

**CHERROUN REGUIA**

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## **CLUSTERS AND SMES: AN OPPORTUNITY TO BE TAKEN: ALGERIAN EXPERIENCE**

### **Abstract:**

Companies face a strong competitiveness that characterizes the economic environment; however, the shape of this competitiveness has been changed due to many factors to shift from pure competitiveness, where each company works in isolation for its own benefits, to a new sort of competitiveness under a kind of cooperation between many companies and other economic actors, sharing local resources, using similar technologies, because they need to be near from the required financial and human resources, as well as the innovation resources, for obtaining the raw materials in high quality and low prices, meanwhile to find near markets to distribute their outputs. This can be only if they work in a region that contains all that through clustering and networking.

These linkages and alliances may be between big companies from both private and public sector, as well as small businesses that have been extended worldwide in an accelerated pace. This new type of companies "SMEs" with their specific characteristics need, such kind of cooperation to face the strong competitiveness and to benefit from the external economies, then to maintain a significant market part. In this context Algerian authorities work to implement efficient strategies to encourage clusters in the interest of SMEs in many fields.

This paper is divided into three parts; the first one aims to give a theoretical base about the notion of "clusters", the advantages of clusters, types of clusters, and the second part is about SMEs and how can they get benefits from clustering. The last part discusses the Algerian experience in adopting clusters strategies.

### **Keywords:**

Clusters, SME's, Networks.

## **Introduction:**

Companies face a strong competitiveness that characterizes the economic environment; however, the shape of this competitiveness has been changed due to many factors to shift from pure competitiveness, where each company works in isolation for its own benefits, to a new sort of competitiveness under a kind of cooperation between many companies and other economic actors, sharing local resources, using similar technologies, and forming linkages and alliances in a form of clusters.

These linkages and alliances may be between big companies from both private and public sector, as well as small businesses that have been extended worldwide in an accelerated pace. This new type of companies “SME<sub>s</sub>”<sup>1</sup> with their specific characteristics need, such kind of cooperation to face the strong competitiveness and to benefit from the external economies, then to maintain a significant market part.

This paper is divided into three parts; the first one aims to give a theoretical base about the notion of “clusters”, the advantages of clusters, types of clusters, and the second part is about SME<sub>s</sub> and how can they get benefits from clustering. The last part discusses the Algerian experience in adopting clusters strategies.

## **I- Clusters: Definition, Types, Advantages and Financing**

### **I-1 Definition of Clusters and some issues related with them :**

#### **I-1-1 Definition of Clusters:**

Indeed, the notion of clusters is not a new one, but it's changing as the approaches and importance of clusters are changing. So, there has been a variety of different definitions used when examining cluster. We can state some different definitions as follows:

- The most evident definition of cluster is that of Porter “A cluster is a geographically proximate group of interconnected companies and associated institutions in a specific field based on commonalities and complementary”<sup>2</sup>.
- Wikipedia (2011) defines business cluster as a geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field, for increasing the productivity with which companies can compete, nationally and globally<sup>3</sup>.

We find also the definition of BGI (Business Growth Initiatives) which sees cluster as a group of geographically linked firms generating external economies. Cluster includes firms in one or more core value chain, along with, the firms providing services to them. They also include

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<sup>1</sup> SME<sub>s</sub>: Small and Medium Enterprises.

<sup>2</sup> Marta Valgyine Nadaban, **Clusters: Definition, Typology and characteristics of some clusters in the ESZAK-ALFOLD Region Case Study**, 4<sup>th</sup> Aspects and Visions of Applied Economics and Informatics, March 26-27 2009, Debrecen, Hungary, P: 774.

<sup>3</sup> Wikipedia 2011, **Definition On Business Cluster**. [http://en.wikipedia.org/wiki/business\\_cluster](http://en.wikipedia.org/wiki/business_cluster).

organizations such as trade associations, universities and vocational schools, financial institutions and local and national government agencies<sup>1</sup>.

To sum up the above definitions, we can say that clusters are characterized by:

- \* A group of linked firms and associated institutions;
- \* They are linked geographically ;
- \* There is a complementary cooperation between the elements of clusters ;
- \* There is a particular and specific field in the cluster.

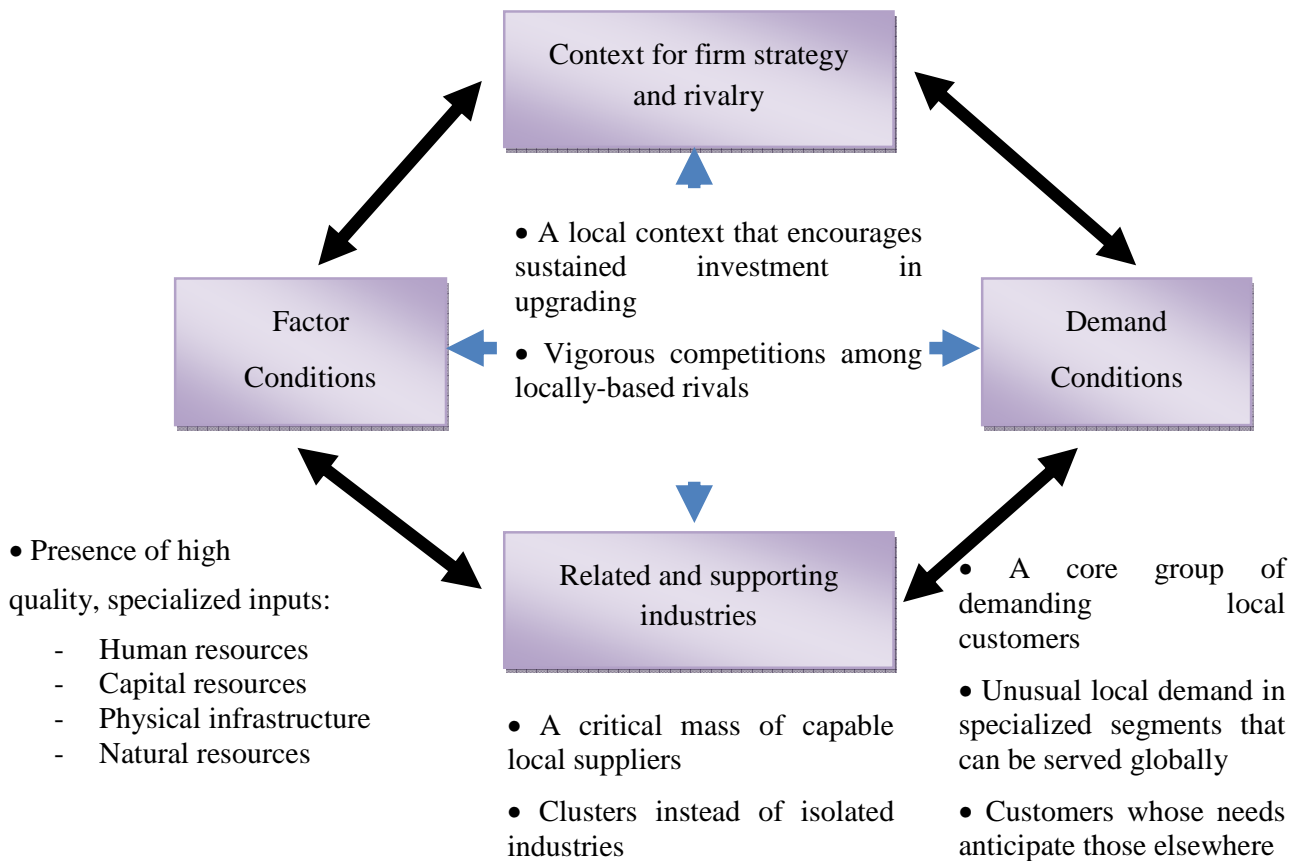
In this context, Porter identified in his **Diamond Model**, that clusters advance through four dimensions<sup>2</sup>( as shown in the below diagram):

- ✓ Strong and sophisticated local demand;
- ✓ A local base of related and supporting industries exist in the local economy to support the export industry;
- ✓ Favorable factor (resource) conditions;
- ✓ Competitive climate driving firm productivity.

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<sup>1</sup> BGI, Business Growth Initiative, org 2011, **Clusters And Competitiveness**, <http://www.businessgrowthinitiative.org/key Practice Areas/competitiveness/Pages/clusters.aspx>.

<sup>2</sup> Dongles Woodward, **Porter's Cluster Strategy Versus Industrial Targeting**, ICIT workshop, Orlando-Florida, December 3, 2004, P: 9.

**Figure 1: The Diamond Framework**

Source: [http://en.wikipedia.org/wiki/Diamond\\_model](http://en.wikipedia.org/wiki/Diamond_model)

### I-1-2 Issues related with clusters:

There are many general issues concerning the geography and scale of clusters that policy-makers should take into consideration when assessing how cluster policies need a special tailoring to address issues facing their regional economies, these include<sup>1</sup>:

- \* **Geography:** A cluster approach should consider such factors as: geographic size and proximity to other important regional economies;
- \* **Jurisdiction:** Jurisdictional issues affect assessments of regional economies as many regional economies are composed of multiple jurisdictions which possess their own sub-regional economies and public policy regimes;

<sup>1</sup> Ross Brown, **Cluster Dynamics in Theory and Practice with Application to Scotland**, Regional and Industrial policy Research paper, P: 38, March 2000, European Policies Research center, University of Strathclyde, PP: 4-5.

- \* **Population:** Population size can be significant as it can determine the size of local labor forces and local consumer markets.
- \* **Sector size:** it is important-to measure or select clusters.

## I-2 Types of clusters:

Before speaking about the different types of clusters, we should mention the different ways by which a cluster is formed:

- ❖ The most famous way is that, companies access to a labor force with specialized skills, a desirable location, plentiful natural resources, a supportive business infrastructure, or cluster themselves and grow in a region<sup>1</sup>. On through face to face communication of business leaders to develop a cluster and create conditions that can aid in this process.
- ❖ Industry clusters differ from one another based on size, characteristics of the core or dominant sector, purchase sale linkages among firms, and extent of inter-firm cooperation and collaboration. In this context, the institute for information industry suggested in 2007 that industry cluster.
- ❖ Should be classified according to their characteristics, the purpose for which they were established, and the factors during their growth<sup>2</sup>. The table below shows the different types of industrial cluster, the characteristics of each one, their purposes, and the factors driving cluster growth:

**Table 1: Industry Cluster Classification**

Industry cluster type	Characteristics	Purpose	Factors driving cluster Growth
<b>Compound Industry Cluster</b>	Mature, hi-tech, single-region cluster	Achieving economies of scale and scope through the integration of multiple industries	Intra – industry linkage Cross – industry integration
<b>Service – type Innovation Cluster</b>	Mature “soft technology”, single – region cluster	Growing the market through local brand development	Leveraging the advantages of being local Brand – based marketing
<b>Hi – tech</b>	Newly established, hi-tech, single –	Using standardized production process	Cost advantage shared infrastructure

<sup>1</sup> Robert Breault, **The Evolution Of Structured Clusters**, Photonics tech briefs, May 2000.

<sup>2</sup> Institute for Information Industry. **Recommendations Regarding Policy and Guidance Tools for the Promotion of Industry Clusters in Taiwan**, 2007.

<b>Niche Cluster</b>	region cluster	to reduce costs	
<b>Innovative Local Cluster</b>	Newly established, "soft technology", single – region cluster	Using the exchange of information to stimulate innovation	- Information exchange - learning mechanisms - stimulus for innovation
<b>Mature Network Cluster</b>	Mature, hi-tech, cross-regional cluster	Building a global brand	- global branding - growing the market
<b>Value Network Cluster</b>	Mature, soft tech, cross-regional cluster	Building a global brand	- global branding - growing the market
<b>Emerging Hi-tech Cluster</b>	Emerging, hi-tech, cross-regional cluster	Careful strategic positioning, cross-regional value chain integration	Technology niche
<b>Innovative Network Cluster</b>	Emerging, soft technology, cross-regional cluster	Value-based positioning, cross-regional value chain integration	Unique innovation

Source: Institute for Information Industry, **Recommendations Regarding Policy and Guidance Tools for the Promotion of Industry Clusters in Taiwan**, 2007.

Other factors such as: the level of the cluster development life-cycle, the extent of critical mass in the amount of companies, the intensity of the interconnections between the cluster members and other actor in the local area, the emergence of synergies in the cluster, may classify clusters into different types than what was cited above, as follows<sup>1</sup>:

- **Living Clusters:** where companies possess the necessary level of local knowledge, specialized labor force and external economies, they have a high research-development and innovation potential and readiness.
- **Emerging Clusters:** they are characterized by: the lack of knowledge in most of the local companies, and trust the lack of interaction between companies and other actors.
- **Potential Clusters:** possess the basic elements and Factors to-create a successful cluster.
- **Clusters Governed by Politics:** where the central or regional government picks up a sector or industrial area to contribute to the cluster development process used the existing critical mass or existing knowledge as basis for that.
- **Dream Cluster:** in which the necessary critical mass and all other important elements are missing which are crucial preconditions to the organic development of a cluster.

<sup>1</sup> Marta Valgyine Nadabam, Opcit, P : 777.

### **I-3 Advantages of Clusters:**

It is evident that companies that are grouped within a cluster can benefit from many services and opportunities than those which work in isolation, since their needs can be provided faster and in low costs.

In the following points we identify the different advantages of clusters that companies may get:

- \* Firms located within geographic clusters or geographic regions can gain superior access to knowledge which enables them to establish competitive advantage<sup>1</sup>, potential benefits.
- \* Increased competitiveness and innovativeness emerge from externalities of agglomeration and focalization economies which offer sector related firms easy access to collective resources and provide a stimulating mix of competition and collaboration, also from clusters favor systemic dynamics of learning and knowledge creation based on socially embedded vertical and horizontal linkages of co-locating firms and their interaction with education R & D and other organizations nearby<sup>2</sup>.

Furthermore<sup>3</sup>:

- \* Clustering strengthens localization economies to benefit from a great availability of specialized input suppliers and business services, a larger pool of trained, specialized workers, public infrastructure...
- \* Clustering facilitates industrial reorganization and enhances the flow of goods through the production system.
- \* Clustering encourages networking among firms then enhances their competitiveness and profitability through interfirm cooperation and collaboration.
- \* Clustering permits greater focusing of public resources.

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<sup>1</sup> Gilbert, B-A et al, **Clusters, Knowledge Spillovers and New Venture Performance: An Empirical Examination**, Journal of Business Venturing, 2007.

<sup>2</sup> Martina Fromhold : Eisebith, Gunter Eisebith, **How To Institutionalize Innovative Clusters ? Comparing Explicit top-down and Implicit bottom-up approaches**, Research policy 34 (2005). Elsevier, P: 1252.

<sup>3</sup> David.L. Barkely, Mark S Henry, **Advantages and disadvantages of targeting industry clusters**, Redrl Research Report 09-2001-01, Regional Economic Development Research Laboratory, Clemson University, South Carolina, PP: 5-6.

Another positive impact of clustering is the creation of competitive advantage, as Porter clarified that can be in three ways<sup>1</sup>:

- \* By increasing the productivity of companies based in the cluster;
- \* By driving the direction and pace of innovation which underpins future productivity growth, and;
- \* By stimulating the formation of new business which expands and strengthens the clusters, forming a virtuous circle or positive feedback?

For benefiting from these advantages, it is necessary to develop other internal and external networks where:

- Internal networks: are defined as business co-operations or links among enterprises inside the cluster like: marketing, production, training for workers ...
- External networks: are business and other forms of relation between enterprises inside the cluster and actors outside the cluster like: suppliers of inputs, providers of services ... etc.

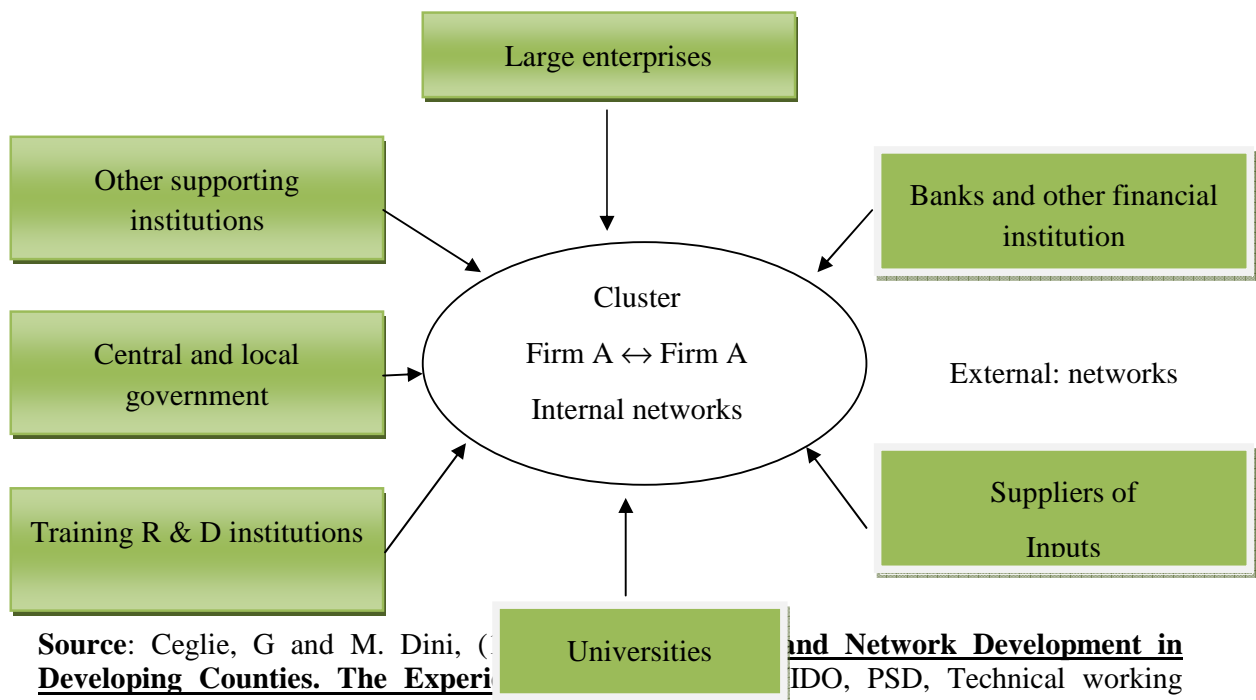
The figure below illustrates the different types of networks within a cluster.

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<sup>1</sup> Adrian : T.H. kuah, **Cluster Theory and Practice : Advantages For The Small Business Locating In A Vibrant Cluster.** journal of research in Marketing and entrepreneurship: vol 4, Issue 3, 2002, PP: 209-210.



**Figure 2: Networks and Cluster**



Source: Ceglie, G and M. Dini, (2005) Cluster and Network Development in Developing Counties. The Experience of Italy, ILO, PSD, Technical working papers Series, Geneva.

To understand well the difference between networks and clusters, we should know the characteristics of both, as shown in the below table:

**Table02: Clusters versus Networks characteristics**

Networks	Clusters
Networks allow firms access to specialized services at lower costs	Clusters attract needs specialized services to a region
They are based on contractual agreement	They're based on social values that foster trust and encourage reciprocity
They have restricted membership	They have open membership
They make it easier for firms to make complex products	They generate demand for other firms with a variety of similar and related capacities
They are based on cooperation	They take both cooperation and competition
They have common business goals	They have collective visions

Source:Patrice Braun, Pan. McRac-Williams, Julian Lowe. Small Business Clustering: Accessing Knowledge through Local Networks. CRIC Cluster conference, Beyond Cluster-Current Practices and Future Strategies. Ballarat, June 30-July 1, 2005. P:5

**I-4 Clusters financing types**

Cluster is like any bussiness that requires management basics, however ; the complexity of clusters, the variety of their types, and the different parts that are included in the clusters, all these features and others make clusters in need of an effecient management and more interest

concerning how to finance these clusters, since the main obstacle to initiate a cluster is its financing.

There are three different types of financing clusters as follows<sup>1</sup> :

**\*Open-ended public funding :**

Initially, most of the relatively limited funding will come from a dedicated cluster development fund ;

**\*Temporary public funding :**

**\*Public/private funding**

Local actors will approach other external sources of funding, for instance, national or provincial R&D funds, national skills funds....

## **II- SMEs and Clusters: Benefits and Experiences.**

SMEs are considered as a new pillar to create a strong economy due to their specific characteristics, however; the lack of resources and financial supports for them; make it difficult for them to grow under the domination of large companies.

This fact encourages the agglomeration of SMEs with other sectors to benefit from each other, and work within clusters for improving their efficiency and productivity and to be flexible as regards market, product, technology, management and organization, as well as to address their current problems related to their size, production process, marketing procurement of inputs, risks associated with demand fluctuations, and market information, and improve their competitive position.

In this section, we'll discuss the different definitions of SMEs and their characteristics, then the necessity of clustering them and the potential advantages that can be brought from clustering.

### **II-1 SMEs: Definition and Characteristics**

#### **II-1 -1 Definition**

Indeed, there is no agreement about one common definition of SMEs, it differentiates from country to another and from entity to another based on economic and social abilities of these countries and entities. So that we can find many criteria to classify this kind of enterprises.

For these reasons, we'll state the different definitions of SMEs based on some criterion, and before doing so we should mention that the term "small and medium sized enterprise" consists of two components: the first component " small and medium- sized" relates to the size of an entity while the second component " enterprise" relates to the economic nature of that entity. An enterprise , as defined by the European Commission( EC) in Article 1 of its

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<sup>1</sup> **Cluster Management Guide- Guideliness for The Development and Management of Cluster Initiatives,** CLOE Workpaper. P :18.

recommendation "definition of micro, small and medium-sized enterprises", may be understood as " any entity engaged in economic activity, irrespective of its legal form, as far as the size component is concerned, there is no single universal accepted definition of what constitutes the right numerically measurable size of a SME<sup>1</sup>.

### **A- Quantitative Criteria:**

#### **A-1- Employees' number criterion:**

In fact, this is considered as the most useful criterion in defining SMEs. According to this criterion SME is one of the following:

- In the European Union, and according to the Commission Recommendation of May 6, 2003, an enterprise is regarded as small or medium if it has not more than 250 employees<sup>2</sup>.
- Multilateral Investment Guarantee Agency ( MIGA) and International Finance Corporation ( IFC) define small enterprises as those which have 50 employees.

#### **A-2- Sales criterion:**

Sales criterion is considered as one of the new and important criterion to assess the enterprises' performance as well as to classify them according to their size. It is also used to measure project's activity level and its competitiveness. According to the European Commission, SMEs are those enterprises that have annual sales not exceeding \$ 67 million.

Small enterprises are defined as those enterprises that have annual sales or total assets that do not exceed \$ 13 million, meanwhile, Micro enterprises are defined as those that have annual sales or total assets that do not exceed \$ 3 million<sup>3</sup>. But economists see that this criterion can not reflect the enterprise's real performance because when prices increase sales also increase, so that economists often resort to adjust that through an index to clarify the real growth of sales, furthermore, sales are subjected a lot to seasonal fluctuations<sup>4</sup>.

#### **A-3- Capital criterion:**

This one is regarded as the most common criterion to determine enterprise size, because it represents enterprise's productivity capacity, it defers from one country to another and from

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<sup>1</sup> Rajnish Tiwari, Stephan Buse, Cornelius Hestatt. **Technology and Innovation : working paper n 50: Barriers to Innovation in SMEs: Can the Internationalization of R D Mitigate Their Effect?.** Paper published in the " Proceeding of the first European Conference on knowledge for Growth Role and Dynamics of Corporate R D( Concord 2007). October 8-9 , 2007,Seville, Spain.

<sup>2</sup> SBS Expert Meeting: " **Towards better structural business and SME statistics**". OCED, Statistics Directorate: 3-4 November 2005. Agenda Item 6: Business registers and SMEs, A quantitative definition of SME.

<sup>3</sup> Rana Dadadneh, Farah Tukan, **Booklet of standerized Small and Medium Enterpriese definition**, United States Agency for International Development 22 August 2007. P:5.

<sup>4</sup> Berish Saaid, Belgarssa Abdelatif, **SMEs financing problemtic in Algeria**, International conference: SMEs rehabilitation need in Arab countries, University of Shlef: 17-18 APRIL 2006. P: 320.

sector to another. Some Asian countries ( such as: India, Philippines, Pakistan and South Korea) define SMEs as those enterprises that have capital between \$ 35 and \$ 200 thousand. However, in some developed countries, SMEs should have not less than \$ 700 thousand<sup>1</sup>

We should mention that most countries and international entities, in defining SMEs depend on two criteria ( capital and employees number).

## **B- Qualitative Criteria:**

### **B-1- Juridical criterion:**

According to this criterion, SME's include self-employed persons and family businesses engaged in craft or other activity.

### **B-2- Managerial criterion:**

Small or Medium sized enterprises are those where the manager decides the short term strategic decisions and prepare the long-term decisions, which he presents to the board of owners. If the board of owners consists of private investors they decide in their interest, which usually is the maximization of their profit and thus the profit of the enterprise<sup>2</sup>. An enterprise can be considered as SME if it has at least two characteristics from the following<sup>3</sup>:

- ✓ Combination between ownership and management;
- ✓ Depending on auto financing;
- ✓ Small productivity capacity;
- ✓ Limited production field;
- ✓ Limited owners.

## **II-1-2 -SMEs Characteristics:**

Small and medium sized enterprises ( SME) exhibit many characteristics which distinguish them from larger companies. We can summarize these characteristics as the following<sup>4</sup>:

- a. SMEs are characterised by the flexibility and the ability to adapt with the changing working conditions, and they are characterized also by the informel feature in dealing with customers or employees;
- b. SMEs are considered as a center of self training and formation for both owners and employees which help them to have more information and knowledge;

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<sup>1</sup> Ibid, P: 320.

<sup>2</sup> OECD, OECD; SME statistics: **Towards a More Systematic Statistical Measurement of SME Behaviour**. Backround report for the 2 nd OECD Conference of Ministers Responsible for Small and Medium Enterprises (SMEs).

<sup>3</sup> Lothar. Seybold, Andreas Paczynski, Ralf Stetter, **Mechatronics in Small and Medium sized Enterprises (pdf)**, available at the address: <http://www.issi.uz.zgora.pl/2009.pdf>.

<sup>4</sup> Ploesteanu. Mara Gabriela, Filip Alina, **Competitiveness of Small and Medium Enterprises- Key Factors for a Successful Economy**. Available at the address: <http://steconomics.uaradea.ro>.

- c. SMEs have a high turnover of stocks which intended for sales, and that leads to raise the degree of their exploitation period;
- d. Another characteristic of a SME concerns organizational differences in terms of structures, processes and responsibility. SMEs have management structures which differ from those of large companies by having less bureaucracy and flatter management structures;
- e. Decision-making is less formalization and often rests with a small group of people, particularly in family-owned, decision-making processes are significantly influenced by the owner-manager and contingent on his personality<sup>1</sup>.

## II-2 Benefits of clusters for SMEs:

Cluster development methodology seeks to harness the competitive benefits from collaborative or joint action among business and SME's operating in the same business or sector. It seeks also to increase competitiveness through the application of new technologies, pooling of information and resources...etc. Moreover, advantages that can be taken through clustering SMEs are as follows<sup>2</sup>:

- \* They may take advantage of external economies as:
  - Presence of suppliers of raw materials, components, machinery and parts;
  - Presence of workers with sector-specific skills, and the presence of workshops that make or service the machinery and production tools;
- \* It becomes easier to buy the production, and to sell them to distant market;
- \* The services and facilities would be very costly for the providers if given to individual enterprises in dispersed locations ;
- \* Getting collective efficiency;
- \* Close proximity facilitates the establishment of enterprises in the locality of industrial links without substantial transactions costs or difficulties;
- \* Clusters offer a useful and cost-effective entry point for agencies seeking to encourage responsible business practise by large numbers of SMEs ;

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<sup>1</sup> Bhaskaran, S.(2006). **Incremental Innovation and Business Performance- Small and Medium-size Food Enterprises in a Concentrated Industry Environment**: Journal of Small Business Management,44(1),64-80.

<sup>2</sup> Tulus tambunan, **Development of Small, and Medium Scale Industry Clusters In Indonesia**, [www.gdnet.org/CMS/submissions/1150011520\\_GDnet3.pdf](http://www.gdnet.org/CMS/submissions/1150011520_GDnet3.pdf).

- \* Working collaboratively within a cluster, businesses are able to take advantage of market opportunities that they could not achieve alone by addressing issues such as local capacity and infrastructure, regulation, and national reputation ;
- \* Cluster approaches can reduce the pain barrier of cost and risk, and adapt international tools and standards for local contexts making it more attractive for individual business to take on responsible business practises and increasing uptake;
- \* Responsibility pressures provide an external challenge which catalyses collective action, dialogue, trust and capacity building within clusters, and with other linked organisations and sectors<sup>1</sup>.

**Other advantages like<sup>2</sup>:**

- \* Absorb new ideas of production, management, marketing ...etc.
- \* Integrate production processes and find good transacting partners;
- \* Ensure the collection of money.

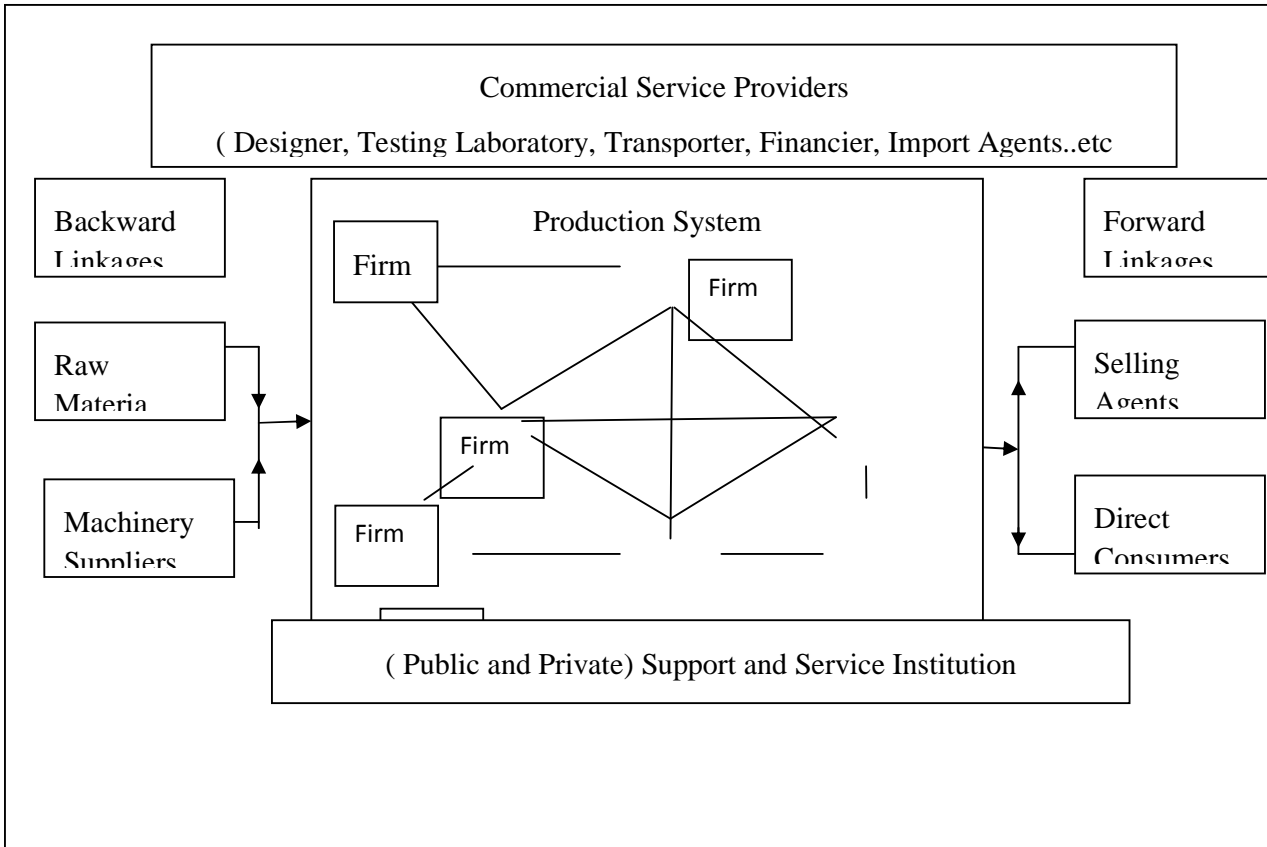
The figure below shows the mechanism of clusters through which SME's are working in a system of a socio-economic cooperation, where there is a connection between the different firms which have the same inputs ( raw materials suppliers, and machinery suppliers..etc) and they are near from the same supporters like: financial institutions, service institutions, commercial service providers..etc, then they take the offered solution forward.

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<sup>1</sup> **SME Clusters and responsible competitiveness in Developing countries**, AccountAbility with UNID, January 2006.

<sup>2</sup> Tetssushi sonobe, **The Advantage of Industrial Cluster for the SME Development**, Foundation for Advanced studies an international development.

**Policy Environment**



**Source:** Richard Ramsawak, Cluster Best Practices: Lessons from the  
[http://www.clustercollaboration.eu/documents/19868/0/best\\_practices\\_clusters-site.pdf](http://www.clustercollaboration.eu/documents/19868/0/best_practices_clusters-site.pdf).

The table below summarizes the advantages which may be brought through clustering SMEs as follows:

**Table3: SMEs Clusters' Advantage explanation**

<b>Advantage</b>	<b>Explanation</b>
1 access knowledge and information resource and creation of knowledge	As a result of geographical proximity, communication between cluster members is strengthened and the exchange of knowledge and quick dissemination of new knowledge is intensified.
2 enhance competences and create competitive advantages	Encouraging learning and innovation consequently leads to the development of sustainable competitive advantages.
3 create synergies	As the sum of the components is of greater value than each individual company or institution, clusters create synergies.
4 lower production cost	Cluster members are able to reduce costs and to improve the level of service to their customers, even though transportation and communication costs decline.
5 enhancing organizational performance and innovation	The differentiation that evolves within firms in the cluster is likely to increase variety, which has been shown to enhance profitability, learning, and innovation.



<p><b>6</b> regional and national economic development</p>	<p>Cluster approach upgrades capabilities leading to the development of sustainable competitive advantages and to the stimulation of regional economic development.</p>
<p><b>7</b> A pool of suppliers of raw material, equipment and specialized services</p>	<p>With clustering, firms achieve the economies of scale in the purchase of inputs, such as equipment, raw materials, finance, consulting services and etc.</p>
<p><b>8</b> A pool of specialized labor</p>	<p>Agglomeration of enterprises engaged in similar or related activities brings advantages such as a pool of specialized workers and easy access to suppliers of specialized inputs and services.</p>
<p><b>9</b> low-transaction costs</p>	<p>Inter-organizational trust is likely to enhance collective learning when it encourages the sharing and disclosure of organizational information and knowledge, and reduces transaction costs.</p>
<p><b>10</b> formation of local supporting institutions</p>	<p>The existence of a cluster also stimulates formation of local supporting institutions oriented towards satisfying specific needs of the cluster participants.</p>
<p><b>11</b> establish co-operative linkages between companies</p>	<p>Proximity helps to establish co-operative linkages between companies through enhancing mutual learning and knowledge creation.</p>

12 higher specialization	High concentrations of SMEs, both from the supply and demand sides as well as cluster support institutions, can contribute to high levels of specialization.
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**Source:** Masoomeh Zeinalnezhad, Muriati mukhtar, Shahnorbanun sahran, **The Roll of Clusters and Networks in development of Industrial SMEs**, 2010 International conference on business and economic researchs, vol:1, 2011, IACSIT Press, Kuala Lumpur, Malaysia. P:79.

### III- SMEs clustering: Algerian experience

In this section, we discuss the efforts of Algerian economic authorities to adopt the strategy of clusters<sup>1</sup>.

#### III-1 Algerian SMEs: Facts and Policies

The Algerian legislator defines SMEs as those ones which produce goods and/ or services whatever their juridical nature.

Thus, SME is characterized by the following<sup>2</sup>:

- employees should be between 1 and 250;
- Annual sales should not exceed 2 billion Dinars or total assets do not exceed 500 million Dinars;
- SMEs should have an autonomy.

The table below shows the different criteria used to define SEMs according to the Algerian legislator.

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<sup>1</sup> All this part is inveted from the study which has been prepared by United Nations Organization for Industrial Development, for more details see : Pierre Paris, (2013),**Diffision de la demarche cluster dans trois pays du Maghreb ( Algeria, Maroc, Tunisie), Definition d'une boite à outils methodologique operationnelle**, ONUDI, Agence Française de Deveolpement, PP :15-16.

<sup>2</sup> Wanoughi Fatiha, **Forms of financing SMEs in islamic economies**, International Training Course about financing SMEs and devopings their role in Maghreb economies, Setif University 25-26 Mai 2003. ( Arbic vession).

**Table 04: SMEs types according to the Algerian legislator**

	<b>Number of employees</b>	<b>Annual sales</b>	<b>Total assets</b>
<b>Micro- entreprise</b>	1-9	More than 20 million dinars	More than or equals to 10 million dinars
<b>Small- entreprise</b>	10-49	More than or equals to 200 million dinars	More than or equals to 100 million dinars
<b>Medium- entreprise</b>	20-250	2 billion	100-500 million dinars

Source: Karon Yamina, Influence des Technologies de l'information et de la communication sur la qualité de lux informationnels au sein des PME- PMI Algerienne. Actes 2 eme séminaire international de la gestion des entreprises. Université de Biskra: 12- 13 Avril 2004. P : 215.

SMEs represent 94% of the total of companies in Algeria, that employs almost 56% of the active population, and contribute in GDP by 48%.

The ministry of Industry , SMEs and Investment Promotion deploys a public policy which aims to:

- Confer to SMEs a role and a place in real economy, especially as an alternative to Hydrocarbon;
- Consolidate competitiveness of existent SMEs and stimulate the creation of new private initiatives, through fifty facilitation centers and nurseries;
- Strengthen the professional association and consular to serve and represent the interests of SMEs;
- Improve the immediate environment of SMEs through appropriate initiative measures, accompanying devices and supports.

This program provides for the period 2010-2014, 450 DZ billion in public investment, the creation of 200000 SMEs, and a sub-program of 386 DZ billion for upgraded 20000 SMEs.

In this context, the European Union has contributed in this policy by granting a financial support ( 100 Euros Million for the period 2002-2014) in order to reinforce SMEs to meet the exigencies of opening of the Algerian Market to the concurrence.

### **III-2 Clusters Algerian Experience:**

The notion of “ Cluster” has been recently introduced in Algeria, and the reflection of this subject is a bit advanced. Since 1970s, only the concepts of industrial area then activity area “SMEs” had been developed and implemented. We list in Algeria 72 industrial area, 400

activity area in which complementary relationship and cooperation between companies are less developed.

A cluster concept definition as a competitiveness factor was appeared in 2007 under the holding of the National foundation of industrial strategy organized by the ministry of industry. A study about the spatial development and the concept" ZIDI" ( Integrated are of industrial development) realized by this ministry has developed many arguments to establish clusters.

In a practical plan, the ex-ministry of SMEs and of CRAFTS had supported from 2008 the development of LPS( localized productive system) in different craft industries.

The German cooperation resumed this demarche by supporting some clusters, especially in the following sectors: naval construction, dates, tomato, transportation services and logistic...etc, through its program of Sustainable Economic Development.

In order to encourage SMEs clustering, many programs have been initiated both in public and private sectors. We state in the next paragraph the most implemented experiences as follows:

✓ **Private initiatives:**

As mentioned before, cluster approach is less known in Algeria, However; some forms of grouping in private sector has been noticed, such as:

- In agro-food sector, it has been listed a spontaneous initiatives of cooperation between operators of the same production field, with an institutional support of Agriculture Ministry or Agriculture Development Agency;
- Some industrial leaders, especially in sectors of: milk, tomato industry, and cereals, play an integrator role providing supports and assistance to farmers( formation and advices about: rearing, preservation, milking..ect), in order to improve the returns and the high quality of agricultural production;
- In mechanical engineering, some big manufacturers show their interest to support the development of a tissue of a specialized subcontracting. These interests should be reinforced in the context of partnership projects discussed actually with international firms.

✓ **Public policies:**

Ministry of Industry, SMEs and investment promotion especially through its SMEs direction, is interested in the cluster demarche in enterprise competitiveness promotion. In this context, action have been initiated particularly in:

- Creation in collaboration with local authorities of an " Enterprise House" in Oran as a facilitation instrument and incubation for SMEs;
- Ongoing creation of a local productive system in linkage with research sector and universities;

- Supporting the national program of the upgraded the professional associations for allowing them to foster and promote the coordination and cooperation between local operators;
- In CIT domain, the cluster demarche seems more assimilated by the National Agency of Technological Parks Promotion and Development which supports the creation of net projects and puts to their disposal the means of its technological park for grouping and animating companies to a strong potential innovation;
- Policy of the Agriculture and Rural Development ministry focus on grouping farmers and argo-industry operators, research institutions and universities. At the same time, this ministry has established of interprofessional council and committee in some domains like: milk, dates, olive oil..etc.

### **Conclusion:**

The strong competitiveness that characterizes the economic world imposes a new sort of relationship between companies that are working in the same area, through which they can work nearby together, benefiting from the same opportunities and resources, meanwhile making linkages and networks.

This new diagram shaping the new relationship between companies is called” CLUSTERS” – it enables them to benefit from the different resources offered by the required sectors in the industry- it is more important for SMEs to promote their competitive position. In this context, Algerian economic authorities are working to adopt efficient strategies for encouraging clusters to allow SMEs to benefit from the required inputs and innovation fields through:

- Supporting SMEs clustering by offering financial supports, technical assistance, coaching, accompagnement ...etc;
- Improving the juridical framework of clusters;
- Adopting real strategies of linkage between the different economic actors to improve SMEs performance ( enhancing and strengthening links with universities, research institutions and laboratories in favor of SMEs..etc).

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