# Effectiveness of business strategies in Brazilian textile industry

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**RESUMO**

## Efetividade das estratégias de negócios na indústria têxtil brasileira

Na pesquisa aqui relatada analisa-se o efeito sobre o desempenho organizacional das empresas têxteis brasileiras da interação entre capacidades estratégicas, tipos de estratégia, qualidade da formulação da estratégia e capacidade de implementação da estratégia. Do universo das empresas têxteis brasileiras, 211 questionários válidos retornaram. Um modelo conceitual foi proposto e testado por meio do uso do sistema de equações estruturais. Os resultados suportam as relações entre a estratégia de enfoque as capacidades de *marketing* e entre a estratégia de liderança de custos e as capacidades de gestão. Contudo, a relação entre as capacidades tecnológicas e a estratégia de diferenciação não foi significativa estatisticamente. Foi ainda observada uma inter-relação entre as estratégias genéricas de foco, liderança de custo e diferenciação, o que revela o uso de estratégias combinadas. Com respeito ao desempenho organizacional, foi identificado que a capacidade de gestão e a *performance* de mercado apresentam uma relação estatisticamente significativa com a *performance* financeira.

**Palavras-chave**: Efetividade da estratégia, indústria têxtil brasileira, *performance* da firma, implementação estratégica, capacidades, PME.

## 1. INTRODUCTION

Competitive advantage is an important issue that has deserved special attention in the literature. Given the importance of competition, scholars have focused on the identification of the most successful competitive strategies that firms pursue and allow them to produce supernormal profits (Bowman & Toms, 2010; Ormanidhi & Stringa, 2008). Consequently, one can find in the literature a variety of typologies to describe how firms compete in specific businesses or industries by exploiting their competitive advantage (Amoako-Gyampah & Acquaah, 2008).

According to Bowman and Toms (2010), the paradigm of structure-conduct-performance of industrial organization economics was a major influence in the field of strategy, which explains how competitive advantage derives from privileged market positions.

Another explanation of superior profit performance, developed in the early 1990s, is the Resource Based View (RBV), which locates the sources of advantage inside the firm and views the firm as a bundle of resources (Bowman & Toms, 2010). In a broad view, Johannessen and Olsen (2010) refer to three theories to explain sustainable competitive advantages: the industrial organization (IO) theory, the resource based view (RBV), and the dynamic capabilities.

The IO approach received some criticisms due its inattention to dynamic environments, which strengths competitive views, namely the resource based theory and the dynamic capability approach. Knowledge has emerged as the strategically most important resource for companies, given emphasis to the knowledge based theory and the theory of organizational knowledge creation.

Recently, some authors argue that the IO and RBV approaches are complementarily to each other (Leitner & Guldenberg, 2010; Ortega, 2009). They defend that distinct competencies and resources are important for obtaining sustainable competitive advantage, especially when following a differentiation strategy (Leitner & Guldenberg, 2010).

The relationship between strategy and performance has been widely discussed over the past three decades (Hahn & Powers, 2010; Parnell, 2011; Ray, Barney, & Muhanna, 2004; Spanos, Zaralis & Lioukas, 2004; Venkatraman & Ramanujam, 1986). Hahn and Powers (2010) argue that, despite of the great importance given to an adequate strategy implementation for performance, the relationship between strategy formulation quality and its implementation did not receive the attention it deserved.

Motivated by this lack of attention, this study intends to understand how the interaction between strategy capabilities (marketing, technology and management), strategy types, strategy formulation quality and implementation capability affects organizational performance in the Brazilian textiles companies. In this context, this study also aims to contribute to the understanding of the main driving strategic factors that explain the financial performance of the Brazilian textiles firms.

To deal of these objectives, this article is structured as follows. Section 2 presents the theoretical background of the research. Section 3 explains the model used to test the hypothesis of the work. Section 4 presents the methodology of the work. Section 5 discusses the main results. Finally, Section 6 addresses conclusions, limitations, and options of future research.

## 2. THEORETICAL BACKGROUND

### 2.1. Strategic orientation

During the past 30 years, the most used framework of strategic orientation is Porter's generic strategies. A large amount of research in this theme was developed along these years (Acquaah & Yasai-Ardekani, 2008; Bowman & Ambrosini, 1997; Campbell-Hunt, 2000; Dess & Davis, 1984; Kim & Lim, 1988; Kim, Nam, & Stimpert, 2004; Miller & Dess, 1993; Robinson & Pearce, 1988; Spanos *et al.*, 2004; among others). Studies revealed different levels of results, some of them supporting Porter´s affirmation that a business must make a choice between cost leadership and differentiation strategies or it will become "stuck in the middle" or without a coherent strategy.

Nevertheless, more recently, other studies disagree with Porter´s affirmation and find support for the successful use of combination strategies. For instance, Acquaah and Yasai-Ardekani (2008) found support for the viability and profitability of implementing coherent generic competitive strategies and the combination of singular strategies. Firms implementing a combination strategy tend to experience substantial incremental performance benefits over those implementing only the cost-leadership strategy. However, the authors found that the incremental difference between firms implementing a combination strategy do not differ from those firms implementing only the differentiation strategy. Firms implementing one of the generic strategies (combination, cost-leadership, or differentiation) perform better than firms considered as "stuck in the middle".

Studies that are more recent seem to ensure the superiority of differentiation strategies and the combination strategies. According to Leitner and Guldenberg (2010), some studies indicate that Small and Medium Enterprises (SMEs) primarily follow a focus strategy, with differentiation appearing to be the most popular competitive strategy used by SMEs in market niches. These authors considered two differentiation alternatives central to SMEs: (i) product innovation and (ii) product quality. As they reinforced, product innovation is a particularly important strategy for survival in dynamic environments.

Fleury, Fleury and Borini (2013) reinforce Leitner and Guldenberg (2010) argument, by concluding that, although

Brazilian firms do not show the expected strength in R&D, they are able to develop innovative capabilities, which allow them to internationalize successfully.

Rangel, Silva and Costa (2010) also identified this technological weakness as a feature of the patterns of competition of Brazilian textile industry, which has "weak internal training in engineering and R & D and low appropriation of technological advantages" (Rangel, Silva, & Costa, 2010, p. 9). Therefore, except for the segment of natural fibers, innovation and internationalization capacity is not a characteristic of this Brazilian economic sector. Consequently, and according to these authors, the Brazilian apparel companies present major competitive disadvantage, even on home soil, in relation to foreign competitors and products, particularly from China and South Korea.

This situation of low competitiveness, has led to a fragmentation of the textile production chain of Brazil and to a low degree of cooperation and networking between its parts. In general, companies seek lower costs, importing raw materials, finished products, machinery, and equipment, notably from the aforementioned Asian countries. In particular, the garment industry is indifferent to what happens with weaving and import finished products to compete in the Brazilian commodity segment of confections.

The technology used is unsophisticated and changes slowly and incrementally by incorporation of informatics technology, the use of plotters and of electronic devices in sewing machines, improvements that a large share of small garment can adopt. Because of that, it only remains feasible the strategy of differentiation of products, by design and quick response to customer needs. This last approach stems from the competitive pressure of the large number of domestic and small garment, formal and informal, and of the easiness to import foreign products. Furthermore, the innovation in design, for most companies in the sector, happen by imitation of the new standards of the fashion slinger leading companies, through the annual release of collections.

However, the analysis of studies about the strategic behavior of the Brazilian textile industry, during the decades of 1970 and 1990, reveals that the immediate response of the textile firms, to the gradual opening of the economy, were to search for lower costs. These companies moved to cheaper labor areas, such as the Brazilian Northeast, and undertook vertical integration along the supply chain, particularly in relation to the sub--segments of spinning and retail (Acero, 1982; Bielschowsky & Stumpo, 1996; Bonelli, 1998; Durand, 1985; Loyola, 1974). These authors identified that cost leadership strategy remained the most widely used by entrepreneurs that aimed economies of scale and cost cutting.

In the following decade, studies that sought to identify the strategies used by textiles companies continued to be prevalent (e.g. Becassi & Januzzi, 2008; Costa & Rocha, 2009), but the influence of the strategy in performance also began to be the focus of scholars. (e.g. Damo, 2006). This author, researching 21 garment companies, listed on the BM&F BOVESPA, found that the strategy of product differentiation predominated, but companies who adopted the cost leadership strategy had a higher return on assets (ROA).

A recent study on the effect on performance of the vertical integration strategy, carried out by Leite, Barco, Rosa, Pereira, Costa, and Trindade (2014), showed that the degree of vertical integration of textile enterprises is directly proportional to its market share. In addition, the growth of adjusted net income and the degree of vertical integration are directly related. But, a greater market share of sales does not necessarily lead to the highest net profit (Leite *et al.*, 2014, p. 17).

In this decade, with intense competition from Asian products into the Brazilian market, domestic apparel companies have pursued the customization of their products, through design and more quick response to consumer demands (Rangel *et al.*, 2010). By doing that, they are reproducing the strategy of product differentiation by design adopted by developed country companies to most demanding and higher level of income customer segments (Campos & De Paula, 2006).

Beuren and Oro (2014) have also investigated the strategy of differentiation and innovation of products, in the Brazilian textile industry, using a sample of 101 companies. These authors concluded that product differentiation affects the dimensions of the Management Control System, social networking, organic and innovative culture and formal controls. Their results show that differentiation influences the formation of innovative organic culture, improves formal controls and the connections with social networks.

Among these constructs, however, only formal controls influenced innovation. Contrary to what one would expected, this study does not proved the influence of differentiation, the organic and innovative culture and social networks on innovation. However, Chenhall, Kallunki and Silvola (2011), the authors that conceived the model replicated by Beuren and Oro (2014), identified a strong positive relationship between differentiation of products and innovation, and an influence on innovation of social networks, organic and innovative culture and formal controls.

## 2.2. Strategic capabilities

Spanos and Lioukas (2001) indicate differences between Porter´s competitive strategy framework and the resources based view theory. For Porter (1985), a firm can be seen as a bundle of activities and, for the resource-based scholars, it should be viewed as a bundle of unique resources. Porter´s competitive strategy framework gives priority to the analysis of the environment–performance relationship and gives no account of the impact of idiosyncratic firm attributes on performance.

For the RBV´s defenders, two main assumptions are implicit on Porter´s theory: (i) Firms are identical in terms of

strategically relevant resources; (ii) Any attempt to develop resource heterogeneity has no long-term viability, due to the high mobility of strategic resources amongst firms.

To this debate, it is relevant the definition of strategic capabilities proposed by Day (1994, p. 38) as "a complex bundles of skills and accumulated knowledge that enable firms to coordinate activities and make use of their assets to create economic value and sustain competitive advantage". Spanos and Lioukas (2001) listed types of strategic capabilities that are common to businesses: technological, product development, production process, manufacturing, and logistics capabilities; production efficiency; market sensing, channel and customer linking, and technology-monitoring capabilities; marketing capabilities, such as skills in segmentation, targeting, pricing, and advertising. All these capabilities allow a firm to keep costs down and/or differentiate its offerings, improve consistency in delivery, and ultimately increase competitiveness. In addition, they allow a business to respond swiftly to changing customer needs and to exploit its technological strengths most effectively.

Several authors conducted empirical studies evaluating the internal resources impact in performance. These authors considered the two approaches (OI and RBV) as a complement of each other. For Spanos and Lioukas (2001), the RBV theory provides the "Strength-Weaknesses" part of the overall SWOT framework, by emphasizing firm-specific efforts in developing and combining resources to achieve competitive advantage. On the other hand, industry analysis supplies the "Opportunities--Threats" part within the context of SWOT analysis.

Still regarding to RBV approach, Ray *et al.* (2004) advocate that firms must translate efficiently and effectively their resources and capabilities into business process, otherwise cannot expect to realize the competitive advantage potential of these resources. These authors stress that the potential to generate competitive advantage from resources is realized only if used in business process, defined by the actions that firms engage in to accomplish some business purpose or objective. They affirm that is through business process that a firm´s resources and capability are exposed to the market, where their value can be recognized.

### 2.3. Strategy formulation quality and strategy implementation capability

Besides the subject of the strategy effect on performance, it is broadly discussed the role of strategy formulation quality and its implementation in increasing business performance. Several authors reported the importance and controversies in this field (e.g., Cater & Pucko, 2010; Heide, Gronhaug, & Johannessen, 2002; Hrebiniak, 2006a, 2006b; Johnson, 2004; Mankins & Steele, 2005; Meskendahl, 2010; Speculand, 2006). Mankins and Steele (2005) report that businesses implemented only 63% of their strategies' potential value, whereas Johnson (2004) affirms that 66% of business strategy was never

implemented. These difficulties can explain why companies that develop complex and extensive strategic plans may not reach competitive advantages.

Crittenden and Crittenden (2008) advocate that the problem between strategy and performance relies on the existence of a gap in the formulation-to-implementation process. The lack of employees' knowledge of the company´s strategy contributes to unsuccessful strategy implementation, probably resulting in a poor financial performance. In addition, a poor strategy implementation can impoverish the next plan cycle, which can lead to wrong strategy implementation. After these problems, it is hard to say if weak performance is due to a good implementation of a bad strategy, or the result of a poor implementation of a good strategy.

According to Hahn and Powers (2010), earlier studies indicated the positive impact of the sophistication of the planning process on performance. According to these authors, a high quality strategic plan was positive and significantly associated with firm performance. Planning sophistication involves mission statement, internal and external analysis, strategy formulation, execution, control and follow-up (Hahn & Powers, 2010). Country characteristics however, in the opinion of Christmanna, Day and Yip (1999), are also an important determinant of firm's performance, even overlapping the importance of the industry structure, strategy or corporate characteristics.

## 3. MODEL DEVELOPMENT AND RESEARCH HYPOTHESIS

The model considers a set of underlying assumptions, which represent the core of the theory. It is expected that management capability has a positive direct and indirect effect on financial performance and that differentiation strategy has a positive impact on market performance. Also, companies that adopt the focus strategy tend to have a high marketing capability. Companies that adopt the strategy of cost leadership have high management capability and those which adopt the strategy of differentiation present high technological capability. The model also tests the impact of strategy implementation capabilities on strategy formulation quality, as well as the effect of strategy formulation quality on market performance, and consequently the impact of market performance on financial performance (DeSarbo, Di Benedetto, Song, & Sinha, 2005; Ortega, 2009; Parnell, 2011; Spanos & Lioukas, 2001; Spanos *et al.*, 2004).

Spanos and Lioukas (2001), testing the influence of marketing capabilities, advocate that the ability to develop a successful strategy is related to the development of capabilities/internal resources and the ability to modify its strategy posture. Therefore, the following hypothesis was defined:

**Hypothesis 1:** There is a positive and significant association between organizational capabilities and strategic orientation.
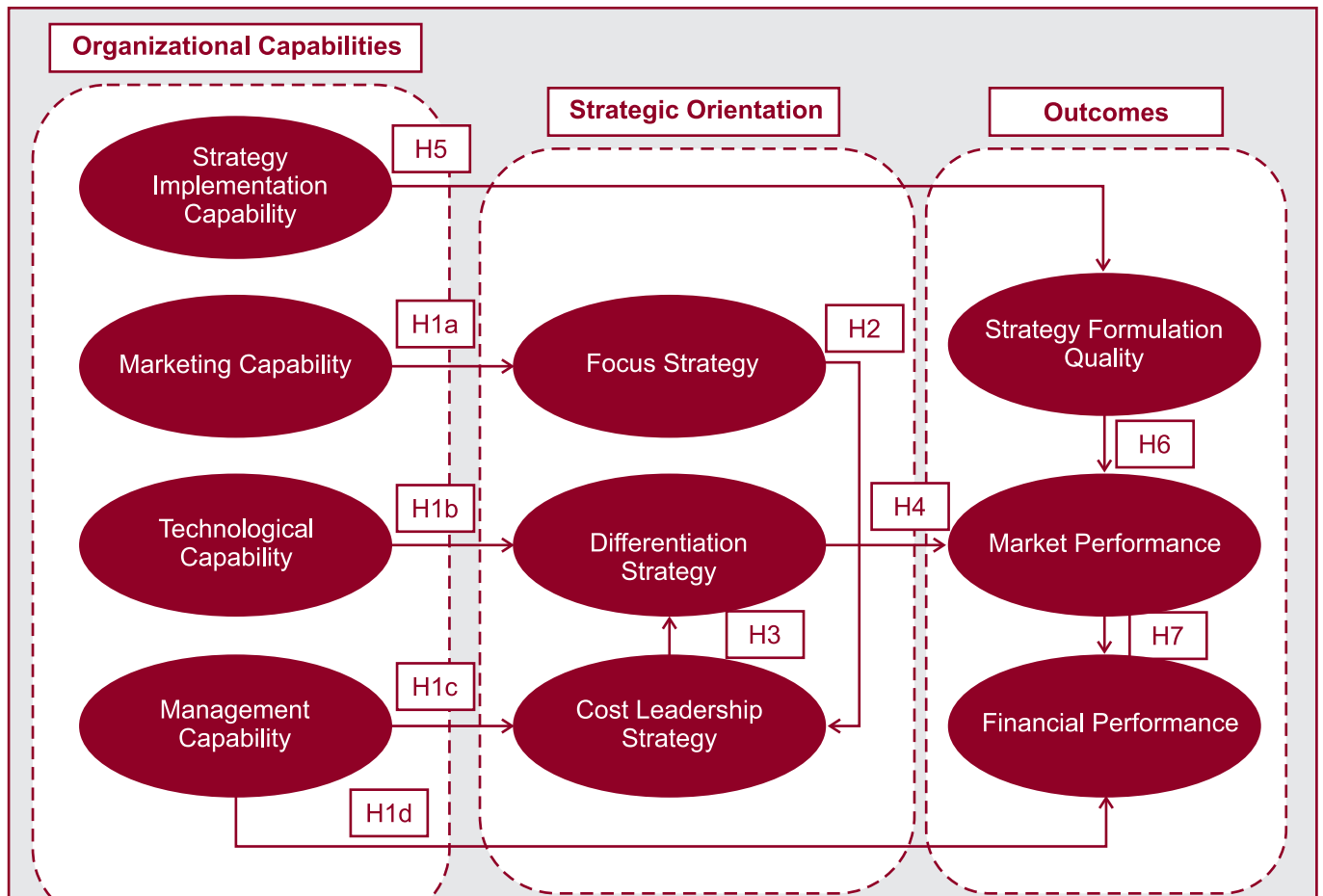
*Figure 1: Conceptual Framework*

Moreover, Parnell (2011) claims that certain strategic capabilities can be more important to support a specific type of strategy orientation. For example, a focus strategy can require specific attributes related to marketing capabilities in order to concentrate efforts on a particular market niche. This author also suggests that firms pursuing high differentiation strategy have more probability to possess technological expertise than firms utilizing other strategic orientations. Otherwise, the cost leadership strategy is more likely to be linked to a management capabilities, necessary to assurance cost controls and production efficiencies. Consequently, firms that pursue high management capabilities will probably obtain a positive financial performance. Based on these affirmations, the following hypotheses were formulated:

**Hypothesis 1a:** There is a positive association between marketing capabilities and focus strategy.

**Hypothesis 1b:** There is a positive association between technology capabilities and differentiation strategy.

**Hypothesis 1c:** There is a positive association between management capabilities and cost leadership strategy.

**Hypothesis 1d:** There is a positive association between management capabilities and financial performance.

According to Parnell (2011), a variety of studies has linked the generic strategy of focus, cost leadership and differentiation to firm performance. Specifically, Spanos and Lioukas (2001) find evidences of the positive relationship between generic strategies and performance, although the relationship was to market performance rather than to financial performance. Other studies tested the superiority of the differentiation strategy compared with cost leadership strategy and focus strategy, and the impact of combined strategies on firm performance (Acquaah & Yasai-Ardekani, 2008; Leitner & Guldenberg, 2010). The following hypotheses were proposed:

**Hypothesis 2:** The use of combined strategies has a positive impact on market performance.

**Hypothesis 3:** There is a positive association between differentiation strategy and market performance.

Crittenden and Crittenden (2008) advocate the influence of strategy implementation on the next round of strategy formulation or suggest the fact that poor strategy implementation weakens the strategy formulation quality. Hahn and Powers (2010) tested that firms with a high quality strategic plan that is successful implemented will obtain superior performance, when compared to firms that do not do so. Based on these premises, the following hypotheses were proposed:

**Hypothesis 4:** There is a positive association between strategic implementation capabilities and strategy formulation quality.

**Hypothesis 5:** There is a positive association between strategy formulation quality and market performance.

Spanos and Lioukas (2001) support the existence of a positive and significant relationship between marketing performance and financial performance, despite of other researchers argue that market performance and profitability association is causally spurious. These authors consider market performance an antecedent of financial performance. The sixth hypothesis is formulated as:

**Hypothesis 6:** There is a positive association between market performance and financial performance.

## 4. METHODOLOGY

### 4.1. Research instrument

Data used in this study was collected through a survey applied nationally. An extensive literature review based the research instrument utilized in this study. Respondents were asked to provide information about the position they occupy, the degree of their autonomy, the time of companies' operation, the annual revenue, the number of employees, the source of capital and the phase of the textile chain in which the company has activities. Babbie (2003) notes that a survey constitutes an empirical method of verification, involving data collection and quantification. After this, they become permanent source of information. The use of survey research, therefore, is a valid instrument for social science research, which is particularly effective when combined with other methods.

The research instrument has five sections. The first one aims to describe the sector's characterization e the other sections have the objective to represent every construct that this article investigates. A multi-item Likert-type scale ranging from 1 (without importance) to 7 (extremely important) was used for focus strategy, cost leadership strategy and differentiation strategy constructs. A multi-item Likert-type scale ranging from 1 (very unsatisfied) to 7 (very satisfied) was used to marketing capabilities, management capabilities, technology capabilities and strategy formulation quality. A multi-item Likert-type scale ranging from 1 (disagree strongly) to 7 (agree too much) was used to strategy implementation capabilities. A multi-item Likert-type scale ranging from 1 (much lower than expected) to 7 (much higher than expected) was used for market performance and Financial Performance.

The scales' construction was based on the literature review. The measurement of organizational capabilities was based on Parnell (2011) that adopted DeSarbo et al. (2005) strategic capability scales. Strategic capabilities are a complex set of skills and accumulated knowledge that enable companies to coordinate activities and make use of their assets to create economic value and sustainable competitive advantage (Day, 1994). According to DeSarbo *et al.* (2005), marketing capabilities such as skills in segmentation, pricing and advertising, allow companies to take advantage of their technological capabilities and market knowledge in the effective implementation of marketing programs. Management capabilities include the skills and technological capabilities, marketing and beyond these, the human resource management, financial management, efficiency in forecasting earnings and revenue, among others. Technology capabilities refer to skills necessary to convert inputs in outputs (Spanos & Lioukas, 2001) or the ability to perform any relevant technical function or volume activity within the firm, including the ability to develop new products and processes and to operate facilities effectively (Ortega, 2009).

Regarding to focus, cost leadership and differentiation strategies the scales' construction was based in studies developed by Zhara and Covin (1993), Jácome, Lisboa, and Yasin (2002) and Parnell (2011). These authors based their research on Dess and Davis (1984) seminal work on generic strategies. Sixteen competitive methods were chosen to compose investigation on Brazilian textiles companies. Differentiation aims at creating a product that consumers perceive as unique, and hence allows the firm to command a premium price that exceeds the accumulation of extra costs (Porter, 1985, 1989). The cost leadership strategy puts emphasis on efficiency of operations and scale economies, which implies seeking of tight cost, overhead control and minimization of costs in R&D, services and advertising. However, firms that focus in cost leadership strategy do not ignore areas such as product and service quality, notwithstanding they have significantly lower cost structures (Amoako-Gyampah & Acquaah, 2008). In focus strategy, the company chooses a competitive environment or a narrow segment within an industry and tailors its strategy to serve them, and can choose between two variants: cost focus and differentiation focus (Porter, 1980, 2008).

The development of the scale items of strategy implementation capabilities was based in principles of good implementation, suggested by Kaplan and Norton (2001) and Hrebiniak (2006a). Strategy implementation capabilities can be related to the ability of effectively implement a business strategy, which can be possible if a firm pursues some principles that facilitate the implementation process.

For development of the scale items of strategy formulation quality, this study adopted the definition that relates this construct to the sophistication of the process and involves the steps of strategic management process: mission statement, analysis of internal and external organization, strategy formulation, implementation, monitoring and follow-up (Baker & Leidecker, 2001; Hahn & Powers, 2010).

The measure of Organizational Performance was based in Spanos and Lioukas (2001) study. The performance is considered in terms of two dimensions, namely financial performance and market performance (Venkatraman & Ramanujam, 1986). Firm success is treated, therefore, as a two dimensional phenomenon, where market performance reflects the external firm accomplishments in the market place, and profitability the internal to the firm economic rents stemming from its strategic activities (Spanos & Lioukas, 2001).

## 4.2. Sample

According to ABIT (2013), in 2012, there were more than 32.000 businesses units in the Brazilian textile chain, 6.400 of these belong to product textiles manufacturing and 25.600 to clothing sector. The total number of employees in the sector, in 2012, was 1.7 million Brazilians, producing approximately 4.579.500 tons of clothing.

The research universe is composed of more than 30.000 companies that operate directly on the national textile chain, and together they generate annual revenue of 60 billion U.S. dollars. The study sample comprised 211 companies spread across the eleven greatest Brazilian textile producers – Bahia, Ceará, Espírito Santo, Goiás, Minas Gerais, Paraná, Pernambuco, Rio de Janeiro, Rio Grande do Sul, Santa Catarina and São Paulo –, involved in the various stages of the industry (spinning, weaving, knitting, and clothing).

According to Hair, Anderson, Tatham, and Black (2005), the sample size has an important role in estimation and interpretation of results, when the structural equation modeling is used. In this case, however, those authors suggest that a sample of, at least, 200 cases is adequate to estimate the model. Samples larger than that would be required only if there were suspicions of bad specification of the model, the model was too large or complex, and when data violated the assumptions of multivariate normality.

The data was collected from June to November 2011. The selection of respondents was random and used the ABIT database. At first, it was sent 2.659 questionnaires and 244

returned, with a 9% rate of response. After analysis, it was eliminated 33 responses and validated 211. The number of questionnaires sent to the respondents was a direct proportion to the share of each state in the target population.

To collect the data, the researchers made available a web site with information about the research and an access link to the structured questionnaire. Personalized e-mail was sent to each respondent and data collection process were managed, including questionnaire filling time, number of questionnaires sent, answered and unanswered. It was made a compilation of responses in Excel spreadsheet and the result was exported to the Statistical Package for Social Sciences (SPSS), version 19.0 for Windows.

Table 1 presents the companies' sample profile represented in this study.

*Table 1*

*Sample Profile*

| Firm Age | Nº | % |
|---|---|---|
| More than 30 years | 42 | 19.9 |
| From 20 years to 29 years | 44 | 20.9 |
| From 10 years to 19 years | 63 | 29.9 |
| From 6 years to 9 years | 26 | 12.3 |
| Until 5 years | 36 | 17.1 |
| **Total** | **211** | **100** |
| **Annual Revenue (US$)** | | |
| More than 150 million | 6 | 2.8 |
| More than 45 million e less or equal to 150 million | 11 | 5.2 |
| More than 8 million and less or equal to 45 million | 24 | 11.4 |
| More than 1,2 million and less ore equal to 8 million | 38 | 18.0 |
| Less than or equal to 1,2 million | 68 | 32.2 |
| Not reported | 64 | 30.3 |
| **Total** | **211** | **100** |
| **Employees** | | |
| More than 500 | 22 | 10.4 |
| Between 100 a 499 | 43 | 20.4 |
| Between 20 a 99 | 67 | 31.8 |
| Until 19 | 79 | 37.4 |
| **Total** | **211** | **100** |
| **Capital Origin** | | |
| Foreign | 5 | 2.4 |
| National | 206 | 97.6 |
| **Total** | **211** | **100** |

## 5. RESULTS

To estimate and evaluate the proposed model (see Figure 1), an application of structural equation modelling (SEM) is used. The structural equation modelling approach is comprised of two models: a measurement model and a structural model. According to Jöreskog and Sörbom (1993) and Anderson and Gerbing (1988), these two models can be estimated simultaneously or using a two-step approach. The results reported in this section are obtained using a two-step approach, as recommended by Anderson and Gerbing (1988). The maximum likelihood estimation method and the AMOS 19 software are used for this purpose.

### 5.1. Measurement model

Before the analysis of the causal relations outlined in the proposed model (see Figure 1), a preliminary data analysis was conducted to detect ill-fitting items based on item-to-total correlations and exploratory factor analysis. This analysis focused on searching for items that were poorly correlated with the remaining items in each scale, and that had cross-loadings. After this analysis, some items were deleted. After a preliminary data analysis, the remaining items were submitted to a confirmatory analysis to assess the psychometric properties of the scales of the ten latent variables (constructs) included in the proposed model. The final model (see Table 2) shows an adequate fit.

The chi-square of the model is statistically significant, and the remaining global-fit indices indicated a good fit based on acceptable levels cited in the literature (e.g., Hooper, Coughlan & Mullen, 2008; Hu & Bentler, 1999; Steiger, 2007). The standardized factor loadings are larger (all standardized loading exceeding 0.5 threshold) and being highly significant (p < 0.01), with all t statistics above 7. Thus, support the convergent validity of the measures. The magnitude of residuals and modification index is low, thus providing additional evidence of the uni-dimensionality of the scales.

## Table 2

### Standardized Parameter Estimates and Critical Ratio for the Measurement Model

| Construct | Items | Stand. Loads. | C.R. |
|---|---|---|---|
| Marketing Capabilities | Effectiveness of advertising programs | 0.81 | --- |
| | Skill to segment and target markets | 0.74 | 11.45 |
| | Integration of marketing activities | 0.88 | 13.84 |
| | Knowledge of customers | 0.60 | 8.94 |
| Management Capabilities | Accuracy of profitability and revenue forecasting | 0.81 | --- |
| | Human resource management capabilities | 0.77 | 11.64 |
| | Cost control capabilities | 0.80 | 12.13 |
| | Integrated logistics systems | 0.53 | 7.58 |
| Technological Capabilities | Production facilities | 0.57 | --- |
| | Ability of predicting technological changes in the industry | 0.90 | 8.71 |
| | Technology development capabilities | 0.87 | 8.65 |
| Strategy Implementation Capabilities | The company's strategy is translated into clear objectives and easily understood by all employees | 0.85 | --- |
| | Departments or functional areas are aligned with the strategies developed and / or emerging by the company | 0.89 | 16.12 |
| | All employees understand the strategy and conduct their daily activities in order to contribute to its success | 0.76 | 12.83 |
| | The process of strategy's formulation is linked to the budgeting process of the company | 0.64 | 10.09 |
| | Management meetings are held frequently to assess the implementation of the strategies | 0.57 | 8.64 |
| | The top leaders of the company are actively involved and committed to the implementation of business strategies | 0.52 | 7.81 |

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| | | | |
|---|---|---|---|
| Focus Strategy | Introduction of new products in the market | 0.79 | 7.00 |
| | Targeting a clearly identified segment | 0.51 | --- |
| | Capacity to manufacturing specialty products | 0.85 | 7.14 |
| Cost Leadership Strategy | Efficiency in procurement of raw materials and inputs | 0.72 | 11.74 |
| | Continuous improvement in production process | 0.88 | --- |
| | Adoption of methods and tools in quality control | 0.82 | 14.23 |
| Differentiation Strategy | Building up a strong brand identity | 0.74 | 10.45 |
| | Offering after-sales services to consumers | 0.81 | 11.45 |
| | Innovation in marketing techniques and methods | 0.76 | --- |
| | Intensity of advertising and marketing | 0.71 | 14.30 |
| | Developing and utilizing sales force | 0.76 | 10.73 |
| Strategy Formulation Quality | Analysis of internal resources and skills to implement strategies | 0.82 | 10.87 |
| | Vision supported by strategic objectives and possible to measure for the next three years | 0.84 | 11.12 |
| | Definition of vision clear to everyone in the company for the next three years | 0.83 | 11.01 |
| | Using analysis of Strengths and Weaknesses, Opportunities and Threats (SWOT Model) | 0.77 | 10.22 |
| | Using analysis of the macro-environment outside the sector of activity (political, economic, social, technological, legal) | 0.81 | 10.76 |
| | Using analysis of competitors | 0.69 | --- |
| Market Performance | Growth in sales volume | 0.89 | --- |
| | Growth in market share | 0.96 | 19.01 |
| Financial Performance | Profit margin | 0.91 | --- |
| | Return on equity | 0.96 | 25.87 |
| | Net profit | 0.97 | 26.68 |

**Model fit:** Chi-square ($\chi2$) = 858.25, df = 654, Incremental Fix Index (IFI) = 0.96, Goodness of Fit Index (GFI) = 0.83, Tucker-Lewis Index (TLI) = 0.96, Comparative Fit Index (CFI) = 0.96, and Root Mean Square Error of Approximation (RMSEA) = 0.04.

**Notes:** Stand. loads. = Standardized Loadings; C.R. = Critical Ratio.

Subsequently, the scales were examined for internal consistency. Table 3 presents univariate statistics, correlation coefficients, Cronbach's alphas, composite reliabilities, and average variances extracted. The Cronbach alphas were all above the 0.70 threshold. The composite reliability (CR) of each scale exceeds the 0.7 threshold (Fornell & Larcker, 1981). This suggests that the scales are internally consistent. The variance extracted estimates (AVE) ranged from 0.52 for 'strategy implementation capabilities' to 0.89 for "financial performance". In all cases, they exceed the 0.50 threshold as suggested by Fornell and Larcker (1981). On the basis of these results, it can be concluded that the constructs are unidimensional and meet acceptable levels of reliability and convergent and discriminant validity.

### 5.2. Structural model

After the validity of the scales was examined, it was proceeded with the estimation of a structural model to test the causal relationships proposed in the conceptual model. Table 4 reports the results of the estimation of the structural model, which includes the overall-fit of the model and structural standardized structural paths.

Based on these results, it can be concluded that the overall model shows a good fit. The chi-square is statistically significant ($\chi2$ = 929.88, df = 681, p < 0.01), and the remaining global-fit indices indicated a good fit based on acceptable levels cited in the literature.

### 5.3. Discussion of the results

Based on the results reported in the previous section, the next phase of the research is to test the hypotheses stated in Section 3. The hypothesis 1a was supported. There is a positive and significant relationship between marketing capabilities and focus strategy. This relationship finds support in the work of Parnell (2011). In this regard, it should be considered that Porter's focus strategy concentrates efforts on a particular

*Table 3*

*Standard Deviation, Correlation Matrix, Reliability, and Variance Extracted Estimates*

| | SD | X1 | X2 | X3 | X4 | X5 | X6 | X7 | X8 | X9 | X10 | CR | AVE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Marketing capabilities (X1) | 0.971 | **0.84** | | | | | | | | | | 0.85 | 0.58 |
| Management capabilities (X2) | 1.073 | 0.63 | **0.81** | | | | | | | | | 0.82 | 0.54 |
| Technological capabilities (X3) | 1.014 | 0.66 | 0.54 | **0.82** | | | | | | | | 0.83 | 0.63 |
| Strategy implementation capabilities (X4) | 1.014 | 0.50 | 0.68 | 0.46 | **0.86** | | | | | | | 0.86 | 0.52 |
| Focus strategy (X5) | 0.764 | 0.20 | 0.21 | 0.09 | 0.25 | **0.73** | | | | | | 0.76 | 0.53 |
| Cost leadership strategy (X6) | 0.769 | 0.19 | 0.32 | 0.09 | 0.33 | 0.72 | **0.85** | | | | | 0.85 | 0.66 |
| Differentiation strategy (X7) | .924 | 0.33 | 0.32 | 0.16 | 0.31 | 0.66 | 0.71 | **0.88** | | | | 0.86 | 0.57 |
| Strategy formulation quality (X8) | 1.570 | 0.54 | 0.56 | 0.44 | 0.55 | 0.18 | 0.15 | 0.24 | **0.92** | | | 0.91 | 0.63 |
| Market performance (X9) | 1.534 | 0.32 | 0.18 | 0.10 | 0.26 | 0.05 | 0.21 | 0.22 | 0.34 | **0.92** | | 0.92 | 0.85 |
| Financial performance (X10) | 1.464 | 0.35 | 0.29 | 0.16 | 0.27 | 0.05 | 0.11 | 0.19 | 0.36 | 0.78 | **0.96** | 0.96 | 0.89 |

**Notes:** Diagonal entries (highlighted in bold) are Cronbach's *alpha* coefficients, all others are correlation coefficients. CR = Composite Reliability; AVE = Average Variance Extracted.

*Table 4*

*Results of the Structural Model*

| | | | Stand. Coeff. | C.R. | p | Hypotheses |
|---|---|---|---|---|---|---|
| Marketing capabilities | → | Focus strategy | 0.20 | 2.435 | * | H1a: S |
| Technological capabilities | → | Differentiation strategy | 0.10 | 1.568 | | H1b: NS |
| Management capabilities | → | Cost leadership strategy | 0.19 | 2.992 | ** | H1c: S |
| Management capabilities | → | Financial performance | 0.15 | 2.949 | ** | H1d: S |
| Focus strategy | → | Cost leadership strategy | 0.71 | 8.842 | ** | H2: S |
| Cost leadership strategy | → | Differentiation strategy | 0.73 | 8.148 | ** | H2: S |
| Differentiation strategy | → | Market performance | 0.16 | 2.090 | * | H3: S |
| Strategy implementation capabilities | → | Strategy formulation quality | 0.57 | 7.073 | ** | H4: S |
| Strategy formulation quality | → | Market performance | 0.31 | 4.109 | ** | H5: S |
| Market performance | → | Financial performance | 0.75 | 12.667 | ** | H6: S |

**Model fit:** Chi-square (χ2) = 929.88, df = 681, Incremental Fix Index (IFI) = 0.95, Goodness of Fit Index (GFI) = 0.82, Tucker-Lewis Index (TLI) = 0.95, Comparative Fit Index (CFI) = 0.95, and Root Mean Square Error of Approximation (RMSEA) = 0.04.
**Notes:** Stand. coeff. = Standardized coefficients; S. E. = Standard error, C.R. = Critical ratio, * p ≤ 0.05, ** p ≤ 0.01; S: Supported, and NS: Not Supported.

market niche and the marketing capabilities can serve as a necessary precursor of the focus strategy implementation. Specifically in the textile industry, studies about the focus strategy approach were not identified. Rangel *et al.* (2010), however, justified the use of the product differentiation strategy in the garment industry due to the preferences of consumers and the wide variety of customer segments, associated with the age range, gender, and level of income. This implies the practice of customer segmentation and the choice of focus on differentiation strategy.

The hypothesis 1b was not supported, once the relationship between technological capabilities and differentiation strategy

is not significant. Although other researchers find evidences to this relationship, probably due the sector characteristics the data did not present the same results. In fact, according to Rangel *et al.* (2010), in the garment sector, a considerable sample part of this study (47%), technical progress is slow and incremental, and is represented by unsophisticated technologies with the predominance of equipment guided by human hand, as the sewing machine. These advances do not result from internal research and development effort, but through the acquisition of equipment with incorporation of technology.

Otherwise, the hypothesis 1c was supported; management capabilities have a positive and significant relationship with the cost leadership strategy. This result is supported in the literature, considering that cost leadership strategy emphasizes production efficiencies, and the development of management capabilities as necessary to achieve efficiency and effectiveness. Within the garment industry, studies of Loyola (1974) and Durand (1985), in the strategy area, discussed the cost leadership strategy, reflected the idea of entrepreneurs to promote a "vertical integration forward"; that is, engage in all textile chain, from tissue manufacturing to clothing of the final product, in order to reduce costs and take advantage of economy of scale. This, in turn, increases the complexity of management and requires improvement of management capacity of these companies.

Leite *et al.* (2014) highlighted the adoption of the vertical integration strategy by textile companies, concluding that the degree of vertical integration of textile enterprises is directly proportional to its market share, which stems from greater production scale.

The hypothesis 1d was also supported; there is a positive and significant relationship between management capabilities and financial performance. According to DeSarbo *et al.* (2005), the ability to integrate logistics systems and control costs can conduct to a successful financial result. Although it has not been identified studies on this relationship in the Brazilian textile industry, Damo (2006) showed that cost leadership strategy affects financial performance. In this regard, it can be perceived that cost leadership strategy requires improved efficiency across the organization and depends on the development of management capabilities. Therefore, the influence of management capacity in financial performance can be understood as mediated by the cost leadership strategy.

It was found a positive and significant relationship between focus strategy and cost leadership strategy. The same occurs with the relationship between cost leadership strategy and differentiation strategy. This can indicate the use of combined strategies by Brazilian textiles companies. Therefore, the hypothesis 2 was supported. Empirical studies also support this statement (e.g., Acquaah & Yasai-Ardekani, 2008; Bowman & Ambrosini, 1997; Kim *et al.*, 2004; Leitner & Guldenberg, 2010; Miller & Dess, 1993; among others).

The hypothesis 3 was also supported, indicating the existence of a positive and significant relationship between differentiation strategy and marketing performance. This statement finds a large support in empirical studies (Leitner, & Guldenberg, 2010) ensuring the superiority of differentiation strategies or the use of combination strategies. This finding is also consistent with the results of Rangel *et al.* (2010), according to which the product differentiation by design is one of crucial factors of the degree of industry competitiveness, and can be expressed in increased market participation and profitability.

The relationship between strategy implementation capabilities and strategy formulation quality (hypothesis 4), resulted positive and significantly, corroborating with authors such as Crittenden and Crittenden (2008) that advocate the influence of mode strategy implementation in strategy formulation quality. The hypothesis 5 was also supported; there is a positive and significant relationship between the strategy formulation quality and marketing performance. This finding is conforming the study of Hahn and Powers (2010) that provided support to the role of strategy formulation quality in the performance of the banking industry.

The relationship between market performance and financial performance, hypothesis 6, was equally supported and it is in accordance with the study of Spanos and Lioukas (2001). These authors argue that market performance is a predecessor to profitability, despite of other researchers interpret the association between market performance and profitability as an evidence of the influence of firm's internal capabilities on the firm success. These findings reinforce the idea that internal capabilities and strategy typologies are complementary and related to business performance and competitive advantage. It should be viewed that certain types of internal capacities have a particular relationship with a particular type of strategy. Marketing capabilities are related to the strategy of focus and management skills to the strategy of cost leadership. In the same line of thought, the technological capabilities are related to the differentiation strategy; however, the data of this study did not reveal this hypothesis, which may indicate a peculiarity of the Brazilian textile industry regarding to the use of technology to differentiate itself in the market. Another result testifies that the industry has a tendency to use combined strategies, leading to a positive performance in the market.

The research revealed that the differentiation strategy has resulted in an increased market performance, but does not act directly on financial performance. However, capacity management has a positive direct effect on the financial performance.

## 6. CONCLUSIONS, LIMITATIONS, AND FUTURE RESEARCH

This study sought to evaluate the effectiveness of business strategies adopted by the Brazilian textile companies. Effectiveness was assessed by means of a model based on the

relationships between internal capabilities, types of competitive strategies or methods, the ability to execute strategies, strategy formulation quality and their impact on the market and financial performance. Regarding to internal capabilities, the study found that the management capability produces a positive and significant impact on the financial performance of companies. Moreover, certain types of internal capabilities are more related to the adoption of certain typology of strategies. Marketing capabilities have an impact on focus strategy and management capabilities have an impact on cost leadership strategy. However, it was expected that the technological capabilities were related to the differentiation strategy, but this hypothesis was not supported by the data.

Another finding of the study was the use of combined strategies by Brazilian textile companies. However, the strategy that has a positive impact on market performance is the differentiation strategy, while the strategies of cost leadership and focus have indirect effect on performance through differentiation strategy. It is as if companies adopt initially a focus strategy, after cost leadership strategy, and, then, differentiate. This indicates that in today's highly competitive global environment, cost alone or differentiation alone is no longer sufficient as a competitive tool.

The ability to implement strategies strongly influences the quality of formulating strategies, stressing the importance that businesses adopt principles and patterns of behavior that may favor the implementation of strategies and ensure the quality of the next planning cycle. It was also found that the strategy formulation quality has a positive impact on market performance.

It was also identified that market performance has a strong impact on financial performance, result that corroborates with previous research findings of Spanos and Lioukas (2001), among others.

It should be said that this study has some limitations that should be deal with in future works. The difficulty to obtain answers from executive people restricted the sample size. Our suggestion for next studies is to obtain data from other Brazilian states and from other industries, beyond textiles manufacturing. Comparisons between countries could be relevant. As Makino, Isobe, and Chan (2004) and Peng (2003) affirm, external environment, such as country level development, are more important in shaping firms' strategic choices, organizational structures and performance in less advanced countries, such as Brazil, than in advanced countries.

The data collection occurred in a given moment, or in cross-section, which can be another limitation. To circumvent this limitation, a longitudinal study may enable more detailed findings. Future works could also explore with greater depth the relationship between technological capabilities and the differentiation strategy, in order to investigate further the rationality and the relevance of their association.◆

## REFERENCES

Associação Brasileira da Indústria Têxtil e de Confecção – ABIT (2013). *Indústria têxtil e de confecção brasileira cenários, desafios, perspectivas e demandas*. Brasília: ABTI.

Acero, L. (1982, outubro/dezembro). O impacto das mudanças tecnológicas nas qualificações de mão-de--obra e no emprego: O caso da indústria têxtil. *Revista de Administração de Empresas* [RAE], Rio de Janeiro, *22*(4), 28-45.

Acquaah, M., & Yasai-Ardekani, M. (2008). Does the implementation of a combination competitive strategy yield incremental performance benefits? A new perspective from a transition economy in Sub-Saharan Africa. *Journal of Business Research*, *61*(4), 346-354.

Amoako-Gyampah, K., & Acquaah, M. (2008). Manufacturing strategy, competitive strategy and firm performance: An empirical study in a developing economy environment. *International Journal of Production Economics*, *111*(2), 575-592.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modelling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411-413.

Babbie, E. (2003). *Metodologia de pesquisa de survey.* Tradução de Guilherme Cezarino. Belo Horizonte: UFMG.

Baker, G. A., & Leidecker, J. K. (2001). Does it pay to plan? Strategic planning and financial performance. *Agribusiness*, *17*(3), 355-364.

Becassi, A. A., & Januzzi, C. A. S. C. (2008). Estratégia de gestão e inovação tecnológica na indústria paulista do setor têxtil. *Anais do XIII Encontro de Iniciação Científica da PUC Campinas* – São Paulo, SP, Brasil.

Beuren, I. M., & Oro, I. M. (2014, maio/junho). Relação entre estratégia de diferenciação e inovação, e sistemas de controle gerencial. *RAC*, Rio de Janeiro, *18*(3), art. 3, 285-310.

Bielschowsky, R., & Stumpo, G. (1996). A internacionalização da indústria brasileira: Números e reflexões depois de alguns anos de abertura. In R. Baumann (Org.), *O Brasil e a economia global*. Rio de Janeiro: Elsevier.

Bonelli, R. (1998). *As estratégias dos grandes grupos industriais brasileiros nos anos 90*. Texto para Discussão n. 569, IPEA.

*REFERENCES*

Bowman, C., & Ambrosini, V. (1997). Perceptions of strategic priorities, consensus and firm performance. *Journal of Management Studies*, *34*(2), 241-258.

Bowman, C., & Toms, S. (2010). Accounting for competitive advantage: The resource based view of the firm and the labour theory of value. *Critical Perspectives on Accounting*, *21*(3), 183-194.

Campbell-Hunt, C. (2000). What we have learned about generic competitive strategy? A meta-analysis. *Strategic Management Journal*, *21*(4), 127-154.

Campos, A. C., & De Paula, N. M. (2006, outubro/dezembro). A indústria têxtil brasileira em um contexto de transformações mundiais. *Revista Econômica do Nordeste*, *37*(4), 592-608.

Cater, T., & Pucko, D. (2010). Factors of effective strategy implementation: Empirical evidence from Slovenian business practice. *Journal for East European Management Studies*, Chemnitz, *15*(3), 207-236.

Chenhall, R. H., Kallunki, J. P., & Silvola, H. (2011). Exploring the relationships between strategy, innovation, and management control systems: The roles of social networking, organic innovative culture, and formal controls. *Journal of Management Accounting Research American Accounting Association*, *23*, 99-128.
doi: 10.2308/jmar-10069

Christmanna, P., Day, D., & Yip, G. S. (1999). The relative influence of country conditions, industry structure, and business strategy on multinational corporation subsidiary performance. *Journal of International Management*, *5*(4), 241-265.

Costa, A. C. R., & Rocha, E. R. P. (2009, março). Panorama da cadeia produtiva têxtil e de confecções e a questão da inovação. *BNDES Setorial*, *29*, 159-202.

Crittenden, V. L., & Crittenden, W. F. (2008). Building a capable organization: The eight levers of strategy implementation. *Business Horizons*, *51*(4), 301-309.

Damo, M. A. (2006). *O impacto das estratégias financeiras no desempenho das empresas: Uma análise do desempenho dos setores de elétrica, siderurgia e metalurgia, têxtil e telecomunicações*. (Dissertação de Mestrado), Departamento de Administração da Pontifícia Universidade Católica do Rio de Janeiro, Rio de Janeiro, RJ, Brasil.

Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, *58*(4), 37-52.

DeSarbo, W., Di Benedetto, A., Song, M., & Sinha, I.J. (2005). Revisiting the Miles and Snow strategic framework: Uncovering interrelationships between strategic types, capabilities, environmental uncertainty, and firm performance. *Strategic Management Journal*, *26*(1), 47-74.

Dess, G. G., & Davis, P. S. (1984). Porter's (1980): generic strategies as determinants of strategic group membership and organizational performance. *Academy of Management Journal*, *27*(3), 467-488.

Durand, J. C. (1985). Façonismo: Produção familiar em tecelagem. *Revista de Administração de Empresas* [RAE], São Paulo, *25*(1), 5-14.

Fleury, A., Fleury, M.T.L., & Borini, F.M. (2013). The Brazilian multinationals' approaches to innovation. *Journal of International Management*, *19*(3), 260-275.

Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50.

Hahn, W., & Powers, T. L. (2010). Strategic plan quality, implementation capability, and firm performance. *Academy of Strategic Management Journal*, *9*(1), 63-81.

Hair, Jr., J. F., Anderson, R. E., Tatham, R. L., & Black, W.C. (2005). *Análise multivariada de dados* (5a ed.). Porto Alegre: Bookman, Brasil.

Heide, M., Gronhaug, K., & Johannessen, S. (2002). Exploring barriers to the successful implementation of a formulated strategy. *Scandinavian Journal of Management*, *18*(2), 217-231.

Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods*, *6*(1), 53-60.

Hrebiniak, L. G. (2006a). *Fazendo a estratégia funcionar: O caminho para uma execução bem-sucedida*. Porto Alegre: Bookman, Brasil.

Hrebiniak, L. G. (2006b). Obstacles to effective strategy implementation. *Organizational Dynamics*, *35*(1), 12-31.

Hu, L. T. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modelling*, *6*(1), 1-55.

Jácome, R., Lisboa, J., & Yasin, M. (2002). Time-based differentiation – an old strategic hat or an effective strategic choice: An empirical investigation. *European Business Review*, *14*(3), 184-193.

Johannessen, J. A., & Olsen, B. (2010). The future of value creation and innovations: Aspects of a theory of value creation and innovation in a global knowledge economy. *International Journal of Information Management*, *30*(6), 502-511.

Johnson, L. K. (2004). Execute your strategy — without killing it. *Harvard Management Update*, *9*(12), 3-6.

**REFERENCES**

Jöreskog, K., & Sörbom, D. (1993). *LISREL 8: User's reference guide*. Scientific Chicago: Software International.

Kaplan, R. S., & Norton, D. P. (2001). *Organização orientada para a estratégia: Como as empresas que adotam o balanced scorecard prosperam no novo ambiente de negócios*. Rio de Janeiro: Campus, Brasil.

Kim, E., Nam, D., & Stimpert, J. L. (2004). Testing the applicability of Porter's generic strategies in the digital age: A study of Korean cyber malls. *Journal of Business Strategies*, *21*(1), 19-45.

Kim, L., & Lim, Y. (1988). Environment, generic strategies, and performance in a rapidly developing country: A taxonomic approach. *Academy of Management Journal*, *31*(4), 802-827.

Leite, A.S., Barco, L., Rosa, J.M., Pereira, D.R., Costa, M., & Trindade, N.B. (2014). Análise estrutural da indústria têxtil: Mapeamento dos grupos estratégicos com relação ao grau de verticalização das empresas e seus respectivos lucros líquidos ajustados e faturamentos. *Contexmod – 2º Congresso Científico Têxtil e de Moda*, 20 a 22 de maio, São Paulo, SP, Brasil.

Leitner, K. H., & Guldenberg, S. (2010). Generic strategies and firm performance in SMEs: A longitudinal study of Austrian SMEs. *Small Business Economics*, *35*(3), 169-189.

Loyola, A. (1974). Trabalho e Modernização na Indústria Têxtil. *RAE-Revista de Administração de Empresas*, *14*(5), 19-31.

Makino, S., Isobe, T., & Chan, C.M. (2004). Does country matter? *Strategic Management Journal*, *25*(10), 1027-1043.

Mankins, M. C., & Steele, R. (2005). Turning great strategy into great performance. *Harvard Business Review*, *83*(7), 64-72.

Meskendahl, S. (2010). The influence of business strategy on project portfolio management and its success – A conceptual framework. *International Journal of Project Management*, *28*(2), 807-817.

Miller, A., & Dess, G. G. (1993). Assessing Porter's (1980) model in terms of its generalizability, accuracy and simplicity. *The Journal of Management Studies*, *34*(4), 553-585.

Ormanidhi, O., & Stringa, O. (2008). Porter's model of generic competitive strategies. *Business Economics*, *43*(3), 55-64.

Ortega, M. J. R. (2009). Competitive strategies and firm performance: Technological capabilities' moderating roles. *Journal of Business Research*, *63*(12), 1273-1281.

Parnell, J. A. (2011). Strategic capabilities, competitive strategy, and performance among retailers in Argentina, Peru and the United States. *Management Decision*, *49*(1), 130-155.

Peng, M.W. (2003). Institutional transitions and strategic choices. *Academy of Management Review*, *28*(2), 275-296.

Porter, M. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York: Free Press.

Porter, M. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York: Free Press.

Porter, M. (1989). *Vantagem competitiva*. Rio de Janeiro, Campus, Brasil.

Porter, M. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, January 2008.

Rangel, A. S., Silva, M. M. Da, & Costa, B. K. (2010). Competitividade da Indústria têxtil brasileira. *Revista de Administração e Inovação* [RAI], *7*(1), 109-126.

Ray, G., Barney, J. B., & Muhanna, W. A. (2004). Capabilities, business processes and competitive advantage: Choosing the dependent variable in empirical tests of the resource-based view. *Strategic Management Journal*, *25*(1), 23-37.

Robinson, Jr., R. B., & Pearce, J. A. II. (1988). Planned patterns of strategic behavior and their relationship to business-unit performance. *Strategic Management Journal*, *9*(1), 43-60.

Spanos, Y. E., & Lioukas, S. (2001). An examination into the causal logic of rent generation: Contrasting Porter's competitive strategy framework and the resource based perspective. *Strategic Management Journal*, *22*(10), 907-934.

Spanos, Y. E., Zaralis, G., & Lioukas, S. (2004). Strategy and industry effects on profitability: Evidence from Greece. *Strategic Management Journal*, *25*(2), 139-165.

Speculand, R. (2006). The great big strategy challenge. *Strategic Direction*, *22*(3), 3-5.

Steiger, J. H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual Differences*, *42*(5), 893-898.

Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches Massachusetts Institute of Technology. *Academy of Management Review*, *11*(4), 801-814.

Zhara, S.A., & Covin, J. G. (1993). Business strategy, technology policy and firm performance. *Strategic Management Journal*, *14*(6), 451-478.

**ABSTRACT**

## Effectiveness of business strategies in Brazilian textile industry

This research analyses how the interaction between strategy capabilities, strategy types, strategy formulation quality and implementation capability affect organizational performance in Brazilian textiles companies. This article proposes and tests a conceptual framework, using a structural equation modeling of a set of 211 valid questionnaires on Brazilian textiles firms. The results support links between focus strategy and marketing capabilities, and between cost leadership strategy and management capabilities. However, the relationship between technologic capabilities and differentiation strategy was not statistically significant. The existence of an inter-relationship between generic strategies of focus, cost leadership and differentiation indicates the use of combined strategies. Concerning the firms' financial performance, the results show that management capability and market performance have a statistically significant relationship with financial performance.

**Keywords:** strategy effectiveness, Brazilian textile industry, firm's performance, strategy implementation capability, SME.

**RESUMEN**

## Efectividad de las estrategias de negociación en la industria textil en Brasil

En este estudio se analiza cómo la interacción entre las capacidades estratégicas, los tipos de estrategia, la calidad de la formulación de la estrategia y la capacidad de implementación de la estrategia afecta el desempeño organizacional de las compañías textiles brasileñas. Del conjunto de dichas empresas textiles, se han obtenido 211 cuestionarios válidos. Se ha propuesto un modelo conceptual que se ha puesto a prueba por medio del uso de sistemas de ecuaciones estructurales. Los resultados respaldan las relaciones entre la estrategia de enfoque y las capacidades de marketing, y entre la estrategia de liderazgo de costos y las capacidades de gestión. Sin embargo, la relación entre las capacidades tecnológicas y la estrategia de diferenciación no ha sido estadísticamente significativa. Asimismo, se ha observado una interrelación entre las estrategias genéricas de enfoque, el liderazgo de costo y la diferenciación, lo que revela la utilización de estrategias combinadas. Respecto al desempeño organizacional, se ha identificado que la capacidad de gestión y el desempeño en el mercado presentan una relación estadísticamente significativa con el desempeño financiero.

**Palabras clave:** efectividad de la estrategia, industria textil en Brasil, desempeño de la empresa, implementación de estrategias, capacidades, PYME.