THE TERRITORY, A CONTAINER OF LOCAL SPECIFICITIES: EVIDENCE BY ANALYSIS OF THE LOCAL PRODUCTIVE SYSTEM OF KSAR-HELLAL

MAKRAM GAALICHE

ABSTRACT – This article aims to highlight the relevance of the territory in the experience of local development. Indeed, by an application on a Tunisian case, it was shown that the territory of Ksar-Hellal is implicated in the functioning of its local production system, specializing in textile and clothing. It turned out that the Hilalian territory is abundant in specific economic resources such as competition, complementarity, and non-economic such as cooperation, technological externalities and social values. Those resources that are specific to the Hilalian territory are essential to stimulate the local dynamics of the productive system in question.

Keywords: local productive system, territory, specific resources, industry of textile and clothing, Ksar-Hellal (Tunisia)

INTRODUCTION

From the pioneering works on Italian industrial districts (Bagnasco, 1977, Garofoli, 1981, Becattini, 1989), a new concept of space is adopted emanating a rather significant renewal of the development economics. The authors show how the consideration of territory allows engaging a reflection on the local experiments of development, including those that thrive in many developing countries. The space is not only a distance between places, an obstacle to the exchange of goods or a cost to economic agents, but it is also an accumulation of social relations, which comprises the culture and other local conditions, which cannot be transferred (Becattini, 2000). The territory is indeed a central element of development that theorists call endogenous development. It is an alternative phenomenon to the Fordist growth model, based on the exploitation of the specific resources territory (Courlet and Garofoli, 1995). According to Courlet and Pecqueur (1996), the territory includes historical, cultural and social factors, which are the basis of the continuous interaction between the economic sphere and the social sphere. The territory is the place of relationship between people and businesses. This is where the central institutions (formal or exogenous) must allow freedom of action to local institutions (endogenous or informal), to the trust between agents, to the local culture, to traditions etc. It is the place where cooperation forms between businesses, individuals and activities voluntarily organize themselves or in a spontaneous way. It is ultimately the meeting point between market forms and the forms of social regulation (Garofoli, 1996).

Several works wondered about the existence of such phenomena, where many forms of productive organization are mentioned: territorial system of production, localized (or local) productive system, area intelligent innovative environment, cluster, local industrial system, sanchi, cluster, technology district, etc. Grouped under the synthetic concept of Local Productive System (LPS), the territorial configurations are generally based on Small and Medium Enterprises (SMEs) that interact among themselves and with their socio-cultural environment (Courlet and Soulage, 1993). These relationships are not only related to market, they are also informal and produce positive externalities for all companies. In the territories concerned, the authors identify proximity effects, marked by sets of competition-cooperation between SMEs, supervised by local regulatory bodies, which are embedded in spatial contexts. This dynamic endogenous development based on osmosis between businesses and
their territory rooting, materializes at the chain end, by a surplus of productive efficiency (Ferguene and Hsaini, 1998).

Generally, existing works and monographs are limited to simple observations, to expose the territorial specificities of LPS. According to our knowledge, no study provides any concrete statistics to justify the existence and importance of specific resources of territory. No work confirms that all the resources of any territory, of economic and social processes are available to the LPS in question. For this reason, it is natural to focus on such issues, by analysing the example of the productive system of textiles-clothing of Ksar-Hellal. Belonging to the governorate of Monastir, Ksar-Hellal is known in Tunisia for its history related to the textile industry. According to CETTEX data, in 2009 Ksar-Hellal is classified first in Tunisia in terms of assets employed in textiles-clothing, which represents 3.92% of the total employment. In addition, according to data from the administration of Ksar-Hellal, the LPS in question is made of 73 SMEs of textiles-clothing in 2009, and employs 92.33% of the total workforce in Ksar-Hellal. These companies are specialized in specific activities, which represent the different branches that make up the productive system in question, namely: spinning branch, weaving branch, finishing branch, clothing branch and clothing treatment branch. Certainly, in this paper, we will highlight the characteristics of the Hilalian territory, by following the logic of three spheres, which will be adopted in the analysis sections, namely: the industrial sphere, the territorial sphere and the institutional sphere.

**THE INDUSTRIAL SPHERE**

In fact, the industrial sphere consists in the functional logic between LPS companies. These can be subcontracting relationships within the framework of complementarity. On the other hand, companies of the LPS are inserted into a cooperation and competition logic specific to the industry in which they participates (Colletis et al., 1997). Therefore, in this section, we will try to detect these relationships, and analyze their importance in the textile-clothing LPS of Ksar-Hellal.

**The logic of complementarity**

Industrial districts are composed of a multitude of small-and medium-sized enterprises. Each company is specialized on one or a few phases of production processes specific to the district (Becattini, 1992). This division of labor allows production flexibility and rapid adaptation to new economic conditions. Companies can act in a complementary manner, and from there, be part of a dynamic whole. Such organization of production in network is a type of organization which Marshall (1890) oppose to the large-scale production within a single unit. However, to understand the relationship of complementarity within a cluster, we use the notion of technical coefficient. Such an indicator can trace the interdependencies between different branches of industry. It is calculated as the ratio of intermediate consumption of product $i$ by sector $j$ ($C_{ij}$) of the total production of the branch $j$ ($Y_j$). This leads to the following diagram:

![Figure 1. The branches of the textile-clothing chain of Ksar-Hellal in 2009](image)
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According to Figure 1, the analysis of technical coefficients of the LPS branches of Ksar-Hellal, confirms the complementary of the industry in question. In spite of the nuance of degrees of dependence between different branches, we can say that the productive system of textile-clothing in Ksar-Hellal is a chain of activities that complement each other. Indeed, some companies use the wire of weaving, as raw material. This flow of raw materials, evaluated by a technical coefficient of 12.3%, is still insufficient to meet the demands of the weaving industry. The remaining wire used comes from abroad, via wholesalers importers in Ksar-Hellal. Similarly, there is a connection between the finishing and weaving branches, translated by a technical coefficient of 21.04%. For the clothing branch, the main raw material, which is the tissue, is usually supplied by the clients, since a large number of these companies operate in subcontracting work. But some of the tissue is provided by Hilalian industries that are represented by a technical coefficient of 8%. This complementarity of activities is also observed at the clothing treatment branch. Indeed, in spite of the weak dependence of the latter with the clothing branch, apprehended by a technical coefficient of 3.2%, a portion of the service is rendered by the clothing treatment branch. This weakness of interaction can be explained by the fact that the majority of garment enterprises, especially their exporters, integrate the treatment activity in their own institutions.

Following this analysis, it can be argued that despite the asymmetry dependence between different branches that make up the LPS of Ksar-Hellal, a certain complementarity exists between them. Indeed, the LPS of Ksar-Hellal is a full production system. It is a textile-clothing chain, which includes the spinning activities upstream, the weaving and finishing activities in the centre and the clothing and clothing treatment activities downstream.

The logic of competition
Companies are directly competitive in an industrial district. The competition relates at the same time to the intermediate and final goods. The competition causes the constant renewal of the district. It is not without effect on the vitality and renewal district (Becattini, 1992). To measure the degree of competition in the production market, we will use the mark-up rate indicator. Defined as the ratio of Rough Surplus of Exploitation (RSE) and Gross Value Added (GVA), the mark-up rate is considered as an indicator to assess the intensity of competition in a sector. It reflects the share of the company in Value Added once the employees, social security contributions and taxes linked to production are paid. In this case, the higher the mark-up rate, the less competitive the sector. Therefore, in order to understand the intensity of competition in the LPS of Ksar-Hellal, we will use this indicator throughout the analysis.

Table 1. Mark-up rates of the textile-clothing branches of Ksar-Hilal during 2009 in %

<table>
<thead>
<tr>
<th>Textile-clothing branch</th>
<th>Spinning branch</th>
<th>Weaving branch</th>
<th>Finishing branch</th>
<th>Clothing branch</th>
<th>Clothing treatment branch</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTE</td>
<td>51.1</td>
<td>63.87</td>
<td>50.81</td>
<td>48.58</td>
<td>61.82</td>
</tr>
<tr>
<td>TE</td>
<td>53.56</td>
<td>50.81</td>
<td>48.58</td>
<td>63.82</td>
<td>63.82</td>
</tr>
</tbody>
</table>

NTE: Not Totally Exporting / TE: Totally Exporting
Source: Our own investigations

With a mark-up rate of 60.16%, the competition level of the LPS of Ksar-Hellal is moderate (see Table 1). But the results show a somewhat nuanced situation, depending on branches. We find that we can classify the different branches of the productive system of Ksar-Hellal into two groups according to the importance of their mark-up rate. Indeed, we find a group of branches that have a mark-up rate about 50%, such as the spinning branch with a rate of 53.56%, the weaving branch with a rate of 50.81% and the finishing branch with a rate of 48.58%. A second group consisting of branches with mark-up rate approaching 60%, such as the clothing and clothing treatment branches, with rates of 61.82% and 63.82% respectively. Certainly, the spinning, weaving and finishing branches seem more competitive than the clothing and clothing treatment branches. This difference is explained by
the fact that all companies in the first group are Not Totally Exporting (NTE), where the majority of their production is for the local market. Thus, to cope with the flow of imported goods, and cope with the competition, they are forced to compress their profit margins. On the other hand, the companies that compose the branches of the second group are companies that work in subcontracting, and the majority of their production is exported. Therefore, they undergo a low competitive pressure on the Hilalian territory, thus explaining the importance of their mark-up rate. As a conclusion, one can admit that the companies of the various branches which compose the LPS of Ksar-Hellal do not escape from competition. They undergo a competitive pressure from the rivals installed on the local market that varies according to the nature of the branch.

The logic of cooperation

In the industrial district, the community spirit is generally well developed. The firms cooperate to share a set of specific information. Indeed, cooperation relates to advantages and common problems. Firms conduct operations and manage together the same problems, conflicts and contingencies. They can for example focus on the implementation of joint training, marketing or simply the loan of equipment. These agreements are sometimes formal, but they are often informal (Becattini, 1992). The theory specifies two types of cooperation: horizontal and vertical cooperation. For horizontal cooperation, it is a cooperation between competitors, having decided to work together to achieve a common goal (Rullière and Torre, 1995). As regards vertical cooperation, Thoben and Jagdev (2001) state that it is cooperation between non-competing businesses in the same sector intervening at different stages of production.

In our analysis, we construct a synthetic indicator of cooperation, composed by two types of cooperation, namely: horizontal and vertical cooperation. Each indicator will be constructed by a specific survey and this by the arithmetic mean of the items of the questions used in the survey, weighted by their standard deviations. The descriptive analysis stipulates that the range within which our evolving synthetic indicator is bounded by is a minimum of 0.56 and a maximum of 1.3. Indeed, based on our measurement scale going from 1 to 5, we see that all the textile-clothing companies in Hilalian territory have weak cooperation ties, considering that all indicators do not exceed the threshold value 2. This analysis shows that there is cooperation between Hilalian firms, but the intensity is not such so that the mutual aid between companies is always guaranteed. In other words, the textile-clothing companies of Ksar-Hellal manage alone, in the most cases, the problems relating to the production, the equipment, the raw materials, etc.

THE TERRITORIAL SPHERE

According to Marshall (1890), the industrial district has a particular atmosphere, which plays a very important role in the local accumulation of knowledge. It is about an atmosphere which allows to develop the learning process through practice, improve the workers’ abilities (skills) and disseminate them within the district. Becattini (1992) underlines that the benefit derived from collective learning depends on the presence of shared values. This social aspect of the industrial atmosphere, resulting from the interplay between the enterprise system and the local community (Becattini, 1992) is a necessary condition for collective learning in the district (Iraldo, 2002). It is for this reason that the analysis of the territorial sphere, apprehended by spatialized knowledge networks and the shared social values, will be an important task, to try to detect their existence in the Ksar-Hellal territory.

Spatialized knowledge networks

In industrial districts, with pecuniary externalities that affect the production function, there are technological externalities that appear through knowledge networks (Courlet, 2002). It is from
spatialized networks generated by the contact of agents that the accumulation and transmission of knowledge are performed. According to Becattini (1987), the districts develop in mobilizing tacit knowledge accumulated in the territory rather than codified knowledge. Generally, one can distinguish tacit internal, tacit external, codified internal and codified external knowledge. (Ancori et al., 2000, Cohend and Steinmüller, 2000). The internal tacit knowledge is the result of specialization that a former business generated by learning by doing. The tacit external knowledge is the result of ongoing exchanges of information between companies due to their embedding in social territorial network. The codified internal knowledge is produced by the activity of Research and Development sector within the business. Finally, the codified external knowledge is generated from the collaboration between the companies, the research laboratories and the universities.

In our study, the tacit and codified internal knowledge will not be taken into account. Such an omission is justified by the lack of information on learning by doing and the data on expenditure for Research and Development, in almost all textile firms of Ksar-Hellal. In this case, the knowledge likely to be set in circulation via structures of formal and abstract networks in the LPS of Ksar-Hellal is the tacit and codified external knowledge. The external tacit knowledge will be represented by the Replacement Rate Indicator (OECD, 1994). The Replacement Rate Indicator is, in fact, the proportion of new staff who replaced those who left the company. Indeed, an important Replacement Rate Indicator, is synonymous with an important flow of tacit information within the firm. Concerning the formal network, it will be measured by the relations between Ksar-Hellal textile-clothing firms and all educational or technical training institutions localized at Ksar-Hellal. In Ksar-Hellal, there is a Training Centre of Textile (TCT) and a Higher Institute of Technological Studies (HITS), to form specialists in the field of textile-clothing. Within this framework, the proportion of the graduate technicians at Ksar-Hellal out of the total of the technicians of the firm will be our indicator, in order to apprehend the importance of such a codified external knowledge, at the level of the Hilalian territory.

Table 2. Evolution of the proportion of graduate technicians in Ksar-Hellal and of the replacement rates of the textile-clothing branches of Ksar-Hellal during 2009 in %

<table>
<thead>
<tr>
<th>Branch</th>
<th>Textile-clothing branch</th>
<th>Spinning branch</th>
<th>Weaving branch</th>
<th>Finishing branch</th>
<th>Clothing branch</th>
<th>Clothing treatment branch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement rate</td>
<td>92.15</td>
<td>63.63</td>
<td>87.5</td>
<td>76.5</td>
<td>95.2</td>
<td>69.23</td>
</tr>
<tr>
<td>Proportion of graduate technicians in Ksar-Hellal</td>
<td>58.33</td>
<td>62.50</td>
<td>66.66</td>
<td>55.55</td>
<td>57.77</td>
<td>75.00</td>
</tr>
</tbody>
</table>

Source: Our own investigations

With a Replacement Rate Indicator of 92.15%, it is noted that the number of workers recruited by Ksar-Hellal textile-clothing companies, cannot compensate for all the noticed departures. Non-renewal of certain positions of workers may be justified by the decline in economic activity resulting from the global crisis that began in 2008. This downturn has affected all branches of the productive system of Ksar-Hellal, where the Replacement Rate Indicator is 63.63% for the spinning branch, 87.5% for the weaving branch, 76.5% for the finishing branch, 95.2% for the clothing branch, and 69.23% for the clothing treatment branch. However, the proportion of workers being replaced by new ones at the level of Hilalian textile-clothing enterprises is important. Such a change of workers is synonymous with the presence of considerable informal knowledge flows entering the recruiting companies. It is, in fact, a transfer of a set of skills, abilities and knowledge, mastered by the new labourer, and provided by the old company. Therefore, we can say that the SPL of Ksar-Hellal has an informal knowledge network, woven by the movement of workers from one company to another.
In addition, we observe from the Table 2 that 58.33% of employees are graduates of educational institutions specialized in textile-clothing, and located at Ksar-Hellal, such as the HITS and the TCT. Indeed, despite the difference of the proportions of recruited technicians, such as 62.5% in the spinning branch, 66.66% in weaving branch, 55.55% in finishing branch, 57.77% in clothing branch and 75% in the clothing treatment branch, Hilalian companies benefit of the knowledge acquired in the educational establishments located at Ksar-Hellal. These establishments provide transmission of codified knowledge to Ksar-Hellal textile-clothing companies of by means of their technicians, who are recruited after completing their training. Such a knowledge network, provided by these companies and educational institutions, is evidence of the presence of an industrial atmosphere favourable to the transmission and distribution of formal knowledge. Thus, the SPL of Ksar-Hellal has an industrial atmosphere characterized by tacit and codified knowledge. This atmosphere creates the technological externalities transmitted by external networks, and built on the one hand by the Hilalian textile-clothing companies, and the other hand, by these businesses and educational institutions.

The local identity of the Local Productive System: The shared values

In developing his theory of industrial districts, Becattini (1992) insists on the socio-economic origin of the concept. It articulates the economic features of all companies and features related to the social functioning of the local community. Indeed, a socio-cultural identity is constructed in relation to the economic structure (Becattini, 1992). For him, the existence of a community characterized by a homogeneous system of values is one of the first requirements for the development and reproduction of the industrial district. According to Maillat (1996), rules, norms, and values, are important for the explanation of the behaviour of actors and of their specific way of interacting.

It is difficult to set up an indicator or a concept that would represent all the values disseminated in a society. It turned out that every attempt to identify the corpus of invisible variables depends on the method and the vision adopted by the author. It is for this reason that we try to build our own indicator, adapted to the needs of our study. The values on which we will focus are solidarity, collective action and reciprocity. They will be the sub-indicators that enter the composition of an aggregate indicator that we call "local identity". We chose this name, because each country has its own cultural and social values constituting the identity that distinguishes it from others. About the aggregation method adopted for our synthetic indicator, we use the method used previously, which is the arithmetic mean of the items used in the survey, and weighted by their standard deviation.

The descriptive analysis of our synthetic indicator, namely, local identity, shows that there are large disparities between Hilalian companies. Indeed, we found that the value of the indicator varies between 0.77 and 3.41. Positioning the indicators on our intensity scale, we find that 39.8% of textile-clothing companies admit a weak local identity, 51.8% have an average identity, and 8.4% a strong identity. Moreover, according to figure 1, we could detect the presence of a negative correlation between the indicator of local identity and the Hilalian firm size. In other words, the higher the
number of employees of the company, the weaker their local identity. Such a result leads to the fact that the larger the company, the more it leans towards the formal side in its relations. Thus, we can confirm that the SPL of Ksar-Hellal is impregnated with values and social norms that represent the ethical heritage of the Hilalian territory. Such an atmosphere, with such qualities, is favourable for all the initiatives of transfer or exchange of equipments or knowledge.

THE INSTITUTIONAL SPHERE

According to Menard (1990), territories are an institution, that is to say, a set of socio-economic rules that define the allocation of resources. Certainly, a large part of the control of economic process of the district is closely linked to a network of social relations, rooted in the local culture (Solari, 2003). The local regulation is mostly of an informal nature, which comes out from institutions that belong to the civil society. The informal coordination mechanisms are related to trust and reputation (Dyer and Singh, 1998). Indeed, the study of the regulation at the local level must take into account both the formal institutions, represented by a legal authority or bureaucratic rules (Jones et al., 1997) and informal institutions, apprehended by social mechanisms, which use the trust and the collective sanctions to discourage behaviour opportunists. In our analysis, we construct a synthetic indicator of regulation. This indicator will be composed by the aggregation of two sub-indicators, namely: the formal regulation, which is applied by public and legal administration, and the informal regulation, generated by social mechanisms. The formal regulation will be captured by the following values: transparency and clarity of public action, justice efficiency and control of corruption. These are the indicators that are commonly used by the World Bank (WB) and the Ministry of the Economy, Finance and Industry of France (MEFIF), to analyze the quality of institutional effectiveness of the government. Concerning the informal regulation, it will be built by the aggregation of two sub-indicators that, according to the theory, regulate the behaviour of firms, namely, trust and collective sanctions.

By using the same technique of aggregation adopted in the previous analyses, we find that the level of local regulation, of the Ksar-Hellal LPS enterprises did not exceed the level of 1.77. Indeed, all measured indicators concerning individual companies are located within the scale class ranging from 0 to 2, belonging to the low category. Such an evolution demonstrates the low level of regulation in Ksar-Hellal LPS. In addition, we found that 76% of the conflicts regulation at the level of Ksar-Hellal LPS is carried out by public institutions, against 23% by social rules relating to Hilalian territory. Thus, despite the dominance of formal institutions over the informal ones, these also contribute to the regulation of conflicts of interest within the Ksar-Hellal LPS. Indeed, we found that trust and collective sanction contribute, besides legal institutions, to the regulation of transactions between Hilalian territory companies, but they have a low efficiency.

CONCLUSION

The analysis of the Hilalian territory indicates that it is rich in specific resources. Differences in terms of intensity of complementary, competition and cooperation relationships between Ksar-Hellal textile-clothing companies are detected. In addition, an atmosphere characterized by networks of formal and informal knowledge reigns over the territory in question, justifying the presence of certain technological externalities, which is in the benefit of the companies. Similarly, the diffusion of some cultural values in the territory, such as solidarity, collective action and reciprocity, and, in addition, the presence of the formal and informal institutions for local regulation indicates the specificity of the existing resources. Admittedly, the Hilalian territory is an asset for its concentrated textile-clothing companies. It is a container for commercial and non-commercial relations. These territorial specificities can facilitate the economic activity and ensure the stability and the viability of the system.
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