Network positions: Strategic Alliance in the Tobacco Industry in Nicaragua

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ABSTRACT

This paper is based on the theory of the organizations as a network. I study the strategic alliances in the tobacco industry in Nicaragua. The study is more theoretical than empirical. I work with approaches in this field and any data of Central Bank of Nicaragua. My objective is to demonstrate that the firms in the tobacco industry are prone to enter in strategic alliances.

Keywords: Network Positions, Strategic Alliances, crowding positions, Tobacco Industry.

RESUMEN

Este artículo está basado en la teoría de las organizaciones como una red. Estudio la alianza estratégica en la industria del tabaco en Nicaragua. El estudio es más teórico que empírico. Trabajo con los enfoques existentes en la temática y algunas estadísticas del Banco Central de Nicaragua. El objetivo es demostrar que las empresas en la industria del tabaco están propensas a entrar en una alianza estratégica.

Palabras clave: Posiciones de redes, alianzas estratégicas, posiciones de hacinamiento, industria del tabaco.

INTRODUCTION

Strategic alliances have become a topic of considerable interest to scholars of organizations, because alliances are now prevalent in many industries, and they inherently challenge the notion that organization are discretely bounded entities, researchers have labored to understand the antecedent conditions that lead to interfirm collaboration (Stuart, 1998). In the tobacco industry in Nicaragua has been a strategy alliance since the late 90´s.

Two central questions lead this paper. The first one, what motivates tobacco companies to form strategic alliances? The characteristics of organizations, such as their size or financial condition, predispose firms toward or against engaging in certain actions. In empirical work a variety of firms attributes, including size, age, scope, and resource endowments affect the propensity to enter into alliances. The second question, how does the tobacco company position in the industry affect its propensity to enter in strategic alliances? Alliances are driven in large part by the opportunities tied to a firm's position in its external environment. The firms will enter alliances only when they possess exchange partners with whom they forecast a high probability of a strategically or financially beneficial collaboration, and the availability of such partners is very often the binding constraint on alliance formations.

Although the tobacco industry in Nicaragua is very important, there are no papers that address the issue of strategic alliances. My hypothesis is that crowding positions affects the industry´s propensity to enter into strategic alliance. From the perspective, I point out a case that led to the formation of alliances in the last decade.

FRAMEWORK

Network form organization

Prior to the middle 1970s, economists had largely regarded the organization as a black box that is to be understood as a production function converting inputs to outputs. In the middle 1970s and early 1980s, economists started to look inside the black box, and two perspectives in particular became quite prominent: principal agent theory and transaction cost economics. At least when they first emerged, each perspective was grounded in a dichotomous view of economic organization: markets and hierarchies.

From a purely structural perspective, the trichotomy among market, hierarchy, and network forms of organization are a false one. Markets and hierarchies are simply two pure types of organization that can be represented with the basic network. Each market actor is a node that lacks any ties to the other actors or nodes. A hierarchy is a centralized network in which the vast majority of ties flow to or from one particular node. In effect, from a structural perspective, every form of organization is a network, and market and hierarchy are simply two manifestations of the broader type.

A network form of organization as any collection of actors (N≥2) that pursue repeated, enduring exchange relations with one another and, at the same time, lack a legitimate organizational authority to arbitrate and resolve disputes that may arise during the exchange (Podolny and Page, 1998). The network form is a form of governance.

This definition of a network form of organization includes a wide array of joint ventures, strategic alliances, business groups, franchises, research consortia, relational contracts, and outsourcing agreements. This definition excludes most pure market arrangements such as short term contracts or

spot market transactions, and it excludes employment relations.

The social network approach views organizations in society as a system of objects (e.g. people, groups, organizations) joined by a variety of relationships. Not all pairs of objects are directly joined, and some are joined by multiple relationships. Network analysis is concerned with the structure and patterning of these relationships and seeks to identify both their causes and consequences (Tichy et al, 1979).

Functions of network organization

The network forms allow participating firms to learn new skills or acquire knowledge, gain legitimacy, improve economic performance, and manage resource dependencies. It considers each of these proposed advantages separately:

- **Learning.** Network forms of organization foster learning because they preserve greater diversity of search routines than hierarchies and they convey richer, more complex information than the market. First, they can encourage learning by promoting the rapid transfer of self-contained pieces of information. The network ties are conduits or channels. Second, may foster learning by encouraging novel syntheses of information that are qualitatively distinct from the information that previously resided within the distinct nodes. The network becomes the locus of innovation.
- **Legitimation and status.** If an actor partner in a network form of organization possesses considerable legitimacy or status, then the actor may derive legitimacy or status through the affiliation. This has a number of positive economic benefits for the actor, ranging from survival to organizational growth to profitability.
- **Economics benefits.** In elaborating functions by the network form of organization is important the direct economic benefits in terms of costs and quality. By fostering greater communication than the market does, network forms of organization facilitate greater coordination in the face of changes whose significance cannot be completely conveyed or understood through price signals.
- **Others benefits.** The resource dependence can alleviate sources of external constraint or uncertainty by strengthening their relationship with the particular sources of dependence and small firm networks provide individuals with greater autonomy, lead to less inequality in the distribution of wealth, and foster a greater sense of community.

Strategic interdependence

The strategic interdependence between organizations describes a situation in which one organization has resources or capabilities beneficial to but not possessed by the other. Many organizations face such interdependence, because of their need for resources-not only money, but also resources such as specialized skills, access to particular kinds of markets, and the like (Gulati quoiting to Aiken and Hage, 1968).

A strategic interdependence perspective on alliance formation suggests that firms will ally with those with whom they share the greatest interdependence. This proposition has been explored at numerous levels of analysis. The role of resource contingencies is an important predictor of a firm's proclivity to enter alliances.

Alliance formation and social structure

An alliance is any voluntarily initiated interfirm cooperative agreement that involves exchange sharing, or codevelopment, and it can include contributions by partners of capital, technology, or firm-specific assets (Gulati, 1995). The social network of alliances is dynamic and evolves as new alliances are formed. A firm's position in the network is thus the result of both its own past alliances and those of other

firms in the network. Since new ties alter the very social network that moderates their formation, there is an active interplay between action and structure in this framework that is best observed over time.

Discovering new alliance opportunities and finding an appropriate partner that desires an alliance requires very good access to market information. Firms need to know about the reliability of potential partners as well. Information thus has a twofold purpose, it makes firms aware of viable partners, and it serves as a basis for trust between partners. Firms can learn about potential alliance opportunities from many sources, and one important source is their network of prior alliance.

The social structure guides firms' alliance decisions can be understood by examining both the riskiness of alliances and the organizational processes that underlie alliance decisions. First, it makes potential partners aware of each other's existence. Through such networks firms learn about each other's existence and also each other's needs, capabilities, and alliance requirements at a given time.

There are two different theoretical explanations for firms' actions. In figure 1, information is depicted as

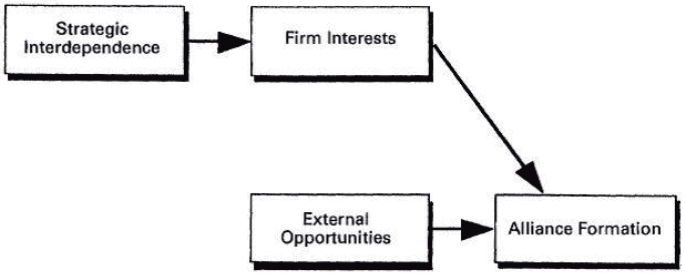

Figure 1: Structure interdependence theory of alliance formation (Gulati, 1995)

The strategic actions of firms are the outcomes of matches between their competencies and new opportunities. Current and desirable future competencies are the primary basis for strategic interdependence between firms. The perspective is focusing exclusively on strategic interdependencies as drivers of alliances, but ignores factors that may lead to the availability of alliance opportunities in the first place.

The social structural model in figure 2 points to the important role of social networks in guiding firms' actions. The social network of prior alliances is an active network of information exchange in which firms learn about the reliability and specific capabilities of current and potential partners. This exchange reveals to firms alliance opportunities they would be unaware of otherwise.

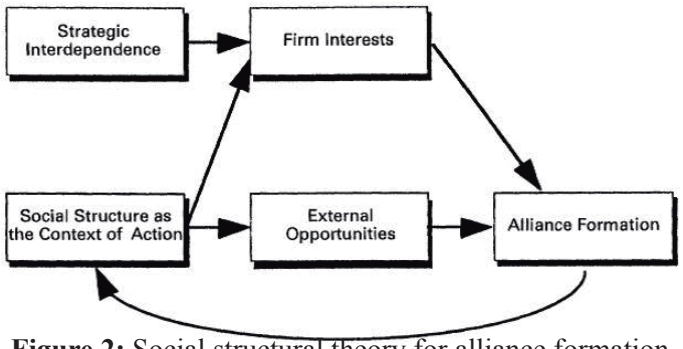

Figure 2: Social structural theory for alliance formation (Gulati, 1995)

The feedback loop from action to social structure in figure 2 indicates the dynamic and iterative relationship of two factors over time in the current context: New alliances alter the social structure that influenced their creation.

Two distinct components of social structure are relevant:

- The relational component of social structure provides direct experience based knowledge about current and prior alliance partners;
- The structural component provides indirect knowledge about potential partners that firms obtain from prior partners, their partners, and the latter's partners, and so on.

The relational and structural components of social structure are influential in alliance formation.

Alliances with private benefits, common benefits and relative scope

There are two different kinds of benefits available to participants in learning alliances (Khana et al, 1998):

- *Private benefits* are those that a firm can earn unilaterally by picking up skills from its partner and applying them to its own operations in areas unrelated to the alliance activities.
- *Common benefits* are those that accrue to each partner in an alliance from the collective application of the learning that both firms go through as a consequence of being part of the alliance; these are obtained from operations in areas of the firm that are related to the alliance.

The scope of the alliance refers to a need that both partner firms have agreed to target (the introduction of a new product or the provision of a new service), typically corresponding to some subset of markets in which the firms are themselves involved. The overlap between the scope of the alliance and the total market scope of each partner is likely to vary and influence the available private and common benefits. The greater the overlap between alliance scope and firm scope, the higher are the common benefits and the lower are the private benefits.

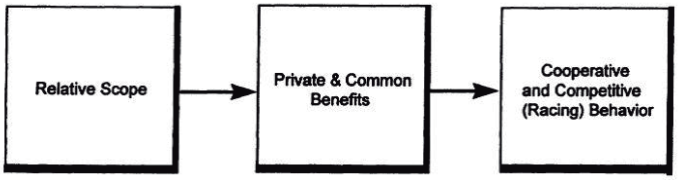

Figure 3: Schematic for argument (Khana et al, 1998)

Consider an alliance between technologically advanced firms A with a firm B in a developing country with the objective of introducing a product P that A is familiar with into B's country. Here firm A tries to learn about the market for P in the developing country from firm B, while firm B tries to access firm A's superior technology. Firm A will have the opportunity to use what it learns from firm B (regarding marketing products in firm B's country) to market other products that it is capable of producing, the more so the more transferable this marketing knowledge is to these other products. Similarly, firm B can use its product knowledge gained from firm A in other product or geographic markets beyond the scope of the alliance.

Strategic learning behavior

The learning process postulated in these economic models is that a firm earns private benefits as soon as it has learned enough to apply this learning to its operations (benefits being earned following the completion of some amount of learning). Common benefits, however, are available only once both partners have learned enough to be able to creatively synthesize their knowledge bases (this synthesis is only likely to occur after each firm completes its learning). Thus, private benefits are realized by a firm prior to common benefits being realized by both firms.

All firms must finish learning in order for any of them to derive the common benefits. Thus, there is no incentive for firms to try to get ahead of each other, or to try and finish learning in an effort to reap private benefits before their partners have finished learning. In such a situation of pure cooperation, resource allocation decisions are best made jointly. Both firms agree on the amount of resources that it is optimal to allocate given the particular stage of the learning process; in effect, for the purposes of resource allocation, they act exactly as one firm would.

Consider an alliance from which the partners can earn only private benefits. The firms set out to access each other's knowledge but there is no common purpose to which they expect this knowledge to be applied. Instead, each firm wishes to access the knowledge of the other in order to apply it to situations in which it can reap benefits that accrue only to it, and not to its

partner. In such a situation, once one firm has learned enough from its partner, it has no incentive to continue to incur the costs of staying in the alliance (since there are no common benefits, which only accrue once both firms have finished learning, to continue to hold out for), and the firm will choose to terminate its involvement. Knowing this, each firm wishes to avoid being in the situation of being the laggard in the learning process; in effect, a situation of pure private benefits causes firms to race against each other.

The behavior patterns sketched out for pure common benefits on the one hand, and for pure private benefits on the other, represent extremes. Most alliances lie between these extremes; firms expect both private and common benefits, and exhibit behavior patterns that are an amalgam of those associated with the extremes. The lower the ratio of private to common benefits, the closer an alliance approximates pure cooperation and jointly profit maximizing resource allocation, and the less the resource allocation differs from the optimal pattern under unilateral learning. Khanna et al (1998) have established that a firm's propensity to engage in competitive racing behavior in the context of a particular alliance may be related to activities of the firms that are not within the scope of the alliance. Further, since the firm's resource allocation at a point in time is determined by its expectations of forthcoming private and common benefits (conditional on its own estimation of its learning and that of its partner).

Network positions and alliances opportunity

Network theorists have investigated the structural antecedents of interfirm alliances. Scholars working within the embeddedness perspective associated with Granovetter (Stuart, 1998) have argued that an established network of interorganizational relationships is a resource that facilitates the establishment and governance of future alliances. The central idea is that social ties convey access to reliable, inexpensive information about the quality and trustworthiness of the actors in a network. According to Gulati (Stuart, 1998) in empirical work on alliances, the patterned diffusion of information about potential alliance partners through the existing intercorporate network is viewed as the mechanism that connects an established alliance network to the formation of new business associations.

Although theoretical discussions of embeddedness theory have been broadly concerned with how social and economic structures affect economic exchanges, empirical strategic alliance studies in this tradition have attended to the much more limited question of whether and how interorganizational alliance networks, once formed, shape the establishment of relationships in future periods. Because the causal motor in these studies has been the circumscribed diffusion of information through the network of prior cooperative activity, questions such as how newly founded organizations, new entrants into an industry, and firms that have not previously formed alliances gain first entry into the alliance network have been outside the purview of extant, empirical embeddedness studies.

Alliances are volitional relationships; a lack of access to a good set of willing exchange partners is a limitation on many organizations' ability to put into place a productive cooperative strategy. The originators of intercorporate relationships are the factors that create opportunities for profitable associations, and the lack of these opportunities is the constraint on alliance entry.

Unlike network theorists, Stuart (1998) focus in network position (high technology industry) approach for two reasons:

- Because prior alliance activity is not a prerequisite for collaboration in the empirical models (although prior innovative activity is a precondition).
- Because it influences whether, when, and to what extent firms have opportunities to establish beneficial strategic alliances.

Two dimensions of technological positioning, crowding and prestige, underpin the paper's theoretical argument and the empirical models. Organizations occupy crowded technological positions when many other firms concentrate in their areas of technological specialty and so are undifferentiated from them.

When organizations occupy crowded positions, it is because many of the technological areas in which they participate are concurrently pursued by many competitors. The figure 4 portrays the uneven population density of organizations across the regions of the two-dimensional technology space of the semiconductor industry in 1991.

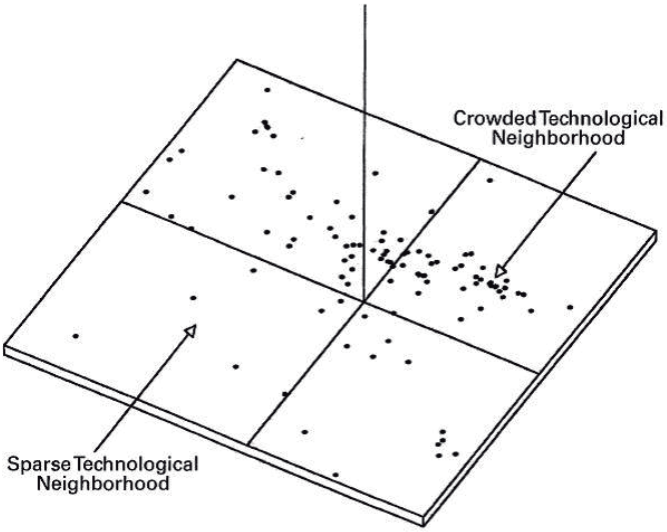

Figure 4: Dispersion of semiconductor firms in technology space (Stuart, 1998).

The image conveys the fact that the semiconductor firms were irregularly dispersed across the technological landscape of the industry: a swarm of competitors converged around some organizations, while other firms were relatively distant from their nearest competitors.

For three reasons the firms in crowded technological positions will form alliances more frequently than otherwise comparable organizations that make their living in relatively unpopulated areas of technology:

- Distance between two firms in their technological foci can interfere with their ability to collaborate effectively. As a general rule, organizations are better able to evaluate and internalize the know-how of technologically similar firms.
- Effort is continuously duplicated within them as undifferentiated firms independently invest in the development of related technologies.
- They have an established presence in the technologies that represent one of the centers of activity in a market; other organizations may seek access to firms in technologically crowded positions for the purpose of functionally integrating, bundling, or otherwise associating their products with one of a market's core products.

Technological prestige influences alliance formations because it affects the number of partners available to a firm and an organization's ability to secure favorable terms in alliance contract negotiations. Prestigious organizations are desirable associates because their strategic undertakings are focal points that draw the attention of external resource holders. Hence, potential customers and employees, the financial community, as well as the media and trade press are likely to become attentive to the initiatives of the affiliates of well-regarded firms. In this way, attention is directed and status is conveyed through interorganizational associations. As a result, a firm's reputation and its ability to mobilize resources are likely to improve when it formalizes an alliance with a high-prestige partner.

EMPIRICAL

Strategic Alliances in Tobacco Industry in Nicaragua

Once aboard the theoretical relation to the organizations as a network. I focus on the study of the tobacco industry in Nicaragua. Among the tobacco products are derived (BCN, Revista de comercio exterior 2011): the cigarettes, cigars, pipe mixture, snuff of chewing

and snuff power. I make more reference to the cigars companies.

Currently tobacco is producing in the departments of Estelí and Nueva Segovia (more than 80% percent of production). Another area, but to a lesser extent is the Ometepe island. Funding for the production of tobacco branch is given by trading companies, which provide the necessary resources to producers to cover production costs. Then, this production is bought entirely by those companies. In free trade mode, there were 10 companies, which in 2003 export $ 13.5 million (figure 5) and are located mostly in the department of Estelí. Three companies export 70 per cent of national production.

Figure 5: Export and average price of tobacco branch (BCN, Revista de comercio exterior, 2011)

The most common variety of tobacco in Nicaragua is known like Habano, because it is from Cuba, but there is a variety Connecticut in smaller proportion. Although the tobacco industry in Nicaragua dates back to the 60´s, the first attempt to form alliances start in 1997 with the Association for Nicaraguan Cigars, in order to create stability in the tobacco industry. That effort was maintained, but until 2006 the initiative was revived and reactivated the association. In 1997 was the boom of the prices of the tobacco, but in 1998 the prices began to the fall, the sales fell and every company is looking for how to deal the crisis of tobacco alone. That made the companies put a little attention to the association.

In the last decade, the tobacco of Nicaragua has improved markedly in quality. So that, the cigars export has increased. Nicaragua is the country with fastest growth in the United State of America (US) market, after Dominican Republic and Honduras. The cigars export in the last six years can be seen in the figure 6.

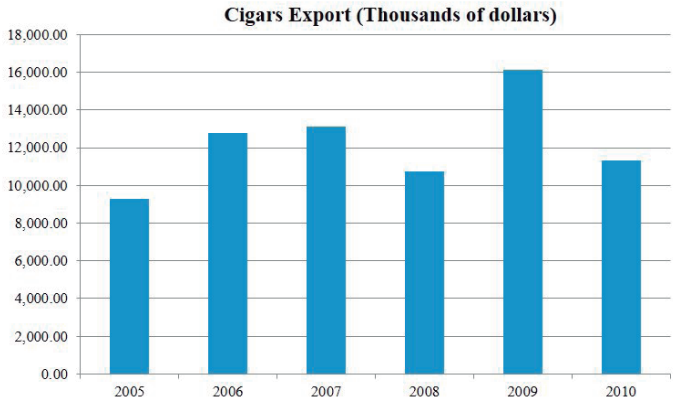

Figure 6: Cigars Export (BCN, Exportaciones fob)

According with the date from the Central Bank of Nicaragua (BCN in Spanish), Cigars export decreased in 2008 due to the international crisis. Although, how percentage of the total exports, its decreasing is greater in 2010 as shown as in figure 7.

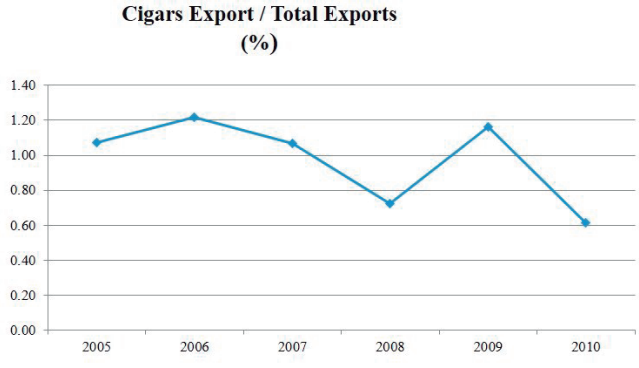

Figure 7: Cigars export between total exports (BCN, Exportaciones fob)

Currently the association is composed approximately 20 organizations. They are the largest manufacturing tobacco industry of Nicaragua, located in Estelí such as Padrón, Latin Cigars, Plasencia Group (Segovia Cigar, Tabaco de oriente and Protanic), Esperanza Cigars,

Natsa, Drew State, Taolisa y Joya de Nicaragua. Also the companies that make up boxes for cigars like Tabaco Home and independent producers; they are an important link in the tobacco production (Fonseca, 2007). This industry generates more than a third of employment in the region.

In light of the theories on organization as network, the tobacco industry in Nicaragua has formed a network organization with different actors (firms, suppliers of materials and producers); they are working to survive in an increasingly competitive market. In this context, the network has advantages for actors, which not only involves learning process and economics benefits, but the legitimation and status (Points Poldony and Page, 1998), as well other benefits related to funding sources in common. In this sense, the organizations face a strategic interdependence within the alliance in formation.

On other hand, access to market information in this network is very important, because the big firms share that information to other actors in the network. The social structural in this industry have an important role of social network, because the prior alliances (in 1997) prove information for new alliances (in 2006). The president of the association, Nestor Plasencia, expects more companies enter in this alliance when they watch the results of the association through its benefits (Fonseca, 2007).

The benefits are private and common, because in this industry every company can earn unilaterally by picking up skills from its partner and applying them to its own operations in areas unrelated to the alliance activities. For example in 2008 as a result of a productive alliance with Drew Estate, Joya de Nicaragua managed to close with a growth of 30% over the previous year (La Gente, 2009). Common benefits are obtained from operations in areas of the firm that are related to the alliance. For his part, Drew State has benefited from alliance in many ways; one of them is the use of the international store of tobacco that belongs to Joya de Nicaragua. The scope of the alliance between two firms is to maintain quality tobacco that projects both trademarks in the international market. This would lead to an increase in common benefits that impact on the private benefits. These companies are an example of joint learning process, because both must finish learning in order for any of them to derive the common benefits.

In this industry prior alliances are important for formation of the future alliances, though it is not a necessary condition, because the association has been maintained through the time and now whit a greater amount of companies, because the firms trust each other.

In the tobacco industry there are two dimensions positioning like in the high technology industry. However, both dimensions tend to be one, because they are not differentiating. A prestige company can be part of a crowded position. This is due to the fact that tobacco companies in Nicaragua are concentrated in a region.

Different elements motive to tobacco companies to enter in strategic alliances such as size, age, scope, and resource endowment. The alliances in tobacco industry established through the association there are companies of different sizes and ages, although the majorities are large companies. There are also many young companies in the industry, which they has ten years of existence. With respect to resource endowment old and young companies do not have greater differences.

Recall that the company´s position in the industry affects their propensity to enter the alliance, because the distance and concentration are a key factor. The companies of the tobacco industry are in crowding position, where exist prestigious companies that transmit some of their knowledge to other companies

within the alliance. The main goal in this industry is to improve their performance and survive in the long term. This performance improves with the high quality in the tobacco and to enter in the new market. Actually, the main market for tobacco companies is the United States of America, followed by Europe, but their joint strategy is to enter in Asia, without neglecting its current niches markets.

CONCLUSIONS

My purpose in this paper has been to demonstrate that the firms in the tobacco industry in Nicaragua are propensity to enter in strategic alliance. One case is the alliance between two big companies: Joya de Nicaragua and Drew State. There are many factors that affect the propensity to enter into alliances. The crowding position in the industry is very important, because the majority firms are in the same area (Estelí department). However there are firms in prestigious position like the companies above mentioned.

The alliances network facilitates the formation of new interorganizational associations (firms, supplier materials and producers). The firms with many previous alliances benefit from a form of relationship or social capital that provides them with privileged access to potential exchange partners. Many scholars have suggested that the alliances are now prevalent in many industries and mark the emergence of a new and superior organizational architecture called network form. Accordingly, they have demonstrated that alliances can facilitate learning, enhance status or legitimacy, and contribute to organizational growth. This can be evidenced between the alliance of Joya de Nicaragua and Drew State.

I conclude that several concepts of the network organization are applied to the study of strategic alliance in the tobacco industry, which it has particular characteristics that could not be generalize to other industries. This paper has been a small contribution in study a very important sector of Nicaraguan economy, since the point of network organizations. Although, the lack of sector information could not extend beyond that presented in this paper. However, it can be the basis for further study of the industry with this and other approaches.

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