

## **STRATEGIES FOR NEW INTERNATIONAL VENTURES IN THE BRAZILIAN SUGARCANE INDUSTRY: THE CASE OF ETH BIONERGIA**

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### **ABSTRACT**

This study aims to identify cases of new international ventures in the Brazilian sugarcane industry, specifically as regards ethanol production, i.e., companies that are established from start to have an international profile. The paper explores the case of one such enterprise in the light of the theories addressed. In the last few years, a rising number of companies with this profile have appeared. This runs contrary to the main classical theories of internationalization, which present this process as evolutionary. As for the sugarcane industry, it has expanded considerably in recent years, which led many groups to invest in this segment. This study is a descriptive, qualitative piece of research and is based on the case study of a company recently established in this sector. Analyzing the chosen organization and comparing it to the studied theories, the authors concluded that there is, indeed, a type of organization with the profile of a new international venture.

**Key-words:** Internationalization. New international ventures. Sugarcane industry. Brazil.

## **ESTRATÉGIAS DE NOVOS EMPREENDIMENTOS INTERNACIONAIS NO SETOR SUCRO-ALCOOLEIRO: O CASO DA EMPRESA ETH BIOENERGIA**

### **RESUMO**

O objetivo deste estudo é identificar - no setor sucro-alcooleiro do Brasil, especificamente com relação à produção do álcool carburante - casos de novos empreendimentos que já nasceram com perfil internacional, e estudar um destes casos à luz das teorias sobre internacionalização. Este estudo se justifica à medida que surgem cada vez mais empresas com este perfil, contrariando as principais teorias clássicas, que apresentam tal processo como gradual. Nos últimos anos, o setor sucro-alcooleiro vem apresentando uma expansão considerável e, por consequência, inúmeros grupos têm investido neste segmento. Esta pesquisa caracteriza-se como qualitativa descritiva. Trata-se de um estudo de caso aplicado a uma empresa recentemente estabelecida no setor sucro-alcooleiro brasileiro. Analisando a organização escolhida e comparando-a com as teorias sobre internacionalização, conclui-se que existe, de fato, um novo exemplo de perfil de empreendimento internacional.

**Palavras-chave:** Internacionalização. Novos empreendimentos internacionais. Setor sucro-alcooleiro. Brasil.

## **1 INTRODUCTION**

The current world economy, characterized by the formation of economic blocks and greater openness between countries, has been obliging organizations to be in harmony with what is happening abroad, thereby operating globally, regardless of their national borders. Over the last century, many theories have been formulated for studying the theme of the internationalization of organizations; these may be divided into two categories: economic order or behavioral order (Kim, 2007).

Although the classic approaches to internationalization continue to guide recent studies, others have been emerging to explain this current phenomenon. Within this context, we see New International Ventures (NIVs), new companies that already start life with an international profile, thus contradicting the gradual pattern that is advocated by traditional theories.

In this scenario of accelerated globalization, there is an issue that has acquired great visibility both domestically and internationally: the case of the sugar and alcohol industry in Brazil, which, because it is fairly deregulated, has been receiving considerable foreign investments, due mainly to great international demand for fuel alcohol and to the competitiveness of the Brazilian product. An expansion tendency in this section has been shaping up, with the result that there have been consistent increases in the number of mills in operation from one year to the next.

This study aims to contribute to the theme of the internationalization of Brazilian alcohol and the phenomenon of the so-called New International Ventures (NIVs), the objective being to identify cases of companies in the sugarcane industry that have the said profile. It studies one such case in depth, following the theoretical framework proposed by authors Benjamin Oviatt and Patricia McDougall, which will be presented in the following topics.

## **2 THEORETICAL FRAMEWORK**

Company internationalization is a characteristic phenomenon of the current world economy. Negotiations between countries and companies from different nations are fundamental for guaranteeing their success, to the extent

that great emphasis has been given to this theme, both in academia and in business. Some companies have emerged with an innate international profile, with behavior that is not fully explained by classical theories, which advocate gradual internationalization. The next section deals with the main issues that concern the internationalization of companies, starting with traditional theories and the respective criticisms of them. The main emerging theories that deal with this subject are then presented, followed by the theoretical framework proposed by authors Oviatt and McDougall.

## 2.1 CLASSICAL THEORIES OF INTERNATIONALIZATION

The theoretical basis of this study, internationalization strategies, refers to the decision to invest in a particular export market in order to expand and strengthen sales in it (Iglesias & Veiga, 2002). A technical analysis of this issue, taken in the broad sense of exporting and/or producing abroad, is dealt with from the viewpoint of management and business as well as of economics.

The economic approach, whose main paradigm is the eclectic theory of internationalization developed by John Dunning (1980), applies the concepts of transaction costs to explain the characteristics of companies and their markets, which may function as stimuli for internationalization. According to this paradigm, there are three types of advantage for companies: those of location, which are provided by a country or region; those of property, which are skills developed by organizations, allowing them to position themselves in the foreign market; and finally, those of internalization, which show that if incorporation and production organization costs in other countries are smaller than their associated transaction costs, then the production should be transferred to those places.

From the perspective of management and business, on the other hand, the so-called behavioral schools see the internationalization process as gradual, the main focus being on the reasons for and characteristics of such gradualism.

An important line of thinking in these concepts comes from the Nordic school of Uppsala, whose main authors, Johanson and Vahlne (1977), see the internationalization process as gradual, since there are cultural differences and psychological distances between the countries of origin and markets in target-countries.

Such differences lead to uncertainties about the results to be achieved, so that the only way of minimizing them would be through knowledge of the other culture over time and as the experience of the company in question increases.

## 2.2 EMERGING INTERNATIONALIZATION THEORIES

Criticism of traditional theories of internationalization, combined with the fact that the world economy has changed dramatically in recent decades, particularly as to aspects related to international interchanges and business, have led to the emergence of new theories that try to complement traditional models that explain the internationalization processes of organizations. New companies with an innate international orientation have emerged and, as a result, many of the aspects advocated by traditional authors have been questioned.

Table 1 summarizes the main traditional theories about the internationalization of companies, as well as their main limitations.

THEORIES	MAIN CHARACTERISTICS OF THE INTERNATIONALIZATION PROCESS	LIMITATIONS RELATING TO NEW INTERNATIONAL VENTURES (NIVs)
Theory of the monopolistic advantage (Hymer, 1976; Caves, 1971)	<ul style="list-style-type: none"> <li>- Companies go international because they have unique sources of superiority over foreign firms in their markets.</li> <li>- Companies exploit international markets after they have exploited this advantage in their home market.</li> </ul>	<ul style="list-style-type: none"> <li>- Situations of two companies with the same monopolistic advantages, one goes international and the other does not.</li> <li>- Some NIVs exploit international markets before their home markets.</li> </ul>
Product cycle theory (Vernon, 1966)	<ul style="list-style-type: none"> <li>- Companies go international because of the development of the product cycle. Investments abroad are made to protect markets, originally served by exporting and <u>only after</u> products are "mature" and competition is cost-based.</li> </ul>	<ul style="list-style-type: none"> <li>- Many NIVs invest abroad before their products reach the phase of standardization and cost-based competition.</li> <li>- Many foreign investments by NIVs are made before they export anything.</li> </ul>
Internalization theory (Buckley and Casson, 1976; Rugman, 1980; Hennart, 1982)	<ul style="list-style-type: none"> <li>- Companies go international because market imperfections create opportunities for companies to achieve better financial results by internalizing the factor and by the transfer of goods and services beyond national borders.</li> <li>- The main reason for going international is to lower costs.</li> </ul>	<ul style="list-style-type: none"> <li>- Many NIVs did not base their location and organizational structure on the lowest cost rationale.</li> </ul>

Continues

THEORIES	MAIN CHARACTERISTICS OF THE INTERNATIONALIZATION PROCESS	LIMITATIONS RELATING TO NEW INTERNATIONAL VENTURES (NIVs)
Oligopolistic Reaction Theory (Knickerbocker, 1973)	<ul style="list-style-type: none"> <li>- Companies go international to emulate the actions of other members of an oligopoly.</li> <li>- Companies imitate each other in order to reduce the risk of being different.</li> </ul>	<ul style="list-style-type: none"> <li>- Many NIVs are the first to invest in an industry.</li> <li>- Many NIVs avoid direct competition and do not imitate their competitors.</li> </ul>
Theory of Internationalization by stages (Johanson and Vahlne, 1977; 1990)	<ul style="list-style-type: none"> <li>- Companies go international because there is demand for their products abroad and national companies receive orders from foreign buyers.</li> <li>- Internationalization follows a gradual, sequential and evolutionary pattern, starting with exporting irregularly and progressing to the establishment of units abroad.</li> <li>- Companies access new markets, thereby gradually expanding the psychic distance.</li> </ul>	<ul style="list-style-type: none"> <li>- Many NIVs skip important stages and quickly invest abroad.</li> <li>- Many NIVs do not follow the incremental stages sequence.</li> <li>- Many NIVs establish their first foreign operation in markets that are distant in psychic terms.</li> </ul>

**Table 1: Classic internationalization theories**

Source: adapted from McDougall, Shane and Oviatt (1994) after Seiffert Jr. and Fernandes (2005)

According to Oviatt and McDougall after Seifert Jr. and Fernandes (2005), even though cases that contradict these patterns are constantly reported, such theories cannot be totally discarded, as they can explain the internationalization process of many industries.

### 2.3 NEW INTERNATIONAL VENTURES (NIVS)

The main limitations of the traditional approaches having been observed, the emergence of new models capable of compensating for these limitations was identified. They even gave rise to new theories that address the internationalization process of companies from their very inception, thereby contradicting classic patterns. The focus of such studies, however, diverges, since many researchers have worked to consolidate models or criteria so that new enterprises might be considered international, while others have chosen to observe that the phenomenon of companies that are born global deserves the attention of the academic world.

Although there is a multitude of approaches to the study of NIVs, for the purposes of this research, the definitions and models developed by Benjamin Oviatt and Patricia McDougall will be used. Since the 1980s, they have been focusing on the study of this phenomenon, trying to establish links between it and the traditional theories (Seifert Jr. & Fernandes, 2005).

According to Oviatt and McDougall (1994), the companies that follow this theory are businesses that, from their very outset, have tried to develop competitive advantages by using resources and sales opportunities in other countries. The focus is not on company size, but on the age at which it went international. The distinguishing feature of such companies is, indeed, their innate international orientation, evidenced by their commitment of resources to more than one country, or at least by their intention of doing so, in those cases where the company's product or service is still being developed. The managers of such businesses also have a wealth of international experience and the company must develop strong relationship networks (Rialp-Criado, Rialp-Criado & Knight, 2002).

The theoretical focus of the authors describes four elements that sustainable NIVs need in order to exist: (1) the internalization of some transactions, (2) alternative governance structures, (3) location advantages, (4) control over unique resources. A typology is then prepared that draws up four different types of NIVs, considering the number of activities within the value chain that are coordinated by them on one axis, and the number of countries in which they operate on the other (Oviatt & McDougall, 1994).

### **2.3.1 Analysis of transaction costs**

This is the most basic element and one that is clearly part of the classic theories about internationalization. Williamson after Zylberstajn (1995, p.14) defines transaction cost as "the *ex-ante* costs of preparing, negotiating and safeguarding an agreement, as well as the *ex-post* costs of adjustments and adaptations that result, when the performance of a contract is affected by failures, errors, omissions and unexpected changes. In short, these are the costs of conducting the economic system."

There are also two behavioral assumptions to be considered: opportunism, meaning the action taken by individuals to satisfy their own interests, starting from an uncooperative game principle in which there may be

information asymmetries; and limited rationality, which refers to behavior that pretends to be rational, but only manages to be so in a restrictive way (Williamson, 1993).

Looking again at the focus of NIVs, the authors suggest that when the transaction costs for developing and performing a contract and the costs of monitoring the performance of the parties to the contract are very low, the authority structure itself, based on the company's hierarchical structure, will constitute the chosen governance mechanism and the transaction will have thus been internalized, as it were. (Buckley & Casson; Dunning after Oviatt and McDougall, 2005)

### **2.3.2 Existence of alternative governance structures**

Governance is a concept that is directly tied to the analysis of transaction costs, as previously explored. Some factors help to outline efficient means of governance, including basic transaction characteristics, the institutional environment and behavioral assumptions, which involve opportunism and limited rationality (Zylberstajn, 1995).

Concerning the basic features of the transactions, three fundamental variables are mentioned: risk or uncertainty, frequency, and the specific nature of the assets. With regard to frequency, this can be seen as a measure of the recurrence with which a transaction is carried out, so that when the frequency of a transaction is increased its costs fall (Zylberstajn, 1995). As for the uncertainty factor, this may be associated with frequency, since the more frequent the transactions, the greater the tendency for uncertainties to diminish. As for the specific nature of the assets, this refers to the degree of specialization of a particular transaction; the greater this specialization, the harder it will be for other organizations to use it (Prado & Takaoka, 2001, p. 4).

Having looked at these variables in detail, the concept of governance and its different forms are then assessed. Governance can be understood as a way of controlling production. Williamson (1985) defines three types of governance structures organization, namely, markets, hybrid or mixed, and hierarchical. The degree of integration is the result of the attributes of the transactions mentioned above (frequency, uncertainty and specific nature of the assets).



The governance structure that takes the market form conducts transactions by means of pricing systems and classic-style contracts, which concern isolated transactions and are not linked to any inter-temporal effect (Zylberstajn, 1995). The hierarchical form, also known as vertical integration, is characterized by complete ownership of the assets involved. This occurs when the firm decides to internalize activities that are upstream and downstream of its main activity. On the other hand, the hybrid structure involves complex contracts that include arrangements for the partial ownership of assets, generating some degree of interdependence among the parties involved, such as in cases of co-production, reciprocal trade, joint ventures and other examples. (Jank, 1996).

Turning once more to the issue of new ventures, these usually have fewer resources, making it difficult for them to acquire a lot of assets, so that they own or internalize only a small percentage of the assets that are essential to their existence, having to rely on alternative means of control over the other resources on which they depend (Oviatt & McDougall, 2005).

### **2.3.3 Location advantages**

The Location advantages are essentially major drivers for a firm to go international. However, doing business in other countries can bring a number of disadvantages and obstacles of, among other things, a governmental and cultural order. While an already established multinational can rely on advantages of scale to minimize the impact of such disadvantages, a new and inexperienced enterprise has to rely on other resources (Oviatt & McDougall, 2005).

### **2.3.4 Ownership of unique resources**

Whereas the first three elements are necessary for the existence of new international ventures, they do not guarantee their sustainability. Sustainability demands specific and unique resources and, unfortunately for NIVs, knowledge is generally public and easily disseminated, thanks to technological advances in communications. This may pose a threat to companies that must limit the use of

this knowledge by individuals or outside organizations. This can be done by means of patents, making imitations difficult, or through licensing (Oviatt & McDougall, 2005).

From the typology developed by these authors and from observation of these four topics, there are four types of NIVs, as can be seen in Figure 1. The vertical axis corresponds to the number of activities in the value chain that are coordinated by the company. The horizontal axis shows the number of countries where the company operates. By cross-referencing these two variables, four different types of new international enterprise are obtained.

		<b>International market makers</b>	
		Export/ import start-up enterprise	Multinational trader
<b>Coordination of activities in the value chain</b>	Few activities coordinated among countries	Geographically-focused international enterprise	Global start-up
	Many activities coordinated among countries	Few	Many
		<b>Number of countries involved</b>	

**Figure 1: Types of international new enterprise**

Source: adapted from Oviatt and McDougall (1994)

In the two upper quadrants are those businesses that coordinate few activities along the value chain, and that may be active in many or few countries at the same time. These are called **international market maker enterprises** and they are the more traditional firms that operate as exporters or importers, their competitive advantage being based on their in-depth knowledge of logistics. They are considered to be international market makers, since they rely on the imbalance between production costs and market prices between countries. They operate in all countries at the same time through a vast network of contacts (Rasmussen & Madsen, 2002).

There are subtle differences between the two types of international market maker enterprises. While the type that **is an export/import start-up**, located in the first upper quadrant, serves just a few countries with which the entrepreneur is familiar, the **multinational trader** type of company, located in

the second upper quadrant, serves a fairly large number of countries and is constantly looking for new opportunities in places where it has established contact networks, or in those countries where it can quickly establish itself (Oviatt & McDougall, 2005).

Geographically-focused international enterprises derive their competitive advantage from fulfilling the highly specific requirements of a small group of consumers in a relatively small region (Oviatt & McDougall, 2005). This is possible thanks to highly effective coordination between various value chains, considering technological, production and knowledge aspects. It is a difficult advantage to imitate, because such coordination is socially complex and involves knowledge of a tacit nature, demanding fairly strong involvement of the parties amongst themselves (Rasmussen & Madsen, 2002).

Finally, global start-ups are the most radical type of NIV, since they get involved in many countries at the same time, coordinating many activities within their value chain. They are highly proactive when it comes to obtaining resources and reaching international markets as opposed to merely responding to globalization (Oviatt & McDougall, 2005).

In trying to place a company in one of the quadrants previously proposed by the authors, we must identify the activities coordinated in the value chain and the number of countries in which the same are to be found. Oviatt and McDougall, however, do not clearly define the number of countries that should be considered as a parameter for this study.

### **3 METHODOLOGY**

As defined by Sampieri *et al* (2006, p. 6), qualitative research is carried out by collecting data that have no numeric measurement for developing and improving the research problem; the current work follows such a definition. With regard to its classification, on the other hand, this study can be seen as descriptive, having aimed at specifying the important properties, characteristics and profiles of people groups, communities or any other phenomena submitted to analysis (Danke, 1989 after Sampieri *et al*, 2006, p. 101).

There was an analysis of secondary data obtained via bibliographic research of periodicals, congress annals, information from companies and electronic addresses for composing the theoretical framework of the work and identifying the case. In the latter stage, primary data were also used. Thus, this work is a case study, which according to the definition of Yin (2005), consists in the investigation of a phenomenon within its context.

The choice of the case was based on a list of Brazil's National Economic and Social Development Bank (BNDES) containing the names of new enterprises supported by the bank. Three analysts from the sector were interviewed: Artur Milanez, an analyst from the bank's Department of Biofuels, and Luciano Rodrigues and Pádua Rodrigues, an economic-financial analyst from the Sugarcane Industry Union (UNICA) and a director of this institution, respectively, the interviews having been conducted by telephone and email conversations with the first, and via personal interviews with the latter two, following a semi-structured script.

From these interviews and research of secondary data, the case of ETH Bioenergia was chosen as this study's subject matter. To obtain information about the company in order to carry out the analysis, Miucha Andrade and Bruna Hajaje, from the company's Institutional Affairs Department, were interviewed on November 10, 2008. The interviews with the aforementioned professionals were carried out personally by the application of a semi-structured questionnaire that had questions divided into blocks, according to their content.

Regarding the analysis of the data, these were observed in the light of the interpretative paradigm to form a relation between the theoretical proposals presented and the reality of the case study, which was the subject matter of the analysis. According to Myers (2000), this paradigm is based on the search for the meaning of a text, also known as hermeneutics, and on phenomenology, which consists of the theory generated from the data collected. Also according to this author, this pattern aims to understand the phenomenon in question from references supplied by the population studied and from the meanings that this population attributes to the phenomenon or behavior under study.

#### **4 FUEL ALCOHOL IN BRAZIL AND THE WORLD**

Currently, various possibilities for gain and opportunities in the domestic and foreign markets for fuel alcohol are being investigated. Such gains and opportunities are generated from certain variables, such as the constant technological innovations that have led to a change in the world's energy matrix. Data from the Market, Consumption and Statistics Assessment Committee of the International Sugar Organization have corroborated the fact that world production of fuel alcohol has grown rapidly, in view of the greater use of this product as fuel. In 2001, world production stood at 18 billion liters, whereas in 2008 this had rocketed up to 66 billion liters (Mecas, 2008).

This increase in production is explained by the growth of the production capacity of the world's two largest producers, Brazil and the United States. Major volatility and the high prices charged by oil-producing nations are factors of imbalance in the current economy and can be seen as incentives for producers in the sugarcane alcohol sector. Protefer (2007) establishes that in the international market the volume of alcohol sold is around 5 billion liters a year; in 2007, Brazil accounted for 3.5 billion liters (Ramos, Soares & Almeida, 2008).

However, fuel alcohol cannot yet be seen as a commodity (a standardized product), unlike sugar, since to be called such a product must be widely traded on a global scale and its price must be quoted on the international commodities exchanges. Alcohol does not meet these requirements, because there are still only a few countries that use it to any great extent, although the sector has been moving in this direction (Ramos, Soares & Almeida, 2008).

According to these authors, both in the European Union and in the United States, there is also a wide range of barriers, such as agricultural subsidy policies, for incentivizing fuel alcohol production from less profitable raw materials. There is also a discussion about the impact that the production of bio-fuels has on the price of food, as well as tariff and logistics barriers, on the part of both Brazil and the countries of destination.

Concerning fuel alcohol, it was in the 1970s, with the oil shocks, that Brazilian production of this fuel expanded significantly. The creation of the National Alcohol Program (*Próalcool*) to replace oil products on a broad scale

helped to reduce external foreign exchange dependence during the 1970s. Between 1975 and 2000, some 5.6 million alcohol-driven automobiles were produced and anhydrous alcohol was added to gasoline, representing between 1.1% and 25% of the volume. The result of this program was a saving of US\$ 11.5 billion (Biodiesel BR, 2008).

Currently, the sector is undergoing a consolidation phase, with production expanding in order to enable offering this fuel on a large scale, pushing the borders beyond the traditional areas. This time the movement is not being driven by government action for replacement of fossil fuels and private initiative is emerging to expand and construct new units, given the increasingly important role of alcohol in the world, especially as a result of the success of flex fuel cars<sup>1</sup> (Biodiesel BR, 2008).

Bi-fuel or flex fuel automobiles were launched in the Brazilian market in 2003 and by 2006 accounted by more than 80% of the market (Diário do Nordeste, 2006). Data from the National Association of Motor Vehicle Manufacturers (ANFAVEA) show that sales of flex fuel vehicles in 2008 exceeded 2 million units (ANFAVEA, 2008).

With regard to the production centers, there are currently two subsystems; the Center/South region, where the harvest runs from May to December; and the North/Northeast region, where it runs from September to March. The Center/South consists of the states of São Paulo, Paraná, Goiás, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Rio de Janeiro and Espírito Santo, which represent 85% of Brazilian production. The rest of the production comes from the North/Northeast, which includes mainly the states of Alagoas, Pernambuco, Paraíba, Sergipe, Rio Grande do Norte and Bahia. Of the 320 units that processed sugarcane in the 2003/2004 harvest, 226 are in the Center/South, divided between mills, mills with attached distilleries and autonomous distilleries (UNICA, 2004).

Following a deregulation process over the last few decades, however, the sector has acquired some unique features. The large domestic market has generated strong demand for the fuel, while the foreign market, which is also

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<sup>1</sup> Cars that run on alcohol, gasoline or any mixture of the two fuels.

growing, is encouraging Brazilian producers to expand their supply to foreigners and to enter this market. The number of mills in operation, which year after year has been growing consistently, is one more sign that the sector has proved to be prosperous. In late 2007 there were 371 units producing sugar, alcohol or both, whereas by mid-2008 the number already stood at 392 units, i.e., 21 new units had gone on-stream (Ministry of Agriculture, 2008).

The forecasted good outlook has led to orders for building new mills and the emergence of specific bodies to deal with these new enterprises. The Department of Biofuels (DEBIO) was created at the end of 2007, within the BNDES, the body whose aim is to support enterprises that can further Brazil's development. This new department already has a portfolio of 77 new operations and an investment portfolio of R\$ 19.7 billion for new projects. Jorge Kalache, superintendent of the BNDES industrial area, has declared that the production of fuel alcohol in these new projects predominates over other sugarcane products. He has also stated that these new companies are beginning life with an orientation toward serving foreign markets, given that there seem to be good opportunities abroad (BNDES, 2007).

Two clear trends stand out in the profile of the new enterprises that are being set up: the significant and growing entry of foreign capital into the Brazilian sugar and alcohol market and the entry of new conglomerates not originally from this sector (Ramos *et al*, 2008). Some foreign groups are already renowned in this sector and are among the biggest international producers, such as Tereos and Louis Dreyfus Commodities (French), Adecoagro (Argentinean), Abengoa (Spanish), BP (British), Bunge and Cargill (American), Noble (headquartered in Hong Kong), and Clean Energy Brazil and Infinity Bio-Energy. (Mecas, 2008).

Via telephone and email contact, Artur Milanez, a BNDES analyst, provided details about approved and contracted new projects up until May 2008, in operations that total more than R\$ 6 billion. In his opinion these projects also have a strategic, domestic market orientation, but with an implicit export strategy, albeit at a subsequent stage because of the current barriers to the worldwide sale of fuel alcohol. According to Milanez, the main consumer market

for Brazilian fuel alcohol is still the United States, which also has its own large, strongly subsidized production volume, as well as import duties on the Brazilian product (Ramos *et al*, 2008).

Although a large part of these new projects is located in Brazil's southeast, particularly in the states of São Paulo and Minas Gerais, there have been a growing number of projects looking into states in the mid-west, such as Goiás and Mato Grosso do Sul. This is the case because feasibility studies are being carried out on introducing an alcohol pipeline that should link towns and cities in these regions with terminals in the southeast, thus facilitating the flow of production and constituting part of the fuel alcohol export corridor (Procana *after* Ramos *et al*, 2008).

## **5 CASE STUDY: ETH BIOENERGIA**

Named by Artur Milanez, from BNDES, and by Luciano Rodrigues, from UNICA, as one of the major construction projects that is likely to be strongly geared toward serving the foreign market because of the size of the investment, ETH Bioenergia is expected to adopt advanced technology to obtain economies of scale and productivity gains in growing the raw material. ETH Bioenergia is a company belonging to Organização Odebrecht and it was created in mid-2007 to produce sugar, fuel alcohol and power, integrating marketing and logistics with its production (ETH, 2008).

In an interview with Miucha Andrade and Bruna Hajaje, from the Institutional Affairs Department of ETH Bioenergia, the authors learned that the company started out as CZRE with four shareholders. These four executives had a strategy to build sugar, fuel alcohol and power production centers in Brazil's central region, covering the states of Mato Grosso do Sul, Goiás and São Paulo. The mills in these regions would be within 50 km of each other in order to leverage synergies as much as possible.

After a period of activity, the partners started looking for investors at the same time as Organização Odebrecht was looking for investment opportunities to diversify its areas of operation, the sugarcane sector being deliberately chosen for its high national and mainly international growth potential and the fact that



Brazil is highly competitive in this segment. One should stress that, despite having a mixed production, the company's focus will be on the fuel alcohol market, with a split of 70% alcohol and 30% sugar, depending on market conditions.

According to those interviewed, from its very onset the firm was thinking about expanding outside the country, thus providing evidence of the international profile of the new company. Since the beginning, it had expressed an interest in opening sales offices in the United States and in Europe; it already has points of support in Florida and in Switzerland. One should point out that no sales offices have yet been set up, but two representatives are already working outside Brazil. According to the information provided, the initial idea of being an international player continues to be upheld.

The objective of this new company is to become one of the leaders in this segment over the next ten years and in order to do so it has R\$ 6 billion available just to build 3 production centers in the states of São Paulo, Goiás and Mato Grosso do Sul, a total of 10 new mills to be operating by 2015. Brazil's mid-west was chosen for several factors, including its strategic location in view of the center that is being set up in the region, with the construction of future industrial units that should make the outflow of products and the expansion of boundaries easier. According to the company that was researched, it would be impossible to increase the company's competitiveness if the mills were set up in São Paulo state, which is already saturated.

The company is already selling fuel alcohol and, according to Miucha Andrade, all its production currently targets the domestic market, even though the company maintains a deliberately international strategy, which is to be its next step. This is mainly due to various external barriers that make it unfeasible to export a large part of the fuel alcohol immediately. According to the people interviewed, these obstacles, along with protectionist issues (given that in the main target markets there are agricultural subsidies), render a more substantial entry of the product unfeasible. The company is working to circumvent these obstacles at the start of its operations so that it can expand internationally later; the forecasts are for 2015, when the entire structure that is being put together will be on-stream.

As for its partner network, the company has national and international contacts in the biotechnology area to conduct research into the production of fuel alcohol derived from the fermentation of sugarcane bagasse and for the genetic improvement of this raw material. The latter aspects were corroborated by those interviewed, who pointed out that efforts are under way to establish partnerships within and outside the country, not only regarding technology but also in connection with trade and logistics.

Another advantage that sets the company apart from its competitors is its major investment in logistics, so that the aforementioned objectives can be efficiently achieved both in Brazil and abroad. Although there are more plans and projects than concrete actions, the company is already participating in alcohol pipelines, waterways and modern terminals that will carry the ethanol it produces to ports and markets.

As confirmed by the interviewee, one can say that knowledge really provides a competitive advantage. One might even state that the influence of the profile of the four partners has an impact in this regard, since the executives who founded the company are sector experts. One of them, Eduardo Pereira de Carvalho, headed UNICA for seven years, having stepped down in June 2007, when he was replaced by Marcos Jank. UNICA is an important representative association in Brazil's sugar and alcohol sector, specifically for producers from São Paulo state; it has more than 110 associate mills and its mission is "To lead the transformation process of the traditional sugarcane sector into a modern agricultural industry capable of competing sustainably in Brazil and worldwide in the areas of fuel alcohol, sugar and bioelectricity" (UNICA, 2008).

Selling is another important pillar of the company and in order to guarantee serving the national and international markets the organization operates as a trading company, so as to bring independent producers into its chain, thereby achieving synergies between production and selling. According to the interviewees, the company can be considered vertically integrated, to the extent that it coordinates all production chain activities, except for distribution.

Concerning actions for preparing for internationalization, the company has been engaged in publicity campaigns and marketing outside Brazil to familiarize the public with it and with the ETH brand. Campaigns have been

conducted in the United States, with articles being published over a five-month period in one of the country's well-known and widely circulating magazines, Florida Trends, which is comparable to Brazil's Exame.

As for the countries that it intends to reach, it is yet to determine which specific markets it will target. The criteria for choice of countries can be seen as economic, in view of the mainly local requirements regarding the product. Asia has not yet been considered as a target market since, especially in Japan, there is resistance to the use of ethanol, making it difficult to set up sales contracts for this product.

When questioned about the profile of the company's new international enterprise, Miucha Andrade replied that she believes that the company really has come into being as a global enterprise, even though this is not its immediate priority. Furthermore, she stated that she believed that there is a trend toward the establishment of new international enterprises in the sector. Sugarcane is leading the way as one of the most productive sources of alternative fuels and saying that fuel alcohol contributes to creating hunger in the world applies only to alcohol produced from corn, rather than from sugarcane.

## **6 ANALYSIS OF THE RESULTS**

Some of the trends previously indicated can be proven from what has been written so far. The case studied consists of a large company that emerged in this format thanks to significant investments provided by Organização Odebrecht, which is traditional in other sectors but not in sugar and alcohol. There is, in fact, a growing trend toward the entry into the sector of groups, whether foreign or local, because of the sector's enticing opportunities, particularly in the international scene. One must clarify, however, that only the case studied will be analyzed and that no generalizations will be drawn concerning the entire sector. Having made these considerations it is obvious that there are certain characteristics in the case that was considered that allow for the application of the concept of New International Ventures (NIVs), according to the definition set out in the theoretical framework of the research.

Observing the case of ETH Bioenergia, one can identify it clearly as a case of a new international venture, since it is a new enterprise that was created in 2007 and centered, above all, on serving the foreign market, albeit at a later date. This can be proven when we look at the date on which the company was founded, its determination to be international and the actions that it has undertaken to make this come true. As established by authors Oviatt and McDougall, the company really does have an international orientation; even though the product is under development, there is a clear intention to place it in the international market.

Marketing actions outside Brazil, designed to make the company's main potential market familiar with it, in addition to establishing contact points in the two countries before it has even started its operations in the domestic market, are strong indications that the company is preparing for internationalization. Furthermore, it can be seen that the company's main managers have a deep knowledge of the sector in which they operate, as well as an international profile and international experience.

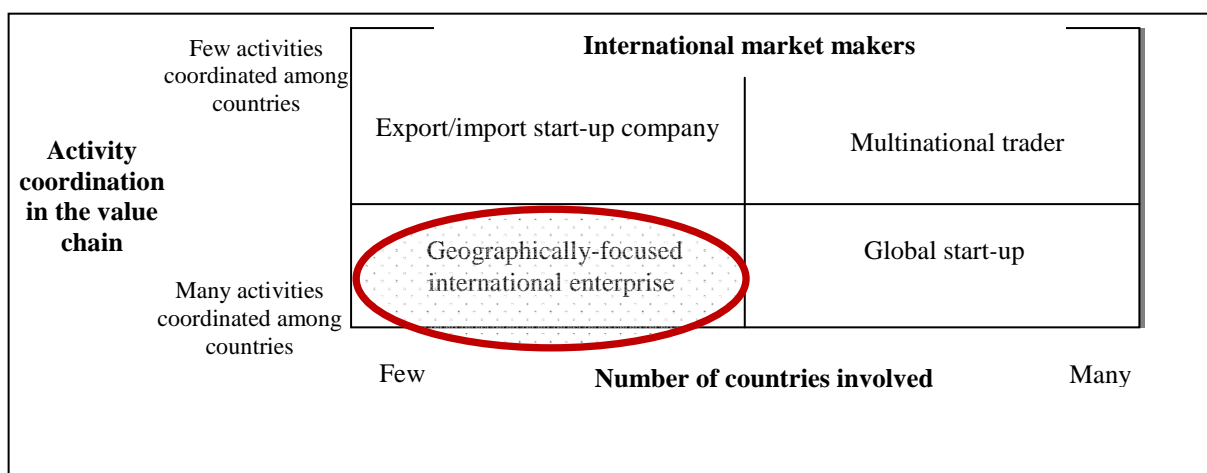
Significant investments in technology to make the product more competitive and a quest for important partnerships for this purpose also indicate that the organization is concerned about its distinguishing features, both within and outside the domestic market. The very choice of the mid-west, instead of the traditional southeast, along with significant investments in logistics and infrastructure indicate the company's intention to benefit from the advantages the region will acquire with the alcohol pipeline, facilitating the outflow of its production to Brazil's main ports.

Concerning the internalization of activities within the value chain and governance structures, the company coordinates many of the activities within its production chain. This type of vertically integrated structure in practically the entire company is uncommon in the sector, to the point that many mills depend on third parties to sell their products not only abroad but domestically as well. Thus, the structure adopted by the company is really an alternative one with regard to its activity sector.

With regard to the location advantages, Brazil really does have such advantages relative to other countries when it comes to producing ethanol. The establishment of infrastructure in the United States and Europe indicates that the

company, in establishing its strategy of entering the international market, is trying to take advantage of its location by getting closer to its main potential markets. As for the sustainability of its strategy and the presence of unique resources, it is believed that its investments in infrastructure and the knowledge developed may be considered fundamental for the company to distinguish itself in its sector.

Furthermore, one can conclude, based on the analysis and the theory, that this is a geographically-focused international enterprise, according to Figure 2, which shows the four types of new international venture, according to Oviatt and McDougall. Within its sector, the company in question coordinates many activities of the value chain and is still operating in just a few countries. Therefore, the company should meet a specific need of a not very large group of customers. Demand for fuel alcohol is specific and there are, as yet, few countries that use it on as large a scale as Brazil or the United States.



**Figure 2: Types of new international venture – ETH quadrant**

Source: adapted from Oviatt and McDougall (1994)

One should point out, however, that the company is yet to forecast the percentage production that should be earmarked for foreign markets, or the revenue percentages that must be obtained from international sales by virtue of the barriers that are in place so that the product can be sold outside Brazil. What has been analyzed in this work is, in fact, the intention and international strategic orientation of a recently established company and one whose main operations should begin shortly.

## **7 FINAL THOUGHTS**

It is a fact that the international fuel alcohol market has proven to be fairly promising. Therefore, it has been attracting significant investments to Brazil's sugar and alcohol sector. Nevertheless, there are still various barriers to the broader marketing of this product internationally, as well as obstacles to classifying it as an international commodity. Brazil, despite its consolidated and significant internal fuel alcohol market and vast experience in this sector, cannot ignore the opportunities that are becoming apparent for this product abroad. Thus, it must operate in such a way as to provide Brazilian producers with greater access to the international market and to increase their production, since the country, even though it is one of the biggest producers and exporters of the product, lacks sufficient capacity to supply all international demand.

Based on all that has been explained so far, one can say that ETH Bioenergia really is a new international venture. The intention to get into the international market right from the company's inception, its investments in overcoming the barriers to the international sale of fuel alcohol initially, and its efforts to become familiar with potential markets, with the company establishing points outside Brazil less than one year after its establishment, corroborate the theoretical concepts presented.

The definition of Oviatt and McDougall (1994) is that new international ventures are those businesses that right from their outset seek to develop competitive advantages by using resources and sales opportunities in other countries. In the case of ETH Bioenergia, the strategic intent of being international is really innate, given that ever since the firm's establishment deliberate efforts have been made to prepare it for internationalization. The interviewees' opinion, to the effect that the company started out its life international, helps one to see this enterprise from the standpoint of the theory that is being studied. One can conclude, therefore, that there really are examples within the sugar and alcohol sector of new international ventures, even though it is a sector in which there is the possibility that new policies may be established to control new investments and regulate the domestic market, according to Pádua Rodrigues, in an interview on April 27, 2009.

## 7.1 LIMITATIONS AND SUGGESTIONS

One must stress that there are limitations to this study. Some points should be highlighted, although they do not contradict any aspects mentioned hitherto. Many of the authors who have been studying the phenomenon believe that it refers to small and medium-sized companies. Although there is no consensus regarding this point, one must take into account that the company studied is neither really small nor suffers from any major funding restrictions. On the contrary, this is a large enterprise that has the backing of a major industrial group, Odebrecht. Furthermore, this case was identified in the sector as an example of a new international venture, according to the concepts of Oviatt and McDougall, and there is no intention to generalize the conclusions obtained to the entire sector.

Having made these observations and concluded that the establishment of new international ventures with a view to exploring fuel alcohol may be considered a trend in the sector, the authors suggest that subsequent studies seek further NIV cases, besides studying the strategic reasons why undertakings with such a profile have been arising in a sector in which there is such major domestic demand. It is important to point out that because of the very dynamic nature of the sector and the size of the domestic market, nothing is keeping this type of enterprise from rethinking its international market orientation and directing its production to the domestic market, or keeping projects for the construction of new mills from undergoing changes in their building timetables because of the impact of the current global crisis, which has had a direct impact on the sector.

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