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STORE IMAGE ATTRIBUTES AND CUSTOMER SATISFACTION IN SUPERMARKETS IN CAMPO GRANDE-MS

ATRIBUTOS DE IMAGEM DA LOJA E A SATISFAÇÃO DE CLIENTES EM SUPERMERCADOS DE CAMPO GRANDE-MS

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ABSTRACT

The aim of this study was to investigate the relationship between image attributes and consumer satisfaction in supermarkets. Specifically, we sought to: a) identify the variables which make up the image attributes of supermarkets and group them into factors, and b) assess the impact of image attributes on consumer satisfaction. We conducted a quantitative study, which met quotas by region and city income class, among 400 individuals from Campo Grande, MS, southwest Brazil, who were responsible for purchasing supermarket products for their families. Exploratory Factor Analysis (EFA) and Structural Equation Modeling were used for the data analysis. The results revealed that the attributes are grouped into five factors. The constructs "environment" and "promotions" were not considered significant in determining satisfaction, while the attributes " personell", "product" and "price" had a positive effect on satisfaction, with the latter having the greatest impact.

Keywords: Food Retail, Consumer Behavior and Structural Equation Modeling

ATRIBUTOS DE IMAGEM DA LOJA E A SATISFAÇÃO DE CLIENTES EM SUPERMERCADOS DE CAMPO GRANDE-MS

RESUMO

O objetivo geral deste trabalho foi verificar a relação entre os atributos de imagem e a satisfação dos consumidores de supermercados. Especificamente, pretendeu-se: a) identificar as variáveis constituintes dos atributos de imagem dos supermercados e agrupá-las em fatores; e b) verificar o impacto dos atributos de imagem na satisfação dos consumidores. Foi realizada uma pesquisa quantitativa junto a 400 indivíduos de Campo Grande-MS, Centro-Oeste do Brasil, responsáveis pela compra de produtos de supermercado de sua família, sendo cumpridas cotas por região da cidade e de classe de renda. Para a análise dos dados foram utilizadas a Análise Fatorial Exploratória (AFE) e a Modelagem de Equações Estruturais. Os resultados revelaram que os atributos são agrupados em cinco fatores. Os construtos "ambiente" e "promoção" foram considerados não significativos para a determinação da satisfação; enquanto os atributos "funcionários", "produto" e "preço" tiveram efeito positivo na satisfação, sendo que o último tem impacto maior.

Palavras-chave: Varejo de alimentos; Comportamento do Consumidor; Modelagem por Equações Estruturais

1 INTRODUCTION

More than ever, understanding the customer is recognized as a vital necessity not only for businesses but for any organization that sees itself as being market-oriented (Dubois, 1998). Consumer behavior emerged as a field of study in the 1960s, more precisely 44 years ago, in 1968, through the influence of writers such as Newman, Katona, Ferbera, Howard Engel, who aimed to identify the variables surrounding the consumer, as well as other variables such as their shifting attitudes towards different products, purchasing behavior and the reasons of cause and effect that react to persuasion, among others (Blackwell, Miniard, & Engel, 2011). Within this context, the study of customer satisfaction constitutes a major topic in the marketing area in the world and Brazil is no different (Santos & Fernandes, 2010). Satisfaction is the main concern and prerequisite for competitiveness in today's global market and is one of the main objectives of companies (Gomez, Mclaughlin, & Wittink, 2004).

Consumption is not just a necessary activity, but also an attractive and socially approved form of behavior. It involves all the mental, emotional and physical activity that people put into play when they select, buy, use and dispose of products and services to meet their needs and desires (Statt, 1997). Both scholars and marketers have assigned a particular status to satisfaction as an antecedent of consumer loyalty (Brunner, Stöcklin, & Opwis, 2008; Bodet, 2008, Gómez et al., 2004; Bloemer & Ruyter, 1998). There is also evidence suggesting that, for organizations in the service sector, customer satisfaction is the most appropriate criteria for assessing and organizational performance (Schneider & Chung, as cited in Johnson, 1996). As a result, it is imperative that retailers know the determinants of customer satisfaction.

Marketing recognizes that acquiring new customers costs more than maintaining the current customers (Reichheld, 1996). Moreover it can also be said the "an industry is a process of customer satisfaction, and not of the production of goods." Möwen and Minor (2004, p. 5), argue that "reducing the focus on the consumer is a backward step in marketing."

When shopping, satisfaction is affected by the physical environment of the store, the various procedures that the client must follow, the moments of contact with staff and what the retailer has to offer, such as product variety, quality and price (Morschett, Swoboda, & Foscht, 2005). The retailer's total offer in the customer's mind is called the store image and the combination of all the determinant attributes defines the degree of customer satisfaction (Pan & Zinkhan, 2006). Jacoby, Hoyer and Brief (1992) define customer satisfaction as a psychological state resulting from the confirmation of consumer expectations. Satisfaction occurs when the result of the expectations is high and disapproval is low. One of the paradigms studied here is that of comparison (Simonson, Carmon, Dhar, Drolet, & Nowlis, 2001), which is based on the notion

that satisfaction is built in a comparative way at three different levels: past experience, the experience of others, and the present situation.

It is therefore important to investigate the determinants of customer satisfaction and in the case of this study, the supermarket customers. The food system is affected by supermarkets, from the supply chains impacting small farmers, through traditional marketing channels, to the opportunities offered to consumers who are interested in the variety of products. Supermarket is a possible vehicle for bringing about change in the diet of consumers, either through in-store nutritional education or health warnings on foods (Timmer, 2004). This shows the importance of supermarkets in public policies related to food supply and, hence the interest of the present study.

Recent studies have examined how the image attributes positively affect customer satisfaction (Helgesen, Havold, & Nesset, 2010; Theodoridis & Chatzipanagiotou, 2009, Jinfeng & Zhilong, 2009, Brunner et al., 2008). However, in Brazil, no studies were identified that analyze the impact of store image attributes on consumer satisfaction in supermarkets using methodologies that allow multiple relations of dependence and independence between the variables.

Therefore, the following research question is asked: What is the impact of store image attributes on consumer satisfaction in supermarkets? Hence, the aim of this paper is to investigate the relationship between store image attributes and the satisfaction of customers in supermarkets. Specifically it seeks to: a) identify the variables which make up the image attributes of supermarkets and group them into factors, and b) verify the impact of image attributes on consumer satisfaction.

To meet these objectives, this paper has been divided into six parts. In the first, the research problem and rationale are contextualized and described. The second provides a brief theoretical background on satisfaction and store image attributes. The third is a description of the studied theoretical model. In the fourth is concerned with the research methodology and details the characterization of the study, the research hypothesis, the population and the sample collection and data analysis methods. The fifty deals with the results of this study, including analysis of the data and the model. The sixth looks at the results in the context of relevant debates. Finally, part six points out the limitations of the present study and contains suggestions for further studies.

2 THEORETICAL BACKGROUND AND RESEARCH HYPOTHESIS

For Howard and Sheth (1969), satisfaction is a function of the degree of congruence between the aspirations and perceived reality of the consumer's experiences. For Oliver (1981), satisfaction is the summary of the psychological state that results when the emotion surrounding

the disconfirmation of expectations is coupled with the consumers' priority feelings about the experience of consumption.

The literature shows that consumer satisfaction can be divided into two types: transaction-specific satisfaction and cumulative satisfaction. The first refers to the assessment that consumers make after a specific purchase, and the second concerns the classification based on customer experience (Johnson & Fornell, 1991). These two constructs are not independent. Previous experiences, which constitute cumulative satisfaction, affect expectation and, therefore, the transaction-specific satisfaction. Moreover, each new experience with the company will complement the cumulative satisfaction.

Satisfaction can be measured according to the evaluation of the image attributes of the store. The conceptualization of store image and the formulation of the construct have received attention in the marketing literature in general, and that of retailing in particular, for at least the last 50 years (Lindquist, 1974). In most cases, store image is represented by the constructs with various attributes. Doyle and Fenwick (1974) and Bloemer and Ruyter (1998) describe store image in terms of a consumer rating of all the more remarkable aspects of a store perceived individually and thoughtfully. To date there is no consensus definition of store image due to the disparity between the various forms of conceptualization (Morschett et al., 2005, Spinelli & Giraldi, 2004).

In the retail context, the associations regarding a given company refer to the store image found in the minds of consumers and is typically formed by the variety of functional attributes pertaining to the store (Orth & Grenn, 2009; Pirsh & Gupta, 2008) and which may change after each new purchase (Oh, Fiorito, Cho, & Hofacker, 2008). This approach emphasizes that the consumer sustains and trusts his/her opinion regarding the store. In purchase decisions, consumers rely more on the store image than on its tangible aspects. Retailers present their own images that can influence the perceived quality of the products and the consumers' decisions regarding the choice of store (Girauldi & Spinelli, 2004).

The relationship between store image attributes and customer satisfaction has been used in several studies (Bloemer & De Ruyter, 1998, Gomez et al., 2004). Nevertheless, there are still unanswered questions about the concept, application and the nature of the two constructs. However, for retailers, the problem is how to deal with increased competition while taking into account the dynamics of the different store attributes to improve customer satisfaction. To reach decisions decide on this matter, marketers need to know more about the role of each store attribute, such as product, atmosphere, staff, price, merchandising and convenience (Theodoridis & Chatzipanagiotou, 2009).

The literature shows that the results and the combination of attributes related to store image are not necessarily applicable to all retail environments (Birtwistle, Clarke, & Freathy, 1999).

Because the design and operationalization of the construct of store image attributes have been developed in different cultural contexts, the non-validity of the sample was considered possible (Theodoridis & Chatzipanagiotou, 2009). Therefore, the study was performed in another context, Brazil.

The store image is formed by various attributes, including service, price, product, convenience, atmosphere, and promotion, as suggest by Theodoridis and Chatzipanagiotou (2009). Perceptions regarding the service is a critical factor that influences the satisfaction (Wang, 2009), since many consumers like to talk and socialize while shopping, seeking a social experience away from home. This way, stores with friendly and communicative employees attract many customers (Pan & Zinkhan, 2006). Several studies have confirmed the influence of the service on supermarket consumers' satisfaction, as the studies conducted by Nishi (2008) and Meyer, Ehrhart and Schneider (2009). The first research hypothesis is presented:

H1: The attribute "personell" has a positive effect on consumers' satisfaction.

Prices, jointly or separately with the product policy, contribute to the positioning of the retailer (McGoldrick, 1990) and is one of the most important attributes in consumers' purchasing decisions (Hortman et al., 1990). A higher price represents a measure which immediately refers to costs and it decreases consumers' willingness to buy. Low prices, in the form of promotions and even in general terms, can attract a greater number of customers in the store and increase the sales of the category (Pan & Zinkhan, 2006). The studies conducted by Helgesen and Nesset (2010) and Huddleston et al. (2009) proved the influence of price on supermarket consumers' satisfaction. The following hypothesis is proposed:

H2: The attribute "price" has a positive effect on consumers' satisfaction.

When the focus is the supermarket environment, the core of the retailer's offer is the product (Theodoridis & Chatzipanagiotou, 2009). The perception of products variety influences the store image and customers' satisfaction (Anselmsson, 2006). The study conducted by Juhl, Kristensen and Ostergaard (2002), to assess the degree of consumers' satisfaction in five European countries, found that the quality of a product is the most important attribute of the store image. In addition, several studies have tested and proved the effect of the product on consumers' satisfaction, as shown by Huddleston et al. (2009), Teller and Elms (2010) and Gallon et al. (2008). Thus, the following research hypothesis is presented:

H3: The attribute "product" has a positive effect on consumers' satisfaction.

Convenience is an important factor to stimulate the store and is the key benefit sought by buyers in the modern environment (Pan & Zinkhan, 2006). It refers to the layout and design of the store and is an attribute that facilitates the guidance and direction of the consumer when making purchases. Customers' perceptions regarding the convenience have a positive influence on satisfaction with the service (Berry, Seiders & Grewal, 2002). Several studies have confirmed the relationship between convenience and supermarket consumers' satisfaction, as those conducted by Martínez et al. (2010a) and Teller and Elms (2010). The following hypothesis is established:

H4: The attribute "convenience" has a positive effect on consumers' satisfaction.

Another important attribute of the store image is the atmosphere, which refers to the environment created by combining a set of visual elements in the physical space of the store (colors, displays, decorative elements, etc) and senses stimulation (smell, air condition, music, clarity) (Theodoridis & Chatzipanagiotou, 2009; Oh, Fiorito, Cho & Hofacker, 2008). Stores with a pleasant atmosphere are susceptible to increase the positive experience of purchasing, customers' satisfaction (Koo, 2003; Orth & Green, 2009) and the perception of the quality of products (Oh, Fiorito, Cho & Hofacker, 2008). Studies, such as those conducted by Teller and Elms (2010) and Gallon et al. (2008), have shown the impact of the store atmosphere on supermarket consumers' satisfaction. Therefore, the following hypothesis is presented:

H5: The attribute "atmosphere" has a positive effect on customers' satisfaction.

Promotion is also another attribute that is part of the store image and is defined as a marketing activity that refers to communication with the goal of making a product or service known, leading to its use or adoption (Amaral, 2008). According to Lindquist (1974), the promotion is represented by the offers, advertising, displays, symbols and colors used by the companies. The studies conducted by Xin-Yah and Zhi (2006) and Miranda, Kónya and Havrila (2005) proved the relationship between sales promotion and supermarket consumers' satisfaction. The last hypothesis is proposed:

H6: The attribute "promotion" has a positive effect on customers' satisfaction.

The theoretical model of the article is shown in Figure 1.

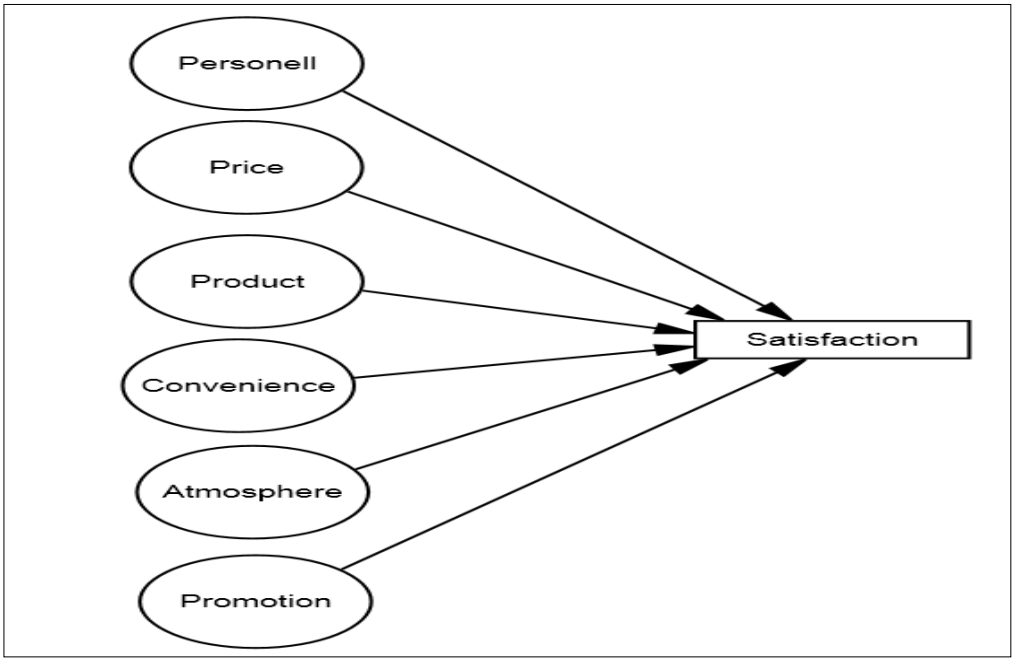

Figure 1. Store image attributes and customer satisfaction (Initial model)
Sources: Research data.

3 METHODOLOGICAL PROCEDURES

The study was conducted in the urban area of Campo Grande, capital of the state of Mato Grosso do Sul, midwestern Brazil, among 400 individuals responsible for doing the supermarket shopping in their family. To select the households to be interviewed, a quantitative probability sample was performed, selected using the clusters statistical model in three stages: selection of neighborhoods [IBGE data / PLANURB], selection of blocks (updated and numbered maps) and the selection of households through previously established systematic jumps. In all, 15 individuals were interviewed (4%) in class A, 102 (25%) class B, 220 (55%) of the class C, 60 (15%) of the class D and 3 subjects (1%) of the class E.

The application of questionnaires were conducted by a company specializing in market research contracted by a Federal University of Mato Grosso do Sul in Brazil between June 16th and 21st, 2010 and applied by interviewers trained in this type of approach, under the guidance of a supervisor.

The questionnaire consisted of three parts and was elaborated based on the study Theodoridis and Chatzipanagiotou (2009). The first part included the identification of the respondent (sex, age, marital status, education, income and frequency of purchase). The second part of the questionnaire was structured and consisted of closed questions, in which the

importance and allocation constructs were operationalized using a Likert scale, ranging from 1 [strongly disagree] to 5 [strongly agree].

Customer satisfaction is conceptualized as an overall satisfaction (Fornell, Johnson, & Anderson, 1996), rather than post-purchase evaluation of a specific transaction. Thus, the third part of the questionnaire, a satisfaction scale comprised of three items was used, based on the earlier work of Theodoridis and Chatzipanagiotou (2009) and Fornell (1992). The respondents were asked to indicate agreement on each of the following items: How satisfied are they with their supermarket; how well this supermarket matches their expectations; and how close this supermarket is to their ideal supermarket. Then an additional scale was developed using the arithmetic mean of the three scales, with an acceptance level of Cronbach's alpha ($\alpha = 0.943$), which was used as an endogenous variable in the model.

The research dimensions and variables adopted by Chatzipanagiotou and Theodoridis (2009) were the same as those used in this study, however, with the use of Exploratory Factor Analysis (EFA), the dimensions (factors) and variables composing each factor were different, as discussed later. Variables that Theodoridis and Chatzipanagiotou (2009) discarded from their model, such as promotion, access to the supermarket parking lot and advertising campaigns, have been included in the present study.

The methodology involving the measures employed and the data analysis consisted of two steps. The first was to confirm the factor structure of measurement items of the store image attributes measured using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to validate the attributes (Hair, Anderson, Tatham, & Black, 2009). The second was to investigate the relative importance of each dimension of store image in the formation of customer satisfaction, using Structural Equation Modeling (SEM). The analyses were aided by the use of the SPSS 18.0 and AMOS 18.0 (Arbuckle, 2007) software packages.

4 RESULTS

4.1 EXPLORATORY FACTORIAL ANALYSIS [EFA]

In order to group the variables (indicators) into factors (latent variables) Exploratory Factor Analysis (EFA) was conducted using the version 18.0 SPSS.

In a first attempt, all 23 variables in the model were considered and the principal components extraction method and orthogonal rotation (Varimax) were used. To define the number of extracted factors, the latent root (eigenvalue> 1) and explained variance methods were applied. No duplicate loads were found.

In addition, some variables were found to have a low factorial loadings, that is, the total amount of variance that the variable had in common with a factor of which it formed a part was low, in accordance with Hair et al. (2009). Therefore, variables with a factorial load of less than 0.5 were excluded from the analysis - the indicators removed being “parking”, “pleasing colors”, “ease” and “trolleys”. For this reason, the effect these variables have on satisfaction was not tested what. It was observed that the Factor six was found to include only one variable, which is not recommended by Hair et al. (2009) when applying the SEM, so it was removed from the model.

EFA was performed again and the end result shown in Table 1 was reached. The factors (constructs) and their respective variables (indicators) were separated considering their factorial loads (loadings) as follows: the factor “personnel”, corresponded to variables 1 to 5, the factor “price” corresponded to variables 6 to 8; the factor “environment” corresponded to variables 9 to 12, the factor “product” corresponded to variables 13 to 16, and the factor “promotion” corresponded to variables 17 and 18.

Table 1 - Final Exploratory Analysis.

VARIABLE	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	COMMUNALITY
1- Friendly	**0.841**	0. 117	-0.044	0.067	0.056	0.73
2- Careful	**0.817**	0.109	-0.090	-0.016	0.029	0.688
3- Knowledge	**0.721**	0.084	-0.057	-0.121	0.018	0.545
4- Good presentation	**0.657**	0.072	-0.238	-0.179	0.040	0.526
5- Sufficient	**0.573**	0.083	-0.213	-0.074	0.103	0.397
6- Good prices	0.176	**0.882**	-0.113	-0.076	0.106	0.839
7- Competitive prices	0.068	**0.853**	-0.056	-0.055	0.063	0.743
8- Price/Quality	0.147	**0.849**	-0.173	-0.089	0.058	0.783
9- Clean	0.252	0.008	**-0.797**	-0.037	0.087	0.708
10- Pleasant smell	0.249	0.032	**-0.724**	0.210	0.138	0.65
11- Temperature	0.076	0.147	**-0.714**	-0.170	0.047	0.568
12- Spacious aisles	0.029	0.148	**-0.67**	0.048	0.047	0.477
13- Quality	0.247	0.292	-0.119	**-0.726**	0.210	0.731
14- Variety	0.144	0.295	-0.295	**-0.659**	0.195	0.667
15- Full shelves	0.335	0.152	-0.329	**-0.557**	0.348	0.675
16- Sign	-0.117	-0.200	0.067	**-0.514**	-0.184	0.356
17- Advertising campaigns	0.021	-0.007	-0.116	0.015	**0.89**	0.806
18- Promotions	0.154	0.350	-0.133	-0.277	**0.666**	0.684
Variance	3.0747	2.6747	2.5237	1.7624	1.5382	11.5736
% Var	0.171	0.149	0.14	0.098	0.085	0.643

Notes. Kaise-Meyer-Olkin Measure of Sampling Adequacy: 0.84, Bartlett’s Shericity Test χ^2=2885,098 significant 0.000. The total variance explained was 64.3%. Furthermore, to define the number of extracted factors, the latent root method (eigenvalue> 1) and Parallel Analysis were used. Source: IBGE/PLANURB. (2007). *Contagem da população 2007*. Retrieved 15 June, 2010, from http://apl01.pmcg.ms.gov.br/indweb/indicadores.jsp?seqind=108.

When compared with the study by Chatzipanagiotou and Theodoridis (2009), the factors "personnel" and "price" were also confirmed in this study. The variable "spacious aisles" was grouped to the factor "environment", while in the original study by Chatzipanagiotou and Theodoridis (2009) it is merged with the factor of "convenience". Therefore, hypothesis 4 was not accepted because the attribute "convenience" was not identified in this study. The variable "sign" was included in the factor "product", while in the original study it was included in factor "merchandising" which also was not identified in this study. Finally, the factor "promotion" was defined in this study, but was not confirmed in the study by Theodoridis and Chatzipanagiotou. Such disagreements are foreseen by McGoldrick (1990) who considers the variation in the classification of the components of store image susceptible to the relative importance of each market in which the companies acts and differences in each country. This indicates that the supermarket environments in Greece and Brazil are different. According to the World Bank (2009), Brazil is considered a middle-high-income country, and Greece a high income country. Therefore, their retail and consumer markets may be different. In high-income countries, for example, the retail markets are considered to be in a mature stage (Halkier, 2001), while in middle-high-income countries they are seen to be growing (Weatherspoon & Reardon, 2003). Moreover, consumers in high-income countries are concerned about healthy and convenient foods (Halkier, 2001), while those in middle-high-income countries are concerned with the cost-benefit of convenience, healthiness and price (Farina, 2002). These factors may explain the non-convergence of the attributes found in Greece and in the present study.

4.2 ANALYSIS OF THE CONSTRUCTS

Firstly, the data collected were analyzed, and no outliers or missing data were identified. Hence, all 400 subjects were considered in the study. Then each construct and its observable variables were analyzed using descriptive statistics of the data.

According to West, Finch and Curran (1995), in order for the data to show a normal distribution, the kurtosis value should be less than seven (<7). The variables "presentation", "full shelves", "clean" and "temperature' showed the following kurtosis values, respectively: 9.247, 9.738, 14.222, and 12.110. This indicated that the data do not follow a normal distribution required by the maximum likelihood method adopted in this study and therefore bootstrapping was performed, which is used when there is non-normal distribution of data (Byrne, 2010).

Afterwards, Cronbach's alpha was used to measure the index of reliability of the internal consistency. The results were satisfactory, since all values were above 0.65, as recommended by Hair et al. (2009).

These results indicate the presence of internal consistency in relation to the constructs and their indicators. Therefore, they were maintained for the construction of the model in this study.

4.3 ANALYSIS OF THE MEASUREMENT MODEL

In the data analysis the structural equation model was developed, traversing the Confirmatory Factor Analysis (CFA), with the aid of the AMOS 18.0 software (Arbuckle, 2007).

Confirmatory Factorial Analysis (CFA) was performed to confirm the structure of the model, its constructs and the variables found with the EFA. The Maximum Likelihood Estimation (ML-Maximum Likelihood) method, which is the most widely adopted in CFA, was used.

The CFA was performed using the 18 variables and factors found 5 using the EFA. The variable "sign", contained in the factor "product" was removed from the model because its p-value was 0.881 (acceptable level <0.05) and its Critical Ratio (CR) was -0.15. The latter parameter represents the parameter estimate divided by its standard error. In order to be considered significant it must be> │1.96│ (Byrne, 2010).

The analysis was carried out again without this variable. The results are shown in Table 2. The estimation of the model took into account the estimated regression weights, standard errors, the C.R., the p-value and the estimated standardized regression.

Table 2 - Confirmatory Factor Analysis

	ESTIMATION	STANDARDIZED ERRORS (S.E.)	C.R.	P-VALOR	ESTIMATED STANDARD REGRESSION
PERSONELL					
Appearance	1.000	-	-	-	0.683
Care	1.669	0.157	10.649	0.000	0.680
Friendly	1.436	0.135	10.627	0.000	0.678
Knowledge	1.676	0.156	10.759	0.000	0.672
Sufficient	1.741	0.183	9.518	0.000	0.575
PRODUCT					
Variety	1.000	-	-	-	0.740
Quality	0.959	0.069	13.953	0.000	0.759
Full shelves	0.973	0.066	14.791	0.000	0.821
PRICE					
Competitive prices	1.000	-	-	-	0.757
Good prices	1.050	0.059	17.917	0.000	0.915
Price/quality	0.949	0.055	17.214	0.000	0.846
ENVIRONMENT					
Temperature	1.000	-	-	-	0.587
Clean	1.261	0.113	11.124	0.000	0.805
Pleasant smell	1.667	0.149	11.181	0.000	0.821
Spacious aisles	1.215	0.166	7.298	0.000	0.437

	ESTIMATION	STANDARDIZED ERRORS (S.E.)	C.R.	P-VALOR	ESTIMATED STANDARD REGRESSION
PROMOTIONS					
Promotions	1.884	0.345	5.461	0.000	1.009
Campaigns	1.000	-	-	-	0.436

Note. Sources: Research data.

The adjustment measures of this model (CFI = 0.95, GFI = 0.932, AGFI = 0.904, TLI = 0.937 and RMSEA = .057) with five constructs and 17 indicators (variables) indicated that it is an appropriate measurement model, as suggested by Brown (2006).

To continue the empirical analysis in this study, once the constructs, variables and their relationships had been defined, the Structural Equation Model was developed.

4.4 STRUCTURAL EQUATION MODELING

The Structural Equation Modeling (SEM) is recursive and consists of five dimensions of store image attributes defined as exogenous latent variables, and customer satisfaction as the endogenous variable to be explained.

The results showed that the constructs “Environment” (CR = -1.366, p = 0.172) and “Promotion” (CR = -0.765, p = 0.444) were not determinant for customer satisfaction, since their critical ratios and p-values were not significant. The measures of fit for the model were: GFI = 0.927, AGFI = 0.89, RMSEA = .058, CFI = 0.94, TLI = 0.93. The modeling procedure was then again performed, and the final model defined, as shown in Figure 2. The model showed the standardized estimates of the direct effects of the relations, all of which were significant (CR> 1.96 and p-value <0.05).

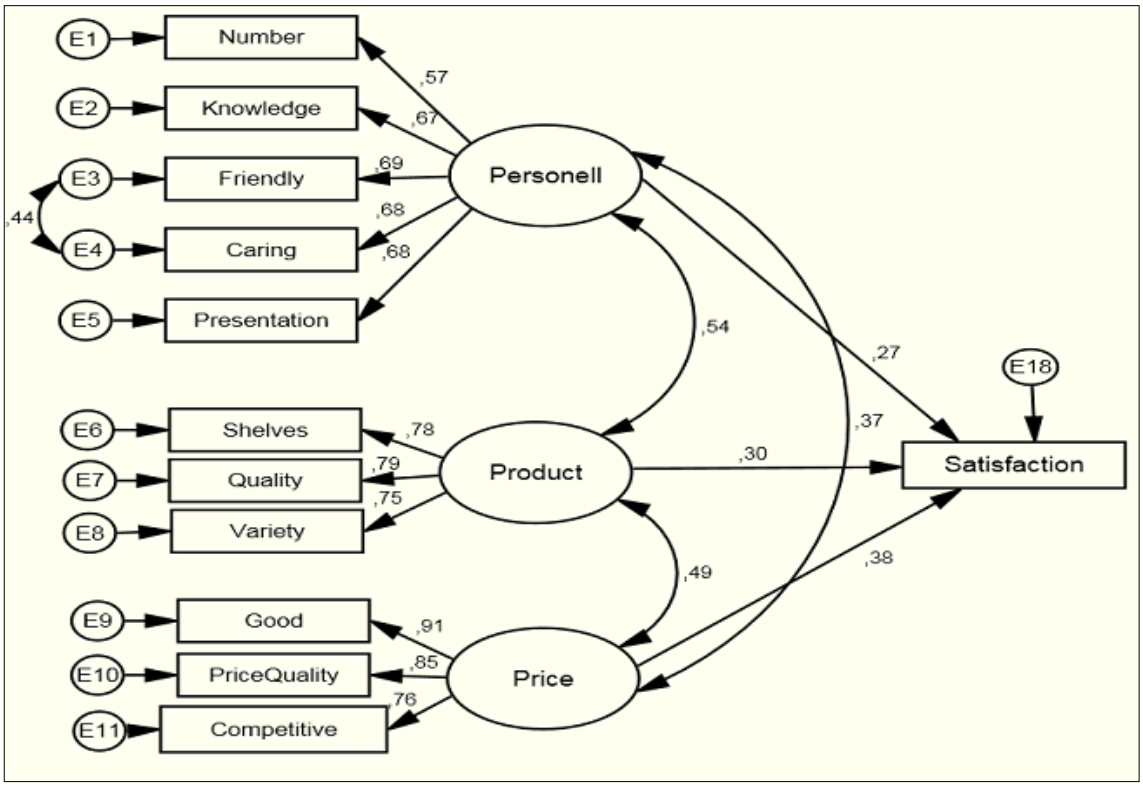

Figure 2. Store image attributes and customer satisfaction (Final Model).

Sources: Research data.

The direct effect with the greatest impact on satisfaction was the construct “Price”, since it showed a standardized regression coefficient equal to 0.38, followed by the constructs “Personnel” (0.3) and “Product” (0.27).). It is observed that the R^2 of the model was of 53%, i.e., 53% of satisfaction variability is predicted by the attributes "price", "personell" and "product", demonstrating a great result.

Goodness of fit measures are used to demonstrate how well the model fits the data of the sample. The contents should be chosen depending on the analysis of each case. In this study, the indices analyzed were chosen according to Theodoridis and Chatzipanagiotou (2009). All indices of goodness of fit in the model were considered adequate (GFI = 0.965, AGFI = 0.942, RMSEA = .049, CFI = .979, TLI = 0.971) (Byrne, 2010; Brown, 2006). Hence, the adjustment of the model by the indexes was considered satisfactory. Note that, in comparison with the initial model which included the dimensions “environment” and “promotion”, all measures of fit improved, as was expected, since these dimensions were not significant in explaining satisfaction. The main results of this study and a discussion are presented below.

5 DISCUSSION OF THE RESULTS

According to the data analysis performed using the EFA, the image attributes of the supermarkets can be divided into five factors: personnel, product, price, environment and promotions. The goodness of fit measures were analyzed and the model was adequate. At this stage, the attribute "convenience" was not significant and it was removed from the model. Thus, the hypothesis 4 was not accepted.

Afterwards, the SEM was conducted; in which satisfaction was the endogenous variable of the model. With the analysis of the estimates, the constructs “environment” and “promotions” were not considered significant in determining consumer satisfaction. While the constructs “personnel”, “product” and “prices” were found to be significant and retained in the final model. Hypothesis 1, 2 and 3 were accepted. Finally, the goodness of fit measures were assessed and the model found to be satisfactory.

Kano (1984) distinguishes three types of attributes that influence customer satisfaction: must-be, one-dimensional and attractive. The attributes “environment” and “promotions” were assumed to be “must-be”. In other words, if these attributes are absent from the store or if their performance is inadequate they may contribute to customer dissatisfaction, even if they are not determinants of satisfaction. Recent studies conducted in the United States and Europe (Heide, Laerdal, & Gronhaug, 2009; Molina, Martin, Santos, & Aranda, 2009) show the importance of the attribute “environment” in determining the quality and/or satisfaction of the customers. By contrast, in this study, as the study by Theodoridis and Chatzipanagiotou (2009) which inspired the method adopted in this study, the relationship was not significant. Theodoridis and Chatzipanagitou (2009) explain this result by stating that the more times a consumer visits a supermarket, the more familiar the environment becomes. Thus, in order for the consumer to notice the client environment, the store needs to surprise him/her, either positively or negatively. This may explain, to some extent, why the attribute “environment” does not influence satisfaction.

There are assumptions that may explain the results found here. The first is that the lower income class attaches less importance to the dimension “environment”, especially in the case of Brazil, where purchasing power is low compared to developed countries, assuming that half the class C and all members of classes D and E are low income, this represents almost 50% of the sample. The second refers to the low level of expectation among Brazilians regarding the store environment. In other words it means that the attention of supermarket customers are more focused on other attributes linked to the core product offered by the supermarket (quality and price). The third assumption is related to the statistical aspects. The correlation between the attributes "promotion" and "atmosphere" and the dependent variable "satisfaction" was calculated.

The results showed that the two correlations were positive and significant (0.349 and 0.130, respectively) with a p-value of 0.00. This result shows that the relationship between these two attributes and satisfaction exists, corroborating the formulation of hypothesis 5 and 6. However, when multiple constructs are inserted into a structural model, the latent variables of greater weight can become those with less weight and non-significant (Borg & Groenen, 2005).

With respect to the attribute "promotion", the study by Martínez-Ruiz, Jiménez-Zarco, Barba-Sanchés and Izquierdo-Yusta (2010ab), which attempts to identify the attributes that have the greatest impact on satisfaction with supermarkets in Spain, also found no relationship between promotion and the satisfaction of consumers in supermarkets, corroborating with the findings of the present study research.

Hypothesis 1, 2 and 3 of this study were accepted, and the attributes of store image "personell", "product" and "price" have a positive effect on customer satisfaction in supermarkets of Campo Grande-MS. Still, they explain the 53% variability of the dependent variable. This shows that even though hypothesis 5 and 6 were not confirmed, the dependent variable was well explained. The fourth hypothesis was not accepted because the attribute "convenience" was not identified using the EFA. These results corroborate the studies of several authors, as shown below, in which the attributes for the image positively affect customer satisfaction.

Bloemer and Schroder (2002) reveal that the client who sees the store with a positive image is more likely to be satisfied than one who sees the store with a less positive image. This positive image would also result in a higher level of affection for the store, increasing the level of satisfaction, and, consequently, this would lead to loyalty, if trust and commitment were present. Research conducted by Bloemer and Ruyter (1998) in Switzerland in order to evaluate the relationship between store image attributes, satisfaction and loyalty among the customers of a department store found that satisfaction is a mediator of the relationship between store image and customer loyalty. This means that the image of the store has an indirect effect on customer loyalty through satisfaction, indicating that image is a significant predictor of satisfaction (Gupta & Pirsh, 2008).

The results of this study confirm those reported by Jinfeng and Zhilong (2009) who analyzed four image attributes ("convenience", "price", "institutional factors" and "service") with consumers from ten hypermarkets in China and concluded that all attributes are positively related to customer loyalty.

In Brazil, research conducted by Romaniello, Amancio and Terceti (2008) in a supermarket in southern Minas Gerais, showed that the factors that most influence the decision to purchase in an establishment are the "service" and the "variety of products".

A study by Prado and Marchetti (1997) points out that, although the supermarket is characterized by a self-service system, customer support within the establishment has greater weight than in the service at the checkout. The study showed that polite and well informed staff to meet this need contribute to consumer satisfaction in supermarkets. These data corroborate the results of the present study, which shows the importance of the construct “personnel” for customer satisfaction. In the final model, shown in Figure 2, the constructs “personnel”, “product” and “price” are shown to correlate with each other, as do the errors 3 (friendly employees) and 4 (careful employees).

The correlation between the constructs "personnel", which can be understood as the service, “price” and “product” supports the study from Parente and Barki (2006), who claim that companies that practice a strategy which emphasizes low price, provide, at the same time, a more reduced service and more limited range of products. It also highlights what Alday and Pinochet (2002) who suggest that customers choose to buy in supermarkets that offer quality products or lower prices, forcing establishments to always maintain good products at good prices. Therefore, the constructs are correlated.

6 FINAL REMARKS

Proper management of image attributes of supermarkets is considered a major challenge in relation to consumer satisfaction. There are at least two managerial implications for supermarkets: a) the use of a set of image attributes as a way of gaining competitive advantage over competitors, and b) the need to give greater attention to the attributes “personnel”, “product” and “price” in relation to the attributes “environment” and “promotions”, because the former three have a positive impact on consumer satisfaction, while the latter two attributes are not significant in determining customer satisfaction.

Regarding the debate on the validity of different measures of satisfaction, it is recommended that researchers and managers in the area adopt multi-item measures when attempting to measure satisfaction. The instrument used in the present study is believed to represent a valid measure of overall satisfaction with a supermarket, but still requires further testing and refinement. As for the other factors of the instrument, in addition to improvement, it is recommended that further studies in the context of the food industry should be conducted in order to check predictive impact they have on satisfaction. There would also seem to be a need for studies in which the effects of the intensity of expectations and references for comparison and relevance can be manipulated experimentally. In the case of management research, however, the

measurement of such constructs may not be necessary, since the trend is that the intensity of expectations, given by the industry standard, is naturally between moderate to high levels, and that it exercises little positive effect on customer satisfaction. It would be up to the industry, therefore, to monitor levels of customer satisfaction and work towards the creation of differentials that break through the consumer's zone of indifference in order to escape the pattern of neutrality that industry standards impose on performance evaluations.

From the academic point of view, the contributions of this paper were: a) the comparison of the survey results obtained in Brazil (Campo Grande) with the results of original study by Theodoridis and Chatzinapagiotou (2009) in Greece, and b) a better description of the influence of image attributes on customer satisfaction in supermarkets , using the SEM.

This study has some limitations. The first concerns the sample used. In the original study, the respondents were approached in supermarkets, which was not possible in Campo Grande as the supermarkets did not allow consumers to be addressed in the stores. If this had occurred, the sample could have been stratified according to the size of the supermarket - small, medium and large. This would allow the impact of image attributes on customer satisfaction to be determined for each supermarket segment.

Some suggestions for future research might include studies to identify clusters of consumers based on demographic variables and evaluate whether image attributes have the same pattern of influence on satisfaction in different segments. Another suggestion would be to conduct this research in several Brazilian cities, in order to make an inference of the results for Brazil. It would be interesting to apply the same methodology in other retail environments such as restaurants and department stores, in addition to conducting research using image attributes and identifying the relationships between satisfaction and loyalty of consumers in supermarkets.

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