The Efficiency and Strategy of Companies Operating in the Popular Market: A Study on the Furniture Industry in Brazil

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Abstract

This study aims at confirming if during the years 2001 and 2012 companies of the furniture industry, which invested in the popular goods market, had greater financial efficiency and what were the main strategies used by these companies to achieve this efficiency. The study also sets out to investigate whether there is a relationship between the basic interest rate of the economy, inflation and the efficiency noted in this period. The results showed that firms that chose the popular market had greater financial efficiency and the interests show a reverse causality toward more efficient companies that have served this market.

Keywords: Popular market, Low income population, Furniture market, Base of Pyramid, Brazilian companies

1. Introduction: the popular consumer market in Brazil, goals and research hypotheses

By crossing the number of households with the monthly household income provided by Instituto Brasileiro de Geografia e Estatística [IBGE] (2011), the consumer market of popular classes in 2011 covered about 92% of Brazil's total population, and this population with income up to 10 times the minimum wage, has increasingly been the focus of studies conducted by corporate and academic organizations, the financial system and the government.

This population's representativeness and its consumption capacity, benefited by the improvement of income distribution as from 2006, has become a very fertile ground for new research studies and reviews about studies already prepared on the subject (Passos, 2013, p.7). Figure 1 shows the annual growth of the number of households with income up to 5 minimum wages over time, a slight increase in the number of households with income between 5 and 10 minimum wages and a reduced number of households with income greater than 10 minimum wages.
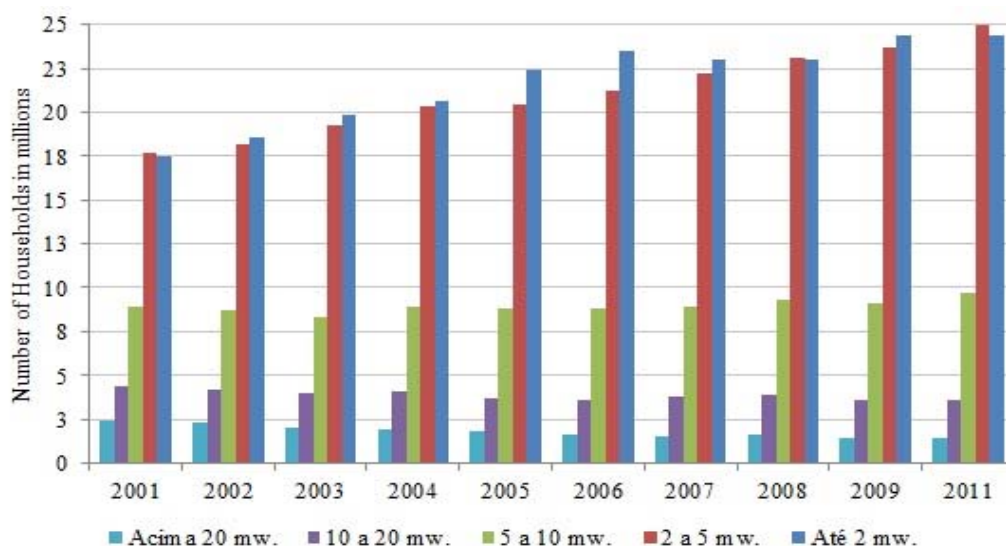

Figure 1. Distribution of Brazilian households by income

The population represented by income classes that received up to 10 minimum wages was formed by a quota of 59.29 million households in 2011.

The opportunities generated by this vast market and the strategic behavior adopted by organizations to gain access to this market represent an important field for research. (Passos, 2013, p.8).

Despite the importance of the theme [...]", there are few reference studies on the market of popular goods in Brazil. "Most research studies and literature on management are based on business models that serve mainly the European, American and even Asian markets [...]", with different characteristics to those found in Brazil (Giovinazzo 2003, p. 2).

Passos (2013) cites Giovinazzo's research (2003) as the last survey conducted in the country with financial data on organizations. In this study, companies that had better financial performance were precisely those that oriented their products to low-income consumers.

In addition to the actual growth of income of Brazilian households, mostly low-income, there was increased access to communication and information, resulting in greater access to technology, use of Internet and social networking, which contributed to incrementing the level of demand for goods and services oriented to this public to relevant companies. According to Prahalad (2010), consumers at the bottom of the pyramid are highly connected and informed, as they have cell phones, Internet access, e-mails, and all of them also have televisions and radios to be informed.

Based on these, an important question arises: are the organizations that serve the lower-income population acquiring improved financial results with respect to organizations that serve the population with higher income?

Thus, this study is primarily aimed at finding out the financial efficiency of companies that serve lower-income people as compared to those that serve higher income markets, as well as the strategic profile of these companies. In tandem, it aims at verifying whether there is a relationship between market interest rate (Selic), inflation and financial efficiency of companies that operated in the market of popular goods.

The main research hypotheses are: 1) companies that operated in the popular goods market showed greater financial efficiency than companies that operated in conventional goods market between 2001 and 2012; 2) companies tend to have a very distinct and consistent strategy to reach that market, in relation to the strategy of companies that operated with high income consumers, which supports their efficiency. The additional hypothesis approaches the basic interest rate and inflation as causal variables for the efficiency of companies that operated in the low-income market.

2. Theoretical Grounds: Operational definitions, the strategy for the market of popular goods and the scope of the study

It is first necessary to define popular goods, as the market has been previously defined. For Giovinazzo (2003), the conceptualization of popular products is a difficult task and requires more details and a precise definition. Thus, he fetched the economic concepts discussed by Pyndick and Rubinfeld (1994), Varian (1994) and Ferguson (1993) in which popular goods are those goods "[...] positioned predominantly for income classes C, D, E, whose income effect is negative, i.e., an increased income will lead to replacing the popular good or brand by a non-popular product or brand." (Giovinazzo, 2003, p. 18). Conversely, by citing Ferguson (1993), Giovinazzo (2003) refers to a normal good as something that would have its consumption increased as a result of an increased income, i.e., the income effect is positive.

For Sobral et al. (2005) a popular product or service meets the requirements of lower-income consumers, usually the cheapest in its class, limited to 10 minimum wages or belonging to classes C, D and E in the case of the Brazilian population, corroborating Giovinazzo's studies (2003). Moreover, they should provide conditions to facilitate the acquisition of such goods

by lower-income consumers, such as: credit, points of sale and meeting the needs of consumers.

For this study, the definition that gathers the above concepts will be adopted, in which popular goods are quality products, and the cheapest goods from a product or service category usually require credit to be acquired and meet the needs of the low-income category, which ranges up to an income of 10 minimum wages.

Once popular goods and normal goods are defined, the main strategic approaches that may influence the performance of organizations operating in the popular goods market are to be put forward.

"In order to meet the needs of low-income consumers, companies need to understand their reality, their needs and develop specific strategies." (Barki, 2006, p.37).

In order to access this market, it is necessary to create products and processes geared specifically toward meeting the needs of such consumer group, through innovative and creative solutions, at affordable prices, using new channels (Rocha and Silva, 2008).

When analyzing certain case studies of major multinationals in popular markets, Schrader et al. (2012) identified that products in these markets shared a common customization or suggested an increased customization of requirements in such target group, also including a long, competent and sophisticated bidding process. One of the important conditions consisted of ensuring a stable supply of high-quality raw materials; therefore they invested in relationships with local partners in the value chain.

Conversely, Rangan et al. (2011) reported that streamlining operations helps maintain the feasibility and sustainability of a commercially feasible model for low-income markets.

The studies of Akter et al. (2012) showed that the overall service quality has a significant impact on reliability, satisfaction and continuity intentions. However, quality must be preserved, but at an affordable cost in order to attract the vast customer base so that the profit can come from large-scale consumption (Prahalad, 2010; Akter et al., 2012).

Long before that, Porter (1989, 2004) had established different strategic dimensions that provide strength and help successful companies as they offer competitive advantages over the competition. These dimensions were used successfully in Giovinazzo's study (2003) and proven to be important for companies that operate in low-income markets.

In Giovinazzo's study (2003), four important dimensions were seen as relevant to the performance of the sector in the low-income market: the price, the lowest in the market; the cost, companies invested in equipment and technology that allowed having lower costs; the differentiation and distribution channel, companies invested to develop the brand toward the ultimate consumer, with the support of distribution channels; and quality, as companies sought to meet all requirements in terms of raw materials, specifications, tolerances, etc.

Parente and Barki (2005) suggest three types of strategies of retail companies focused on the low income market, which they termed as Low-Price Oriented strategy, Benefit-Oriented

strategy and Proximity-Oriented strategy. For the authors, the lowest operating costs, achieved through a reduced service, limited amounts of products, smaller range of services and lean facilities compensate for the practice of more competitive prices, defended by the low-price strategy. In contrast, the benefit-oriented strategy allows the company to standout by its competitiveness, where it seeks customer preference through benefits, good service, variety of products and appropriate facilities. "The proximity-oriented strategy is generally used by small companies that prefer to win the customer with a value proposal associated to physical proximity and closer relationship with the customer." (Parente and Barki, 2005, p.40).

According to Wright and Spers (2011), access to credit is an important tool for the social inclusion of popular classes, as it can help finance small inputs and production tools in order to increase the income of said population. The essentiality of credit in the life of the poor is one of the main research findings of Rocha and Silva (2008), as through it, this population can have access to consumer goods.

In the context of "emergent strategies" for low-income population, term which was first introduced by Henry Mintzberg (1978), who described it as a strategy that is not planned by the organization, but that, over time, is perceived as strategic, such as the use of Internet and social networks.

Passos (2013) mentions that the cheapening and popularization of prices of PCs and notebooks and the expansion of the worldwide computer network (Internet) are the main causes for the increased use of website organizations in the network and the increased use of social networks as a new way for companies to access low-income classes.

Soares and Hoppen (1998) say that the Internet is undoubtedly a rather useful informational tool for companies; it creates new business, systems, marketing, legal, corporate, government and consumer models. Still, the behavior, interactions and relationships between businesses and consumers are fundamentally different on the Internet. "In business terms, the Internet is a tool with quite a potential." (Soares and Hoppen, 1998, p. 96).

With respect to social networks, the work of Rocha et al. (2013) is pioneer in evaluating the use of such tool by companies in Brazil, because, as noted, there is a growing interest of organizations on the subject, however, the subject is rarely discussed academically.

"Companies are using Social Media to offer content and services, contributing to building relationships with customers." (Rocha et al., 2013, p. 278). In their study, Rocha et al. (2013) conclude that social networks are put forward as a great opportunity to improve the relationship with the consumer and with prospects of each company, as it facilitates a faster approach, and allows understanding the customer better. Furthermore, there is still much room for building strategies related to relationship marketing.

The main strategic dimensions of Porter (1989, 2004) will be considered for this work as it is a robust model, which was already successfully applied to Giovinazzo's study (2003), combined with the credit approach and the emerging strategies. These strategic dimensions

represent the variables included in the primary research and will be analyzed in the light of the theoretical framework.

It is important to note at this point, as an operational definition of this study, the reference related to financial efficiency, used in formulating the hypotheses.

In an attempt to identify the metrics used for financial performance, scholars agree that there is an endless number of models and indexes."The problem is that there are several decision parameters and each may actually lead to a different conclusion, which may even cause some conflicts, with regard to the company's economic and financial situation." (Macedo and Corrar, 2012, p. 4).

"Therefore, certain methodologies need to be applied so as to integrate financial accounting assessment indicators in order to organize and condense information, given the number of indicators and diversity of potential performance appraisal combinations." (Macedo and Corrar, 2012, p. 4).

Thus, in order to construct the financial efficiency indicators set forth in this study, the works of Bezerra and Corrar (2006) and Macedo et al., (2012) were used as they worked with the main and most usual financial indicators acquired from financial statements and handled by the multivariate factor analysis technique.

Last but not least, the field of study to be used in this work, which was the furniture industry. Thus, at this point, it will be important to draft a brief profile of the sector.

Rosa et al. (2007) state that the furniture industry is characterized as a traditional segment of the economy, because it has low technological dynamism, high labor intensity, high utilization of plant and animal raw materials and the absence of access barriers, arising from economies of scale, which are common in modernized industries. Galinari et al. (2013) also add the high degree of informality and initial investment in physical assets for certain types of production that are not limiting as an access barrier.

However, Rosa et al. (2007) highlight the existence of technical progress in the furniture sector; however, in recent decades, it has originated from suppliers of raw materials (various types of wood panels) and capital goods.

Galinari et al. (2013) state that the segment is quite heterogeneous in using technology, where there is a continuum that goes from high automation processes, such as rectilinear furniture made with reconstituted wood (MDF, MDP etc.), to others that require large amounts of crafting, such as handmade solid wood furniture.

According to studies of Gorini (1998), the main types of furniture used by middle and lower classes are rectilinear furniture, whether custom-made or mass produced, however, the degree of technology will greatly vary according to the size of organizations.

The importance of the furniture industry in Brazil is undeniable, according to the latest figures released by IBGE, in 2011, Brazil had 25,196 furniture manufacturers, of which 77% were concentrated and distributed in the south/south-east, 13% in the northeast and the rest in

the middle-west and north regions of the country. The main furniture production hubs in the country are concentrated in the south/southeast, as shown in Figure 2, and accounted for 58% of the workforce in this segment and for 59% of production in 2012 (Movergs, 2013).
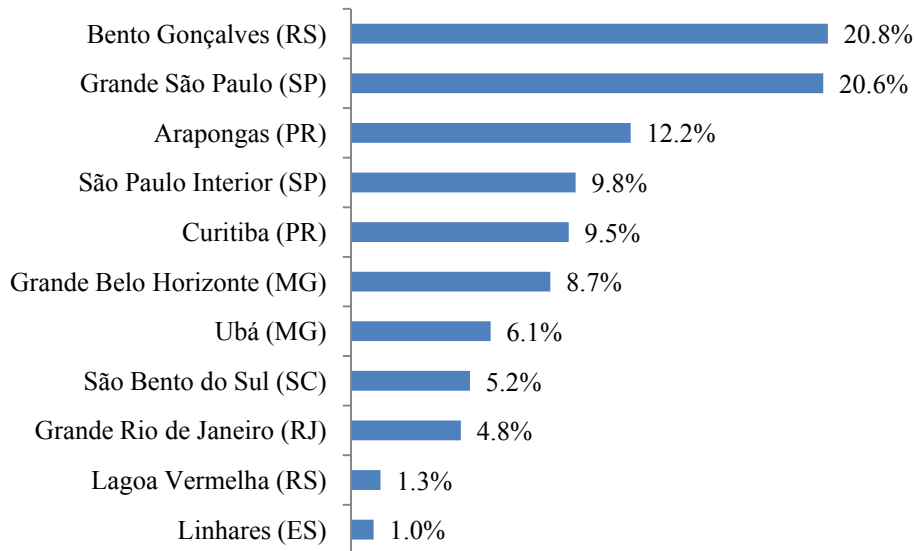

Figure 2. Major furniture production hubs in Brazil

Source: MOVERGS - Associação das Indústrias Moveleiras do Estado do Rio Grande do Sul.

3. Methodological Approach

According to Gil (1987), the research can be characterized as exploratory and descriptive. Exploratory because it aims at making the research question more familiar and explicit and at contributing with hypotheses, because the strategy of companies and their measure of efficiency is still little explored in Brazil's academic sphere. Descriptive, because it describes the characteristics of the sample and maintains relationships between variables from a theoretical framework in order to verify the efficiency and operation strategies of companies inserted in consumer markets with less purchasing power.

With regard to the methods, this research combined primary and secondary surveys conducted with companies. Secondary surveys provided financial and registration details of the companies, as the primary data collected from the companies through a structured questionnaire, through electronic instrument sent to e-mail a list of respondents to the Brazilian furniture industry segment.

The Hyperion system was used to perform the database query included in the primary research, which surveyed all companies in the furniture industry that had financial statements between 2001 and 2012, within Serasa Experian's database, a leading credit information solutions company. Thus, an initial telephone call was made to acquire a valid e-mail address with a sample of 617 companies. The query to answer the primary research on electronic media took place between June 27, 2013 and August 02, 2013. Of the companies that received an invitation to participate in the research, 120 companies accessed the

questionnaires and 94 companies responded fully; the respondents were highly credentialed for the purposes of the research, with participation of CEOs and Directors, (42%), Managers and Supervisors (48%), Analysts, Technicians and Advisors (4%).

As some were considered outliers in the financial analysis, 10 questionnaires were discarded. Of the total population of industries, this number of responding companies (84) represents a margin of confidence of 90% and a sampling error of 9% for a 50% success ratio.

The sample is representative for Brazilian states, whose business concentration is in the South/Southeast axis, as shown in Table 1, which can be compared to Figure 1 presented earlier.

Due to the use of Serasa Experian's balance sheet databases (2010), the sizes of the organizations in this study were defined according to the following criteria used by this company:

• Small Enterprises - Total Assets ≤ R\$ 100,000 and Net Sales ≤ R\$ 250,000

• Small Plus Enterprises - Net Sales = R\$ 250,000 ≥ R\$ 4 million and Total Assets = R\$ 100,000 ≥ R\$ 4 million

• Middle-size Enterprises - Net Sales and Total Assets = R\$ 4 million ≥ R\$ 25 million

• Middle Plus Enterprises - Net Sales or Total Assets = R\$ 25 million ≥ R\$ 50 million

• Corporate Enterprises - Net Sales and Total Assets = = R\$ 50 million ≥ R\$ 200 million

• Corporate Plus Enterprises - Net Sales and Total Assets ≥ R\$ 200 million.

Table 1. Number of enterprises in the sample by state and by size

Size	Small	Small+	Middle	Middle+	Corporate	Corporate+	Total
State							
RS		8	7	5	3	1	24
PR	1	6	12		1		20
SP		3	6	1	1		11
SC		3	3	1	2		9
MG		4	3				7
ES			4	1			5
GO		1		1	1		3
BA					1		1
CE			1				1
DF			1				1
MS			1				1
SE			1				1
Total	1	25	39	9	9	1	84

By using a similar criterion to the study of Giovinazzo (2003), the respondents indicated the share of popular goods in their revenues, as a percentage, which allowed determining the performance of the company according to the market segment, either popular goods or normal goods.

Still, the questionnaire allowed identifying the characteristics of the companies' strategic dimensions, developed based on a questionnaire adapted from Giovinazzo's study (2003) and also based on the concepts found in this study's theoretical framework.

For each of the following dimensions, the respondent was asked to indicate a score from zero to ten, which represented the company's behavior with regard to that dimension, considering companies competing in the furniture sector. The dimensions analyzed were as follows:

Differentiation of Brands- Degree to which the company seeks to differentiate its brand with its consumers through promotions, advertising, sales force, packaging, among other means; **Product Quality** - Quality level of the product in terms of raw materials, specifications, certifications etc.; **Technology Leadership** - Degree to which the company seeks to be the technological leader in its sector. In parallel, the respondent was asked to indicate the person to which the innovation of its products and services was attributed; **Cost Position** - Degree to which the company seeks the lowest cost in production and product delivery through investments in facilities or equipment so as to minimize costs. In parallel, the respondent was asked to indicate another way of minimizing costs in his/her company; **Service** - Degree to which the company provides ancillary services in its product line, such as technical assistance, service network owned by the company; **Channel Policy** - Degree to which the company seeks to develop brand identification directly with the ultimate consumer; **Vertical Integration** - Degree of forward or backward integration adopted by the company, including distribution and exclusive retail stores, **Internet** - electronic exchange and flow of information and goods originating through the Internet, **Social Networking** - use of social networks (*Orkut, Facebook, Twitter, LinkedIn,* etc.) for the company's public relations.

Yet, other important dimensions were measured by other scales:

Pricing – Relative price position in the market. With regard to the company and competition pricing, on average, what portion of its price (%) is usually above/below average as compared with the competition? How are the company's final prices formed? **Channel Selection** - Model in which the company seeks to achieve its consumer at the point of sale through the distribution channel. How is your company's distribution? **Company's Expertise** - Degree to which the company applies its efforts on its product line or market segments. How many product categories does your company work with? In how many market segments does your company operate? **Credit policy** - Number of days the company finances its customers. What is the average number of days in which the company finances its customers?

The reliability of the questionnaire was tested on the *SPSS-18* software, using *Cronbach's alpha* test. Results between 0.7 and 0.6 are the ideal minimum for using the responses in multivariate research (Hair et al., 1998). The *Cronbach's alpha* of questions related to category and scalar nature was 0,675.

Thus, the information collected in the primary research was combined with financial data of respondent companies, extracted from validated and analyzed balance sheets of Serasa Experian's database.

According to the procedures of Bezerra and Corrar (2006) and Macedo et al. (2012), the conventional indexes of corporate analysis were calculated as follows: liquidity indexes, activity indexes, indicators of capital structure, profitability indexes. Two other indicators were incorporated into the model so as to calculate the financial efficiency of the organization as they are present in several financial efficiency studies, seen in corporate ranking magazines and, especially, in the studies of Macedo and Corrar (2012). Thus, they consist of: Wealth per Employee = (Income Available to Ordinary Shareholders)/ (Number of Employees in the Company) and Revenue per Employee = (Sales Revenue)/(Number of Employees in the Company).

In possession of all data from financial statements, the factor analysis procedure was initiated for each year, separately, only with companies that had a financial statement for the year under review. This was necessary in order to simplify the analysis with a smaller number of indicators that could measure the efficiency of organizations without losing the quality by a parametric form.

The suitability of the factor analysis had its viability defined based on the *KMO* and *Bartlett* tests, calculated on the *SPSS-18* statistical software. The tests' significance confirmed the suitability of the sample data to the factor analysis model, thus, the next step consisted of acquiring the number of factors and relevant weights that represent the total variance of the original 12 to 15 indicators.

The following procedure consisted of extracting the factor scores of the latest financial statements of each company, through the *SPSS-18* software, calculated for each notable variable on each factor extracted in the factor analysis.

With all scores oriented from highest to lowest, using Factor 1 or the Main Factor as a reference, the sample is divided in half, as the factor scores are standardized to have zero mean and standard deviation 1. This procedure will arrange all companies that showed improved financial efficiency on the top of the sample and those that showed reduced efficiency on the bottom. The following procedure consists of comparing the average market share acquired from the primary research on the top of the sample, with bottom averages, whereas zero is the dividing point of the two averages under comparison. This procedure was conducted every year from 2001 to 2012.

After all averages were calculated, they were statistically compared by the parametric *Student's t* Test under an assumption of series normality; or by the nonparametric *Mann-Whitney* test, used in non-normal data series, with few remarks. The normality was confirmed by the *Kolmogorov-Smirnov* or *Shapiro-Wilk* tests for datasets with n<30.

Thus, the averages of all years could be compared with the interest (Selic) and annual inflation rates (IPCA), for testing potential relationships between variables.

At this point, it becomes important to compare and identify the company's most important strategy variables regarding companies that operate in the popular goods market and those operating in the normal goods market. Thus, a new factor analysis procedure was required.

The *KMO* of the new sample (companies that operate in the popular goods market separated from those that do not) confirmed the suitability of the sample data to the factor analysis model, thus, the next step consisted of acquiring the number of factors and relevant weights that represent the total variance of the original 12 to 13 indicators.

4. Corporate strategy and performance with focus on popular goods: analysis of results in the last decade

Assuming that the factor scores for financial efficiency divide the sample in half, for all years analyzed, Figure 2 shows the popular market share of the average on the top of the sample (best companies) with respect to the market share of the average on the bottom (worst companies), as compared to the annual interest rate and inflation.

According to said normality tests performed, with a 90% margin of confidence, there was a statistical difference between the averages of years 2005, 2007, 2009 and 2012 concerning the performance between the market share of the best companies and the market share of the worst companies in the popular goods market. In other words, as the average share of the best companies is above 50% for the years mentioned above, it is possible to infer that the most efficient companies in these specific years have operated more in the popular goods market. In other years, there was no statistical difference in the averages between the market shares of company groups, although only in 2003, the average share of top companies was below 50%, suggesting a greater share in the normal goods market that year.
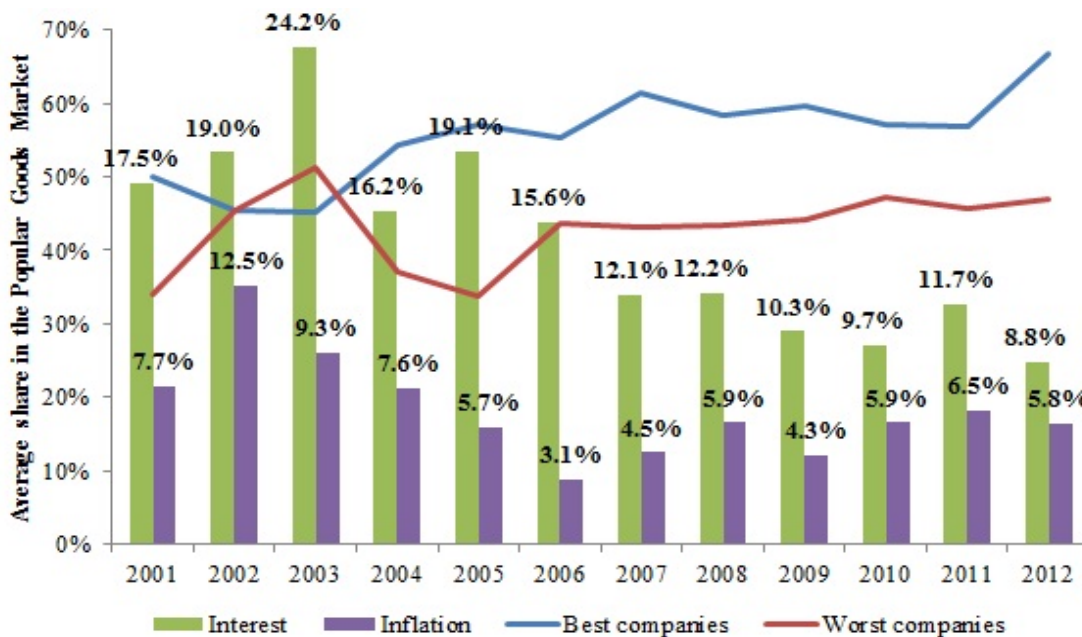

Figure 2. Average annual share of best and worst furniture companies in Brazil's popular goods market and annual inflation and interest rates.

When analyzing the main indicators determined through factor analysis by market type, either popular or normal, for the furniture industry, the main factor was configured with indicators of the profitability family, whose indexes point to the bigger, the better. Thus, in case of classified enterprises, of the four years presented, with difference between the averages of participation of popular goods and normal goods, an analysis on the main financial indexes reveals that, on average, in the four years under review, companies targeting the popular goods market showed higher profitability indexes than companies operating in the normal goods market, a result that confirms Giovinazzo's study (2003), as seen in Table 2.

Table 2. Financial Indexes of Factor 1 (Main Factor) - Average of years 2005, 2007, 2009 and 2012

	Main Factor Indexes						
	MARGOPER	RETATIVO	MARGLIQ	ROE	REC/EMPR	MARGBRUT	GIRATIVO
Popular							
Goods	0,149	0,121	0,050	0,435	98245	0,337	1,312
Standard	0,108	0,055	0,022	0,279	88816	0,424	0,959

According to Table 2, except for the gross margin indicator, which shows the result after deducting the cost of goods sold, all other margin indicators were higher in popular furniture industries, which allows us to infer that the costs of companies oriented to the low-income market are proportionally higher with respect to the company's revenue, which is subsequently offset by better adapting the operating and financial expenses, as revealed by operating and net margin indicators, confirming the studies of Rangan et al. (2011), on simplifying operations. Asset turnover appears higher in companies that operate with low-income classes and shows that these companies are able to recover the value of its assets faster, through sales, as compared to enterprises that do not operate with lower-income classes. A higher asset turnover shows that these companies are selling more, but when associated with higher margins indicators, it shows that these companies are selling with more quality. Companies in the popular goods market had more than double the return on capital than companies in the normal goods market and revenues per employee in these companies are 11% higher than in companies that do not operate in the popular segment.

Through two simple regression analyzes using the *Stata-12* statistical software, the relationship between the participation of the best and worst companies in the popular market with the interest rate and annual inflation were also tested. After testing, an inverse relationship was verified between the share of best companies and the interest rates and inflation. Multiple regressions were not possible due to the multicollinearity between inflation and interest rates.

The results of the regression, whose dependent variable was the participation of the best companies and independent variable was the interest, show a high coefficient of determination as a result of the regression's R^2 (70.4%). The *Durbin-Watson* test for the waste autocorrelation hypothesis found evidence of non-rejection of the null hypothesis of no waste

autocorrelation. For the heteroscedasticity of errors, the *Breusch-Pagan* test with Prob>chi2=0.7496 did not reject the null hypothesis of homoscedasticity of errors.

In order to avoid spurious regressions, the Augmented *Dickey-Fuller* (ADF) test was conducted to search for the null hypothesis rejection of a unit root between series, in other words, if the data series are not co-integrated, as the search for null hypothesis rejection shows that the dependent variable and the independent variables have a long-term equilibrium relationship where ε in the equation is the equilibrium error, consisting of short-term deviations from the long-term relationship (Hill et al., 2010). Thus, the ADF test confirms the stationarity of waste of least squares in search of the rejection of a unit root. Given the above, the model was significant at 10% for two lags, rejecting the null hypothesis of a unit root or no co-integration. However, for four lags, the model did not reject the null hypothesis of a unit root. Regarding the causality of the series, the *Engle-Granger* test was carried out to certify the existence of a causal relationship between the series and that it is no accident, also to confirm suspicions of a non-unit root put forward in the ADF test for four lags of the equation. With a 90% margin of confidence, and with limitations, the test result for the model suggests causality between series, i.e., an increase in interest rates causes a reduction in the share of the best companies in the popular goods market.

For the inflation variable, there is a moderate coefficient of determination given by the regression's R^2 (56.0%). In the *Augmented Dickey-Fuller* (ADF) test, the model did not appear significant for any of the proposed lags, not rejecting the null hypothesis of a unit root or no co-integration. Thus, it is not possible to say that a reduction in inflation causes an increase in the share of the best companies in the popular goods market, as confirmed by the regression model.

For industries that operate with lower income classes, the strongest strategy in the Main Factor was technological leadership, with a 76% load factor in the analysis, which means they are the correlation coefficients more strongly associated with each factor of the 13 variables under analysis.

Rosa et al. (2007) say that technology is not crucial for competitiveness in the furniture industry, as wood raw material does not allow continuous production processes, hindering automation. How technology affects competitive advantage, if it plays a crucial role in determining the position of the relative cost or in differentiation (Porter, 1989), thus, the industry must seek new alternatives to a material that is increasingly scarce in nature when searching for cost reduction technology. Schrader et al. (2012) consider technology as an important factor among the companies they surveyed. "Contrary to popular belief, Bottom of the Pyramid consumers quickly embraces advanced technologies." (Prahalad, 2010, p. 60).

The second important variable for the furniture industry, serving the popular market, is cost reduction investment (75%). Certainly, operating in the popular goods market is a major challenge: margins are low, prices are low and volumes are high. Strictly speaking, this market requires ability, efficiency, discipline, lean organizations, rigorous cost management and permanent investment in updated production assets (Wright and Spers, 2011).

Although it is the industrial sector, where most business relationships occur with retailers, service (74%) appears as the third most important variable to companies operating in the popular goods market. According to Prahalad (2010), as much of the purchase decision arising from lower income classes stems from the availability of cash, in the case of the furniture industry and installment sales, the furniture industry should offer easy access to products, an efficient distribution, in the shortest possible time and with quality, "[...] though with minimum requirements" (Giovinazzo, 2003, p. 92). These companies provide their customers with a smaller amount of ancillary services, such as technical assistance, their own service network, credit, among others, focusing on a more basic service (Wright and Spers, 2011).

As the fourth variable in factor loading, brand differentiation (67%) emerges as an important aspect. To Rocha and Silva (2008), brand differentiation occurs through effective communication, given the cognitive difference of the target public. Thus, the publicity and advertising actions must be in pictorial language, with simple and straightforward instructions and avoid technical information as far as possible. "The heterogeneity of the consumer base in cultural and educational terms is a challenge for innovation teams" (Prahalad, 2010, p.73), as well as for brand differentiation toward the consumer.

Brand identification (channel policy) (65%) is put forward as the fifth most important variable and strategic support for low-income markets. As the furniture industry segment consists mainly of small and medium industries, many of them intuitively understand that "[...] the strength of their brand is of crucial importance for the preference of consumers, who prefer the surrounding shops." The proximity of the brand with the consumer makes him/her feel recognized and valued, which contributes to brand support (Parente and Barki, 2005, p.43). Thus, companies targeting the lower income classes have realized how important the search for greater contact between the brand and the consumer, despite the service and retail performance.

Another important variable, considered crucial in Giovinazzo's study (2003), is product quality (64%). Schrader et al. (2012) shows that product quality is already presupposed in a stable supply of raw materials and in its quality to serve a popular consumption environment. The perception of quality by low-income consumers influences the economic value of organizations (Akter et al., 2012). Thus, given the added value, the authors noticed that quality is not only an assumption of products oriented to high-income consumers. By streamlining operations and providing appropriate incentives to people, it is possible to ensure a commercially viable and sustainable model for low-income markets (Rangan et al., 2011), which do not compromise product or service quality.

Finally, in order to end the most important dimensions included in the Main Factor, the company's specialization (58%), with quantity of products to be offered, considered a less relevant aspect in the study of Giovinazzo (2003), but revealed as important for the sector in this parametric analysis. Studies of Barki (2006) point out that all companies in his research conducted with the food retail sector indicated the need to work with an appropriate mix of products so as to serve the low-income population. As a result, the size of the company

defines if the product strategy will include the creation a proprietary category management structure, in large companies, or the involvement of company owners in the product mix, in small businesses. Research showed that companies that operate with low-income population had a smaller product mix as compared to companies that do not.

The results of the dimensions generated for the efficiency of furniture industries that do not operate with the low-income population point out to similar dimensions, but with different weights and hierarchies. Almost all variables of the main factor are similar between the two samples, and in factor 2, the use of Internet and networks are gathered as common variables. In factor 3, vertical integration also appears as a common ground, showing that structurally, the furniture segment behaves the same in its main variables, however, as previously observed, with different weights.

In the second tier of factors (Factor 2) for the two sampled companies (inserted and not inserted in the low-income market), the use of on-line social networks surprisingly emerges as an important variable, with strong commonality among variables. Rocha et al. (2013), in their studies, pointed to the increasing use of this tool by companies, especially as a new channel to access their products. The result of this research corroborates with these assertions and increases the concern for new research studies on the subject in Brazil, as the academic environment is still indifferent to it.

The vertical integration for both samples in the third factor (Factor 3) confirms the little differentiation between companies aimed at the popular goods market and those targeting the higher income market, in the furniture sector. As the furniture industry gathers all kinds of industry, from the most primitive technology, working on the wooden plank to furniture building, including delivery to the ultimate customer, cutting edge technology companies tend to be part of a single process when making furniture. Thus, in view of the responses received, the partnership with suppliers and customers in delivering to the ultimate consumer seems to be quite relevant. Dussauge and Garrette (1999) showed alliances between organizations as crucial to competitiveness. Schrader et al. (2012) explain that the multinationals they have studied considered the pursuit for local partners as an essential aspect, rather than using a vertically integrated production. The studies of Rivera-Santos and Rufin (2011) and Akter et al. Corroborate with this non-vertically integrated thesis. (2012).

5. Final Considerations

The improvement in the country's income distribution has promoted a major transformation in the last decade, particularly for lower income classes, which took advantage of distribution policies implemented by government agencies. Bolstered in increased consumption and generation of formal jobs, in twelve of the thirteen years under review (1999-2012), the country had a GDP growth. Controlled inflation and declining interest rates inserted a contingent of 59.29 million households, who earn up to 10 minimum wages, in contact with products and services that would be impossible for many of them in the previous decade.

Given this favorable scenario, companies of different sizes and sectors of all Brazilian States have prepared and continue preparing strategies to either serve this market or not. Few

academic studies in Brazil are able to respond or clarify this important issue that inhabit the minds of Brazilian businessmen, especially in the industrial sector. After all, for the industrial sector, changing strategy is not as simple as it is for the trade or services sector. Thus, this study sought to answer some of the questions that appeared in the furniture sector, therefore, the main hypotheses were answered.

In four of the twelve years under review, the financial efficiency of companies that operated predominantly in the popular goods market was higher than that of companies that operated in the normal goods market. There is an inverse relationship between the interest rate and the performance of the most financially efficient companies in the period 2001-2012. This relationship cannot be proven statistically or econometrically for inflation. Thus, financially efficient companies may anticipate or not the entry into the popular goods market, by monitoring the Selic interest rate in the economy.

The most relevant strategic dimensions to the efficiency of organizations that operate in the popular goods market were: Technological leadership, Investments to reduce costs, Customer Service, Brand Differentiation, Brand Identity, Product Quality and Expertise, aspects that are rather correlated to the differentiation of companies among competitors.

Despite some limitations, the results of this study show that the popular goods market is still attractive, mainly for the furniture industry, where there is a good preceding indicator for investing or not in the popular goods market, the interest, which is inversely proportional to the share of the most efficient companies included sample in the popular goods market.

Moreover, through this work, it is possible to have a good understanding of the performance of enterprises in a separate manner, one founded on the financial efficiency of the enterprise and the other, on its strategic dimensions. The combination of the two components allowed a new approach on the cross-correlation between the financial and strategy aspects.

Furthermore, this study contributes so that the government and entrepreneurs can continue investing in the low-income consumer market, which demands quality products and differentiated services. The study points to a path of greater interaction between the industry and the consumer market through on-line social networks, a tool which is still underused in academic research studies and that, based on the results herein, deserve further attention.

The main limitations of the study were the size of the sample, which was reduced after the parametric treatment and, for this reason, many results, although quite clear, could not be statistically verified; as well as the low support by Brazilian businessmen, mainly from northern and northeastern regions, to academic research queries.

As main suggestions for future research, one could say that it would be interesting if other sectors were analyzed and other variables could be used. In the future, it would also be interesting to join various industry segments in a representative way, as did Giovinazzo (2003), and use the techniques presented in this study to verify their intersectoral results.

It will be quite interesting to strengthen the research about variables, such as Internet and Social Networking, the latter, by the findings in this study, henceforth deserves close attention.

Crossing the results of this research conducted with low-income oriented furniture businessmen, with the results of research studies conducted with such furniture consumers and the businessmen themselves would be another great contribution. Although ambitious, the suggestions would certainly bring relevant results for companies and for society as a whole.

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