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A critical assessment of Brazilian manufacturing competitiveness in foreign markets

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Abstract

Purpose – This study aims to examine the competitiveness of firms operating in the emerging economy of Brazil. This study examines the current perception of Brazilian business leaders regarding the level of competitiveness in various sectors of industrial activity and the country's business environment.

Design/methodology/approach – Survey data were collected in a joint study developed by Brazilian School of Public and Business Administration (EBAPE) and the Brazilian Institute of Economics (IBRE). The population surveyed was composed of businessmen, managers and directors of Brazilian manufacturing firms. This survey was created based on a similar survey conducted by the Harvard Business School, which was also aimed at identifying the reasons behind national loss of competitiveness.

Findings – The results of the survey point out that the worsening competitive nature of companies operating in Brazil can be primarily attributed to the deterioration of its country-specific advantages and in particular those linked to government policies, services and bureaucratic procedures, all of which bear a negative impact on the country's business environment.

Research limitations/implications – Future research should explore in more depth the specific types of initiatives that these firms have and are continuing to eagerly adopt with the aim of improving their domestic competitiveness and, namely, firm-specific advantages, whether it be by contributing to the improvement of the business environment as a whole, or by improving their own operations and management systems.

Practical implications – The main obstacles related to competitiveness are associated with the "Brazil Cost", namely, the tax system, infrastructure, political system, labor laws and bureaucracy that do not appear to offer much room for maneuvering in terms of reducing these barriers in the short term. Managers not addressing these important input factors of competitiveness not only divert attention away from innovation and creativity but also could lead to more serious political, social welfare and economic implications in the global marketplace.

Social implications – This study helps to gain a better understanding of the initiatives that could and are being used to contribute to a fruitful discussion about leading public policies and government actions geared toward upgrading Brazil's business environment and country competitiveness as a whole.

Originality/value – This research contributes to the understanding of the initiatives that could and are being used to improve firm competitiveness in Brazil. These initiatives contribute to a fruitful discussion about leading public policies and government actions geared toward upgrading Brazil's business environment and country competitiveness as a whole.

Keywords Competitiveness, Manufacturing, Brazil, Emerging economy

Paper type Research paper

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Introduction

The level of competitiveness of companies operating in Brazil has, in recent years, shown unmistakable signs of deterioration (Braga, 2014; Bonelli, 2011; Canuto, 2015; Canuto *et al.*, 2013; IMD, 2015; Jenkins, 2012, 2014; Pavan *et al.*, 2010; Sirkin *et al.*, 2014). At the root of this problem, and in different proportions, lie a few key factors. The first refer to external shocks, especially those involving decreases in demand resulting from the global financial crisis (Braga, 2014; Bonelli *et al.*, 2013; MercoPress, 2012). Then, there are those factors unique to a country's business environment [i.e. country-specific advantages (CSAs)] and those unique factors associated with the internal resources of a firm or its firm-specific advantages (FSAs) such as its technological, managerial and innovation capabilities (Wood and Caldas, 2007; World Economic Forum, 2012) and, finally, those that involve the unique interplay between both CSA and FSA factors (Rugman, 1981) and specifically those within emerging economies (Rugman, 2007; Rugman and Li, 2007).

Evidence of a reduction in the level of competitiveness of these factors has been widely documented in academic and policy studies and in the comparative rankings of nations (Canuto *et al.*, 2013; IMD, 2015; International Development, 2011; MercoPress, 2012; Pavan *et al.*, 2010; Sirkin *et al.*, 2014; World Bank Group, 2014; World Economic Forum, 2012, 2014). A recent Global Competitiveness Report shows that Brazil experienced a sharp drop in their competitiveness ranking from 2012/2013 when it placed 48th among 147 other nations, to 2014/2015, when it fell to 57th (World Economic Forum, 2014). Similarly, when comparing the ease of doing business in different countries, despite improvements made in recent years, Brazil still ranks 116th out of 189 countries (World Bank, 2014).

This deterioration in its macroeconomic and competitive environments has negatively impacted the productivity of labor, as well as other country-specific factors (Braga, 2014; Canuto *et al.*, 2013; Kaufman and García-Escribano, 2013). Although this downward in the level of economic efficiency affects the country's economy as a whole, firms operating in the manufacturing sector currently face the most dramatic situation (International Development, 2011; Jenkins, 2012, 2014; Sirkin *et al.*, 2014; World Economic Forum, 2012) and as a result are the focus of this study. For instance, as a share of total gross domestic product, manufacturing in Brazil decreased from a peak of 27 per cent in 1985 to just 13.25 per cent in 2012, a fact that has raised concerns especially for a country that is still premature in its deindustrialization processes (FIESP, 2013). Brazil's loss of manufacturing competitiveness in international markets is a clearly a problem of fundamental importance to the country's future development (Canuto *et al.*, 2013; MercoPress, 2012; Pavan *et al.*, 2010; World Economic Forum, 2014).

As a predominantly urban society, Brazil has had a strong internal market and has experienced economic growth and job creation over the past 20 years, but this can only be sustained if the country continues to diversify its manufacturing sector in terms of its value chain activities in which the country can be internationally competitive. There are many objectives to assess the current status of the Brazilian manufacturing sector in terms of its competitiveness in international markets, and identify the factors that either stimulate or inhibit competitive behavior; and to investigate what is expected regarding this level of competitiveness in the future, and what types of initiatives are preferred by Brazilian firms to generate improvements in their global competitiveness levels.

To reach these objectives, the paper presents an analysis of survey data collected in a joint study developed by the Brazilian School of Public and Business Administration (EBAPE) and the Brazilian Institute of Economics (IBRE) during the year of 2013. The population surveyed was composed of businessmen, managers and directors of Brazilian manufacturing firms. This survey was created based on a similar survey conducted by the Harvard Business School, which

was also aimed at identifying the reasons behind national loss of competitiveness – namely, for the developed country of the USA – and the solutions suggested to resolve these problems. This seminal study served as an important benchmark for our study. It also aided in our understanding about the factors that underpin national competitiveness or lack thereof. Through our benchmarking analysis, we were able to provide a comparison of perspectives, from a developed and an emerging economy point of view, regarding the positive and negative factors contributing to the country's level competitiveness and, moreover, the types of governmental initiatives that can enhance/bolster/determine its competitiveness. This analysis revealed that there appears to be an incongruence between Brazil's current competitive conditions and the expressed optimism regarding its potential not so distant future.

Contextual background

According to Porter and Rivkin (2012a), country-level business competitiveness is defined as:

> […] the extent to which firms operating in [a particular country] are able to compete successfully in the global economy while supporting high and rising wages and living standards [of the average country's inhabitants] (pg. 2).

The main determinants of competitiveness lie on three distinct, albeit inter-related levels: that of the allocation of factors and resources, that of the macroeconomic bases and that of the microeconomic context (Canuto *et al.*, 2013; Kaufman and García-Escribano, 2013; Porter, 1999, 2011). The first level refers to the set of economic factors with which a nation is endowed and which constitute the base of its comparative advantage (Porter, 1999, 2011). The second level defines the macroeconomic and social development policies and the political and regulatory institutions that govern a nation (Kaufman and García-Escribano, 2013). Although the first two levels are concerned with the unique factors that create a nation's competitiveness, they by themselves are not sufficient enough to put into everyday business practice. Thus, the last level describes the microeconomic context (i.e. the quality of the business environment) in a given nation, which includes the degree of sophistication of operations and strategic management of companies and the capacity of its regional clusters. It is at the microeconomic context that the potential for competitiveness is driven into actuality (Canuto *et al.*, 2013).

The successes of domestic companies and improvements in the population's living standards are both crucial conditions to a country's competitiveness outcomes. If companies become more globally competitive, but do so at the cost of falling wages and decreasing overall living standards, then the business and market environments in which these companies operate in may deteriorate and jeopardize the proper conditions for growth and development over the long term. Similarly, any improvement in living standards resulting from income redistribution policies and the concession of benefits, which may in some way compromise the competitive capacity and productivity of national firms abroad, is not sustainable and will ultimately have adverse effects on the long-term economic development of a country.

The findings of our study suggest that the only way to sustain better living standards for the population and global competitiveness is to increase the ratio between the value of goods and services produced divided by units of natural, human and capital resources used. In the long term, therefore, competitiveness demands an improvement in the country's overall productivity level. In turn, national competitiveness depends on a nation's ability to be consistently productive and innovative to the extent that doing so results in the generation of higher incomes and social well-being of the population (Braga, 2014; Porter, 2011, 1999; Porter and Rivkin, 2012a, 2012b).

Research methodology

Our research method was inspired by the seminal study on national competitiveness first conducted by the Harvard Business School in October of 2011. This project was aimed at helping leading businessmen and public administrators in the USA to better understand, assess and improve the country's stagnant and deteriorating level of competitiveness. One of the initiatives of this project, coordinated by Professors Michael Porter and Jan Rivkin, involved conducting a survey among the school's worldwide network of more than 78,000 alumni, which resulted in nearly 10,000 completed questionnaires being returned. The first report on this survey was published in January of 2012 and produced important evidence that the USA was indeed facing increasing problems in terms of its competitiveness. The overriding value of the report is that it pointed to the main key weaknesses in the country's business environment (Porter and Rivkin, 2012a).

In 2013, an updated version of the Harvard survey used by companies from every field of economic activity was sent out to 7,000 alumni in 50 US states and 115 other countries. The questionnaire was also given to 1,000 members of the general public in the USA. This updated version created survey questions that were aimed at analyzing the competitive environment. Moreover, it included important survey questions that tackled such issues related to specific initiatives aimed at improving the overall competitiveness of the USA (Porter *et al.*, 2013).

With a desire to better understand how and why the competitiveness of the manufacturing sector in Brazil has been rapidly deteriorating, two Brazilian institutions from the Getulio Vargas Foundation came together in August 2013 to replicate key portions from the Harvard seminal study. The first institution is EBAPE The second institution is IBRE. IBRE is a research institution and think tank on economic policy and as part of its activities, it conducts a quarterly Industry Survey to a panel of respondents from the Brazilian industrial sector. Its purpose is to survey businessmen, managers and directors from small, medium and large Brazilian companies. The results are used to provide an overview of Brazil's industry competitiveness and to provide insights into the overall state of the Brazilian economy and to identify possible future trends. As a result of IBRE's rigorous research methodology in conducting their annual Industry Survey, we were able to analyze a representative sample of Brazilian firms and their respective level of competitiveness.

Our sample included firms with five or more employees located in 22 different states. These firms were involved in distribution activities along 23 codes of economic activities based on the Brazilian standard classification (National Classification of Economic Activities or CNAE). Our sample was then stratified, at the national level, as a proportion of the population of companies in each industry. The firms selected were from Brazilian owners, or subsidiaries of multinationals. Because the latter are usually organized under private governance, it was not possible to identify with precision the nature of the firm's capital structure. Nonetheless, the overall size of the sample was approximately 1,300 firms, which, considered by international standards, is sufficient for the purpose of this kind of research. Respondents were, namely, businessmen, directors or senior managers of the companies (similar to those of the Harvard study). Questionnaire responses were obtained by both phone and electronic conversations.

From the original sample of 1,300, 813 valid answers were returned. Our sample was composed of 118 small firms (1 to 49 employees), 221 medium firms (50 to 249 employees) and 474 large firms (more than 250 employees). From these, 235 firms, or 29 per cent of the sample, had little to no international experience, and thus were essentially domestic in nature with no intersection in international markets. Because this study is of a comparative nature

and with an emphasis on understanding international competitiveness, we removed these firms from the sample, thereby reducing our sample to 577 firms (see Appendix 1 for more details about the sample).

As an international comparative metric, the authors examined competitiveness against equivalent firms from two groups of countries: emerging and developed ones. This comparison fits the recent taxonomies used in the literature for classifying economies and markets, which substituted the traditional terms like Third World Economies, underdeveloped economies and so forth. It also reflects the usual pattern of internationalization of Brazilian companies, which usually begin with exports to Latin American countries, and later on to more developed countries. The concept of emerging economies used in the survey was coined in 1981 by a group of International Finance Corporation (IFC) economists and refers to the group of countries whose economies are situated below the developed ones in terms of income, the functioning of the capital markets and growth potential (Khanna and Palepu, 2010). These terms were used in this survey to contrast two different competitive national competitive contexts: those from developed countries and those from less developed (or emerging) economies.

Data analysis

To better understand the competitive nature of the Brazilian economy, we concentrated our data analysis on seven core survey questions derived from the Harvard seminal study (as noted in our figures and tables). The first examines whether or not the Brazilian firms we surveyed were experiencing a competitiveness dilemma. The second and third topics look more closely at the competitive environment in which these firms must compete. The fourth topic uncovers our respondents' outlook for the future. The fifth and final topics are aimed at gaining a better understanding of the initiatives that could and are being used to improve firm competitiveness in Brazil. These initiatives contribute to a fruitful discussion about leading public policies and government actions geared toward upgrading Brazil's business environment and country competitiveness as a whole. To this end, we compare the results of our findings with those addressed in the Harvard report and draw comparisons between US and Brazilian competitiveness.

Results

Brazil and industrial competitiveness: is there a problem?

In response to this survey question, respondents indicated that firms are facing a problematic competitive environment. When asked to compare the competitiveness of companies operating in Brazil with firms operating in other emerging economies, 44.9 per cent of the respondents rated the Brazilian market as being extremely unsuccessful and not very successful. Most of the respondents, however, classified their companies as relatively successful (51.3 per cent), and only 3.8 per cent of the respondents considered Brazilian companies to be more competitive than their peers in other emerging economies. See Figure 1 for an illustration of these differences.

For the respondents who rated their companies' competitive conditions as inferior, we examined which industrial sectors that they were competing in. We found that the majority of these firms were predominantly from industrial sectors such as wood products, textiles, metallurgy and electronics, whereas those from the apparel, pharmaceuticals, furniture, paper and allied products, oil and gas, and food and kindred products considered themselves, on average, to be slightly better. See Figure 2 for a breakdown of these findings.

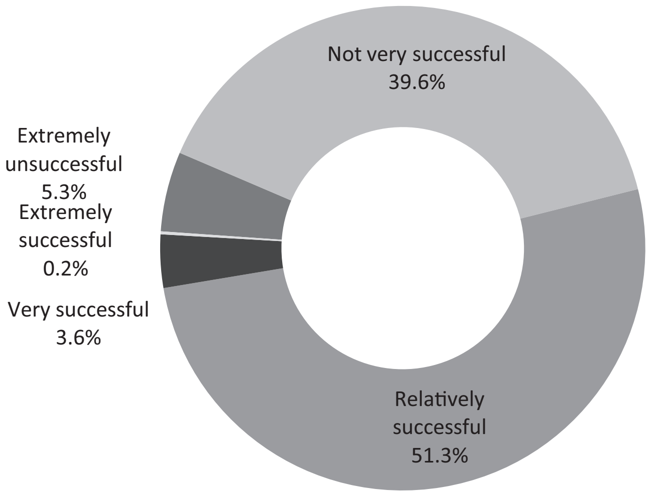


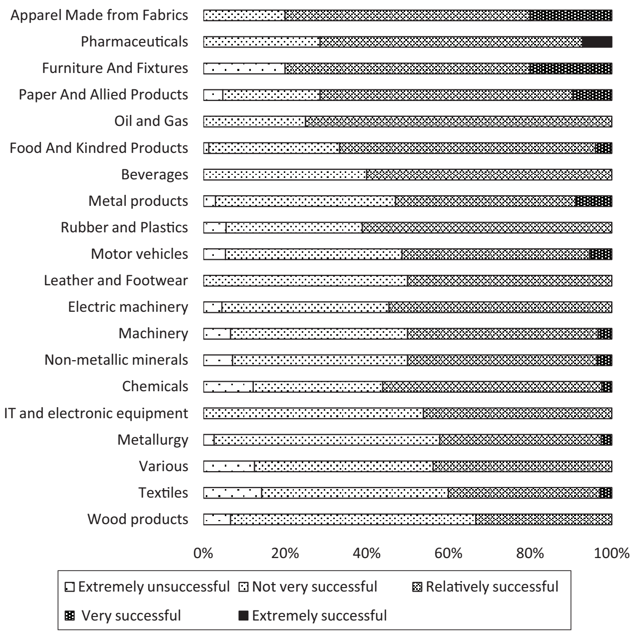
Figure 1.
Competitive position of companies operating in Brazil*

Note: *Survey question: When competing in the global marketplace, are companies operating in Brazil successful in relation to companies that operate in other emerging countries?
Source: IBRE/FGV – Brazilian Institute of Applied Economics

How competitive is the Brazilian environment?
In general, the Brazilian companies, in our study, were of the opinion that the business environment in Brazil, when compared to that of other emerging economies, has not contributed very much or at all in improving their competitiveness. When compared to the competitive environments of other emerging economies, 49.6 per cent of the respondent firms have found the business environment to be far below average or just below average and 32.6 per cent considered it as average. Only 17.8 per cent of the respondents judged the Brazilian business environment as slightly above and much better than average. The comparison of the assessments with other emerging economies showed considerable differences among industrial sectors and complements our findings as shown in Figure 2. The global productivity for each sector can be observed in Figure 3.

Business environment in Brazil: is it evolving?
When the respondents were asked to compare the recent evolution of their business environment with that of other emerging economies, the general view was not positive and is suggestive of possible country-specific disadvantages (CSDs). In fact, our respondents indicated that they believed Brazil's competitive conditions were stagnant or deteriorating. Only 23.8 per cent of respondents considered the country's business environment to have improved in comparison to that of other emerging economies. This percentage dropped to 17.6 per cent when compared to developed countries (see Figure 4).

Respondents who noted a favorable evolution in the business environment were from the sectors of rubber and plastics, oil and gas, paper and allied products, motor vehicles and food and kindred products. Respondents from the segment of electric machinery had a neutral view of the market's evolution, considering the business environment to be stagnated. Respondents from companies in the sectors of beverages, wood products, furniture and



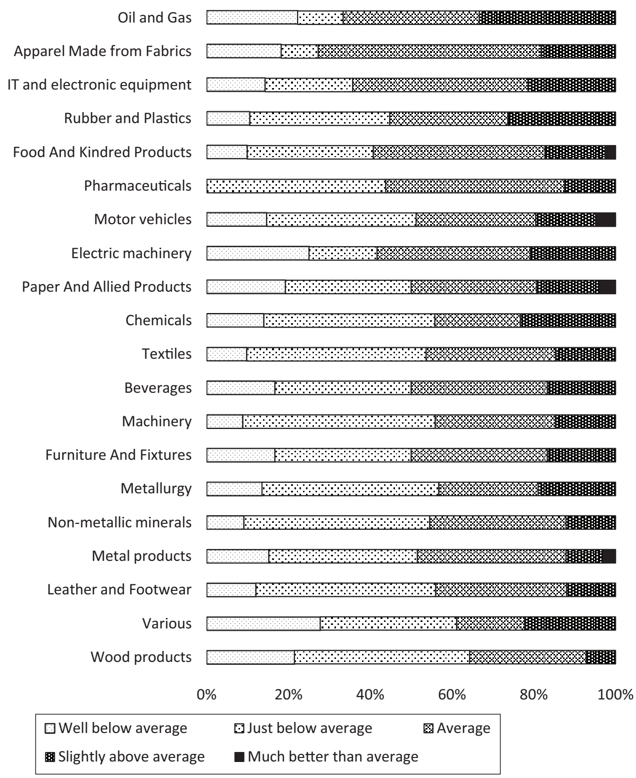
Note: *Survey question: When competing in the global marketplace, are companies operating in Brazil successful in relation to companies that operate in other emerging countries? Success is measured by comparing companies in relation to their competitors in other emerging countries. Answers by segment of industry (CNAE), in decreasing order of average score (Likert scale from 1 to 5)
Source: IBRE/FGV – Brazilian Institute of Applied Economics

Figure 2. Competitive position of companies, by industry*

fixtures, pharmaceuticals, apparel made from fabrics, non-metallic minerals, leather and footwear, metallurgy, machinery, chemicals, textiles, metal products (excluding machinery and equipment), IT and electronic equipment considered the business environment as stagnant or repressive. See Figure 5 for a comparison among industry sectors.

A comparison between the differences observed by respondents in the present environment in Brazil versus the recent evolution of Brazil's competitive environment by segment is evaluated based on other emerging economies and is shown below in Figure 6.

Interestingly, the majority of the different manufacturing sectors perceived the business environment as being unfavorable at the present time and are experiencing a process of deterioration when compared to that of other similar emerging economies. The sectors of oil and gas, rubber and plastics, paper and allied products, motor vehicles and food and kindred products considered the business environment to be unfavorable, but observed some progress being made over time in relation to other emerging economies. None of the sectors analyzed considered the present business environment to be both favorable and progressing, corroborating with the fact that negative views

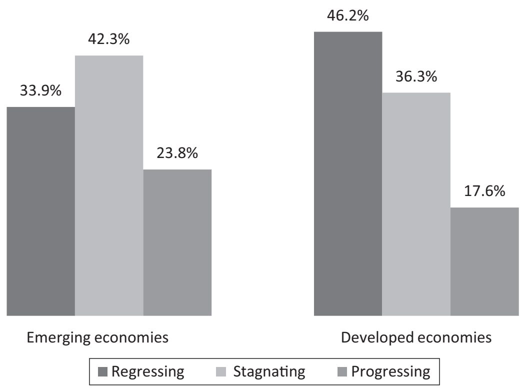


Note: *Survey question: In comparison with other emerging economies, would you say that the business environment in Brazil is, in general...
Source: IBRE/FGV – Brazilian Institute of Applied Economics

Figure 3.
Business environment in Brazil compared to that of other emerging economies, by segment*

clearly outweigh positive ones, even when the answers are assessed within the scope of each industrial segment separately. See Figure 7 for analysis of these findings.

Perspectives for the future: unfounded optimism?
Although the assessment of the present state of competitiveness by the majority of respondents was clearly unfavorable, their perspectives for the future appeared to be fairly optimistic. As shown in Figure 8 below, the majority of respondents had a positive outlook for the future, both in terms of firm competitiveness as well as in terms of improvements in social welfare. We compared these responses with those responses given in the 2013 Harvard survey. Please note that the Harvard responses are in brackets in the figure (Porter *et al.*, 2013). For instance, only 12.8 per cent of respondents in the Brazilian survey expected that there would be a simultaneous deterioration in the competitiveness of companies and a decrease in wages and benefits over the next three years (as compared to 28 per cent in the Harvard survey), whereas 40.3 per cent of the respondents from Brazilian companies believed that the future would bring



Note: *Survey question: Over time, in relative terms, has the business environment in Brazil regressed, stagnated or progressed when compared with the business environments of other emerging economies?
Source: IBRE/FGV – Brazilian Institute of Applied Economics

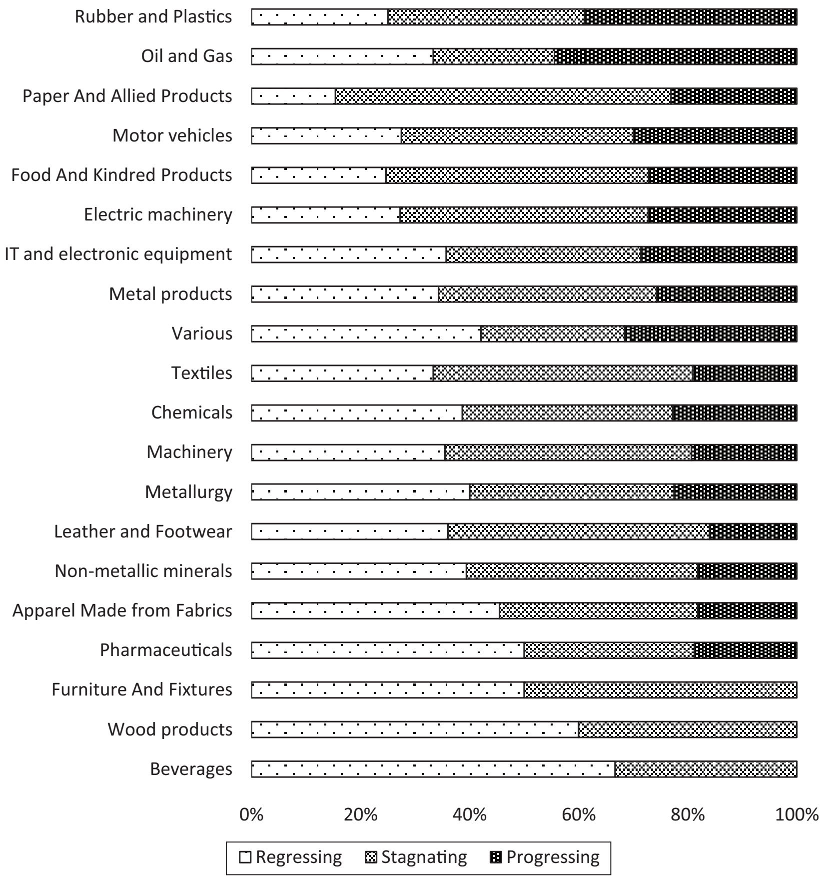
Figure 4. Evolution of the business environment with that of other economies*

simultaneous improvements in both spheres (compared to just 14 per cent of the respondents in the Harvard survey).

From these findings, it is possible that companies are generally optimistic in relation to the situation three years from now, and that this trend is apparently unrelated and unwarranted by the present situation. Interestingly, we observe that the number of respondents who believe the international competitiveness of their sectors will improve over the next three years is always the greatest, regardless of whether they are unsuccessful, relatively successful or successful. Moreover, although the survey did not ask specific questions as to the reasoning behind the respondents' optimism, we conjecture that culture and cultural values among a number of other factors may play a role in their short versus long-term optimism (Fischer and Chalmers, 2008; Hofstede, 1983).

Brazil's competitiveness: favorable or unfavorable factors?

To explain the assessment of our findings, we next categorized our respondents' viewpoints in relation to key factors known in the literature for having positive or negative effects on a nation's competitiveness. Building on the academic literature (Bonelli *et al.*, 2013; Porter, 1999), the main environmental factors such as access to resources, intellectual property protection, infrastructure, regulatory environment and taxes impact the competitiveness of firms operating in different national environments and can even result in CSAs (Bonelli *et al.*, 2013; Kaufman and García-Escribano, 2013). As seen in Figure 9 (also see Appendix 2), the pattern of the answers received by respondents differs according to their environmental conditions. It can be observed that, with the exception of the first two factors (the infrastructure of communications and sophistication of business management), the rest of the assessment leans toward an unfavorable evaluation. In other words, the respondents perceive the majority of the factors as restricting rather than facilitating competitiveness. As such, the present data are coherent with previous assessments, which have showed the existence of low levels of corporate competitiveness and a poor business environment in

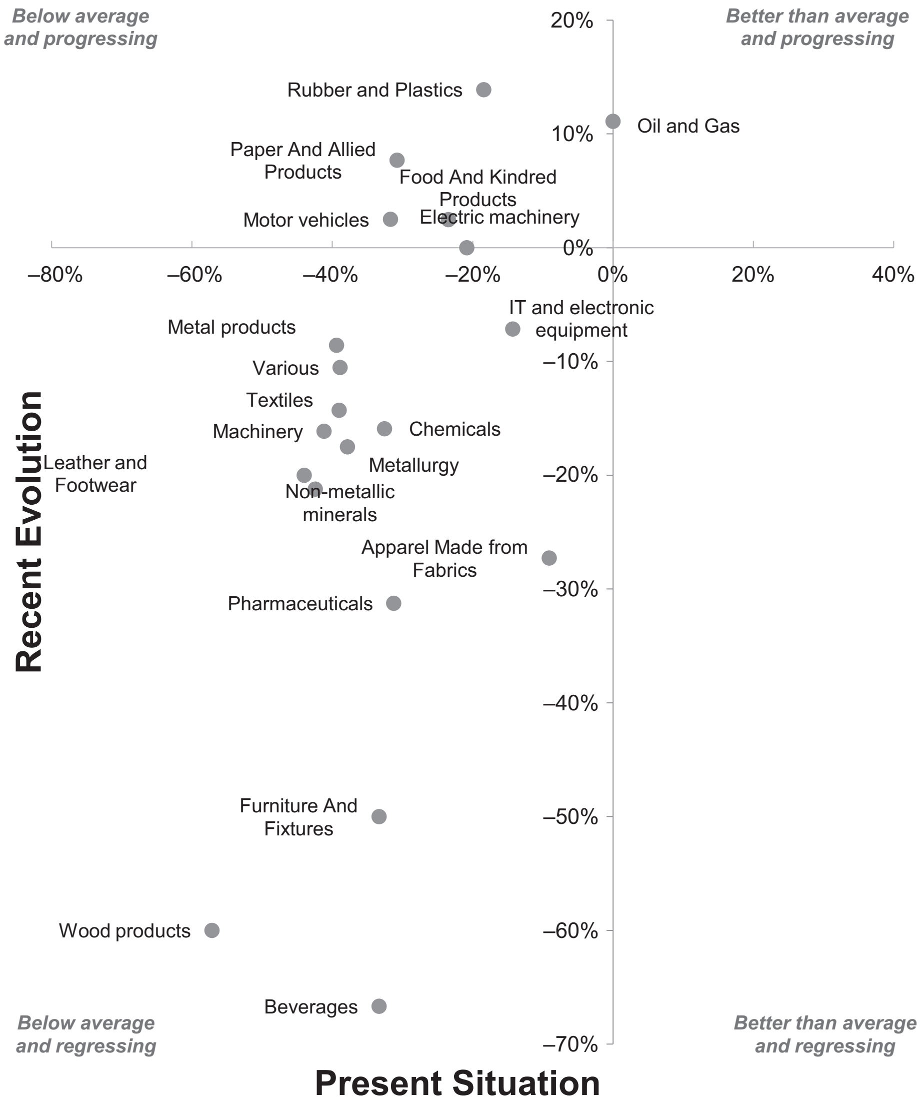


Note: *Survey question: Over time, and in relative terms, has the business environment in Brazil been regressing, stagnating or progressing when compared with the business environments in other emerging economies?
Source: IBRE/FGV – Brazilian Institute of Applied Economics

Figure 5.
Evolution of the business environment in relation to those of other emerging economies*

Brazil (Braga, 2014; Canuto *et al.*, 2013; IMD, 2015; International Development, 2011; Kaufman and García-Escribano, 2013; MercoPress, 2012; Pavan *et al.*, 2010; Sirkin *et al.*, 2014; World Economic Forum, 2012, 2014).

The factors revealed as having an unfavorable influence on Brazil's competitiveness are those linked to country-specific factors such as taxes (the burden and complexity of the tax system), insufficient logistics infrastructure (roads, ports and railways), ineffectiveness of the political system to approve effective laws and regulations, inconsistent macroeconomic policy, the ineffectiveness of legal norms and of the regulatory system, the poor quality of the educational system and the low availability of a qualified workers. Based on the above factors, we then compared the strengths and weaknesses of the USA and Brazil (see Figure 10).



Note: *To obtain the percentages, the number of positive answers were subtracted by the negative answers, and this number was divided by the total number of valid answers
Source: IBRE/FGV – Brazilian Institute of Applied Economics

Figure 6.
Present situation and the recent evolution of the Brazilian competitive environment, by segment, in comparison to other emergent economies*

Interestingly, we observed that for the majority of instances, business leaders in the USA assessed these same factors differently. The Harvard survey highlights the following as being the main factors that help boost the American business environment: the context for entrepreneurship, the system of high-quality universities and the sophistication of business management. These three top-ranked items are then followed by the quality of the capital

In competing in the global marketplace, are companies operating in Brazil successful or unsuccessful when compared to companies operating in other emerging nations?	In three years, do you think that the international competitiveness of companies operating in Brazil will be: Worse than now	Same as now	Better than now
Unsuccessful	**14.4%**	**9.5%**	**21.1%**
Relatively successful	**8.7%**	**8.3%**	**34.4%**
Successful	**0.2%**	**0.4%**	**3.0%**

Source: IBRE/FGV – Brazilian Institute of Applied Economics and Porter *et al*. (2012)

Figure 7.
Present-day competitiveness versus the competitiveness in three years of companies operating in Brazil

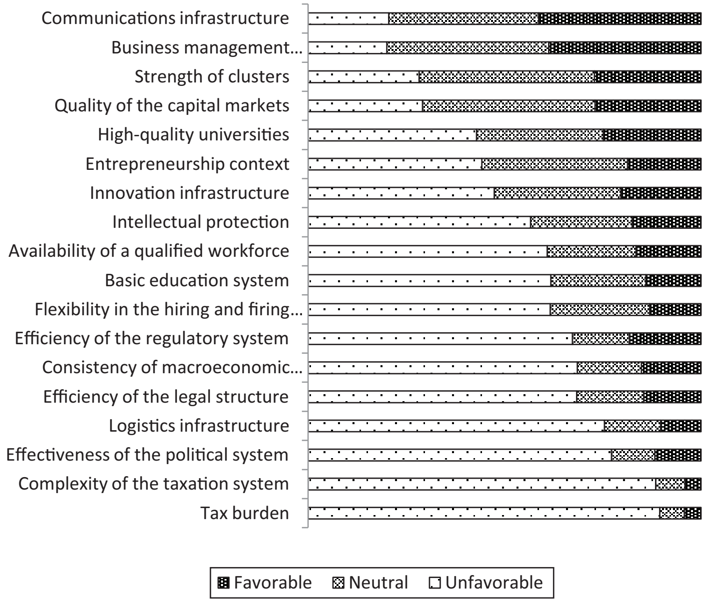
In three years, will firms in Brazil (US) be more or less able to pay high wages and benefits?	In three years, will firms in Brazil (US) be more or less able to compete in the global economy? Less	Neither less nor more	More
Less	**12.8%** (28%)	**4.6%** (17%)	**12.6%** (7%)
Neither less nor more	**3.5%** (5%)	**9.1%** (17%)	**4.5%** (7%)
More	**7.8%** (1%)	**4.6%** (5%)	**40.3%** (14%)

Note: *Answers given to the Harvard survey in brackets and the answers given to the Brazilian survey in boldface
Source: IBRE/FGV – Brazilian Institute of Applied Economics and Porter *et al*. (2012)

Figure 8.
Comparison between Brazilian and US firms' opinion on global competitiveness*

markets, and the structure to support innovation and intellectual property protection. Factors considered to be restrictive are the complexity of the tax system, the basic education system, the effectiveness of the political system, the legal and regulatory framework and the country's macroeconomic policies.

If we compare the six weak points of the US survey with the six weakest points in the Brazilian survey, then we can clearly see a number of coincidences among the factors that restrict competitiveness. In both cases, the basic or primary education systems are considered a limiting factor to competitiveness (although in the Harvard survey, this factor



Notes: *Survey question: Please assess how the factors listed below contribute to the international competitiveness of the company (also see Appendix 2); note that the main environmental elements that have an impact on the competitiveness of companies, are listed in order, from the best assessments to the worst assessments, using the Likert scale of 1 to 3 (Porter *et al.*, 2012)
Source: IBRE/FGV – Brazilian Institute of Applied Economics

Figure 9. Assessment of the factors that influence the Brazilian business environment*

also includes secondary education). The complexity of the tax and regulatory systems, the ineffectiveness of political-institutional processes and the inconsistency of macroeconomic policies are also considered to limit competitiveness in both countries, leading to possible CSDs.

Firm competitiveness and the business environment: improving initiatives?
Industrial companies operating in Brazil have been working on a number of different fronts to try to improve their global competitiveness, whether through initiatives to increase internal productivity and efficiency, or through those aimed at trying to update the business conditions as a whole. In doing so, these efforts thereby should benefit not only their own competitiveness but also that of other companies around them. Our respondents listed a number of these initiatives and the rate at which they are used to improve firm competitiveness and the business environment (see Figure 11).

As can be seen in Figure 11 (also see Appendix 3), the initiatives preferred by companies in Brazil are primarily those with a direct impact on intra-company competitiveness, such as human resource development through in-class or on-the-job training programs. A recent body of research on this growing topic has found that emerging market firms need to use these types of initiatives if they are to develop firm-specific advantages in the long term (Oswai *et al.*, 2014). Among the favored initiatives that were noted by our respondents were

	United States	Brazil
Strenghts	Context for entrepreneurship	Communications infrastructure
	High-quality universities	Business management sophistication
	Business management sophistication	
	Quality of the capital markets	
	Innovation infrastructure	
	Intellectual protection	
	Strength of clusters	
	Communications infrastructure	
	Availability of a qualified workforce	
	Logistics infrastructure	
	Flexibility in the hiring and firing process	
Weaknesses	Complexity of the tax system	Complexity of the tax system
	Basic education system	Effectiveness of the political system
	Effectiveness of the political system	Logistics infrastructure
	Efficiency of the regulatory system	Efficiency of the legal structure
	Consistency of macroeconomic policy	Consistency of macroeconomic policy
	Efficiency of the legal structure	Efficiency of the regulatory system
		Flexibility in the hiring and firing process
		Basic education system
		Availability of a qualified workforce
		Intellectual protection
		Innovation infrastructure
		Context for entrepreneurship
		High-quality universities
		Quality of the capital markets
		Strength of clusters

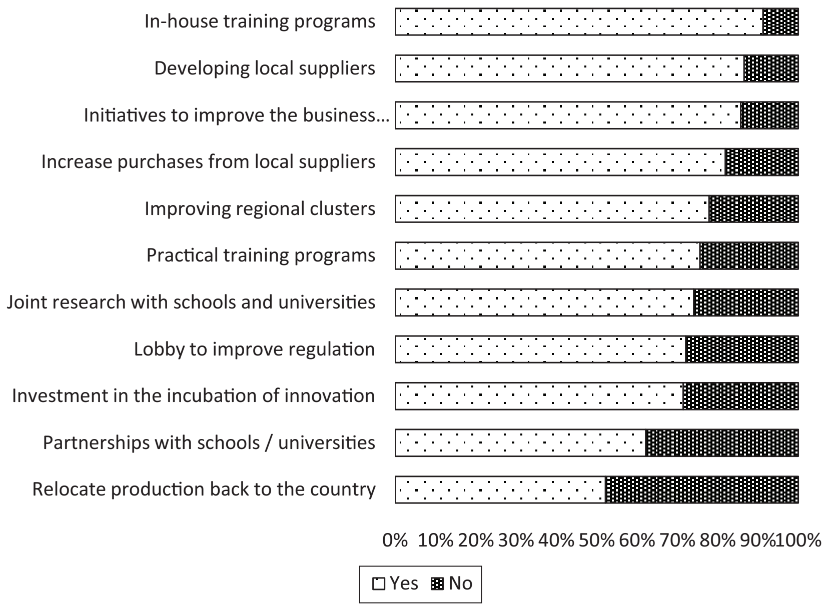
Note: *Strengths and weaknesses listed in decreasing order of average scores
Source: IBRE/FGV – Brazilian Institute of Applied Economics and Porter *et al.* (2012)

Figure 10.
Comparison of the strengths and weaknesses of the US and of Brazil competitiveness*

those that direct corporate efforts toward broadening the pool of local suppliers, as well as training these suppliers to enhance the competitiveness of the firms' supply chain.

It is also worth mentioning those initiatives aimed at innovation (Braga, 2014; Martin *et al.*, 2015; Porter, 1999), and at the development of cooperation with universities and research centers to conduct joint research programs. Actions aimed to support local clusters seem to be important efforts taken by manufacturing companies. It seems that efforts at developing innovation through internal venturing or by means of partnering with universities are not in the agenda of at least of one-third of the companies in our sample. Finally, our respondents noted that there were limited examples of repatriating activities, which had previously been moved abroad. This result may be explained by the limited amount of internationalization activities that were reported by our small and medium-sized companies.

In comparison with the data from the Harvard survey, most of the initiatives supporting in-house training programs coincide. Among the less frequent initiatives, both studies also cite the repatriation of the production – despite the fact that the level of internationalization of the US companies surveyed is much higher than that of the companies in Brazil. North American companies, however, seem to place more emphasis on activities linked to value-addition, such as innovation and incubating new projects and conducting research in



Note: *Survey question: As far as you know, is your company or organization currently involved in any of the following initiatives at its operations based in Brazil? (See Appendix 3)
Source: IBRE/FGV – Brazilian Institute of Applied Economics

Figure 11. Companies initiatives aimed at improving their competitiveness*

collaboration with research centers, than do companies operating in Brazil. Lobbying initiatives are also of greater importance to companies operating in the USA than those operating in Brazil, as these activities seem to have a legitimate and positive connotation in the North American context. Nevertheless, initiatives linked to increasing local sourcing and developing local suppliers are less frequent in the USA than in Brazil (See Table I for a comparison between USA and Brazil).

The involvement of companies in Brazil with firm-specific initiatives aimed at increasing their competitiveness seem to be more intense than that of their counterparts in the USA. Figure 12 provides an overview of the distribution of the number of initiatives implemented with the aim of increasing the competitiveness of companies in Brazil, and compares them with the number of initiatives implemented by their counterparts in the USA. The average number of firm-specific initiatives used by companies in Brazil is close to 7, compared to an average of nearly 4 in the case of companies operating in the USA. The explanation for this difference may lie in the fact that, unlike US firms and other firms located in developed countries that may have greater access to country-specific resources, companies operating in Brazil, which may have similar firm-specific resources as these firms, have become accustomed to having to overcompensate for their country's lack of and/or even in some cases deteriorating institutional and other country-specific resources to become globally competitive. To this point, when compared to their US counterparts, companies in Brazil seem to be using a greater number of initiatives, which suggests a proactive and committed

Table I.
Comparison of the initiatives aimed at improving competitiveness most widely used in Brazil and in the US

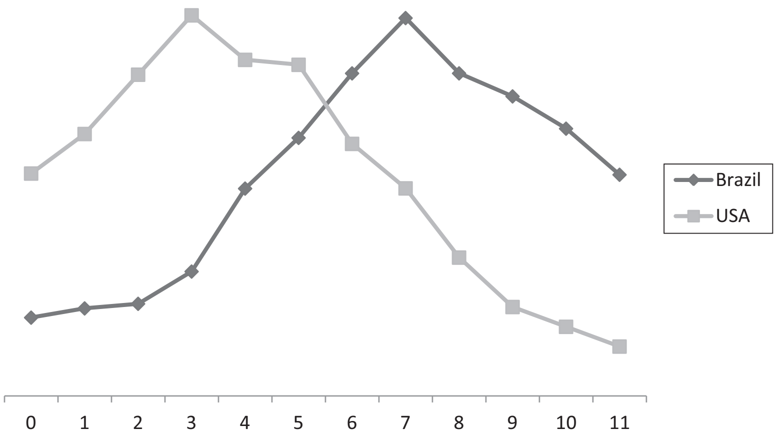
Classification of initiatives most widely used by companies	Brazil	USA
In-house training programs	1	1
Development of local suppliers	2	10
Increased purchases from local suppliers	3	7
Initiatives aimed at improving the region's business environment	4	2
Practical training programs	5	6
Joint research with schools and universities	6	3
Investment in the incubation of innovation	7	5
Partnerships with schools *i* universities	8	9
Improvement of regional clusters	9	8
Lobbying to improve regulation	10	4
Relocation of production back to the country	11	11

Source: IBRE/FGV – Brazilian Institute of Applied Economics and Porter *et al.* (2012)

attitude toward narrowing the gap that exists between companies and their immediate operational, social and economic context.

Discussion and conclusion

Since the 1988 Brazilian Constitution, political and legal institutions have shown marked improvements. From the nineties on, the successful economic program that ended the hyperinflation opened up this growing emerging economy and created a pro-economic doctrine (Kunnanatt, 2011; Zahra and Hansen, 2000) that privatized some public utilities and state banks and helped to create the FSA conditions for an upgraded and more challenging competitive environment. In this regard, a recent study tested foreign direct investment inflows into Brazil, Russia, India, and China (BRIC) countries as group and individually, from 1999 to 2008, and found that country-specific factors that led to higher foreign direct investments (FDIs) directed to Brazil were a result of the country's democracy, economic openness and freedom from capital repatriation (Elfakhani and



Source: IBRE/FGV – Brazilian Institute of Applied Economics and Porter *et al.* (2012)

Figure 12.
Number of initiatives implemented by companies surveyed

Mackie, 2015). Since 2002 and most recently, governmental social welfare policies have favored the poor and have created better social conditions, with the inclusion of around 40 million people as consumers, a phenomenon that is frequently mentioned by social scientist as the ascendance of the "new Brazilian middle class" (Neri, 2010).

Notwithstanding these achievements and the significant foreign direct investments that Brazil has attracted over the past 20 years, national competitiveness is a dynamic concept and its landscape is ever evolving and is rapidly changing especially in today's globally economy. To this point, the country's current macroeconomic policies have been unable to foster more favorable conditions for enhancing its national competitive environment. In fact, some of the recently implemented industrial policies by the government have reversed previously favorable pre-conditions aimed at fostering competitiveness and productivity. Among these are those targeted at the tax incentives to specific industries, the active promotion of national champions and the expansion of consumer credit through the use of public banks and government initiatives. Contrary to expectations, these initiatives only contributed to the growth of public debt and to double-digit inflation rates. To this point, on a macroeconomic policy level, they even in some cases exacerbated the interference in the price system by regulatory agencies, especially in the electricity and oil and gas sector (Canêdo-Pinheiro, 2011). Moreover, the public education system is still not contributing to the productivity of the Brazilian workforce, as evidenced by the low programme for international student assessment (PISA) test results. On the political front, although democratic institutions have remained stable since 1985, the representativeness of the political system has suffered, because of the fragmentation of the political parties and the growth of corruption charges on politicians. All in all, the growing interference of Brazilian Government in the economy has reignited the discussion of the role of the state and the private sector under new perspectives (Musacchio and Lazzarini, 2014).

Although the jury is still out on the above competitiveness concerns for the country's future and environment for everyday business, the findings of our study suggest that in the short term, the institutional and macroeconomic components of Brazil's CSAs have deteriorated, with a negative impact on the microeconomic environment. Many of the senior manager respondents that we surveyed expressed these very concerns. In fact, our results indicate that in the past couple of years, most of the country's specific advantages have even turned into disadvantages, which are affecting the overall competitiveness of the economy. In this regard, the country's macroeconomic and political initiatives have negatively affected the microeconomic and business environment. The data obtained from our survey showed quite consistently that the present situation is close to alarming. The respondents from the majority of the companies surveyed believe that their levels of competitiveness are far below those of their counterparts in other emerging economies. According to our respondents, the business environment is presently regarded negatively and has been so for a number of years. These findings are supportive of other current academic and policy research on this topic (Canuto, 2015; Canuto *et al.*, 2013; Jenkins 2012, 2014; IMD, 2015; International Development, 2011; MercoPress, 2012; Pavan *et al.*, 2010; Sirkin *et al.*, 2014; World Economic Forum, 2014).

The industrial companies operating in Brazil appear to be tied to an intermediate level of competitiveness – the Global Competitiveness Report calls it "efficiency-driven" economies – where the primary concerns are to perfect the adequate use of factors, to develop institutions that support industrial competitiveness (e.g. more efficient labor markets), to adequately train human resources as well as to improve infrastructure, access to consumption and developed capital markets (Canuto *et al.*, 2013; Kaufman and García-Escribano, 2013; World Economic Forum, 2014). These are the enabling factors needed by companies with a strong

industrial base to become more successful in competing against firms from developed or advanced economies, with more innovation-driven economies (Braga, 2014; Martin *et al.*, 2015; Porter, 1999).

In this sense, the signals sent by the companies in our survey are somewhat distressing especially because the business environment continues to deteriorate and has failed to address the basic questions regarding sustainable productivity. Moreover, the state of the business environment inhibits a transition to more advanced stages of competitiveness, driven by innovation, creativity and knowledge development (Braga, 2014; Canuto *et al.*, 2013; Kaufman, and García-Escribano, 2013; Martin *et al.*, 2015). Although the outlook of those surveyed is positive for the coming years, it is difficult to find any good reasons to justify their optimism (IMD, 2015; MercoPress, 2012; Pavan *et al.*, 2010; Sirkin *et al.*, 2014; World Economic Forum, 2014).

The main obstacles related to competitiveness are associated with the so-called "Brazil Cost", namely, the tax system, infrastructure, the political system, labor laws and bureaucracy, and do not appear to offer much room for maneuvering in terms of reducing or removing these barriers in the short term (Kaufman and García-Escribano, 2013; Sirkin *et al.*, 2014). Not addressing these important input factors of competitiveness not only diverts attention away from innovation and creativity but also could lead to more serious political, social welfare and economic implications in the global marketplace (Abbas, 2008; Martin *et al.*, 2015). Competitiveness also rests on the productivity of firms and the creative jobs of its workers and thus is linked to both intra- and inter-firm factors and the continual upgrading of these factors if industries and clusters are to flourish in the long term (Martin *et al.*, 2015). Although the quality and sophistication of management, operations and corporate strategy appear as major stimuli to competitiveness and productivity in the Brazilian case, they also have their limitations as singular elements and may not ensure higher levels of competitiveness (Canuto *et al.*, 2013; Kaufman and García-Escribano, 2013; World Economic Forum, 2012). Despite these challenges and the limitations of this research to address and purport solutions for all of them, one must applaud the initiatives made by the companies we surveyed in Brazil. Thus, a fruitful area of research and has also been noted by others in the literature interested in furthering emerging economy research (Oswai *et al.*, 2014) would be to explore in more depth the specific types of initiatives that these firms have and are continuing to eagerly adopt with the aim of improving their domestic competitiveness and, namely, firm-specific advantages, whether it be by contributing to the improvement of the business environment as a whole, or by improving their own operations and management systems.

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Further reading

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Appendix 1

Company Sector	Label by market	Exposed to international competition
Manufacture of foodstuffs	Food and Kindred Products	83
Manufacture of beverages	Beverages	6
Manufacture of textile products	Textiles	42
Production of clothing and accessories	Apparel made from Fabrics	12
Processing leather and manufacture of leather goods, travel goods and footwear	Leather and Footwear	27
Manufacture of wood products	Wood products	16
Manufacture of cellulose, paper and paper products	Paper and Allied products	29
Manufacture of coke and products derived from oil and biofuels	Oil and Gas	10
Manufacture of chemical products	Chemicals	47
Manufacture of pharmochemical and pharmaceutical products	Pharmaceuticals	17
Manufacture of rubber products and plastic materials	Rubber and Plastics	38
Manufacture of non-metallic mineral products	Non-metallic minerals	35
Metallurgy	Metallurgy	40
Manufacture of metal products, excluding machinery and equipment	Metal Products	36
Manufacture of IT equipment and electronic and optical products	IT and Electronic equipment	14
Manufacture of machinery, devices and electrical materials	Electric Machinery	24
Manufacture of machinery and equipment	Machinery	34
Manufacture of automotive vehicles, tow trucks and trailers and vehicle body parts	Motor Vehicles	41
Manufacture of furniture	Furniture and Fixtures	6
Manufacture of a variety of other products	Various	20
	Total	577

Table AI. Sample of firms

Appendix 2. Respondent answers to factors impacting the competitiveness of companies

Table AII. Valid answers regarding the factors that have an impact on the competitiveness of companies

Competitiveness factors	Valid answers
Complexity of the taxation system	564
Effectiveness of the political system	535
Logistics infrastructure	565
Efficiency of the legal structure	528
Consistency of macroeconomic policy	546
Efficiency of the regulatory system	532
Flexibility in the hiring and firing process	552
Basic education system	542
Availability of a qualified workforce	557
Intellectual and physical protection	514
Innovation infrastructure	530
Context for entrepreneurship	518
High-quality universities	527
Quality of the capital markets	501
Strength of clusters	520
Business management sophistication	534
Communications infrastructure	569

Appendix 3. Respondent answers to initiatives implemented by companies that improve competitiveness

Table AIII. Valid answers on the initiatives implemented by companies to improve their competitiveness

Initiatives implemented	Valid answers
Relocate production back to Brazil	368
Partnerships with schools / universities	481
Investment in the incubation of innovation	469
Lobby to improve regulation	380
Joint research with schools and universities	463
Practical training programs	508
Improvement of regional clusters	384
Increased purchases from local suppliers	486
Initiatives aimed at improving the region's business environment	456
Development of local suppliers	498
In-house training programs	549

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