to suit their daily lives. Alternatives to farmers markets that offer such conveniences include "sacolões", "varejões" [1] and supermarkets (SOUZA, 2006).

In order to meet these new expectations and habits, food retailers have adjusted their formats to new consumer lifestyles without worrying about high turnover of products. There is a tendency for consumers to value the benefits that retail offers more than the variety of products offered (FRUTIFATOS, 1999).

There are numerous types of food retailers, usually referred to as "retail equipment" that sell FFV. According to Barros et al. (1978) cited by Silva et al. (2003), they are farmers market, "varejões", "sacolões", greengroceries and super/hypermarkets, characterized as follows:

a) Farmers markets: comprising one type of open-air retail market, weekly, organized as a public service by municipal governments, focused on local distribution of foodstuffs and commodities (Costa Junior, Silva and Oliveira, 2007). They sell FFV, dairy products, eggs, bread, preserves, beverages, fish, and sometimes, household products (Archer et al., 2006);

[1] "Varejões" and "sacolões" are two different types of retailing, called by Farina and Machado (1999) as alternative green grocers (AGG). According to them, the "varejões" are groups of several stores specialized in the sale of fruits and vegetables, at a low price, in one place, while the "sacolões" are shops where fruits and vegetables are sold by the kilo at a single price, calculated based on the average of the wholesale prices and were created as a social program to foster the consumption of FFV by the lower income population.

b)“Varejões”: looks like farmers markets but are different about the number of merchants and/or producers have been created by State Supply Center (CEASA) and the Supplies Secretaries of in the 1970’s;

c)“Sacolões”: originated from the interference of the public sector, which was quickly adapted and absorbed by the private sector since 1983. The products are sold in retail shops and farmers markets, but with one difference: one price per kilogram (SOUZA *et al.*, 1998);

d) Greengroceries: Borba (2004) characterized as a small shop where they sell fruits, vegetables, eggs, cereals, etc. It can be considered a small market with little variety of products; and

e) Super/Hypermarkets: establishments categorized as self-service products that provide varying the number of checkouts, which began to intensify their investments in the provision of FFV, because of demands and expectations of consumers who care for comfort, safety, flexible hours, affordable prices, parking, and above all, find all the products in one location.

Over the years and the rise of new forms of retail, farmers markets have been put in the background in commercial interaction, because these establishments have emerged with the claim to sell FFV, ensuring the convenience of offering everyday products at the same location and with more comfort than that found in the open-air market.

According to Souza (2005), the advantages offered by supermarkets attract consumers increasingly concerned about the speed and convenience in food preparation, reflecting the increased supply of clean vegetables, minimally processed and available in smaller portions, ready for consumption and preserving the flavor and food nutritional value, which helps to avoid waste.

This fact is due mainly to the limited time people have to get the FFV from farmers markets, as they are mostly operated during busy times, and do not offer flexible schedules or payment options. However, consumers who value the quality and freshness found in farmers markets still choose to acquire the products in open-air markets, seeking to keep the family tradition, passed on from generation to generation (MARTINS *et al.*, 2007).

2.1 THE FARMERS MARKET IN THE FFV DISTRIBUTION

The farmers market, considered the oldest and most traditional way to sell agricultural or horticultural products, originated in antiquity, with the exchange of surplus production between producers who later began to sell them for cash (SOUSA, 2004).

The development of farmers markets has the potential to add value to producers' sales by reducing the supply chainwhile generating social and environmental benefits to the community (HUNT, 2006).

This type of open-air commerce has lost ground to other food retail formats, such as supermarket chains, "varejões" and "sacolões", due to changes in habits and behavior of consumers as they become more and more demanding and rigorous in selecting their purchase place (GUIVANT, 2003).

Given these changes, food retailing has been increasingly interested in studying the consumers' behavior, seeking to understand their preferences and expectations that lead them to choose where to buy FFV, previously acquired only in farmers markets for the sake of freshness and quality.

Freshness and quality of products are some of the reasons that have led to the growing consumer interest in farmers markets in recent years, in countries like New Zealand, Australia, Britain, Canada and the U.S., where they disappeared largely due to the advent of supermarkets. One reason for the resurgence of this type of retail is that consumers are increasingly discerning when purchasing food, which results in a reassessment of the way food is grown, distributed and sold (GUTHRIE *et al.*, 2006).

3 METHODOLOGY

The objective of this study and its regional scope allowed setting the research as exploratory and descriptive. Exploratory research aims to provide the researcher a greater familiarity with the problem under study, while the structure of the survey data collection was typical of a descriptive study. According to Malhotra *et al*. (2005), models of exploratory and descriptive research should be used in a complementary way, depending on the nature of the problem and approach.

The field survey gathered information about FFV consumer behavior in Tupa, SP, Brazil. Data collection was conducted through interviews using semi-structured questionnaires with closed multiple choice questions, aimed at people over 15 years, without distinction of gender or social class. The survey was conducted in six farmers markets in Tupa, distributed in different days and locations.

The sample consisted of 227 individuals selected through a not probabilistic sample, because the population was not known (CHURCHILL, 1995), and selected arbitrarily, based on convenience, since the interviewees were chosen because they were in place at the time of questionnaire administration. Although non-probability sampling produces good estimates of population characteristics, these techniques are limited, and it is not possible to evaluate the accuracy of sample results objectively (MALHOTRA *et al.*, 2005, p. 264).

Since it was not possible to know the number of people attending each of the farmers markets, it was established that the greater the number of merchants at the farmers markets, the higher the frequency of the consumer. Thus, the questionnaire was applied proportionally at each farmers market, considering the number of merchants: 09 questionnaires at farmers market A, 30 at B, 10 at C, 51 at D; 07 at E, and 120 at F.

Quantitative data were analyzed using Minitab v.15, SigmaStat v.3.5, Microsoft Office Excel 2007 software. We performed frequency distributions, variance analysis (ANOVA) to compare groups, and multiple comparisons (Fisher test). To make comparisons between groups, we assigned scores 1-6 for each answer in accordance with the degree of FFV consumption, with 1 for the smallest and 6 for the largest consumption, transforming the results of categorical variables into numerical values.

4 RESULTS AND DISCUSSION

4.1 CONSUMERS' PROFILE

The predominant age of the interviewees comprises the age group between 55 and 64 years (22.9%), followed by age group between 35 and 44 years (19.8%). Analyzing the farmers markets separately, there was a higher proportion of elderly people at "B" (Wednesday in the morning), where 63% of interviewees were 55 years of age or more. At the other extreme, "D" farmer's market (Thursday afternoon) had the highest proportion of people less than 34 years (35.3%). Table 1 presents the farmers market consumer's profile in Tupa, SP.

Table 1: Farmers Market Consumers' Profile in Tupa, SP

	Total sample	**A**	**B**	**C**	**D**	**E**	**F**

	(n = 227)		9	30	10	51	7	120
Gender	**n**	**%**	**%**	**%**	**%**	**%**	**%**	**%**
Female	122	53.8	77.8	66.7	60.0	52.9	57.1	48.3
Male	105	46.3	22.2	33.3	40.0	47.1	42.9	51.7
Education Levels								
No instruction	13	6.0	11.1	6.7	20	3.9	28.6	3.3
Some grade school	10	4.0	22.2	6.7	0	0.0	0.0	0.0
Grade school	46	20.0	33.3	10	20	11.8	42.9	35.7
Some high school	20	9.0	22.2	3.3	20	2.0	28.6	23.8
High school	73	32.0	11.1	50	20	35.3	0.0	0.0
Some college	20	9.0	0.0	0.0	10	13.7	0.0	0.0
College graduate	42	19.0	0.0	23.3	10	27.5	0.0	0.0
Post-graduate work	3	1.0	0.0	0.0	0.0	5.9	0.0	0.0
Age								
16 to 24 years	25	11.0	11.1	6.7	0.0	15.7	0	11.7
25 to 34 years	25	11.0	11.1	0	10	19.6	0	10.8
35 to 44 years	45	19.8	11.1	13.3	20	21.6	14.3	21.7
45 to 54 years	43	18.9	11.1	16.7	20	21.6	14.3	19.2
55 to 64 years	52	22.9	22.2	26.7	30	13.7	57.1	23.3
Over 65 years	37	16.3	33.3	36.7	20	7.8	14.3	13.3
Familiar Income								
Less than 1 M.W.	21	9.3	14.3	9.5	23.8	9.5	19.0	23.8
1 - 3 M.W.	113	49.8	5.3	12.4	3.5	13.3	2.7	62.8
3 - 5 M.W.	56	24.7	0.0	16.1	1.8	28.6	0.0	53.6
5 - 7 M.W.	21	9.3	0.0	14.3	0.0	42.9	0.0	42.9
More than 7 M.W.	16	7.0	0.0	12.5	0.0	56.3	0.0	31.3

A: Tuesday farmers market in East side
B: Wednesday farmers market in downtown
C: Wednesday farmers market in East side
D: Thursday farmers market in downtown
E: Friday farmers market in East side
F: Sunday farmers market in downtown
M.W.: Minimum Wage (Brazil)

In general, the predominance of older aged consumers can be explained by the fact that the young consumers do not have the FFV purchase habit, even if they often consume FFV, since parents are generally responsible for the feeding of the family. However, the opening hours of these two farmers markets may be one reason for this difference between the visitors, for while “B” ends before 10 am, “D” extends to 7 pm, allowing people who work in the neighborhood to frequent it after work.

The farmers markets visitors are, mostly, high school graduates (32%). However, when analyzing the farmers markets separately, the largest concentration of people with some or complete higher education occurs at “D”. It was also found that at “A”, “E” and

"F" farmers markets were dominated by people with a high school degree. Two such farmers markets ("A" and "E") were located in a region of higher socioeconomic deprivation in the city. Although the farmer's market "F" is located downtown, many of its visitors live in that region.

Income is one of the main variables when it comes to consumer behavior, since economic factors may restrict the purchase of certain products (COLLA, 2008). Among the interviewees, 50% had an average family income between one and three Brazilian minimum wages[2]. The predominance of lower income may be the result of low educational level and older interviewees. In addition, there was a predominance of housewives and retired among these interviewees (18.5% and 24.2%, respectively). The predominance of retirees among the farmers market visitors was also noticed by Lima, Lima and Vanzo (2007), followed by singles and housewives.

In Tupa, most people who buy FFV in farmers markets live in downtown (46%) and the eastern zone (37%), the two most populous regions of the city. The consumers' marital status, often related to family lifecycle, can also influence the consumers' buying behavior, with respect to goods consumed and quantities purchased in farmers markets. Married consumers with children tend to attend the farmer's market to buy products for the whole family, which influences spending and the amount of products purchased. In Tupa, farmers markets saw mostly married people (57%), followed by singles (22%) and widowed (13%).

4.2 CONSUMPTION HABITS

Consumption habits indicate how often the consumer buys some product, which products he consumes, the frequency of use, the purchase place, and when and why he buys. Table 2 presents the interviewees' most consumed FFV.

[2] In Brazil, the minimum wage is the lowest wage to be paid to the worker, and must meet the needs of the worker and his family regarding health, education, housing, leisure, transportation and social security.

There was a preference for orange, followed by banana and apple. Among the vegetables, preferences are carrot, potato and tomato, and between greens, lettuce, cabbage, kale and arugula. These fruit preference results are similar to that found in a survey on the fruit consumption at farmers markets, supermarkets and "varejões", held by Cazane et al. (2008).

Table 2: FFV More Purchased at Farmers Markets in Tupa, SP (Multiple Responses)

	(n = 227)							
Fruits	**n**	**%**	**Vegetables**	**n**	**%**	**Greens**	**n**	**%**
orange	152	66.96	carrot	132	58.15	lettuce	199	87.67
banana	121	53.30	potato	103	45.37	cabbage	67	29.52
apple	117	51.54	tomato	88	38.77	kale	53	23.35
pear	56	24.67	cassava	41	18.06	arugula	52	22.91
papaya	46	20.26	eggplant	24	10.57	chicory	32	14.10
grape	42	18.50	beet	24	10.57	watercress	22	9.69
pineapple	40	17.62	chayote	24	10.57	escarole	22	9.69
tangerine	38	16.74	zucchini	22	9.69	chard	14	6.17
watermelon	33	14.54	pumpkin	17	7.49	parsley/chives	07	3.08
persimmon	15	6.61	cucumber	14	6.17	broccoli	05	2.20

In 78% of cases, interviewees are responsible for the FFV purchase in farmers markets. Another 15% said that this task is the responsibility of the wife and only 7% of interviewees attributed this task to someone else, such as housemaid, for example. Among those who are responsible for buying, 84% are responsible for FFV purchasing decisions. The others said, in 75% of cases, that their wife is who decides what to buy.

The amount of fruits and greens consumed has a greater variation during the summer (48% and 42%, respectively), while vegetables have increased consumption in the winter for 36% of interviewees (Figure 1).

This variation in vegetable consumption during the winter occurs mainly by increased consumption of soups this time of the year. The periodicity in FFV intake is an important aspect of consumer behavior and, if analyzed together with seasonal fluctuations, can assist in the planning and control of production of these products.

Figure 1: Consumption of fruits, vegetables and greens during the year in Tupa, SP (percentage)

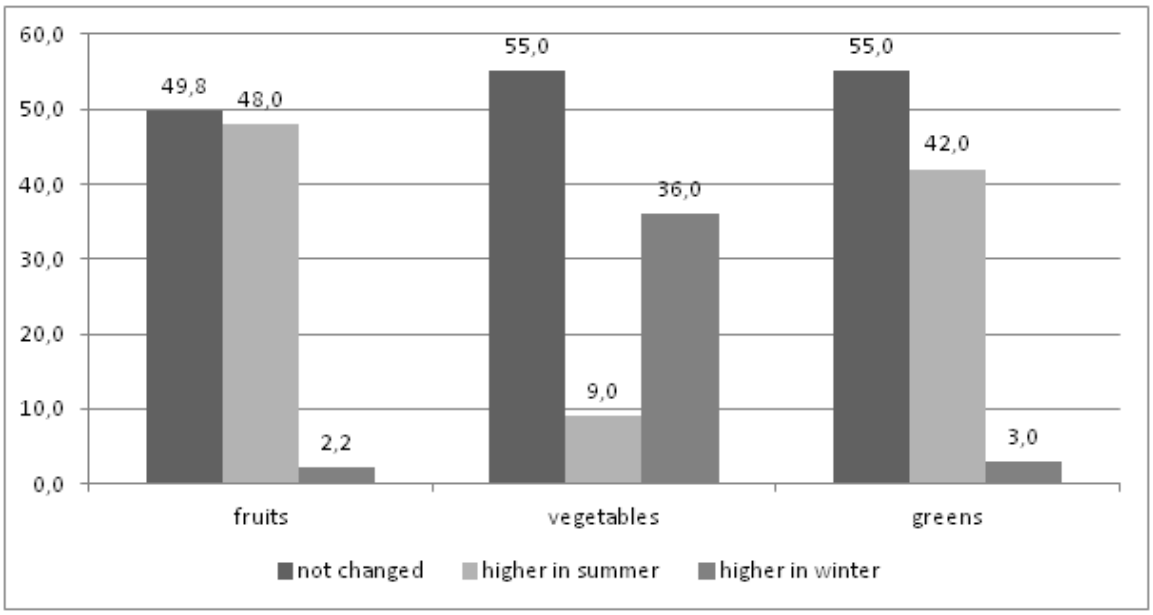


Table 3 analyzes the influence of social and personal factors in the frequency of FFV intake in Tupa. The multiple analysis showed differences in the influence of personal variables such as age, education level and family income on FFV consumption. The family variable, in the FFV consumption habit construction, showed similar influence to that observed in other studies. The decreased FFV intake was identified for interviewees between 16 and 34 years, especially those between 25 and 34 years. The highest consumption was observed for those over 65 years. This information confirms what was found by Lucchese-Cheung and Batalha (2010), about increasing of healthy food consumption by individuals of advancing age.

The educational level analysis in relation to FFV consumption also indicated the existence of differences between the groups. In this case, in general, interviewees with lower education levels tend to consume more FFV, while the group that consumes least FFV is the one with post-graduate degree. This result differs from results of several studies about FFV intake in different countries, which showed that the education level and age variables were positively associated with consumption of these foods (O'Brien *et al.*, 2003;

MOREIRA; PADRÃO, 2004; MAGAREY; MCKEAN; DANIELS, 2006; HALL *et al*., 2009). However, when analyzing the educational level and age variables, there was a greater concentration of people over 55 years among interviewees with lower education, which could explain the higher consumption due to greater concern with food intake.

Table 3: Influence of Social and Personal Factors in the FFV Intake Frequency in Tupa, SP

Variable	Groups	Average ± Deviation	*P*-value
Age	16 to 24 years	4.44 ± 0.12 **D**	0.000*
	25 to 34 years	3.95 ± 0.06 **E**	
	35 to 44 years	4.66 ± 0.19 **CD**	
	45 to 54 years	4.87 ± 0.12 **C**	
	55 to 64 years	5.12 ± 0.13 **B**	
	Over 65 years	5.53 ± 0.02 **A**	
Education Levels	No instruction	5.20 ± 0.19 **A**	0.000*
	Some grade school	4.77 ± 0.25 **B**	
	Grade school	5.15 ± 0.09 **A**	
	Some high school	4.40 ± 0.13 **C**	
	High school	4.94 ± 0.11 **AB**	
	Some college	4.22 ± 0.06 **C**	
	College graduate	4.79 ± 0.19 **B**	
	Post-graduate work	4.44 ± 0.20 **C**	
Familiar Income	Less than 1 M.W.	4.62 ± 0.05 **AB**	0.000*
	1 - 3 M.W.	4.89 ± 0.15 **AB**	
	3 - 5 M.W.	4.93 ± 0.08 **AB**	
	5 - 7 M.W.	4.25 ± 0.12 **B**	
	More than 7 M.W.	5.25 ± 0.06 **A**	
Marital Status	Single	4.18 ± 0.16	0.099
	Married	5.08 ± 0.08	
	Divorced	4.35 ± 0.17	
	Widower	5.27 ± 0.08	
	Others	4.67 ± 1.15	
Influence on consumption habit	Parents	3.60 ± 0.07 **B**	0.000*
	School	1.42 ± 0.01 **C**	
	Media	1.51 ± 0.01 **C**	
	Spontaneous	3.86 ± 0.12 **A**	

M.W.: Minimum Wage (Brazil)
* Statistically significant difference.
** Letters A through E characterize the grouping factor, indicating the differences between the groups.

Family income also showed a significant difference, with higher consumption among those with incomes over seven minimum wages. The lowest consumption was

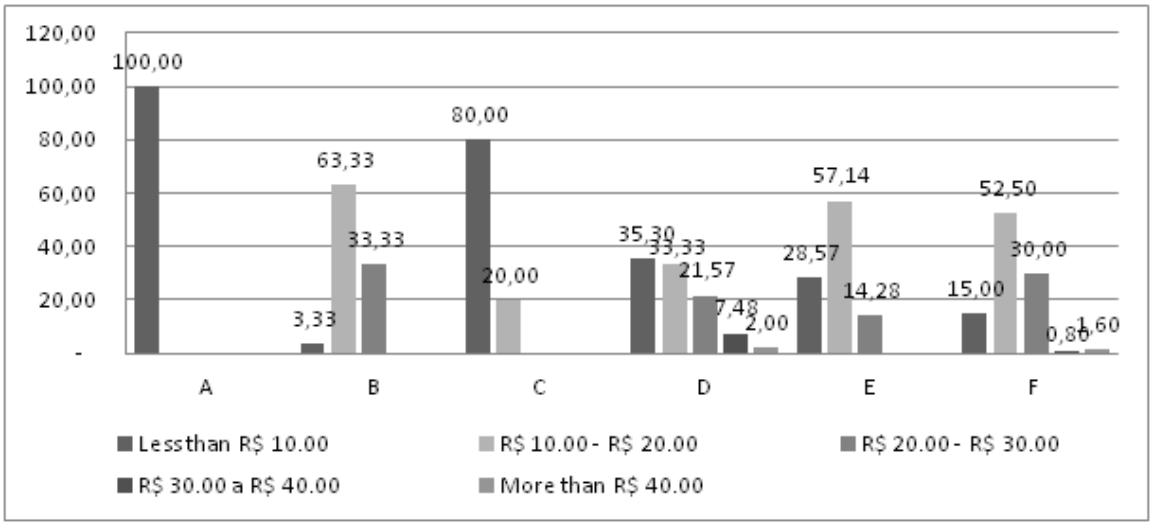
observed in those who have incomes between five and seven minimum wages, agreeing in part with Vilela and Henz (2000), which showed an increase in consumption of vegetables when there is an increase in family income. When analyzing the variables education level and family income, we observed higher incomes when the education level increased, confirming the findings by Novaes (2006, p. 95).

With regards to the influence of social factors, the differences indicated that most of the interviewees acquired the habit of FFV intake spontaneously. However, we see a strong influence of family as a reference group, influencing peoples' attitudes or behavior, as pointed out by Kotler and Keller (2006). Solomon (1999, p.3 73) highlighted that an association is often made between family and home, however not every household is made up of families, but by friends, roommates or unmarried couples or partners. However, people who share that kind of household receive the same influence of the group that occurs in a family.

Most who know of farmers markets are aware because they live nearby, (34%) or by means of their family (28%), which also suggests the influence of cultural factors, especially social classes, with regard to the neighborhood in creation of these consumers' behavior. The main reason for 63% of consumers going to the farmers markets is FFV purchase, but for 20% of them, the reason to visit these retail establishments is to eat, and another 14% go there simply to walk. These reasons were also prominent in Lima, Lima and Vanzo (2007), whose main reasons for consumers to go to the farmers markets were, respectively, the FFV purchase, sightseeing or leisure and dining.

Another important factor considered was the average amount spent per purchase. Most of the interviewees (46%) spend between R$ 10.00 and R$ 20.00 per purchase, followed by consumers who spend between R$ 20.00 and R$ 30.00 (26%). However, when analyzing the average spending in each farmers market in Tupa, one realizes that visitors to farmers market A and 80% of consumers at farmers market C spend less R$ 10.00 per purchase (Figure 2).

Figure 2: Average amount spent per purchase in each farmers market (percentage)



The low spending in these two farmers markets may have two explanations: the lowest consumer income concentration of these two places, located in an area of the city with higher socioeconomic deprivation; and the lower product supply in these places, either due to fewer producers because these farmers markets are open after another farmers market in the city.

Other analyses conducted were farmers market loyalty and purchase frequency. More than half of those interviewed (56%) have purchased in the same place for more than five years, and 68.7% reported that they frequent it every week. One of the factors that increased purchase frequency is related to the perishable nature of FFV, which requires shopping to be more frequent.

Despite the perishability of products, only 23% of consumers buy in more than one farmers market during the same week. The need to buy more than once a week was the third most cited reason, followed by the lack of available products, or limited variety at farmers market where consumers purchase (the predominant reason for consumers in the east zone of the town, which is smaller and offers limited product variety). The main reasons for this behavior are buying the freshest food and eating or walking, as shown in Table 4.

Table 4: Reasons to Buy FFV in Other Retail Establishments (Multiple Responses)

	(n = 167)	
	n	%
Comfort/convenience/ease	56	35.67
Daily availability/opening hours	45	28.66
Running out of some product during the week/consuming fresh produce	25	15.92
Lack of products at the farm market/low products variety	12	7.64
Prices	11	7.01
Using credit card and checks	09	5.73
Go to retail establishments to buy other products and eventually purchase FFV	05	3.18
Buy products with some type of processing	04	2.55

It is noteworthy that consumer loyalty to a particular farmers market does not mean consumers cannot buy FFV in other retail stores. Rather, approximately 70% of interviewees stated that they also buy FFV elsewhere, of which 93% indicated supermarkets, 7.6% in "sacolões" and 5.7% in neighborhood markets. The low loyalty of consumers in relation to farmers markets was also observed by Costa Júnior *et al.* (2007) in Crato, CE, where consumers also buy FFV elsewhere, especially in supermarkets.

The convenience, related to concepts of practicality and/or ease, was mentioned as the main reason by 35.67% of people interviewed. Considering that the convenience of retail stores is directly related to infrastructure and organization, this result confirms the search result from Costa Júnior *et al.* (2007), whose consumers of Crato city considered the infrastructure of farmers markets and their tent organization inadequate, influencing the decision to choose to shop elsewhere.

The second most cited reason for shopping for FFV in retail establishments was the daily availability of productsplus more flexible opening hours, a factor also highlighted by Martins et al. (2007), whose research showed that lack of flexible hours of farmers markets prevents the attendance of consumers who work during the day (8 am to 6 pm), especially women, who increasingly provide an important component of the family budget.

The use of credit card or checks to pay for purchases was cited by 5.73% of interviewees. Although this reason has been highlighted by few consumers, the payment should be considered during the adoption of strategies aimed at improving farmers markets, since consumer can go through five decisions related to their purchase, with payment

method as one of their considerations. The other four minor decisions, according to Kotler and Keller (2006) are: (i) decision by brand, (ii) decision by supplier, (iii) decision by amount, and (iv) decision by the occasion. Martins et al. (2007) stated that the main competitors of farmers markets - supermarkets - offer different forms of payment and terms, creating an advantage over the open-air markets.

Buying products with some kind of processing was cited by only 2.55% of interviewees. To justify this low interest, Sato et al. (2007) showed that minimal professing of FFV is a recent development in Brazil, and it is a niche of market for growth and consolidation toward a specific consumer profiles, in addition to representing a product with higher added value. Minimally processed products are basically greens (leaves) cleaned and packaged, cleaned and cut vegetables packaged in Styrofoam plates covered with isofilmes and sliced fruit, peeled and packaged.

CONCLUSION

This research contributes to the theory of consumer behavior in food to deliver results that are similar to recent reports (GIGLIO, 2002; KINJO; O'BRIEN *et al*., 2003; MOREIRA; PADRÃO, 2004; IKEDA, 2005; MAGAREY; MCKEAN;DANIELS, 2006; NOVAES, 2006; SOUSA *et al.,* 2006; COSTA JR *et al.*, 2007; LIMA; LIMA; VANZO, 2007; MARTINS *et al.*, 2007; MICHELON *et al*., 2007; COLLA, 2008; HALL *et al*., 2009; and LUCCHESE-CHEUNG; BATALHA, 2010), suggesting trends and standards for behavior and FFV consumption habits. At the empirical level, the contribution was based on the demographic and socioeconomic consumer profile of farmers markets in Tupa, identifying customers' consumption habits.

Based on the results obtained in this study, we found that FFV consumer purchase behavior is influenced by social (family and friends) and personal factors (gender, age, familiar income, education level and marital status), reflecting the model of the consumer decision-making process proposed by Engel, Blackwell and Miniard (2000).

Although the results cannot be extrapolated to all consumers of Tupa, they do provide insights into the interviewed FFV consumers, enabling the identification of issues related to the development of farmers markets, with great relevance to the Tupa region, because they promote economic and social development, and also strengthen the city's economy.

In general, low consumer loyalty to farmers markets highlights the need to seek actions which lend value to advantages of buying in these retail establishements, as compared to other distribution channels. Thus, improvements could be implemented and directed to structural issues concerning environment, and for production, especially with regard to presentation of the product.

Improvements should focus on aspects such as hygiene and practicality, comfort and convenience, creating a pleasant environment, and product quality, attributes which consumers highly value when choosing retail stores for FFV purchases. Structural improvements to farmers markets, in general, afford more comfort and convenience for consumers and retailers, and should focus on tent standardization, installation of coverage for sun and rain protection, and installation of toilet facilities.

Farmers and/or the vendors need to find ways to boost consumption and ensure a higher income. One way to achieve this goal would be through adding value to products being sold. An example of such a value add could be offering fresh-cut produce and using smaller packages which would be more practical for people who live alone or need to buy in smaller quantities. This strategy would benefit both the seller, who adds value to their products, thereby achieving more profits and attracting more customers; and also to the consumer, who gains convenience, practicality and avoids waste.

Opening a farmers market in the evening can be a good strategy, because we observed that two main reasons for buying FFV in other retail stores is daily availability and schedule flexibility. Moreover, in the evening hours, the temperature is cooler and a visit to the farmers market could provide an atmosphere of greater leisure. Thus, we suggest that at least one farmers market operate at night in the downtown area, enabling a greater number of people to attend.

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