

Chapter 1

From Industrial Districts to Poles of Competitiveness

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Behind the reflections concerning the concentration of enterprises and the enthusiasm for clusters lies the question of the efficiency of the forms of industrial activity, with the postulate that if companies are grouped or concentrated they will turn out to be more efficient than ones which are more dispersed or more thinly spread out. A. Miller had already located the problem but, with industrial reconstruction and more severe global competition in the last thirty years, thinking on this subject has become extremely diversified to the point of producing three major types of models for understanding these concentrations: industrial districts, clusters and poles of competitiveness.

We need to say a few words about these various approaches if only to clarify the terminology which is often very vague, using the word 'clusters' to cover agglomerations or concentrations of activity which used to be analysed using different terms ('industrial districts', 'localized production systems', but also 'village communities' and so on). The term clusters is also used to designate the policies covering the geographical agglomeration of enterprises or innovative poles. When these terms are put back into context they reveal themselves to be both specific and differentiated.

If we wish to locate the specificity of what can be observed in Asia it would be useful to start from these differences.

1.1 From Industrial Districts to Poles of Competitiveness via Industrial Clusters: Three Models of a Conceptual Approach

From industrial districts to poles of competitiveness via industrial clusters, analysis of the grouping of companies has grown and complexified constantly over the last forty years. One might think that by dint of widening its scope the concept has lost some of its strength or even led to confusion, mixing up realities of very different levels which need to be distinguished. It could also be considered that each of these approaches has chosen one of the three essential dynamics which characterise one form of development of the agglomeration of companies: endogenous local development for the districts; innovation for clusters as such; the central role of modes of governance for the poles of competitiveness. All of these are in fact so many complementary facets of a single dynamic at work, seeking to define itself.

The idea here is less to enclose ourselves in rigid definitions than to grasp in a dynamic way the history of the construction of these forms, the contexts and universes in which they can be seen, under the different definitions they have worn through time. We may then be in a better position to clarify the different interpretations which may be made of Asian clusters and their particularities.

Over forty years the perception of the agglomeration of enterprises has constantly broadened both in space (which country today has not got its clusters or poles of competitiveness to show off?), and through time; we have gone from 'industrial districts' to 'industrial clusters', and with the growth of global competition we have added to the panoply the development of 'poles of competitiveness' and so on. These notions, all of which are called upon to account for real or virtual forms of development, are very different from each other. One might even be tempted to think that bringing them together can only lead to confusion. After all, there is little in common between 'Italian industrial districts' and the gigantic poles of competitiveness which are being set up today in many developed or emerging countries.

This is in fact true, and it is important to distinguish the different levels of analysis, if only to understand how these notions formed a chronological chain which ended up producing (in precise economic contexts) specific configurations of activity, each of which, at its own level and in its own context maintains its own particular originality.

From districts to poles of competitiveness via clusters; we are making a wide sweep of the field of all the major forms of economic dialogue and local organisations which are still seeking to define themselves in order to continue to develop dynamic and competitive structures of production.

What kind of local economic structuring do these varied notions produce and what forms of relations between the local and the global do they produce?

1.1.1 *First of all 'Industrial Districts'*

They were born in the Italian context which is well known and first and foremost they showed us the pre-eminence of the local organisation of activities, the importance of inter-company cooperation, the strength of informal as much as formal links and the original dynamics produced by a system which combined cooperation and competition.

The industrial districts bore witness to the advantage of grouping small businesses together in terms of the local accumulation of skills, the great flexibility and adaptability of this system of small structures of specialised production working together, as well as the creative efficiency of these groups of entrepreneurs which developed autonomously, sometimes outside the system of public intervention.

They recalled the social basis, indissoluble and structural, of any economic action, the surprising efficiency of informal relations and *the importance of shared social capital as the very basis of endogenous development.*

It is true that the approach used to analyse industrial districts makes little mention of markets, marketing or outside competition; it remains focused on the company and looks mainly at the world of production.

To a certain extent it buries itself in the local situation, ignoring the fact that too many local links can, at a certain moment, lead a locality to close in on itself and perish, as was seen in many countries.

The social capital of a zone only remains efficient if the local organisation remains in active touch with the exterior, to organise itself, to handle difficulties, to link up with the adequate branches and so on. However that may be, the ‘industrial districts approach’ puts the emphasis on local links, both formal and informal, aiming above all to account for the phenomena of endogenous development through the interplay of essentially internal competition/cooperation among the economic players. It is true to say that markets at that time were not very concentrated and were rather noticeable by their rarity. Competition had not yet become as widespread or aggressive as in the 80s and 90s.

1.1.2 *Industrial Clusters*

It was in the 90s that the very successful reflection around ‘industrial clusters’ was developed, precisely to account for the challenges of external competition and markets, and to find solutions.

The emphasis was less on examining the essentially endogenous development of small entities which were coordinated informally, as was the case with the industrial district approach, and much more on groups of enterprises, small or big, developing more and more formalised links, both horizontally and vertically, in order to structure specialised and competitive entities, allowing them to face up to competition. In order to develop and stand out among its competitors, these groups of enterprises, which were strongly structured locally but connected to both internal and external networks, had to enter a dynamic of innovation, mobilising thus the economic actors and other institutional actors in research, training or administration. We are clearly a long way from the endogenous local districts of the Beccatini type.¹ The key words of Porter’s² clusters thus become

¹ Cf. Giacomo Beccatini, one of the founding thinkers of the theory of Italian industrial districts.

² Cf. Michael Porter, theoretician of industrial cluster.

‘enterprises’, ‘competition’, ‘specialisation’, ‘innovation’, and ‘high-tech network’, with innovation occupying the central dynamic space. The centre of gravity remains the enterprise, but it is an enterprise faced with the competitive market, which mobilises all the resources of its environment, both economic (customers, subcontractors) and local (research and organisational resources) *to maintain its specificity and difference through innovation*. The ‘local’ level is considered less as creating its own dynamics than as a condition for these connections and synergies, the other institutional entities of research and local management being perceived as being subordinate to the primordial dynamic of innovation: another era, another universe, another concept.

1.1.3 *Poles of Competitiveness*

With the poles of competitiveness another change of register takes place. It is no longer enough for enterprises simply to organise themselves to innovate. At this stage the essential thing for enterprises, as for local and regional government is to coordinate with each other and reach agreement to set up, around specialised activities, powerful regional developments aiming to reach the world production chain of value, thus claiming global excellence by organising around a large local pole, all the various actors of a particular sector: firms, research organisations, teaching and training institutes, specialist management services and so on. In fact it means setting up powerful schemes and developments which are attractive and able to use multiple synergies which can decompartmentalise both sectors and actors (public/private, production/services, basic and applied research, economic management and management of innovation, etc.) so as to accumulate around a given sector strong potentialities and broad dynamics which allow the poles to present themselves as major benchmarks capable of holding their own not only nationally but globally.

The key words in this perspective are now competitiveness, global networks, attractiveness, and especially *governance*, the main problem of these new poles being to maintain the coordination of a large number of different actors at all levels.

Three great models for the agglomeration of enterprises, which refer thus to three distinct universes, determining three forms of understanding and three types of action and intervention, with the following key words:

- For districts: informal links, social capital, endogenous local development.
- For clusters: competition, specialisation, innovation.
- For poles of competitiveness: global competitiveness, attractiveness, governance.

With these three broad approaches in mind, what can we learn from the phenomena observed in Asia?

1.2 What Asian Clusters Teach Us

The agglomerations observed in Asia upset the apple cart. Their variety leads us to think about the great diversity of possible types of industrial organisation to achieve performance and competitiveness. Through their evolution, they also show us the fragility and limitations of each of these forms of organisation. They help us to question the theoretical approaches which have been accepted up till now.

What then is the situation of the agglomerations of enterprises in each of the countries studied: Vietnam, China, Japan and Thailand?

1.2.1 *Vietnam*

With more than a hundred clusters listed,³ especially in clothing, textile and paper, Vietnam seems to have developed a very specific structuring of the agglomeration of its enterprises. The country is marked by the

³ In 2004 there were 106 zones of all kinds in Vietnam, covering an area of 20233 hectares having attracted 1442 investment projects with a registered capital of \$11.390 million of which 29% were from abroad (Tuan, 2005).

great vitality of craft villages and a greater grouping of its enterprises into poles of specialised activity than in other countries, giving rise today to a great variety of types of groupings of its enterprises.

1.2.1.1 *The Weight of Craft Activities and Craft Villages Clusters*

Craft activities sometimes go back a long way in Vietnam and are numerous today. In particular they are often organised on the basis of localised groupings especially in the Red River delta. These artisan (or craft) villages, some of which have lasted for several centuries in sectors such as ceramics, basketwork or textiles have modernised recently and have had a real boom which constitutes one of the great specificities of the country. With the *doi moi*,⁴ the craft villages have taken on a new lease of life and are attempting to develop towards the national or even international markets.

It is a massive phenomenon and furnishes a solid basis of possibilities for going from the artisan phase to forms of enterprise or small businesses which are more organised and to more structured local dynamics. That in any case is the direction in which things are already going, in a context of greater division of labour and subcontracting, by most of the family businesses with little capacity to invest.

But contrary to Chinese industrial clusters, the craft village clusters in Vietnam work with totally national investment (mainly family, but some bank loans). There is no foreign investment as there is in China. This may explain the low level of production of the majority of the enterprises and their still informal character (80% are not declared). It is clear in any case that this craft structure constitutes a very specific social matrix for the economic development of the agglomeration of enterprises, and that the various implications of this model deserve to be studied with as much attention as that paid to the Italian industrial districts in Europe.

⁴ In 1986 Vietnam liberalised all the sectors of the economy of the country under the policy of *doi moi* or 'renewal'.

1.2.1.2 *A Specific Mode of Allocation of the Clusters*

Clusters in Vietnam have developed greatly, but their distribution appears quite original. As recent studies carried out by Japanese researchers comparing Vietnam, China and Japan have shown (3and Tsuji, 2003), the grouping of enterprises by poles of activity turns out to be greater in Vietnam than elsewhere. This is due in particular to the influence exercised by the main urban poles, Hanoi and Haiphong in the north, Ho Chi Minh City in the south, which all in fact include, in a very wide sphere of influence, numerous clusters, notably in sectors like clothing, paper, fish factories, textiles, etc.⁵ So the cluster phenomenon in Vietnam appears to be clearly influenced by the availability of access to land and the search for nearby infrastructure rather than employment or other variables. This produces a quite unique economico-spatial network.

1.2.1.3 *The Diversity of the Districts*

There are craft districts and also more urban small business districts, in different sectors of traditional or more recent industries. If we add to these the parks of suppliers and high technology zones, we can see that Vietnam today possesses a wide range of types of clusters, even if the term is a new one in the country.

A certain number of studies have attempted to classify this diversity. Whether it be the work of the IDE-JETRO 2002 programme (see above), or that completed in 2004 by Riedel and Ricord, we can state that researchers agree to recognise four different types of clusters in Vietnam:

- Local industrial districts organised and specialised locally around the production of a specific product.
- Districts or clusters characterised by a concentration of various firms subcontracting for a large enterprise (or ‘industrial castle-town’, which may be built up around a large state enterprise).

⁵ The analysis is geographic, based on the GIS (Geographic Information System).

- Industrial clusters of small businesses made up of so many nuclei of specialised production; in large towns, centred around basic production.
- Industrial parks created and run by the government, very often with a high-tech connotation, notably in the spheres of information sciences and software. About twenty high-tech clusters are projected both in the north and the south.
- Craft villages refer to specific dynamics of agglomeration; particular forms of networks between specialised rural, peri-urban or urban zones; all these points refer to specific modes of embeddedness of the activities and agglomerations of enterprises which go well beyond the classical approaches and should allow us to enrich their comprehension.

The case of China provides us with other lessons.

1.2.2 The Emergence of Clusters in China

One of the keys to the industrial dynamics of China in the last few years comes without a doubt from the agglomeration of specialised enterprises which have sprung up over fifteen years in extremely varied forms, deeply affecting the development of certain regions. These agglomerations of enterprises make up an important part of the competitive power of the country both in traditional industries and the high technology sectors.

1.2.2.1 Varied Forms of Clusters

As we know the movement has been tremendously powerful. To take only a few examples, at the beginning of the twenty first century a quarter of the 404 administrative towns in the Pearl River delta in Guangdong made up as many clusters of specialised activity. The province of Zhejiang possesses for its part more than 300 zones of specialised activity which, in their production, enter what we might call the ‘world top ten’ in their category and more than a hundred others in second position, all of this of course without mentioning the impressive development of the high-tech zones.

The large body of research in China has tried to classify the different agglomerations of enterprises, by distinguishing for example⁶:

1. The agglomeration of traditional firms, the origins of which pre-date the reforms. They are highly integrated systems which can be found in rural zones in the course of urbanisation or in small towns, mainly mono-industrial in consumer goods (Zhejiang and Fujian provinces).
2. The agglomeration of foreign firms, mainly from Taiwan, Hong Kong and Singapore and which incorporate a certain number of other firms with whom they work (Guangdong and Shandong provinces). Some investors occasionally bring their own suppliers with them, so that a complete network moves to the Continent. This is notably the case of Taiwanese entrepreneurs.
3. High technology zones usually situated in the large cities and near university complexes (the Zhonguancun district in Beijing; the fibre optic cluster in Wuhan).
4. The agglomerations of small businesses grouped around big enterprises, as can be seen near the shipbuilding works in Shanghai and, more recently around the car industry in Wuhan, and so on.

But more even than the sheer size of the phenomenon, it is the expansion of these zones which is at the origin of the specific and original developments which classical perspectives of analysis have a certain difficulty to account for.

1.2.2.2 *Specific Operating Models*

If in fact the agglomerations of enterprises which can be observed in China seem in their form and appearance to be comparable to western industrial districts and clusters, if only from the simple fact of the concentration in a circumscribed territory of activities of the same

⁶ Here we use the typology proposed by Professor Wang Jici in his work (2001): *Chuangxin de Kongjian* (Innovative Spaces: Enterprise Clusters and Regional Development).

type, they are in fact fundamentally different in many ways: weak links between the enterprises; major structuring role of commercial activity, which drags the productive activity along, so to speak, indirect and complex modes of socio-political regulation. We see at work here an entirely different universe than the one generally grasped by the classical approaches we have mentioned.

Brought up on the postulate of the efficiency of local dialogue between enterprises supposedly (in classical theory) bringing about an increase in efficiency due to the formal and informal links that have been forged, it is all the more astonishing to realise that what seems to prevail in a certain number of Chinese clusters (like those in Zhejiang for example) is not only the absence links of direct cooperation between enterprises, but downright mistrust. Moreover, it is much less the efficiency of production itself (dear to the classical theoreticians of districts) which seems to be the driving force of these zones, but rather their entry into the commercial networks which motivates them. But isn't that the role of merchant clusters — with their very specific role and organisation — to connect the agglomeration of enterprises to national opportunities and wider international networks?

And the question of the relationship to the territory and the endogenous/exogenous dynamics become even more complex in the case of technological clusters which, particularly with NTIC seem to point to the possibility to free themselves from the local, geographical dimension.

So, beyond the apparent similarities with hitherto known clusters, there is another configuration emerging in China which is not only economic but also social and political, for which only plural methodologies and broadened theoretical approaches can account. But there is an important paradox. Chinese social configurations do not have 'an easily usable equivalent'. If it is true that we can detect in the agglomeration of enterprises which are emerging analogies with proto-industrial forms or with the manufacturing model, the contemporary paradox is that it is the forms of economic organisation, which are apparently old fashioned or even regressive, which appear today to be efficient in an economy which is wide open to the global

economy: is it the paradox of the modular economy that we are seeing today (Berger, 2005) and the possible new spaces that are thus opening up? We need to return to this later.

1.2.3 *Japan*

Japan offers us another spectrum of particularities due to the historic roots of the phenomenon, thanks to the *jibasangyô*, and especially to the recent important changes which have accompanied the setting up of clusters up to the present poles of competitiveness.

1.2.3.1 *Historical Particularities: Industrial Districts and the Importance of Small Businesses*

Japan developed various craft agglomerations as far back as the Edo era (1603–1868) which were extended after the restoration of Meiji and especially after the WWII. These Japanese industrial districts composed of numerous small businesses and known as *jibasangyô*, had to restructure and improve their technological capacities in order not to be left behind in the race for technical progress and keep in line with the country's level of development. Thanks to the 'disappearances/creations' of enterprises which worked very well until the 80s and even constituting one of the factors of Japan's rapid adaptation, whole districts were able to go from a 'traditional' specialisation to a more modern industry without the number of small businesses diminishing; quite the opposite. However from the 80s the mechanisms of restructuring no longer seemed to work. With the globalisation of activities, and in particular the competition from China and the countries of Southeast Asia, as well as the crisis of the 90s, small businesses found themselves in difficulty, even threatening the survival of certain industrial districts. Japan's problem lies not so much in the fact that the small businesses are finding it difficult to keep up with globalisation or that certain industrial districts are disappearing; that is the fate of many developed countries, particularly in Europe (Galés *et al.*, 2002). It lies in the fact that, because the small businesses make up 99% of Japan's manufacturing industry and

employ two thirds of the manpower in the sector, their problems have had a massive impact on employment and regional spaces' vitality. This has led government to pass, since the 70s, laws specifically aimed at the small businesses and industrial districts in order to revitalise regions which are falling behind. Integrating territorial management concerns the aim was to energise certain sectors of the economy⁷ by setting up growth poles in the regions, establishing technopoles, or industrial research parks and so on.

These policies had mixed results though. They did come up against certain limits due to mismatches between central and local governments (prefectures, municipalities) often leading to a rather irrational choice of projects and localisations (the strength of lobbies...), and posing real problems of governance in the networking attempts of multiple actors.

1.2.3.2 *From Industrial Districts to Poles of Competitiveness and Knowledge*

While remaining in line with the former industrial policy, the cluster initiatives implemented at the beginning of the 2000s led to transforming it more and more into innovation policies.

To favour the spread of knowledge and therefore innovation the directive was to set up networks of all the actors and in particular to strengthen the links between public and private research and industry (*San Gaku Kan* or triple helix). Following simultaneously two objectives, two programmes have been independently set up.

In 2001 the METI (Ministry of Economy, Trade and Industry) launched the 'industrial cluster plan' to revitalise regional areas which were having problems, by fostering innovation. Well beyond the problems of small businesses, the objective was to guarantee the collaboration and networking of all the agents necessary for innovation, so as to create real poles of competitiveness on the basis of existing potential.

⁷ High tech industries having to take over from heavy industry, badly damaged by the oil shock crisis.

In 2002 the MEXT (Ministry of Education, Culture, Sports, Science and Technology) launched the ‘cluster initiative’ aiming more directly at promoting the emergence of new clusters, known as ‘knowledge clusters’ in the industries of the future. The two initiatives were complementary, but going in reverse directions. The industries in the cluster were supposed to submit their needs to the research sector in the METI case, whereas in the MEXT, it was the research sector which offered its results (seeds) to entrepreneurs. To synchronise the whole, the Japanese government set up a unit to coordinate the two types of clusters in order to avoid duplication, risks of conflict, or too fierce competition.

The case of Japan is full of lessons for us. It shows that starting from its own pre-existing conditions which might be considered as path dependencies:

- the historical existence of a large number of industrial districts (not only of the Marshall or Becattini type) which have demonstrated over time their capacity to adapt and develop,
- the very great importance of the small businesses in the economy,
- the weakness of results in terms of spill over from basic research in spite of large budgets.

It is nevertheless possible to develop renewed policies towards international competitiveness while addressing both the regional difficulties and the new industries or technologies issues.

Although OECD⁸ considers that following jointly two objectives, as different as promoting innovation and a balanced form of regional development constitute a weakness of the Japanese national system of innovation, Japan seems willing to continue in that past direction. But, through its strategy of clusters, which are today one of the essential instruments of the ‘Science and Technology Basic Plan’, the country intends to adjust by giving more and more space to research

⁸ Cf. For example: Jones, R. and T. Yokoyama (2006). ‘Upgrading Japan’s Innovation System to Sustain Economic Growth’, OECD, Economics Department Working Papers, No. 527

compared to production. This is doubtless one of the most novel aspects of Japan's strategy in the development of today's poles of competitiveness.

Considering the originality of the *jibasangyō* and their successive adaptations; the demonstration of the possible compatibility between small businesses and advanced structures of industrial development; the large range of policies and intervention to favour innovation as well as territorial planning; advanced experiments in forms of governance, Japan seems to offer us a lot of food for thought, in relation with existing theories.

1.2.4 Thailand and the Cluster Policies

Compared with existing interpretations of the agglomeration of enterprises Thailand presents another case, to the extent that in Thailand the concept of 'cluster' is used less to interpret existing situations than to promote policies, both concerning traditional agglomerations and modern and innovative ones.

The production economy of Thailand is characterised by a double structure: on the one hand, as in other countries, ancient traditional activities in the villages or in certain specialised urban districts; and on the other the concentration of enterprises in Industrial Estates (IE) which are the fruit of industrial policies and of the attraction of foreign investments since the 70s and 80s.

But it is not enough to pronounce the word 'agglomeration' to conjure up networks or cooperation between the various actors. Social relations did exist in the local communities and firms had common services and infrastructure at their disposal in the IEs, but the relations hardly ever went beyond the vertical relations between clients and sub-contractors. However, in the face of growing competition especially from its Asian neighbours (China and Vietnam), this very segmented system quickly revealed its limits. It was no longer possible to sustain the competition through prices so it was necessary for the country to improve the quality of its products, to rise in the value chain and develop goods with high added value. But the lack of interest in R&D on the part of multinational firms located in

Thailand and the total absence of R&D in Thai small businesses did not make the task of innovation easy, not to mention research, confined to the universities or public research centres with no connection with private firms or any real effect on the spread of knowledge. Having as its aims both⁹ to reinforce the international competitiveness of the industries which were ‘visible from the outside’ (high-tech export industries and so forth) and to raise the capabilities of the ‘interior economy’ (domestic or rural industries) the Thai government, after the arrival in power of Thaksin, took the competitiveness of the country’s economy as its main aim.

In order to carry out its policy, it invited Mr Porter and put the concept of clusters at the forefront, not without adapting, sometimes drastically, some of its tenets.

Clusters formed at the regional or local level are relatively classic whereas those concerned with high-tech industries sketch some new perspectives.

The former, which concern mainly traditional industries, use the ‘one tambon (village), one product’ programme and are **geographically very clearly defined**. These community-based clusters are no doubt fairly close, in their structure and dynamics, to the systems of localised production or industrial districts. Certainly, they advocate contact with the universities, but that often means improving the skills of the entrepreneurs (families, farmers, artisans, small businesses), and helping them to progress and improve the quality of the products rather than succeeding in setting up fundamental research projects. The objective of these community-based clusters also is to promote relations between the entrepreneurs so as to develop a local ‘brand’, the guarantee of wider recognition, either national or international.

Things are completely different as far as what is advocated for the high-tech export industries. For them, clusters, which are supposedly created to group activities together and exploit all the synergies, tend to free themselves from the purely local and geographic dimension (which is at the very heart of the definition of districts and traditional

⁹ Hence the name ‘Dual Track Policy’.

firms agglomeration theory), to take advantage of an enlarged network organisation. One of the recognised objectives is international competitiveness, so the clusters which have been formed tend to involve the whole of the target industry without worrying about any specific geographical dimension. So all the enterprises concerned with the given industry are invited, wherever they are located.¹⁰ One organisation is entrusted with the coordination and acts as the geographical anchor of the activities of the cluster, and organises all the actors in a network: firms (the final assembler and suppliers or sub-contractors; multinationals and pure Thai SMEs¹¹), research centres and universities, professional organisations (if they exist), government representatives, etc. Whatever the results obtained, we can note that we go from a very local conception of the agglomeration of enterprises to a broad network-based conception of systems of cooperation. In terms of working out a real national system of innovation the impact of clusters is still limited. However, by putting this policy in place the Thai government has broken with the previous dynamics whether at the level of public policies, which form nowadays a more coherent whole, or at the level of fundamental attitudes. The concept of clusters, such as it is presented, is thus an instrument of public policy in the hands of the policy makers. The case of Thailand constitutes in any case an illustration of how one can evolve from an analytical concept of clusters to a practical one, the results of which, it is true, remain to be measured.

Beyond the accent put on the necessity to create links between the actors who previously had ignored each other and thus the attempt to make enterprises cooperate with each other and with universities and research centres, the cluster policy has first of all allowed changes to be injected into the previous public policies. The adoption of the concept of clusters thus seems to have played a role not only in the policies aimed at attracting foreign investment

¹⁰ We should mention that in many cases the industries are relatively situated around Bangkok, with the exception of the textile industry which, although it is an export industry is considered as part of the traditional industries.

¹¹ Small- and medium-sized businesses.

(the link between obtaining privileges and investment in training and R&D in particular) but also in the technical and scientific policies which give much more importance to the working out of a real national system of innovation, based of course on clusters.

Despite numerous difficulties, little by little and through government action, clusters (sectorial or localised) seem to have become a reality in the Thai economy, not without going well beyond the classical approaches, as observed through the ‘de-territorialisation’ of the concept.

1.3 Reconsidering the Classic Approaches

After this short overview of the forms and developments taken by the agglomeration of enterprises in the four countries under discussion, we are bound to recognise that the cases observed lead us to seriously reconsider the approaches to districts, clusters and poles of competitiveness which were accepted until now, both in terms of their structures and their dynamics.

In relation to the approach in terms of ‘industrial districts’, from craft villages to *jibasangyó*, one can discover the importance and variety of proto-industrial forms of the concentration of activities which can serve as a matrix for some of the developments we have recently observed. We can also realise how the model of industrial districts which became prevalent in western thinking via the Italian situation, turns out to be narrow when trying to theorise the developments in China for example. In this country, it is less the organisation of production itself, optimised by internal inter-firm dialogue, both formal and informal, which seems to be at the heart of the dynamics we observed, but on the contrary it is the articulation around the commercial circuits. And it is these circuits which are the engine and produce today specialised merchant clusters at the heart of the national and global circuits. Internal cooperation, at the core of the theory of districts, is here supplanted by networks.

Concerning the approach in terms of clusters we can of course see, as in the case of Thailand, how the theory may be put into practice. But we can also see at the same time how the local framework of

analysis, which is at the very heart of the analysis of clusters (since it is a question of setting up optimum dialogue between everyone concerned), simply explodes, once again to make way for networks, and by implication of all the enterprises or centres of resources around an activity or a product, wherever they are located.

Finally, as to the approach in terms of ‘poles of competitiveness’, it is interesting to note how contradictory the forms of governance can be in their attempts to reconcile the perspectives of territorial planning and innovation, as in Japan, or in the programmes which hesitate, in the choices to be done, between emphasizing the pre-eminence of research or enterprises.

The agglomeration of enterprises observed in Asia leads us therefore to seriously rethink the channels and paths of development observed by what are commonly called clusters, since the term itself as it is used today mixes up the different levels we have tried to differentiate, at the risk of creating confusion, by playing on all the registers which are touched on at once. In any case they force us to enlarge our frameworks of analysis and to re-think the new chances and advantages which are emerging in the framework of the global economy which is taking hold. For if the globalisation of the economy stiffens competition it also allows firms to play new and unusual cards, where the different types of agglomeration of enterprises can assume their complete role.

1.3.1 The Openings Offered by the Modular Economy

As S. Berger shows in ‘How we compete: what companies around the world are doing to make it in today’s global economy,’¹² in today’s world there is not just one way to manufacture products, and from this point of view the channels have greatly diversified. Yes, competition is stiff, but multiple and the ways to respond to it are diversified too, as the variety of the models of production prove. Some firms can continue to choose to manufacture everything and integrate their

¹² Doubleday Broadway, 2005; French translation: *Made in Monde. Les nouvelles frontières de l’économie mondiale*, Seuil, Paris, Février 2006.

products totally (cf. Sony for Vaio for example); others can on the contrary externalise all these operations and keep only the assembling (Dell...), with of course all the models in between (closed modules, open modules, cf. Fujimoto Takahiro). The value production chain, when it is appropriate to join, is no longer as closed, unique and linear as before. It has fragmented and greatly diversified, with the appearance of firms which are positioned on intermediate markets like the Original Design Manufacturer enterprises (ODM) or the Original Equipment Manufacturer (OEM) and those occupying all other sorts of positions in the services. So it is possible for zones or firms to choose to specialise by positioning themselves on any point on the value chain either as parts manufacturers or as a designer, or even as a manufacturer without a brand or as being in charge of a specialised fragment, etc. The organisation of production obeys less and less a single predetermined model which would be a must for everyone, reducing the field of possible spaces. On the contrary it opens up this field.

The agglomerations of enterprises, districts, clusters or poles of competitiveness can perfectly benefit from the variety of their systems of organisation.

Fragmentation, specialisation and the greater opening of possibilities which the modular economy can allow gives renewed interest in the specific modes of organisation that these groupings will be able to find and in the specialised niches they will learn to construct and occupy. It is moreover in this framework that the forms of economic organisation which may appear outdated can quite easily, at a given time, find their place and specificity again, as the examples from Vietnam, China or Thailand illustrate. From a competitive model locked in closed systems of production in which competition can only operate on the reduction of costs resting on similar operations, a shift is occurring towards models in which it is the *different possible forms of organisation to be invented, which turn out to compete among themselves* and which represent the new challenges of developments to come.

In this context the environment of work, of research and wide reflection which clusters or poles of competitiveness are endowed

with, doubtless constitute a real asset in the finding and exploiting of niches. In the prevalent globalisation, we may consider that the agglomerations of enterprises, at their different levels, not only find their total justification, but that by opening up the game, the latest developments of the modular economy provide a profound stimulus for them.

1.3.2 *Clustering and the Knowledge Impact*

True, this new context, more uncertain and multi-faceted, also takes us into a new era of economy or society based on knowledge. As Menkoff, Evers and Chay (2005) point out, the new element is that knowledge seems to have become the only significant and decisive factor of production, relegating other factors of production (natural resources, work, capital) to a secondary position. They are supposed to be easily accessible so long as knowledge is present (Drucker, 1993). Moreover, since knowledge becomes obsolete very quickly, what becomes important is not only knowledge itself, but the capacity, for an economy and a society, to learn, which is to say to create, spread and use new knowledge (Lundvall, 2002). That is why so much importance is given today to knowledge management and to new inflections and polarisations we can see today in the new forms of organisation which are being organised to respond to this ‘Mega Competition of Knowledge’. It is this shift which is the heart and the challenge of the new groupings we can observe and particularly in the ‘poles of knowledge’, whether they take a local form or are organised as networks.

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