The Entrepreneurial Power of the Stellar Organization: The Cases of the Furniture and Clothing Poles of Uberlândia

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Abstract

This paper uses a framework proposed by MIT's 21st Century Initiative to discuss the adequacy to Latin American countries of a special case of the small businesses/large networks scenario—the stellar organization model. It draws from MIT's initiative to point out strategic issues opposing stellar organizations to other models of small businesses/large networks and to large multinational corporations. The paper focuses on both the requirements for success and the potential outcomes of the stellar organization. The requirements for success are analyzed in terms of social, economic and technological environments for the entrepreneurial activity. The potential outcomes are shown to boost entrepreneurial activity. On the practical side, the paper presents two cases of the planned implementation of the stellar organization in two different industries in Uberlândia, Minas Gerais State, Brazil. In the analysis, emphasis is given to strategic issues and to the entrepreneurial requirements/outcomes framework previously discussed in the paper.

Key Words: Stellar organization; economic clusters; furniture industry; clothing industry

1. Introduction

Emergent and third world countries need an organizational model for the 21st Century. In particular, Latin American countries face the globalization of the economy with few strong market actors. Regardless of the origin of the situation, the role of the Latin American countries in the world economy will depend on their ability in developing an organizational model, which would allow them to compete successfully. In order to achieve competitiveness, such a model should reach two objectives. First, it has to overcome the problem of the lack of competitive global brands, at both levels of brand image and price competitiveness. Also, it should provide a way to unleash the strengths of Latin American countries, preferably those inherent to them, such as the ones based on cultural aspects.

MIT's 21st Century Initiative (Laubacher& Malone, 2000) offered two scenarios for the year 2015, providing a framework in which a solution can be sought. The Initiative foresees the business world as assuming one of two alternative formats. In one of the scenarios, large multinational, hierarchical corporations would prevail. In the other, small companies, integrated in extensive networks, would be the predominant ones. Each one of the scenarios has its pros and cons.

This article uses this framework to argue about the adaptation and strategic advantages of a special case of the small companies/extensive networks scenario—the stellar organization model. Based on MIT's Initiative, strategic aspects of the stellar organization are compared with alternative models of the small companies/extensive networks scenario and with the large multinational organizations scenario.

After a conceptual analysis, this article finalizes by bringing in two specific cases of stellar organization implementation projects in Uberlândia, Minas Gerais State, Brazil. Emphasis is given to aspects of the projects linked to the strategic entrepreneurship-based issues discussed in the body of the article.

2. Small Companies in Extensive Networks versus Multinational Corporations

An appropriate framework to evaluate types of organizations that can prevail in the future was built by MIT's 21st Century Initiative program. It proposes that one of two alternative organizational formats will prevail after year 2015. In the first scenario, small companies operating in large networks would be prevalent. In the other, large multinational conglomerates would (Laubacher & Malone, 2000). MIT's program focused its analysis mainly on the size (small versus large) and the longevity (temporary versus permanent) of the companies, as well as on the implications of either scenario for the role of government. The scenarios generated by the Initiative provide a good framework to evaluate the characteristics stellar organizations need to have in order to successfully develop Latin American business atmosphere, particularly as other dimensions related to competitive position are added.

Multinational corporations scenario: For the 21st Century Initiative (Laubacher & Malone, 2000), multinational corporations can reach such a size and such a wide role that they are called "virtual countries". In this organization format, large multinational conglomerates, in the keiretsu style, run multi-product companies and operations, regardless of country boundaries. In fact, they became a substitute to the idea of nations, at least for their members. They control "wealth that is more important than the very territorial domain: the access to knowledge, to networks and to life styles" (Laubacher & Malone 2000, p.77). Given their huge size, the predominance of such organizations would lead to oligopoly: few organizations would dominate markets and supply chains. Par excellence, scale becomes the source of competitive advantage and the typical barrier to the entrance of competitors is size. Size and centralized operation would also favor protection of knowledge, which becomes more valuable and more difficult of being protected by intellectual property legislation.

Small companies in extensive networks scenario: In this scenario, most of the specific tasks are accomplished by autonomous teams or by small companies temporarily linked by the objective of undertaking a certain project (Laubacher & Malone, 2000). Although a formal command structure is not present, some authority level exists, located in the company—however small—, which takes the responsibility for decisions on investments in research and development, marketing and production. Even such core tasks can be "outsourced" by the leading (small) company. Thus, this company acts basically as a marketing company; one that detects consumer needs and looks for ways to satisfy them. Even the consumer needs search and detection phase can be outsourced, leaving to the company only the task of deciding which product or technology will be offered to the market. Still, to help the leading company in defining which products it will offer to the market, the company can hire R&D suppliers (perhaps more than one) that will simply follow guidelines given by the company for the development or creation of products. Next, having decided which product it will market, the company outsources the production from one or more small manufacturers. In the same way, sales can be outsourced. Just the role of activating the market is left to the company, what can also be made with the help of outer suppliers (as traditionally done through advertising agencies).

The great competitive advantage of such a type of organization resides in its flexibility in responding to the market, both in terms of which goods or services it will deliver and of timing. Here, flexibility means more than offering an adequate set of product alternatives from which consumers choose the one that satisfies their needs. It begins with being close to consumers and having the ability to give them something they need through an individualized negotiation process. Flexibility in satisfying consumer needs is a source of sustainable competitive advantage in marketing strategy (Weitz & Wensley, 1992).

3. Models of Small Companies in Extensive Networks

Given its objectives, MIT's 21st Century Initiative did not advance in further detailing different organization models within the two suggested scenarios or arrangements. In this paper, we are particularly interested on how organizations link with their markets.

Based on the type of connection established between companies and the market, a typology of organizations under the small companies/extensive networks scenario can be offered. Four different models were identified.

A fund provider is the market link. In this organization model, a capital owner prefers to keep distance to production, and hires it from smaller companies. Typically, small companies create projects that are offered to a fund provider in exchange for some participation in the profits of the project. Two examples illustrate this model. The oldest is the model adopted by the movie industry (Laubacher & Malone, 2000). Until the early 50's, large studios used to undergo mass productions. In the 50's, smaller producers—hired to produce previously discussed projects—substituted for the large studios. A more recent version of this model, common in the information technology business, is the risk investment. Here, business projects, vested as attractive business plans, receive financial infusion in a venture designed to remunerate capital at high rates, if the enterprise is successful. High rates compensate for the risk of failure. In both examples, products tend to be aimed at specific market segments, because creation (the idea) and development are done close to the market. Even though, the launching decision is centralized and tends to follow a formal process (by the fund provider), increasing response time and, therefore, hurting flexibility.

A traditional outsourcer is the market link. This model involves radical outsourcing by a given company. The practice of outsourcing appeared in United States before World War II. It became a consolidated managerial technique in the 50's, along with the acceleration of industrialization. Although in some cases outsourcing is regarded only as a way to reduce labor taxation and obligations, it actually involves a wider concept—one of fixed costs reduction, which is particularly appealing when dealing with frequent market fluctuations. It generally implies transferring some activities to specialized companies, leaving the contracting company free to concentrate its efforts on its end-activities, on its "core business." In particular, the automobile industry (assemblers) has outsourced the production of parts and components for a long time. In recent times, this process has been pushed to the point that new plants outsource complete systems of an automobile (e.g., the Volkswagen's new plant for trucks in Rezende, RJ, and GM's in Gravataí, RS, both in Brazil). Another well-known example is the case of Nike, which outsources all of its production, transportation and distribution, undertaking internally only project development and marketing (particularly aspects related to building brand image). Notice that in this kind of outsourcing, the connecting element is usually a large company, which assumes all relationships with the market. Other participants are generally much smaller companies (in fact, "outsourced" companies act as departments of the central one). In this model of small companies/extensive networks, potential gains in flexibility are credited more to the absence of fixed investments by the outsourcing, central company than to reductions in the answering

A cooperative is the market link. The next model is the cooperative. This concept appeared initially in England, in 1884, when a group of employees of the textile industry grouped to form the first cooperative of the world. Ever since, the concept is being consolidated and improved. The word "cooperative" derives from the Latin cooperari, formed by cum (with) and operari (to work), meaning to act simultaneous or collectively for a common end, or to work in common for the success of the same purpose. Small producing units (legally, at least 20 people or companies) associate to create an organization (the cooperative), which should accomplish certain tasks (usually, purchasing of the associates' supplies and commercialization of their production). Although governed by the vote of its associates under a normative, highly regulated regiment, cooperatives act in an independent fashion to reach their objectives. As the organizations responsible for the links of the associates with the market, they usually market the associates' products under the cooperative's brands. However, the fact that the objective is to market the existing production of the associates—and not to fulfill the demands present in the market place—usually impacts negatively the flexibility expected from small organizations pursuing the market independently.

<u>A stellar organization</u> is the market link. The fourth model—the stellar organization—is central to this paper. The stellar organization model appeared in Northern Italy in the last 20-30 years. It originated in response to the Asian price-based competition crisis—a phenomenon part of what is now known as globalization—and to the demand changes towards more personalized and less mass oriented products. Both movements are present and strong in our days, in practically all industries.

Two aspects characterize the stellar organization. The first is an extraordinary specialization of the different stages of production. The second is the existence of a large number of companies linking with the market (the stars or mother companies). Normally, they are responsible for product development and commercialization.

As for the production, the system uses a co-division of a highly specialized productive structure. This way, specialized producing companies can negotiate their specialized products (goods or services) with a large number of mother companies. As a result, a highly flexible system is created, capable to fulfill quite specific demands from the market. At the same time, production specialization guarantees enormous scale and learning gains, given that each small company undertakes a single stage of the productive process.

Just as a word of caution, in a more rigorous way, in all the three previously presented types (fund provider, outsourcer and cooperative) the link can be regarded as a "star"—a central entity. However, in this paper we adopt this denomination for a more specific organizational arrangement, in which a host of small mother companies (the "stars") make the link. In Italy, where they originated, they are known as the "Organizzazione Stellare," or Stellar Organizations. A more appropriate denomination would be "the constellation organization."

4. The Stellar Organization

The stellar organization is illustrated in Figure 1. Boxes represent small, specialized producing firms. Stars, or mother firms, take advantage of a "market" of competing suppliers—the specialized producing firms. The mother companies are usually responsible for product creation and development, marketing and commercialization (in some cases, competing external companies supply one or more of these stages). The primary function of the mother companies ends up being one of agglutination of a process designed to offer a product to the market. The supplying companies take charge of very specific phases or stages of the process—in particular, of the production stages. Some of the features of the stellar organization are discussed next.

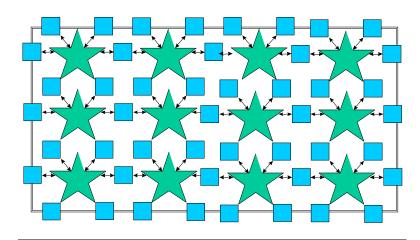


Figure 1: The Stellar Organization and the Co-Division of the Production Structure

High specialization: Extremely high specialization is the main distinctive feature of the stellar model. Differently from the other three small companies/large networks models, specialization is intensive in the stellar model. In the fund provider model, there is an incentive for the fund provider to hire a single company to accomplish production. Its objective is to reduce costs, and a bundle of providing companies may elevate administrative and control costs. In the case of the outsourcers, there are no a priori limits for the specialization, but outsourcing is also based on fixed cost minimization. This creates an incentive for the outsourced tasks to be full systems, instead of specific production tasks. Finally, in the cooperative case, there is no inherent motivation for specialization, given that the producers themselves take the initiative of setting up the cooperative.

In turn, in the stellar organization, the idea of specialization is inherent to the model. To see this, first take the point-of-view of the supplying companies. Specialization helps these companies—mostly operating on individual or family basis—to concentrate on a very specific stage of the process, generating high knowledge about it. Consequently, very advanced processing technology can be created. Here, the incentive is the higher efficiency and profitability obtained by small autonomous managerial units. Large organizations experience more difficulty in improving processes for being necessarily more bureaucratic (they demand the authorization of at least one superior hierarchical level). Moreover, even when motivating their employees to make improvements, they will always appropriate part of the benefit generated with the improvement, thus reducing the incentives to make such improvements.

From the perspective of the mother company, in principle specialization generates additional costs (more negotiations, more physical flow of products, more controls). However, additional costs can be compensated by process and product quality improvement, as well as by smaller bureaucracy required by the smaller producing unit. Moreover, smaller operation units generate cost reductions beyond process improvement and smaller bureaucracy. They normally involve lower labor and social costs, generally imposed by employee-employer relationship regulations, but less restrictive in home-based work.

The presence of high specialization in the stellar organization is easier to notice in two examples—the clothing and furniture industries. First, take a clothing mother company, say, Mr. Ítalo's. At a certain moment, his purpose is to prepare next winter's collection. To do so, he first goes after to a small fashion design supplying company, negotiates for pricing and timing, and provides it with parameters, distinctive of his brand. Once the design is approved, Mr. Ítalo hires another small company that is specialized in preparing the prototypes. Subsequently, these are approved and photographed for promotional materials (folders, posters, etc.)—all done by another third party: an ad agency. Another small, specialized company also makes the demonstration collection. Another company is then hired to make a set of molds for the collection, for the different clothes' sizes. At this point, Mr. Ítalo has already hired a sales company and an export company (both small ones) for the commercialization. Next, he buys the fabric. Then, fabric and molds are forwarded to a specialized firm to do the computer-aided cutting of the fabric piles. One small firm will then do some specific seams, another will do other seams, another one will do some of the finishes (such as button nailing), and even another one will do other finishes (perhaps the house of the buttons). And so on. The whole process proceeds until the stage of quality control, also accomplished by a small firm specialized in the matter. Finally, a small firm, specialized in clothes transportation, will distribute Mr. Ítalo's clothes to retailers. Something very similar happens in the furniture industry. A company makes the cabinets' frames, another makes the doors, another makes the drawers, another makes the feet of the chair, another does the painting, and another assembles the parts together.

<u>Multiple mother companies</u>: This is another aspect that differentiates, in structural terms, the stellar organization from the other small firms/large networks models (fund provider, outsourcer, and cooperative). In those models, the connecting element is a single organization, generally one that is very large, when compared to the producing units. In the stellar organization, there are a large number of fairly small mother companies. Two are the consequences. First, in the perspective of the small supplying firms, the stellar organization provides larger scale and the reduction of fixed costs—as the same specialized task will be done for many mother companies. Second, in perspective of the mother company, it assures better market satisfaction—given the generation of higher product design flexibility.

The small, highly specialized supplying firms gain scale—and, therefore, can invest deeper on technology—as they do the same, specialized task for several mother companies. The multiplicity of mother companies guarantees a volume of business that would be unthinkable for extremely specialized firms working for one or a few customers. However, in order to gain scale it is even more important the fact than the multiplicity of mother companies tends to assure a certain homogeneity of the demand, what would be hardly achieved if only one or few customers were present. This contributes for diluting fixed costs as the production capacity is divided among several mother companies.

An additional aspect, still under the perspective of the small supplying units, it is that the multiplicity of mother companies assures them a more perfect market. As they supply multiple users of their capabilities, the bargaining power of the supplying units is larger than it would in a situation with few customers—a common situation in the fund provider, outsourcer and cooperative models. Therefore, the multiplicity of mother companies in the stellar model represents a market guarantee that an appropriate remuneration is granted to the small supplying units—one that motivates them to achieve quality specialized work.

Other relevant aspect of the multiplicity of mother companies in the stellar organization derives from the fact that as the interaction with the market is made through a large number of companies. This facilitates a large capacity of, mainly, "listening" to the needs of the market. As a result, marketing risks are diluted: if a large, singe outsourcing company fails in the market, every small outsourced firm will feel the consequences, given that they are dependent of a single link with the market. The risk would be even larger in the fund provider and cooperative models. In the case of the fund provider model, the market failure of the project can represent a death sentence for the financed company.

If the cooperative fails, a portion—possibly a significant one—of the members' patrimony can be lost, as the cooperative belongs to them and any market risk assumed by the cooperative is a risk its members take. In the stellar organization, there is a smaller dependence of the supplying companies to individual mother companies.

Flexibility is present in the stellar organization as different mother companies market specific products, increasing the possibility that consumers have their needs satisfied. There is a larger diversity of offerings: the more companies, the more products, larger the possibility of satisfying specific needs. The very fact that there are several mother companies acting in the market, each one preserving an identity, aids in the offerings' diversification. Moreover, the very structure of the stellar organization facilitates more flexibility in attending the market. Given that the production structure is specialized in phases of the productive process, diverse arrangements of the productive capacities (that represent, in fact, fixed investments) can be quickly made in order to satisfy specific demands. As the small productive capacities represent the fixed investments of the system, flexibility is achieved without the need to incur in large fixed investments. The diversity of possible arrangements provides flexibility. For this reason, specific transaction costs are minimized in the stellar organization model.

How the stellar organization works: The operation of the stellar organization also brings some diseconomies when compared with hierarchical organizations, particularly for the multiplicity of transactions involved. Each one of the transactions involves costs of negotiation, communication, coordination, physical transportation, and control over processes done remotely. The 21st Century Initiative program assumed that "whether a task can be done within a large organization or in separate entities will be determined by the total costs involved" (Laubacher& Malone, 2000, p. 80). Therefore, what makes viable the operations in the stellar organization is having larger benefits from flexibility than the extra costs generated. This implies that the transaction costs have to be kept low in an environment rich in external transactions. Laubacher and Malone (2000, p. 84) suggest, "In a world of networks, patterns emerge as an important instrument to make interactions possible." However, the negative side of the adoption of patterns (such as technical specifications, conventions, etc.) is the loss of flexibility in satisfying the market. What the stellar organization does to reduce the costs of external transactions is to establish a system of intense communication, and personal and permanent negotiation (Toledo 1997).

Such a system makes it possible that, in the stellar organization, each company understands itself as the organ, not the body. In such a system, each small company has high autonomy, while preserving high synergy. To accomplish it, the system is based on high informality (it is essentially non-bureaucratic) and on intense negotiation (it provides freedom of action). True partnerships among the participant companies prevail, direct by a sense of belonging, not formal contracting. Differently from the cooperatives, there is no central organism. What organize the system are flexible consortia involving small companies, business associations, government entities and unions. What ties everybody is the common objective of obtaining a market share. Solidary behavior is found among the companies, with the understanding that the results benefit everyone (Toledo, 1997).

Among the elements composing the system, "intelligence centers" have to be highlighted. Such centers look for market information (such as fashion and style trends, in the clothing industry) and technology information, usually with support of government funds and knowledge generated in universities. This is usually done in the form of a consortium, in what it resembles the cooperative system above mentioned. However, differently from the cooperative, such consortia concentrate on searching for market and technology information, and not on commercialization.

Outcomes: Wherever the stellar organization system operates, it has been generating wealth and high life quality. In particular, Northern Italy is, today, one of the most affluent areas of the planet, along with California's Silicon Valley, in the United States. Even being in a Europe characterized by high unemployment rates, Northern Italy has negative rates of unemployment. That is, it has to import workers to supply its labor needs. The reason for such high success seems to reside fundamentally in the capacity of the stellar organization to preserve and to enhance the flexibility attributed to the small companies/extensive networks by the 21st Century Initiative, while obtaining—and even increasing—scale advantages typical of large multinational hierarchical organizations. As they operate with extreme specialization, the small supplying firms achieve gains of scale comparable, if not superior, to those achievable by large organizations. Not only the production volumes are high, but also the demand can be relatively homogeneous along the time, as a host of mother companies contract their production. Furthermore—and maybe even more important—the organizational system of independent supplying-producing units, stimulated by the possibility of appropriation of gains of scale, leads to the technological development of the productive process.

On the other hand, the organic system is settled by the intense and continuous negotiation and solidarity among member companies, acting "always in partnership, downplaying the role of process and product patents, without exclusiveness, with no paper work in materializing the partnerships" (Toledo, 1997, p. 16). As a result, the incremental costs and inefficiencies in an atmosphere replete of external transactions are minimized.

In summary, the stellar organization model makes it possible to aim at the advantages both of the small companies/extensive networks (e.g., flexibility) and of the large multinational organizations (e.g., gains of scale), as the coordination costs of the external transactions are minimized.

Another aspect of the stellar organization model that deserves to be worked out separately is the question of branding. The next topic discusses it.

5. Branding: Difficulties for the Stellar Model

Large multinational organizations and small companies/extensive networks lead by a single market player have the advantage of being able of to establish solid brands in the market. A typical example would be Nike, which practices radical outsourcing of its production but markets its products under a single, worldwide brand, which the company regards as its main asset (HSM Management, 1999). The brand has the function of identifying the product, reducing costs for consumers (e.g., psychological switching costs). Thus, a brand represents a quality warranty and an attribute that allow consumers assess the trust that can be deposited in a certain product at a certain time (Feldwick, 1998). To have a well-established brand in the market, firms usually have to go through large, long-term investments, both to make the brand well known and to sustain an appropriate positioning (Ries& Trout, 1985). For the small mother companies that maintain a relationship with the market in the stellar organization model, competing with practically unknown brands can become a problem. The solution seems to be the adoption of some certification in order to execute the functions of the brand, such as identification and quality warranty. In order to do so, some sort of collective effort has to be done. The question can be viewed under two perspectives, from the supply side (product) and from the demand side (consumer).

From the supply side, the members of the stellar organizations have inherent incentives to maintain of a certain quality pattern, as they work under a network of intense personal negotiation and communication. Being part of such a network means, for the companies, adhering to an unwritten pact. Through it, members adhere to a sense of "common destiny," which imposes an incentive process and a pact for quality seeking. The quality pattern is dictated by world level competition (Toledo, 1997). The incentive to keep a quality level is given by eventual sanctions imposed by the network. Failure in sustaining such a pattern may represent the exclusion of the network. This is only possible with a system of intense and open informal communications among the participants.

From the demand side, product recognition or identification of the maker is central. Usually, offering quality warranty requires the adoption of some level of formal structure by the network. In the cases of the clothing, footwear and furniture industries in Northern Italy, the network is recognized through the "Made in Italy" brand. Even so, there is the possibility of falsifications (the improper use of the brand Italy, for example) and the possibility that the network sanctions are not enough to overcome an incentive for members of the network or even outsiders to reduce the established quality patterns. More importantly, consumers have no warranty that specific Italian firms do not compromise with the expected quality level. This highlights the need for offering some type of quality certification, either through some independent organism or some type of formal cooperative action among by the members of the network. In the first case—certification by some external independent organism—will certainly add some cost to the process. For example, some retailer may offer its private brands as a product warranty. However, it will certainly appropriate of a portion of the value of the product for consumers. As such appropriation can be greater than the warranty costs, this track can be less suitable than the creation of a formal, cooperative entity capable of offering the warranty.

The branding question seems to be one of the weak points of the stellar organization, because it does not have an inherent solution, but only an external one—the constitution of a formal warranting entity. However, a possible solution seems to be appearing with the emergence and popularization of the information technology. Some authors have been advocating the reduction of the importance of the brand, as it is substituted by a greater access to information. Under this view, the characteristics of the specific alternatives offered to consumers are becoming more important than the brand itself. Regis McKenna (2000) has sustained this position, as he proclaims the disappearance of brand loyalty.

This is equivalent to saying that the flexibility in satisfying consumer needs—an inherent virtue of the stellar organization model—would surpass the brand as a product attribute—an attribute that represents a weakness of the model. However, given that consumers still want to have some type of quality warranty, it should not be understated the need of the stellar organization model to try to reduce the impact of such weakness, possibly through the adoption of some quality certification by a formal entity.

6. The Projects of the Furniture and Clothing Poles in Uberlandia, Brazil

The projects of the furniture and clothing poles of Uberlândia, State of Minas Gerais, Brazil, give an illustration of the implementation of the stellar organization model in Latin America. They represent conscious actions on the part of a medium sized municipality (600 thousand inhabitants), endowed with infrastructure and economic and social indicators superior to the average patterns observed in Brazil and in Latin America. Its economy is diversified, although dependent of large organizations, either local or multinationals: Local largest companies include the three of the largest wholesalers of the country (Martins, Arcom and Peixoto), and a regional telecommunications operator (CTBC), whereas the largest multinational companies in town include American Express, Cargill, Monsanto, and Aventis.

In this paper, the cases of the furniture and clothing poles are presented in a summarized way. They intend to exemplify two different strategies of stellar model implementation, with the common aspect of both counting on Italian experiences. Both projects were initiate (at planning level) at the same time (October 1998) and are fundamentally in the same stage of implementation (the land donation has been approved by the local government; the selection of the participants has begun).

The Furniture Pole's project is based on the attraction of European, mainly Italian companies, operating in the molds of the stellar organization. They will act as mother companies in partnership with Brazilian supplying firms, located in Uberlândia and neighboring towns. The objective is the incorporation of the stellar model through the practice, using the European experience.

The Clothing Pole project, on the other hand, looks for the implementation of the stellar model through the advice of an intelligence entity based in Italy. The objective is the adaptation of existing Brazilian companies to the stellar model.

By presenting the two exemplars, we focus on the strategic aspects pointed out in this paper and the solutions that have been devised for the implementation. The scope of this paper is not to express any comparison between both implementation formats, but rather to illustrate a planned effort to introduce the stellar organization model in a culture different from the one where the model first flourished.

6.1The Project of Uberlândia's Furniture Pole

Uberlândia does not have tradition in furniture manufacturing, except for some small firms, marketing locally, mostly made-to-the-order projects. However, the city is close to the main Brazilian consuming markets and to raw material suppliers (large reforestations and supply manufacturers), bearing very good logistics infrastructure. The municipality has established good ties with the Furniture and Decoration Manufacturers' Association of Northern Italy (Federlegno - Triveneto Chapter), which has the purpose of founding operations with the objective of exploring markets out of Western Europe, particularly in the Americas. The facilities offered by the Municipality of Uberlândia for the installation of the factories include logistics and administrative support, as well as the donation of land with infrastructure and basic fiscal incentives. It was also offered technological support, under the form of a technical school (to operate in association with its Italian counterpart) and of joint technological research in partnership with a local public university. Besides these specific incentives, the city offers other favorable conditions for the Furniture Pole, in the evaluation of the Italian companies: good educational level and enterprising will, and cultural characteristics of the Brazilian people, similar in some aspects to the Italian.

There are aspects in which the conditions of Uberlandia as even superior to Italy's, at the time the Italians first developed their stellar organizations. It is the case of the information technology of the information. Nonexistent when the Italians first implanted its stellar organization's poles, Uberlândia is the first city of Brazil to have available the inexpensive communication instrument called VPN (virtual private network). This represents efficiency improvement of the communications among companies over the system based on the tradition of oral "communication" of the Italians.

As pointed out previously, communication among the members of the network is one of the pillars of the stellar organization model, as it favors negotiation. Information technology, available today, can be used with the objective of reducing the coordination costs among the members of the network.

Today, Italy has 90 thousand companies in the furniture-manufacturing sector, with the average of 4.5 jobs per company. In most of them, the entrepreneurs work only with members of the family, generally at home. This has lead to a high life quality, at the same time that the revenues are substantial. With such a system, Italy has become the largest exporter of furniture of the world (US\$ 7 billion/year). Such high exportation numbers favor the use of the brand "Italian Furniture" for the outputs of the Furniture Pole of Uberlândia. Stamps of ecological certification are planned for the Pole's products, given the strict use of reforestation wood.

The project intends to boost entrepreneurial activities in the region, as some two Italian dozen-mother companies will operate. Not only will they require a host of supplying firms, but also the mother companies will represent entrepreneurial activity, as the European companies will run locally with Brazilian partners.

6.2 The project of Uberlândia's Clothing Pole

In the Italian clothing industry, only in the Emilia Romagna area there are 325 thousand small firms, with an average of 5 workers each, exporting something around US\$10 billion. Over one-third of the labor force is made of small entrepreneurs. With the support of the Municipality of Uberlândia, a group of local clothing entrepreneurs visited the Emilia Romagna region in 1998. At the same time the local university and official organisms undertook a market research, in order to picture the clothing industry in Uberlândia. It pinpointed a decline of its participation in the regional market. Existing companies were found to be totally autonomous and hierarchical, in spite of being small and medium companies. Moreover, they assume all the stages of the productive process, from the creation to the commercialization of their products, with no communication whatsoever among companies. In spite of this, cases of some market success can be found, generally due to the high creativity and quality of its clothes produced in Uberlândia. According to a state level research, in the clothing sector of Uberlândia there are about 300 small and medium companies, producing 5,500 pieces per month (SEBRAE-MG^a, 1998). As many as 80% of the companies have less than 20 employees (38% have less than 5), 60% have been on the market for more than five years (33.3% for more than ten years), and 63% are installed in buildings of their own (SEBRAE-MG^a 1998). Production is characterized by the diversity of clothing products, making creativity their strong point. The participation in the high-end fashion segment is attested by the high use of synthetic fabrics, as well as by the continuous release of collections (46% of the companies launch more than four collections per year) and models (27% of the firms launch more than a hundred models a year-SEBRAE-MG^a 1998). The quality of the products is considered good, adapted to the "B" market (products for middle class, excluding prêt à porte and mass products). The weak points of the industrial sector were identified as its low managerial and technical training, lack of modern equipment and the high concentration of the sales on local and regional markets.

The Brazilian clothing industry is characterized by a large market, with more than four billion pieces/year, and yearly sales of around US\$25 bi (sixth or seventh position in the world), but with a very low level of international exchange (less than U\$1 bi—BNDES, 1996). Exports were stationary in 1998 (at the levels exported by Switzerland). They were concentrated in mesh and bed and bath clothes, mainly by large companies.

Italy (exports of US\$13 bi) explores the high-end clothing market, incorporating fashion, style and marketing. Germany, USA and France follow it. China, seconded by India, Korea and all the south-southeastern Asian countries, reaches the low-price market, taking advantage of low labor costs and large production scale. The present trend is to increase the income elasticity of the products by aggregating value and reducing market response time.

The project of the Clothing Pole of Uberlândia was set up with the declared objective of improving the competitive capacity and generating exports. Its main specific objective is establishing competitive conditions for Uberlândia to become an exporting center. It will operate as an export consortium, taking advantage of the good creative, development and production capacities of the firms presently established in Uberlândia. Among others, the planned actions include the managerial and technological development of the small and medium entrepreneur, implementation of some associative consortium among the sector's entrepreneurs, creation of a common marketing positioning and the brand "Cerrado" (which is a savannah type of vegetation that characterizes the Brazilian Highlands), implantation a center of "technological and textile intelligence," the creation and diffusion of administrative and marketing know-how among the members of the industry.

The project also intends to solve to the government proposition that it is necessary to face two main obstacles for small companies to export, marketing and logistics. The first is linked to the development of a brand and a product capable of satisfying foreign consumers' needs. This leads to the implantation of the Center of Fashion Studies and Information. The second problem involves taking the products to external markets, and will be solved with the creation of an Export Consortium. With these two elements, along with the preservation of the individual characteristics of the participant companies, the Clothing Pole hopes to obtain an active participation in the international market through what Gustavo Franco (1999) calls intra-industrial specialization through product differentiation. The project leans on an industrial diagnosis (SEBRAE-MG^a, 1998), on a technical mission made to the Emilia Romagna region, in Italy, and on a plan of action developed under the patronage of SEBRAE (SEBRAE-MG^b, 1998). The activities foreseen in the project were divided in four large groups, designed to qualify Uberlândia's clothing industry to profit on its creativity: a) training and implementation of up-to-date administrative know-how; b) development of a performing structure (marketing intelligence center); c) physical construction of an industrial center for the Cerrado Clothing Pole; and d) creation of an exporting consortium.

It is observed, therefore, that the project of the Clothing Pole of Uberlândia is based on two parameters tied up to aspects discussed above in the strategic evaluation of the stellar organization. The first is the creation of a brand the Cerrado Clothing. The second is the territorial aggregation (all in a single place) of dozens of mother and supplying companies, as a communication facilitator among the companies. Add to this the fact that the project involves a considerable training effort (involving resources of about US\$2 million), with financial support from the Brazilian federal government. One objective of the planned training includes exposing local entrepreneurs to the stellar model, bringing in technology of the CITER (Center of Textile Information of Emilia Romagna), which is in the market information and technology research center of the stellar organization in Northern Italy. Finally, it is clear the project's concern with marketing aspects, aimed at maintaining the identity and culture of local mother companies, which counts for the flexibility in satisfying market needs, a typical characteristic of stellar organizations.

7. Conclusion

The stellar organization model is a particular case of the organization type consisting of small companies operating as part of a large network. Its distinguishing characteristic is having a large number of companies linking the organization to the market—the mother companies. Drawing on this specificity, this article analyses the strategic consequences of the stellar organization model, as confronted with other organization models based on networks of small companies in which the link connecting with the market is made through a single or a few companies. In those models (denominated here as the models of the fund provider, outsourcer and cooperative), there is a single company concentrating the relationships with the market and, thus, assuming a prominent position relative to the other members of the network.

Based on this analysis and on the comparison with the advantages of the large multinational type of organizations, this paper argues that there are four the distinguishing aspects of the stellar organization:

- Gains of scale. In the other models of small companies/extensive networks, the situation of dependence of the small supplying companies of the network on a single large company does not create an incentive for the small supplying companies to seek large gains of scale, through extreme specialization. On the contrary, the stellar organization stimulates high specialization as multiple mother companies make a market capable of diluting the fixed costs due to high specialization. Such gains of scale can be superior to the ones found in large multinational hierarchical organizations.
- Flexibility. Flexibility in satisfying market needs is another competitive advantage of the stellar organization. The multiplicity of mother companies implies a model in which the diversity of smaller companies is more capable dialoguing with the market, understanding its needs and providing quicker and more specific answers to the market demands.
- Low cost coordination. An environment of intense external transacting may look as a negative aspect of the small companies operating in a network type of organization, as compared with large hierarchical organizations. However, in the stellar organization model, the presence of intense informal, personal communication and negotiation greatly reduces the coordination costs. As a result, this disadvantage of having small companies operating in a network is minimized, without compromising the flexibility inherent to the model.

• Lack of an inherent brand. This is a negative aspect of the model of the stellar organization. The Italian examples minimize the problem by the implicit use of the brand "Italy". Even though, the problem has not been completely solved. Therefore, there is a call for strategies aimed at minimizing it, such as the adoption of independent quality certification, or even the formation of a cooperative institution to assume the branding function. The spread of the information technology may reduce the weight of the brand, posing a greater importance on product attributes, and therefore on flexibility, what may favor the stellar model.

The illustrative examples of projects of implementation of stellar organizations in Uberlândia, Brazil, try to take advantage of the characteristics indicated on the first and second items above, as a multiplicity of mother companies is encouraged. Therefore, the projects deliberately seek to reach the competitive advantages of flexibility and gains of scale. Moreover, the projects try to face the negative aspects linked to the forth item above, as the adoption of a common brand has been proposed, at least for the Clothing Pole. The third item above 3 is also a matter of concern in both projects, as a deliberate effort to strengthen inter-firm communications is made by placing the companies in a single location, as well as by the adoption of the VPN (virtual private network) technology. Of course, the key aspect of lowering coordination costs is dependent on the cultural and historical components found in the emergence of the stellar organizations in Italy. Transposing such cultural characteristics to the Latin American environment stays as an incognito that still has to be elucidated. Probably only the experience generated by the implementation of the Uberlândia's Poles will do it. The consciousness of the problem is, however, the first step to face it.

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