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Structuring of the Açai Pulp Exporting Agribusiness' Organizational Field*

Estruturação do Campo Organizacional das Agroindústrias Exportadoras de Polpa de Açaí

Estructuración del Campo Organizacional de las Agroindustrias Exportadoras de Pulpa de Açaí

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ABSTRACT

This article deals with the structuring of the açai pulp exporting agribusinesses' field. This industry has expanded from small artisanal processing plants to factories that include product, processing and management technologies functioning in national and international markets. The analytical framework of this research is institutional theory for the study of organizations. It is exploratory and descriptive research, with a qualitative approach, complemented by semi-structured interviews within two companies based in the town of Castanhal (in the Brazilian state of Pará), chosen due to their history and to the amount of information provided. Results show that an açai pulp exporting agribusiness organizational field is being structured through a process of isomorphism. The article concludes that sources of isomorphism are regulatory agencies, customers, contractors and the agribusiness companies' trade union, which all ease the flow of information between companies.

Keywords: Agribusiness. Organizations. Organizational field. Isomorphism.

RESUMO

Este artigo trata da estruturação do campo das agroindústrias exportadoras de polpa de açaí. Trata-se de uma indústria que vem crescendo a partir de pequenas unidades artesanais de processamento para fábricas que incorporam tecnologias de produto, processo e gestão atuando no mercado nacional e internacional. A pesquisa tem como referencial analítico a teoria institucional para o estudo das organizações. É uma pesquisa do

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tipo exploratória e descritiva com abordagem qualitativa, complementada com entrevista semiestruturada em duas empresas localizadas no município de Castanhal-PA, escolhidas por suas trajetórias e pela quantidade de informações fornecidas. Os resultados demonstram que está sendo estruturado um campo organizacional das agroindústrias exportadoras de açaí em processo de isomorfismo. Conclui que as fontes de isomorfismo são as agências reguladoras, customers, profissionais contratados e sindicato das empresas agroindustriais, que facilitam o fluxo de informações entre as empresas.

Palavras-chave: Agroindústrias. Organizações. Campo organizacional. Isomorfismo.

RESUMEN

Este artículo aborda la estructuración del campo de las agroindustrias exportadoras de la pulpa de açaí. Se trata de una industria que está creciendo desde pequeñas unidades artesanales de procesamiento hacia fábricas que incorporan tecnologías de producto, proceso y gestión, que operan en el mercado nacional e internacional. El estudio tiene como referencial analítico la teoría institucional para el estudio de las organizaciones. Es un estudio de tipo exploratorio y descriptivo con enfoque cualitativo, complementado con una entrevista semiestructurada en dos empresas localizadas en el municipio de Castanhal-PA, elegidas por sus trayectorias y por el volumen de las informaciones facilitadas. Los resultados indican que se está estructurando un campo organizacional de las agroindustrias exportadoras de açaí en proceso de isomorfismo. Finalmente, el estudio sostiene que las fuentes de isomorfismo son las agencias reguladoras, clientes, profesionales contratados y el sindicato de las empresas agroindustriales, los que facilitan el flujo de informaciones entre las empresas.

Palabras clave: Agroindustrias. Organizaciones. Campo organizacional. Isomorfismo.

1 INTRODUCTION

Research carried out concerning business organizations in the Amazon has taken into account aspects of efficiency, whether as to the competitive advantages of managing costs, especially within the agribusiness field (SANTANA, 2004, 2007), or as to the advantages companies have based on their location (COSTA; ANDRADE; SILVA, 2004), or as to showing the capacity local institutions have of triggering learning and business innovation processes (SANTOS; BASTOS, 2008).

A number of these studies were guided by a neoclassical perspective of economic theory, based on the perfect rationality of actors and on companies' maximizing behavior (SANTANA, 2004) – and, even when they do reveal a more heterodox understanding, such as approaching local productive arrangements, due to market imperfections and actors' limited rationality and, therefore, the importance of institutions, business agents still behave according to company efficiency in these papers (COSTA; ANDRADE; SILVA, 2004; SANTOS; BASTOS, 2008).

However, if theoretic "lenses" were switched to a sociological perspective of institutional theory, it would be easily noticeable that technical efficiency is not the only driving force within an organization – and that many of them incorporate new technologies, hire different types of professionals, and alter production plants, as well as other initiatives, not due to efficiency, but because these elements are institutionalized in the organizational fields or sectors in which they operate, as suggested by the paper of Scott (1999) and Meyer and Rowan (1999). Thus, institutionalized elements, when used by organizations that belong to a certain field, make them legitimate, extending or expanding their capacity to survive, even if they do not necessarily result in technical efficiency (MEYER; ROWAN, 1999).

The field to which these business organizations belong exerts pressure on them to take on structures that make them similar to each

other. This phenomenon is called organizational isomorphism by DiMaggio and Powell (2005). Whilst economic theory and a part of the theories of organizations work from a neoclassical and functionalist perspective of the rational actor and seek to study how they differ from each other and are placed in a prominent position, a branch of institutional theory for organizational analysis seeks to understand in what ways organizations are in fact similar to each other. The understanding of institutions used here originates from the aspect of economic history that demonstrates the limitations of the neoclassical approach. This understanding presumes that institutions can be divided into two groups: the first have mostly state origins; the second have social origins and are socially legitimated (NORTH, 1993).

The institutional analytical matrix served as a basis for studying a number of organizations (fruit pulp exporting agribusinesses), part of a market that has been growing (nationally and internationally) from the 1990s on (ROGEZ, 2000). These organizations began to structure themselves around what DiMaggio and Powell (2005) called the organizational field. Based on this context, we started off from the following questions: a) what institutions contributed to the structuring of the açai pulp exporting agribusiness' organizational field? b) in what way do institutions belonging to the organizational field of açai exporting agribusinesses exert isomorphic pressure upon organizations?

Research was divided into four stages. Firstly, initial information about açai pulp processing agribusiness organizations located in the state of Pará (in two steps) was organized, and then a survey within 12 agribusinesses was carried out. Later on, the two agribusinesses that best suited research objectives were selected for semi-structured interviews.

Given this theoretical perspective, our research had two objectives: a) to verify in what way the açai pulp exporting agribusiness' organizational field structures itself; b) to identify the institutions that contributed to the structuring of the açai pulp exporting agribusiness' organizational field. Results reported in the paper are divided into three sections, apart from this introduction and the conclusion.

2 ORGANIZATIONAL ANALYSIS BASED ON INSTITUTIONS' APPROACH

Institutional theory used in the study of organizations in sociological tradition allows for an analytical way of better understanding the development of business organizations, in terms of general analysis of their relationships. Institutions are at the center of the analysis.

By institutions we mean the most basic level of society in which a relationship context is established (KNIGHT, 1992), serving as rules of the game within relationships (NORTH, 1993) – developing systems, building history and perceptions, and shaping future paths (ESPINO, 1999; NORTH, 1993). In exchange relationships, institutions establish a social, economic and political landmark, allowing for the anticipation of agents' behavior, reducing transaction costs and positively impacting levels of investment, savings, innovations, institutional change and collective actions (ESPINO, 1999).

Institutions are categorized by North (1993) into two groups: formal and informal. Formal ones have mostly state origins, and include rules, regulations and laws that are made up by agents to solve coordination problems at social, political and economic levels. Their implementation and enforcement are mandatory. This type of institution belongs to the field of public domain. Informal ones, on the other hand, are not assigned or prescribed as laws, are not a part of the regulatory and legal systems, and are not mandatory. They have social origins and take shape over time, through customs, traditions, values and local culture, and are made legitimate socially.

Berger and Luckmann (2007) demonstrate that institutions are the result of typified habits over time, disseminated and accepted by the social group, exercising control over the group

itself and making up reality. Habits operate as a way of effort-saving, reducing the number of ways a certain action can be carried out, restricting decision-making and reducing tension and stress responses, as well as the uncertainties that surround the social system. These sedimented, socially shared habits organize the system, setting standards of behavior, ensuring legitimacy and acceptance to actors that submit to them and punishment to those who resist.

Organizations, as social agents, and consequently part of a social system or environment, are influenced by this set of institutionalized habits, even though they are simultaneously the potential creators of new institutional structures. These are a set of actions that represent successive successful solutions to specific problems – which, when socially divulged, become standard behavior, are considered correct and are endowed with meaning (TOLBERT; ZUCKER, 1999).

From these approaches, the organization is then structured to conform to the expectations of the institutional environment in which it operates, leaving technical efficiency in the background. DiMaggio and Powell (2005, p. 76) call this institutional environment an organizational field, made up of "key suppliers, resource and product consumers, regulatory agencies and other organizations that produce similar services and products". These characteristics define the boundaries within which organizations operate – competing, influencing, coordinating – and from where inter-organizational innovations emerge.

This field is defined by a set of organizations, of formal and informal networks that connect to each other (DIMAGGIO; POWELL, 2005). It is the totality of relevant actors, including the idea of networks or nodes connected through a set of relationships (LAUMANN; GALASKIEWICZ; MARSDEN, 1978), such as "formal contractual relationships, staff participation in common companies such as professional unions or board of directors, or informal links at the organizational level, such as a flow of people" (DIMAGGIO; POWELL, 2005, p. 86), in structural equivalence (WHITE; BOORMAN; BREIGER, 1976), also called structural affinity (MAOZ et. al., 2006), defined as the similarity that an actor has with others, whether in their relationships, attitudes, traits or characteristics.

According to DiMaggio and Powell (2005), equivalence exists when organizations have similar links with other groups of organizations, even though they do not have a relationship with each other, as in the case of different companies that hire the same service provider to carry out, say, the recruitment and selection of staff. The organizational field is the empirically determined and institutionally defined unit of analysis, based on four elements: a) the intensity of inter-organizational relationships; b) the patterns of coalition and domination established between organizations; c) the increase in the amount of information with which organizations need to deal; and d) the understanding that they participate in a business.

Once a field is structured, organizations are pressured to resemble one another, because they are all submitted to the same environmental conditions. This homogenizing process is called isomorphism and manifests through three mechanisms within the field that lead organizations to isomorphic changes (DIMAGGIO; POWELL, 2005), as follows:

a) coercive isomorphism: results from organizations' conformity to pressure from other organizations and from the society on which they depend, either by coercion, persuasion and/or collusion. It is the legal environment in which organizations operate. Government impositions may be manifested within corporations, homogenizing operational procedures and structures (DIMAGGIO; POWELL, 2005). Coercion also occurs due to socially institutionalized myths and ceremonies (MEYER; ROWAN, 1999), constraining organizations to conform to them when striving for legitimacy within the field in which they are operating (DIMAGGIO; POWELL, 2005).

Dimaggio and Powell (2005) suggest that the greater the dependency of one organization on another, the greater the similarity between them concerning structure, environment and behavioral

focus. They also suggest that isomorphism will be greater in a field in which organizations interact more intensely with government agencies, and when they all depend on the same resources to survive.

b) mimetic processes: type of isomorphism triggered by uncertainty, such as problems with ambiguous causes, poorly understood technologies, insertion into unknown markets, positions or actions that induce imitation of behaviors and practices that, in the perception of imitators, are models. The smaller the alternative organizational models the greater the manifestations of isomorphism. Mimetic processes may present themselves as viable solutions at a low cost and as diffusers of innovation.

c) normative pressures: driven by professionalization processes and produced within universities, vocational training institutions, and professional and research associations. These institutions refer to a professional's cognitive training, to the formation of professional networking and to a certain standardization of behaviors. Normative pressures are also in staff selection processes, when companies hire professionals from the same industry or the same training center that are references in certain skills, resulting in the common practices these officials end up developing. Isomorphism occurs through a process of professional socialization and of field professionalization intensity.

This theory presents itself as an alternative to analyses that are focused on competition and concern with the technical environment of which businesses are a part, such as the prospect of organizations' population ecology (HANNAN; FREEMAN, 2005) and resource dependence (PFEFFER, 1993). The institutional theory branch of organizational analysis is concerned with symbolic aspects: the norms, rules and rituals that are socially constructed and legitimized to which organizations must respond (ORRU, BIGGART; HAMILTON, 1999). This emphasis ends up separating the formal structure of an organization (such as a hierarchy, official positions, planning) from its technical efficiency, that is, an organization will take on a certain structure not only because this will help it to achieve better technical results, but also because it will give it legitimacy as an active agent in a particular field (DIMAGGIO; POWELL, 2005). As a result, the links between these formal structures and the technical activity of organizations are fragile (MEYER; ROWAN, 1999).

As such, two different environments can be perceived: the institutional and the technical. The first is shaped by socially defined norms and categories; the second deals with the sphere of the market, of maximizing profits and minimizing costs, so that efficient organizations are awarded for its optimization (SCOTT, 1999). Here, the technical environment is dealt with in a similar way to the concept of North's institutional structure of economic perspective of institutions (1993).

It seems that, according to the way Meyer and Rowan (1999) address the issue, environments are mutually exclusionary. In this same direction, DiMaggio and Powell (2005) suggest that organizations' structure and techniques are more suitable within environments where competition is free and open. Orru, Bigart and Hamilton (1999) demonstrate that, from an analytical point of view, there is no reason for there to be a separation between the two environments. According to Scott (1999), the two environments are not mutually exclusionary, but are dimensions in which the environment varies, because certain organizations face greater technical than institutional pressures; just as there are organizations that face greater institutional than technical pressures.

The interesting question for analyzing a field's organizations is whether they are making legitimacy a priority at the expense of efficiency, as stated by DiMaggio and Powell (2005) and Meyer and Rowan (1999), since a business organization, when sacrificing profit over a certain period, in order to make adjustments to its structure or quality standards, for example, does not necessarily mean it is not making efficiency a priority, but that the efficiency it has prioritized refers to symbolic capital, goal of its accumulation, expressed in honor and recognition. Thus, the

accumulation of symbolic capital (BOURDIEU, 2006) at the time of a strategic game can be translated into profit at a later period, which is the main objective of the capitalist business organization.

Bourdieu (2006) argues that the central issue is not the conflict between efficiency and legitimacy, but that the search for legitimacy also means the search for efficiency, although of specific capital in the field, which is symbolic capital. Thus, if to Scott (1999) organizations are in an environment endowed with a technical and symbolic dimension that exert pressures and receive specific answers, to Bourdieu (2006) it is the company behaving within expectations of economic theory, that is, in order to maximize the efficiency of capital, however, in its multiple dimensions.

These are, in sum, the main contributions of classical authors of the institutional approach, in their economic and sociological aspects, and of authors who have reviewed concepts. The next section deals with empirical methodology for analysis of the structuring of açai pulp exporting agribusinesses` organizational field in Castanhal, in the state of Pará.

3 METHODOLOGICAL PROCEDURES AND CHARACTERIZATION OF RESEARCHED ORGANIZATIONS

To carry out research we used the following methodological procedures:

Step 1: Information gathering at the Ministry of Agriculture, Livestock and Supply (Ministério da Agricultura, Pecuária e Abastecimento/MAPA) in the state of Pará, concerning the number, types and location of fruit pulp processing agribusinesses. We identified 77 agribusinesses – 32 of them homemade processors (in nine municipalities), which are the activities of pulping açai fruit through handmade technology, and 45 agribusinesses (in 15 municipalities) with industrial standard production systems.

Step 2: We identified that the municipalities with the largest number of agribusinesses are Belém (18) and Castanhal (12). These were also the ones that exported most açai pulp in 2010 (most recent data available). The 12 Castanhal (Pará) agribusinesses were the object of a survey in which information was gathered about their history, market performance, main customers and suppliers, productive and technological processes, financing sources, products, and perception of institutions that influence the development of the organizational field (a questionnaire divided into five blocks with a total 48 open-ended questions).

Step 3: Based on the survey we selected two agribusinesses for interviews with managers and owners, both located in the city of Castanhal (Pará). Companies located in Belém did not respond to the request for an interview. Therefore, the selection took into consideration: a) companies that, in the questionnaire's answers, offered most information and expressed interest in collaborating with research; b) companies that operated in the international market (exporting açai pulp); c) companies which evolved from traditional açai activities (homemade processors) to agribusiness type organizations.

For selection, the "period of operation" in the market was also considered. Thus, we selected companies with the greatest and smallest periods of operation. This procedure is justified due to its capacity to verify agribusiness' history and the role of institutions in their development and the structuring of the field. At this stage, semi-structured interviews were carried out with representatives (managers and owners) of the two companies. The interview was the technique considered most appropriate to gaining access to sensitive and relevant information for analyses and to explaining important facts in the research, just as proposed by Phillips (1974).

Step 4: The contents of interviews were selected, and parts that were relevant to explaining the institutional approach for studies of organizations were separated. Observations were also carried out on the premises of agribusinesses, as well as spontaneous conversations with people involved (business consultants, suppliers, regulatory agents etc.) in the handmade technology and industrial sectors of açai processing in the municipalities surveyed. Procedures carried out

classify this research as exploratory and descriptive (GIL, 2008).

For presentation of data and information fictitious names were used for both organizations and the people involved in the history of the companies and mentioned in the interviews, in order to preserve them, at their own request. Thus, we will treat organizations respectively as "Company 1" and "Company 2". The two selected agribusinesses were indicated, by interviewees, as references in the market due to ther experience, pioneering character (the oldest), rapid growth and participation in international markets (the newest).

4 STRUCTURING OF THE AÇAI PULP EXPORTING AGRIBUSINESS' ORGANIZATIONAL FIELD

4.1 Company 1 Dynamics

Company 1 came about as a result of the expansion of a small homemade açai processing business in the 1990s (identified here as E1). It received funds from a customer from Rio de Janeiro (identified as C1). In 2006, it acquired an industrial plant (Plant B of Company P), besides the one it had (Plant A), and Plant B produced lower quality pulp. Following an outsourcing contract with Company E, brokered by the Pará Fruit and Derivatives Trade Union (Sindicato de Frutas do Estado do Pará/SINDFRUTAS), Plant A and B underwent adjustments and Company E1 changed its name following a merger with Company E2 in 2008.

Nowadays, the two plants (A and B) operate under a different name (no longer E1 nor P). This company is the second largest exporter in the municipality. In 2009, the E1 Company brand (from which everything was originated) was sold alongside the brand of Company P. A synthesis of this story and performance are in Chart 1, which presents their productive capacity, number of staff, source of financing and use of resources.

Years	Productive capacity A (tons/day)	Productive capacity B (tons/day)	Total productive capacity (tons/day)	Staff A and B	Financing	Use of Resources
Dec. 1990	14	- - -	14	60	Financing by customer	Machines and equipment
2006	42	14	56	60	Financing	Machines and equipment
2008	70	14	84	60	Customer financing	Physical infrastructure in B
2009	-	14	14	60	- - -	- - -

CHART 1 – Productive capacity, number of employees, promotion and use of resources by Company 1

Source: the authors, based on field research results.

4.2 Company 2 Dynamics

This company began its activities in 2005, by means of financing by the same customer who financed Company 1 (C1). It entered the international market in 2006, brokered by a company employee. It installed quality control, laboratories for physical-chemical and microbiological analysis, product traceability and a pasteurizer so to have access to the U.S. market.

In 2006, it hired an agribusiness technologist in order to manage the quality of production. That year, the company received organic certification, funded by an American customer (C2), as well as other (Kosher and Halaw), required by international customers.

From the attempt to establish a relationship between the two companies (1 and 2), training of Company 2 professionals resulted. In 2007, a Research & Development (R&D) department and the International Organization for Standardization 22.000 (ISO 22.000) were installed.

Between 2008 and 2009, by means of funding from the same customer (C1), it acquired brands from domestic companies. During the crisis in the U.S. in 2009, it increased its share in the domestic market. Its history in terms of productive capacity, staff, financing and their purposes are summarized in Chart 2.

Years	Productive capacity (tons/day)	Staff	Financing	Use of resources
2005	21	30	Financing by customer	Machines and equipment; physical infrastructure
2006	35	38	Bank credit	Machines and equipment
2007	88,7	65	Bank credit	Machines and equipment; physical infrastructure
2008	112	120	Bank credit	Machines and equipment
2009	112	120	Financing by customer and bank credit	Acquiring production plant; buying marks and trucks

CHART 2 - Productive capacity, number of employees, promotion and use of resources by Company 2

Source: the authors, based on field research results.

National and international demand for açai has become a business opportunity in the Amazon, especially in the state of Pará. There have been increased competition and changes in consumer habits. This scenario has led companies to improve products and processes (design, diversification and mixtures) and management (especially through strategic management of production and costs).

Initiatives such as the Hazard Analysis and Critical Control Points (Análise de Perigos e Pontos Críticos de Controle/APPCC) and Good Manufacturing Practices (Boas Práticas de Fabricação/BPF) appear more often. However, these practices do not reach most agribusinesses, undermining the sustainability of these companies that are pressed for change (SANTANA, 2003), revealing why many agribusinesses are investing in a pulp mix and in other ways of expanding operations in the international market (SANTANA, 2007).

This process brought about reorganization in the açai processing segment in the region, so that it is now possible to classify based on factors such as the incorporation of technologies, management improvements, and specialization in certain markets (international, national, local). Chart 3 presents a summary of some features from this segmentation based on the market, on processes, products and on ways of operating.

Types	Characteristics	Operation
Type 1	Invested in technology, in hiring specialized professionals, in quality programs and certifications, in adjustments to the legal standards of national and international bodies; relied on self-funding and/or by customers and/or by banks; sought to expand markets using the contacts of the representative institution (union), or from companies hired to carry out marketing in the international market.	International Markets
Type 2	Invested in hiring specialized professionals; sought funding; made adjustments to meet the standards of domestic and international demanded by customers; invested in technologies and certifications. Left mimicry from which they were originated and began to seek improvements in production.	National and International Markets
Type 3	Sought to reduce IT costs, hired specialized professionals, carrying out mimicry of companies that were institutionally legitimized in the organizational field. Made adjustments to meet the standards of the national market, but did not fulfill them entirely due to the fragile supervision of regulatory institutions.	National Market
Type 4	Improved production, but have not yet achieved a prominent role, because they do not use available technology, restricting their role in the field, and still have not become socially legitimized in the field.	National and Local Markets

CHART 3 – Characteristics of açai agribusinesses

Source: the authors, based on field research results.

Generally speaking, the structuring of the açai pulp exporting agribusinesses' organizational field occurred based on the following institutions:

a) The Ministry of Agriculture, Livestock and Supply (Ministério de Agricultura, Pecuária e Abastecimento/MAPA): Aims at encouraging, promoting and regulating the agricultural sector and its associated services. It provides, amongst other things, classification of açai pulp according to the addition of water, from whence, based on Normative Instruction No. 1/2000: wholesale or special açai (type A: over 14% total solids); medium or regular (type B: between 11% and 14% total solids); and thin or popular (type C: between 8% and 11% total solids) (BRAZIL, 2000).

b) The Sanitary Surveillance Agency (Agência de Vigilância Sanitária/ANVISA): Linked to the Ministry of Health, conducts sanitary control of products in order to protect public health. It is responsible for regulating companies that produce food in Brazil (ANVISA, 1999).

c) The Pará Agricultural Protection Agency (Agência de Defesa Agropecuária do Pará/ ADEPARÁ): Responsible for the supervision and control of agricultural production in the state of Pará.

d) The United States Food and Drug Administration (FDA): Linked to the Department of Health and Human Services of the United States, it is responsible for protecting public health in the country, ensuring food security and of human and veterinary drugs, biological products, cosmetics, products that emit radiation (UNITED STATES FOOD AND DRUG ADMINISTRATION, 200-?). The FDA is presented here as a representative of United States regulatory agencies, main customer of the exporting companies surveyed, alongside the CODEX Alimentarius Commission, created by the Food and Agriculture Organization (FAO) and World Health Organization (WHO) (CODEX Alimentarius, 200-?.) Moreover, there are also international requirements regarding good manufacturing practices and pasteurization of the product, seeking to ensure 12% of dry raw.

e) The University of Pará (Universidade do Estado do Pará /UEPA) and the Federal University of Pará (Universidade Federal do Pará/UFPA): Responsible for training professionals in the field of agribusiness in the region studied, where companies 1 and 2 are installed.

f) Pará Fruit and Derivatives Trade Union (Sindicato de Frutas do Estado do Pará / SINDFRUTAS): Amongst its objectives is to facilitate access to information and research; to represent producers before authorities; to hire and mediate the relationship between work and production; to provide legal aid services; to promote

coordination amongst the various segments that make up the Fruit and Derivatives Industry's supply chain, from planting to distribution; to support and streamline the transactions of buying and selling; to encourage standardization and product quality; to discuss and integrate governmental and non-governmental proposals to increase sector productivity and competitiveness in the state of Pará (SINDFRUTAS, 2010). However, the dynamics of the organizational field reveal the fragile cohesion of organizations that are affiliated to the Union.

g) National and International Customers: commercial enterprises in the United States, Canada, England, the Netherlands, Slovakia, Belgium, Israel and Japan. In the domestic market, on the other hand, they are the companies from states in the Southeast, South and Northeast of Brazil.

h) Suppliers of raw materials: They are residents of riparian communities and farmers. With the former, the relationship is informal, commonly establishing unwritten agreements for selling their output (purchase agreement), and, in some cases, other types of relationships are established. Commercialization is carried out both with producer associations and with individual sellers. With the latter, formal relationships for buying and selling raw materials predominates.

j) Input providers: Suppliers of inputs such as barrels, plastic bags, sample bottles, cleaning products and machines come respectively from the states of Goiás, São Paulo, Minas Gerais and other municipalities in Pará.

5 CHARACTERISTICS OF ISOMORPHISM WITHIN THE ORGANIZATIONAL FIELD OF AÇAI AGRIBUSINESSES IN CASTANHAL, PARÁ

The Castanhal municipality is located in the Northeast of the state of Para, 65 km away from the capital (Belém). With a population of 173,149 (IBGE, 2010) and an 0.93 urbanization rate, the town is important for its great many industries, especially agribusinesses (SEPOF, 2011), such as the ones that operate with açai pulp. Although it is not a producer of the fruit (açai) itself, it has recently attracted several pulp processing industries, in a process described below.

Regarding the structure of agribusinesses' organizational field, certain institutions contribute more than others, especially to the organizational isomorphism phenomenon. International regulatory agencies were the ones that most deserve mention, mainly for raising corporate quality standards. MAPA and ANVISA did not present any initiatives capable of raising production quality standards. Companies that suffered direct intervention from international institutions (through regular visits by representatives) presented the best products in terms of quality, as reported by one interviewee:

> The ministry did not make any demands, ANVISA did not make any demands. Customers made demands and we had to adapt [...] mainly to international norms [...] (Company 2 Representative).

Albeit with a more limited role as to coercion in the field of exporting, the two institutions have contributed with a disciplinary process, which influenced agribusinesses operating in the domestic market to become equal to each other, triggering an isomorphism process such as described by DiMaggio and Powell (2005). There was also pressure from international customers for agribusinesses to pasteurize the product to be exported. In this case, international regulatory agencies contributed to the similarity of production practices with quality standards that was also similar amongst exporters. Thus, two institutions exerted greater pressure: customers and international regulatory agencies. Pressure occurs when the customer requires specific quality from the product, such as organic açai or specific production structures, as reported by a Company 1 representative:

> Only companies that have the most demanding customers, especially those from the international market, strive to adapt to meet the needs of these customers [...] (Company 1 Representative).

> [...], whatever growth occurred, whatever information was gained, all came from abroad. Nothing is from here. No consultancy, no partnership with universities, nothing. Everything came from abroad [...] All the changes that occurred in the agribusinesses were due to the customers [...] Many Americans came to visit, to establish the standards they wanted, inspections, audits [...] (Company 1 Representative).

> We had a specific customer who only wanted to buy our organic products, so they themselves financed this [...] (Company 2 Representative).

If customers, even if different ones, demand organic products, certified companies take on similar standards, and thus present themselves as a source of coercive isomorphism. In this way, the importer is an indirect source of coercive isomorphism, because the imported product must meet the minimum standards of food safety required by the country the importer comes from. At this stage another institution becomes noteworthy: the regulatory agency.

Another coercive isomorphism mechanism was the outsourcing process companies 1 and 2 faced, although Company 2 did not establish any formal contracts. Both had a direct relationship with the same outsourced company. This company trained employees from both the companies studied, teaching their production process, already within international standards. This is a common phenomenon and has manifested in other agribusiness organizations that operate in domestic and international markets. This phenomenon contributes to learning, influencing isomorphism, because companies start to take on similar organizational behaviors.

The relationship that firms 1 and 2 have with ANVISA and MAPA, with customers, with regulatory institutions from importing countries and with the company responsible for outsourcing reveal the links that make companies structurally equivalent, in the way predicted by White, Breiger and Boorman (1976), an important aspect in the process of structuring the organizational field.

Moreover, since this is a structuring field, striving for legitimacy is one of the foundations for consolidating organizations, and so they avoid any inadequate responses, in the way described by Meyer and Rowan (1999).

The manifestation of mimetic isomorphism in the studied field occurs when uncertainty manifests. DiMaggio and Powell (2005) argue that business organizations are encouraged to imitate those that are considered models within the field, triggering mimetic processes. In this case, CAMTA (an already well-established cooperative in the field of fruit pulp processing) was presented by an interviewee as one of the most experienced companies. Although, nowadays, other agribusinesses are "models" of technical efficiency in the field of exporting, the difficulties in carrying out mimicry are greater.

> (...) at the time, the companies that were most important were CAMTA, and Company 1, because they were stronger, and older in the market (Company 2 Representative).

Whilst imitation is triggered by tension brought about by uncertainty, companies also seek institutionalized elements in the field to achieve legitimacy and survive, as proposed by Meyer and Rowan (1999), although this does not guarantee improved performance. This was what happened to Company 2 regarding some of their certificates. According to the interviewee, having a certification as Kosher and Halaw was not an immediate need for the company, nor did it lead it to present its best performance:

> When I arrived, they had carried out some informal research about what big factories such as CAMTA and SANBAZOM, which at the time were references, had in terms of certificates. And so, for example, they did some quick research on the Web about *Kosher* and *Halaw*, and thye saw that it would

> be interesting for us to have this [...] CAMTA and SAMBAZOM referred to certification. They knew, everybody knew. In the Fruit Unon, SAMBAZOM is from Macapá, but it is affiliated to the union over here [...] So they came to meetings etc. So, at these meetings they basically knew what there was over at CAMTA and all that, the chemist who worked over there. [...] They knew they needed the APPCC, which is a type of certificate, it's called HACCP in the US and here in Brazil, APPCC. In the past it was a requirement for exporting. You had to have the APPCC (Company 2 Representative).

This excerpt from Company 2 Representative's interview reveals the incorporation of formal structures, which manifest themselves in the form of institutionalized myths and ceremonies, such as argued by Meyer and Rowan (1999). In this case, APPCC is an institutionalized myth. The interviewee's information also demonstrates the role of the Union as a source of access to information, which is important in minimizing uncertainty for decision making in the way suggested by North (1993) and DiMaggio and Powell (2005).

The incorporation of structures and practices observed in the field also occurred regarding the installing of laboratories in agribusinesses as well as the hiring of specialized technicians. During the interview with the Company 1 representative, certain experiences from other agribusinesses from the organizational field were stated, revealing that companies 1 and 2 are institutionalizing agents, given their time and experience in the market. Moreover, Company 2 is one of the largest in the organizational field. These experiences demonstrate how the economy of effort and response suggested by Berger and Luckmann (2007) manifest:

> [...] I said: Joaquim, this year he had a new chamber made. Mr. Joaquim, why didn't you make the correct logistics line... Products coming in, and products going out? Because it's not like that at Mr. José's! [...] Ah, but Mr. José did it this way. [...] So I said: Who told you Mr. José is always right? And he said: Ah, they're working, they're the biggest, they're an example to us. It's the biggest one, the one that produces most [...] (Company 1 Representative).

Mimetic isomorphism can also be perceived when the similarity between agribusiness plants is observed. This similarity is attributed to the business relationship the entrepreneurs had with the oldest agribusinesses, before they set up their own factories, since they were açai middlemen. Around 80% of owners of agribusinesses in Castanhal were middlemen or homemade processors of fruit:

> Mr. João made a lot of mistakes, but we copied him making corrections [...]. They used the example of Mr. João, you see, but fixed things within their own process. Was it 100% perfect? No! [...] Nowadays they have undergone changes to improve even more [...] but they used him as an example (Company 1 Representative).

> In the old days [...] it was the national market alone, they had nothing to hide [...]. For example: Mr. José sold fruit before he became an agribusiness. So he sold fruit to Mr. João. He'd go into Mr. João's factory to leave the fruit, so he checked how processing happened, walking around [...] At the head of Plant A in Company 1, there is a family, they also sold fruit, and nowadays it is all a copy of Plant A in Company 1 and a copy of Company 2 [...] So, they had more freedom , because the former middlemen became the owners of the agribusinesses, so we saw a lot of this in Castanhal, it's a small town [...] copies: process lines follow the same sequence, the way in which reception happens in Company 2 is the same as in Açai Company [...] Who innovates and differentiates most is Mr. João. He wants to be different from the others. So the others, when they had access to his factory, started to copy him. This doesn't happen nowadays anymore (Company 1 Representative).

When the field is first structured, exporting agribusinesses, longing for acceptance

and legitimacy, present evidence that they were suffering greater institutional influence and less technical pressure, such as proposed by Scott (1999), because the idea that the oldest were most successful and copying their structures brought about expectations of getting the same results and acceptance, as argued by Meyer and Rowan (1999). However, when the field starts to develop, technical efficiency begins to exert more pressure on agribusiness exporters.

It is possible that this behavior by organizations and their caretakers can be justified by the absence of an industrial base (commodities) and technological innovation institutions for the industrial sector in the region, since açai is a product exclusively produced in a region facing a low rate of technological innovation. However, agribusinesses have begun the search for technical efficiency, scale of production, technological improvement, product diversification and management improvements, revealing changes in the role of institutions that influence the field.

Technical training centers are the main source of normative pressures. Universities are also a source of connectivity between organizations. However, the University hasn't as yet managed to become a great technical support institution for the agribusiness sector.

The fact that a group of professionals is trained in training centers within the same region makes their stances and decision making similar to each other, and is a force that, over time, leads companies that hire them towards organizational isomorphism, since they are all driven by the pursuit of a high standard of quality in products and processes.

This force becomes even more intense when it became apparent that most agribusiness technologists hired by companies in Castanhal between 2005 and 2009 were trained at the same university, which means that, besides the same training, professionals maintained close informal relationships, increasing the flow of information in the field. Over the last four years there has been increased participation of other education and research institutions in influencing the structuring of the field.

> Since it is a small town, Castanhal, like I told you, most people entered in 2006; Henrique joined Company 1, Plant A; Rosilene, Company 1, Plant B; Pedro, Company 2; Bruno, Açaí Company, all technicians from the same class, graduated in the same UEPA class. [...] At that time, in the class, there were 11 people from Castanhal. So if Rosilene gets a job, I know it is in the açaí agribusiness. I know, Pedro knows. So everyone starts to hand in their resumes at açaí agribusinesses. They knew a technician had been hired, maybe they didn't know what for, but the company that was a model hired so I will as well, so everyone began hiring [...] (Company 1 Representative).

However, although field professionalization has been given by the University, institutionalization occurred both due to regulatory pressures, such as mimetic processes, already demonstrated in the excerpts of the interviews, forming the tacit knowledge of professionals with expertise represented by the participation of universities and research centers:

> It was experience that made us learn, made us understand what the market wants, the legal requirements. School, university, this course… they helped in some sense, but they are very focused on Brazil and Brazil is not demanding. The United States is demanding. Rosilene faced an audit by an auditor who brought a mirror and a spatula: the mirror for him to see if it was dirty underneath things, and the spatula he placed through openings to see if there was any dirt, because this is the exporting market. This week we faced an auditor [...], trying to find out everything about the factory, everything! How we take care for there not to be any insects inside the factory, everything! So this perspective came from experience, and it has improved more and more. (Company 2 Representative).

Normative processes are isomorphic pressures on organizations and responses occur mostly due to subjection, in which daily practices become more

and more similar over time, due to the hiring of employees with similar training. This aspect is related to organizational legitimacy. In sum, Chart 4 presents the institutional structure that pressures the process of organizational isomorphism within the açai pulp exporting agribusiness field.

Isomorphism Mechanisms	Pressure	Institution/Agent	Strategic Response	Changes
Coercitive	Coercion	National and international regulatory agencies	Commitment	Processes
		International customers		Processes and Structure
Mimetic	Uncertainty	Reference companies and Union	Commitment	Processes
Normative	Professionalization	Universities and Technical Formation Centers	Subjection	Processes

CHART 4 – Synthesis of isomorphism mechanisms

Source: the authors, based on results of field research.

6 CONCLUSION

Survey results reveal an organizational field being structures within the açai pulp exporting agribusiness, since: a) interaction between companies from the field was verified, through informal relationships that managers maintain, suggesting connectivity, with awareness that they participate in the same activity; b) the presence of key suppliers, customers and regulatory agencies with similar patterns of activity was verified.

Verified mimetic processes, facing uncertainty, are based on organizations considered references in the field. This phenomenon is also manifested by the fact that entrepreneurs present traditional relationships with the product, leading them to copy models from other companies, from building industrial plants to marketing strategies, even without being sure of their technical efficiency. However, organizations that have been influenced by technical efficiency institutions currently stand out by incorporating technological and management improvement, diversification of products, giving a new configuration to the structure of the field, demonstrating the coexistence of the two institutional standards (technical and symbolic).

Organizational isomorphism is present in the field through coercive mechanisms on the part of regulators and certifiers, outsourcing and international customers. However, dynamics of the field currently occur through restructuring, mergers and company acquisitions, revealing a field in construction and changes in the phenomenon of mimetic isomorphism.

The professionalization of the field is also a manifestation of isomorphic change, and vocational training centers are also elements of connectivity between organizations and a manifestation of the quest for technical efficiency as a way of broadening participation in markets.

The product around which the organizational field has been structuring itself also offers the following challenges faced by agribusiness: a) the change in the current scenario, with increased demand in the domestic market, requires new strategies, b) increasing participation of raw materials of non-extractive origin, due to the development of new agricultural research and higher investments, change the forms of negotiation with suppliers; d) reorganization of agribusinesses due to the acquisitions, mergers and new companies, which may reduce the number of organizations in the field.

However, the fact that more detailed information is restricted to the two companies presents an empirical limitation to broader theoretical verification, although isomorphism features were found in recent changes to the set of exporting agribusinesses, and institutions that influence the formation of a field still prevail. Added to this, research focus was on the characteristics of isomorphism, lacking to further study, for example, issues such as technical efficiency. These limitations suggest the challenge of new research in which a greater number of agribusinesses may be incorporated into the analysis and theoretical issues may be deepened.

Despite the field having separated exporting organizations based on standards of quality and technology, there is a recent tendency towards resembling each other, because of the increasing number of customers requiring the same product quality standard, which increase the characteristics of isomorphism. Response to these circumstances has been an effort by business leaders to innovate or to carry out technical improvements.

Although the structuring of the field is in progress, development banks for agribusiness activities have had a small role in this. Moreover, institutions such as EMBRAPA (production support) had a more prominent role, but this occurred more recently (over the last four years), in their research seeking to increase productivity and improve the quality of the acai berry.

Different management support institutions, on the other hand (such as SEBRAE, for example) were not relevant in structuring the açai pulp exporting agribusiness field. This is another focus that has opened up for further studies in business segments, where technical, technological and management fostering can become a strategy for business and regional development.

NOTA

1. We emphasize that the excerpts of interviews to be presented later in this article do not identify interviewees, since, for ethical reasons, when carrying out research, a commitment was made to preserving the identity of each of them.

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