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Purchase policies to fresh fruit and vegetables in supermarkets in Campo Grande, Brazil

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ABSTRACT

This study aims to analyze purchase policies to fruits and vegetables in supermarkets in Campo Grande, Brazilian Midwest. Thirteen interviews were conducted with representatives from supermarkets, small, medium and large, responsible for purchasing fresh vegetables. By analyzing the responses obtained through interviews, we can observe that producers make almost the entire supply of fruits and vegetables in large supermarkets from other states, and the small and medium establishments usually buy more with the local producer. For retailers, the fruits and vegetables represent an important factor to create internal circulation of customers in stores and a factor of attraction of clients too, in addition, this products offer high profitability. For the supermarket, the fruits and vegetables locally produced are fresher and have lower comparative cost. However, supply regularity, the volume and variety offered by local producers are considered unsatisfactory.

Keywords: vegetables purchase, supermarket, local development.

RESUMO

Formas de compra e procedência de hortaliças na rede de supermercados em Campo Grande (MS)

O presente estudo objetiva analisar as formas de compra dos supermercados para o abastecimento de hortaliças em Campo Grande. Foram realizadas treze entrevistas com representantes de supermercados de pequeno, médio e grande porte, responsáveis pelas compras destes produtos. Os resultados revelam que praticamente todo o fornecimento de hortaliças nos grandes supermercados é feito por produtores de outros estados, sendo que os estabelecimentos de pequeno e médio porte ainda conseguem abastecer-se satisfatoriamente com os produtores locais. Para os varejistas, o setor de hortaliças representa importante espaço de geração de tráfego interno de clientes nas lojas, sendo um fator de atração. Pode-se verificar, ainda, que as hortaliças produzidas localmente atendem ao requisito "frescor" e também possuem menor custo comparativo, porém, a regularidade no fornecimento, o volume e a variedade oferecida pelos produtores locais são considerados insatisfatórios.

Palavras-chave: compra de hortaliças, supermercados, desenvolvimento local.

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This study was justified because of the macroeconomic perspective and the discussion supplies a base to formulate more efficacious public policies to modernize the food distribution systems in Campo Grande, Brazil. Agricultural policies while improving health conditions of the population and aiding in the fight against hunger, poverty, malnutrition and infant mortality also provide employment and income, increase turnover and have a multiplier effect on the economy and contribute to the economic and social development of Brazil.

In the micro-economic perspective, analysis of the purchase methods of the food retail trade in Campo Grande is fundamental for a better understanding of the distribution channels and consequently for the success of companies and family farmers, because it allows a better understanding of the market structures and helps in strategy development and better market positioning. According to Neves (1999) the distribution center is a strong competitive advantage for companies, because it impacts on several organizational factors, such as scale, cost, flexibility, advertising, publicity, promotion, resources and assets. Knowledge of the market was defined previously by King & Venturini (2005) as essential for farmers, manufacturers and retail merchants to add value to products.

Vegetables have gradually won the preference of the consumer, who associates them with a more healthy life. Consumption of foods considered healthy has changed the eating habits of a good part of the Brazilian population. Its data from the Brazilian Association of supermarkets (ABRAS, 2005) showed that 70% of Brazilian homes use diet and/or light products, more than 50% eat vegetables daily and 21% buy organic products.

However, research carried out by Mainville & Peterson (2005) showed that *per capita* fruit and vegetable consumption in Brazil is not more than 86 kg/year, almost 4 times less than the North American standard. Although vegetable consumption in Brazil, when compared to developed countries, is low, the population has shown changes in behavior and consumption habits that are reflected in consuming health-oriented foods, as reported by Novaes (2006). Thus it is observed that these foods could be more consumed in Brazil.

According to ABRAS (2006) the sale of perishable goods, including fruit and vegetables, represents on average 30% of the total supermarket turnover. The fruit and vegetable sector is considered strategic for food retailers, because it works as a channel increasing internal customer traffic and increases the frequency of visits to the stores. Supermarkets are very important in the distribution of these products because they represent the preferred locations for purchasing for 76% of customers (Saabor & Rojo, 2002). According to Lima-Filho *et al.* (2009), supermarkets offer fruit and vegetable consumers better performance compared to other types of store in attributes such as variety, packaged good quality, easy access and store hygiene and cleanliness.

According to Hingley *et al.* (2008), fruit and vegetables offer retailers a wide range of opportunities to increase product variety and consequently can be the main category that differentiates supermarkets in the competitive arena. The structure of the fresh produce sector easily allows retailers to take leadership of the channel and therefore impose transaction forms to reach the following objectives: maximize the channel profit, give them power to appropriate the largest portion of profitability, and direct the suppliers to conform to the retail differentiation strategies without a formal vertical contractual integration, as required by the economy of transaction costs (Williamson, 1996).

Vegetable supply to supermarkets that was mainly through the supply centrals (CEASA) has moved to the rural producers and new distributors. In this context vegetable offer needs more effective structuring. Management of the productive chain of these products is delicate and influenced by many factors that are difficult to control. Poor vegetable distribution efficiency is considered one of the greatest bottlenecks for the good competitive performance of the whole chain (Lourenzani & Silva, 2004).

Indeed, Regmi & Gehlhar (2005) analyzed food distribution from the production location to the consumer table and defined this process as being complex, involving several locations, agents and networks. The food market is constantly evolving, directed not only by changes in consumer preferences but also by technology, interactions between members of the supply chain, government policies and business environments. Thus sophisticated supply chains and distribution channels need to be adapted. According to Salin (1998), the changes underway are influencing the food supply chain to adoption coordination policies to bring producers and retailers together.

For Maluf (1995), the search for efficiency and competitiveness in the agricultural food system is a strategic and crucial condition for economic growth with equality. In the Brazilian case, especially, the strengthening and modernization of family agriculture is an important step for the agrarian reform process. According to Faulin & Azevedo (2003), vegetables play an important role in family agriculture because of their following characteristics: i) little investment is needed, ii) little technical knowledge is needed to start the activity and iii) little land is needed for economically viable cropping. However, family farmers have faced many difficulties of insertion and positioning in the market due especially to their lack of knowledge of distribution, as reported by Lima-Filho *et al.* (2008).

Campo Grande, Brazil, currently has 1372 establishments with hypermarket, and/or supermarket and/or mini market, grocery and warehouse activities. Growth was approximately 63% from 2005 to 2009 and by April 2010 more than 92 establishments had been set up, according to the Mato Grosso Chamber of Commerce (JUCEMS, 2010).

Lima-Filho *et al.* (2009) investigated the performance of the vegetable section in Campo Grande, retail trade, and observed that vegetables were purchased weekly, mainly in supermarkets and street markets, and that the variables of hygiene and store cleanliness, product exhibition, staff training and product quality, variety and price are the most important attributes for consumers at the time of purchase.

The general objective of the present study was to analyze supermarket policies for purchasing vegetables produced in Campo Grande. It was specifically intended to: a) identify the advantages and disadvantages of buying vegetables grown by small local producers from the perspective of the supermarkets and b) analyze the food retail trade-family farmer relationship.

MATERIAL AND METHODS

A multi-case study was carried out in Campo Grande, Brazil, in small (up to four check-outs) medium (10-19 check-outs) and large scale (20-49 check-outs) supermarket stores according to classification by the National Bank for Economic and Social Development (BNDES, 1996). Thirteen supermarkets were sampled in a population of 120 establishments, three large-scale, four medium-scale and six small-scale stores.

The list of associated companies was surveyed to define the population, at the South Mato Grosso do Sul Supermarket Association (AMAS). The sample choice was intentional of companies that were more willing to collaborate with the study.

In-depth interviews were carried out with vegetable purchase managers in supermarket chains located in Campo Grande, in October 2006. Primary documents ceded by AMAS were also analyzed. A mixed type (Creswell, 2007), questionnaire was used consisting of an open and closed questions. The variables were based on a previous study by Zylbersztajn & Neves (2000). Table 1 shows the variables researched and their respective questions.

RESULTS AND DISCUSSION

All the small and medium-scale supermarkets purchased, to a greater or lesser degree, from local producers and only one large scale supermarket did not. This was a favorable point because according to Belik (2004), the perishable nature of vegetables requires producers closer to the selling point. Most (84.6%) of the supermarkets purchased from small local producers and only 15.4% purchased from large local producers.

Only one small-scale supermarket guaranteed all its supply with locally produced vegetables. In the others (five

Table 1. Research variables and their questions (variáveis de pesquisa e respectivas perguntas). Campo Grande, UFMS, 2006.

Variables	Questions
Vegetable suppliers	Does the supermarket acquire vegetables from the local farmers?
Requirements from the supermarkets	Is there any quality standard for products settled by the company? If so, is this standard met by the local farmer?
Negative aspects of buying from local farmers	Which are the negative aspects of buying from local farmers?
Vegetables price	Do you consider the price high or low?
Presence of buy centers	Does the company have or be part of a buy center (CC)? If so, how many companies constituite the buy center?
Product delivery costs	Who assumes the costs of product transportation? How is the product delivery carried out?
Presence of contracts	Is there any contractual relationship between the farmer and you?

Font: Elaborated by the authors based on data from Zylbersztajn & Neves (2000) (elaborado pelos autores com dados a partir de Zylbersztajn & Neves (2000)).

Table 2. Search results (resultados da pesquisa). Campo Grande, UFMS, 2006.

Variables	Small market	Medium size market	Large size market
Vegetable suppliers	They buy from local farmers.	They buy from local farmers.	They buy from local farmers, except for one supermarket.
Requirements settled by the supermarkets	Informal internal quality standards.	Informal internal quality standards.	Formal internal quality standards.
Negative aspects of the buy from local farmers	-	The farmers do not offer enough variety and quantity. A disruption in the supply occurs.	The farmers do not offer enough variety and quantity. A disruption in the supply occurs.
Vegetables price	Local price lower than in other states.	Local price lower than in other states.	Local price lower than in other states.
Presence of buy centers	Only two do not participate.	Yes.	Yes.
Costs of product delivery	In four, the costs were assumed by the retailers.	Assumed by the farmers.	Assumed by the farmers.
Presence of contracts	Absent.	Absent.	Present in only one.

Font: Elaborated by the authors based on data from the research (elaborado pelos autores com dados da pesquisa).

small-scale, four for medium scale and three large-scale) the interviewees stated that this possibility did not exist because the producers did not produce sufficient quantity and variety. Belik (2004) and Souza (2001) stated that fresh produce quality and diversity contributed to the frequency and fidelity of supermarket customers. Another item listed as a negative point in vegetable purchases from local producers was the break in supply caused by seasonality, a characteristic that mainly affects small producers because they have fewer resources and therefore also have less access to productive technologies that reduce the impact of this issue.

All the small and medium-scale supermarkets had internal quality standards but they were informally instituted while in the specific case of the large supermarkets there were formally structured vegetable selection and purchase standards. Regarding the requirement standard of the customer, 30% of the interviewees stated that the local produce met the requirement, 54% said that the producers did not meet the customer demands and 16% of the establishments reported that the standard was not always met.

This finding shows that the small producer is not prepared to assume the costs of the supermarket demands for quantity, quality and variety. Therefore the need was observed for the rural producers to invest in technologies that standardize produce quality, reduce the effects of seasonality and offer greater quantity and variety. This is possible through collective actions of small producers because it allows gains in scale and makes it possible to conquer new distribution channels that require greater efficiency in the items mentioned. Thus public and private investment is needed for incentives to encourage collective actions.

Among the positive aspects of purchasing from local producers, all the interviewees emphasized that the products cultivated locally were fresher. Purchasing locally produced vegetables reduced handling, the main reason for vegetable losses according to Silochi (2007). Furthermore, because of their greater proximity and transport speed, purchasing local produce required smaller logistical investments and increased the efficiency of the channel.

There was unanimity in the statement that the prices of the locally produced vegetables were lower than those produced in other states. In this sense, in the prerogative of lower prices being passed on to the end consumer, the products were also more accessible to population and the commercialization of locally produced products also influences the Food and Nutritional Safety (SAN) of the local population.

Among the supermarkets interviewed, the large and medium scale stores reported having or being part of a Purchasing Central, and only two small-scale supermarkets did not participate. The Purchasing Central aims to reduce the product purchase price by increasing volume. This performance reiterates the conclusion by Lourenzani & Silva (2004) that the ever greater search for quality products in large volumes has generated the creation of Purchasing Central's [PC] that are difficult for the local producer to enter. According to Rosenbloom (2002), the retail trade is increasingly concerned with greater efficiency and control in product distribution. For Yokoyama *et al.* (2006), large and medium scale supermarkets invest in the commercial coordination and centralization of vegetable purchases.

Vegetable distribution concentration in large retail self-service chains has left few alternative channels for the rural producer. This concentration can have negative effects on income distribution over the productive chain and furthermore affect its level of efficiency with the use of its market power. This happens because, according to the structure-conduct-performance (SCP) model developed by Mason (1939), when the market is closer to the perfect competition structure, in which there is a high number of competitors, free entry and homogeneous products, there are fewer strategies available and less search for cost reduction. Consequently this market would perform well. Thus although distribution by the purchase centrals maintained by the large retail chains presents the best competitive performance, this advantage is not sustainable due to the relationships with its suppliers. Changes are recommended both in supply management, including contracts and partnerships, in an endeavor to reduce the vertical rivalry and strengthen a relationship based on shared gains, that tends to be sustainable.

Product delivery cost was completely taken on by the producer in the large, medium and two of the small-scale supermarkets, confirming findings by Lourenzani & Silva (2004) where increasingly the transport and reposition costs are passed on to the producer strengthening currency accumulation, the negotiating power of the retail trade. This happened due to the bargaining power and the coordination role played by the large supermarkets (Hingley *et al.,* 2008). However, in four (66%) of the small-scale supermarkets researched, the vegetable transport costs were assumed by the retail companies, that can be explained because they did not have the same bargaining power as the large companies in the area.

No formal contracts were reported by any of the small and medium-scale and two of the large scale supermarkets. In spite of the absence of this type of contract, easy negotiation with the local producer was observed by the interviewees. According to Williamson (1996) the high frequency of transactions that in this case are carried out on a daily basis, contributed to the construction of reputation and reduced transaction costs. According to Machado (2002) and Faulin & Azevedo (2003) transactions are regulated on the Brazilian vegetable market by informal contracts, based on subjective control mechanisms such as trust and reputation. For Souza (2001), until the formal contracts are signed, the producer and retailer make verbal agreements and in the case of repeated successful transactions, the formalities are established.

Table 2 shows the main results of this research in function of each variable and the respective supermarkets.

The results obtained in the present research contribute to a better understanding of the distribution process for vegetables grown in Campo Grande. This understanding will permit more efficient orientation by the state and producers, in ensuring greater distribution efficiency enabling critical analysis of the needs and objectives of the local distributers thus leading to new procedures that fit the processes exercised by the small producers to the supermarket requirements. In the food sector, efficient distribution is essential given the characteristics of highly perishable products and the questions of food safety.

Further considering the impact of food distribution on food safety, the study also offers data to formulate public policies to combat food insecurity. Society could have better access to foods and benefit from the local development of the region motivated by the generation of employment and income by its multiplier effect generated by inserting rural producers in the economic system.

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