

**ENHANCING SMALL-BUSINESS COMPETITIVENESS IN NIGERIA
THROUGH PUBLIC-PRIVATE PARTNERSHIPS IN
CLUSTER DEVELOPMENT**

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DECLARATION

I, Anderson Nwosu, declare that the entire body of work contained in this Ph.D. dissertation is my own, original work; that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by the Stellenbosch University will not infringe any third-party rights, and that I have not submitted it previously in its entirety or in part for obtaining any qualification.

A. Nwosu

March 2017

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ABSTRACT

This study looks at the enhancement of small- and medium-enterprise competitiveness in Nigeria through public and private partnerships in cluster developments. The overall objective of the study was to identify ways in which small-business clusters can play significant roles in enhancing the competitiveness and growth of small businesses in Nigeria. More specific objectives were to identify ways in which clustering processes in Nigeria can be accelerated and strengthened, and to identify ways collaborative partnerships in cluster developments can help accelerate the performance of clusters and enhance small-business growth and competitiveness in Nigeria.

The findings indicate a pattern of global best practices being adopted in cluster experiences found in different countries of Europe, Asia, Latin America and Africa, which have helped to accelerate the growth and competitiveness of small businesses. The best practices include a bottom-up approach to cluster development, focusing on regional diversities and competitive advantages, an effective collaborative structure of public-private partnerships, the linkage of cluster programmes to countries' economic-development policy, participatory action plans for cluster development partners and the use of SPVs as collaborative tools for cluster development management.

Nigerian clustering experiences, designed to address the challenges inhibiting small-business growth and competitiveness, have been found to be incoherent and lacking basic characteristics of cluster best practices. There is no articulate cluster policy, which defines the general pattern of cluster development in Nigeria, as cluster planning and development are not linked to any existing economic-development agenda of the government. Yet there are currently prevalent patterns of inactive or passive roles of both private- and public-sector institutions in cluster development. This has largely limited the flow of institutional support to existing clusters and has affected negatively the quality of infrastructural, financial and other support provisions needed to boost the efficiency of the clusters. Co-ordinated public-private partnership interaction is urgently needed to boost cluster dynamism and competitiveness.

The study has developed a cluster-building model that is anchored on public-private partnership interaction in Nigeria, based on the combination of international best practices as well as economic and socio-political factors peculiar to Nigeria. The model encapsulates the diversity of cluster players and their roles in a focused public-private partnership engagement in cluster planning, building and management, which has the potential to drive cluster-policy formulation and implementation in Nigeria.

The study adopted a multiple case-study approach anchored on a combination of qualitative and quantitative techniques.

Key words

Business clusters

Development strategising

Local economic development

Nigerian small enterprises

Public-private partnerships

Small-business development

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LIST OF ACRONYMS AND ABBREVIATIONS

B+B	Bed-and-breakfast establishment
BDS	Business Development Services
CBN	Central Bank of Nigeria
CDE	Cluster-development efforts
CDP	Cluster-development process
DTI	Department of Trade and Industry
EC	European Commission
EDOP	Economic Development Operational Programme
EU	European Union
FDI	Foreign direct investment
GDP	Gross Domestic Product
ICT	Information and communications technology
IDS	Industrial Development Centre
IT	Information technology
Jetro	Japan External Trade Organisation
KPIN	National Policy for Industrial Development (Indonesia)
LED	Local economic development
MDIC	Ministry of Education, Industry and Trade (Brazil)
Meti	Ministry of Economy, Trade and Industry (Japan)
Mext	Ministry of Education, Sports, Culture, Science and Technology (Japan)
mill.	Million
MoU	Memorandum of Understanding
MSMEs	Medium, small and micro-enterprises
N	Naira (Nigerian currency)
NGO	Non-governmental organisation
NIPC	Nigerian Investment Promotion Commission
NPO	Non-profit organisation
OECD	Organisation for Economic Co-operation and Development
PPO	Pole Programme office
PPP	Public-private partnership
OECD	Organisation for Economic Co-operation and Development
SBDC	Small Business Development Corporation
Seda	Small Enterprise Development Agency

SICDP	Small Industries Cluster Development Programme
SMEs	Small and medium enterprises
SPSS	Statistical Package for the Social Science
SPV	Special purpose vehicle/entity (company created to meet a specific need)
SSI	Small-scale industries
UIG	University-Industry-Government (network)
UK	United Kingdom
UNFSTD	United Nations Fund for Science and Technology for Development
Unido	United Nations Industrial Development Organisation
UPT	Technical-service unit
USA	United States of America

CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 NIGERIA'S ECONOMIC-DEVELOPMENT CHALLENGES

Contemporary Nigeria has the largest population of the 54 African countries and since 2014 the economy is said to have the largest Gross Domestic Product (GDP) on the continent. Nigeria's 180 million inhabitants reveal a broad spectrum of socio-cultural backgrounds, and its economy shows stark contrasts with respect to leading sectors in the different regions and actual progress in the process of regional and sectoral socio-economic development.

Notwithstanding these differences, key challenges dominate the process of economic development across the country. These challenges include relatively low *per capita*-income levels of the population in rural and urban areas, high unemployment levels among the local labour force, a vast survivalist informal business sector, sprawling informal settlements and a small number of formal small and medium-sized enterprises. Given the country's relatively high rate of population growth and fundamental challenges facing Nigeria's strategic oil sector, these challenges call for serious attention to critical factors in those processes.

These challenges have to be tackled in different ways and with the focus on different critical factors. In that context this study focuses on the small-business sector of Nigeria as a significant factor in the country's development process.

1.2 THE SMALL-BUSINESS SECTOR IN ECONOMIC DEVELOPMENT

Empirical findings have shown that the growth of economies depends significantly on the development of local small and medium enterprises (SMEs), and the extent to which these enterprises are sustained (de Ferranti and Ody, 2007: 4, Chandra, Moorthy, Nganou, Rajaratnam and Schaefer 2001, Growth Connections, 2001). SMEs are seen as key drivers in a sustainable development process of emerging economies. The impact of such sector growth is felt in areas like job creation, stimulation and attainment of more equitable economic growth, grassroots economic empowerment, redistribution of wealth and social infrastructure development at local levels.

Thus, in a country like India, with a population of over one billion and an impressive economic growth rate, the role of SMEs for its GDP growth is viewed as critical. With over

12 million SMEs, they form the backbone of the Indian economy (Venkataramanaiah and Parashar, 2007: 3). Over the past decades Indian SMEs have witnessed an unprecedented horizontal growth, despite enormous challenges confronting the sector. This growth can be seen in areas like employment creation, production increases and rising exports (Sridharan, 2006).

In Malaysia, SMEs also play a vital role and permeate every segment of the country's economy (Saleh and Ndubisi, 2006). Table 1.1 shows the spread of SMEs by the number of establishments in the different size categories. On that basis, the Malaysian SME sector contributes about 32,5 per cent to the total GDP of the country.

Table 1.1: Distribution of Malaysian SMEs by size

Type	Number of establishments	Share of total enterprises (%)
Micro-enterprises	496 755	74,9
Small enterprises	129 027	19,5
Medium enterprises	19 354	2,9
Total SMEs	645 136	97,3
Large enterprises	17 902	2,7
Total	663 038	100

SOURCE: Department of Statistics, Malaysia, 2012

A few other examples of the significance of SMEs for economic development can be shown by the following facts.

- ◆ In the *South Korean* economy SMEs are viewed as business-cycle shock absorbers and an inequality-reducing device (Ayyagari et al., 2003: 28).
- ◆ In *Turkey*, SMEs absorb 76,5 per cent of total employment, 38 per cent of capital investment and 26,5 per cent of total value adding (OECD, 2003: 28).
- ◆ In *Brazil*, SMEs absorbed 67 per cent of total employment (Sabrae, 1997).
- ◆ In the *UK*, SMEs contributed 51,3 per cent of estimated business turnover in 2000 (DTI, 2000).

Viewed from a wider perspective on the economic-development process, the following four areas of significance of SMEs seem particularly important for this study.

◆ *Job creation*

This is usually stressed as a positive role of SMEs in the economic-development process. Yet, a number of researchers on small and medium-sized enterprises have questioned the relevance of small businesses in the creation and sustainability of jobs in the economy. Biggs, Grindle and Snodgrass (1988) argued that most statistics on the subject do not take into consideration what they called the offsetting factors that make the net impact more modest. In other words, while new jobs are being created by this sector, the net-job position especially in developing countries like Nigeria may be on a decline.

Armington and Odle (1982) argued that new small establishments owned by large firms often play important roles in generating jobs. Big multinationals set up firms either directly or through franchise arrangements. These firms create jobs and are considered as SMEs because of either firm size or number of employees. These jobs created are usually credited to the efforts of small businesses rather than evidence of the expansion by a large enterprise. Dunne, Roberts and Samuelson (1987) added that a great number of the jobs created by SMEs were lost after a short time, given the high failure rates among small enterprises. Even if short-lived jobs are excluded, the high failure rates for small businesses make the share of non-transitory jobs generated by small firms distinctly smaller, although the general point about job creation still stands. What is more, in developing countries such as Nigeria, where the level of poverty is high, a significant share of small businesses are operating in the subsistence sector where the businesses support families, even though that may be through short- to medium-term jobs.

◆ *Entrepreneurship development*

As shown by the Global Enterprise Monitor and its annual worldwide surveys, the proliferation of small businesses can help stimulate entrepreneurial awareness, which may over time play an important role in the handling of obstacles facing SMEs. This is particularly important where developing countries usually do not include entrepreneurship themes as a significant segment in the school syllabuses.

Thus, in Nigeria the action and ideals of successful small business operators have become a strong factor in encouraging other people to go into business.

◆ *Innovation and technology development*

Innovation is generally viewed as positively related to economic performance of businesses and industrial growth (Oluwajoba et al., 2007). Innovative capacity refers to a firm's capability to transform general knowledge into specific skills, using SMEs' stock of competencies and dynamic assets acquired through formal and informal (action-based) learning. In Nigeria, for example, small enterprises contribute immensely towards the spread of innovativeness in the growth sectors of the economy. Thus, while it is often believed or asserted that SMEs in Nigeria do not innovate in formally recognised ways, their technological ingenuity is frequently evidenced in their ability to find new ways to tackle day-to-day challenges.

◆ *SMEs as catalysts in local economic-development processes*

Without belittling the role of big corporates and governments in the economic development of sectors, towns and smaller places, there is much evidence with regard to the creative, persuasive and effective ways in which SMEs are shaping local economic development. This applies to developed as well as developing economies. A bottom-up local economic development (LED) strategy usually involves the active engagement of local entrepreneurs and business owners.

If we are looking specifically at the African continent, this significance seems even more important. Most of the underdeveloped or developing countries in Africa go through phases of transformation where the SME sector plays a pivotal role. We can mention a few key points.

- Sixty per cent or more of Africa's population lives in rural areas where large/r enterprises are mostly absent and where survivalist, small and micro-enterprises still dominate.
- Even Africa's rapidly expanding urban areas are also still mostly dominated by small enterprises.
- Growth sectors in the emerging African economies (like trade, agriculture, tourism, construction, manufacturing and professional services) are predominantly SME-dominated.

Thus, to be able to effectively support or strengthen Africa's economic-development process, a deliberate focus on SME-development processes and strategies seems most appropriate.

This general picture also applies to Nigeria, except that the important role of the oil industry and some larger corporations have in the past reduced the macro-share of SMEs in the economy. A collaborative survey report on Nigeria's MSMEs, done by Smedan in 2010, revealed that the sector's overall contribution to the GDP of Nigeria is somewhere around 46,5 per cent, and the contribution to employment was put at about 40 per cent against the backdrop of the sector constituting over 98 per cent of all enterprises operating in Nigeria. However, caution is to be exercised when assessing the contribution of MSMEs to the Nigerian economy, since divergent estimates exist, due to the lack of reliable data.

The 2010 report also indicated the wide range of GDP contributions by SMEs across key sectors of the economy. Figure 1.1 shows percentage contributions of MSMEs to the value added of various economic sectors in the Nigerian economy. It ranges from very high rates in agriculture, property and personal services to low rates in the modern construction and financial sectors.

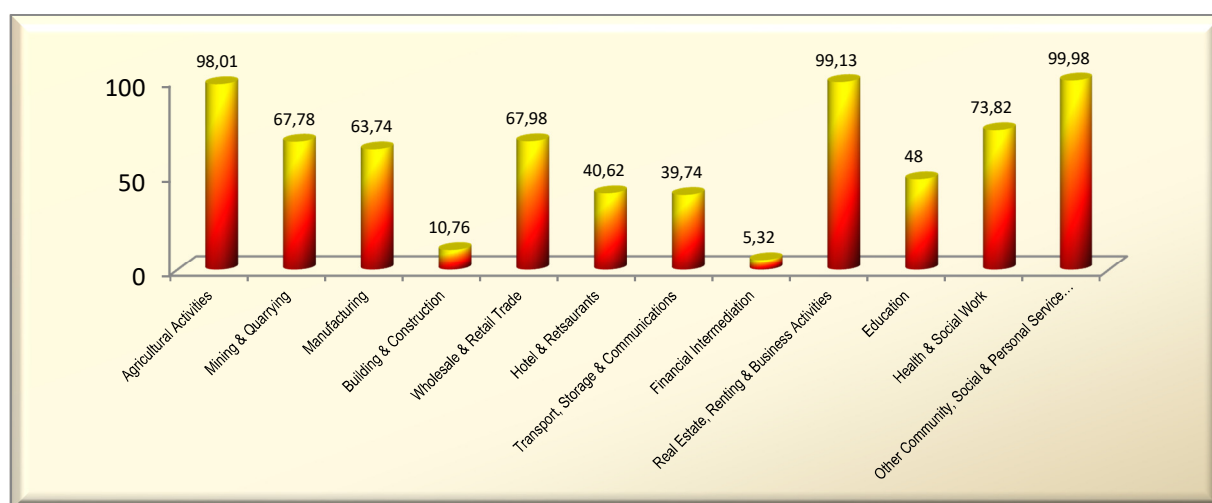


Figure 1.1: MSME contributions to the GDP of various economic sectors in Nigeria (%)

SOURCE: Smedan (2010)

Given the relatively small size of the modern, formal small-business sector in many African countries, including Nigeria, attention has to be given to different policies or strategies that may boost, strengthen or transform the small-business sector in Africa. Among these the

existence, growth and dynamism of business clusters can be viewed as a critical factor and has been chosen as the focal point of this study.

1.3 CLUSTERING AS A STRATEGIC FACTOR IN BUSINESS DEVELOPMENT

Across the world business clustering has emerged as a strategic factor in local business-development processes, including the development of SMEs. To introduce the concept we can refer to three dimensions of the business-clustering process.

◆ *Economies of scale*

The positive impact of unit-cost reduction due to expanded output of firms is generally known. In the clustering process small firms may be able to increase their output due to more firms demanding their outputs, co-operation between firms to meet needs of the expanding markets or greater competition between small firms that leads to more effective processes.

Osa-Afiana (2003) believes that the future competitiveness of SMEs in Nigeria lies in their ability to enjoy economies of scale, which currently seem to be impracticable for most of them. He advocates the engagement of SMEs in collaborative efforts that reduce costs and enable them to take advantage of economies of scale. This can be achieved through the formation of SME clusters and sub-contracting arrangements.

◆ *Networking and linkages*

Sato (2000) defined linkage as continuous-transaction relationships between firms, which could be forward or backward in operation. Networking is the act of building or maintaining formal or informal relationships among businesses, which enhances the effectiveness of stakeholders in such relationship. Unido (2001) defined networks as groups of firms that co-operate in a joint development process, complementing each other and specialising in order to overcome common problems, achieve collective efficiency and penetrate markets beyond their individual reach. This process could be at firm, market or industry levels. Whatever level networking is involved, it helps raise the competitiveness of SMEs (Humphrey and Schmitz, 1995).

When an interactive relationship exists among firms, information and knowledge dissemination is fostered. Collaboration among small firms through networking enables businesses to address common problems and attract the attention of relevant authorities,

which can offer business solutions and help individual businesses. After all, it is much easier to attract institutional support when operating within business networks than when operating as individual businesses. OECD (2000) pointed out that entrepreneurs who develop and maintain ties with other entrepreneurs, tend to out-perform those who do not.

Landabaso (2002) pointed out that where there is effective networking among firms within the same market, they do not necessarily see themselves as direct competitors but potential partners. It is this form of partnership, which helps in developing the scope of the local market.

Small businesses often benefit from value-chain services and activities through linkage schemes with companies and organisations both in domestic and international markets. Inter-firm linkages to the sources of raw materials, technology inputs, markets (both local and international) and managerial as well as technical knowhow can help such SMEs to become more competitive and efficient. Ding (2007) observed that linkages of firms in developing countries to more advanced markets in the field of production management and quality control could facilitate the upgrading process of such firms. As Solvell, Lindqvist and Ketels (2003) pointed out, firms' agglomeration and linkages among such firms, institutions and infrastructures within proximity to geographical locations could give rise to economies of scale, shared facilities, leveraging on a pool of skilled labour, and could enhance interactions between local suppliers and customers.

Looking at the global scene, Barry (1999) believes that the strong growth and distribution performances experienced by some east-Asian countries, including Japan, Taiwan and Korea, can be attributed to the benefits from inter-firm co-operation and linkages. Inter-firm and organisational linkages also improve knowledge spillovers and enhance technology transfer from high-tech and innovative firms located in industrialised countries to small enterprises with innovative tendencies located in low technology regions in developing countries. A typical Nigerian example is seen in the local firms of the automobile manufacturing sector in Newi in the south-eastern part of Nigeria.

Clustering seems particularly appropriate for the enhancement of business networking and linkages. Firms can more easily link-up in a cluster setting. The organisation of firms into clusters of firms producing similar or related products and services, offers

opportunity for effective linkages in different ways. Firms can link up with firms within the clusters and with other firms outside the clusters. Jenkins et al. (2007) outlined such forms of benefits as

- acceleration of knowledge transfer and technology upgrade,
- enhanced skills, standards and capacity,
- attractions of investments [local or foreign direct investment (FDI)],
- more stable relationships between buyer or producer organisations,
- risk-sharing through joint funding and/or operation,
- facilitation of access to local finance and
- opportunities to innovate, upgrade and increase competitiveness.

Sato (2000) also argued that inter-firm linkages within clusters could give rise to a reduction of transaction costs. This is possible where firms share common facilities and infrastructures and take advantage of information banks within the cluster to improve market outreach and compete more effectively (Ingley, 2004).

◆ *Agglomeration externalities*

Kuah (2002) defined externalities as impacts, side effects or spill-overs, which are usually not reflected in the costs or prices of particular goods or services, hence not covered by the market mechanism. They are factors external to the entity, which is enjoying the benefits or incurring the cost. Such externalities can be positive or negative. Externalities are positive when the economic agent enjoys the benefits without paying an appropriate price for them. They are negative when such economic agent has to bear the burden or cost without being compensated. Agglomeration externalities or clustering effects are often associated with economies of scale or cost reductions arising from firms “locating close to each other” (Kuah 2002, Evans 1987, Robinson, Rip and Mangematin 2007, EC 2008).

Aside from classical works of Michael Porter on the economies of clustering, many studies have been done advancing the theory of agglomeration externalities and clusterisation. Kuah (2002) remarked that externalities as focal points to cluster development involve a diversity of suppliers, information and knowledge spill-overs on

market conditions and technology transfer. Jacobs (1969) highlighted other forms of agglomeration externalities such as *location externalities* that emanate from geographical agglomeration of firms within the same industry and *urbanisation externalities* emanating from agglomeration of firms in different industries. Each of these forms of agglomeration creates a diversity of benefits for individual firms operating within such clusters. EC (2008) believes that within the scope of agglomeration externalities, clustering provides a range of specialised and customised services to specific groups of firms. These services include advanced and specialised infrastructure, specific business-support services or training and the focused coaching of staff. They also help to facilitate access to specialised research, consultancy and training services.

The report also argued that the profitability of a firm is much higher if it is physically close to its horizontal competitors or its suppliers. Therefore, a government often tries to assist firms or industries to get established within a particular location, thereby making the clustering sustainable. *Firm-agglomeration externalities* go beyond meeting basic needs for firms operating in close proximity. Mills, Reynolds and Reamer (2008) are of the opinion that in addition to providing basic operational needs of firms, firm-agglomeration through cluster initiatives promotes competitiveness and growth among firms. This is against the backdrop that close proximity among firms engenders the spirit of collaborative efforts in a variety of ways. The following ways can be distinguished.

- Facilitating market development through joint market assessment, marketing and brand-building.
- Encouraging relationship-building (networking) within the cluster and with clusters in other locations.
- Promoting collaborative research, product and process development and commercialisation.
- Aiding the innovation diffusion and adoption of innovative products, processes and practices.
- Supporting the cluster expansion through attracting firms to the area and supporting new business development.

- Sponsoring education and training activities in the area.
- Representing cluster interests vis-à-vis external organisations such as regional development partnerships, national trade associations and local, regional and national authorities.

Other schools of thought that have explored the economies of agglomeration of small firms and their related externalities included Alfred Marshall and Alfred Weber (Marshall 1920, Marshall 1958, Hart 1996, Nakamura 2010, Weber 1928). Marshall in his *External Economics Theory* postulated that external economies among firms could be secured by the concentration of small businesses of similar characteristics in particular localities. According to him, these external economies include knowledge spill-over from individuals to individuals and from firm to firm, skill acquisition through firm linkages and networks, information dissemination and other factors that ultimately lead to a reduction in the cost of operation among firms. Marshall strongly emphasised the horizontal and vertical linkages and networking benefits arising from agglomeration of firms. Posthuma (2003) as well as Sengenberger and Pyke (1992) reaffirmed that these benefits also enhance superior competitiveness of firms within regional industrial clusters.

Finally, Webber noted that agglomeration of firms could lead to positive externalities among firms which impacts on cost savings arising from collaborative efforts through common facility sharing.

Against this background on the relevance of clusters in the unfolding of dynamic small-business sectors we can now look at the research problem underlying this study and the more specific objectives of the study as well as the research approach.

1.4 STATEMENT OF THE RESEARCH PROBLEM

Globally, SMEs contribute significantly to the economic development of countries, regions and places (OECD 2004: 10, Basil 2005, Schneider 2003, Ayyagari et al. 2003, Wignaraja 2003). At the same time the literatures shows that small businesses all over the globe experience diverse problems in their bid to expand and remain competitive in both local and international markets (Ocloo, Akaba and Worwui-Brown 2014, Wanjohi and Mugure 2008, Levii 1983, Adrien 2005, Saleh and Ndubisi 2006, Zoltan and Preston 1997, Muhammad et

al. 2010). Some of these challenges can be attributed to the effects of market imperfections due to the very nature of small businesses, i.e. the ineffectiveness of the market mechanism to allocate resources fairly according to firm size and capacity. These imperfections also include difficulties of small businesses to gain access to finance, business-development services and basic infrastructure facilities. Small firms just cannot compete favourably with large firms in the areas of investment and the attraction of business-development services. Aside from these issues of market imperfection, some of the challenges small businesses face are regulatory in nature. Thus, in some developing countries, especially Nigeria, the government has not created an enabling environment through legislation to enable small businesses to operate without hindrances. Policy direction to strengthen and institutionalise small-business support is often lacking.

In many advanced economies, particularly those of East-Asian countries, diverse measures are aimed at addressing the challenges facing small businesses. These measures include efforts to strengthen business clustering. Different countries adopt different cluster strategies and models to suit their developmental objective and strategic economic policies. Among the known models widely used by the *Asian Tigers* and some European countries is the *Triple Helix*. This is the concept of a collaborative approach to cluster development propounded by Professor Henry Etzkowitz (Etzkowitz and Kemelegor 1997), emphasizing partnership efforts of governments, universities and the private business sector.

Along these lines public-private-partnership (PPP) initiatives to cluster development have recorded huge successes in advanced economies, in particular where there are deliberate efforts by governments to develop the economy technologically through industrial cluster initiatives and where governments have set up enabling environments.

While this approach has worked positively in many countries, it has so far been lacking in developing countries such as Nigeria, where PPP initiatives to cluster development are still in rudimentary stages. Most clusters found in this region are informal, poorly organised and have little or no support from the government. Since the government has not created an adequately enabling environment to elicit the interests of private-sector institutions, especially financial institutions, there also is only a limited or passive role-play by the private sector in cluster-development efforts (CDEs).

In this context, there has been a profound controversy in Nigeria about the respective roles of the private sector as opposed to the public sector in the development of SMEs. It seems to be based on gross mistrust between the private and the public sectors about their respective contributions to small-business support. The public sector believes that no appreciable support has emanated from the private sector towards SMEs, both in terms of finance and other support services. The private sector, on the other hand, believes that government has not done enough to create enabling environments in the areas of regulatory, infrastructural and policy initiatives related to SME development (Agboli and Emery 2005: 5, Osemeka 2011). As a result, small-business support (including cluster-development facilitation) has not lived up to the expectations of small-business operators.

This dilemma shows the need for a workable platform where all parties and actors in SME development can reach an understanding with regard to their respective roles in a collaborative, partnership-driven cluster programme.

Given this situation, the research problem underlying this study centres on a strategy to strengthen the business cluster-development process in Nigeria.

To design such a strategy, it is necessary to

- ◆ clarify the relationship between growth and competitiveness of small businesses and small-business clustering,
- ◆ understand the needs of small-business clusters in Nigeria and how they can be effectively addressed,
- ◆ understand how small-business development stakeholders in clusters can impact on the process,
- ◆ highlight the role of PPPs in cluster-development processes and how these can overcome contradictory expectations with regard to the respective support needed from the public and private sectors.

1.5 RESEARCH QUESTIONS

The research problem leads us to the research questions underlying this study. They are briefly stated here.

- ◆ In what ways and to what extent does SME clustering impact on the growth and competitiveness of small businesses?
- ◆ How does small-business clustering address the challenges affecting small-business competitiveness and growth?
- ◆ What lessons can be drawn from other countries about the impact of business clusters on SME development?
- ◆ What types of clusters exist in Nigeria?
- ◆ What are the perceived needs of small-business clusters in Nigeria, and how can they be effectively addressed?
- ◆ In what ways can the involvement of different small-business stakeholders in cluster development impact positively on the growth and competitiveness of small businesses in Nigeria?
- ◆ In what ways and to what extent can PPPs in cluster development impact on the performances of small-business clusters?
- ◆ What should be the most important factors in building an effective small-business cluster strategy in Nigeria?
- ◆ What should be the most important sectors to be considered in developing a small-business cluster strategy in Nigeria?

1.6 OBJECTIVES OF THE STUDY

Against the background to the research problem and the research questions outlined above, the core objectives of this study can now be summarised in five points.

- i Present an overview of current business-cluster structures and dynamics internationally and in Nigeria.
- ii Show how small-business clusters can play significant roles in enhancing the competitiveness and growth of small businesses in Nigeria.

- iii Show how clustering processes in Nigeria can be accelerated and strengthened.
- iv Show how collaborative PPPs in cluster development can help accelerate cluster performance and enhance small-business growth and competitiveness in Nigeria.
- v Develop a framework for an appropriate partnership-engagement strategy for cluster development to be pursued in Nigeria.

These objectives can be closely linked to those underlying the justification of the study, which can be stated here very briefly.

- ◆ The study will help identify, document and assess the scope and diversity of existing small-business clusters in Nigeria.
- ◆ The study will advise SME policy-shapers in the private and public sectors on collaborative ways of engaging relevant stakeholders about cluster formation and management.
- ◆ By finding ways of engaging relevant players in the SME sector through SME support-orientated cluster platforms, the inhibiting factors to SME growth and competitiveness could be addressed more effectively.
- ◆ The study should encourage international aid organisations in reviewing and upgrading their small-business development programmes in Nigeria.
- ◆ The study should trigger further research with regard to cluster-development initiatives in other parts of Africa.

1.7 APPROACH TO THE RESEARCH

Based on the underlying research problem (the need to accelerate small-business development in Nigeria) and the more specific research questions, the study essentially consists of four different parts.

The *first part* covers the literature review of key aspects with respect to the two central themes of the study, viz. Nigeria's SME development and the process of business clustering. We first review the size, structural diversity, role and challenges or problems of SMEs as

well as policies currently tackling these challenges in Nigeria. This is followed by a detailed review of cluster-development theories, including key aspect of incubators or micro-clusters as well as a typology of macro-clusters and key players in the clusterisation process.

In order to give direction to the planning and shaping of the clusterisation process in Nigeria the *second part* of the study looks at cluster-development lessons from other countries. For this international comparative analysis three countries have been selected from Asia (Japan, Indonesia and India), two from Europe (Hungary and Italy), one from Latin America (Brazil) and two from Africa (Ethiopia and South Africa). These countries were purposefully selected because either there are significant parallels between those countries and Nigeria as far as the small-business challenges are concerned or their cluster-development process (CDP) is particularly creative and seems relevant for Nigeria.

The *third* and central *part* of the study reviews the clustering process in Nigeria. This includes limited data about a wide spectrum of 55 clusters and more detailed information about 21 clusters visited by the researcher. It also covers eight selected cluster case studies, including feedback from interviewed cluster stakeholders. Methodological issues related to those surveys are covered at the start of this third part (in Chapter 6).

The *fourth part* of the research brings together international and Nigerian cluster-development experiences to develop a framework for a national clusterisation strategy for Nigeria. In the absence of formally institutionalised cluster-development processes in Nigeria, the study focuses on developments that could (or should) stimulate that process. Thus, there is relatively little emphasis on specific legislation or operational details of government institutions, but rather the interaction of the different players. It is through that interaction (on the basis of PPP relations) that appropriate legislation and support processes have to be shaped and evolve. Once they evolve, they can also tackle the challenge of designing and implementing more detailed policies to advance and strengthen the small-business sector.

1.8 DATA SOURCES

The study relied on a range of information and data sources, which can be summarised here very briefly.

◆ *Literature review*

The existing literature on clustering not only highlights what has been done on the subject but also provides information on the workability of clusters and the PPP model of cluster development as practiced in other parts of the world.

◆ *Archival records from government agencies and public-sector organisations*

To support the empirical data collected through questionnaires, a number of visits were made to government agencies such as the Small and Medium Enterprise Development Agency (Smedan), the National Bureau for Statistics and the Central Bank of Nigeria (CBN) to obtain policy documents and data sets to validate the empirical data obtained.

◆ *Document analysis* (for foreign-based clusters).

◆ *Key-informant interviews*

Informal unstructured interviews were conducted with cluster officials, trade association executive members within clusters and business owners operating within clusters to elicit information on the cluster management and reveal key challenges faced by cluster members.

◆ *Semi-structured interviews*

These were held with cluster association managers, organised public-sector association members and state public-sector institution heads. They included commissioners of ministries responsible for economic planning in states as well as heads of government agencies involved in SME-policy formulation and implementation.

According to Grinnell (1997), interviews on a general level can be structured, semi-structured, unstructured, in-depth or ethnographic. Greef (2002) believes that semi-structured interviews are best suited for gaining an in-depth picture of participants' beliefs and perceptions about a topic. The researcher applied his judgement in the selection of the candidates to be interviewed.

◆ *Surveys*

Survey data were obtained through the distribution of questionnaires, spread over a one-year period to assist the case-study analysis. The first was done in October 2010 with the

researcher physically visiting 21 clusters. This first phase of data collection through questionnaires was scheduled to be carried out concurrently with the interviewing of cluster officials and trade association executive members within the clusters. The second phase of data collection (Phase-2 survey) was done with the researcher revisiting eight clusters selected for in-depth analysis about one year later (in September 2011). The time gap between the visits to the clusters also afforded the researcher the opportunity to re-assess progress of issues and factors discovered during the first visit.

Details about these two surveys are covered in Chapter 6 on research methodology.

1.9 LIMITATIONS OF THE STUDY

Problems encountered by the researcher in the course of the study created the following limitations to the study.

- ◆ The initial plan was to personally visit a wide range of countries with the aim of gaining first-hand experience on the operationality of PPPs in cluster development and management through interviews and questionnaires. Two key countries were Taiwan and Indonesia. However, these efforts were limited due to financial and time limitations as well as the difficulty to procure travelling visas for some countries. Naturally, this limited the researcher's initial aim to include experiential information gained through direct observation and interviews with cluster stakeholders across the world.
- ◆ The surveys in Nigeria were initially aimed at all geo-political zones of the country. However, this was not possible because some states in North West, North East and North Central had to be excluded due to security concerns prevailing at the time of the research. The states excluded were Kano (North West), Bauchi (North East), and Kaduna (North Central).
- ◆ The scope for quantitative analysis based on the collected data was limited since the sample size was quite small. Due to the goal of the research and the mixed approach being adopted, the questionnaire focused on respondents that were either policy-makers or in a position to influence the direction of policy. Thus, SME entrepreneurs were not interviewed.

Chapter 6 on the research methodology will further elaborate on these points.

1.10 STRUCTURE OF THE THESIS

The thesis is structured in ten chapters with a brief outline of the chapter sequence given below.

- ◆ Following this introductory chapter, Chapter 2 covers the roles and challenges of small businesses in economic development, with the focus on Nigeria. Also covered are past and present efforts by the government and other stakeholders in small-business development towards addressing these challenges.
- ◆ Chapter 3 examines the cluster concept in the context of business and economic development. Diversities of small-business clustering are also reviewed.
- ◆ Chapter 4 looks at international experiences with small-business clusters in selected countries of Europe, Asia and Latin America. National cluster policies and lessons that seem relevant for Nigeria from their experience are covered as benchmarks for Nigeria's strategy.
- ◆ Chapter 5 looks into the need for SME-cluster development in Africa. Reasons are shown why Africa seems to be low in cluster development and what seems to be the emerging pattern of small-business clusterisation in Africa. Also covered are cluster-development activities in two selected African countries.
- ◆ Chapter 6 outlines the methodological approach to the qualitative and quantitative analyses of Nigerian clusters.
- ◆ Chapter 7 focuses on cluster-development experience in Nigeria. This includes case-study material on Nigeria's cluster-development experience, with the focus on 21 clusters across a cross-section of geo-political zones of the country.
- ◆ Chapter 8 looks at key stakeholders engaged in the strengthening of Nigerian clusters. The chapter presents the results of the second phase of case studies on Nigerian clusters, covering a more in-depth analysis of eight clusters across some of the geo-political zones of the country. Special emphasis is placed on the partnership engagement in cluster development and management as well as the expected roles of the various players in possible PPP engagements.

- ◆ Chapter 9 presents critical elements of strategy development and policy evolution in cluster development and management in Nigeria. It crystallises the various lessons emanating from the international experiences in cluster policy as well as the results from the local case studies to provide the framework for a cluster-development strategy for Nigeria.

- ◆ Chapter 10 presents overall conclusions and recommendations from the study and addresses the relevance of Nigeria for the rest of Africa in the application of the findings. Further areas of research on the subject are also proposed.

CHAPTER 2

ROLE AND CHALLENGES OF SMALL BUSINESSES IN NIGERIA'S ECONOMIC DEVELOPMENT

2.1 INTRODUCTION

As explained in Chapter 1, the small-business sector plays important roles in economies across the world, spanning from job creation and poverty alleviation to contributions to GDP growth and sustainable economic development. The importance differs from country to country, depending on the stage or level of development of such countries. The sector is also grasping with a myriad of challenges which stifle its process of development and growth. In some countries, especially in sub-Saharan Africa and other developing countries, these challenges are quite basic, starting with the size differentiation of small businesses to more complex issues like the regulatory environment, the creation of business-enabling environments, access to finance and markets, product branding and access to basic infrastructure. In developed countries these challenges are less severe since programmes have been developed over decades to address them. In many underdeveloped economies solutions are still evolving to address these challenges.

This chapter provides an overview of the small-business sector in Nigeria, challenges that inhibit its growth and development and how these challenges are currently being addressed.

2.2 CATEGORIES OF SMALL BUSINESSES

Given the vast number and important role of small enterprises in developing economies, it is important to start with some differentiation of small-business categories. Here we can look at size categories, sector categories and the level of formality of the enterprises.

2.2.1 Classification by size of the enterprises

Most countries, which pursue active small-business-support strategies, make a clear distinction between size categories of small enterprises. Criteria for differentiation include annual turnover, capital invested and employment, with the size demarcating medium, small and micro-enterprises, differing between sectors. This can be illustrated with the South African and Nigerian classifications.

In South Africa the definition of small firms is in line with the asset size, number of employees and annual turnover. It is based on the framework of the National Small Business Act of 1996, summarised in Table 2.1 below.

Table 2.1
South African demarcations of small enterprises

Enterprise size	Number of employees	Annual turnover	Gross assets excluding fixed property
Medium	Between 100 and 200 (depending on industry)	Less than R4 mill. to R50 mill. (depending on industry)	Less than R2 mill. to R18 mill. (depending on industry)
Small	Fewer than 50	Less than R2 mill. to R25 mill. (depending on industry)	Less than R2 mill. to R4,5 mill. (depending on industry)
Very Small	Between 10 and 20, (depending on industry)	Less than R200 000 to R500 000 (depending on industry)	Less than R150 000 to R500 000 (depending on industry)
Micro-enterprise	Fewer than 5	Less than R150 000	Less than R100 000

SOURCE: National Small Business Act (1996) as amended (US\$1 = ZAR11)

In Nigeria the definition of small and medium enterprises is based on different characteristics determined by different government agencies. Over the years, the definition of SMEs has been changing, with each successive government adjusting the criteria. However, these definitions have also been largely based on assets, annual turnover and the number of employees. In 1988, the Central Bank of Nigeria (CBN) defined SMEs as organisations whose investments (including land and working capital) did not exceed N5 million (CBN, 1988). At a later point it was defined as enterprises with investments ranging between N100 000 and N2 million, excluding land but including working capital, while cottage and *micro-cottage industries* were seen as enterprises with capital not exceeding N100 000, excluding land but including working capital (NIPC, 1999). Table 2.2 shows a compendium of definitions by different Nigerian agencies, and Table 2.3 gives the latest classifications by the agency for small-business development (Smedan), based on the introduction of the National Policy on MSMEs and the distinction between medium, small and micro-enterprises.

Table 2.2
Classification of medium, small and micro-enterprises in Nigeria

Classifying agency	Assets, excl. real estate N mill.			Annual turnover N mill.			Number of employees		
	medium	small	micro	medium	small	micro	medium	small	micro
Central Bank	<150	<10		>150	<1		<100	<50	
Nerfund		<10							
Nassi		<40	<1		<40			3-35	
Min. of Industry*	>200	<50					<300	<100	<10
Nasme	<150	<50	<1	<500	<100	<10	<100	<50	<10
Arthur anderson				<500	<50				

* National Council of Industry under the Ministry of Industry revises SME definitions once a year. (US\$1 = NGN 198,5)

SOURCE: World Bank 2002: 138

Table 2.3
Definition of MSMEs in Nigeria

S/N	Size Category	Employment	Assets (excl. land and buildings) N mill.
1	Micro enterprises	Less than 10	Less than 5
2	Small enterprises	10 to 49	5 to less than 50
3	Medium enterprises	50 to 199	50 to less than 500

SOURCE: Adapted from Smedan (2010)

The characteristics of these three categories of small enterprises can be further detailed as shown in Table 2.4 based on World Bank data.

Beyond the traditional classification of small firms based on generic considerations of size (turnover, employment and assets), andadari (2007) views the characteristics of small firms from a much broader perspective, which includes resource constraints (both financial and human), limited inter-firm linkages and business networks, limited leadership structures, limited investment capabilities and lack of functional expertise.

Table 2.4
Characteristics of medium, small and micro-enterprises in Nigeria

MSME characteristics	Micro-enterprises	Small businesses	Medium enterprises
Skills levels	Low: Uneducated but dynamic, sole ownership	Medium: Have technology competence, engage in training and invest in apprenticeship system. Basic education at the very least High School Leaving Certificate or Trade Technical Certificate	High: Undertake technology upgrading and design adaptations in response to market (incl. highly educated staff, often with a university degree)
Technology levels	None to low	Low to medium	Medium to high
Competition	Medium to high	High	Medium to high
Products/sectors	Retail, arts and crafts, textiles, services (e.g. salons, tailoring)	Manufacturing, chemicals and pharmaceuticals, organised retail, etc.	Telecom, IT, specialized retail services (e.g. restaurants, entertainment)
Market range	Local	Local, regional, national	Local, regional, national
Links with BDS providers and other support institutions	Very limited: Few links with donor-sponsored providers	Limited: Links with donor and private-sector providers complemented by in-house technical training, accounting and some routine functions (e.g. legal, management and technical consultancy)	Extensive links

SOURCE: Adapted from World Bank, 2002

andadari (2007) believes that SMEs' resource constraints (in terms of human and financial resources) stem from the fact that they are often limited in scope and overly independent (Nootboom, 1994). This fact can be linked to the closely held nature of small firms' ownership where the funding of the enterprise is often limited to the capacity of the single owner. Glasmeier, Fuelihart, Feller and Mark (1998) are of the opinion that this position affects other aspects of such firms' operations as well, including their inability to acquire necessary information for businesses' strategic use. Where a business lacks access to information, its growth tendency is jeopardised and its market is limited.

SMEs often lack the ability to command economies of scale and cannot afford the high cost of information needed for gaining access to markets, both domestic and international. This can be attributed to their size and structure, which also may limit their ability to develop innovative products and services.

2.2.2 Sector-based classification of small businesses

Small businesses can also be classified on the basis of their sector of operation. Different sectors/industries, because of their characteristics and nature of operation, have varying employment, turnover and asset ratios. High-tech-driven industries, such as those in information technology, may have a small workforce but large investments in assets and a relatively high turnover. Other sectors like trade, tourism, construction and mining are relatively labour-intensive. As a result, many countries have divergent definitions and classifications for small businesses operating in different sectors of the economy.

In Nigeria, such sectoral distinctions of MSMEs is usually not taken into consideration, with the general definition applying across the board, irrespective of the industry of operation. However, the total number of small and medium enterprises in Nigeria is distributed disproportionately among the different sectors, as indicated in Table 2.5 below. The sample data in the table gives an indication of the wide spread of sectors. Micro-enterprises are excluded since they are fragmented, and their sectoral distribution in Nigeria is not known, due to the paucity of official data and the nature of their informality.

The totals in the table represent the size of a sample selected and presented by Smedan. They should not be viewed as a reflection of the actual number of formal SMEs in Nigeria.

2.2.3 Formality of the enterprises

Small businesses can also be classified according to their legal form. There are formal and informal businesses operating as small firms. Formal businesses are businesses that are legally registered either with their business name or as incorporated enterprise. Formal small businesses tend to have streamlined modes of operation and are established similar to the process among large enterprises. Most of the formal businesses fall within the *small and medium* classification of SMEs (i.e. not the micro-enterprises). It is assumed that formal enterprises keep track of their operations through bookkeeping, budgeting and planning, and that they maintain legal documentations of their operations. Since the formal businesses are duly registered with the relevant registration authorities in the given location of operation, it is possible for government authorities to capture their operating activities and measure their actual contributions to GDP, employment and taxation payments.

Table 2.5
Distribution of formal SMEs in Nigeria by sectors and employment

Sector	10 – 49 (small enterprises)		50 – 199 (medium enterprises)		TOTAL in sample
	Number	%	Number	%	
Agriculture, hunting, forestry and fishing	696	92,77	54	7,23	750
Mining and quarrying	134	80,43	33	19,57	167
Manufacturing	5 939	89,28	713	10,72	6 652
Building and construction	194	81,13	45	18,87	239
Wholesale and retail trade, repair of motor vehicles and household goods	3 916	96,90	125	3,10	4,041
Hotels and restaurants	2 088	94,52	121	5,48	2,209
Transport, storage and communication	680	83,89	131	16,11	811
Financial intermediation	2 166	93,22	158	6,78	2,323
Real estate, renting and business activities	908	94,62	52	5,38	960
Education	1 508	93,75	101	6,25	1,608
Health and social work	2 542	95,75	113	4,25	2,654
Other community, social and personal-service activities	495	97,98	10	2,02	505
Total	21 264	92,78	1 654	7,22	22,918

SOURCE: Smedan (2010)

In contrast, informal businesses are unregistered and unregulated enterprises with limited innovativeness and growth ambition. These business activities are not necessarily illegal, but they remain unregulated. They constitute what is commonly called the *informal sector* of the economy. Their contribution to GDP and employment is often a subject of speculation because of governments' inability to measure their operating performance. They are mostly micro-enterprises at the lowest base of the economic pyramid and are generally perceived as small with a low capital base and highly mobile (Santos 1989, Musabayana 1996). Most of them lack financial records, which makes it impossible for them to obtain funding from conventional financial institutions. According to Smedan (2010) about five per cent of informal businesses are registered, compared to 95 per cent among formal businesses.

While this is not the place to discuss the quantification of small enterprises in Nigeria, it should be noted that currently probably about 60 per cent of all enterprises in Nigeria still fall into the category of informal enterprises.

2.2.4 Conclusion

These few points about the structure of the small-business sector highlight the diversity and complexity of the sector, even if we only look at one country like Nigeria. As elaborated below, the problems and challenges of these different segments vary widely and efforts to address them effectively have to be adapted. In this study the focus is on the interaction of small businesses (through clusters) and how this interaction can help to address the challenges. There again, we are not looking at very specific problems or challenges experienced by selected categories of small enterprises, but at the full range of issues that need to be addressed.

The next subsection will provide an overview of those constraints, problems or challenges faced by small enterprises in general and, more specifically, in a developing country like Nigeria.

2.3 CONSTRAINTS TO SMALL-BUSINESS GROWTH

The small-business literature shows that a large number of small (formal and informal) businesses fail at the start-up phase or after being in operation for the first few years (GEM 2006, Flahvin 1985, Haswell and Holmes 1989, Bates 1995, Boden and Nucci 2000, Everett and Watson 1998, Watson and Hogarth-Scott 1998). The reasons differ from case to case, but they can be related to sets of factors, constraints or problem areas, which differ between economic sectors and other structural factors. These challenges have to be addressed by either the entrepreneurs or the spectrum of support agencies if we want to reduce the failure rate. In these efforts, the clustering process can play a significant supportive role.

To get an overview of the constraints we can start with a brief review of the full range of challenges conventionally linked to small-business development, irrespective of the level of development of countries or places. This will be followed by a discussion of factors particularly relevant for small enterprises in Nigeria.

2.3.1 General range of constraint categories or challenges

A number of studies done on small-businesses have focused on the problems or issues facing start-up, growing and mature small enterprises and how these can be tackled (Okpara and Wyan 2007, Mohammed 2007, Westhead and Storey 2010, Sharma, Chrisman, and Chua 1997, Bowen, Morara, and Mureithi 2009, Anyx 2005, Sarathi 2007). As a summary Table 2.6 lists twelve categories of challenges faced by small enterprises.

In the literature and in popular discussions about small-business challenges the emphasis often falls primarily on the “access to finance” challenge, which is regarded as central to many of the day-to-day problems faced by SMEs. Viewed from a broader perspective, however, the problems related to access to finance are but one (significant) factor that needs attention.

The twelve categories of challenges have to be addressed by those who (want to) run a business and/or those who should or want to facilitate the small-business-development process. Following Table 2.6 is a list of a few examples with the numbers referring to the challenges on the table.

Table 2.6
Challenges faced by small enterprises

1	(Awareness with regard to) Own entrepreneurial strength and business commitment (entrepreneurial self-confidence)
2	Awareness with regard to business opportunities
3	Access to information and advice about business issues
4	Business-related skills, technology and management capacity
5	Access to markets (with manageable competition)
6	Access to business finance (for start-up, expansion, etc.)
7	Regulatory inflexibility and public-sector incompetence
8	Lack or inadequate quality of infrastructure facilities
9	Access to business networking, interaction and partnerships
10	Macro-economic stability in the local/regional area
11	Safety and security in and around the business environment
12	Political stability at local/regional level

SOURCE: Adapted from Okpara and Wyan (2007), Bowen, Morara and Mureithi (2009), Hakeem (2013), Agwu and Emeti (2014)

- ◆ People who want to start or expand their own business should have enough *entrepreneurial self-confidence*. [1]

- ◆ People who want to enter business should be aware of *opportunities* (in the formal or informal sector) which can be taken up by them in terms of skills/experience needed etc. [2]
- ◆ Small-business operators need lots of *information and advice* about their day-to-day business activities, challenges and procedures. [3]
- ◆ Entrepreneurs need to have relevant technical, managerial and other business-focused *skills*. [4]
- ◆ Entrepreneurs should be near *markets* or be able to find and access markets for their products. [5]
- ◆ Entrepreneurs need *finance* for the different phases of their business (start-up, expansion, modernisation, diversification, etc.), which could come from a wide range of sources. [6]
- ◆ *Regulations* controlling business should be clear and flexible enough to make it possible for small enterprises to actually meet them. At the same time, tax levels should not be too high. [7]
- ◆ Basic *infrastructure facilities* (electricity, water, refuse removal, roads, etc.) should be available and affordable. [8]
- ◆ Entrepreneurs should be able to interact or *network* with other business operators in order to tackle better needs and obstacles. [9]
- ◆ There should be reasonable *economic growth* in the local area, the region and at macro-level to provide scope for the start-up or expansion of local small enterprises. [10]
- ◆ *Political stability* and sufficient *safety* and *security* should create a conducive environment for local business. [11, 12]

If we look closer at these challenges and at the diversity of small enterprises touched upon earlier, it is clear that the challenges will differ widely between the diverse enterprises. Thus, there is a vast difference between the needs, risks and problems facing a neighbourhood-based street trader and a high-tech communications-service supplier. The distinctions relate to (sub-)sectors, size of the business, age or level of development, technological sophistication, location and several other factors.

It is here where the existence of clusters and the nature of clusters become important, as will be shown later.

Related to the conventional constraints faced by small enterprises, one can refer to three further constraint factors covered in the literature which are closely linked to the absence of small business clustering in developing economies (like Nigeria). In Chapter 1 we already discussed these three sets of factors when we looked at the advantage of clustering. They were

- ◆ economies of scale in different business spheres, reducing the cost of production, marketing, etc.,
- ◆ increased networking and business linkages, which can have a similar positive effect and
- ◆ agglomeration externalities.

Thus, it is the absence of these factors or processes, which can be viewed as additional challenges for SMEs in development environments.

2.3.2 Particular constraints facing Nigerian small businesses

Nigeria is a developing economy trying to improve its development level in all relevant spheres – including small enterprises. As such, the different challenges faced by small enterprises, summarised in Table 2.6, apply to Nigeria as well. This also relates to the additional three constraints, which are particularly important in less developed economies.

This section highlights constraints and challenges included above, which seem to be particularly important in Nigeria.

2.3.2.1 Relative neglect of the small-business sector

Nigeria's economic-development thrust and much of its government policy focus still centres on the oil and gas primary sector and its role in the country's macro-economic development. This is understandable, given the high share of oil and gas in Nigeria's exports, the creation of tax revenue, its attraction of foreign investment and in several other critical areas.

This resource sector is dominated by large (multinational) enterprises and developments in a few areas of the country. In comparison, much less attention is given to the other sectors of the Nigerian economy (like agriculture and manufacturing) and the local small-business sector (Onugu 2005, Etuk et al. 2014). This relative neglect of the small-business sector relates to most of the issues and problem areas covered in Table 2.6. It also relates to both

the larger cities (which have a vast number of small formal and informal enterprises) as well as the rural village and small-town areas (which have even less capacity for local small-business support).

The lack of reliable statistics with regard to the different types and sector structures of medium, small, informal and micro-enterprises is just one example of this relative neglect. This makes the planning of effective support policies even more difficult.

2.3.2.2 Infrastructure constraints

Problems or deficits in the infrastructure (roads, electricity and water supply, street signage, refuse removal, etc.) are generally recognised as a challenge for the effective functioning of small enterprises. Nigeria's infrastructure is known to have serious capacity constraints (see Osotimehin et al. 2012, Hakeem 2013, Muritala, Awolaja and Bako 2012, Agwu and Emeti 2014), which cause major problems for small enterprises. Most of them are unable to provide their own facilities, like electricity. This applies to the large cities and even more so to smaller towns and rural areas.

2.3.2.3 Lack of business skills

Studies done on small business challenges in Nigeria show that many small-business entrepreneurs do not have requisite skills to manage their businesses effectively (see Osotimehin et al. 2012, Onugu 2005, Agwu and Emeti 2014). Given the very large population of Nigeria and the huge number of formal and informal small enterprises, the lack of broad-based (formal as well as informal) business-skills education and training is a very serious problem. This includes training with regard to basic business skills, financial literacy and business-management practice.

2.3.2.4 Regulatory inflexibility and implementation inefficiency

As in many other African countries, essential regulatory systems (like the registration of enterprises) in Nigeria are inefficient and poorly managed. This creates additional costs to enterprises and makes the whole business process less effective. Given the large size of Nigeria and its economy, this inefficiency creates major development hurdles. Etuk et al. (2014: 660) observed that, given the burden of inflexible regulatory practices in Nigeria, the government at all levels need to create enabling frameworks and relax regulatory rigidities. This includes simplifying business-registration procedures and paperwork to make it easier, cheaper and speedier.

2.3.2.5 *Difficulties to access finance*

Nigeria faces similar problems as other (African) countries in this critical field, with its large population an aggravating factor. Progress is being made in the expansion and diversification of financial institutions, but the huge size of both the urban and rural business sectors have made achievements to date quite inadequate. Small businesses face a major constraint in sourcing funding, given their limited size and weak capital base (Hakeem 2013, Parker et al. 1995, Daniels and Ngwira 1993: 30-31). Size limitations and the weak capital base make it extremely difficult for small businesses to provide collateral and/or business-transaction volumes that makes lending attractive to financial institutions (Osotimehin et al. 2012). SMEs are considered highly risky, hence the strict demand for collateral by lenders. In fact, the demand for collateral as a basis for lending is directly linked to government regulations, given that Nigerian banks are not permitted by the CBN's law to lend without collateral.

2.3.2.6 *Relatively large informal sector*

If we look at all formal and informal business entities in Nigeria, informal operators still constitute more than 60 per cent of the total number of enterprises. This is in line with the pattern in other African economies, but it also creates huge problems in efforts to implement conventional business-development policies and programmes. Very few programmes for the development and upgrading of informal enterprises have been created, and the implementation capacity for such programmes is limited.

2.3.2.7 *Unfair competition from large local and foreign enterprises*

As in many other countries, small and medium enterprises in Nigeria face tough competition from larger local companies and from foreign companies that succeeded to enter the Nigerian business sector (Busari 2014, Onugu 2005). The large population of Nigeria, high annual population-growth rates and expected high annual growth rates of the GDP and household income constitute attractions for these large (foreign) enterprises. This implies, however, that the competition vis-à-vis local smaller enterprises is likely to further increase, with poorly equipped local SMEs hardly able to fend off those competitive threats.

Against the background of this brief overview of the problems and challenges faced by small enterprises and the particular situation of Nigeria, we can now turn to a review of ongoing efforts in the country to address these challenges.

2.4 NIGERIA'S EFFORTS TO ADDRESS SMALL-BUSINESS-DEVELOPMENT CONSTRAINTS

Small-business support in Nigeria has over the past few years generated a lot of attention, with a number of studies focusing on the constraints and practical ways to tackle them (Osotimehin et al. 2012, Hakeem 2013, Muritala, Awolaja and Bako 2012, Agwu and Emeti 2014, Busari 2014, Onugu 2005).

It is already clear from the discussions in the earlier parts of this chapter that either government or the private sector alone cannot tackle the wide range of challenges faced by Nigerian SMEs. They need integrated efforts of all different players, including the different levels of government, public-sector agencies, foreign-aid agencies and the private sector, *including* SME entrepreneurs themselves. This section provides a brief overview of the current state of these efforts and the respective role of the different players, concluding with an overall assessment which focuses on the interaction and complementarity of the different efforts.

Since this discussion is only part of the background to the clustering process in Nigeria's business sector, the review of SME-development-support efforts is brief, leaving aside the often quite complex background and evolution of specific support institutions or programmes.

2.4.1 Central government

If we look again at the standard list of SME constraints (in Table 2.6) and the problem areas highlighted with respect to Nigeria's SME sector (in section 2.3.2), it is clear that a major part of the "needs for action" relates to the central government. Here we have to look at two dimensions, viz. legislative frameworks related to SME support and specific action by central government.

2.4.1.1 *Legislative frameworks*

One of the burning issues surrounding the small business constraints has in the past been the poor legislative and regulatory framework guiding small-business development (Erhun 2015, NEDP 2014, Ogechukwu et al. 2013). An effective regulatory environment is seen to be an important factor to ensure the growth and development of small businesses in Nigeria, as it is in other countries of the world. To an extent, both past and present governments have taken initiatives in this direction. The earliest policy instrument engaged by past governments included the Industrial Development Tax Act No. 2 of 1971 which provided a

tax holiday to emerging businesses in critical industries for an initial period of five years (IDC 1971). The Nigeria Enterprise Promotion Act of 1977, an offshoot of the Nigeria Enterprise Promotion Decree of 1972, offered an enabling regulatory and legislative framework (Ogechukwu et al. 2013).

To strengthen further the small business sector, government through acts of parliament set up a number of SME institutions and schemes. These institutions included the National Directorate of Employment (NDE) set up in 1989, the Small Scale Industrial Scheme, the National Economic Reconstruction Fund, the Small and Medium Scale Loan Scheme and the Peoples Bank of Nigeria (Smedan 2010). According to Smedan, these institutions and schemes were not sustained as they were often the products of political regimes and went into extinction as the regimes collapsed. There were no enabling laws to formally establish MSMEs in Nigeria, since at that time the country had no national policy on MSMEs. Governments' efforts were at best reactionary and driven by political exigencies rather than coherent legislative frameworks.

In 2007 the federal government of Nigeria, through Smedan and in co-operation with Unido, came up with a national policy on MSMEs. This regulatory framework mirrored the commitment of the government towards the growth, development and sustainability of the SME sector and provided a link to the government's national economic-development agenda. The national policy outlined several major areas that could boost small-business performance in Nigeria. These areas included institutional, legal and regulatory frameworks, human-resource development, technology and research development, extension and support services, marketing issues, infrastructure development and financial issues (National Policy on MSME 2007).

Over the years the government of Nigeria, through relevant legislation initiated programmes aimed at supporting and empowering small businesses for growth through business-agglomeration schemes like small-business incubators, industrial-development centres and industrial parks, established in different locations in Nigeria (NEDP 2014). Through the Industrial Development Act of 1971 the Federal Ministry of Industry, Trade and Investment set up 23 industrial-development centres (IDCs) which were the forerunner of small-business clusters at different locations in the country. Unfortunately, lack of adequate funding and inadequate infrastructural facilities rendered these grossly underutilised. In 2007 the management of these IDCs was transferred to Smedan.

More recently, the federal government, through its vision 2020 policy framework, has indicated its commitment to pursue a comprehensive policy towards industrial-cluster development within the framework of a PPP scheme (NV2020 2010, Iwuagwu 2011). The objective of the policy framework was to develop efficient and intensive mechanisms for the manufacturing of selected exports, leveraging on industrial zones already in existence in different parts of the country. While one appreciates the equivocal commitment of government in this direction, the Nigerian Vision 2020 was just an industrial policy statement made by President Goodluck Jonathan's administration, which ended in 2015. There was never any legal framework put in place by the national assembly to give the policy legislative backing.

2.4.1.2 *Specific government action*

Within the evolving legislative framework of SME support, the Nigerian government has over the past decades taken a range of specific steps aimed at the direct or indirect support of SME development. Table 2.7 provides a summary of these support initiatives, broken down into five categories. These include the creation of Smedan, the key support agency for SMEs (section 1), the financial support for a wide range of business-financing agencies (section 2), support for sector-focused programmes (section 3), funding for SME-supportive action by state governments and municipalities (section 4) as well as co-operation with international agencies. Not on the list is the funding of infrastructure facilities, which benefit SMEs (e.g. roads, telecommunication networks, etc.) but have a much broader goal. The same applies to central government's support for business and technical training at school, college and university levels, given the important role that entrepreneurship and business management play in the performance of SMEs.

2.4.2 **Public-sector agencies: Smedan**

By far the most important public-sector agency in support of SMEs is Smedan, which was established in 2003 (Oduyoye, Adebola and Binuyo 2013, Oni and Daniya 2012). This agency works directly with SMEs through its support centres, located at state level and in local-government areas as well as through SME incubation centres. Smedan's activities include the following (Smedan 2010).

- ◆ Sourcing, processing and dissemination of business information among SMEs.
- ◆ Formulating policies for approval and implementation as SME-support policies in Nigeria.

- ◆ Establishing business-support centres across the country to provide business development and advisory services to SMEs.
- ◆ Carrying out capacity building through training and promotional services for SMEs.
- ◆ Enhancing small business access to finance and creating networks and linkages between SMEs and SME-funding institutions (both local and international).
- ◆ Advocating and establishing industrial parks, SME clusters and incubator centres through PPP initiatives with various institutions.
- ◆ Developing national policies: In view of the critical importance of an “MSME national policy” for the sustainable development of the MSME sub-sector, the agency in partnership with Unido developed a national policy for the development of MSMEs in Nigeria.
- ◆ Inculcating entrepreneurial ideals through its Entrepreneurship Development Programmes, which included the following four focus areas.
 - ✧ General Entrepreneurship Development Programme (GDEP), targeting young entrepreneurs and nascent business owners on the rudiments of managing their businesses.
 - ✧ Youth Entrepreneurship Development Programme, targeting young school leavers and aspiring business owners.
 - ✧ Women Entrepreneurship Development Programme, targeting women in business.
 - ✧ Rural Enterprise Development Initiative, aimed at stimulating entrepreneurship and enterprise development in rural areas.
- ◆ Supporting cluster-development initiatives: over the years Smedan supported a number of small-business clusters through its tailor-made business-support services. These included the *Cain Weavers Cluster* in Lagos State, the *Cassava Cluster* in Taraba State, the *Black Soap Cluster* in Osun state, the *Aba Leather Cluster* in Abia State and the *Abakaliki Rice Cluster* in Ebonyi State.

This list of functions and activities is certainly most impressive. Yet, a thorough assessment of Smedan operations and performances shows that due to only limited government funding and a range of bureaucratic bottlenecks, the agency has not lived up to its goals and objectives. Given Nigeria’s vast population and the geographic spread of its SME sector, one state-funded institution just cannot reach all sub-sectors needing attention and support.

Table 2.7: Small-business support initiatives by the Nigerian central government

1	<p>Institutional and policy support</p> <p>Creation of development centres (technical training and advice) in the 1960s</p> <p>National Directorate of Employment (NDE) 1989</p> <p>Family Economic Advancement Programme (FEAP)</p> <p>Creation of Smedan (2003)</p> <p>Promulgation of a micro-finance policy framework (2005)</p>
2	<p>Mobilisation of SME finance</p> <p>National Economic Reconstruction Fund (Nerfund), established in 1989</p> <p>National Industrial Development Bank (NIDB)</p> <p>Nigerian Bank for Commerce and Industry (NBCI)</p> <p>Bank of Industry (BoI), created in 2001 to incorporate the NIDB and NBCI</p> <p>Equity Finance Scheme of the Central Bank of Nigeria (SMEEIS, existing from 2002 to 2007)</p> <p>Micro-finance banks (2005)</p> <p>Credit-Guarantee Scheme (SMECGS) of the Central Bank of Nigeria (2010)</p> <p>Movable Assets Collateral Registry (CBN- and IFC-initiated programme)</p>
3	<p>Sector-focused programmes</p> <p>Agricultural Credit Guarantee Scheme Fund (1977)</p> <p>Nigerian Incentive-based Risk Sharing Scheme for Agriculture (2011)</p> <p>Nigerian Agriculture Co-operatives and Rural Development Bank (Bank of Agriculture)</p> <p>Cotton, Textiles and Garment Industry Revival Scheme</p> <p>Manufacturing Loan Refinancing Scheme (2008)</p> <p>Intervention Fund for Refinancing and Restructuring of Bank Loans to manufacturing SMEs</p> <p>Small-scale Industry Credit Scheme (SSICS) of the Federal Ministry of Industries</p> <p>Setting up industrial areas/estates</p>
4	<p>Support to state and local authorities</p> <p>Financial assistance for state-owned finance and investment companies operating at state level (providing technical and financial assistance to SMEs)</p> <p>Ad hoc financial support to local authorities' special programmes for SMEs and related infrastructure</p>
5	<p>Co-operation with international agencies in the funding of special SME-support programmes</p> <p>World Bank</p> <p>African Development Bank</p> <p>International Finance Corporation</p>

SOURCE: Compilation from CBN (2000 and 2005), Okeke and Eme (2014),
Aganga (2013), Osamwonyi and Tafamel (2010), Sanusi (2003)

It also appears to be battling with image-visibility problems as many Nigerian SMEs are unaware of its existence (Aigboduma and Oisamoje 2013). As with other government

agencies, Smedan is grasping with the drawbacks of poor funding, programme inconsistencies, inadequate skills of its staff and poor co-ordination of its programmes.

2.4.3 Regional and local authorities

The problems faced by small formal and informal enterprises are most evident at the local level, i.e. in towns, villages and rural areas. It is here where infrastructure deficits are most severe and where local entrepreneurs often do not have the resources, skills or managerial abilities to tackle these challenges. Yet, most local authorities across Nigeria are not equipped to help these entrepreneurs. In the majority of places these local authorities are themselves constrained by severe financial and skills shortages. Even state authorities are often too restricted in their funding and skills to initiate programmes or to help the local authorities to run effective support programmes. As mentioned earlier, this leaves progress largely to the channelling of central-government (or donor) resources to projects at local level. This again happens only in exceptional cases, given the large number of local authorities in Nigeria.

2.4.4 Private-sector players

In Nigeria's private sector a wide range of firms or institutions can be seen to play a role in the support of small enterprises and in efforts to help address their development constraints. Without going into any depth of these activities or the relative significance of each, the following list gives an indication of the diversity of private-sector players in the small-business-support sphere.

- ◆ Financial institutions (commercial banks, micro-finance institutions, group saving schemes).
- ◆ Business-service suppliers (e.g. tax consultants, business consultants, lawyers, marketing professionals).
- ◆ Business chambers and sector associations.
- ◆ Private business-education suppliers (ad hoc, part-time, correspondence).
- ◆ Small-business mentors (paid or voluntary).
- ◆ Business-research bodies (e.g. sector-focused research centres).
- ◆ Churches (through their business programmes).

- ◆ Co-operative initiatives and franchise support.
- ◆ Supply chain partners (e.g. corporates helping small suppliers with respect to finance, advice, training or mentoring).
- ◆ Relatives and private partners.

Quite naturally, these private-sector players are more readily available in larger centres (or business clusters) than in small towns and rural villages. For the growth, diversification and wider spread of these services much will depend on the combination or co-operation of different players. For example, financial institutions can use consultants or volunteers for some of the support related to the supply of SME finance.

Over the last two decades the volume, diversity and sector as well as geographic spread of these corporate support services for Nigerian SMEs have expanded significantly. Yet, given the large number and the wide spread of SMEs across the country, this support is still falling far short of the needs of the small-business sector.

2.4.5 Overall assessment

Our brief overview of Nigerian efforts to address small-business problems and constraints leads to a few conclusions.

- ◆ The wide spectrum of support agents which can be seen in other (developing) countries can also be found in Nigeria.
- ◆ Compared to the size of the population, the development dynamics of the economy and the existing small-business sector, these support facilities are only able to meet some of the needs and they only reach a small fraction of the MSMEs.
- ◆ The deficiencies apply to both public- and private-sector players, and they relate to the full range of complementary support programmes needed as well as the resources available for individual programmes.
- ◆ There is relatively little interaction or partnership between the different support agents and programmes; in fact, there are indications of distrust and/or fear of competition between some of them, which further dampens the positive impact.
- ◆ Public funds made available for such support services are at times diverted due to corruption in support bodies or along the funding chain.

- ◆ In the public debate and pressure politics about SME support most of the attention centres around the supply of business finance for SMEs, even though some of the other factors (like getting appropriate information, advice and mentoring) could actually create a far greater positive impact on the business process of SMEs.
- ◆ Policy and implementation inconsistencies of the different governments have in the past been a serious setback in Nigerian small-business support. Each government came up with new policy instruments without sufficient attention to implementation efficiency. Once again this can be linked to a lack of collaborative partnerships among key stakeholders in small-business support.

2.5 CONCLUSION

This chapter has tried to summarise the structure, constraints and challenges of Nigeria's small-business sector. We have also shown how the different players in the economic development scene are trying to support small enterprises and address the specific challenges. While progress with these efforts is undeniable in many areas, the overall impact falls far short of what is needed for dynamic MSME growth, which is needed for overall employment creation and faster economic development.

It is here where the role of more active business clustering becomes critical, as the next chapter will show.

CHAPTER 3

CLUSTERING IN THE PROCESS OF BUSINESS AND ECONOMIC DEVELOPMENT

With the nature and seriousness of challenges facing Nigeria's small businesses outlined in Chapter 2, and with this study focusing on clusterisation as a critical tool in SME-support efforts, this chapter explains the nature of clustering processes and the different types of clusters. It starts with a review of cluster theories, with a basic distinction made between micro- and macro-clusters. This is followed by an overview of micro-clusters or small-business incubators, which are often seen as an early step in clusterisation strategies.

The main focus of the chapter is on macro-clusters or cluster processes with an explanation of different types of clusters distinguished in the literature. Against that background, we show how clusterisation can support small enterprises in their efforts to handle diverse challenges. Finally, the chapter clarifies the different players in clusterisation processes and stresses the need for proactive partnerships between these players to optimise the CDP.

3.1 THE CONCEPT OF SMALL-BUSINESS CLUSTERING

Given the impact of the constraints to SME competitiveness countries across the world have taken various initiatives to address this challenge. Small-business-agglomeration approaches are one of such initiatives, with the perceived effectiveness having been the subject of empirical analyses. Clustering approaches are believed to have elevated many SME firms to the level of global competitiveness (Mytelka and Farinelli 2000, Venkataramanaiah and Parashar 2007, Pyke and Sengenberger 1992).

To most countries in the developed world clustering is not a new concept (Kuah 2002, Das 1998: 33). Most clusters in those countries predate the 19th century. They have been identified as important instruments for economic development, competitiveness and growth (Andersson, Hansson, Serger and Sorvic 2004: 7). Porter (1998: 78) has linked the development of clusters to the competitive advantage of economies, countries and distinctive geographical boundaries. He argues that the competitive positioning of countries and economies is an offshoot of what he called critical masses in one place or unusual competitive success in a particular field. Although clusters are not unique, they are striking features in the economically developed countries, regions and metropolises. He further

posited that clusters affected the competitiveness within countries as well as across national borders.

Many economies that achieved sustained growth due to the dynamic role of their SME sector have a background of industrial policies that supported SME clusters. Thus, the Indian economic growth is, in a way, built on the growth and expansion of its SME clusters as Venkataramanaiah and Parashar (2007: 1) pointed out.

The government of India, realising the importance and role of the SME sector in achieving its vision of an industrialised India, mapped out very pragmatic policies that anchored its economic growth on industrial cluster formation.

In Pakistan, clustering also created a high level of SME dynamism. Inter-firm linkages through vertical or horizontal ties led to what Nadvi (1999: 2-3) called collective efficiency in product and service delivery. This made SMEs' products highly competitive internationally. In fact, SME product- and service-quality upgrading and standardisation by various regulatory agencies in Pakistan could not be achieved by SMEs on their own. It called for a collective response, which was possible through clustering processes.

Lessons from Latin American countries also suggest that clustering can enable firms (especially SMEs) to grow and upgrade more rapidly (Altenburg and Meyer-Stamer 1999, Phambuka-Nsimbi 2008). Inter-firm specialisation and proximity to other firms performing complementary functions can offset the disadvantages of being small. A cluster study, carried out by Visser (1999), between SME-clustered and -dispersed firms in Lima (Brazil) revealed that clustering makes SMEs more competitive. This competitive superiority can be seen in the areas of cost management, product availability, product sales, reduction in the prices of intermediary products, faster local diffusion of knowledge and competence through direct observation of market trends and competitors' products.

Looking more specifically at the definition of clusters, Rosenfeld (2002: 25) defined clusters as a

geographically bounded concentration of similar, related or complementary businesses with active channels for business transactions, communication and dialogue that share specialised infrastructure, labour markets and services and that face common opportunities and threats.

This basic definition clearly points out the characteristics that make up a typical cluster, such as a distinctive geographical location, the presence of industries with distinct products and a sharing of common infrastructure facilities. The concept underpins the philosophy behind the establishment of business clusters. Porter (1998: 197) further expands this view with his classic definition of clusters as “geographic concentration of interconnected companies, specialised suppliers, service providers, firms in related industries and associated institutions in particular fields that compete but also co-operate”.

Alfred Marshall, who pioneered the concept of clustering as an agglomeration attribute to the success of early industries and the economic development of small towns and cities, defined clustering as agglomeration of small specialised firms located in a particular locality (Marshall 1890). He also suggested that such agglomeration of firms in close proximity delivers three sources of collective efficiency that boost the success of the clustering businesses. These sources include

- ◆ a local pool of specialised labour,
- ◆ firms specialising in the intermediate stages of production and
- ◆ knowledge spill-overs (Smith 2006: 272).

Smith further explained that due to the existence of a large number of firms clustering within an industrial district, there tends to emerge a pool of specialised labour, which further stimulates the growth process.

Rabellotti (1995) views clusters from the perspective of the drivers of cluster models. He identified four characteristics that shape a cluster model, viz.

- ◆ geographical concentration of firms specialised by sector,
- ◆ forward and backward linkages based on the market and non-market exchange of goods, people and information,
- ◆ common culture and social background linking economic agents and
- ◆ linkage of public and private institutions supporting economic agents located within the cluster.

Schmitz (1992) defined cluster as a group of enterprises belonging to the same sector and operating in close proximity to each other. In other words, the firms that make up the cluster may not necessarily have homogenous products or services, but most of them relate to a

particular sector. In some cases, the firms that operate within a cluster may offer complementary products and services, thus creating a value chain as typified by andersson et al. (2004) and shown in Figure 3.1 below.

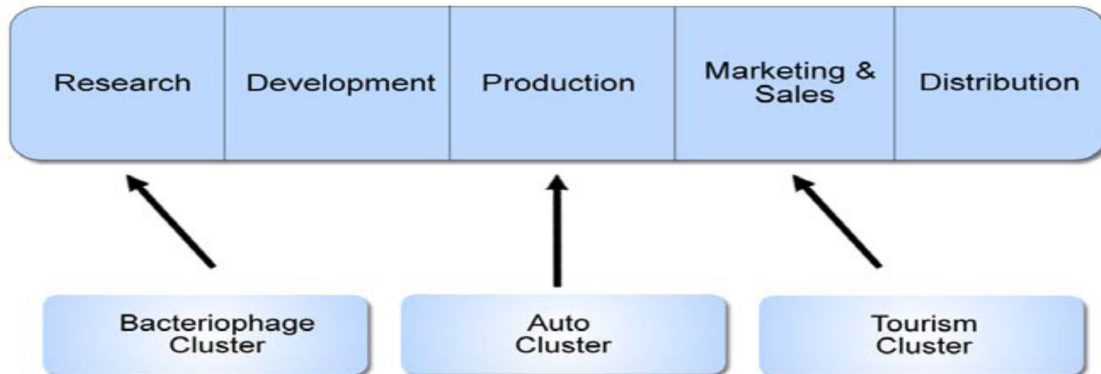


Figure 3.1: The Cluster in the value chain

SOURCE: andersson, Hansson, Serger and Sorvic (2004)

Unido (2001) defined clusters as sectoral and geographical concentrations of enterprises that produce and sell a range of related or complementary products and thus face common challenges and opportunities. They emphasised the importance of networks in the spheres of business clustering, viewing networks as groups of firms that co-operate on a joint project, complementing each other in order to confront common challenges. Thus, clustering increases the capacity of small firms to solve their common problems.

To conclude, these definitions underscore the propelling factors behind the emergence of business clusters, especially where industrialisation and economic advancement have not taken off, viz. a grouping

of small firms operating in a defined geographic location, producing similar products or services, co-operating and competing with one another, learning from each other in order to overcome internal problems, setting common strategies to overcome external challenges and reaching distant markets through developed networks (Schmitz 1992: 48).

Against this conceptual clarification of “clustering”, we can now summarise the main clusterisation theories, followed by separate reviews of micro-clusters (or incubators) and the different categories of macro-clusters. The latter leads us to a closer look at the main

players in clusterisation processes as well as the need for partnerships between them in order to achieve effective cluster impacts.

3.2 CLUSTER-DEVELOPMENT THEORIES

Studies have been done to highlight the factors that are responsible for the success of cluster initiatives in different parts of the globe (Solvell, Lindqvist and Ketels 2003). Among the factors identified are dynamic competition among firms occasioned by entrants of new firms, including spill-overs from larger existing firms and intense co-operation among firms leading to linkages and collaboration with professional bodies, service-provider organisations, chambers of commerce and other cluster organisations. Also identified are linkages to related industries and the sharing of common facilities and pools of talents as well as proximity to sophisticated and demanding buyers.

Advocates of cluster-development initiatives have advanced several theories supporting the need for cluster development as integral factor for lending support for small-business growth and sustenance. These theories have shaped our thinking of small-business clustering as a desirable tool for small-business support and development. They set the stage for extensive discussions about the desirability of small-business clustering and set some benchmarks for assessing and measuring the success of existing clusters. In this section of the chapter we review the most relevant of these theories.

3.2.1 Co-location theory

In conventional businesses geographical location is an important point of consideration when siting an industry. Location factors, including proximity to raw materials, skilled labour and markets offer sources of competitive advantage to enterprises. The co-location of similar industries may lead to positive externalities, aside from other advantages to the individual firms within the locations. Co-location of firms (not necessarily small firms, but a combination of small and big firms) tends to enhance the knowledge spill-over and learning opportunities open to small firms. Navarro (2003), while pointing out the distinctions between tacit and codified knowledge among innovative firms, stated that location is crucial in the context of geographical location and industry structures. Since tacit knowledge can only be transferred through face-to-face contact between individuals, innovative firms located close to competitors, suppliers and customers tend to have more opportunities for interaction and therefore have higher access to knowledge. While Porter (2003) argues that co-location of industries does not guarantee interaction and spill-over, he nevertheless

believes that consistent co-location across regions creates a strong presumption that such interactions do exist.

Many authors have stressed the co-location of firms as a precondition for successful clusters (Porter 1998, Turok 2002, Visser 1999, Sengenberger and Pyke 1992, Teras 2008, Newlands 2003). Porter (1998) argued that even though some cluster-related advantages such as those derived from a pool of cheap labour leading to input-cost reduction, are important, the dynamic nature of competition in the market place seems to have diluted this factor. The concepts of global and local outsourcing and other related strategies adopted by competing firms have to an extent rendered the notion of competitive advantages of firms less significant. He however posited that clustering, especially co-location of firms in a particular field or industry, offers the required *critical masses* needed for competitive success of firms within a particular field. Absence of co-location among firms in a geographically defined area critically limits the global competitiveness and growth of such small firms.

We can illustrate this point by comparing the Nigerian film industry (popularly known as Nollywood) in sharp contrast with the United States film industry (Hollywood). Despite the huge success recorded by the Nollywood industry in Nigeria over the past and having been rated the second-largest producers of films in the world behind India (UIS 2009), the absence of common geographical co-location facilities have hindered the effectiveness and global competitiveness of Nollywood.

The impact of this lack of co-location facilities has had the following negative effects.

- ◆ High levels of polarisation between operators
- ◆ Lack of co-operation among stakeholders
- ◆ Weak organisation, leading to inability to attract local funding
- ◆ Inability to combat plagiarism
- ◆ Weak efforts to increase collective efficiency and enforce production standards and ethics
- ◆ Poor training efforts
- ◆ Inability to upgrade relevant infrastructure facilities

Currently, the Nollywood industry is a virtual cluster of film producers and marketers, with no physical borders and very little linkages among its operators.

Going by the definitions of clustering by Porter (2003), who defined clusters as “geographic concentration of interconnected companies and institutions in a particular field”, the relevance of location and the success of firms operating within the clustering setup are interrelated. Porter argues that co-location in a cluster setting appears to be an alternative way of organising value chains among small businesses. Proximity of companies and institutions in one location and the repeated exchange between them seems to foster better trust and co-ordination when compared with transactions among dispersed firms and institutions. Where firms in the same industry or producing similar products are co-located in clusters, supply-chain opportunities and value-chain services are more enhanced and there is greater possibility of strengthening local networking and effective co-operation that can ensure collective efficiencies and product standardisation and ultimately enhances the competitive advantage of the firms in the global economy (Wieland 1999).

In his submission on the relevance of location theory to the economics of agglomeration, McCann (1995) observed that a large proportion of firms have few or no trading links with other local firms in the same industry, even when there is a strong spatial clustering of a particular industrial sector. This makes the validity of the concept of “localisation economies” questionable. This view is based on the premise that agglomeration of industries should culminate into having a well localised economy in a particular region. Where there is a strong presence of distinctive competencies in a particular region, the evolution of firms domiciled within the region should spur intensive economic development and create regional competitive advantages as well as a reputation that is attractive to global competition. Effective trade linkages of local firms within the region will then strengthen the local economic hub and position the regional economy competitively.

In another contribution, Enright (2001) stated that clustering of firms on its own does not necessarily deliver all the needed benefits to small firms without the incidence of co-location. He emphasised that even though a cluster may have the critical mass of firms in a related industry, i.e. sufficient to reap some benefits of clustering, co-location benefits may not be actualised without reaching a certain level of interaction and information flow. This is what he described as “latent clustering”, which raises the question whether co-location in a cluster setting actually guarantees interaction and knowledge flow (which are seen as the ingredients needed to actualise the full benefits of clustering).

Kuah (2002) also argued that the existence of co-location of firms does not necessarily imply that there is clustering, especially when the associated clustering benefits such as innovation, productivity growth and superior competitiveness do not exist. This also buttresses the earlier views of Porter, which implied that co-location of firms or industries do not guarantee interaction and information flow (Monette 2009). A case in point is the *satellite*-type of clusters discussed earlier, where a cluster is dominated by large, externally headquartered firms with a number of small firms acting as sub-contractors or completing the cycle of value-chain services within the cluster. Most likely the incidence of interaction and knowledge flow within such cluster is limited if not non-existent.

3.2.2 Regional development theory

A number of studies have linked the cluster-development initiative to the progress of regional economic development (Scott 1996, Cooke 2001, Porter 2000, Simmie 2004, Krugman 1991). For example, the successful cluster-development initiatives in Taiwan, Japan and China were conceptualised and anchored on the regional development policies of the governments. Thus, the White Paper on Taiwan Industrial Technology (2007) clearly defined the strategic role of industrial clusters as part of the economic development of their regions. Taiwan adopted an initiative that anchored its cluster-development strategies on the national and regional development goals. Indonesia had a similar approach to its cluster-development initiatives. Tambunan (2005) shows that the public-policy involvement in cluster development was geared towards strengthening the regional economic growth and development. The strategy was to identify key industries located in the regions based on their distinctive comparative advantages and to develop cluster networks around them.

Several points have been advanced to support the link between cluster-development and regional development. We refer to key interrelationships as reviewed in the literature.

- ◆ All regions do not have the same level of economic-development capacity, given the uneven distribution of resources within regions. Hence, cluster initiatives are one way of balancing this uneven distribution of resources through action from political and economic authorities from the central government as well as local and regional development institutions (Young 2008).
- ◆ Some regions experience high population density and the overstretching of available infrastructural resources. Therefore, spreading out of clusters to other regions can result

in job creation, the upgrading of regional infrastructures and greater cluster sustenance. Setting up industrial clusters in regions where population density is low, due to the low presence of economic and social infrastructures, not only helps in focusing attention on such regions economically, but also contributes to alleviating poverty and bringing rural-urban migration flows closer towards equilibrium through the creation of employment and development in rural areas (Krei 2005).

- ◆ As discussed in Chapter 2 already, agglomeration economies constitute an important factor to create successful clusterisation. These economies are said to be external to any one firm, but internal to the region where the related firms are clustered. It is also viewed as positive returns to scale at the regional level, as the advantage to a firm in locating in a particular region increases with the number of other firms in the area (Stuart and Sorenson 2003).

- ◆ Going one step further, Romanelli and Khessina (2005) introduced the *regional identity* concept in the spatial concentration of industries and firms in regions. According to them, regional industrial identity refers to unique factors that distinguish and highlight a particular region or locality and positions it as a rallying point for economic activities. Some metropolitan regions develop industrial identities that influence the actions of investors. These identities are based on common perceptions of the type of businesses that are likely to succeed in that particular region. This may be linked to natural resources domiciled in that region or some historical legacies of that particular region. Typical examples are the Hollywood industry in the state of California (USA) and a place like Stellenbosch in the Western Cape region of South Africa (where the world-renowned wine farming and beneficiation sector as well as the second-oldest university of the country come together).

In the Nigerian context the cities of Oshogbo and Abeokuta in the western region of the country have had a growing history of local fabric-garment production. These cities are well known in West Africa for their manufacturing of garments from local fabrics through the process of dyeing, using local materials and inputs. “Tie and dye” has become a strong regional identity for them and helped attract Nigerians and individuals from other parts of West Africa to become involved in the industry. Although most of these activities occur at individual and family levels, with a number of formal enterprises engaged in the trade, a strong cluster of producers has evolved within the city centres. In both cities the emergence

of local textile producer clusters now combines a rural phenomenon with a number of key industries in textile production.

3.2.3 Market-failure theory and cluster development

Many of the constraints facing small businesses have been linked to market failures. Biggs (2003: 21-23) remarked that in the area of access to finance, information and technology, small businesses are often side-lined due to the *size-effect* factor. Size effect is the tendency of small businesses to be denied attention due to their size and structure as compared to larger businesses. This is a conjecture of the market-failure factor.

To address the market imperfection arising from information asymmetry, which has crowded out small businesses in gaining access to finance and other business-development services, there is a need for small-business-cluster development. This could provide a platform where public and private sectors can come together to provide the support that will enhance their competitiveness and growth. The OECD (2006) report *SME Financing Gap* suggests that clusters of SMEs can enable member firms to seek finance together, and in the area of collateral requirements such platform can provide *collective guarantees* and may even be able to set up their own financial body within the cluster.

Other areas where market imperfection has affected the growth of SMEs is in the area of infrastructure provision, regulation and tax administration. This form of market failure arises because of an unfair allocation of resources and a side-lining of small businesses. As Rodriguez-Clare (2005 a) rightly pointed out, the success of a firm does not only depend on its own internal factors but also factors external to it. These factors include the macro-economic environment, legal system, actions of other firms, infrastructure and regulations, especially in the areas of public goods (Glavan 2008). Small firms by their nature and size cannot compete favourably with large firms in these areas, hence the system itself has created an inbuilt limitation to the productivity and success of these categories of businesses.

To overcome these market imperfections a policy direction is needed. Zhang (2008) advocates that public policies and actions are needed to address market failures that limit the supply of finance, information problems faced by start-ups, infrastructure challenges and non-competitive market structures. One of the ways this can be addressed is through cluster-development initiatives. Since individual firms cannot provide the needed resources to enable them to operate profitably, organising such firms in clusters through geographical

agglomeration can enable government or other institutions to deploy such resources and infrastructural facilities within the cluster as shared facilities, while defraying the cost of such facilities through collaborative rental charges that are affordable to the business owners. Through cluster formation and internal co-ordination as well as trade associations and cluster-administration bodies, the implementation of such policies should be possible.

The incidence of market failure can also be seen in the supply of business-development and support services to small businesses. The EC (2002) writes about the inability of the system to provide business-support services to small businesses because they cannot make a commercial return. The European Commission (EC) report reinforces the need for government intervention through the public provision of the services on the ground that such action would not only help to create wealth but also employment. The report also advocates the use of cluster-development initiatives as a tool for public intervention in the face of such market imperfection.

3.2.4 Co-ordination failure and cluster development

Co-ordination failure is another form of market imperfection that has prevented the market mechanism from allocating resources optimally, especially as it affects small businesses. Once again, this triggers advocacy for government's intervention. Many theorists have related the incidence of this failure to the emergence of small-business-cluster development (Glăvan 2008, Rodriguez-Clare 2005, Thomas, Serger, Sorvik and Hansson 2004, Ferris and Gawande 1998). Co-ordination failure can also be defined as the failure of different individuals or organisations to co-ordinate their actions in a way that maximises the benefits (Glăvan 2008). It has been argued that co-ordination failures are a strong factor for new small-business-cluster developments. Many view that as necessary reasons for public and institutional intervention in the management of small-business clusters by promoting co-ordination and collective actions to improve performance (Rodriguez-Clare 2005).

3.2.5 Micro- versus macro-clusters

While most of the discussion so far related to clustering at the level of geographical places or subregions, one can also look at the clustering of small enterprises in a particular set of multiple business premises, usually referred to as "incubators". We could also call them micro-clusters as opposed to macro-clusters.

In this study the emphasis clearly falls on macro-clustering, although incubators may play a facilitative role in the process of macro-clustering. For this reason the next subsection will summarise the lessons from micro-clustering, as it seems relevant for Nigeria. Thereafter we return to different categories of macro-clusters and the players in that process.

3.3 BUSINESS INCUBATORS: A FORM OF MICRO-CLUSTERING

3.3.1 Introduction

Small business incubators can be broadly defined as a common facility (structure or complex of buildings) offering business space and support services to new or emerging firms. Allen and Rahman (1985: 12) see it as a facility set up to aid the early-stage growth of enterprises by (i.a.) providing rental space, shared office services and business-consultation services.

These and other definitions of business incubators stress the early stage of businesses and support structures that aid their growth and sustainability (Culp 1990). Unido (2001: 32), linking the existence of small-business incubators to overall strategy initiatives designed to support small enterprises operating in a cluster formation.

This description of incubators is based on the fact, already stressed in Chapter 2, that the needs and problems of small enterprises are much broader and diverse than the access to capital, which is usually stressed. They include training, advice, networking, technology transfer, mentoring, etc., which incubators can provide or facilitate (Campbell and Alley 1987).

A number of writers have explored the relevance of small-business incubators in addressing the challenges leading to high levels of small-business failures, especially at the early stages of their existence (Reese 2008, Mbewana 2005, Allen and Rahman 1985, Campbell, Kendrick and Samuelson 1985, Bearse 1998, Adegbite 2000). Reese (2008: 2) believes that business incubators can play a significant role in stimulating and supporting the creation and growth of new small businesses, while at the same time providing support that decreases the risk of business failure. He sees small-business incubators as a desirable *addition* to a number of other initiatives in promoting SME development rather than as a keystone to economic-development strategies.

Mbewana (2005: 14) also views business incubators as useful in bridging the identified gaps associated with small-business failures, especially at the nascent stages of existence.

According to her, incubators provide assistance that fills knowledge gaps, reduces early-stage operational costs and links entrepreneurs to a local enterprise-support network.

Pinto (2004: 11) sees business incubators as effective means of providing support to newly established enterprises in south-eastern European countries, with the emphasis on basic infrastructure such as business premises. According to him, all countries in south-east Europe, excluding Serbia and Montenegro, have established business incubators although their pace of development has become slower.

Shalaby (2007: 1) projects business incubators as a flexible method designed to encourage the development of new businesses and fostering local economic development. This is against the backdrop that incubators should be facilities in which a number of new *and* growing businesses operate under one roof, enjoying affordable rent and sharing common facilities such as electricity and basic equipment as well as having access to a network of business-support services either provided by firms or institutions within the incubator facility or externally. This combination of different sources of service providers to the incubators is often the main objective for setting up business incubators.

In most developing countries, setting up such facilities is public-policy-driven, with the government's primary objective the creation of employment and the alleviation of poverty (Pinto 2004: 11). This view also holds for most incubators that were set up in Nigeria (Ogujiuba, Ohuche and Adenuga: 2004). However, there are also cases of private-sector involvement in the setting up of business incubators and providing business-support services to incubator tenants (Pinto 2004: 3).

We can conclude this introductory subsection with a broader view of micro-clusters, where conventional incubators are just one category. In the history of trade, "markets" have played a most significant role as one type of incubator. Here we can differentiate between *ad hoc* (spontaneous) market opportunities (i.e. the meeting of sellers and buyers at a specific place) and regular markets. These may be ongoing or periodic. In these cases the clustering of buyers and sellers constitutes the basis of success. In highly developed economies such markets only play a minor role, but in developing countries periodic markets as well as permanent ones play a major role in the business(-development) process. There is, however, a major difference between such markets and business clusters or incubators. Trade markets only focus on the buying-selling process and not on the actual production and product-

development process. There is, thus, far less scope to transfer knowledge or influence the whole business-development process of small enterprises.

3.3.2 Types of small-business incubators

While the clustering of small enterprises has a history of several centuries, the development of small-business incubators is a relatively recent policy tool, going back to the post-World War II redevelopment efforts and the spreading of government-driven small-business-development efforts in the 1980s. We can distinguish a range of incubator approaches with each having certain characteristics and challenges (NBIA 1996).

- ◆ *First-generation incubators* are the earliest forms of incubators characterised by a strong real-estate component and the proximity of the incubator to strategic growth factors (like an industrial park, a science park or a business centre). The primary goal was to offer affordable space with shared facilities to selected entrepreneurial groups (Lalkaka 2001, Kirby 2004, Samah 2010, Hackett and Dilts 2004 b, Aernoudt 2002, Leblebici and Shah 2004, Akcomak 2009, Markley and McNamara 1995). Government was the main sponsor of most of the first-generation incubators as their overall objectives were aligned with the economic-development goals of the government in those regions or specific places where the incubators were developed. In some places the re-use of (dilapidated) vacant properties were seen as useful and cost-effective for such incubators.

- ◆ In the 1980s and '90s *university-linked incubators* spread in the more developed countries with the goal to nurture technology-based firms (Mian 1994, Scaramuzzi 2002). These incubators are primarily set up to provide linkages between research, technical know-how and leveraged entrepreneurs. Most of them are used for research spin-offs and the facilitation of technology transfer. A number of these incubators exist in Europe, the USA and in developed countries of south-east Asia, such as Taiwan and Japan. O'Shea, Allen, Chevalier and Roche (2005) note that these incubators seem to be the response to the call for universities to develop more rapid linkages between science, technology and the utilisation of research. The sponsors of these incubators are primarily the universities and research institutions; however, there is also scope for public-private partnerships between government, businesses and university authorities in the establishment of such incubators. In some instances, the government provides the funding while collaborating with the universities, which generate the ideas and managerial resources. There could also be linkages to venture-capital firms for funding.

The knowledge flow from the university to incubator firms enhances knowledge and information dissemination among the firms and ultimately enhances the performances of businesses. The knowledge flow can also be stimulated through the provision of basic training facilities, licensing of products and university-invented technology as well as the dissemination of research findings through published academic and trade journals.

- ◆ *Virtual incubators* are regarded as second-generation incubators, hosted by (i.a.) universities or research institutions as part of the knowledge-based economy of the 21st century. These are non-property-based incubators or “incubators without borders”. They do not offer work space to firms, but they generate externalities among firms linked by computer and technological networks (Scaramuzzi 2002). Nowak and Grantham (2000) observe that going beyond the geographic and resources constraints associated with traditional incubators, virtual incubators appear to be more pragmatic in optimising the strategic chances for success of small businesses by pooling technical and business talents across all frontiers to meet the business opportunities ahead. Here virtual partnerships, alliances and business networks can enhance the sharing of ideas and information through interconnectivity and virtual networking as well as internet-based contact.

Virtual incubators are also effective where services are rendered to SMEs in areas with insufficient critical mass and the extent of reach is quite high with wireless connectivity and remote technological networking. This also requires low capital investment (Scaramuzzi 2002). The main disadvantage of this form of incubation is that small businesses that are not technologically advanced already, are not likely to be aware of such services and therefore do not benefit.

- ◆ *International business incubators* are third-generation incubators that are based on the convergence of support mechanisms. Scaramuzzi (2002) states that such incubators provide a full range of support services for the development of knowledge-based businesses and they can be a platform for promoting the convergence of international firms and international technology-based companies with the aim of facilitating research and technology transfer. They provide support for local companies to boost their efforts in exporting their products, services and technology and to enhance their competitiveness abroad (Lalkaka 2001). In addition to the support services provided to tenants, such

incubators facilitate the entry of small international firms into the markets of the host countries.

- ◆ Using the terminology of Adegbite (2001), *industrial business incubators* are generalised industrial nurseries for incubating new enterprises. They admit a wide spectrum of tenants that engage in different aspects of manufacturing processes, ranging from simple conversion and fabrication of metals to the production of tangible products and complex manufacturing activities. Industrial business incubators offer a range of services to tenants, which include fully built-up factory buildings partitioned into incubator units and let out to entrepreneurs as well as infrastructure-support facilities such as road access, electricity, telecommunication systems, water and security services. They may also provide technical- and management-support services to the tenants, but in some cases such services are outsourced to independent consultants.

3.3.3 Operational variations of small-business incubators

The range of activities and the operating structure of small-business incubators vary widely, depending on their background and history, key facilitators and sponsors as well as many other factors. Here we can briefly note the range of activities or facilities, the broader role of incubators and alternative funding bases.

The range of activities, services or facilities could include

- ◆ workspace and related facilities,
- ◆ business networks and potential for alliances,
- ◆ access to industry export channels,
- ◆ access to markets and trade exhibitions,
- ◆ access to finance,
- ◆ scope for business matching,
- ◆ access to business mentoring/coaching and consultants,
- ◆ business training and
- ◆ sharing equipment and facilities.

Related to these activities and services incubators can have a broader impact or role for participating enterprises and the local business community, viz.

- ◆ creating a platform for infant businesses in a sector or a geographic area,
- ◆ stimulating the evolution and spread of innovative technologies,

- ◆ creating a platform for research spin-offs,
- ◆ strengthening state-business-university-community linkages.

Related to the incubation concept, small-business incubators are usually assumed to accommodate small enterprises for only a limited period. One standard version is to admit an enterprise in its start-up phase and then allow it to remain in the intensive-support environment of the incubator for two to three years. Thereafter the firm should not require intensive support and should be able to get professional help on a conventional basis. There are, however, incubators (or “small-business hives”, as they were called in South Africa) which allow enterprises to remain longer in the incubator, emphasising the positive role that they might fulfil vis-à-vis other (new) enterprises.

These variations find their parallels in the level of fees charged for services supplied to incubator tenants. They might initially be highly subsidised, but eventually lead to full-cost coverage or even profit generation.

As far as the funding of these different types of incubators is concerned, we can distinguish three basic approaches with further variations possible within each.

- ◆ *Community-based incubators*: These are initiated by different community and business players in communities with the resources mobilised through their interaction and co-operation. Specific organisations, local companies or authorities may play a central role in that process.
- ◆ *Public-sector-initiated/run incubators*: Here the municipality, a university or some government department may play the central funding role, which leaves scope for further subsidising the project and key services by other project partners.
- ◆ *Profit-orientated incubators*: These would be incubators set up by larger corporations (e.g. for small enterprises related to their activities) or property developers. The goal is that rentals and other fees cover all costs and may even create some profit.

In practice the majority of incubators are probably of a mixed nature, i.e. there is private-sector participation, some support from municipal or higher levels of government and some local-community participation. In fact, a sufficient level of public-private interaction or partnership can be seen as a general precondition for successful incubators.

Over the last decade a new wave of advocacy in incubator facilitation and sponsorship underscores the importance of collaborative efforts among various stakeholders in the public sector, academia and industry. This view of notable cluster-incubator advocates includes Professor Henry Etzkowitz, who pioneered the concept of the *triple helix* in the development and management of industrial clusters and business incubators. The triple-helix model of cluster-incubator development provides a collaborative platform where a university positions itself as a leading facilitator alongside industry and government in the establishment and running of business-incubator initiatives (Etzkowitz 2002). This concept brings about the fusing together of the divergent objectives of each of the participating facilitators in the process. The government's objective is to ensure regional economic development within the context of creating a technology-driven and knowledge-based economy. The university's objective is to ensure the utilisation of research findings and the commercialisation of research ideas. Industry's view of technology acquisition and application in production and service processes is fused into the overall objectives of incubator development. In this context Leydesdorff and Etzkowitz (2001) argue that while individual universities may have all it takes to set up an incubator, they are more productive and better organised when handled as a co-operative venture between one or more universities, a local government authority and a consortium of financial institutions, playing different but co-ordinated roles.

3.3.4 Nigerian experience with small-business incubators

In Nigeria, a number of incubators exist in different parts of the country, with some of them noted for high levels of economic activities. Most of them are driven by the objectives of creating jobs, enhancing the entrepreneurial capacity of the people and commercialisation of research results. The initiative of developing small-business incubators in Nigeria was an offshoot of the establishment of the *Nigerian Incubators Systems Foundation* (NISF), a governmental agency charged with the responsibility of fostering the development of new incubators and the nationalisation of all quasi-incubators in existence prior to 1989. The foundation established a number of guidelines regulating the establishment of incubators in the country. The goals included among others the following.

- ◆ Provision of space for tenant workshops and offices on a leasehold basis
- ◆ Provision of a comprehensive range of facilities and services to tenants, including counselling and business planning

- ◆ Creation of opportunities for training to enhance business skills
- ◆ Other support services to help create innovative business start-ups

The first incubator in Nigeria under the new scheme was built in Lagos in 1989 with a rentable capacity of about 3 500 m² accommodating 22 units. This incubator, like most others, initially suffered from underutilisation because of inadequate basic infrastructure and support facilities. A number of similar incubators were established in other parts of the country like Kano, Aba and Enugu.

Currently, most incubators are sponsored by the government through its various ministries responsible for industries and economic development both at state and federal levels. To date, very few comprehensive studies have been done to assess small-business incubators in Nigeria. When Adegbite published *Business Incubators and Small Business Development: The Nigerian Experience* in 2000, there were only seven small-business incubators actively operating in Nigeria, out of which four were industrial-business incubators and the other were classified as technology-business incubators. These offered work spaces, infrastructural-support facilities and technical as well as management-support services. They also provided training and manpower-development programmes to entrepreneurs clustering in the incubators. Most of the incubators were government-sponsored, with a limited level of collaboration and funding from international agencies such as the United Nations Fund for Science and Technology Development (UNFSTD).

3.3.5 Links between business incubators and clustering

To conclude this section, we have to stress the links between incubators and the evolution of small-business clusters. Here we can distinguish several relationships.

- ◆ *Prelude to clustering*

An incubator can be set up where the local economy and fundamentals do not (yet) support the establishment of a fully functional cluster. The incubator acts as a pre-cluster in the developmental stage of the locality. Owing to the developmental stage of the particular region, all the fundamental needs for such growth, such as transformation of the economic structure and infrastructure upgrade, may not be present. The critical mass of small-business enterprises needed to catalyse the regional or local economy may still be lacking too. However, local players may start the long process of establishing viable business clusters by initiating the setting-up of incubators aimed at strengthening the

spatial economic process and local SME network. Ideally, this process will promote the emergence of business enterprises and help to deliver the much needed critical mass of small businesses at industry levels as well as set the platform for the emergence of clusters.

◆ *Focusing business traditions*

Where a dominant trade, which is linked to the tradition in an area, has emerged as a source of sustainable regional economic advantage and has become a hotbed for trade, incubators can be set up within the region to train and provide a skilled workforce, which can further strengthen such local trade. Thus, as already mentioned, in the city of Oshogbo in south-western Nigeria, a number of privately owned incubators exist in different parts of the city. They train and develop local skills and advance the trade within the region. One such incubator is linked to a local college and a university, whose graduates often set up their own firms and operate within the area. Thus, the incubator has helped to expand the cluster.

◆ *Basis for research centres*

Incubators can also be set up as a basis for research centres. This can be either as a private research centre or as forerunner to public research institutes. Corporate bodies, NGOs and local universities may set up incubators within a city or in close proximity to a prominent raw-material source for research and development activities. In some cases, a collaborative partnership may evolve where the research centre is funded by either an international aid organisation or public research funds while the incubator is managed by a local corporation or a consultancy firm. Technology incubators can also be located within an existing research park. According to Jackson and Rubens (2009), this form of incubator strategy has proved successful in the United States, where a number of universities in Florida have supported research parks that have technology incubators. This has aided the evolution of new enterprises, which have been allowed to remain and grow within the incubators.

◆ *Incubators within clusters*

Finally, incubators can also be set up as a supply source of technical skills for newly established clusters, i.e. a feeder institution to an existing or emerging cluster. The graduates of such an incubator can be supported to set up functional enterprises in the evolving cluster area.

3.4 TYPOLOGY OF MACRO-CLUSTERS

3.4.1 Introduction

In order to understand the dynamics and challenges in Nigeria's CDP, which is covered in chapters 7 and 8, this study looks in some detail at the clustering processes in other countries. This reveals a wide range of clusters with the structures, size and growth process differing substantially. In order to get these differences into perspective, it is necessary to first look at different types of clusters and the main characteristics of these types.

The literature on clusters distinguishes many different types, with Table 3.1 an attempt to summarise the defining characteristics of these identified types. The table reveals eight different categories of clusters, with each a different classification base, like different development phases, different sizes of firms active in the cluster and different factor endowments. The essentials of these eight categories are covered in sections A to H of Table 3.1.

Following this typology of clusters, brief subsections will now discuss the more significant types of clusters, with examples of actual cases interspersed. While the focus in this typology section falls on the differences between clusters or clustering processes, the remainder of the chapter will focus on common elements in the clustering process and preconditions for successful clustering.

3.4.2 Classification based on cluster-development phases [A]

Firstly, clusters can be classified based on the phases of their development. Unido (2000) points out three distinctive phases of cluster development. The *initial-phase clusters* (A 1) are defined as clusters at the early stage of their development. Usually, the cluster formation at this stage is driven by the demand for specific products. Agglomerations within a particular location are entirely based on the small businesses manufacturing such products. A small number of units/firms may trigger such cluster, and its growth is then a function of the individual successes of the firms within the cluster. Such clusters could also be driven by raw-material deposits or the agglomeration of specialised skills (A 2) which could trigger the convergence of small-business operators, sub-contractors and suppliers of raw materials as well as components to larger production plants. One characteristic of this form of clustering is that the initial cluster formation is often informal and unorganised.

Table 3.1
Typology of clusters

Classification base	Type of clusters	Defining characteristics
A Cluster phase of development	A 1 Initial phase clusters	Minimal number of units/firms Firms/units are often self-established Cluster growth dependent on success of existing firms Natural clustering based on high product demand often driven by private initiatives of large public-sector companies
	A 2 Raw material/specialised skills induced clusters	Raw material/component-driven Existence of large firms (private or public) involved in production/manufacturing, relying on key raw materials/components Existence of specialised skills Slow growth High cost, few competitors Existing firms contribute to the development of support institutions as demand for support increases
	A 3 Growth-phase clusters	Rapid development of the industry Rise of support institutions, including government bodies Entrance of new firms increase competition Rise of competitive technologies and the development of new markets
	A 4 Maturity-phase clusters	Clusters of firms slowing down due to over-capacity Extreme competition of firms within the cluster Strong input of research and development to reduce cost, increase productivity and create new products Elimination of weak units/firms
	A 5 Extinction-phase clusters	Technological advancements and changes in life styles reduce the demand for such products Firms producing raw materials, products or services are no longer on demand due to changes in life style

continued

Classification base	Type of clusters	Defining characteristics
B Firm's relationship within the cluster	B 1 Horizontal clusters	<p>Firms producing the same or similar products and services</p> <p>Firms process their raw materials independently to produce their products</p> <p>Firms market their final products themselves</p> <p>Little evidence of division of labour or specialisation within the production process</p> <p>Little or no evidence of supply chains</p>
	B 2 Large unit-based clusters	<p>Small firms clustering around large company/companies or production plant</p> <p>Small firms supply raw materials and components to large production units/plants</p> <p>Evidence of supply chain</p> <p>Small firms act as sub-contractors to large firms/production plants</p> <p>Evidence of backward/forward linkages</p>
	B 3 Vertically-integrated clusters	<p>Evidence of specialisation within the production process</p> <p>Evidence of strong division of labour</p> <p>Value chains exist</p> <p>Evidence of supply chains</p> <p>Different small firms producing different parts within the production process</p> <p>High degree of interdependence among the firms (inter-firm linkages and networking)</p> <p style="text-align: right;"><i>continued</i></p>

Classification base	Type of clusters	Defining characteristics
C Knowledge flow	<p style="text-align: center;">C 1</p> <p>Science-based clusters (biomedical, aerospace, ICT, pharmaceuticals, etc.)</p>	<p>Firms have direct access to research institutions and universities</p> <p>Products and services as research spin-offs from universities and research institutions</p> <p>High cost of research and development</p> <p>Patent-intensive</p> <p>Firms form linkages and collaborations with research institutions</p> <p>Innovative performance dependent on ability to import and build upon sciences developed in other countries</p>
	<p style="text-align: center;">C 2</p> <p>Supply-dominated clusters (forestry, services, etc.)</p>	<p>Technology imported via capital goods and intermediate products</p>
	<p style="text-align: center;">C 3</p> <p>Specialised supply clusters (e.g. computer hardware and software)</p>	<p>Research- and development-intensive</p> <p>Emphasis on product innovation</p> <p>Strong inter-firm linkages</p>
D Sizes of firms	<p style="text-align: center;">D 1</p> <p>Hub-and-spoke clusters</p>	<p>Dominance of several large and vertically-integrated firms, surrounded by small and less powerful suppliers</p> <p>Core firms act as anchor or hub to regional economy</p> <p>Strong linkages between core firms and smaller suppliers</p> <p>High degree of inter-firm co-operation with external competitors</p>
	<p style="text-align: center;">D 2</p> <p>Satellite industrial clusters</p>	<p>Dominance of large and externally headquartered firms</p> <p>Linkages of local firms with external firms</p> <p>Firms within cluster usually heterogeneous product/services producers</p> <p>Firms do not usually share common facilities/risks</p> <p>Little evidence of inter-firm networks/linkages within the cluster</p>

continued

Classification base	Type of clusters	Defining characteristics
D Sizes of firms cont'd	D 3 State-anchored clusters	<p>Dominance or presence of government-sponsored institutions and establishments, e.g. military bases, defence plants</p> <p>Agglomeration usually determined by political decisions rather than private initiatives</p> <p>Presence of small firms around such institutions acting as suppliers and sub-contractors to the institutions</p>
E Sectoral classification	E Traditional clusters (textiles, shoes and leather, tiles, furniture, etc.)	<p>Segmented by industrial sectors</p> <p>Could be found in regions with specific/competitive advantages</p> <p>Usually dominated by small locally-owned firms</p> <p>Consists of substantial intra-district trade among buyers and suppliers</p> <p>Low level of co-operation and linkages with external firms</p> <p>Could compete successfully in international markets</p> <p>Key source of competitiveness lies in trust, solidarity and co-operation among local firms</p>
F Factor endowment	F 1 Natural resource-bonded clusters	<p>Involves natural assets</p> <p>Clusters involve conversion of natural resources to tangible and intangible assets</p>
	F 2 Knowledge-based clusters	<p>Clusters deal with intangible resources</p> <p>Mostly in knowledge domain</p> <p>Mostly embodied in human beings and technology</p>
G Cluster organisation	G 1 Formal clusters	<p>Characterised by process of collective activities</p> <p>Development of organisational structures</p> <p>Forms of co-operation designed to tackle common problems</p> <p>Strong inter-firm networking</p> <p>Activities systematically organised</p> <p>Firms within cluster subjugated to common rules, regulations and practices</p>

continued

Classification base	Type of clusters	Defining characteristics
	G 2 Informal Clusters	No systematic organisation of activities Low inter-firm linkages Core players usually small and micro-enterprises No innovative tendencies Low entry barrier Low level of co-ordination and networking
H Level of development	H 1 Artisanal clusters	Low level of productivity Comprise mainly micro-enterprises Low-income consumers of products/services Use of primitive and obsolete tools Little innovation Producers are illiterate or have minimal education background Dominant role of middle-men and traders Low level of inter-firm linkages No external networking with support institutions Passive in external marketing
	H 2 Active clusters	Presence of large firms within cluster Firms use higher-skilled workers Supplies for local and export markets Active in marketing High level of internal and external linkages
	H 3 Dynamic Clusters	Extensive trade network Homogeneity within clusters with regard to size, technology and served markets
	H 4 Advanced Clusters	High degree of inter-firm specialisation and co-operation

SOURCES: Adapted from Unido (2000), Maskell (2001), OECD (1999), Markusen (1996) and Tanbunan (2005)

Another significant category of clusters, identified by Unido, is the *growth-phase cluster* (A 3). Here, the number of firms/units has begun to expand, thus raising the need for support services. This could also be in response to the rapid growth of the industry, which creates inter-firm competition. The firms within the cluster strive to sharpen their competitive edge through technological and new market developments. *Maturity-phase clusters* (A 4) consist of firms, which due to increasing capacities and higher competitive pressures experience

declining demand for their products and services. The strategy now focuses on areas of cost reduction through investments in research and development, exploration of new markets and products as well as increasing productivity. In the *extinction-phase clusters* the stiffness of competitive pressure forces weak firms in the cluster to close down (A 5), thus narrowing the scope of participation within the cluster.

3.4.3 Classification based on inter-firm relationships within the cluster [B]

Secondly, clusters can be classified based on the type of relationships among firms/units within the clusters. There are three different types of clustering based on this classification. *Horizontal clusters* (B 1) are defined as clusters where there is agglomeration of firms with equal positions in the supply chain of a particular sector. These are firms producing the same or similar products and services within the same cluster (Unido 2000). As a result, these firms often have complementary expertise, which creates the basis for networking among them (OECD 1999). Relationships among firms in this type of cluster could be quite challenging as firms within the same industry may not trust one another enough to share strategic information. However, where issues bordering on trust and confidentiality can be managed, this form of network has proved useful in boosting competitiveness and creating new business opportunities (El-Meehy 2003, Tasi and Wen 2003). Firms can, for example, collaborate in research and development activities, share common facilities and infrastructures, engage in the joint purchase of raw materials and components to take advantage of bulk purchase discounts and rebates as well as engage in joint marketing campaigns, establish common brand names and collaborate in product quality control and standardisation efforts. Depner and Bathalt (2003) and Maskell (2001) add that horizontal clustering provides opportunities for firms to closely watch other firms and compare their economic performance. An example of such clusters in Nigeria is the Auto Parts Cluster at Nnewi, South-Eastern Nigeria.

Vertical clusters (B 3) consist of firms with complementary products and competencies, which are often linked through supplier and customer relations (Depner and Bathalt 2003, Maskell 2001). Individual firms within the cluster specialise on different parts in the production process, thus strengthening the supply chain. Such agglomeration of producers gives rise to a substantial demand for specialised inputs, e.g. when the output of one firm is an input to another firm's operation within the same cluster. The inherent advantages arising from this form of co-operation is that it reduces transportation costs and ultimately product costs. It also induces value-chain services and lures suppliers and service firms closer to the

cluster location. A number of such clusters exist in Nigeria, including the Sawmilling Cluster located in Lagos.

Another type of cluster based on inter-firm relationships is what Unido (2000) called *large unit-based clusters* (B 2), which could emerge as a result of the location of a large production plant or large purchasing companies in close proximity to raw material sources. Small firms cluster around such facilities, including companies acting as sub-contractors for the supply of raw materials and components. There may even be the emergence of small firms offering value-chain services within the vicinity of the established production plants and large purchasing companies. There may also be a form of backward or forward integration where such production plants either set up small firms or establish a linkage with small firms for supplying raw materials and other value-chain services to the production plants.

3.4.4 Classification based on knowledge flow [C]

Clusters can also be classified based on *knowledge flow* (C 1 to 3). This concept typifies the advancement of knowledge- and research-based spinoffs leading to product development and innovation. Most clusters of this nature were set up as centres where institutional research spinoffs are converted to products and innovative services. Clusters focusing on ICT, biomedics, pharmaceuticals and aerospace are typical examples of *science-based clusters* (C 1). These clusters usually have direct access to basic and advanced research institutions as well as universities (Florio and Ozzimo 2006). The commercialisation of research outputs leads to product development and innovativeness. Often there is strong evidence of linkages and collaborative efforts between the cluster firms and research institutions. In some cases, this form of clustering is the result of a deliberate strategy designed to create high-tech poles around cluster centres (OECD 1999: 380).

3.4.5 Classification based on the size of firms [D]

Clusters can also be classified based on the size of clustered firms. This differentiation is based on the earlier work of Markusen (1996) who differentiated three distinct categories, which were typical of Italian industrial clusters or districts. These include the *hub-and-spoke clusters*, *satellite industrial clusters* and *state-anchored clusters*. Hub-and-spoke clusters (D 1) – see Figure 3.2 – are characterised by the dominance of one or several large and vertically integrated firms or facilities surrounded by small and less powerful suppliers. These large firms act as a hub around which smaller firms are tied by origin or exchange relationship (Smith 2006). This exchange relationship could be with a local branch plant, a

supplier network, customers and competitors both locally and from outside the region. Smith (2006) also pointed out that such relationships may not necessarily be collaborative and cooperative in nature, but rather on a contractual basis. Besides fostering industrialisation at the regional levels, the core firms could act as anchor or hub to the regional economy (Zhang and Van Bulcke 2007). Gray, Golob and Markusen (1996) identified a number of successful hub-and-spoke districts in the USA and attributed their successes to their distinctive industrial structures and relationships with external organisations and markets.

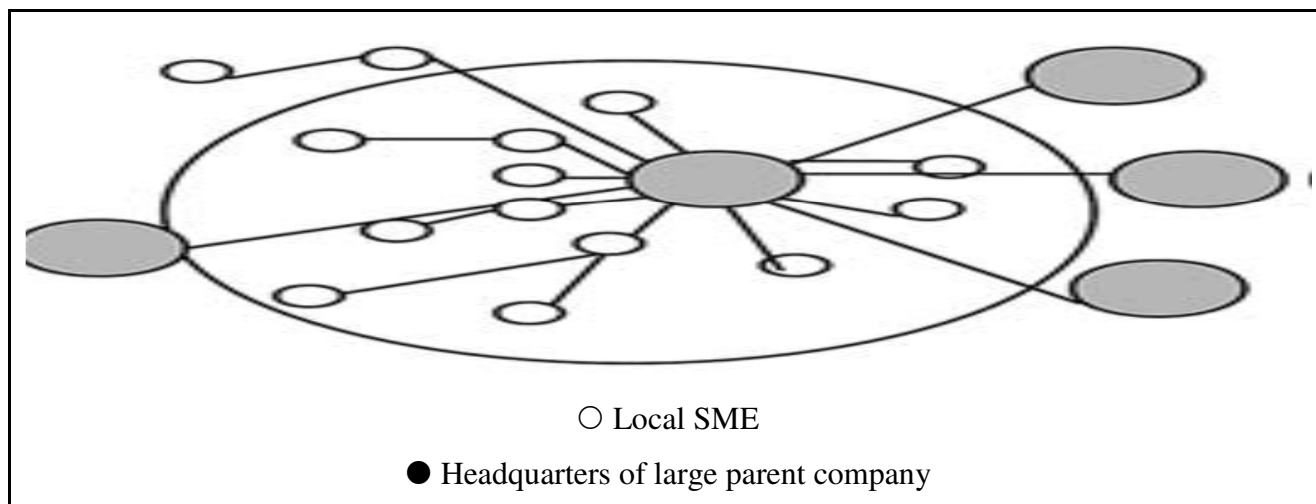


Figure 3.2: Hub-and-spoke cluster

SOURCES: Adapted from Markusen (1996) and Castellano (1999)

Among these identified clusters is the hub-and-spoke district in the Seattle region located in the state of Washington (USA), where the Boeing Corporation is located. The presence of the corporation in Seattle acted as a catalyst for small and medium-sized firms operating as subcontractors as well as material and component suppliers in the cycle of production and supply chains. This development positively affected the economic growth of the Seattle region, not only in the area of technological advancement but also in employment growth when compared to other regions in the United States. Seattle is also home to other hub-and-spoke clusters such as the computer and software cluster where Microsoft is a dominant player and the biotechnology clusters, where over 60 high-profile biotech firms are currently operating.

The experience of Seattle has also shown that a region can be transformed into an economic hub where sustainable economic development can be achieved due to the agglomeration of

several strategic-sector clusters through hub-and-spoke-cluster formations. This is a big lesson for Africa in general and Nigeria in particular.

Another type of cluster in this category is the *satellite industrial cluster* (D 2). Unlike the hub-and-spoke clusters, a satellite cluster is characterised by the dominance of large and externally headquartered firms (Zhang and Van Bulcke 2007). The firms operating within such clusters are predominantly branch plants of large external firms with headquarters located elsewhere and with only limited linkages to other firms within the cluster.

One of the challenges confronting such clusters is the low level of linkages and networking among small firms located within the cluster. This is because the firms within the cluster produce heterogeneous products and services, leaving little or no platform for interaction and collaboration among the individual firms.

In some cases, the rise of such larger clusters could emanate through state-directed initiatives. In Europe and the USA, public policies have driven the emergence of clusters around or within the vicinity of government-sponsored institutions and establishments such as military bases, defence plants, public laboratory offices and government-established research institutions. Such clusters are termed *state-anchored clusters* (D 3), implying that such agglomerations of firms are usually initiated by political decisions rather than profit-seeking private ventures. Denver in Colorado (USA) and the so-called M4 Corridor, which is an area of high-technology firms which stretches from West London to Bristol in the United Kingdom (with a huge presence of several large government research establishments) are two examples of state-anchored cluster formation (Smith 2006).

3.4.6 Classification based on the sector of industrial activities [E and F]

Clusters can also be classified based on the dominant sector of industrial activities. Typical of this are the *traditional clusters* (E), based on traditional activities such as textile and fabrics production, art and crafts, leather and shoe production, furniture making, etc. Such agglomeration can be found in regions with distinctive specialisations and competitive advantages. Zhang and Van Bulcke (2007) illustrated the traditional clustering using the Third Italy concept of clustering, linked to the Italian Industrial Districts of the late 1970s. According to them, clusters were dominated by specialised industries segmented by districts with distinctive regional comparative advantages in areas like textiles, shoes, floor tiles and mechanical engineering. Unido (2000) explored a number of such clusters existing in India

and pointed out that they are often traditional skills-based industrial clusters active in rural areas. They have also become strong export-orientated clusters, whose products compete successfully on international markets. Factors such as availability of abundant local raw materials and special skills required to make such products have helped shape the success and growth of such clusters. It is also important to note that such clusters are often dominated by a large number of small, locally owned firms, with strong inter-district trade bundling among buyers and sellers. However, there is also evidence of low levels of co-operation and linkages with external firms and clusters.

Two other categories of clusters, closely related to local natural resource bases (F 1) and the higher-education base (F 2), can also be included here as *sector-focused clusters*.

3.4.7 Classification based on the level of development of the cluster [G and H]

Clustering can also be classified based on the level of activities within the clusters. This level could be related to the formality level of enterprises in the cluster (G 1, G 2), the volume of transactions, the number of firms operating in the cluster and the level of interactions that exist both within the clusters on the one hand and between the cluster and other external agents, such as support institutions serving related clusters. Tambunan (2005) pointed out four distinctive types of clusters based on the level of development as shown in section H in Table 3.1. *Artisanal clusters* (H 1) have predominantly micro-enterprises with no developmental objectives, both in product development as well as technological integration, and they are showing low or non-existent innovativeness. Enterprises operating within such clusters lack market-expansion strategy, and products of such firms are targeted at low-income earners. There is also no evidence of inter-firm linkages or networking, and there is passivity in marketing. Such clusters are often located in isolated or backward regions, which cannot attract support infrastructures (Tambunan 2005).

A second type of cluster category based on the level of development is *active clusters* (H 2). This type of cluster exhibits a high level of maturity, with advanced forms of operation and market dynamism. This includes access to both local and international markets, high levels of both internal and external linkages and networks as well as high levels of technology application to both production and operating processes of firms within the clusters.

Still in this group some clusters are said to be *dynamic* (H 3) in the sense that they are more pronounced in the area of linkages with both external firms and clusters in foreign countries.

Firms within these clusters go as far as forming alliances with international firms in the areas of product development, branding and franchising. This largely aids knowledge dissemination, learning and technology transfer, although problematic features of such clusters according to Tambunan (2005) may be internal heterogeneity among firms within the cluster. Firms specialising on different and less related products and services co-exist within the cluster. This enhances cluster diversification and encourages value-chain services. Moreover, the level of inter-firm competition is reduced as each firm specialises in its distinctive area of competence.

Finally, an *advanced cluster* (H 4) is a fully developed cluster with a combination of both small and large firms presenting a complex structure (Tambunan 2005). Characteristics that define such clusters include a high rate of learning and knowledge creation. According to Mwanmila, Trojer, Diyamatt and Temu (2004) such learning and knowledge creation could be achieved through knowledge networking, technological transfers and intensity of research and development. Tambunan (2005) therefore observed that in most advanced clusters, there is a high degree of collaboration efforts among universities, research bodies and government institutions active in advanced cluster development.

3.5 PLAYERS IN THE CLUSTERING PROCESS

The review of the different types of clusters and their dynamics has revealed a wide range of players who have participated in an active or catalytic role in those processes. They relate (i.a.) to the public sector, international organisations and businesses, local formal as well as informal enterprises and different types of non-profit and non-governmental bodies. For a thorough understanding of the clusterisation process (and what can be learned for Nigeria's efforts in this sphere), it is important to get the roles and possible interaction of these different players into perspective.

This section presents a brief overview of the full range of player categories, followed by a discussion of certain longer-run trends and issues related to the interaction of players. The discussion of international experience in clusterisation in Chapters 4 and 5 will then reflect on these differences in selected countries and areas.

3.5.1 The range of players in cluster-development processes

Table 3.2 shows twelve categories of players relevant for clusterisation processes. The first four categories relate to the public sector, which is usually viewed as the main driver or facilitator of clustering processes.

At each of the three levels of government (central, regional or state and local) we can distinguish efforts through government or municipal departments on the one hand and efforts co-funded by the public sector, but implemented through separate bodies or programmes on the other hand. In addition, parastatals (like state-owned rail, shipping or airline companies) can play a most important role in clustering processes.

Parallel to the parastatals there are universities, research centres and different types of non-governmental organisations, which can play significant catalytic roles in clusterisation processes. In developing countries international aid organisations (like the World Bank and US-Aid) may also play a facilitatory role in the support of particular cluster projects (e.g. help to establish research facilities or incubators).

On the private-sector side, Table 3.2 includes the four size categories of private enterprises (sectors 7 to 10). Depending on the sector focus of the clusterisation process, enterprises in each of these size categories can play important roles. For example, informal local crafters can play an extremely important role in the dynamics of culture-based local craft clusters. At the other extreme, multinational motor manufacturers play a critical role in the evolution of local automotive clusters (as shown in Nigeria).

Aside from the sector-focused firms and supply-chain-linked firms, the cluster dynamism can also be strengthened by the existence and actions of business chambers (or sector associations) and a wide range of private professional-service suppliers.

3.5.2 Shifts in the roles and significance of players

If we look at clusterisation processes over the past decades, and if we contrast clusterisation dynamics between developed and underdeveloped countries, a few important differences or shifts can be noted. We can briefly refer to them here, with the reviews in the next two chapters looking in greater depth at some examples of these differences across the globe.

Table 3.2
Participants relevant for cluster processes

	Participants/players	Examples of engagement
1	Central government * Ministries * Specific (sub-)departments * Government programmes/funds	Regional development, higher education, transport, export promotion, industrial development, tax incentives, investment co-funding
2	Provincial, state or regional bodies * Government departments * Regional bodies/programmes	Agriculture, transport, industry, etc. policies/programmes Support for incubators, co-funding of investments
3	Local authorities * Municipal departments * Local government-funded bodies/programmes	Local economic development Erection/co-funding of local incubators
4	Parastatals, e.g. electricity supply, harbours	Infrastructure development
5	Non-governmental organisations Universities, technical training bodies, research centres	Management training, technology, research and development
6	Business associations, sector bodies	Networking and information transfer
7	Multinational corporations Production, finance, services	Strengthen local/global business linkages
8	Local (large) corporations Production, finance, services	Sector research, outsourcing to local small enterprises, supply of business finance
9	Local medium and small enterprises	Sector-specialisation and innovation
10	Local informal enterprises	Filling informal business gaps in evolving clusters
11	Private professional services	Strengthening service facilities in specialisation fields/sub-sectors
12	International aid agencies	Training programmes, investment grants

SOURCE: Own compilation

◆ *A lack of players in less developed economies*

The range of player categories in Table 3.2 reflects the pattern found in well developed countries, which have comprehensive (and effectively functioning) public-sector bodies at all three levels. They also have an extensive parastatal sector and a wide range of NGOs. Similarly, the private-enterprise categories contain significant numbers of firms in each size group. The same applies to business organisations and business-support services.

In sharp contrast, underdeveloped countries often have very weak local- and regional-government structures as well as poorly developed and under-capitalised parastatals. To make matters worse, the existing bodies are often poorly staffed, managed and equipped.

Business associations barely exist, and private-business-support services are equally scarce. In the private-business sector one finds few local large corporations, with the business scene dominated by medium, small and (informal) micro-enterprises. Thus, the basis for the unfolding of clusters is often too small to pick up momentum.

This dilemma makes the task of cluster development all the more difficult and the effective interaction of cluster support more critical.

◆ *Greater engagement of private-sector players*

As shown in earlier parts of this chapter, the public sector (i.e. central, state and local governments and other government-linked bodies) has in the past been the key player in most significant CDPs. It provided funds, policy directions, support staff and overall guidance in policy shifts. Given the relative weakness of government structures in developing countries, and given certain fundamental shifts in the technological basis of modern economies (e.g. the ICT revolution), there is a trend towards greater reliance on private-sector initiatives in the triggering of cluster-development thrusts. This implies the need for relatively strong interaction of larger local and foreign firms in the cluster-focus sectors and the closer co-operation between local firms, business associations and business-service suppliers.

3.6 COLLABORATION AND PARTNERSHIPS IN CLUSTERS

A world of increasing global competition, great income and wealth inequalities and heightened expectations as well as demands around economic development in countries and regions strengthens the need for rapid cluster development. To achieve this it has become clear that greater co-operation and interaction between the different public- and private-sector players is essential. Government bodies cannot pursue cluster support without the active engagement of the different private-sector players and *vice versa*. This goal of forming effective partnerships may not be achieved quickly or easily, but it seems essential for sustainable cluster development. This section tries to put the search for such a new PPP paradigm into perspective.

Among the advocated roles of the public sector in clustering efforts is the development of sound overall economic-development policies. A government is expected to support the development of all clusters rather than being selective. Ketels (2003 b) argues that government's role in cluster initiatives should be that of a *facilitator and participator*, while

the greater involvement of other parties, including the private sector, should be encouraged. The government should create an enabling environment that will set a platform for others such as research and academic institutions as well as corporate bodies, to fit in effectively.

Porter's Diamond Theory, which is anchored in factors like inter-firm rivalry, industry factor inputs and supporting industries, actually encapsulates the overall role of government in cluster development. The following are a few key points.

- ◆ The government, through its direct policies, is fostering local competition by eliminating barriers inhibiting such competition. It also strengthens the capacity of local clusters by attracting foreign investments around the clusters. Government can also focus export promotion around the clusters, e.g. by sponsoring firms to participate in international trade fairs.
- ◆ The government can create research institutions and specialised training programmes, and it can encourage local universities in their research efforts towards industrial clusters by creating a linkage between cluster research and technological as well as innovative developments. In fact, university research can become a spin-off in product development. This process will, of course, necessitate adequate funding of the universities and research institutions by the government. While this can effectively work in developed countries, it seems more difficult in underdeveloped countries such as Nigeria and Ghana, where less attention is paid to such institutions by the government.
- ◆ The government can encourage related and supporting industries around clusters by sponsoring forums aimed at bringing together cluster participants and value-chain partners.
- ◆ In order to increase demand, government can streamline regulatory standards within the clusters and also sponsor independent testing centres as well as product-rating agencies. This should create more confidence with regard to the products produced by the cluster firms, thereby stimulating demand.

To achieve these tasks, collaborative efforts are needed in the CDP. According to Ketels (2003 a: 15) the new paradigm has shifted economic development towards a “collaborative process that involves governments at multiple levels, companies, teaching and research institutions, and institutions for collaboration”.

The concept of collaboration as a new paradigm is also echoed by the Triple Helix approach to cluster development propounded by Etzkowitz (1997), which focuses on collaborative efforts of government, universities and the private sector. This model has been well received in most developed countries and is being offered as a basis for an effective cluster-development approach in developing countries (Etzkowitz and Mello 1994, Shinn 1997). The model is an offshoot of the *double helix* model which emphasised the need to pull government, universities and industries together for the purpose of improving knowledge spill-over and sustainable development. It was to create a synergic platform of partnership among the three participants. This has, for example, worked effectively in Indonesia, where universities, with their special expertise in technology, have tried to create applied technology for local SMEs linked to industry. They helped SMEs toward technical assistance funded by certain industries (e.g. the automotive industry) to produce spare parts for the industry (Irfan, Manullang and Dou 2004).

Referring more specifically to Japan, Schmitz (1992: 6) argues that, despite the fact that the public sector plays a dominant role in the success of clusters, international experience shows that where cluster promotion is successful, it is based on public-private actors working together. For example, in the area of capacity building, which has been identified as an important factor for SME growth, the private sector has played major roles in various clusters in Japan. Their role had previously been played by provincial and district industrial-development officers, who actually lacked expertise and the capability to be effective. The involvement of the private sector through enterprises, associations, co-operatives and consultants helped fine-tune local initiatives.

Also in the area of inter-firm linkages Barry (1997: 15) observed that a number of institutions have played significant roles in creating effective interaction among small firms in clusters. Early initiatives usually came from private-sector institutions (e.g. business associations), with the collaboration or at least non-opposition of those representing labour and government always being useful. For instance, experience in Italy shows that book-keeping, accounting and other services are provided by trade associations to SMEs. Other examples were information sharing, which substantially reduces the research and development costs and also strengthens SME links with research and educational institutions (Barry 1997: 16, Klein 1995: 15-16, Pyke, 1995: 9).

Becattini (1990) shows that even though banks in Latin America are generally reluctant to lend to SMEs, cluster arrangements (backed by World Bank credit guarantees) do increase their willingness to lend. Similarly, skills acquisition and transfer, especially among high-tech firms and manufacturing clusters, have been enhanced by education and training institutions becoming active in cluster development (Barry 1997: 16; Kim and Nugent 1999). Figure 3.3 typifies the role of various actors in a cluster and the potential for collaboration among the actors relative to SME firms within the cluster.

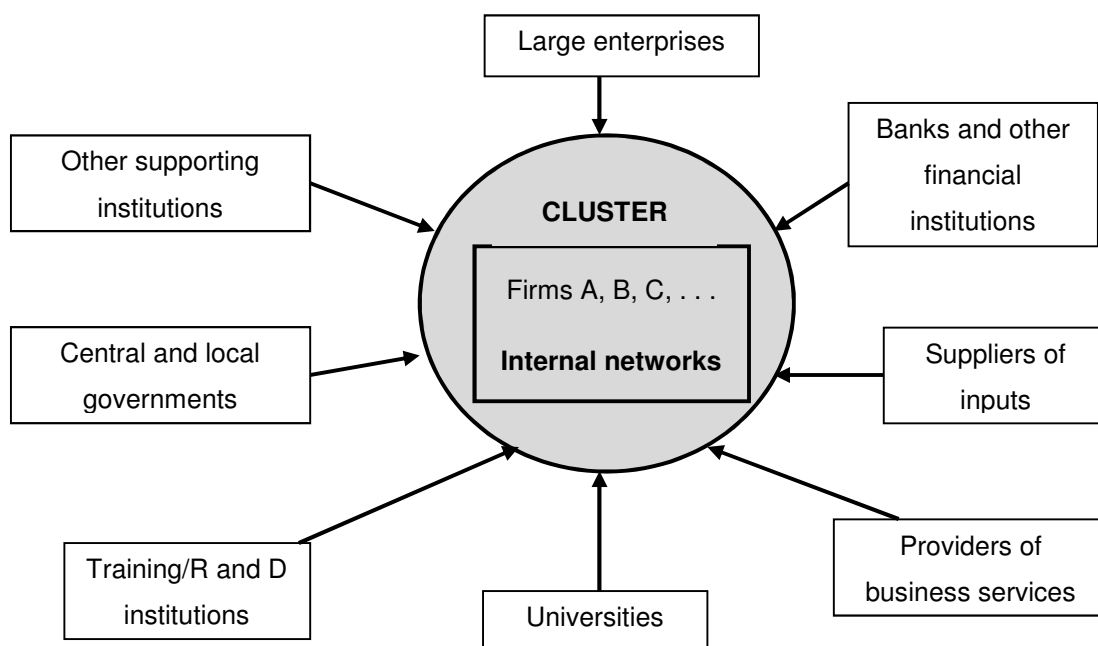


Figure 3.3: Internal and external networks of clusters

SOURCE: Tambunan 2005: 4

In both developed and developing countries the PPP model has been one of the ways in which public-sector institutions engage the private sector in policy formulation and implementation (JSBRI 2006, Tello and Tavera 2010, OECD 1999). In fact, in projects and programmes that need an appropriate business climate and a strong co-ordination network to guarantee measurable economic benefits, the public-private partnership model seems essential.

Taking the PPP model of cluster facilitation one step further, it is argued by Singh (2006) that structural limitations of government agencies and capacity limitations of the private firms call for a professional intermediary organisation (or SPV) to act as an efficient PPP manager. The expected areas for action would include (i.a.) capacity building, project management and the co-ordination of infrastructure projects.

3.7 THE TRIPLE-HELIX CONCEPT IN CLUSTER DEVELOPMENT

To enhance the competitiveness of the small-business sector in both the domestic and international markets, the enabling environment for their operations needs to be in place. Obstacles inhibiting this must be addressed. Cluster-development initiatives are one of the techniques to address such challenges. Zhou (2008) emphasises the need for effective collaboration in cluster-building efforts to achieve the level of results needed. In this context, the triple-helix concept, introduced by Etzkowitz and Leydesdorff in the 1990s, sees collaborative networks between government, universities and industry as critical in driving cluster development (Etzkowitz, de Mello and Almeida 2005). Teras (2008) describes it as a collaboration of key actors of the innovation system.

Such collaborative networking in cluster development goes beyond the mere involvement of various actors driving and advancing their individual programmes and initiatives in a supportive and complementary manner. Although each of the component parties of the triple helix can initiate cluster-development programmes and pursue them independently as a function of their individual goals, at some point they will find a certain level of involvement of other parties to be indispensable. In some cases, the buy-in of other parties may be lacking, and the level of their commitment to the initiative may be shallow. Zhou (2008) observed that where the government pulls such initiatives while other parties are mere passive participators, there are tendencies that universities and industry might lose flexibility. On the other hand, there are initiatives that are driven by universities and industry, either separately or jointly, to the exclusion of the government. However, the passivity of government in such initiatives may not guarantee the kind of enabling and regulatory environments to produce the desired effects.

Rasak and Saad (2008) categorised the collaborative networks of the three agents of the triple-helix triangle into three evolutionary processes. They believe that the evolutionary processes are transitory as depicted in Figure 3.4 and that they are subject to dynamic change as the partnership progresses.

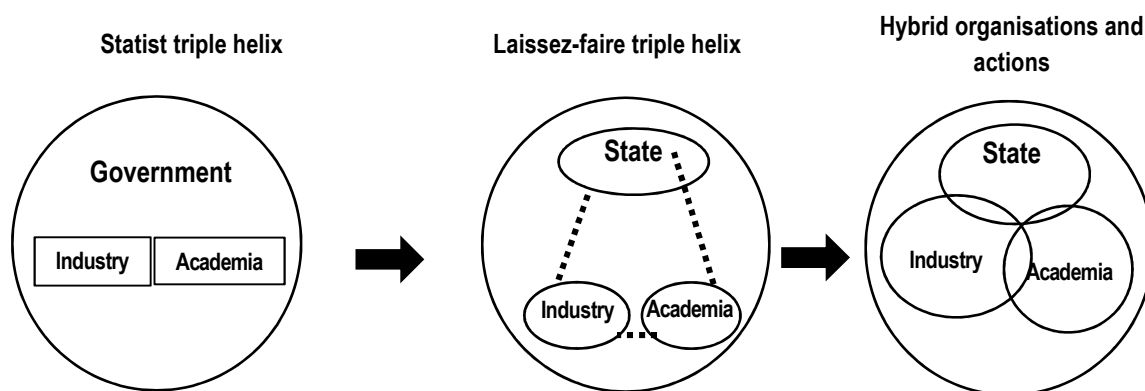


Figure 3.4: Evolutionary process in transition

SOURCE: Adapted from Rasak and Saad (2008)

In the *Statist Triple Helix* the government is the initiator and facilitator of key innovative projects (Zhou 2008), and prescribes what the role of other actors should be rather than collaboratively involving the parties. The obvious disadvantages of this approach include excessive reliance of both the university and the industry on government, resulting in their passivity and inertia. It may also hamper innovation as government capacity may be too overloaded to support universities and industry, which is often the case in underdeveloped regions.

Etzkowitz (2003) describe *laissez-faire triple helix* as an arm's length relationship among governments, universities and industries. This happens where each party does its own thing in its own way. This has seen the emergence of a number of privately-driven cluster programmes with little or no direct government involvement. On the other hand, a *hybrid form of triple helix* is where there are mutually beneficial interactions and relationships between the state, universities and industry in cluster building. Razaak and Saad (2008) noted that the institutions involved can maintain their individual distinctive characteristics, while at the same time accepting the role of others. All individual participants are conscious of their roles and understand that collaborative efforts and key contributions of the players are based on the mutual trust and understanding of the parties towards the project. Such a hybrid triple-helix approach focuses on innovations that ultimately help organisations to be globally competitive. Much depends on the active interactions among strong academic research bodies (universities), dynamic entrepreneurs, the availability of risk capital (private-sector institutions) and the supportive policy framework of the state.

With the triple-helix collaborative approach to cluster building, there is a belief that the presence of companies and other business institutions denotes a kind of coherent business focus relative to the project. This guarantees a broad understanding of the various business environments related to training and research institutions, regulatory institutions and financing institutions (Clar, Sautter and Hafner-Zimmermann 2008). Each of the actors can focus on playing a distinctive role in a particular need area. For instance, the government can concentrate on creating an enabling environment where other actors can invest in. Where government may not be able to provide all infrastructural services such as electricity, good road networks, telecommunication and security, other actors may leverage on the platform created by government to also invest in these areas. The private sector can provide financing to the clustered firms, either through direct funding or assisted via credit-guarantee schemes. They can also provide a linkage to external sources of medium- and long-term finance through international funding institutions. The universities can set up research centres within the clusters (possibly assisted by multinational companies operating in the clusters), commercialise research ideas and provide solutions to small firms' operational needs through training, mentoring and coaching.

Also under the collaborative platform, competence assessments can be carried out among the triple-helix players to determine the role played by each of the participants, with a view to encouraging well focused and solution-based participation. andersson, Hansson, Serger and Sorvicv (2004) advocate a Competence Assessment Mapping Exercise which profiles the capacities of the different players based on their core competences and expertise.

3.8 CONCLUSION

Agglomeration or clustering of small business is one significant path to help address small-business challenges in all parts of the globe. It has the potential to increase the capacity of small businesses to innovate, enhance networking and create linkages among firms ultimately leading to inter-firm learning and sharing of information, thereby developing inbuilt capacity to solve common challenges inhibiting their operations. Such agglomerations can occur either through business-incubation systems or through broad-based small-business clustering. Each of these forms has their peculiarities and features. The dynamism of any effective cluster programme is dependent on a number of factors, including the objective of the programme itself, the principal drivers of the cluster programme, the diversity of players involved in it as well as the significance and the level of collaboration among the players in the cluster process. Across the world cluster strategies that have been

effective in supporting small firms, have shown to be rooted in strong commitments of *both* public-sector institutions and private-sector organisations. The concept of Triple Helix in cluster building emphasises the collaborative network existing among the government, university and industry in driving cluster-based initiatives. This concept emphasises a broad-based collaborative partnership that goes beyond the individual commitments of players in the process.

Against this background of the clusterisation process (which is proposed for Nigeria as a critical step in its small-business-development efforts), the next two chapters will look in greater detail at international examples and trends of clusterisation.

CHAPTER 4

INTERNATIONAL EXPERIENCE WITH CLUSTER DEVELOPMENT

4.1 Introduction

In Chapter 2 small-business clustering has been identified as a critical element in efforts to address obstacles limiting the growth and competitiveness of small businesses. The obstacles include access to finance, infrastructure provision, business-skills training, business networking, access to information as well as technology and inflexible regulatory practices. These obstacles are not unique to Africa but affect small businesses all over the world.

Against that background, Chapter 3 looked at the nature and diversity of business clusters with a view to explore the broader context of small business clustering and its potential impact on the growth and competitiveness of small businesses. The literature review in Chapter 3 did not look into the clustering strategy of specific countries nor in any detail at potential lessons, which those strategies might have for a country like Nigeria. To better understand the challenges facing Nigeria in this context we need to explore a number of examples in different countries around the globe of the role and effectiveness of clustering processes.

From the diversity of continents and countries, a limited number had to be selected, based on the uniqueness of their economic and socio-political development trajectory and their comparability to Africa in general and Nigeria in particular. To this end, six countries, cutting across three continents, are discussed in this chapter. These countries are Japan, India and Indonesia in Asia, Hungary and Italy in Europe and Brazil in South America. African examples of clusterisation are left for the next chapter.

The Asian countries chosen for country reviews of clusterisation policies provide a unique blend of technological sophistication and complex socio-political structures that somehow mirror Nigeria's peculiar circumstances. Japan provides a picture of a highly developed, sophisticated and technologically advanced economy, which provides a rare economic-development model in the south-east Asian economic and socio-political-development context. This seems useful for Nigeria and other African countries, which have often looked up to Japan in their economic and technological-development aspirations. India's technological drive is also relatively sophisticated, but challenged by its large population,

high levels of poverty and complex socio-economic structures, which are in many ways comparable to Nigeria. Indonesia, though not as sophisticated as Japan and India shares an equally complex socio-economic development trajectory with Nigeria.

The countries of Europe, which are explored (Italy and Hungary), also provide distinct learning opportunities for Nigeria, based on their respective unique socio-economic and political circumstances. Italy is a Western European country with a relatively sophisticated economic structure but with a strong socio-economic dualism between the well-developed north and less developed and once impoverished south. Hungary is a country in transition from a socialist to a market economy, which also had to grapple with issues such as corruption, militarism, poverty and an economic base largely dependent on neo-colonialism like Nigeria. Yet, these countries in transition have been able to stem the tides of their economic under-development and are now advancing progressively.

Some of the Latin American countries also provide a socio-economic and political-development trajectory with parallels to Nigeria. Brazil is the focus of analysis because of its leading role and the dominant position it occupies in Latin America, which again mirrors Nigeria's peculiar circumstances in Africa.

In each of these countries the focus falls on the overall process of clusterisation as it is spread over the country or is pronounced in specific regions or places. We also focus on the role of different players in the clusterisation process, examples of particularly successful clusters and general lessons to be learned from the country cases.

4.2 Clusterisation in South-East Asia

The three Asian countries selected for the review have a relatively large population: India has a vast 1,1 billion inhabitants, Indonesia has 245 million (which exceeds Nigeria's 180 million) and even Japan has 127 million. In terms of development level, Japan is a highly developed country, while Indonesia and India have *per capita* income levels of only a fraction of Japan's (\$4 530 and \$3 620 respectively in 2010, compared to Japan's \$35 500 level and Nigeria's \$2 300 *per capita* level).

In the three Asian countries the small-business sector has played a major role in the long-run process of economic development. Their governments have played a significant and persistent role in helping to address the problems faced by small enterprises. In these efforts,

clustering processes often played a significant role, with the PPP concept of triple helix relevant in each country. As the discussion will show, other common aspects include the collaborative platform of university, government and industry, focused involvement of public-sector-driven infrastructure development, strong economic-development policy anchored on technology upgrades, the involvement of strong local sector associations as well as focused strategies driving export promotion among SMEs (Tambunan 2006).

4.2.1 Japan

4.2.1.1 *Key features of Japanese clusters*

Japan's cluster strategy is built upon the government's industrial and technological efforts to support regional economies. The core of the strategy is to foster collaboration and networking among industry, universities and government under the triple-helix model. Against this backdrop, the government's industrial-cluster strategy was anchored on developing new commercially-orientated technologies that meet the competitive demand of international markets and strengthen incubation capabilities by establishing facilities to support new and emerging businesses (JSBRI 2007: 297). Technological capabilities were built through research spin-offs and more enhanced ways of doing business, thereby strengthening the competitive capacity of small businesses.

The strategy emphasised linkages and networking, not only among cluster firms but also between clusters and external supporting institutions. These linkages deliver advantages and benefits to the small businesses, particularly in the areas of savings in transportation costs, purchasing costs for raw material and the cost of human resources due to the geographical concentration of enterprises. Other advantages related to the clustering of human resources, facilitation of information exchange, reduction of uncertainty and knowledge spill-over (JSBRI 2003: 208, Marshal 1920, Krugman 1991). A survey of SME clusters in Japan showed very high ratings of benefits among SME clusters as depicted on Table 4.1 below.

The table presents the number of respondents who consider a specific source of advantage important as a percentage of the total number of firms covered in the survey. For example, in *All industries* (as stated in the first column) 42,6 per cent of 471 clusters considered specialisation and division of labour as an important advantage of clusterisation. The conclusion drawn from that is that agglomeration occurs in a cluster because it can support suppliers who possess specialised skills. The table shows significant differences in the responses among four different sector types of clusters and it shows which cluster activities

are regarded as more valuable. A very low percentage of respondents found no advantage of clustering.

Table 4.1
Benefits of Japan's clusters by industry response

Advantages	All industries per cent	Textile and clothing per cent	Wood products and furniture per cent	Stone, clay and glass per cent	Metal products and machinery per cent
Ease of procurement	42,3	23,9	50,7	59,3	50
Access to labour market	6,8	5,1	5,5	3,7	8
Availability of skilled workers and engineers	10,0	9,4	13,7	5,6	8
Specialisation/division of labour	42,6	53,6	47,9	31,5	64
Access to supplier/subcontractor	24,2	30,4	23,3	13,0	38
Access to customer base	10,8	11,6	12,3	13,0	6
Competitive environment	19,5	16,7	20,5	25,9	14
Diffusion of technology and technological co-operation	31,2	37,6	26,0	46,4	16
Opportunity for business alliance	11,9	8,0	13,7	14,8	10
Access to market information	24,8	29,0	16,4	16,7	24
Regional policy	27,4	26,8	23,3	20,4	28
No advantage	2,8	2,9	1,4	1,9	—
Number of clusters in sample	471	138	73	54	50

SOURCE: SMEA (1997)

Yamawaki (2002) observed that the main feature of the Japanese cluster model lies in the promotion of inter-firm linkages, which ensures effective transmission of knowledge and technological transfers among firms. This is quite distinctive when compared to cluster models in western countries such as the USA. The inter-firm linkages and networks are characterised by the extensive use of subcontracting between manufacturers and suppliers, the hierarchically structured relationships between manufacturers, first-tier suppliers and second-tier suppliers and the co-existence of a large number of firms with complementary skills in the cluster (Uekusa 1987, Asanuma and Kikutani 1992).

The role of networking and inter-firm linkages has ensured the development of skills specific to a cluster (Yamawaki 2002: 19). This drives industrial competencies and encourages technological innovation and spin-offs.

4.2.1.2 *Japan's Technopolis Policy*

Cluster-development policy in Japan can be regarded as an offshoot of the technology-based regional-development policy, which was initiated in the early 1980s by the ministry responsible for trade and industry (JILC 1999, Itoh 1988). In 1980, the Ministry of International Trade and Industry formulated the so-called *technopolis policy*, which focused on the vision of boosting the nation's international trade and repositioning its industries. The main thrust of the policy was to further industrialise Japan through technology-based regional development, i.e. industrial development through bottom-up regional-development platforms. According to Colovic-Lamotte and Tayanagi (2003), the technopolis policy was aimed at generating advanced city areas in which technology-orientated industries would concentrate, based on a region's development strengths (Kondo 2006, Itoh 1988).

The overall vision of creating a comprehensively industrialised and technology-driven Japan was encapsulated in the national-government catchphrase "From an industrial nation to a technological nation". Thus, specific industrial sectors were targeted for sustained attention serving as platform through which other sectors could be developed. These specific sectors included industries like aircrafts and parts, mechatronics, electronics, new materials, fine ceramics, space industry, biotech and software. The first phase of the technopolis policy (1983 up to 1990) empowered regions through regional autonomy and the institution of region-based industrial-development programmes. This led to the establishment of 26 technopolis regions, initiating a knowledge-based and innovative economy. The government was to reinforce or construct public-research institutes, universities, corporate research-and-development centres as well as third-sector research institutes (Itoh 1988, JILC 1999, Kondo 2006) with the objective of establishing regions with effective interaction of the industry, academy and living amenities. According to Colovic-Lamotte and Tayanagi (2003), the policy was also intended to lay a solid foundation for promoting not only autonomous industrial development, but also make way for innovative and flexible development patterns spanning across different sectors of the economy.

The whole concept of developing industrial clusters from the bottom up rested on the regional autonomy, where each region (especially the 26 technopolis regions) crafted their cluster-development programmes based on the policy initiative of both the Ministry of Economy, Trade and Industry (Meti) and the Ministry of Education, Sports, Culture, Science and Technology (Mext), with the collaboration of the universities, research institutes, the

corporate sector and organised private-sector institutions such as the local chambers of commerce (Kondo 2006, Colovic-Lamotte and Tayangi 2003).

In 2001, a two-pronged cluster-development approach was adopted with the establishment of the *Knowledge-cluster plan* of 2001 and the *Industrial-cluster plan* of 2002. Although the initiatives were implemented by two different ministries, Meti and Mext, both emphasised similar concepts. These included the promotion of university-industry collaboration and the building of platforms encouraging universities to transfer technologies to industry through research spin-offs and connecting the chain of research and development to the market (Kondo 2006).

The *Knowledge-cluster plan* promoted by the Mext focused primarily on existing clusters, realising the importance of knowledge creation in the universities and public research institutes in industrial development, with the objective of creating internationally competitive knowledge and at the same time enhancing the development of the regions.

The plan provided for policy support and the establishment of headquarters in the selected knowledge-based clusters. Resources were provided to encourage joint research among the universities, public-research institutes and companies. According to Colovic-Lamotte and Tayanagi (2003), the knowledge-cluster plan was aimed at utilising the regional advantages based on advanced research and technology organised around the universities.

On the other hand, the *Industrial-cluster plan* promoted by Meti was aimed at strengthening endogenous regional economic development through the creation of innovative environments based on regional human networks (Kondo 2006).

Meti started with 19 cluster projects in co-operation with private promotional organisations and Meti's regional bureaus within the designated 26 technopolis regions. These projects were well diversified, cutting across key strategic areas that were pivotal to the industrial and technological advancement plan of Japan as outlined in the technopolis policy of 1980. Within the initial framework four main fields were targeted, viz. manufacturing, IT, biotechnology and environment/energy.

The level of collaboration existing in the cluster projects among various stakeholders and the financial budgets mapped out by Meti were relatively flexible according to the Industrial

Cluster Group Report (2005). It made provision for the realignment of roles and responsibilities as the need arose.

In assessing these cluster projects, Hosoya (2008) highlighted a number of objectives the cluster plan was set up to address and indicated to what extent these had been achieved.

◆ *Creation of regional networks between industry, academia and government*

By 2007 about 10 700 SMEs and 290 universities and technical colleges across the country were connected through the university-industry-government (UIG) network. SMEs linked up to this UIG network acquired technical training and managerial expertise needed to manage their businesses effectively. They also benefited from research ideas emanating from research spin-offs from the activities in the clusters.

◆ *Support for technical development harnessing regional characteristics*

Meti supported about 300 regional research-and-development projects with industry-academia collaboration as well as cross-industry collaboration among enterprises operating within the clusters.

◆ *Strengthening incubation functions*

This initiative gave rise to the establishment of about 300 incubation facilities across the country. Some of these incubation facilities were located within university campuses to facilitate technology transfer directly and to assist tenants in managing their projects.

◆ *Support for sales channels*

Other support schemes included organising product exhibitions, providing market-research support by professional co-ordinators and trading firms, developing overseas market channels and facilitating international exchanges supported by the Japan External Trade Organisation (Jetro).

◆ *Financing through collaboration with financial institutions*

Industrial Cluster Financial Support conferences were held across the country with large numbers of banks participating. Financial workshops were organised for small businesses, linked to business-plan presentations and bridging-finance discussions about (i.a.) low interest finance and the establishment of regional venture funds.

◆ *Human-resource support*

Internship programmes were organised for both undergraduate and graduate students as well as visitations to factories and laboratories.

4.2.1.3 *Lessons from the Japanese cluster approach*

The cluster-development milestones achieved in Japan through the Japanese cluster policy can be attributed to a number of factors. Yamawaki (2001) pointed out a number of key drivers that have distinguished the clusters in Japan from other clusters in developed countries. He emphasised that aside from a number of exogenous factors that have aided the emergence, growth and performance of industrial clusters in Japan (like historical circumstances, the prior existence of large manufacturers or supporting industries, the existence of related industries in neighbouring geographical areas as well as reductions in transportation costs), factors such as regional government policy and technology transfer gave the Japanese cluster structure its unique position in the world. More specifically, the following factors constitute the cornerstone of the success of Japan's cluster-development programme.

◆ *Bottom-up cluster strategy*

The government of Japan developed its cluster programme through regional initiatives. The Japanese technopolis policy sought to upgrade the industrial-development capabilities of Japan, strengthen the industrial base and developing the technological corridors of the nation through a strategy of empowering the regions and making them self-sustaining. The cluster programmes of Meti and Mext were designed to achieve this. Through regional autonomy, regions were empowered to initiate cluster-development programmes in line with their respective master plan. The economic-development platform was regionally based, and key industries and institutions were developed in the regions.

◆ *Collaborative structures and public-private-partnerships*

The triple-helix concept for cluster development saw the setting up of platforms for the engagement of private-sector companies, universities and governments' local agencies. In addition, the collaborative network in the regional clusters was said to be very flexible, allowing the realignment of roles and responsibilities among the key stakeholders.

There were also a number of collaborative systems and network groups established to facilitate effective support and collaboration among intellectual cluster projects (Industrial Cluster Study Group 2005). Such collaborative networks existed between various ministries related to cluster-development policies. For example, the collaboration network for regional science and technology clusters were formulated under the auspices of the Council for Science and Technology Policy (a liaison group of Meti and Mext).

- ◆ *Cluster programmes aligned with the economic-development policy of the government*
Serious attention has been given to cluster-development programmes in Japan because they were viewed as fundamental elements of the country's economic-development programmes.
- ◆ *Proactive role of universities and research institutions*
Realising the importance of knowledge creation and the role of innovativeness as hallmark for developing the business environment and creating new businesses, the knowledge-cluster plan stressed the role of advanced research and technology for regional development (Colovic-Lamotte and Tayanagi 2003). This called for adequate funding to encourage joint research activities among the universities, public research institutes and corporate research centres connected through the UIG network.
- ◆ *Co-ordination of industry-, sector- and region-specific development strategies*
The technopolis policy segmented the technological development plan of Japan, linking specific sectors and regions. Certain regional industries were considered pivotal for the overall development of the economy. Clusters were built around these industries and research activities were concentrated around them, based on the comparative advantages of the regions.
- ◆ *Linkage with international regional blocks*
The government of Japan and the agencies collaborating in effective CDEs realised the importance of globalisation of research and innovation in regional clustering programmes. Hence, there was the need to link regional clusters with clusters at the international level. Such linkages could help to access global target markets and technical know-how, exchange information and experience and to improve international visibility. In this context there has been an understanding between Japan and the European Union to organise joint regional cluster forums to facilitate interactions and co-operation among

Japan and EU member states in cluster development policy (EU-Japan Centre for Industrial Co-operation 2008). Such forums have been held in Japan and the EU over the past years, starting with the EU-Japan Regional Cluster Forum of December 2008.

◆ *Inter-firm and intra-cluster collaboration and knowledge sharing*

These opportunities helped in creating a common platform for knowledge, information and technology dissemination not only among the clusters but also among firms within the clusters.

◆ *Linkage with support institutions and support programmes*

The Industrial Cluster Study Group report of 2005 indicated that in the unfolding of the clusters collaboration with industry-support organisations and local government authorities was strongly encouraged. There were also networked linkages between clusters and research-and-development institutions, product-promotional organisations, financing institutions, human-resource organisations, market-development agencies and export-promotion agencies. These efforts helped to strengthen the overall clusterisation process.

◆ *Technology transfer to small enterprises*

Technology transfer driven through big corporates was adapted to integrate small firms in the process. This was seen as a way of transferring technology advancement to small businesses.

◆ *Cluster-programme funding*

Collaboration with financial institutions made the funding continuity less dependent on government and other single sources.

◆ *The role of incubators*

Incubators were used as a way of supporting the launching of new businesses. This made them an integral part of Japan's cluster-development policy.

This brief review of the Japanese clusterisation approach over the past few decades clearly shows that Japan provides many relevant lessons for other highly developed and developing countries keen on clusterisation. The lessons may be far ahead of where Africa is currently in its clusterisation process, but they are still relevant.

4.2.2 India

Leaving aside China with its unique role in Asia and internationally, India is the largest country in “developing Asia”, which puts it into a comparative position to Nigeria in Africa. Although historical, cultural and resource structure characteristics of the two countries differ widely, both show deep contrasts between vast spheres of underdevelopment and encouraging spheres of modern development. Here we focus on the Indian approach to business clustering as a tool for small-business development.

4.2.2.1 *India's small-business sector and clustering*

The role of small businesses in the economic development of India has been strategically significant for the structure and level of development of the Indian economy over the last decades. India has maintained consistent growth in its economy with an average of about six per cent annual GDP growth over the last decade (Siraj 2010). Many factors have been adduced as fundamental to the rapid growth in the Indian economy, including key sectors like agriculture, manufacturing and electricity (FICCI 2011). Other factors that have fuelled economic growth included the development of core infrastructure facilities, sound monetary and fiscal management, policies that encouraged FDI as well as support for the development and growth of the SME sector (Uma 2013, Kour 2010).

The SME sector's contribution to the growth of the Indian economy is quite significant. SMEs constitute about 95 per cent of all formal enterprises in the Indian economy, they are estimated to employ about 45 per cent of those engaged in the labour force and their contribution to exports is estimated to be 35 per cent. From its modest size of about 80 000 units in the late 1940s to over 4,5 mill. units to date, the Indian *formal* SME sector has shown a remarkable trend of growth (Venkataramanaiah and Parashar 2007: 227, Jeswal 2012, Zaidi 2013). If we add informal units, the total size may increase to about 12 mill. (ADB 2004). In some instances, the Indian SME sector is believed to have outperformed large organised establishments. For instance, in the two decades ending in the year 2000, while annual growth rate in GDP for large organised establishments averaged 6,6 per cent, those of the SME sector averaged 8,75 per cent in the same period (Panday and Shivesh 2007). In the area of growth in employment, the average annual growth rate for larger businesses and the government was put at 1,22 per cent, compared to a growth rate of 5,1 per cent in the SME sector. This growth could be seen to play a strategic role in diverse segments of the economy, notably in the areas of software development, communication,

biotechnology, precision engineering, design, food-processing, pharmaceuticals, textiles and garments, IT and the agro-service sector (Pandey and Shivesh 2007, SMEDCI 2010).

The rapid growth and development of India's SME sector was the result of a well-outlined policy of the government to create a vibrant, competitive and responsive SME sector through cluster-development programmes. It was initiated by the central and various state governments as outlined in various policy-framework documents of the Federal Ministry of Micro, Small and Medium Enterprises and various state governments.

The level of competitiveness of the small-business sector of India is a function of its ability to surmount operational challenges that cut across every segment of the economy. With the increasing spate of globalisation and the need to revamp the local economy, the level of competition both locally and internationally has been heightened, making the survival and growth of SMEs even more difficult. A number of studies have highlighted some of the basic challenges faced by the SME sector (Taunk and Kumar 2013, Das 2008, FICCI 2012, Nishanth and Zakkariya 2014). A few examples can illustrate some of these challenges, which are in direct parallels to Nigeria.

◆ *Poor infrastructural development*

With high population density in the urban areas and more than 50 per cent of the population still living in villages, the challenges of poor and inadequate infrastructural facilities are enormous and to a great extent hamper the growth and development of entrepreneurial ventures. Thus, infrastructure facilities such as electricity, good road networks and telecommunication services are far beyond the reach of most rural dwellers, once again sharing the similarities with Nigeria.

◆ *Poor technological development*

Competition from countries like China, with its low manufacturing costs, stresses the need for technology upgrading to fuel innovation and to attract large-scale production.

In addition, Indian SMEs face the normal range of challenges like access to information and markets (both domestic and international) as well as innovative new product developments and access to finance.

Efforts adopted by the government of India to address these and other challenges inhibiting the productivity and competitiveness of small and medium enterprises included cluster-

development programmes. According to the Ministry of Small Scale Industries of India (SSI 2006), which acts as official agency for cluster-development programmes, CDEs were intended, among other things, to

- ◆ provide a platform for sharing mutual learning and best practices,
- ◆ provide platforms that ensure rapid growth in the number of agencies working for cluster development,
- ◆ strengthen industry associations and make them more relevant in cluster management,
- ◆ expand business-development services,
- ◆ provide a holistic approach, not only aimed at building overall competitiveness of clusters but also to provide coverage in the areas of business-development services (BDS) providers, raw-material suppliers, machinery suppliers as well as business networking and linkages,
- ◆ provide support directly as well as through state governments and national institutions.

Thus, cluster-development programmes were pursued at the central as well as state-government levels. The Ministry of Small Scale Industries (SSI) developed its cluster programmes at the central-government level in collaboration with a number of international agencies such as Unido. Various state governments came up with their individual cluster-development programmes in their states. Together they provide a holistic approach towards a focused support agenda for small, medium and micro-enterprises in India.

According to Sudesh (2005), clusters in India are predominantly small with approximately 350 small industries in a cluster. He refers to about 2 000 rural- and artisan- based clusters, many of which have a high export share and a long history of existence. By 2001 the number of small-scale clusters in the registered sectors had risen to 1 222 (focusing on 321 products) and 820 clusters in unregistered sectors covering about 250 products.

4.2.2.2 *The role of the public sector in the clustering process*

The role of the Indian *central government* in cluster development according to Pietrobelli (2006) included the funding of cluster initiatives, facilitating knowledge-sharing across states, co-ordinating common programmes of technical assistance to clusters and ensuring co-operation at inter-ministerial levels. The earliest cluster-development initiative embarked upon by the central government of India was known as the *Uptech* Scheme (Bala

Subrahmanya 2005, Kavita 2012 and Awasthi 2011). Launched in 1998 it aimed at developing selected clusters with particular emphasis on technology upgrade. This initiative included clusters of ceramic tiles, pharmaceuticals, foundry and forging, food-processing and potteries. Other cluster-development initiatives thereafter, leveraged through collaboration with Unido, were also sector-focused.

In 2005 the central government, through its Ministry of Small Scale Industries, broadened the cluster-development initiative to cover a wider range of sectors and a national outlook. This initiative was planned to enhance more generally the competitiveness and productivity of small enterprises and to strengthen their capacity building. Thus, the Small Industries Cluster Development Programme (SICDP) commenced in 2005 (Awasthi 2011). It laid down policy guidelines for the effective facilitation of cluster-development initiatives in various states across the country. The programme was planned to adopt a holistic approach towards creating a support platform for small enterprises, thereby also facilitating substantial economies of scale in the deployment of resources. The main objectives of the initiative were efforts to

- ◆ support the sustainability and growth of SMEs by addressing common issues such as improvement of technology, skills and quality, market access, access to capital,
- ◆ build capacity of SMEs for common supportive action through the formation of self-help groups, consortia and the upgrading of business associations,
- ◆ upgrade infrastructural facilities in the new/existing industrial areas and
- ◆ set up common facility centres (e.g. for testing, training, raw-material depots or effluent treatment).

Based on these objectives, the programme was to operate through the following structures.

- ◆ All proposals for cluster developments seeking assistance under the SICDP had to emanate from SPVs, consisting of the cluster beneficiaries and enterprises organised in specific legal forms (like a co-operative, registered society, trust or company).
- ◆ In addition to the SPVs, institutions/agencies of the following categories could propose and implement cluster-development projects under the SICDP, with financial support from the Ministry of SSI.

- Field organisations and autonomous institutions of government ministries
 - State governments and their autonomous organisations
 - National and international institutions engaged in the promotion and development of small enterprises
 - Any other institution or agency approved by the ministry for this purpose
- ◆ The selection of clusters was based on the following criteria.
- Importance of the cluster/s in terms of number of units, employment, production, exports, etc.
 - Existence of critical gaps in technology, product quality, common facilities, skills upgrading, availability of raw materials, marketing support, etc.
 - Viability of the cluster
 - Vibrancy of local industry associations and other institutions engaged in development financing and SME promotion
 - Social and environmental considerations like gender inequalities, poverty conditions, the need for employment generation and pollution scenarios.

At the onset of the SICDP programme, about 25 existing clusters, cutting across different sectors of the economy, were taken up, while another 21 cluster projects across 20 states of the country were selected for development.

Over the years, the total number of clusters obtaining SICDP support grew to 384. In assessing the performance of the central-government cluster-development programme, a number of factors have been identified as key to its success. These factors include

- ◆ *institutional capacity building*: collaborative networks of industry associations, universities/technical institutions, financial institutions and NGOs helped strengthen the clusters in many ways, including fund-raising, training and development as well as infrastructure upgrading,
- ◆ *public-private partnerships*: these encouraged responsive dialogue and collaborative participation in shaping the clusters,

- ◆ *participatory action plans*: annual action plans are formulated and validated by the stakeholders,
- ◆ *strategically significant long-term initiatives*: local organisations undertake strategic development initiatives such as managing common service facilities or setting up common infrastructure facilities, either managed directly or in collaboration with external institutions,
- ◆ *local funding* provided by the collaborative stakeholders and partners has been significant.

As far as state-governments are concerned, Pietrobelli (2006) outlined their roles, which included

- ◆ provision of funding support,
- ◆ enabling knowledge-sharing within the states,
- ◆ drawing up state-level policy frameworks on clusters,
- ◆ providing funding and policy support for capacity building in clusters and
- ◆ setting up a separate cluster cell in the relevant state department and designating a model resource organisation.

As indicated earlier, the state governments have aided the central government's cluster-development programmes, which saw a large number of clusters of various industries spreading in all the states of India (Sudesh 2005, Unido 2005). At the state level, cluster development initiatives are driven from the grassroots through various programmes carried out by state governments as part of their economic-development agenda. The states that have been most active to develop their own cluster programmes include andhra Pradesh, Gujarat, Kerale, Madhya Pradesh, Tamil Nadu, Rajasthan, Punjab, Orrissa and West Bengal.

To complement the efforts of both the central government and the various state governments' cluster-development initiatives, a number of international agencies have been involved in both the development and implementation of cluster programmes in India. Prominent among these agencies has been Unido. A diagnostic study of 1997 on cluster-development initiatives in India revealed that Unido's involvement in cluster-development programmes in India was substantial and driven by a number of objectives. These included empowering

clusters to face open-market competition through stronger institutional linkages and increased capacity to implement strategic initiatives.

In the light of these objectives, according to the SPHC (2007), the Unido adopted two broad types of initiatives: first, directly improving the capabilities of firms, especially in the areas of quality, design, productivity, skills and waste minimisation and, secondly, capacity building of industrial associations and support institutions with a view to fostering linkages and enhancing the quality of BDS (SPHC 2007). In 1996, the Department of SSI of the Ministry of Industry contracted Unido to promote pilot cluster projects in selected areas and to assist the ministry in creating a national cluster-development programme. What is more, Unido in 1997 (see Bhaskaran 2009) launched its own cluster-development programme, aimed at strengthening the competitiveness of selected SME clusters and thereby promoting the cluster-development movement in India.

Unido has made a remarkable inroad in cluster development in India going by the impact of its programmes on development and competitiveness of SMEs in India. A number of factors can be attributed to this success, which could serve as a reference point for replication in other developing countries, including Nigeria. These factors, reviewed by Bhaskaran (2009), include the following.

◆ *Relevance of technology-orientated growth of SMEs*

SMEs in India, as a third-world country, are characterised by low productivity and underperformance due to a lack of application of technical expertise and cutting-edge technology in the production processes. Unido strengthened the introduction of IT in a number of clusters.

◆ *Role of the markets*

Unido created a greater awareness of trade liberalisation and the need for collaboration and networking among local players to enhance access to international markets. This was achieved through benchmarking and awareness building as well as by creating group approaches in procurement and networking with institutions and business-development service providers. Clusters where Unido initiated these techniques included the hosiery cluster in Ludhiana and the pharma cluster in Ahmedabad.

◆ *Inter-firm co-operation with focus on consortia creation*

The involvement of large export firms created a positive impact on small-firm export promotion through the development of social networks and establishment of export consortia, with the larger and established export firms playing a mentorship role. Unido promoted the Ambar Leather Technokraft Export Corporation in Tamil Nadu with a large number of small leather tanneries obtaining a mandate to access both the domestic and international markets. The creation of such consortia of export-orientated firms enabled the clusters to promote exports by creating common warehousing facilities, common websites as well as joint advertising and marketing campaigns.

◆ *Enhancing the visibility and effectiveness of public institutions*

Through collaborative efforts with the government, both at the central and state levels, Unido was able to strengthen the ability of public-sector entities to provide facilities and infrastructures that have long-term gestation periods which neither the private sector nor small businesses can provide. These facilities could be provided within and around the clusters with a management system, which guaranteed efficiency, functionality and ownership. Unido also promoted the setting up of clear-cut exit strategies for government to avoid a dependence syndrome by the cluster firms.

4.2.2.3 *Lessons from India's cluster approach*

A number of lessons can be drawn from India's cluster approach, which can help Africa's clusterisation efforts, considering the many similarities in economic, social and political development patterns. By way of a summary, a few of these can be listed here.

- a) The cluster programme in India was driven from *all levels of government*. The central authority sets the road map for the programme while other tiers of government replicate this at their governmental levels. The existence of a policy framework from the central authorities served as a guideline for the facilitation of cluster processes in the states across the country.
- b) On a regular basis *thorough assessments* of the Indian small-business challenges were made, and cluster programmes were built around providing solutions to those challenges. This is critical since the programme focuses on enhancing small-business capacities to compete both locally and internationally.

- c) *International agencies* such as Unido played a pivotal role in the cluster-development programmes in India. This helped in opening the frontiers of international markets and enhanced the capacity of government to collaborate with other local agencies and stakeholders, especially private-sector institutions, in providing business-support services, finance and technology to the clusters.
- d) *Collaborative networks* evolved among industry, universities and financial institutions, while government established policy directives that sustained the process. These networks of partners and collaborative stakeholders also provided funding for projects.
- e) Emphasis was placed on *existing clusters* marked for development across the country, rather than the building of new clusters.
- f) *Setting up* SPVs through PPP initiatives ensured that the clusters were independently managed, free from government dominance, bureaucratic bottlenecks and red-tapism commonly found in developing countries. The SPVs were responsible for the administration and management of the clusters and provided infrastructure upgrades and other facilities. They also set up and managed common facility centres in the clusters
- g) There were participatory action plans by the actors in *partnership arrangements* ensuring that the actors came to partnership roundtables with a purpose and clear expectations.
- h) The formation of *SME support-action networks* within the clusters ensured the establishment of self-help groups, consortia, trade associations and other joint action enabling groups.

These lessons from India suggest that it will be critical that cluster-development players and policy shapers in Nigeria will establish and maintain close contacts with Indian counterparts.

4.2.3 Indonesia

Compared to the other two Asian countries covered above, Indonesia with its population of 249 mill. is the closest to Nigeria in terms of population size, the development level and its dependence on the small-business sector for economic growth and diversification.

Indonesia's economic development has been going through a number of phases, which also played a significant role in the evolution of the small-business sector. We can briefly mention key phases (Riato et al.).

- ◆ The colonial past up to the mid-1960s, when a range of traditional art, craft and agricultural clusters played a stimulatory role in the business sphere.
- ◆ The post-colonisation phase of rehabilitation and stabilisation of 1967 to 1972, which did not have a strong development thrust, but continued with the traditional clusters.
- ◆ The civil boom of 1973 to 1981, which put Indonesia's economic growth into a higher gear, shifting attention from traditional local clusters to the creation of import substituting larger industries.
- ◆ The years of global oil glut and falling oil prices (1982 to 1996), which forced the government to abandon import substitution as a major growth force and embark on a more pragmatic strategy of strengthening export-orientated industries and revamping its industrial structure. This slow process was further complicated by the economic crisis that hit Asian countries in the late 1990s.
- ◆ The search for a new, comprehensive industrialisation strategy, based on Indonesia's competitiveness in the global arena. This led to the creation of a National Policy for Industrial Development (KPIN), with SME-cluster development as a central feature, and with the key document released in 2005 (Riato et al., 2009).
- ◆ The country is now in the process of implementing that strategy, guided by four key operational goals, viz.
 - development of a conducive business environment,
 - development of priority industrial clusters,
 - spreading industrial development to less developed areas where there are abundant supplies of raw materials or other growth factors and
 - development of innovation capacity in industrial technology through research and development (KPIN 2005, Riato et al. 2009).

4.2.3.1 *Pre-2005 clustering*

Most small-business clusters in Indonesia were located in rural areas and are spread across all provinces of the country (Tanbunam 2006, Perry 2005, Weijland 1999). Many of the clusters have their historical roots in traditional activities and products such as wig and hair accessories, handicrafts, textile weaving, furniture making and brass craft, in which local communities have a long history of involvement (Tanbunam 2005, 2006). Such products and activities also have comparative advantages due to the abundance of skilled labour, local raw materials and the existence of regional identities. Tanbunam (2005) mentions the case of the clusters of batik producers that have long existed in the Yogyakarta, Pekalongan, Cirebon, Surakarta and Tasikmalaya districts in Java. These clusters of activities have not only brought about the development of SMEs locally, but also helped to develop many towns and villages in Indonesia. A specific example is the clustering activities of rattan furniture makers in Tagal Wangi village in West Java, which had a strong developmental impact on the entire village and the surrounding localities (Smyth 1990, Schiller and Martin-Schiller 1997).

Despite the perceived importance of these early clusters in stimulating exports and creating demand for local products, there is little evidence of inter-firm linkages or inter-firm specialisation of products and processes. There is also little evidence of production linkages through subcontracting with larger enterprises (Tanbunam 2005, Supratikno 2002, Central Bureau of Statistics 2001). This was primarily due to the low level of general development and the predominantly artisan nature of small-business clustering at that stage, i.e. the spread of informal and micro-businesses.

Indonesia's industrial cluster programme commenced in the late 1970s when the government started to focus on a few selected clusters for sustained attention (Tanbunam 2005). The selection was based on signs of dynamism and significant market potential. The government adopted a support-focused strategy directed not only at the firms located in the selected clusters but also at suppliers' networks to the clusters. This strategy is akin to Porter's Diamond Theory (1998) which propagates a public-sector-driven cluster strategy where government policy is directed towards distinctive focused areas and steps towards competitiveness enhancement. The initiatives included the following.

- ◆ Direct supply of equipment to select clusters
- ◆ Providing training facilities and training programmes

- ◆ Enabling individuals and cluster associations to acquire machinery and equipment (e.g. through credit-guarantee schemes)
- ◆ Setting up common service facilities
- ◆ Setting up technical-service units (UPT) within clusters to administer maintenance services
- ◆ Creating greater market awareness for the products and services of the clusters (e.g. via subsidisation of visits to trade fairs)
- ◆ Facilitating linkage producers and university/research centres
- ◆ Help to improve the state of infrastructure development

A critical evaluation of the performance of cluster development in Indonesia prior to 2005 reveals that some success was achieved through the implementation of massive public-awareness campaigns about clusters right across all provinces and regions of Indonesia. Irewati (2007) reveals that about 9 800 small, primarily rural-based clusters were in existence in 1996, spread across the 28 provinces. A high density of clusters was found in some regions, such as Java and the surrounding districts, as opposed to a low cluster presence in urban regions (Narjoko 2008).

In his assessment of the early phase of Indonesian cluster development Tanbunam (2005) indicates a number of shortcomings which can be listed here and which are relevant for assessments of Nigeria's early clusterisation efforts.

- ◆ Many of the clusters were stagnant and/or without growth prospects.
- ◆ There were major differences in the level of support given by government to clusters in different regions and for various sector focus.
- ◆ There were very limited cluster linkages, which dampened market access.
- ◆ Government intervention was mostly in a standardised way, rather than focusing on specific local needs and constraints.
- ◆ There was general neglect of SME self-help groups and associations in creating intervention programmes.

- ◆ Weak inter-firm linkages and networks made collective learning difficult.
- ◆ There was a lack of joint action among cluster trade groups (e.g. to tackle product standardisation, open distribution channels or plan collective action against external monopolies).
- ◆ There was an absence of cohesiveness of trade associations and cluster groups in the initiation and management of common service facilities.
- ◆ Limited support came from local governments.
- ◆ There was little proactive involvement of the private sector in creating cluster-support programmes.
- ◆ Clusters were often located in isolated and backward regions which private-sector organisations found too remote to get involved with (e.g. financial institutions, training bodies and research centres).

4.2.3.2 *Post-2005 clustering*

The industrial cluster-development master plan, outlined in the National Industrial Policy of 2005, tried to rectify the shortcomings of the unstructured cluster-development strategy. This plan is the basis for present and future cluster-development initiatives and is aligned to the overall economic-development strategy of the country. According to Riato et al. (2009) it is based on the following cardinal objectives.

- ◆ Strengthen industries in the value chain, including core industries, related industries and supporting industries, with a bid to stimulating comparative advantages within the locations of such industries.
- ◆ Strengthen relationships among clusters in the same sectors or in other sectors and create networked partnerships among SMEs and large enterprises in similar or related industries.
- ◆ Stimulate the growth of related industries, especially in the areas of raw-material suppliers.

- ◆ Facilitate marketing efforts in domestic as well as overseas areas.

The National Industrial Policy also sought to enhance the growth, competitiveness and relevance of the SME sector through the establishment of reservation schemes, technical guidance and management support. It encouraged synergy alliances between small and medium industries and larger industries. This was to ease the process of learning, technical support and technology application by SMEs.

The national policy provided for the fast-tracked establishment of 10 priority industrial clusters with a mid-term (2004–2009) time focus. The core cluster areas included the food and beverages industry, textile and textile products, palm industry, footwear industry and petrochemical industry (with all of them complemented by related and supporting industries).

As part of the government efforts to boost small-business productivity and competitiveness using the cluster approach, the government planned to establish “support-orientated platforms” around about 500 clusters. These support platforms would focus on both finance- and non-finance-related support schemes and were expected to complement the efforts of individual clusters in propelling growth and competitiveness of SMEs within the clusters. The non-financial support programmes were business-development service providers, which worked on a contractual basis with the SMEs to serve their needs. The financial support was anchored by micro-finance institutions while the collaborative efforts of government and universities worked through established technology-development centres, which would assist SMEs in promoting their competitiveness through an improvement of the productivity and quality of their products and services.

At this stage, it is still too early to evaluate the impact that the comprehensive cluster strategy of Indonesia had on the evolution and expansion of clusters since 2005. Nevertheless, the new strategy leaves scope for lessons to be learned for Nigeria.

4.2.3.3 *Lessons from Indonesia's approach*

The following are key lessons that can be drawn from Indonesia's two-stage efforts to support cluster development as part of its industrialisation strategy.

- ◆ The initial low-keyed approach had a relatively limited impact, but the new focused strategy seems to have a much wider impact.

- ◆ The new strategy took off when it became a central part of the broader industrialisation strategy of the country.
- ◆ The comprehensive public-sector involvement in the clusterisation strategy builds confidence and is crucial for its success.
- ◆ The strategy places strong emphasis on Triple-Helix-based PPPs and collaboration.
- ◆ Planning for the different clusters is distinctly phased, with periodic assessments and programme adjustments.
- ◆ The selection of clusters follows a bottom-up approach which emphasises regional comparative advantages and regional cluster initiatives.
- ◆ As far as possible infrastructure backlogs are also tackled on a partnership basis.
- ◆ Community-facility centres play an important role in the unfolding of clusters.
- ◆ The partnership approach is critical in the areas of training, capacity-building, (university) research and other business-support services.
- ◆ The mobilisation of finance for cluster firms depends on the complementarity of different financial institutions and informal mobilisation schemes.

4.3 Clusterisation in Europe

In the context of our theme of small-business clustering the eastern and central European countries, especially the so-called *countries in transition*, are both relevant and important for developing countries in Africa. The trajectory of their socio-economic development has many parallels to those of developing countries like Nigeria, especially if we look at the last three decades. A number of factors can be highlighted here.

Firstly, there was the economic and political development transition from a centrally planned economy to a free-market economy. This saw these countries undergo economic liberalisation and the opening up of their closed economies, which meant a lot of political and social reforms. Over the last three decades Nigeria had its fair share of transition in its economic blueprint, leaving behind the militarisation of its political landscape. Most of its

economic institutions had been in the hands of the government (either central or state governments or their agencies) with little opportunity for free-market structures.

Secondly, the small-business sector in these countries was also public-sector-supported. The abandonment of socialism adversely affected the capacity of government institutions, which included SME-support bodies and programmes. This created the need to engage private-sector institutions in policy formulation and advocacy, effecting the economic development and institution-building process as well as opening the borders for help from international agencies. The concept of public-private partnership became imperative.

Over the years some of the countries in this region have not only weathered these political and economic storms but have evolved a strong and growth-orientated SME sector, which became the foundation for their economic growth. As Unece (2003) pointed out, the core of the political and economic transformation of countries in transition largely depends on the strengthening of the private sector, the development of entrepreneurship and the expansion of small and medium enterprises.

In this process of economic transformation and increased engagement of the small-business sector, it was necessary to tackle the conventional challenges of SMEs, like access to capital, infrastructure facilities, business know-how and markets. Once again, (small-)business clustering programmes became a central tool for these efforts. Thus, cluster initiatives have emerged as a strong and effective SME-support policy tool in these countries. For instance, the OECD (2000) observed that clusters have helped in creating linkages of local enterprises with foreign enterprises to form cross-border partnerships which have enhanced internationalisation of SMEs and improved their exports.

Against that background this section looks at two European economies where clusterisation played a very important role in their economic transformation. Hungary is the eastern European country in transition, while Italy is included as a western European economy which has faced its own particular brand of deep socio-economic transformation – in many ways comparable to that currently confronting Nigeria.

4.3.1 Italy

In the spectrum of European economies, ranging from highly developed western European countries like the United Kingdom and the Netherlands to far less developed countries in

eastern Europe, Italy takes very much a middle position. This relates primarily to its north-south dualism, with the northern provinces including some of the world's most developed regions and the south still shaped by its history of political, social and economic underdevelopment. The unification of Italy in the mid-1800s brought about a massive migration of people from the south to the northern provinces, but did not substantially reduce that gap.

The northern and central provinces of Italy (see Map 4.1) established themselves as vibrant regions with strong industries, dominated by private companies and the emergence of industrial districts. These districts were anchored on the comparative advantages of the well-diversified economy, including specialisation around tourism, telecommunications, leather products, food-processing, capital goods and agro-industries. The south remained agriculture-dominated with a high dependence on government support.



Map 4.1: Regions of Italy

SOURCE: Vantage World Travel

These north-south contrasts can also be linked to the use of three concepts for Italy's geographic development spread.

- ◆ The “First Italy” represented the industrial heartland of the north-west regions with the dominance of industrial enterprises.

- ◆ The “Second Italy” represented the heartland of the agriculture-dominated southern parts of the country, with little or no industrial development.
- ◆ The “Third Italy” represented the north-east and central regions which showed steady development after World War II, with the industrial districts playing a major role.

This dualism of the country’s development and the gradual process of bridging the divide over the past century make Italy relevant and interesting for a country like Nigeria, which is also suffering from sharp regional development divides.

Against this broader background, our review will first focus on Italy’s small-business sector as well as its challenges and then on Italy’s industrial-district strategy and how this relates to clusterisation processes.

4.3.1.1 *Challenges of Italy’s small-business sector*

In the spectrum of developed countries across the world, Italy is known to have a very large and highly diversified small-business sector. This includes micro-enterprises, small enterprises and medium-sized firms, with Italy famous for its very large segment of micro-enterprises. According to data released in 2012 (SBA 2012) micro-companies constituted about 92 per cent of the number of private enterprises in Italy, they employed about 46 per cent of the persons employed by private business and they contributed 29 per cent of the value-added by private business.

Italian SMEs are well represented in most sectors of the economy, focusing on both local and export markets. Thus, they are among leading exporters of agro-industrial products, food products, textiles and textile machinery, leather and footwear products as well as machine tools, to mention just some segments. What is more, Italy’s SMEs are also among the European leaders in high-tech manufacturing and the supply of knowledge-intensive services (ECR 2012).

The diversified nature of SMEs in Italy, coupled with little or no local deposits of natural resources as commonly found in Africa, presents Italy as a model for small-business competitiveness and growth in Africa.

To achieve this impressive growth in the small-business sector, the government of Italy has over the past decades made concerted efforts to boost small businesses with a number of policies relevant for Africa and in particular Nigeria. We can indicate some of them here.

◆ *National-policy formulation and implementation*

The Italian government created an environment conducive to the broad-based development of small businesses in the country. Laws were enacted to address different SME constraints. This was not merely a declaration of interest to support small businesses to grow and be competitive, but a practical approach of formalising and institutionalising action plans by the government to address small-business challenges. This legislative empowerment provided an enabling environment for small-business owners to set up their operations and chart a growth path for their businesses. We can refer to a couple of examples of legislation which addresses different facets of small-business growth.

➔ *Financing capital goods*

The Sabatini Law (Act 1369 of 1965) provided financial assistance to small businesses to acquire capital assets such as machines and equipment for their operations. This helped SMEs who have met community parameters by acquiring assets at a subsidised interest rate and enabling them to pay by instalments. According to Unido (1997) government granted more than 200 000 subsidies over three decades.

➔ *Supporting export consortia*

Export consortia are voluntary alliances of firms with the objective of promoting the goods and services of its members abroad and facilitating the export of these products through joint actions. Most export consortia are non-profit entities with their members retaining their financial, legal and managerial autonomy. Activities and services of export consortia may include one or more of the following (Unido 2009).

- Basic services, including translation, interpretation and general export-consulting services
- Creation of multilingual catalogues and websites for members' use
- Search for agents and importers

- Collection and dissemination of business information and export country analyses
- Participation in fairs and organisation of trade missions
- Organisation of export-focused workshops and meetings
- Advertising and marketing support for exporters
- Brokering preferential agreements with banks, shippers and travel agencies for members
- Training of member firm staff
- Assisting member firms to obtain certifications according to international standards
- Research and development projects related to exports
- Selection of suppliers of raw materials, accessories and equipment

Advantages of these actions by export consortia include lower costs incurred by individual firms for promotional activities, export diversification into difficult and faraway regions, better access to funding, lower general export costs and knowledge accumulation.

Through its enabling acts (Law 89 of 1989 and 317 of 1991) the government encouraged small businesses to form export consortia. In fact, they made it a precondition for accessing various SME funds set up through those acts (e.g. granting of tax credits, getting financial incentives for technological, managerial and organisational innovations as well as benefitting from credit-guarantee schemes).

➔ *Technological support schemes*

The Italian government tried to facilitate high-tech manufacturing and agro-processing by SMEs through various innovation and technology-transfer schemes. These support schemes included helping SMEs to establish linkages with Italian academic and scientific institutions (Exim Bank 2009). The Italian government also entered into an agreement with Unido to promote an *Italian Investment and Technology Promotion office* in Rome, aimed at supporting industrial co-operation through technical assistance for promising industrial projects. The government also tried to promote contacts between researchers, commercial enterprises and venture capitalists. Finally, through the *Italian Network for*

Innovation and Technology Transfer to SMEs (Riditt) mentoring services are being provided to SMEs in the areas of technology development, marketing, partnerships, patenting and business planning.

➔ *Integrating SME-development policy with the national industrial-development policy*

Prior to 1992 the Italian government's SME intervention policy was seen to target individual SMEs, which was heavily criticised as being against EU competition policy (Unido 1997). Aside from this, the various intervention programmes lacked cohesiveness and did not foster networking and inter-firm co-operation. To overcome this the evolving policy interventions focused increasingly on such networking and co-operation. The dynamic nature of the interventions forces government to periodically re-evaluate the effectiveness of its various policy interventions in the light of changing local conditions and broader policies. In addition, the SME intervention policy was seen to be most effective where local and regional institutional players are present, active and dynamic. This is a great learning point for Africa, where SME intervention policies tend to function in isolation of local and regional institutional players.

4.3.1.2 *Italian industrial districts and clustering*

Industrial district is a concept used to describe cluster development in a number of European countries, but is used here with the specific reference to Italy. The concept of industrial districts stresses the agglomeration of related industries along a regional landscape, with industrial specialisation rooted in regional competencies. While clusters are usually identified as a concentration of firms making similar products, operating within a geographical location, the concept of industrial districts takes the concept of clusterisation to a higher level. The Italian industrial district (based on the Marshallian cluster concept of 1890) is a geographical area with a large number of small and medium-sized companies that are highly specialised within their product field. Mayer (2011) noted that such companies, operating in the industrial district, are generally characterised by a strong degree of interdependence in the production cycles. Both the companies and the district are closely integrated with the local socio-economic environment where they are located. The Marshallian concept of industrial districts is therefore viewed as a cluster of firms within a particular industry that has built up local networks within the community and firms to support the industries. The Italy-Turkey Bilateral Cooperation Report (2008) identified three key factors connecting such industrial-development districts.

- ◆ Geographical factors, relating to infrastructure availability and a critical mass of enterprises.
- ◆ Historical events, such as linkages to landmark events that define the location and make it a point of attraction as well as historical specialisation of vocations.
- ◆ Unique institutional frameworks.

The report also underscores the importance of networks and their role in industrial districts, with particular reference to the kinds of firms that operate within the districts. Three kinds of firms were identified, viz. *final firms* that specialise in producing final goods, *stage firms* that are involved in only one production stage and *others*. The relationships among clustered firms in industrial districts reinforce cohesiveness, co-operation, mutual reliance and the need for joint action among the firms. The results of this are effective information-sharing, adequate quality control, access to financial resources and appropriate technology as well as the creation of trust and dependability among the firms. To this end, the report identified horizontal networks as “close inter-firm relations among different ‘final-firms’ and between ‘final-firms’ and ‘stage-firms’”, aimed at mutual support through the provision of technical, business, financial and other services. *Vertical networks* exhibit the relationships between supply chains of *final firms* and *others* as well as *stage firms* and *others* linked by backward and forward vertical integration. *Other networks* also include links with universities, research and development institutions as well as government agencies.

Against this background the Italian industrial districts seem to be quite unique, laying a solid foundation for not only inter-firm communication, but also encouraging firms to produce related products and services in order to reduce operational and transaction costs. As Meyer-Stamer and Harmes-Liedtke (2005) show, transaction and operational cost reductions can evolve from “learning by interaction” which takes different forms, including formal technology transfer. According to them, this goes beyond the formal licencing contract between the technology vendors’ local agents and the firms, also including informal communication channels and other interactions between the parties. This act of learning is often spread among other small firms operating in the same locality through informal interactions and co-operation strengthened by local externalities, spill-over effects and collective efficiency arising from proximity. According to Asheim (1995) this explains the success of the Emilia-Romagna district where international competitiveness of the firms in the industrial district was promoted through effective collaboration and co-operation. The

incidence of collective-learning processes pointed out by Camagni (1991) also enhanced local creativity and increased the capability for product innovation.

4.3.1.3 *Lessons from Italy's approach*

The industrial district of the early- to mid-1900s was not only built on the support of business relationships among various actors within the local environment, but also the importance of other socio-cultural relations (Alberti 1999). This means that the success and growth of industrial districts and the actors associated with it, especially the small-business firms, are wired up with the environment, the socio-cultural traits of the community (i.e. its values, attitudes and institutions), the historical and natural characteristics of the geographical location, its resource-competitive advantages and other social and economic phenomena surrounding it. This Marshallian industrial-district concept, which largely mirrors the model of the Italian industrial district, suggests the following characteristics.

- ◆ The business structure is dominated by small, locally-owned firms.
- ◆ Scale economies are relatively low.
- ◆ There is substantial intra-district trade among buyers and suppliers.
- ◆ Key investment decisions are made locally.
- ◆ There are long-term contracts and commitments between local buyers and suppliers.
- ◆ There is a low degree of co-operation or linkage with firms external to the district.
- ◆ The labour market internal to the district is highly flexible.
- ◆ Workers are committed to the district rather than to firms.
- ◆ There are high rates of labour in-migration, but low levels of out-migration.
- ◆ There is an evolution of a unique local cultural identity with diverse bonds.
- ◆ Specialised sources of finance, technical expertise and business services are available in the district.
- ◆ There are business fluctuations, but also good long-term prospects for growth and employment.

In addition to the above, Markusen (1996) concluded that a typical Italian industrial district also exhibits the following features, which give further credence to its uniqueness.

- ◆ A high incidence of exchanges of personnel between customers and suppliers.
- ◆ A high degree of co-operation among competitor firms to share risks, stabilise the market and share innovations.
- ◆ Disproportionate shares of workers are engaged in design and innovation-related activities.
- ◆ Strong trade associations facilitate the provision of shared infrastructure, management training, marketing and technical as well as financial help.
- ◆ A strong local-government role in regulating and promoting core industries.

From this wide range of characteristics of Italian industrial-district clusters, a number of features have been identified as being pivotal to the industrial district functionality and advancement, which makes them particularly relevant for Nigeria.

- a) There is a predominance of small firms in the district.
- b) Most districts have export-orientated capacities, with the export consortia facilitating the process.
- c) Many districts are high-tech-driven, with a substantial part of public support focused on that dimension.
- d) Industrial districts are built around core productive activities. Most districts are historically renowned for specific activities. One of them is the sports-shoes district in Montebelluna in the province of Treviso, with an enviable record of having over 50 per cent of the world production of mountain boots/shoes, about 75 per cent of the world production of ski boots and about 80 per cent of the world production of motorcycle boots (Mayer 2011). Other examples are the ceramic-tiles district in Sassuolo, Emilia Romagna as the home to global leaders in the mechanical sector, the Veneto region as an outstanding manufacturer using nanotechnologies and the Piedmont region accommodating a number of ICT districts with the dominance of small and medium enterprises.
- e) Industrial districts are based on the competitive advantages of SME-cluster groups and they are profoundly rooted in the local content. According to Unido (1997), three significant behaviour patterns are fundamental to the industrial districts, namely *specialisation*, *co-operation* and *flexibility*. They are the hallmarks of firms' competitive advantage in any enterprise-clustered environment. One interesting aspect of firms'

specialisation is that it not only enables individual firms to channel their resources and competencies in the areas of their strength, but it also creates a kind of specialisation in processes which ultimately lead to further division of labour (Unido 1997). This division of labour also leads to the pooling of local expertise, especially in areas of technical skills, competencies and human resources within the cluster environment. This creates more flexibility and mobility of skills within the cluster as local technicians, workers and managers move from firm to firm within the cluster to render their services. At the same time further subcontracting and outsourcing of requisite skills and competencies are encouraged. Unido (1997) noted that these kinds of arrangements ensure that local infrastructure and training institutions become more specialised in the cluster activities. An increased degree of inter-firm co-operation makes skill outsourcing and subcontracting among firms possible.

- f) In the districts, trade associations provide infrastructure facilities, management training and marketing support as well as technical and financial help for members in the district.
- g) There is a strong local-government commitment to promote core industries in the district.
- h) The industrial-district approach helped significantly to address the economic disparity of Italy's regions.
- i) The industrial-district policy of Italy was a fully integrated part of the government's national policy on SME development and it is part of the overall industrial and general economic policy of the country.
- j) In order to make government policies (to support clusters) more effective, support schemes are as far as practically possible institutionalised with clear managerial and financial frameworks.

4.3.2 Hungary

Hungary is a small country with a population of about 10 million people, located in the centre of the East-European group of nations which transitioned from socialist to market economies after 1990. The country is relatively well developed with a strong industrial sector, well established larger enterprises and a sizeable small-business sector.

After joining the European Union in 2004 the main challenge for Hungary has been to strengthen its international competitiveness with respect to industrial exports. This can also

be seen as the underlying goal of its small-business-development strategy, as will be explained in this section.

Hungary's SME sector is numerically dominated by micro-enterprises, which employ about 36,4 per cent of the labour force engaged in the business sector. It contributes about 21,2 per cent to private-sector value added. Together with small and medium-sized enterprises, Hungary's small-business sector contributes 53,8 per cent to private-sector value added and 72,7 per cent to employment, compared to the EU average of 58,1 per cent and 67,4 per cent respectively (SBA Fact Sheet 2012).

Over the past years a number of factors have aided the growth of the sector. These factors, according to Unece (2005), included extensive experience gained in the competitive environment during the last 15 years of economic transition, a sound legal background set up by the government in the 2004 Act on Small and Medium-Sized Enterprises and the introduction of support for different categories of enterprises, provided by national and international agencies. For example, the introduction of a simplified tax for enterprises and entrepreneurs as well as two significant benefit schemes for SMEs and the formation of entrepreneurial networks helped reduce their competitive disadvantages to large enterprises. Yet, despite their huge contributions to the economy of Hungary local SMEs still face a number of challenges, including a lack of access to capital, inefficient management of enterprises and high administrative burdens for SMEs.

To tackle these challenges and further strengthen Hungary's competitive position in the EU the promotion of economic-development clusters has been one of the features of Hungary's economic-development strategy.

As part of the EU initiatives to develop and support innovative SMEs among its member states clustering support is being adopted as a means of encouraging national as well as transnational cluster co-operation, facilitate clusters' access to new markets and take measures to encourage greater participation of SMEs in innovative clusters.

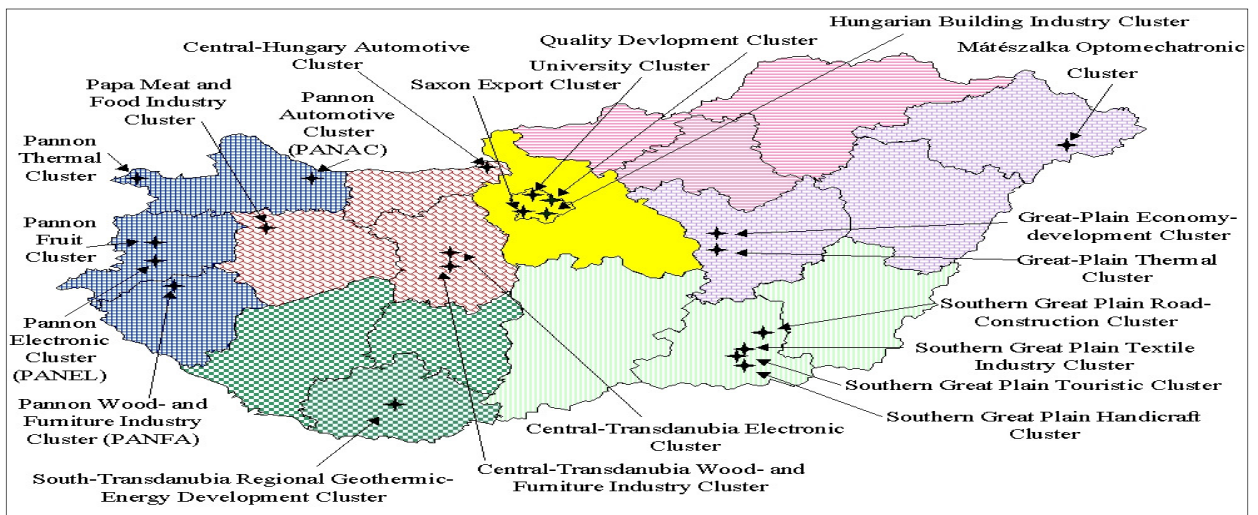
4.3.2.1 *Hungary's cluster-development strategy*

Cluster-development initiatives in Hungary are directly linked to the economic-development agenda of the central government. The earlier cluster-development programme was an offshoot of the 2001 *Szanchenyi Plan* and the National Development Programme of 2002, which was an economic-development blueprint of the Hungarian government. This

programme focused on the regional economic development of the country with a seven-point development agenda covering enterprise promotion, housing, tourism, research and innovation, infrastructure development as well as regional economic development (Ravn and Petersen 2005).

Nikodemus and Gecse (2003) emphasised that one of the main driving points of the economic-development plan was to combat regional inequalities in the country. In this context domestic enterprises had to become more competitive and efforts were needed to bridge the gap between multinational enterprises and their domestic counterparts. It was hoped the programme would achieve this by creating and supporting networks and network-orientated policies (Ravn and Petersen 2005) that would enhance regional economic development.

Between 2001 and 2002, cluster programmes were implemented through the Ministry of Economic Affairs. At that stage 22 regional clusters were created with funding provided by the ministry (Ravn and Petersen 2005). This regional-based cluster-development programme gradually improved the regional development balance between various Hungarian regions. For instance, Nikodemus and Gecse (2003) observed that during the period a number of clusters evolved in the north-western region of Hungary, while the previously disadvantaged regions of east and southern Hungary established seven clusters and 11 were established in the western and central regions of the country. The most successful clusters were found in north-west Hungary. Map 4.2 depicts the Hungarian regional cluster spread at 2003.



Map 4.2: Clustering in the seven regions of Hungary

SOURCE: Adapted from Nikodemus and Gece (2003)

There were also a number of cluster-development initiatives embarked upon by the Hungarian government outside the 2001/02 Szanchenyi Plan and the National Development Programme. Most of these cluster initiatives were funded through a central funding pool established by the Ministry of Economy (Zombori 2009). For instance, the first automotive cluster, involving three major Hungarian-based car manufacturers: Suzuki, GM and Audi (and more than 50 SMEs) was supported by the Ministry of Economy. Prior to 2008 about 48 clusters had been spread across the regions, with the highest number of 11 clusters located in the South Great Plain Region.

Notwithstanding this impressive trend, many of the clusters, according to Zombori (2009), experienced problems which hampered their effectiveness and competitiveness. These problems included a general lack of trust and confidence among business actors due to low levels of business co-operation, the lack of stable and consistent national cluster development policies of the government, limited involvement of professionals in cluster-development programmes and management as well as inadequate funding for cluster projects.

To address these shortcomings and further strengthen the development of globally competitive industries in Hungary's different regions the *Pole Programme* was initiated in 2007/08.

4.3.2.2 *The Hungarian Pole Programme*

In early 2007 the government introduced a generic economic-development programme called the Pole Programme, with a projected time span of 2007 to 2013. This programme aimed to increase Hungary's international competitiveness through the support of selected clusters as "Pole cities" (Nahlik et al. 2009). Pole cities were seen as the most-developed urban areas in Hungary (Izabella and Zsofia 2010). These cities, selected from the seven regions of Hungary, included Győr, Veszprém, Székesfehérvár, Budapest, Miskolc, Debrecen, Szeged and Pécs.

The Pole Programme had the principal aims to

- ◆ facilitate the formation of internationally competitive clusters,
- ◆ promote innovative activities with high added value,
- ◆ foster strong co-operation between enterprises and complementary institutions such as universities and government departments,
- ◆ strengthen the position of regions through the pole towns, i.e. facilitating the competitiveness of the regions and their overall business environment.

This programme worked on the basis of selecting from the existing clusters those which showed signs of great potential and directing resources towards strengthening and empowering them for further growth. This approach was preferred as opposed to channelling resources towards building totally new clusters (Enright 2003). Empirical evidence had actually shown that cluster programmes are much more successful when aimed at developing or activating further already existing clusters (Enright 2003, Ketels 2003 a, Ravn and Petersen 2005: 26). The primary focus was thus to channel infrastructure and business-support services towards the improvement and further dynamic growth of such clusters.

The Pole Programme was intended to enhance the competitiveness of domestic companies and clusters that are mainly export orientated and in innovative industrial fields with high added value. The principal actors in the pole-cluster programme included larger companies, organised private-sector institutions such as chambers of commerce and municipalities at the local and regional levels as well as universities and research institutions located within the area.

In order for Hungary to compete successfully at the European level and create more export-orientated activities, the programme set the following expected results for the period 2007 to 2013 (PPO 2007).

- ◆ Increase the country's successful innovation pole clusters from 50 to 100,
- ◆ ensure that each cluster is successful at the European level, gaining a substantial share of the European markets,
- ◆ ensure that each cluster is successfully connected to the global industry value chain,
- ◆ strengthen the SME sector in each cluster, ensuring the international competitiveness of suppliers and increasing significantly the self-development capability of the sector.

The programme was structured into four different developmental phases, with predefined measurable objectives and performance indicators. We can briefly summarise these phases.

PHASE 1: Start-up and co-operation initiatives

The initial phase of the CDP focused on selecting places with potentially export-orientated and high-value adding firms. Initial support services to these selected clusters included help with cluster management and joint services. Between 150 and 200 existing clusters were targeted by the pole initiative. The selection was based on received applications to set up clusters or from existing clusters which were supported by companies, organised private-sector institutions, such as chambers of commerce, municipalities at the local and regional levels, universities and research institutions located within designated pole cities. The selected clusters were from a number of industrial sectors with energy, automotive machinery and information/communication technology having the largest number of clusters each. Other sectors included environmental industry, health care, tourism, construction, food industry, education, plastics/packaging, ceramics, wood and furniture, material science and agriculture. Support for this group of start-up clusters was funded through regional operational-programme subsidies. Strong emphasis was placed on co-operation and collaboration, especially among the three principal actors, viz. municipalities, companies and universities.

PHASE 2: Developing the clusters

The second stage of the pole-cluster programme aimed at supporting the active co-operation process triggered in the first phase and helping the clusters to develop further. About 50 to

100 clusters were targeted for this stage, compared to the initial 150 to 200 selected in phase 1 of the programme. The primary criteria for inclusion were at least one successful year of export orientation and a high value-adding level. The support focused on cluster management, joint services and investment funding. The cluster support was still funded through subsidies from the regional operational programme.

PHASE 3: Accrediting clusters

To move to an even higher level of support, existing clusters had to be subjected to a rigorous evaluation process with the aim of selecting the most promising ones as “accredited clusters”. This implied to

- ◆ select and classify clusters that achieve significant international and domestic performance,
- ◆ identify and select clusters that have extraordinary potential for further growth and
- ◆ ensure that the selected clusters are not merely rent seekers.

An accreditation committee was set up, consisting of governmental decision-makers and reputable economists from the private sector. To help the accreditation committee perform its function effectively, an accreditation model was developed by the Pole Programme office (PPO), based on quantitative and qualitative criteria that have been determined by experts and have been tested on operating clusters. The five criteria were assigned weights as shown in Table 4.2.

In the implementation of the Pole Programme, 21 clusters were accredited, cutting across diverse industries, with six of them operating in the Southern Great Plain and five clusters in Central Hungary. The 21 clusters had eight in health care, five in ICT, four in environmental industries, two in packaging and one each in construction and food-processing.

The 21 accredited clusters received financial support through the Economic Development Operational Programme (EDOP), including research-and-development funding and help with investment and project execution.

Table 4.2
Criteria in the assessment for accreditation

S/N	Criteria	Weight	Evaluation goal
1	Co-operation in the cluster	10	Evaluation of the forms and content of the co-operation in the cluster
2	Members in the cluster	2	Analysis of the sort and number of the cluster's members
3	Business performance of SMEs	5	Examination of market-proven success with emphasis on export activities and high added value
4	Research and development performance	4	Analysis of research and development activities in the cluster
5	Strategic and operational plans	14	Analysis of the cluster's vision and strategy; filtering out co-operation without relevant content
Total points		35	

SOURCE: Adapted from the Pole Programme office (2007)

PHASE 4: Pole innovation clusters

The aim of this phase was to select the most innovative clusters as research-and-development projects. The Pole office Programme (2007) stipulated that the innovation-cluster stage required the active participation of large companies. This implied that the focus of economic performance shifted from SMEs to the total performance of the cluster, including large companies. The past performance and the potential of the cluster had to prove their ability to fit into the global goals of the Pole Programme. On that basis the total number of innovation clusters under this phase was estimated to be only between five and 10 clusters.

The overall assessment of the Hungarian Pole Cluster Programme showed a string of successes when evaluated against the anticipated results at the time of conceptualisation. For instance, at the start-up and co-operation initiatives stage (Stage 1 of the cluster programme), no fewer than 79 clusters made successful applications and were granted about €8 mill. each as support grants (Kocker and Rosted 2010: 58). These clusters cut across 16 different industrial sectors. Stage 2 of the programme produced 21 clusters that made successful applications and were each granted about €5,3 mill. in subsidies (Kocker and Rosted 2010: 16). Eighteen clusters were accredited for Stage 3 of the programme and received subsidies up to €33 mill. Finally, 10 of the accredited clusters successfully executed about 43 projects with grants provided by the EDOP.

4.3.2.3 *Lessons from Hungary*

We can briefly summarise a few lessons which Nigeria can learn from Hungary's particular approach to clusterisation.

- ◆ The underlying motive of the Pole Programme was the urge to strengthen Hungary's international competitiveness (in the context of its EU membership). In order to achieve this there was a strong linkage of the programme to the national economic-development agenda of the government, which included a wide range of sectors for growth stimulation.
- ◆ The cluster-support programme was regional-development-based, aimed at the reduction of regional-development disparities.
- ◆ The programme has been evolving and is developmental in nature. Different stages of the programme offered various opportunities to SMEs and other stakeholders to build sustainable and competitive clusters with significant government support.
- ◆ The programme enhanced the ideals of the triple-helix concept of cluster building with its emphasis on co-operation, networking and collaboration among cluster beneficiaries such as the municipalities, companies, organised private-sector organisations and the universities and research institutes. The emphasis on research and development at the higher phase of the cluster process further strengthened national competitiveness and innovation.
- ◆ Funding of the various stages was largely dependent on the government. While this ensured that participation by the beneficiaries was maintained, the government was grasping with scarce resources and constantly had to make decisions on how best to deploy available resources. Hence, limited funds are likely to affect the long-run success of the programme. Moreover, if government and its agencies do not set up clear-cut exit strategies to avoid the dependence syndrome by the cluster firms, future sustainability of the clusters may be jeopardised.

4.4 **Clusterisation in Latin America**

Like the central and eastern European countries, some of the Latin American countries have over the past few decades gone through a transition marked by political democratisation and

socio-political liberation, moving from rigidly state-controlled to market-orientated economies. In the past the allocation of economic resources was often arbitrarily determined by the central authorities and their agencies. The totalitarian regimes gave little room for a dynamic economic-development agenda supported by an open market system. As Altenburg and Stamer (1999: 3) as well as Albaladejo (2001) pointed out, the economic liberalisation policies of the 1980s and 1990s ushered in far-reaching structural changes in several Latin American countries which saw the opening up of the economy and involvement of private-sector institutions in both policy formulation and implementation.

In this transition small and medium enterprises played a significant role in repositioning the economy. Not only were they seen as one of the most significant sources of employment, but their contribution to the GDP was recognised as being substantial. Thus, over 78 per cent of the total business employment in Latin America was contributed by SMEs, with micro-enterprises contributing about 49 per cent, small enterprises 19 per cent and medium enterprises about 10 per cent (Angelelli and Moudry 2006).

Despite the relative importance of small enterprises to the economy of the region, small firms within this region shared similar challenges. These included low levels of technology, low capacity of business management and administration as well as a lack of access to fiscal incentives and financial services. To boost the role of SMEs in economic development and enhance their competitiveness, different countries have come up with a range of initiatives, which also included cluster development. We shall briefly review some general trends related to clusterisation in Latin America and then focus more specifically on Brazil.

4.4.1 General characteristics of cluster development in Latin America

Over the past few decades Latin American governments learnt useful lessons from the industrial districts of Italy and equivalent developments in other European countries. This has resulted in spatial initiatives in towns and cities leading to a number of small towns specialising in the production of certain products such as garments or leather- and footwear products (Hanson 1991, Wilson 1992).

Altenburg and Meyer-Stamer (1999) classified small-business clusters in Latin America into three distinctive types, which we can briefly summarise below. Variations of these three types can be found in different Latin American countries. As such they also have lessons for

Africa, where different countries and development environments call for different cluster approaches.

◆ **Survival clusters**

This form of cluster is dominant among Latin American countries. Low barriers of entry and the predominance of low-quality consumer products make entry to such clusters easy. There is a high level of informality among firms operating within these clusters. They are characterised by low levels of technology, inter-firm specialisation, co-operation and skilled-labour inputs. Mead (1994) linked the dominance of such clusters to the high levels of poverty in the places. Most of the clusters are artisanal and are located in the poor areas of settlements, where there is a high level of unemployment and predominance of unskilled labour. Such clusters can also be found in and around small rural towns and on the outskirts of larger towns.

◆ **Mass-production clusters**

These are clusters of small and medium-sized firms specialising in the production of differentiated products, mainly for domestic consumption. Altenburg and Meyer-Stamer (1999) observed that these clusters usually include a heterogeneous mix of enterprises, ranging from petty producers to medium- and large-scale producers. Most of these clusters came into existence during the import-substitution period and are rooted in their specialisation in the production of traditional goods and a narrow range of other products. Thus, there is relatively little innovation and the competitive potential of the firms in the clusters are quite limited, i.e. they often cannot withstand stiff competition from international markets (Mayer-Stamer 1998). There is a high incidence of vertical integration of firms, with little opportunities for informal co-operation among firms within the clusters (Altenburg and Mayer-Stamer 1999).

In their bid to remain competitive, such clusters often streamlined their mode of operation by cutting down the workforce (Lavinias and Nabuko 1995) and outsourcing core functions such as human-resource training, maintenance, security and transportation.

These early mass-production clusters in Latin America lacked strong enabling environments for effective operation, given often bizarre regulatory frameworks, limited inter-firm co-operation (both locally and linkages to foreign firms), inadequate training, low levels of information and advisory services as well as a lack of research-and-development facilities.

◆ Clusters of transnational corporations

These clusters employ more advanced and sophisticated technology for the operation of their complex activities (Altenburg and Meyer-Stamer 1997). The set-up is more of a satellite cluster, where there is a dominance of large and externally headquartered firms within the cluster (Zhang and Van Bulcke 2007). As in satellite clusters, the firms operating within the clusters are predominantly branches of large external firms with headquarters located elsewhere. Due to the high level of technology in production processes, the entry barrier to such clusters is usually very high. At the same time the level of linkages with local small firms is quite low, since most decisions made by transnational corporations operating in these clusters are made at their headquarters. Such decisions include financing, research-and-development activities, product standardisation and marketing. Notwithstanding those limitations, the presence of clusters of transnational corporations has in general encouraged the diffusion of technologies from transnational corporations to local firms (Feser 2002).

Producing diverse ranges of products, from automobiles and auto-parts to electronics, these clusters can be found in Mexico, Argentina, Costa Rica and Brazil. Small firms operating within such clusters benefit through sub-contracting and the supply of local raw materials and components to the large firms.

Having briefly described the three categories of clusters most prevalent across Latin America, the remainder of this section will focus on Brazil. It is the most populous of the Latin American countries as well as the one with the greatest similarities to the challenges experienced in Nigeria.

4.4.2 Brazil

With a population of 200 mill. and an area of 8 547 000 km², Brazil has a slightly higher population than Nigeria, but is almost ten times larger in land area than Nigeria. This results in far lower population densities in Brazil and a wide spread of settlement areas, villages, towns and cities. Leaving aside the two megacities (São Paulo with 11,2 mill. inhabitants and Rio de Janeiro with 6,4 mill.) and a further 15 cities between one and three million inhabitants (located mostly along the vast coastline), Brazil's settlement areas are widely dispersed and of limited size.

Brazil has a large and dynamic small-business sector. It was estimated to include over 16 mill. registered and informal enterprises in 2008, with about 11,5 per cent in the agricultural sector, 37,5 per cent in commerce and 10,6 per cent in manufacturing.

4.4.2.1 *Small-business support in Brazil*

Compared to most other Latin American countries, Brazil has a fairly well developed SME sector, with a wide range of support policies and institutions having over the past decades addressed conventional problems and challenges. According to Obadan and Agba (2007), these support policies fall into the following four main categories.

- ◆ Policies and institutional frameworks that shape the business environment, like compliance-friendly regulatory frameworks, tax systems and business registration as well as permit systems.
- ◆ Policies and programmes to strengthen entrepreneurship development (with particular emphasis on women entrepreneurship) as well as business and financial management skills.
- ◆ Programmes to strengthen SME access to finance and markets, including the capacity to compete for government contracts and to enter networking as well as linkages with larger enterprises.
- ◆ Efforts by national, regional and local authorities as well as other public bodies to improve infrastructure facilities needed by SMEs in both the urban and rural areas.

Among the wide spectrum of public, private and semi-state bodies that have evolved in Brazil's SME-support sphere, *Sebrae* (Serviço Brasileiro de Apoio às Micro e Pequenas Empresas – Brazilian service of assistance to micro- and small enterprises) is the most important institution. Established in 1972 as a non-profit organisation, it has the task of promoting the competitiveness and sustainable development of SMEs and to foster entrepreneurship in Brazil. This it does through the direct provision of services, the creation or facilitation of other support institutions and through policy formulation and oversight functions related to SMEs in different sectors and areas of the country.

Sebrae maintains a central office in Brasília, operational offices in the different regions of Brazil and a network of business-development centres at the local level. Through this network, it tries to ensure the effective co-operation between government agencies, private-sector-support agencies and business associations active in the support of SMEs (Angelelli, Moudry and Llisterra 2006).

Sebrae's governing board, which is also the policy-making organ of the organisation, includes representatives from the government's Ministry of Development, Industry and Trade (MDIC), the Brazilian Association of Financial Institutions for Development, the National Industry Confederation, the Bank of Brazil, the Economic and Social Development National Bank and the National Association for Research and Engineering of Innovative Enterprises.

Thus, while the Brazilian government focuses on legislation and fiscal as well as regulatory frameworks related to (small) business development, Sebrae tries to cover a far wider spectrum of activities, including

- ◆ the facilitation of training programmes for entrepreneurs,
- ◆ improvements in the SMEs' access to finance, markets and technology and
- ◆ the creation and development of small-business clusters as tools for SME advancement.

Despite the wide range of programmes and initiatives of the government and the private sector towards creating a sustainable and competitive SME sector in Brazil, the sector is still confronted with many challenges. For example, Schlemm (1999) highlighted the impact of culture on the performance of entrepreneurs in Brazil. He is of the opinion that SMEs often find it difficult to adapt to new levels of knowledge and new styles of business management, especially those prevalent in the 21st century. He believes, conventional management thinking and business administrative patterns are being superseded by research-based management techniques and practices that are often quite challenging for older entrepreneurs. Their adoption and customisation often require a solid understanding of their working principles and assumptions to make their integration with local knowledge and culture feasible. Local small businesses may actually prefer the old mental structures, with which they are conversant. This view is also shared by Albaladejo (2001) who emphasises that this does not only apply to small-business entrepreneurs in Brazil but also other Latin American countries, as revealed by reports of the Economic Commission of Latin America.

In addition to these more specific issues, regular evaluations (like the GEM Reports of 2008 and 2010) showed that Brazil's SMEs need more and more effective support in spheres like education, physical infrastructure development and access to specialised finance (Timm 2011, May, de Vinka and Macqueen 2003).

These conclusions about the inadequate growth and competitiveness of SMEs in Brazil contributed to calls for small-business clusters as tools to tackle these challenges simultaneously. Thus, pressure for cluster development came from the wider spectrum of SME-support agencies rather than through a top-down government strategy of cluster development (Meyer-Stamer and Seibel 2002, Albaladejo 2001, Ingley 2004, Angelelli and Moudry 2006). Buttressing this position, Nareto (2002) sees the involvement of government in cluster development in Brazil as more of a public-policy intervention response to market failures.

4.4.2.2 *Brazil's cluster-development strategy*

In contrast to the existence and evolution of distinct cluster-development programmes in some other countries (reviewed in this chapter), Brazil does not have a co-ordinated and focused state-policy framework for its cluster-development process. Yet, a large number of clusters exists across the country, with different players engaged in the support of cluster developments.

To learn from these diverse cluster processes, we can base our review on four particular types of cluster or cluster dynamics which seem particularly relevant for Nigeria.

A: Intra-cluster networking and joint action

Meyer-Stamer and Seibel (2002), while highlighting the importance of small-business clustering in Brazil, showed how joint action by firms operating in the ceramic-tiles industry in the Santa Catarina cluster helped in reducing a number of barriers to small-business competitiveness. These included barriers to intra-firm competence building and barriers to exports through local firms working jointly in export consortia. Similarly, the agglomeration of local firms within the tile industry created a critical mass, which leads to a strong demand for business-development services.

De Oliviera and de Oliviera (2010) emphasised the importance of networking and joint action as crucial factors enabling the competitiveness of small firms embedded in clusters.

They also stressed the role of effective and co-ordinated governance in the clusters. This covers the inter-relationship among specialised industries, service providers and support institutions (universities, agencies and trade associations). The means and style by which such agglomeration is governed becomes critical and determines largely the level at which the benefits associated with such agglomerations can be exploited. As Altenburg and Meyer-Stamer (1999) pointed out, the benefits of such agglomeration can include the following.

- ◆ Collective efficiency
- ◆ Positive externalities due to a local pool of skilled labour and attracted buyers
- ◆ Forward and backward links between firms within clusters, giving rise to inter-firm learning
- ◆ Intensive information exchange between companies, institutions and individuals within the clusters
- ◆ Joint action towards the creation of location advantages
- ◆ Evolution of a diversified institutional infrastructure to support specific activities of the clusters
- ◆ Creation of a socio-cultural identity made up of common values and the facilitation of trust

While these factors are ideal and effectively contribute to both the competitiveness of the clusters and individual firms operating within the clusters, Porter (1998) cautioned that these factors, if not well managed, might lead to the decay of the clusters. He particularly pointed out areas where ineffective cluster governance can lead to problems with (e.g.) union rules, restrictive regulatory barriers, excessive mergers and other barriers to competition. De Oliveira and de Oliveira (2010) viewed cluster-governance structures as the power to establish rules for members of the cluster chain and co-ordination to ensure the implementation and adherence to these rules. To this end, streamlined governance practices, which encourage openness, co-operation and collaboration of cluster participants, should be encouraged. For this, Motta and Amato Neto (2002) as well as OECD (2000) advocated the setting up of external agents or institutions to anchor such governance structures and ensure effective co-ordination and process monitoring.

In the area of joint action, Schmitz (1999), Nadvi (1999) and IDB (2011) indicated three types of deliberate joint action.

- ◆ Joint action within vertical linkages, which involve backward ties with suppliers and subcontractors as well as forward ties with traders and buyers,
- ◆ joint action within horizontal linkages, i.e. between two or more local producers (e.g. joint marketing of products, joint purchase of inputs or common use of specialised equipment) and
- ◆ multilateral horizontal linkages among a large number of local producers through cluster-wide institutions (like business associations or business-service centres).

B: Public-private interaction

Humphrey and Schmitz (1995) showed in a review of the Sinos Valley footwear cluster how the interaction of public- and private-sector institutions helped transform the competitive landscape of the footwear industry into a regional cluster. It evolved from a mere cluster of regional shoe producers to a major player in the national and international market. Fenac, a public-sector institution primarily organising trade fairs and exhibitions for the shoe sector, attracted overseas buyers from North America and helped in forging a link with these markets. Once this market link had been made, private export agents came in to perform the critical role of making the connection between the local producers in the Sinos Valley cluster and international buyers. According to Nadvi (1999: 12), Brazil exported close to US\$2 billion worth of shoes in 1993, making it the third-largest exporter of footwear, covering over 12 per cent of the world market. Most of these exports came from the Sinos Valley cluster.

Another example of public-private interaction in Brazilian clusterisation is the role banks play in assisting cluster programmes at local, regional and national levels (IDB 2011). In some cases, banks design financing schemes to implement infrastructure projects, which directly benefit evolving clusters. This is directly relevant for clusterisation efforts in Nigeria, where infrastructure backlogs are even more severe than in Brazil.

C: Critical mass of SMEs

One of the main preconditions for the development of sustainable and growth-orientated clusters is the presence of a critical mass of small-business operators (Nell and Makuwaza

2001, Vang and Chaminade 2009, Thompson 2005). This will enable the geographical agglomeration and achieve co-operative benefits. In this context Romis (2008) stresses that it is difficult to create a successful cluster from scratch, but that strengthening the critical mass of enterprises can go a long way in making a success of existing clusters.

A cluster can achieve such internal dynamism rooted in internal competition, co-operation and networking among the firms. This may lead to improved quality of products and services, cost reduction, expansion of product lines, the acquisition of new customers, delving into new markets and creating new products and services. These could all be the results of the increased level of internal dynamism a cluster can attain. Many of the currently successful clusters in Brazil have such a history of some early agglomeration of subsector specific firms, strengthened by a slow process of added agglomeration and the interaction of public- and private-sector support agents. Once again, the Sinos Valley footwear cluster, with 400 shoe producers and over 1 300 enterprises providing raw materials, components and services is an example.

D: Involvement of local business associations

Local business associations play a significant role in cluster developments in several Brazilian clusters (Nadvi 1995). They create a bottom-up approach to cluster development (Meyer-Stamer and Harmes-Liedtke 2005).

Local business associations vary in composition, scale of operation and organisation (Moore and Hamallai 1993) and their level of involvement in clusters varies. Nadvi (1999) observed that their involvement can be at the sector-specific level, but it can also happen at the regional level as they bring together business organisations as well as local chambers of commerce on issues relating to cluster advocacy. Their roles in clusters include

- ◆ advocacy and initiation of joint action in local business clusters,
- ◆ co-ordination and regulation of activities (like the attendance of trade fairs),
- ◆ representation of cluster interests at various levels of government (i.e. acting as a pressure group) and
- ◆ provision of specific services in the clusters, such as technical, managerial, marketing and other advice or the link-up with other advice services.

In the *Sinos Valley* cluster in Brazil, six business associations were representing the different interests of specific shoe-production value chains. These included Abicalcado for the shoe

producers, Aicsul for tanners, Assintecal for component producers, Abrameq for machinery suppliers and Abaex for export agents. There were also two other professional associations as well as four training institutions within the cluster. Their co-ordinated activities made the cluster one of the best examples of highly efficient clusters, not only in Brazil but also in the developing world (Nadvi 1999).

4.4.2.3 *Lessons from Brazil*

Given a number of similarities in the geo-economic structures of Brazil and Nigeria a few lessons from Brazil's clusterisation process seem to be particularly relevant for Nigeria.

- ◆ In Brazil's larger cities different types of sector-focused clusters have evolved over the past century and have played a significant role in the small-business development process of the country. These clusters were private-sector-driven, although public institutions have at times facilitated the process.
- ◆ Over the past decades a wide range of small-business support bodies and programmes evolved across the country, with each focusing on specific challenges, sectors or geographic areas. Several of them were also relevant for the facilitation of clusterisation processes.
- ◆ Brazil's national government does not pursue a centralised ("top-down") clusterisation strategy, nor does it have specific institutions to pursue this goal.
- ◆ The most prominent Brazilian public-sector SME-support agency, Sebrae, has cluster support as one of its many functions. Sebrae has shown its ability to facilitate clustering processes through its different functions, even though there are clear capacity limitations.
- ◆ The many different clusters existing or evolving in Brazil are mostly bottom-up projects, i.e. private-sector-initiated with some support from the different levels of government and other public bodies, NGOs and civil-society players.
- ◆ Success in these CDPs depends largely on negotiated joint efforts between the main players. In this context business associations play a strategic role in Brazil's clusterisation process.

- ◆ Foreign partners have played a distinct supportive role in some clusters, but overall their contribution has been limited.
- ◆ In the light of the significance of advanced technology in global competition, universities and research centres in Brazil are seen to play an increasingly important role in new clusters.

4.5 Conclusion

This chapter tried to show the significance and diversity of the clusterisation process as a key element in the small-business development process across the emerging and more developed countries. It included countries from three continents, with Africa left for Chapter 5.

Table 4.3 summarises the cluster-development factors recognised in (some of) the seven countries. While there are many factors that shape an individual country's clusterisation process in a unique way, there are also certain common characteristics and preconditions for successful clustering which evolve out of our country reviews. To conclude this chapter, we can briefly list common trends, which seem relevant for the planning of Nigeria's CDP.

- a) The small-business sector is an important element in all these countries' GDP and employment.
- b) Most countries have a formalised small-business-support strategy.
- c) Some small-business-related clusters already exist in most countries.
- d) SME and cluster-development policies are often linked to the national economic-development strategy of individual countries.
- e) Most clustering efforts and policies place emphasis on a sector focus in the respective clusters.
- f) Most cluster-support programmes are regionally focused and adapted.
- g) Each of the different levels of government should play a proactive role in cluster-support processes.

Table 4.3
Cluster-development factors in (semi-)developed countries

S/N	Key factors	Japan	India	Indonesia	Hungary	Slovenia	Italy	Brazil
1	SME sector important?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	SME support strategy exists?	Yes		Yes	Yes	Yes	Yes	Yes
3	SME and cluster dev. linked to national economic dev. policy?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	Clusters existing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	Sector focus of clustering?	Yes	Yes	Yes	Yes	No	Yes	No
6	Incubators involved?	Yes	No	No	No	No	No	No
7	Regional focus in development?	Yes	Yes	Yes	Yes	No	Yes	No
8	Active government role?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	SME and finance addressed?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	Foreign involvement in cluster?	Yes	Yes	No	No	No	No	No
11	Universities/research and development institutions involved?	Yes	Yes	Yes	Yes	Yes	Yes	No
12	Rural/traditional sectors involved in clusters?	Yes	Yes	Yes	Yes	No	Yes	No
13	Infrastructure development spurned?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14	Linkages supported?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
15	Local sector associations engaged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
16	Export promotion?	Yes	Yes	Yes	Yes	No	Yes	Yes
17	High-tech/technology diffusion?	Yes	Yes	Yes	Yes	Yes	Yes	No
18	Skill development and knowledge spread?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
19	Formal partnership approach?	Yes	Yes	Yes	No	Yes	Yes	Yes
20	Focus on new clusters?	Yes	No	No	No	No	Yes	No
21	Fous on existing clusters?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
22	Strengthening the value chain?	Yes	Yes	Yes	Yes	Yes	Yes	No

SOURCE: Summary of seven country reviews

- h) Traditional (locally-rooted) sector activities play a significant role in some of the clusters.
- i) Infrastructure development is usually prioritised in efforts to support or facilitate cluster developments.
- j) Efforts to strengthen the local skills development and knowledge spread play a central role in cluster-development programmes.
- k) Current cluster-development programmes give high priority to the diffusion of modern high-tech technology.
- l) To strengthen skills development and technology transfers, universities and research institutions are critical partners in CDPs.
- m) Export promotion and facilitation are important for cluster growth.
- n) Local business and sector associations are key partners in CDPs.
- o) The mobilisation of business finance is a critical factor in the support of CDPs.
- p) Small-business incubators play a supportive role in the development of some clusters.
- q) Successful clustering processes strengthen inter-business linkages and links along supply chains.
- r) Formally organised PPPs can significantly strengthen clustering processes.

We shall return to these aspects in our discussion about Nigeria's clusterisation pattern and dynamics in Chapters 7 and 8. In addition, they are at the basis of the search for an integrated strategy for Nigeria's SME clusterisation in Chapter 9. As a further link between global lessons and the process in Nigeria, the next chapter reviews lessons with regard to clusterisation on the African continent.

CHAPTER 5

CLUSTER DEVELOPMENT IN AFRICA

Having discussed the diverse and in many countries quite advanced processes of clusterisation on the more developed continents, we now look at clusterisation patterns in Africa. In this chapter we first look at the overall process of relatively very low clusterisation levels in Africa. This is followed by a closer look at clusterisation in just two countries which are at the opposite levels of development, viz. Ethiopia and South Africa. This paves the way for the more detailed review of clusterisation in Nigeria, which is covered in the next part of the study.

The last chapter showed that the preconditions for cluster developments differ widely between countries on the continents. This also applies to Africa, even though most of the 54 countries have relatively low *per capita* GDP levels, low urbanisation rates and in many cases limited resource endowments. Our goal is not so much to focus on these country differences, but to understand why the clusterisation levels are generally still low across Africa and what types of clusters currently dominate the process of clusterisation on the continent (Chisenga 2014).

5.1 AFRICA'S LOW CLUSTERISATION LEVELS

As pointed out before, with very few exceptions clusterisation levels are still quite low in Africa, South Africa being the most distinct exception. Several factors have held back that process in the different regions of the continent. We can briefly review these contributing factors.

5.1.1 Low urbanisation levels

Africa is the continent with the lowest level of urbanisation. Its rate of urbanisation in the early 20th century was about five per cent of the total population. This steadily grew to about 15 per cent at the prime of colonialism and it reached about 40 per cent by 2010, with an annual growth rate of 3,7 per cent in the urban population (Jedwab 2013: 1, Freire 2013: 3). Figure 5.1 shows the long-run trend. These low levels are in sharp contrast to an average of 57 per cent and 77 per cent in the developed countries of Europe in 1960 and 2011 respectively (UN 2011: 4).

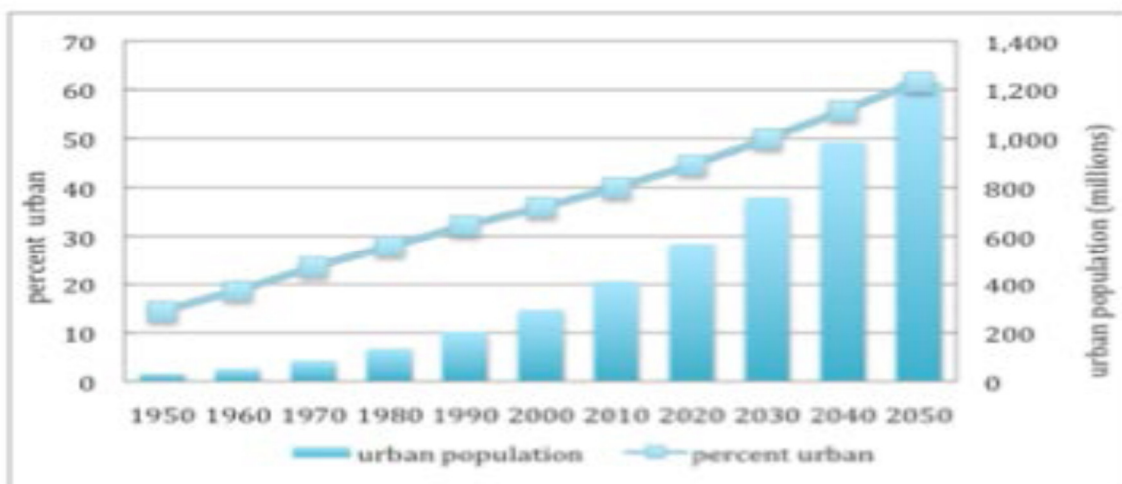


Figure 5.1: Rate of urbanisation in Africa

SOURCE: Freire (2013)

Despite the increasing trend in Africa's urban population, only a few megacities existed at the end of the colonial era, while in the rural areas traditional occupations such as agriculture, trade, textiles and crafts still played a key role. Factors that drove economic development on other continents, like business clusters and infrastructure facilities, were not well-established. Most of the big mines and large companies set up by the colonial powers in Africa just extracted raw materials and then shipped them to European countries where they sustained the industrial revolution of Europe. In the few bigger African cities there was also an insufficient critical mass of formal businesses to really advance the clusterisation process.

In the rural areas population densities increased slowly, supported by a few traditional occupations like crafts, textiles and agriculture. At the beginning of self-rule in the 1960s and 1970s, the level of urbanisation started to pick up, but this, again, did not immediately lead to accelerated development and economic growth.

In this context the huge sprawls of semi-rural villages across many African countries can be viewed as an early stage of clusterisation. Yet, in the absence of most of the development-supporting services and facilities these agglomerations of village settlements did not evolve as strong development clusters.

5.1.2 Low industrialisation levels

McCormick (1999) defined industrialisation as the process of building up a country's capacity to convert raw materials into new products. It is also seen as the system that enables value-adding production to take place. Clustering is believed to have played a major role in

the process of industrialisation globally since it facilitated specialisation and supported effective investments which were key ingredients needed by poor regions (Schmitz and Nadvi 1999). While the raw material conversion had linkages to big processing plants and petrochemical industries in the developed world, the systems and structures in Africa were only designed to aid resource trading.

At the end of the colonial era and the beginning of self-rule attention was not focused on pragmatic economic development anchored on industrialisation and technological advancement. Rather, the policies of those years were shaped by international events and bandwagon effects, notwithstanding postulations about socialist orientation, protectionism and economic self-reliance, export-promotion/import substitution, strategic indigenisation and structural adjustment policies in a *New World Economic Order*. While these ideologies, which many African leaders fully identified with, were boosting the egos of leaders, most African countries remained import-dependent, channelling the proceeds from oil towards the importation of non-essential goods, food and luxury items to the detriment of local industrial development. Even the agricultural development of these countries was grossly neglected and at times suffered tremendous setbacks.

Following this historical legacy, there is a need for Africa to build internal capacities that support industrialisation through a revamping of its manufacturing sector and intensified efforts in small-enterprise clustering (McCormick 1999). In a similar way other sectors – like agriculture, mining and tourism, which were dominated by external companies – also offer opportunities for local cluster developments. This happened on other continents and there is no reason why it could not happen in African economies, if appropriate support is channelled to those evolving clusters.

In the mining sector, for example, various processes are involved ranging from the discovery of mineral deposits to fabrication. Within each process a number of value-chain services could support local production networks. Public-sector involvement is needed in the areas of mine-deposit exploration, mine development (including enabling laws and regulatory practices) and the provision of infrastructure facilities. Large firms could undertake the primary activities in mining, refining and fabrication while clusters could be set up to accommodate small firms that provide secondary activities such as transportation, provision of consumables and spare parts, sub-contracting services, supply of chemicals and reagents,

waste management, security, maintenance of the mining infrastructure and equipment, design services and marketing.

Some of these activities are labour-intensive and do not require extensive capital outlays. Besides, the public sector could take deliberate steps to support such clustering, like setting legislative and regulatory frameworks and local content requirements. This might at the same time be a way of strengthening technology transfers, skill development, value addition and linkages to the local economy (Uneg 2006). In addition, local communities and authorities as well as local business and trade associations could facilitate this process either directly or in collaborative partnership with other stakeholders, including the government.

Thus, while the potential existed in many African countries to accelerate industrialisation and other sector-clusterisation processes, colonialism and post-colonial business relations prevented these developments.

5.1.3 Mining's "resource curse"

The proponents of the *resource-curse* theory believe that nations that are richly resource-endowed seem to perform poorly in the economic development and industrialisation process compared to the resource-poor nations of Europe and Asia (Kuwimb 2010, Nguyen 2011, Pranab 1997, Yates 2009, Frynas and Paulo 2006, Meyersson, Miquel and Qian 2008).

Resource booms in countries are often seen to raise the level of expectations, which spurs economic development (Ross 1990) and creates an atmosphere of entrepreneurship around the nucleus of such resources. Where there are exploitable deposits of natural resources, every segment of the nation's economic life is expected to benefit, leading to further development of the nation's economy. However, Yates (2009) and others argue that there are also negative relationships between the development outcomes and the abundance of resources such as oil and minerals, especially in third-world countries. This relates to a heightened appetite for unfocused spending, the lack of fiscal discipline and the neglect of key sectors of the economy such as agriculture and manufacturing (Meyersson, Miquel and Qian 2008).

Nigeria, Liberia, the DRC and several other African countries have had a fair share of these phenomena in the past forty years. As resource exports take centre stage, attention is focused on the importation of virtually all that the nation needs. Since no attention is focused on

developing local productive sectors, most of the factors that could enhance the growth and competitiveness of such local productive sectors are neglected. This leads to the exportation of crude natural resources in exchange for imported processed consumer and capital goods. Resource-rich nations become resource rent seekers with very little developmental impact. Frynas and Paulo (2006) describe it as a “scramble for African resources”.

5.1.4 Global trade liberalisation

In the early stage of post-colonial Africa, the continent had to grasp with a number of challenges, which included civil wars, the struggle to sustain self-rule, neo-colonisation from erstwhile colonial masters and low industrialisation levels (see Farah, Kiamba, and Mazongo 2011). Yet, Africa’s economies were relatively stable since the natural resources were being harnessed and traditional sectors such as agriculture and crafts were continuing on their path. In addition, there were signs that broader economic development and industrialisation had started to emerge, with huge support given to infant industries at the local level. Small-business clusters were beginning to evolve around these industries and the traditional sectors of the economy.

Yet, the spread of globalisation and trade liberalisation brought with it the integration of Africa’s economies into the new economic world order. This came with a number of perceived advantages to African states, which included the opening of its frontiers for exports, the relaxation or elimination of trade-restrictive practices, low import tariffs, access to better technology, improved resource allocation, greater domestic competition and access to imported intermediate goods (see Ibrahim 2013, Olasunkanmi 2011, Worst 2002).

While these benefits were laudable and in most cases achievable, the negative impact of this agenda weighed even more heavily on Africa’s domestic trade and its industrialisation-promotion efforts, especially for small-scale businesses (see Anowor et al 2013, Majekodunmi and Adejuwon 2012). Africa became a gateway for the importing of cheap products resulting in a crippling of local (infant) industries. Many new industries were forced to close down while traditional sectors of the economy, like agriculture and crafts, were neglected, and small businesses operating around these sectors were negatively affected. Efforts by African governments to stem this tide were viewed as violations of trade agreements with Western economic powers, leading to different shades of sanctions, withdrawal of foreign aid and grants as well as restrictions on foreign direct investments.

5.1.5 Passive role of local governments

Cluster development in Africa did not receive the much needed attention until most recently. Many governments at first did not realise the need to diversify their mono-product economy into more productive sectors. The issue of small-business support was also not taken seriously at a stage when it looked that the economy mainly depended on large companies and multinational corporations for growth (Harrison 1994). While small-businesses and cluster activities had for a long time existed in the developed economies, they only gradually became an emerging issue in Africa. Most clusters found in Africa had a spontaneous origin, with little or no government involvement. Policy support to small-business growth and clusters in Africa was very limited, and there was little awareness of the potential positive impact of clustering on the broader local economic development.

The role of local and regional authorities in promoting local economic development had also been neglected for a long time (DTI 2004, Hobohm 2008, Patterson 2008, Unctad 2006). A number of successful partnership initiatives between governments, local business chambers and local authorities have been documented over the last decades, but these were exceptions rather than the rule. Besides, many of these initiatives were achieved through business networking and direct support of donor agencies such as Unido (Hobohm 2008). In contrast to this low-keyed support, local and regional development authorities in cluster development are quite crucial (Rowe-Setz 2004, Morris and Barnes 2006). In Europe and south-east Asia, where cluster programmes have followed the bottom-up approach, local authorities and regional entities have become strategic partners in cluster-development projects. Their emphasis usually fell on the needed infrastructure (Beddit 2008) and the mobilisation of resources to form groups as access points for information-sharing, social cohesion building and motivational guides for the local community involved in cluster projects (Weijland 1999, Stocchiero 2002).

5.2 Evolving Small-Business Clusters in Africa

Interaction of the range of factors discussed above prevented clusterisation processes in Africa reaching the momentum and spread found on other continents as indicated in Chapter 4. However, over the past two decades several of these factors started to change (see Barungi 2014, Uneca 2015) and their interaction led to a distinct intensification of cluster developments across the continent. These changes include the following developments.

- ◆ Increasing urbanisation levels, combined with a relatively high rate of population growth which resulted in rapid increases in the size of urban settlements, i.e. the evolution of more and more cities across the continent.
- ◆ An increase in the rate of general economic development of African cities, offering greater scope for clusters in different sectors.
- ◆ Steady improvements in the infrastructure-development level of cities and towns (e.g. the increase in harbours, airports, railway linkages, major road interchanges, power stations, sport stadia, etc.).
- ◆ Increased emphasis (by government and the public) on traditional sectors of local economies, which have potential for cluster developments.
- ◆ Strengthening of democratic processes and improvements in the capacity of governments to influence economic- and business-development processes.
- ◆ Increased emphasis on intra-African trade and development interaction, which is particularly important for small and less populous countries with very small local markets.

Due to the unfolding of these factors, a steadily increasing number of clusters are emerging across the continent. Studies of this process have identified a few broad categories of small-business clusters found with different sectoral and structural attributes (Adeboye 1996, McCormick 1999, Oyelaran-Oyeyinka 1997, Van Dijk and Rabelletti 1997, Bräutigam 1997). We can briefly characterise them, bearing in mind that they also fit in with the spectrum of clusters discussed in Chapter 3.

5.2.1 Location-based clusters

The most commonly reported enterprise clusters across Africa are the craft operators and artisans in traditional local activities. With little or no formal development such clusters often employ the system of apprenticeship as the main source of learning and dissemination of knowledge. Such clusters are characterised by small informal enterprises with low-level skills, low informal inter-firm co-operation, no forms of linkages either locally or externally, little growth potential and very limited innovativeness. The clusters are also characterised

by low information sharing and intense competition. They suffer from poor infrastructure, the absence of critical services and support structures as well as little opportunity for skills and knowledge upgrading.

This type of cluster is what van Dijk and Sverrisson (2003) classified as *location cluster*. Notwithstanding the limiting factors, van Dijk and Sverrisson are of the opinion that the level of proximity resulting from sharing of premises gives rise to an easy exchange of information which has the following positive spin-offs.

- ◆ Direct observation is a tacit form of learning and knowledge dissemination. This ensures that new ideas become locally public (Visser 1996; van Dijk 1998).
- ◆ These clusters require minimal infrastructure and space to operate (van Dijk 1996).
- ◆ Although these clusters lack innovation, they operate with the technology of imitation, especially product imitation (King and Aboudha 1991).
- ◆ Through easy access to information, these clusters are said to be doing much better than those located in isolated places (Visser 1996, Klapwijk 1997).

Mytelka and Farinelli (2000) believe that as clusters with spontaneous origin and lacking in organisation, the low entry barrier ultimately leads to growth in the number of firms and supporting institutions operating there. That growth can however create new challenges, especially where provision for basic infrastructure and other support services is not sufficient. Such informal clusters include the automobile mechanics in Lagos and Ibadan, the blacksmith clusters in Awka as well as the carpentry clusters in Enugu and elsewhere in Nigeria.

5.2.2 Clusters that employ higher technical skills

This form of clusters serves market segments in the middle- to higher-income brackets. This is what Feser and Renski (2000) described as *emerging clusters*. According to them, this form of cluster has a mix of small and medium firms, but largely small enterprises. Examples of such clusters include furniture clusters in Enugu and footwear clusters in Aba and Onitsha (see Dawson 1991 and Oyelaran-Oyeyinka 1997).

5.2.3 Manufacturing-orientated clusters

This form of clusters specialises in manufacturing products using relatively sophisticated technology. The production techniques are often imported and/or adapted to suit local environments. Oyelaran-Oyeyinka (2001) believes that over time such clusters develop strong formal or informal inter-firm linkages with customers and suppliers of raw materials or components using agency relationships. These can be within local markets or at international market level, especially from east and south-east Asian countries. The technology applied in such production is often also imported through this external agency window. In fact, in many cases arrangements are concluded to fabricate such equipment and build plants to suit local production environments and needs. According to Mytelka and Tesfachew (1998), Pavitt (1984) and Von Hippel (1998) these relationships create important sources of technology know-how transfer and technology learning. Other factors that characterise this form of clusters include strong networking and subcontracting, high competition and trust among firms and a high potential for product exports. The clusters that fall within this category in Nigeria include the Nnewi Auto Spare-Parts cluster, chemical and pharmaceutical clusters in Isolo and Ikeja (both in Lagos State) and the Osakwe industrial cluster in Onitsha, Anambra State.

5.2.4 Diversified industrial clusters

According to Oyelaran-Oyeyinka (2001), *diversified industrial clusters* are characterised by vertical specialisation of individual enterprises and vertical diversity of the cluster as a whole. These clusters have a broad sectoral specialisation and within the sectors individual enterprises are not narrowly specialised. McCormick (1998) classifies diversified clusters as those that include either medium or large firms or have links to such firms or to other larger organisations outside the cluster. Due to their ability to attract new firms into new industries, diversified clusters tend to survive longer than other forms of clusters (Swann and Prevezer 1998, Basant 2002). This is argued from the standpoint of such clusters having a diversified knowledge base or skills with wider application, as the entry of new firms provides opportunities for the utilisation of new skills.

5.2.5 Virtual clusters of small businesses

The increasing rate of urbanisation in Africa and tighter globalisation have contributed to the growing evolution of virtual clusters across the continent. This relates in particular to industries where the physical agglomeration of businesses across geographical boundaries

has little or no tangible effects on the consumption pattern of individual consumers. A virtual cluster is a network-based cluster which agglomerates small firms, individual consumers and business operators linked through a virtual network of telecommunication systems and internet connectivity, without the conventional geographical location where services and products are offered and bought by the end-users. It can also be seen as a virtual network of producers and marketers of products and services, with no physical borders or geographical proximity. Virtual clusters offer a series of advantages, which physical clusters may not offer, including superiority of information transfer within the network, technological innovation and integration into service-and-supply chains with lower transaction costs.

Virtual clustering has spread fast across Africa, with evidence coming from different parts of the continent. The Nollywood industry in Nigeria is a form of virtual cluster of film producers and marketers with no physical geographical location. Such clusters also exist in Kenya, Uganda, Ghana and South Africa.

5.2.6 Clusters based on tourism

A significant number of African towns have over the years benefitted from and been stimulated in their growth by the influx of foreign visitors as private or business tourists. Cairo, Tunis, Casablanca, Dakar, Abidjan, Accra, Lagos, Kinshasa, Windhoek, Lusaka, Dar es Salaam, Nairobi, Khartoum and Addis Ababa are typical examples of towns where a “tourism industry” evolved over the years. This included accommodation facilities (hotels, B+Bs, etc.), restaurants, entertainment places, transport services, crafts and memorabilia markets as well as financial services (e.g. exchange bureaus) to name just the more important subsectors.

As global interest in Africa increases, these visitor flows, including intra-continental tourist flows, increase rapidly, and the basis for such clustering expands.

5.2.7 Informal-sector clusters

Across the African continent we find large numbers of often sizeable informal-business clusters spread within or between villages or rural settlements. These informal-business activities relate to agriculture, trade, basic food preparation, transport facilities, the production, repair or selling of basic furniture, clothing or household goods, informal money-lending, traditional healing and other service activities. Usually, there is no local or

regional authority to control or facilitate these activities and virtually all structures are of a self-help nature.

Having outlined the more prevalent types of clusters evolving across Africa as the clusterisation process on the continent picks up momentum, we can now shift to the more specific discussion of the clusterisation process in two African countries, viz. Ethiopia and South Africa.

5.3 Clustering in Ethiopia

Ethiopia is one of the poorest countries in Africa with a population of 94 mill. and an estimated annual population growth of about 2,3 per cent (Mammo 2008, Serneels 2004, EEA 2001). Ethiopia's economy is largely dominated by the agricultural sector which contributes about 60 per cent to export earnings and roughly 46 per cent to total GDP (Bekele and Worku 2008 a: 3, Bekele and Worku 2008 b).

5.3.1 Small-business challenges

Medium, small and micro-enterprises dominate the Ethiopian economy with the largest numbers found in agriculture and the services sector (Bekele and Worku 2008). Due to high levels of poverty among the population most programmes designed to support the development of SMEs in Ethiopia are integrated with poverty-alleviation initiatives (Gebreeyesus 2009).

As on the rest of the continent, Ethiopia's SMEs face many problems that hamper their growth and development. Empirical evidence shows that about 51 per cent of new businesses fail within three years, while a further 35 per cent fail within six years of operation (Bekele and Worku 2008). The high failure rate is more dominant among businesses run by women due to factors associated with culture, religion and tradition. These challenges include low levels of education and training, limited access to finance and other government support, stiffening government regulations, deficient infrastructural facilities, poor managerial and technical skills, erratic supplies of raw materials for manufacturing and a shortage of suitable business premises (Bekele and Worku 2008 a: 10, ISA 2000, Abegaz 2004, Demeke, Guta and Ferede 2003, CSA 2004, Hailu 2010). A study carried out by Huang and Brown (1999) revealed that SMEs operating in the services sector seem to encounter fewer problems in obtaining external finances while manufacturing firms are more likely to have operational and management problems.

Over the past decades the government of Ethiopia has shown a lot of determination to revamp and promote the SME sector through its policies, programmes and initiatives. Realisation of the dual role of the SME sector in the economic growth of Ethiopia and in its poverty-reduction strategy led to the development of the *National Micro and Small Enterprise Development Strategy* of 1977 and, two decades later, to the establishment of the *Federal Micro and Small Enterprise Development Agency* in 1998 (Gebreeyesus 2009). The national strategy was, however, only implemented at the federal level up to 2004/05, when the federal agency began to establish its presence at regional levels. SME branch offices and co-ordinating units were then set up to channel support to the grassroots level.

SMEs operating in growth-orientated sectors were selected for maximum government incentives and support. These sectors included manufacturing, construction and agriculture. According to Debela (2011), six criteria were used to select enterprises for the growth-orientated support.

- ◆ Large market size for their products
- ◆ Employment-absorption capacity
- ◆ Short payback period on investments
- ◆ Local raw-material utilisation
- ◆ Significant contribution to poverty reduction
- ◆ Potential to transform to medium and larger enterprises

Support for these *growth-orientated enterprises* included the provision of working premises at reduced leasing prices, access to product display centres, technical and business managerial training, counselling services, access to loan provision, help with market linkages and access to technology.

5.3.2 Institutions involved in small-business support

The following institutions are currently providing small business-support services in Ethiopia.

◆ ***Federal Micro and Small Enterprises Development Agency (FeMSEDA)***

FeMSEDA is a government agency established in 1998 by the Ethiopian Council of Ministers to assist non-governmental agencies and institutions involved in support services for SMEs. These services include (i.a.) the training for SME trainers, prototype development and dissemination, the provision of information and consultancy services for SMEs and the provision of marketing services and technology databases to SME stakeholders. FeMSEDA also collaborates with regional SME development agencies, regional governments and the private sector in facilitating small-business clusters at the regional levels.

◆ ***Addis Ababa Micro and Small Enterprises Development Agency (ReMSMDA)***

ReMSMDA was established in 2003 with the main objective of reducing urban poverty. The agency does this by promoting industrial development through the expansion and development of small and micro-enterprises. ReMSMDA adopted the strategy of organising community members with diverse skills into co-operatives and trade associations, through which they provide business-development services. They also collaborate with NGOs in providing services related to training, technology application, facilitating market linkages and business advisory services.

◆ ***United Nations Industrial Development Organisation (Unido)***

Unido in Ethiopia is heavily involved in small-business support, playing various roles ranging from policy advocacy to providing business development services. They also collaborate with government agencies and NGOs involved in small-business support, value-chain development, facilitating entrepreneurship awareness and cluster development. Furthermore, they facilitate networks and linkages between small-business-support organisations. One of these programmes is the *Horizontal Business Network* which facilitates alliances of firms, associations and export consortia. The *Vertical Business Network* on the other hand promotes business relations, subcontracting and supply agreements among local small-business firms and larger international and local firms.

◆ ***Other donor agencies***

Being a high-profile African development country Ethiopia attracts foreign donor support for SME developments from a wide range of countries and with different focus areas. These donor agencies usually collaborate with various government departments, local governments and NGOs to implement their support, with Unido often playing a facilitating role.

5.3.3 Small-business clusters in Ethiopia

Most of the clusters that exist in Ethiopia can be classified as location clusters or *natural clusters* (Alli 2012). These clusters spontaneously grow out of the concentration of economic activities over a long period of time and in response to market forces. They are not induced by any form of public policy, but rather in response to economic activities within particular economic sectors. Such agglomeration is often driven by the availability of raw materials, transport intersections, suitability of climate conditions, proximity to markets and migration along ethnic lines. In Ethiopia these types of clusters are often found among labour-intensive manufacturers in villages and towns. Thus, clusters covering footwear and leather works, art and crafts, bamboo work, carpentry and woodworks, local fabrics and garments (using handlooms) and metal works can be found in cities like Addis Ababa, Mercato, Mekel and Hawassa. Most of these sector clusters are found to be dynamic and highly successful (Sonobe et al. 2006).

The growth and success of Ethiopian clusters has also been attributed to the continuous upgrading of innovation and learning efforts by the enterprises within the clusters and a strong desire to increase local contents and local inputs in the production processes (Gabreeyesus and Mohnen 2011).

There is also evidence of public policy-orientated clusters in Ethiopia (Alli 2012). These are government-created clusters which started springing up since 2003. The motive behind the establishment of these clusters by the government was to alleviate the workspace shortage faced by small and micro-enterprises.

Ethiopia's sector-focused cluster programme was pioneered by Unido in response to the government's resolve to address the challenges inhibiting the growth of SMEs. Initially Unido's cluster-development programme focused on four main sectors, namely footwear, handlooms, ready-made garments and woodwork. In rural settings the focus has been on traditional economic activities such as weaving, handicrafts and agricultural activities. In the cities the focus fell on other forms of advanced and technologically-driven economic activities such as footwear, leather products and other industrial goods.

Ethiopia's cluster-development approach can be viewed from two distinct perspectives, viz. the government's approach and the approach facilitated by Unido. We can briefly look at both.

5.3.3.1 *Government approach to cluster development*

Ethiopia's cluster-development strategy is linked to the government's poverty alleviation programme and is focused on small and micro-enterprises. The programme is co-ordinated by FeMSEDA which is reporting to the Ministry of Urban Development and Construction as the lead ministry, with other ministries playing supplementary roles. The Prime Minister also has a special adviser on MSME issues.

The cluster-development initiative of the federal government, which was started in 2011 was initially anchored on addressing the challenges of workspace shortages faced by small enterprises in Ethiopia (Alli 2012). For this purpose the government categorised two segments – small and micro-enterprises on the one hand, and medium and large enterprises on the other. Producers of similar and related products and services are to be co-located in incubators in close proximity to each other and not too distanced from the industrial zones of medium and large enterprises. This was done to facilitate market linkages between the SMEs and the larger firms. Government built and developed these incubators, setting the following criteria for admission of SMEs into the centres (Alli 2012).

- ◆ Enterprises directly engaged in the property sector
- ◆ Enterprises willing to use energy- and space-saving equipment collectively
- ◆ Enterprises with good reputations of loan and tax settlements
- ◆ Enterprises with proper records of income and expenditure of their business
- ◆ Enterprises that made good use of premises that had been given to them by the government previously
- ◆ Enterprises experiencing problems with selling and working premises

The government also set a tenancy period of five years, after which the SMEs operating in the incubators are evaluated. Those that have developed into medium and larger enterprises are transferred to the industrial zones for larger enterprises, while those that have not grown are evicted from the premises. In addition to the workspaces provided in the incubators, other support services were available in the clusters, including training, providing linkages to finance access and to large enterprises as well as access to business-development services and industry-focused extension services.

5.3.3.2 *Unido's approach*

In 2005 Unido, in conjunction with the government of Ethiopia, embarked on a cluster-development initiative called “Unleashing the potential of SMEs” (Alli 2012). The programme, which was funded by the Austrian government, focused on the promotion of four existing clusters. The overall objective of the programme was to provide these clusters with equipment and business-development services needed to make the firms operating in the clusters more competitive. The services covered in the programme included

- ◆ training and skill-upgrading of cluster operators,
- ◆ technology upgrading,
- ◆ network and subcontractor development,
- ◆ setting up self-help groups to increase collective efficiency,
- ◆ joint participation in trade fairs.

To facilitate these inputs Unido appointed and trained four cluster-development agents (CDAs), one each for the four selected clusters. These clusters included Markato Leather Footwear Cluster, Guleli Handloom Cluster, Mekelle Metal and Wood Enterprise Cluster and Addis Ababa Ready-made Garment Cluster. The trained CDAs, who are under the supervision of a co-ordinator based in FeMSEDA, operate as impartial brokers among cluster actors and help producers share information (Alli, Coniglio and Ceric 2013). The involvement of the CDAs in the clusters helped to

- ◆ build trust in order to enable cluster stakeholders with different or conflicting issues to work together,
- ◆ foster cluster governance, e.g. through the establishment of a formal governing body, which helped to ensure the sustainability of cluster initiatives,
- ◆ promote business networks amongst entrepreneurs in order to share commercial interests and work together towards shared objectives,
- ◆ strengthen institutional capacity-building and collaboration between entrepreneurs and supporting institutions.

The involvement of Unido in the cluster-development programme in Ethiopia had a number of wider policy implications, both for the government and for small businesses. According to Unido (2009) these implications included the following.

- ◆ Working in conjunction with the government, Unido's programme presented a road map for a grassroots cluster-development agenda for the government as efforts were made to replicate this initiative in other areas and on other levels of government.
- ◆ Involvement of Unido in this programme helped to strengthen the commitment of government to the small-business-cluster development-policy.
- ◆ A common understanding of "cluster development" was established in view of existing divergent approaches by different actors, i.e. the programme served as a benchmark for future CDEs, not only in Ethiopia but also in other parts of Africa.
- ◆ Alignment of cluster-development donors with government policies and priorities presented a workable partnership platform that helped other stakeholders achieve their individual and collective objectives.

5.3.4 Lessons from Ethiopia

The lessons that can be drawn from Ethiopia's cluster approach are quite modest, considering the low level of the country's economic development and the limited scope of the cluster programme. Nevertheless, we can refer to a few.

- ◆ Dominance of government and its agencies as cluster initiators and supporters.
- ◆ An active pioneering role of international organisations (such as Unido).
- ◆ Multiple layers of institutional involvement in SME-support programmes, including international agencies from different countries.
- ◆ A sector-focused approach to cluster-development programmes.
- ◆ The government's approach to cluster development did little to strengthen networking and collaborative linkages among small businesses, which is needed to enhance inter-firm learning and knowledge dissemination.
- ◆ The criteria for the selection of incubator tenants by the government did more to isolate small and micro-businesses that actually needed attention since most of those criteria were beyond reach of the average small and micro-firms.

- ◆ Segregation of SMEs from medium and large enterprises in the government's incubator programme hampered the dynamism in the clusters and reduced the ability of small and micro-enterprises to learn from large firms. It also hampered technology diffusion from large firms to small and micro-firms.

5.4 CLUSTERING AND SMALL-BUSINESS DEVELOPMENT IN SOUTH AFRICA

Being the most developed economy on the continent, South Africa has a large and highly diversified small-business sector and a complex history of clustering in the evolution of this sector.

In our search for lessons to be learned from the South African evolution of clustering in small-business development we can distinguish three phases.

- ◆ Clustering patterns in the early ("colonial") phase of South Africa's economic development (17th to 19th centuries).
- ◆ The racial separation phase of South Africa's history (1930s to 1990).
- ◆ The post-apartheid phase of small-business promotion.

Based on this framework, we can briefly summarise clustering trends and obstacles in each of these phases. This has been drawn from general historical sources and informal discussions with South African academics.

5.4.1 Early development-related clustering

South Africa's modern economic history started with the colonial invasion of the 17th and 18th centuries when Western European traders used the Cape of Good Hope as a "half-way station" on their sea routes to the Far East (Payne 1957, Adolphe 1997). This led to the early clustering of local small enterprises who were supplementing the activities of the Dutch-East India Company and the evolving colonial authorities (see Sornn-Friese 2008, Johnston 1909).

Cape Town was the earliest harbour and urban settlement point. The villages around Cape Town (like Stellenbosch and Paarl) became clusters of farms and traders in products needed by the passing ships, settling (white) farmers and the locally rooted Khoikhoi communities.

The increased use of Cape Town as a strategic harbour in the South Atlantic and the pressure from England to take over colonial control of the Cape from the Dutch, further stimulated the growth of these settlements in the Western Cape and the evolving clustering of small enterprises. The influx of (predominately-Muslim) Malay slaves and a steady in-migration of German and Dutch settlers strengthened the local small-business base of the Cape. The take-over of the “colony” by the British in 1810 signalled the start of a consolidated colonial state with Cape Town as business centre (Johnston 1909).

When the Dutch-rooted *Voortrekkers* left the Cape in the 1830s to escape British colonial rule, they spread across a vast area in the interior of the colony, with little opportunity for business clustering until they reached the diamond fields of Kimberley (1867) and the goldfields at the Witwatersrand in the 1880s.

It was here, around the Kimberley diamond mines and the Johannesburg goldfields, where the second major business clustering occurred. Attracted by the evolving mines significant numbers of overseas traders and other entrepreneurs came to the Cape and to these new inland centres to try their luck in the small-business sphere. In this process neither the (white) Afrikaners nor local Africans (and “coloured” people, i.e. people of mixed race) played an important role. The result was the evolution of dynamic, immigrant-driven small-business clusters in these new centres in the interior of the country.

The Anglo-Boer War of 1899 to 1902 and the creation of the Union of South Africa in 1910 consolidated the new South Africa, with the small-business community around 1910 characterised by different types of dualism (see Johnston 1909, Goucher et al. 1998).

- ◆ At the political level and in the central government only whites were represented, with the Afrikaners in a relatively weak position. They were weak in the economic sphere and, in particular, in the small-business sector.

- ◆ The centres for economic development and business clustering were the mining towns and regional capitals like Cape Town, Port Elizabeth, Durban, Bloemfontein and Johannesburg, and to a lesser extent Pretoria. In these centres the small-business scene (linked to a natural clustering process) was dominated by English-speaking, British and West European-rooted (white) entrepreneurs.

- ◆ The mines were already relying heavily on (African) migrant labour, but with very restricted opportunities for the gradual evolution of local black entrepreneurs.
- ◆ In the Western Cape the coloured communities were relatively active in local small businesses, with Muslim entrepreneurs being viewed as particularly dynamic (Thomas 1973). In the province of Natal the small Indian community (initially brought to South Africa as indent labourers on sugar plantations) started to play the role of dynamic small-business entrepreneurs.
- ◆ National economic-development policies gave little attention to the small-business sector, being dominated by the bigger issues of infrastructure development, mining expansion and the start of a manufacturing sector.

To conclude this first phase of South Africa's economic development (up to the early decades of the 20th century) we have to stress the unbalanced composition of South Africa's emerging entrepreneurial class. There were very few African entrepreneurs in the cities. Most of the (white) Afrikaner entrepreneurs felt discriminated against by English-speaking South Africans and foreign entrepreneurs active in the small-business sector. What is more, these Afrikaners were afraid that greater African rural-urban shifts and African entry into business ventures would in the future create an even stronger barrier to Afrikaner advancement in business. These fears constituted the basis for the apartheid policy.

5.4.2 Racial separation and clustering strategy

The Afrikaners who gained political dominance in the whites-only parliament during the 1930s/'40s felt that their poor showing in the South African small-business scene was the result of a number of factors that needed to be addressed through government. Many of them had lost their farms during the Anglo-Boer War and were poorly equipped for alternative employment or self-employment. In the urban areas these Afrikaners saw African immigrants and local residents as direct competition to their efforts to get jobs or start a business (Thomas 1999).

At the same time younger Afrikaners were primarily interested in civil-service jobs or jobs in larger enterprises, given their lack of start-up capital, business skills and experience in the small-business sector. They also realised that they had little hope of competing successfully

with the established (English/foreign) entrepreneurs dominating the small-business scene in the towns.

This background led to the small-business-related policies of the apartheid regime which evolved in the 1940s/'50s and came to its dominance in the 1960s/'70s (see Toomey 1998, Andrews 2007, Berry et al. 2002). We can mention a few key policies and their effect on the growth and clustering of South Africa's small-business sector.

As far as possible Africans were to be encouraged to remain in the traditional tribal areas (referred to as "homelands"), with migrant labour in "white South Africa" and own local activities in these homelands the main sources of their income.

- ◆ Outside these homelands Africans were to reside in townships located *outside* the core of the "white cities" where they were prohibited to establish their own businesses (with the exception of informal micro-enterprises catering for daily household needs).
- ◆ Strict job-reservation rules and regulations were to prevent open competition between black and white entrepreneurs in the white areas.

Parallel to these steps to limit black competition for Afrikaner job-seekers, the government was expected to institute support policies and programmes to help aspiring Afrikaner entrepreneurs to start or expand their businesses. In this field Afrikaner church communities, social-welfare bodies, government departments and local authorities were interacting to provide some support. These efforts also had an impact on the clustering of small enterprises in small towns and cities with larger Afrikaner communities (McGrath 2002).

During the 1930s to 1950s the establishments of state-funded parastatals like Iscor (steel magnate) and Sasol (petro-chemical complex) offered additional scope for the promotion of local small enterprises linked to their supply chains and new settlements, thus creating new clusters of small enterprises.

These efforts can be seen as the forerunners of more systematic small-business-support policies, which gained momentum in the 1980s (e.g. the creation of the Small Business Development Corporation) (Thomas 1989).

Notwithstanding these developments South Africa's small-business scene of the 1940s to 1960s did not show large new clusters or new development patterns. White small enterprises expanded gradually, with Afrikaners playing an increasingly significant role. African small-business development outside the homelands was blocked, while enterprise development inside the African homelands progressed very slowly, due to a lack of supportive policies and infrastructure facilities (see Southall 2003, Riley 1993).

During the 1960s and '70s this apartheid-driven pattern of curtailed or "smothered" small-business development in South Africa contributed to the escalating conflict in the country and international sanctions against South Africa, triggered by the protest events of 1960/1 (Sharpeville) and 1976 (Soweto). In fact, by the mid-1970s it was clear that permanently blocking African participation in the business development of South Africa was impossible. This resulted in an acceleration of the "separate development" dimension of the apartheid strategy during the late 1970s and the 1980s (Thomas 1999).

We can refer to a few aspects of this strategy as it affected small-business development and clusterisation

- ◆ Inside the ten African homelands policies were initiated to facilitate the creation of new (African-owned/run) small enterprises. This included the provision of SME loans on preferential terms and the mobilisation of SME-focused training and mentoring. Such support efforts were channelled through different homeland-focused "development corporations" (like the Transkei Development Corporation) (Thomas 1985). More specialised bodies (like the Transkei Small Industries Development Organisation, Transido) focused on support for small manufacturers, including the facilitation of small-industry parks or hives.
- ◆ As a further step to create more jobs for Africans "close to the homelands", a number of "border-industry complexes" were developed as part of the separate-development strategy. These new industrial centres were located at the border to certain homeland areas, but located inside the "white area" in order to facilitate (white) private-sector engagement. The government heavily subsidised these industries and efforts to attract supply chain-linked SMEs, resulting in some new industrial clusters (e.g. near Pretoria, Durban, East London and Bloemfontein).

- ◆ In the townships (in “white South Africa”) steps were taken to facilitate the development and growth of African-owned small enterprises (through micro-loans, training schemes, mentorships and the development of small-business parks). of even greater significance was the mushrooming of informal-business clusters inside the sprawling informal settlements in the townships of “white” cities (Thomas 1988 and 1994).
- ◆ With respect to the coloured community, the bulk of whom were settled in the Western Cape and did not have a “homeland”, the Coloured Development Corporation (CDC, established in 1968) had the promotion of coloured-owned small enterprises as one of its specific tasks. This included the establishment of small-business parks or hives inside “coloured townships” (like Mitchell’s Plain). The same approach was taken in Natal Province to support Indian-owned SMEs, given the significant size of the Indian community in that province.
- ◆ In the early 1980s a joint initiative of the corporate sector (led by the Rembrandt Corporation) and national government led to the establishment of the Small Business Development Corporation (SBDC). It gradually expanded its capital base for different types of loan schemes for SMEs and operated in the field of small-business training and mentoring as well as the provision of factory flats, small-business hives and other supportive action.

Initially the SBDC was to supply its support primarily to white-owned small enterprises and to SMEs in white areas and town centres. Yet, during the 1980s the SBDC gradually broadened its role to also benefit emerging black-owned enterprises. In fact, it also propagated joint black-white-owned enterprises years before the formal termination of apartheid in 1994 (Thomas 1994).

These developments and the rise of different types of support for SMEs stimulated the sector and led to the increase in SMEs across the country. Similarly, there were clear examples of cluster developments, both of the micro-cluster or hive type as well as macro-clusters linked to urban developments and larger development projects. Yet, they were still unequal in the racial composition of entrepreneurs and the overall process was generally constrained by international sanctions.

5.4.3 Post-apartheid small-business promotion

Since the phasing-out of apartheid from 1990 to 1994 efforts to strengthen small-business support and cluster developments have been intensified and diversified, leading to new institutions, new policy thrusts and the evolution of existing programmes and projects (Rogerson 2004, Thomas 1992 and 2006 b). We can summarise these trends around three themes,

- ◆ institutions engaged in small-business support,
- ◆ the spread of incubators and
- ◆ the strengthening of macro-clusters.

5.4.3.1 *The increase of small-business support*

The new ANC-led government, which took over in 1994, recognised the importance of the small-business sector as a central element in the country's economic development and job-creation process. This recognition applied to the three levels of government (national, provincial and local), the parastatals and non-governmental public organisations, and it influenced interaction between the public and private sectors.

Without going into the details of the role or programmes of specific government departments or NGOs, we can briefly run through this range of bodies.

- ◆ The 1995 government *White Paper on a National Strategy for the Development and Promotion of Small Business in South Africa* (RSA 1995) was a first step to propose an integrated support strategy and address structural inequalities (Thomas 1995 c, DTI 1994).
- ◆ Following the release of the White Paper, the *National Small Business Act of 1996* provided the legal and constitutional underpinning for an integrated strategy.
- ◆ The 1996 act paved the way for the appointment of the *Department of Trade and Industry* (DTI) as the national-government department responsible for the co-ordination of government policies related to small-business support (Sbp 2009). It also paved the way for the establishment of key public-sector bodies, viz.
 - the *National Small Business Council* as a broad-based consulting body to periodically assess progress with the new strategy,

- *Ntsika Enterprise Promotion Agency* (later transformed into the *Small Enterprise Development Agency*, Seda) as the national body to co-ordinate “soft services” support for SMEs,
 - *Khula Enterprise Finance*, which initially focused on a credit-guarantee scheme for SME finance.
-
- ◆ Through the national programme of (broad-based) *Black Economic Empowerment* (BEE) government compelled private enterprises above a certain size to proactively increase black representation at the level of management and ownership. They also have to show what share of their procurement comes from black (majority-owned) enterprises. To become eligible for public-sector contracts their “BEE rating” has to show a sufficiently high level. These steps gave a major boost to the establishment and expansion of black majority-owned (small) enterprises.
 - ◆ At the level of parastatals the new strategy increased the SME-support responsibilities of the *Industrial Development Corporation* (IDC) and the *Development Bank of Southern Africa* in spheres like the co-funding of micro-clusters and financial support for municipal efforts towards small-enterprise development.
 - ◆ At the provincial level the nine *provincial governments* accepted responsibility for the co-ordination of provincial efforts to support SMEs and for co-operation with provincial development agencies (like the Gauteng Development Agency in Gauteng and Ithala Development Finance Corporation in kwaZulu-Natal) which all played some role in regional efforts to support small enterprises.
 - ◆ At the local level of development *municipalities* also accepted a role in the support of local small businesses and the creation of a development-conducive environment for SMEs within their areas (Thomas 1995 b). This was particularly important for the development of infrastructure facilities needed by local businesses and the re-integration of (formerly) black and white suburbs as well as business areas. Examples of the impact of successful local economic-development initiatives on SMEs include
 - the easing of registration procedures for local small enterprises,
 - improvements in the business-related infrastructure,
 - the creation of open markets accessible to traders of all races,

- stimulating the evolution of local business-support services,
 - facilitating the rise of local business associations and
 - helping informal and survivalist entrepreneurs to advance towards formal businesses.
- ◆ At the level of *NGOs and tertiary-education bodies* the role of higher-education institutions, universities and research centres was particularly important for the training in entrepreneurship, business management and finance as well as the conducting of applied research in the fields related to small businesses and clustering (Thomas 1990). This also included community initiatives like local business-service centres, mentorship schemes and sector-focused group-support efforts.
- ◆ The *corporate-business sector* also played a role in these efforts, working through business organisations like business chambers and sector associations as well as initiatives of particular corporates [e.g. SA Breweries facilitating the upgrading of informal liquor sellers (shebeens) into licensed taverns] (Thomas 2001).
- ◆ *Financial institutions* started to play a wider role than just the supply of finance to SMEs. Some developed SME-mentoring schemes through which entrepreneurs could get advice from experienced entrepreneurs or assistance in the preparation of business plans, as a step to ease their access to capital (Thomas 2003).
- ◆ Finally, we can refer to the role of *international development agencies*, some of which partnered with local support bodies to strengthen support in particular areas (e.g. Unido, as referred to in earlier sections).

In South Africa the current challenge is the dynamic unfolding of these different players in the SME-support process in order to be able to meet the huge demand for support from the highly diverse and rapidly expanding small-business community.

Against that background and in line with the main theme of this study we can now briefly focus on micro- and macro-clusters as tools in the post-apartheid efforts to stimulate and support small enterprises in South Africa (Thomas 1995 a and 1998).

5.4.3.2 *The spread of micro-clusters*

In Chapter 3 we discussed the nature of micro-clusters, incubators and small-business hives as a potentially very significant way to stimulate and assist small enterprises. Here we can briefly show the different ways in which such micro-clustering is taking place in South Africa (DTI 1998, Wesgro 1997 and 1998).

- ◆ As indicated earlier, the 45 small-business hives (or incubators) developed by the SBDC in the 1980s/'90s with public-sector funds, were not taken over by Business Partners when it evolved out of the SBDC in the mid-1990s. Some were privatised, some closed down and others succeeded to get a new support agency. Overall the success rate of these micro-clusters was mixed, the main reason being the lack of systematic and sustained support from relevant public- and private-sector players (municipalities, SBDC/Business Partners, the DTI, financial institutions, training bodies and organised business). Thus, when the main facilitator of the initiative (the SBDC) disappeared, most of the projects did not maintain sufficient momentum to survive, let alone develop towards sustainability.
- ◆ The newly created *Small Enterprise Development Agency* (Seda) started in 2008 to develop 24 new SME incubators where small enterprises would get intensive support for a limited (“incubation”) period (Ramluckan 2010).

This initiative [the Seda Technology Programme (STP)] was preceded by the merger of a number of institutions involved in technology advancement programmes and their inclusion in a national programme of technology-focused incubators. Table 5.1 (page 167) lists the initial 24 incubators, which related to a range of industrial sectors. Thomas and Ramluckan (2011) evaluated the success of these incubators on the basis of (i.a.) the following criteria.

- Number of new SMEs created (focusing in particular on women and black entrepreneurs),
- new jobs created,
- trends of SME turnover and
- SMEs still in business (after having left the incubators).

The study found the “success” of these incubators mixed, with the lack of consistent and interactive support by the different players among the main reasons.

- ◆ The *Industrial Development Corporation* (IDC) has funded a number of technology parks, where SMEs with a technology focus can operate as tenants, with different support programmes trying to assist them.
- ◆ A number of larger corporates have also helped to establish *industrial parks* close to their main premises. By attracting small enterprises linked to the supply chain of the corporates these parks help SMEs and strengthen the particular sub-sector (e.g. for exports or import substitution).
- ◆ *office parks*, established by corporates or through development partnerships, have also been able to help emerging services SMEs to better tackle their start-up problems. One of the challenges now is to establish such small-business parks in the former townships, where black-owned start-up enterprises still need intensive support.
- ◆ In some smaller towns *municipalities* facilitate the establishment of local business parks or incubators, ideally in partnership with private corporates or other development agencies (Ngwenya 2010, Petersen 2011, Thomas 2009).
- ◆ New *shopping malls*, which have evolved in most of the larger townships, are dominated by the large retail chains, leaving relatively little scope for local SME retail clusters. Yet, corporates might play a significant role in facilitating SME clusters in the retail and services sectors.

5.4.3.3 *Macro-cluster developments*

As explained in Chapter 4, the development or evolution of macro-clusters constitutes a significant part of the world-wide clusterisation process. In the case of South Africa we indicated earlier that in the last century a range of macro-clusters evolved, which provided substantial scope for small-business development and diversification. These early macro-clusters included

- ◆ transport-infrastructure centres, like key harbours, a few railway hubs and airports,
- ◆ clothing and textile industry clusters in Western Cape and Natal provinces,
- ◆ certain mining centres in the Witwatersrand area,
- ◆ the Iscor steel plants in Pretoria and Vanderbylpark,

- ◆ the petro-chemical complex at Sasolburg,
- ◆ a few agriculture and agro-processing clusters (like Stellenbosch-Paarl in the Cape Winelands),
- ◆ tourism clusters along (i.a.) the Southern Cape coastal edge and the Durban-Margate stretch in Natal,
- ◆ automotive clusters around Port Elizabeth, East London, Pretoria and Durban-North,
- ◆ financial and business-services clusters in sections of Johannesburg and Cape Town,
- ◆ technology- and research-focused clusters evolving in the vicinity of the larger universities of the country (viz. Johannesburg, Cape Town and Durban).

In addition to these macro-cluster developments, we also mentioned that attempts were made during the apartheid era to create macro-clusters in the form of “homeland industries” and “border industries”. They were primarily a tool to create jobs for black workers whom government did not want to migrate into “white South Africa”.

South Africa’s strategy of tight import control and “infant-industry protection” of the 1960s to 1980s, plus deliberate steps to create new industries in the homelands and the sanction policies of South Africa’s foreign-trade partners added up to create a strong clustering impact during those decades. Government proactively supported these clusters while foreign competition was absent or much reduced. This gave local small, medium and larger firms a better chance to meet local needs and opportunities.

It is one of the paradoxes of South Africa’s economic-development process that the end of apartheid and the start of the new government in 1994 actually dampened aspects of the local economic-development process. We can mention a few of the causes.

- ◆ With the re-integration of the “homelands” into South Africa, virtually all “border industry” and “homeland industry” complexes lost their state subsidisation and petered out.

Table 5.1**South African incubators established through the Seda Technology Programme**

	STP centres	Location	Sector
1	Acorn Technologies – Cape Town	Cape Town	Life sciences
2	Softstart business and technology incubator	Johannesburg	ICT
3	EgoliBio	Johannesburg	Biotechnology
4	Zenzele	Johannesburg	Resources: Small-scale mining
5	Seda Ethekeweni contractors incubator	Durban	Construction
6	Biodiesel	Marble Hall	Bio-fuels
7	Eastern Cape information technology initiative	East London	ICT
8	Eastern Cape information technology initiative	Port Elizabeth	ICT
9	Chemin	Port Elizabeth	Chemicals
10	Timbali	Nelspruit	Floriculture
11	Seda automotive technology centre	Rosslyn	Automotive
12	Seda Ekurhuleni base metals	Springs	Resources: mineral beneficiation
13	Seda platinum incubator	Rustenburg	Resources: mineral beneficiation
14	Seda essential oils business incubator	Pretoria	Agriculture: essential oils
15	Downstream aluminium centre of technology	Richards Bay	Manufacturing: aluminium
16	Mpumalanga stainless initiative	Middelburg	Manufacturing: stainless steel
17	Furtech: Cape Town	Cape Town HQ	Manufacturing: furniture
18	Furtech: George	George	Manufacturing: furniture
19	Furtech: White River	White River	Manufacturing: furniture
20	Furtech: Umzimkhulu	Umzimkhulu	Manufacturing: furniture
21	Furtech: Durban	Durban	Manufacturing: furniture
22	Furtech: Gauteng	Gauteng	Manufacturing: furniture
23	Sugar-cane incubator	Malelane	Agriculture: sugar cane

◆ SOURCE: Adapted from IBRD (2010)

- ◆ Several of the industrial growth initiatives of the 1970s/'80s had been geared towards producing products not available via imports (e.g. defence equipment). With trade restrictions and defence priorities over, these products could now be imported or were no longer needed.
- ◆ The “new South Africa” soon became popular as a trade partner for the developed and emerging countries who were keen to expand their trade in Africa and equally keen to use South Africa as a base to expand into African markets. South Africa was invited to join (free) trade agreements and related partnerships, which generally implied cheaper imported products, but also less protection of local manufacturers.
- ◆ In this process of re-integrating South Africa into the more developed global economy, big corporates played a major role, i.e. they were keen to also operate in South Africa, thereby reducing the scope for local (less competitive) South African firms to get into that trade.

Against this background the challenges underlying macro-cluster development in the post-apartheid era had three dimensions:

- ◆ to maintain and re-strengthen existing macro-clusters, focusing support on the improvement of their global competitiveness,
- ◆ to start new clusters in sectors where South Africa could gain international competitiveness and
- ◆ to structure macro-clusters and the support for them in a way that fits in with the broader black economic empowerment strategy, i.e. increasing black-owned enterprises.

These challenges were further highlighted by factors like the gradual decline in the output of some mining sectors (in particular gold mines) and greater mechanisation in the mines, which drastically cut mining employment over the past 15 years. Similarly, the South African clothing and textile industry also suffered drastic job cuts due to foreign competition. On the other side it became clear that agricultural processing received relatively little attention, notwithstanding the size and diversity of South Africa's agricultural sector. Thus, the need for accelerated macro-cluster development has increased.

The reasons for South Africa's very limited success with the initiation or further growth of existing macro-clusters during the past decade are complex, but centre around the following factors.

- ◆ The capacity of the Department of Trade and Industry (and other relevant ministries) is too limited to tackle the complex challenges of macro-cluster facilitation effectively.
- ◆ Although government has tabled strategy documents (like IPAP) which include a commitment towards cluster development, these broad statements have not (yet) been transformed into effective operational programmes.
- ◆ Most of the provincial governments, which need to play a strategic role in CDEs, have very limited financial and managerial capacity for that task.
- ◆ There is so far only limited progress with the creation of strong public-private partnerships to lead such cluster initiatives. This applies to the cautious approach of the larger corporates and the inherent weakness of business associations representing small enterprises.

Growing concerns among public- and private-sector leaders about South Africa's low GDP growth rate and the rising unemployment level have recently sharpened attention on the clusterisation process and how macro-clusters could be supported more effectively. The focus falls upon five sector clusters, viz.

- ◆ agro-based industries,
- ◆ metal fabrication and related capital goods,
- ◆ automotive sector and transportation equipment,
- ◆ clothing and textile products,
- ◆ timber-processing, furniture and pulp/paper products.

5.4.4 Lessons from South Africa

Having discussed the different dimensions of clusterisation in South Africa at some length, we can conclude with a few key conclusions which seem particularly relevant for Nigeria.

- a) South Africa's major business clusters are directly linked to

- ✧ the urbanisation process and the evolution of the larger cities with each having significant clusters,
- ✧ the mining sector as the driver of early developments,
- ✧ transport-infrastructure hubs in different parts of the country.

Agriculture only played a limited role in clusterisation processes, although it shaped the growth of several smaller towns, which also had clustering processes.

- b) From the early development stages the government played a central role in the support and steering of business clusters, both in the colonial phase and in the post-1910 era of independent South Africa. The government's inputs were largely guided by perceived sector-development opportunities, which in the 20th century placed major emphasis on local industrial development.
- c) Socio-political challenges (like apartheid) have influenced the focus and shape of cluster-development policies and initiatives, and they have dampened the process at particular stages. Differently structured socio-cultural and political challenges in other African countries are likely to influence their clustering processes.
- d) The liberalisation of South Africa's relations with the global economy and efforts towards trade pacts with other (African) countries initially had a negative effect on clusterisation processes. In the longer run it is expected that closer economic co-operation across the continent will open new avenues for cluster development in the country or the opening of joint clusters between trading partners (e.g. co-operation between automotive clusters evolving in South Africa and Nigeria).
- e) South Africa has considered the creation of a wide range of new (sub-)sector-focused clusters over the past two decades, but success has so far been disappointing.
- f) Mini-clusters (or incubators) have played a significant role in South Africa in past decades, with the SBDC hive efforts followed by the Seda-incubator initiative and a range of private-sector and municipal incubator projects. Yet, the broader cluster-development impact of incubators has been relatively modest in South Africa.

- g) The emphasis placed by South Africa's public sector, the corporate sector and other business and public-opinion leaders on the formalisation of businesses has limited the status and acceptance of informal business activities. As a result, virtually no attention is given to *informal-business clusters* in the country. In fact, municipalities and business leaders often do their best to restrict or dampen informal-business clusters, although there are also voices stressing the positive role informal business plays in the job-creation and entrepreneurship-development spheres.
- h) The *capacity of the three levels of government* to plan, implement or support new or expanding clusters has been rather limited over the past years, which is seen as a significant dampener on South Africa's clustering efforts. Thus, while there are many examples of successful and dynamic (macro-)clusters, there is currently general disillusionment about the ongoing dynamics of those processes. At the same time it is clear that public-sector support for different problems or challenges of small enterprises has expanded over the past decades.
- i) It is widely felt that underlying the limited progress with the clustering process is a *lack of strong and effective partnerships* between public- and private-sector players (or potential players) and a lack of commitment to expand as well as strengthen the clusterisation process in appropriate sectors and through appropriate institutions.

We shall show in the second half of the study that virtually each of these concluding points from South Africa's experience with clusterisation finds parallels in Nigeria.

5.5 CONCLUSION

Against the background of the general characterisation of clusters in Chapter 3 and the review of international examples of clusterisation processes in Chapter 4, this chapter tried to show how Africa's clusterisation efforts are influenced by special development challenges. Our country review included only two cases – one of the least developed African countries and South Africa as an emerging economy. These two examples already showed the strong interaction between socio-cultural and socio-political dynamics and clusterisation processes. This background should help in the second half of the study, where we focus on clusterisation in Nigeria.

CHAPTER 6

NIGERIAN FIELDWORK: METHODOLOGICAL CLARIFICATION

6.1 INTRODUCTION

Against the background of the overall research approach outlined in the Chapter 1 and the literature review of Nigeria's SME sector as well as the role of clusterisation in Chapters 2 and 3, we have so far focused on international examples of small-business clusterisation. In the remainder of this study the focus shifts to clusterisation in Nigeria, and how this can be made more effective for small-business development.

In order to cover the dynamics of the clustering process and the scope for greater SME-development support, it is necessary to look at two dimensions of the clustering process.

- ◆ The creation, growth and diversification of small-business *clusters* in Nigeria.
- ◆ The role and impact of key *stakeholders* in the process of cluster development.

Chapter 7 covers the evolution of Nigeria's business clusters, including

- ◆ early clusterisation processes in Nigeria's economic history,
- ◆ basic information about 55 clusters spread country-wide,
- ◆ more detailed information with regard to 21 of those 55 clusters (which were visited by the researcher).

The nature and approach of cluster stakeholders is analysed in Chapter 8, largely based on the responses to a detailed questionnaire targeting eight selected clusters and five different categories of cluster players.

The responses from the two surveys are then fed into the central chapter of the study, viz. Chapter 9, which looks at key elements of an effective SME cluster-development strategy for Nigeria.

6.2 RESEARCH APPROACH

The fieldwork covering these two dimensions of the Nigerian cluster scene includes quantitative as well as qualitative research, i.e. a *mixed approach*.

As Huberman and Milles (2002) pointed out, recent decades have witnessed a notable growth in the use of *qualitative methods* for applied social-policy research. This research method seeks to explore and understand diverse social- and public-policy issues, either as an independent research strategy or in combination with case studies and some form of statistical inquiry. According to them, the wider use of qualitative methods is underpinned by the persistent requirement in social-policy fields to understand complex behaviours, needs, systems and cultures. Thus, the qualitative approach is anchored on the examination, analysis and interpretation of observations for discovering underlying meanings and patterns of relationships.

On the other hand, Aliaga and Gunderson (2000) explained that the *quantitative method* usually seeks to explore the systematic empirical investigation of social phenomena with scientific methods. These methods may include the generalisation of models, theories and hypotheses, the empirical control and manipulation of variables, the collection of empirical data as well as the modelling and analysis of data.

The present study uses a combination of the qualitative and quantitative approaches in the pursuance of a social and policy-orientated inquiry into some fundamental issues within the context of applied policy research. This approach was preferred for the following reasons.

- ◆ The phenomenon under study borders on applied policy inquiry, which implies that the use of hypotheses to explain the phenomenon would be inappropriate.
- ◆ In policy research, where answers to the research questions provide a springboard for the formulation of policies, a purely quantitative approach may not afford the researcher the flexibility of using different methods of gathering primary data that are deemed appropriate. In contrast, the usage of the case-study approach allows the researcher to obtain analytical data from different locations in Nigeria and from other countries with comparable experiences.

- ◆ Venkatesh, Brown and Bala (2013) pointed out divergent reasons why the combination of qualitative and quantitative methods is valuable in research.
 - It provides a more complete picture of phenomena under study. Thus, qualitative data and the results obtained through case studies on various small-business clusters in Nigeria can provide robust explanations of the findings from quantitative data and their analysis.
 - It compensates the weakness of one approach by using the other (Dennis and Garfield 2003). In this study qualitative analysis also compensated for the small sample size (216) in the quantitative study.
 - It provides divergent views of the same phenomenon (Chang 2006). Thus, the international case studies on cluster processes enabled the researcher to obtain divergent views relevant for cluster processes in Nigeria.

Section 6.3 will further enlarge on the quantitative approach pursued in the study and section 6.4 on the qualitative approach.

6.3 QUANTITATIVE RESEARCH

Here we cover three aspects of the questionnaires, which have been the primary instruments in the quantitative part of the study, viz. the questionnaire design and administration, sampling techniques and steps to enhance the response rate to the questionnaires.

6.3.1 Questionnaire design and administration

Different questionnaires were used for the two stages of surveys conducted. The first questionnaire was used to gather information on the nature, diversity and locations of a selection of 21 clusters. It was targeted at firms operating in the clusters, cluster officials and individuals as well as organisations, which have detailed knowledge of the clusters. The results are presented and discussed in Chapter 7.

The second questionnaire was used for the second-phase survey covering eight clusters for in-depth analysis in Chapter 8. It was aimed at respondents drawn from the cross section of institutions connected to the PPP interaction in small-business cluster-development programmes. These included the following four groups of cluster-development stakeholders.

- ◆ Public-sector institutions (state and federal ministries responsible for economic development, SME policy-making institutions and agencies of government).
- ◆ Organised private-sector institutions, including cluster associations.
- ◆ Representatives from universities and research institutions.
- ◆ Private-sector bodies, including banks and enterprises operating within the clusters.

To obtain relevant data from each of these development-stakeholder groups, questionnaires were structured to meet their respective operational characteristics, although the content of the questions remained the same for the four target groups.

The questionnaires for the stakeholders consisted of three parts (see Appendix 3).

- ◆ *Part A* addressed background information relating to respondents' involvement in cluster activities.
- ◆ *Part B* looked at an assessment of the existing cluster covered by the respondent. This section reviews the functionality of the cluster with sets of questions eliciting responses from operators in the clusters. These operators include owners of firms located within the cluster, members of associations managing the cluster, other stakeholders associated with the cluster, such as government agencies, ministries and private organisations not located within the cluster (but in direct relationship with it). The section also highlights the existence or otherwise of PPPs in the cluster and other factors linked to the performance of the clusters.
- ◆ *Part C* looked at the strategic direction of potential PPP policy interventions in cluster development, thus giving an insight as to "where we are going". This section elicits responses from all parties and stakeholders to small-business clusters and seeks to set the agenda for policy interventions aimed at heightened PPP engagement.

The questionnaires were aimed at individuals with the capacity of either making policies or influencing the direction of policies in those institutions. The responses had to measure attitudes or perceptions about the scope and structure of PPPs in small-business-cluster building.

The questionnaires were personally distributed during visits to those clusters across six geopolitical zones in Nigeria that were eventually visited. Prior to the commencement of this stage-two survey, a pilot run was conducted, using the initial draft of the questionnaire with 10 known respondents cutting across the respondents' groups. The objective was to test for the reliability of the instrument and make final adjustments.

While different types of measurement scales were used in the processing of the responses, the most important one was the widely used Likert scale, as explained in section 6.3.3.

6.3.2 Sampling technique

As a study that has a mixed-methodology approach, the sampling techniques adopted for the Nigerian fieldwork had to assist the researcher in deciding the following.

- ◆ Selection of *states* for cluster cases to be surveyed.
- ◆ Selection of *clusters* for surveys and case studies.
- ◆ Selection of the respondent *categories* for analysis.
- ◆ Selection of respondents.

The end objective of sampling techniques in research (especially in a mixed-method approach) is to generate relevant data that provide a rich background on the phenomenon under study and assist the researcher in providing answers to the specific research questions (Curtis, Gesler, Smith and Washburn 2000). To this end, the sampling technique adopted in this study follows the process shown in Figure 6.1 as suggested in Onwuegbuzie and Collins (2007).

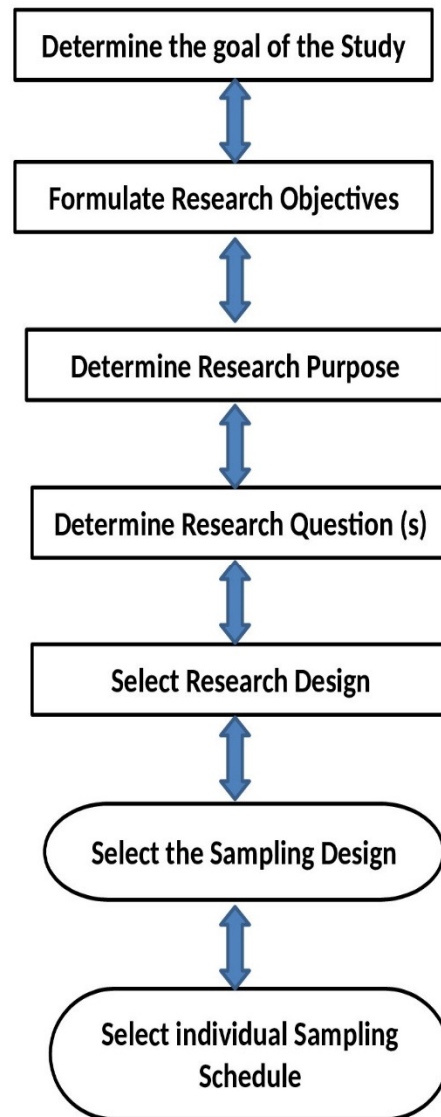


Figure 6.1: Steps in the mixed-method sampling process

SOURCE: Adapted from Onwuegbuzie and Collins (2007)

The respondent categories considered in this study as units of analysis in the collation of data are as follows.

- a) The 31 states in Nigeria and the Federal Capital Territory Abuja (to select local small-business clusters as case studies for Chapter 7).
- b) SME owners/managers operating in those clusters, targeted as respondents for both surveys.
- c) Corporate bodies, including financial institutions located in those states.
- d) Universities and research institutes in those states.

- e) Members of organised private-sector institutions.
- f) Heads of *federal* ministries and agencies responsible for small-business development.
- g) Heads of *state* ministries and agencies responsible for small-business development.

A sampling frame for part two of the study (the analysis of stakeholders in Chapter 8) was drawn from the target population shown above, with Table 6.1 below listing 38 institutions. The frame is based on the researcher's judgement with regard to institutions and personalities linked to policy formulation about small-business development and the access to potential respondents. Table 6.1 shows the distribution of questionnaires to the different respondent categories as further explained in Chapter 8.

As far as the selection of the clusters for the surveys and case studies was concerned, the *critical-case-sampling method* was used. Onwuegbuzie and Collins (2007: 5) defined critical-case-sampling techniques as that which involves "choosing settings, groups and/or individuals based on specific characteristic(s) because their inclusion provides the researcher with compelling insight about a phenomenon of interest". The researcher intended to bring to the fore cases from which one can learn more about small-business clusters and concepts of partnership engagement in cluster building, i.e. which would not have been learned without including the critical cases (Onwuegbuzie and Leech 2007).

Patton (1990) further described critical cases as those that can make research findings quite dramatic and insightful in the research process. They also enhance research generalisations by alluding that "if it happens here, it will happen elsewhere and *vice versa*". Aside from these considerations, practical criteria were also set for the selection of clusters and states of the various geo-political zones of the country, to fit in with the researcher's means.

In the selection of respondents to the questionnaire the *judgemental non-random sampling* technique was adopted. Kumar (2005) described judgmental or purposive sampling as a sampling technique where the researcher applies his judgment as to who can provide the best information to achieve the objectives of the study. This, according to him, is often useful when the researcher wants to describe a phenomenon or develop something about which only little is known. The respondents were drawn from the institutions outlined in Table 6.1 below. They were individuals who are either SME policy makers or in a position to influence

policy-making decisions through advocacy, research activities or consultancy. Some were executives of cluster associations or owners of SMEs in the cluster area.

6.3.3 Questionnaire response rate

Three-hundred-and-ten questionnaires were distributed among the four respondent categories, viz. associations, government, universities and industry. Table 6.2 below shows the response rate for each category, which gives an overall response rate of 85,5 per cent.

To enhance the response rate and quality of the responses, several steps were taken.

◆ *Face-to-Face surveys*

Personal visits were made to the 21 clusters covered in the first survey across the country (covering six states), and questionnaires were personally administered to respondents. Face-to-face administration of questionnaires to respondents in other institutions and organisations covered in the surveys was also carried out. A number of these questionnaires were completed by the respondents in the presence of the researcher, who used the opportunity to offer clarifications where needed. The approach was costly and time-consuming, taking into account travelling expenses, cost of engaging contacts and help within the clusters as well as length of time needed to reach and interact with respondents. However, it offered the advantage of giving on-the-spot clarifications on the questionnaire contents, hence improving the quality of responses.

◆ *Follow-ups and engagement of research assistant*

While the distribution of the questionnaires to various respondents across the country used a face-to-face approach, subsequent follow-ups to ensure early collation of responses, could not be done in the same way. The follow-up process was done with the aid of a paid research assistant, telephone calls and e-mails to respondents after a few weeks of the initial contact. To make the follow-up process and contact with the assistant easier and result-orientated, broader contacts were established at the various clusters at the time of the initial visits.

Table 6.1
Questionnaire distribution by location

S/N	Name of Institution	Location/State	Questionnaire distribution				
			Associa- tion	Gov't	Univ.	Industry	Total
1	Smedan	Otigba Cluster/Lagos State	4	1		30	35
2	Ministry of Comm and Industry (Dir. of Industrial Operations)	Ogun State Secretariat		1			1
3	Ministry of Agriculture (Dir. of Information and Strategy)	Ogun State Secretariat		1			1
4	Adire/Campala Market Cluster	Itoku Abeokuta, Ogun State	4	1		20	25
5	National Association for Small Scale Industrialist (Nassi)	Abeokuta, Ogun State		1			1
6	Federal Agricultural Development Management (Fadama)	Abeokuta, Ogun State		1			1
7	Ministry of Agriculture	Lagos State Secretariat		1			1
8	Ministry of Women Affairs and Poverty Alleviation	Lagos State Secretariat		1			1
9	Ministry of Commerce and Industry	Lagos State Secretariat		1			1
10	Skye Bank (Abattoir Cluster)	Abattoir, Lagos State				1	1
11	Microfinance Bank (Abattoir Cluster)	Abattoir, Lagos State				1	1
12	Lagos Chamber of Commerce and Industry (LCCI)	Victoria Island, Lagos State	1				1
13	Bank of Industry Ltd	Marina, Lagos State				1	1
14	Nextzon	Victoria Island, Lagos State				1	1
15	National Association Chamber of Commerce, Industry, Mines and Agriculture (Naccima)	Ikeja Gra, Lagos State	1				1
16	Head office Diamond Bank Plc	Victoria Island, Lagos State				1	1
17	Ministry of Commerce and Industry	Abia State Secretariat		1			1
18	Ministry of Agriculture	Abia State Secretariat		1			1
19	Powerline Footwear Cluster	Aba, Abia State	1			22	23
20	Bakasi Footwear Cluster	Aba, Abia State	4			15	19
21	Ministry of Agriculture	Anambra State Secretariat		1			1
22	Ministry of Commerce and Industry	Anambra State Secretariat		1			1
23	Federal Agricultural Development Management (Fadama)	Awka, Anambra State		1			1
24	Applema Industrial Ltd (Osakwe Cluster)	Anambra State	2			50	52

continued

S/N	Name of Institution	Location/State	Questionnaire distribution				
			Associa- tion	Gov't	Univ.	Industry	Total
25	Nnewi Cluster	Nnewi, Anambra State				1	1
26	Anambra Chamber of Commerce	Nnewi, Anambra State	1	6		9	16
27	Innoson Industrial Estate	Anambra State				1	1
28	Fidelity Bank (Nnewi Cluster)	Nnewi, Anambra State				25	25
29	Fidelity Bank Plc	Head office (SME Desk)				2	2
30	National Association for Small-Scale Industrialist (Nassi)	Awka, Anambra State	1				1
31	Yaba College of Technology	Yaba, Lagos			2		2
32	Nnewi Cluster	Nnewi, Anambra State	1				1
33	Enugu Carpenter Union	Enugu State	1			10	11
34	Small and Medium Enterprise (SME)	Enugu State		1			1
35	Ministry of Agriculture, Fadama Iii	Enugu State		1			1
36	Federal Ministry of Agriculture	FCT, Abuja		2			2
37	Federal Ministry of Trade and Investment	FCT, Abuja		2			2
38	Dei-Dei Timber Cluster	FCT, Abuja	4			22	26
	Total		25	26	2	212	265

Table 6.2**Survey response rate**

Category of respondents	Total sample	Return numbers	Return percentage	Overall response rate (%)
Associations	35	25	71,4	85,5
Government	35	26	74,3	
University, polytechnic	10	2	20,0	
Industry	230	212	92,2	
Total	310	265		

◆ *Personalisation of questionnaires*

As mentioned already, the questionnaire used in the second-stage (stakeholders) survey was personalised to the respondents' institutions. The respondents were grouped into four strata, reflecting the major actors in a small-business-cluster partnership, viz. public-sector institutions and agencies, universities and research institutions, members of organised private-sector institutions and private enterprises. The objective of this focused

approach was to ensure the respondents felt that the questionnaire was actually addressed to them and were thus more comfortable to respond. Dillman (2007) argued that this approach tends to elicit positive responses, although its ability to increase the response rate is still contentious (Kumar et al. 2002).

◆ *Cover letters and letter of introduction*

The distributed questionnaire was accompanied by a cover letter, which outlined the significance and the purpose of the study, with an appeal for the co-operation of the intended respondents. The letter assured the respondents of the confidentiality of their information. The cover letters, jointly signed by the researcher and the study leader, were addressed to the respondents' institutions. In addition, a letter of introduction from the university, signed by the study leader, accompanied the questionnaires. This was intended to build confidence on the part of the respondents and buttress the overall credibility of the study.

6.3.4 Measurement and scaling

Measurement as applied in quantitative research is defined as the assignment of numbers and other symbols to characteristics of objects being measured according to pre-defined rules (Stevens 1946, Aaker, Kumar and Day 2000). The primary purpose is to accurately represent research variables numerically. The questionnaires used in the study were designed to collate data from a relatively small sample (300 respondents), and it is involved mainly with attitude or perception measurement of respondents' opinions about the scope and structure of PPP in small-business-cluster building. Aaker et al. (2000) described attitude in market research to include the telling of like or dislike, information possessed and intentions to behave. In this context proper measurement is important. Not only should it provide objective ways of accurately describing phenomena, as the measures do not change regardless of how or when or by whom it is being measured. They also provide objective ways of evaluating patterns of events.

In the survey questionnaire for Chapter 8 the Likert scale is used to measure the strength of respondents' attitudes and perceptions on the variables linked to the PPP in cluster development. Likert scales have proven effective in social-science applications and research covering attitudes, beliefs, emotions and perceptions of respondents (Churchill 1999, Chimi and Russell 2009, Treiblmaier and Filzmoser 2009). A three-point Likert scale was used to measure the respondents' perceptions and attitudes to the variables in the current study. This

is preferred due to its simplicity, ease to remember by respondents and the availability of a middle-value option, which enables undecided respondents to express their views, especially when dealing with sensitive topics (Losby and Wetmore 2012).

6.3.5 Measurement of research questions

The research questions listed in Chapter 1 formed the basis of the overall analyses and are directly linked to the questionnaires used for the second-phase survey. Table 6.3 shows this linkage of the research questions to the measurement construct and the variables in the administered questionnaire.

6.4 QUALITATIVE RESEARCH

As pointed out earlier, the qualitative technique in research is anchored on the examination, analysis and interpretation of observations for discovering underlying meanings and patterns of relationships. Mack, Woodsong, Macqueen, Guest and Namey (2005: 12) stated that qualitative research focuses on the following characteristics and procedures.

- ◆ It seeks answers to specific questions.
- ◆ It uses predefined procedures to get answers to these questions.
- ◆ It collects evidence from a diversity of sources (e.g. case studies).
- ◆ It produces findings that were not determined in advance.
- ◆ It produces findings that are applicable beyond the immediate boundaries of the study.
- ◆ It seeks to explore phenomena rather than confirming hypotheses about phenomena as often associated with the quantitative technique.

They also emphasised that the qualitative-research approach is to understand a given research problem or topic from the perspective of the local population. This provides a description of how people experience a given research issue by bringing out the *human* side of the issue, including behaviours, beliefs, opinions, socio-economic factors and relationships between individuals. It thus gives a better understanding of phenomena under study, especially when combined with a quantitative approach. One other unique characteristic of the qualitative approach is that qualitative data and findings can be extended to other people and environments with characteristics similar to those in the study population (Mack et al. 2005: 13).

Table 6.3
Research question measurement

Research questions (see Ch. 1.5)	Measurable concept (units of measurement)	Measurement variables (questions in the questionnaire)
Q 1 In what ways does the involvement of small-business stakeholders in cluster developments impact positively on the growth and competitiveness of small businesses in Nigeria?	Relationship between cluster actors and the success/failure of small businesses	Indicate the level of significance of the involvement of the following actors in cluster developments to the growth of small businesses in Nigeria (Q 2.14)
Q 2 What are the perceived needs of small-business clusters in Nigeria, and how can they be effectively addressed?	Needs of small business clusters in Nigeria	What do you consider the most significant challenges facing small businesses in Nigeria? (Q 2.18)
Q 3 What are the perceived roles of cluster-development partners in a PPP engagement, and how do they impact on the success of small-business clusters?	The perceived roles of partners in a PPP cluster development	A Indicate what the role of the universities or research institutions should be in a PPP initiative in cluster policy (Q 3.1) B Indicate the role of the government (local, state, federal) and its agencies in a PPP initiative in cluster policy (Q 3.2) C Indicate the role of the organised private-sector associations in a PPP initiative in cluster policy (Q 3.3) D Indicate the role of the international agencies in a PPP initiative in cluster policy (Q 3.4) E Indicate the role of the private-sector companies (banks etc.) in a PPP initiative in cluster policy (Q 3.5)
Q 4 In what ways and to what extent do PPPs in cluster developments impact on the performances of small-business clusters?	Impact of PPPs in cluster developments on the cluster performance	A Indicate significant partnership participation of the following entities in the cluster (Q 2.13) B Indicate the level of significance in which the PPP is or will be considered effective to the cluster in the following areas? (Q 2.15) C How would you describe the overall performance of this cluster? (Q 2.16) D Indicate significant linkages of the cluster success/failure to the following institutions (Q 2.17)
Q 5 Is there any relationship between stakeholders' motives of involvement in a partnership-driven cluster-development programme and the success of the cluster programme?	Relationship between motives of partners in cluster development and success or failure of cluster programmes	What constitutes your motive/s for involvement in this cluster programme? (Q 2.12)
Q 6 What should be the most important factors in building effective small-business clusters in Nigeria?	Significant factors in a cluster development programme in Nigeria	In building effective clusters for SMEs, how would you rate the importance of the following factors? (Q 3.6)
Q 7 What should be the most important	Sector classification of the clusters	In crafting effective PPP policy for cluster developments, how would you rate the

continued

sectors to be considered in developing small-business clusters in Nigeria?		significance of focus on the following sector? (Q 3.8)
Q 8 How significant is the participation of various cluster actors in a partnership-focused cluster strategy in Nigeria	Significance of cluster actors' participation in PPPs in cluster-development policy	In crafting effective PPP policy for cluster developments, how would you rate the significance of the following actors? (Q 3.7)
Administrative questions	Institutions/organisations involved in cluster programmes	Q 1.1 and 1.2
	Role of organisation involved in cluster-development programmes	Q 1.4 and 1.5
	Duration of time the institutions have been involved with the clusters	Q 1.6 and 2.7
	Cluster longevity	Q 2.5

6.4.1 Case-study analysis

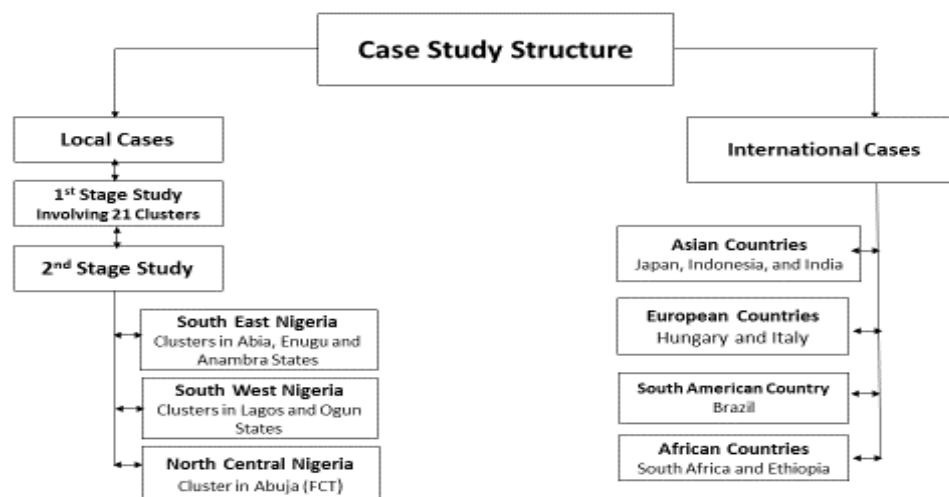
The information about Nigeria's cluster-development is primarily based on case-study material. Yin (1994, 2005) defined case study in the context of research as an empirical enquiry in which the focus is on a contemporary phenomenon within its real-life context, with the boundaries between the phenomenon and its context not evident. The emphasis is on studying complex social phenomena. A case study involves particularisation of the subject of study, bringing out the uniqueness of the subject in the analysis in its holistic form rather than generalisation (Stake 2005). However, case-study findings could serve as a model generalisation to other issues related to the phenomenon.

According to Yin (1994), the case-study approach can be used where the research questions are of *how* and *why* types, i.e. questions that are exploratory and explanatory in nature. Put differently, the case-study approach can be used when the researcher has little or no control over the behavioural event and where the general characteristics of the cases reflect contemporary phenomena in a real-life context.

Case-study methodology can be categorised into three distinctive forms, namely descriptive, exploratory and combined. According to Imas (2009), *descriptive case study* describes an intervention and the context in which it occurred. *Exploratory case studies* explain causal links in interventions and links programme implementation with programme effect.

Combined case studies bring together findings from several case studies to answer an evaluation question.

Figure 6.2: Case-study structure



SOURCE: Adapted from Onwuegbuzie and Collins (2007)

A multiple case-studies approach was used in this study. Yin (2003) defined a *multiple case study* as a method that enables the researcher to explore differences within and between cases. The intended goal is to replicate findings across cases. Yin is of the opinion that, because of the fact that comparisons will be drawn, it is imperative that the cases are chosen carefully, so that the researcher can predict similar results across cases or predict contrasting results based on a theory. This makes room for either literal replication or contrasting results across different cases (Yin 2003) and gaining understanding of the same phenomena across different settings (Stake 1995). In this context, a combination of local and foreign-based case studies was used, with Figure 6.2 depicting the structure of the different cases covered.

The use of several case studies provided a more robust insight into the subject of the study. The first stage focused on evaluating existing clusters (globally and in Nigeria) with the aim of finding out about their nature, types, places of existence and environmental impact, and also obtaining useful information that could lead to discovering potential clusters where PPPs are feasible. This approach proved useful as it helped the researcher modify the sampling technique adopted in the *second phase* of the survey research, which focused on the stakeholder groups.

6.4.2 Selection of cases and respondents

Here we have to distinguish between foreign-based cases covered in Chapters 5 and 6 and locally-based cases covered in Chapters 7 and 8.

As explained earlier, the foreign-country cases were chosen to show where small-business clusters have succeeded and have aided the competitiveness of SMEs through a combination of factors. These factors included active government-policy drives, PPPs and links with national economic-development policy.

In the selection of the countries, attention was also given to comparable development patterns with Nigeria, the significance of the SME sector in those economies and similarities in the socio-political landscape as well as initial development trajectories. The countries selected covered Japan, Indonesia and India in Asia, Hungary and Italy in Europe, Brazil in Latin America, and South Africa and Ethiopia in Africa.

As far as the Nigerian cases are concerned, the 21 clusters selected for the *initial phase* (in Chapter 7) came from eight out of the 36 states of Nigeria. The criteria used related to *critical-case sampling*, explained earlier in this chapter, with the following regional choices.

- ◆ States where SMEs are receiving significant attention through government policies (e.g. Ogun and Niger States).
- ◆ States where small-business clusters are known to have thrived (e.g. Abia and Anambra States).
- ◆ States regarded as regional commercial nerve centres (Lagos State and Abuja).
- ◆ States with particular interest of the researcher (Enugu and Kano States).

In addition, the sample was to include a size and sector diversity of clusters and a diversity of historical factors shaping the clusters.

The *second-stage* participatory research was done on eight selected clusters from the initial 21 clusters studied in stage one. As Babbie (2001) pointed out, the second-stage study gives an in-depth analysis of the existing system using multiple cases. The cases were studied in real-life situations, not a simulated event made purposely for the study. A set of criteria was

used to select the eight clusters, which were subjected to the more detailed study in Chapter 8. The following criteria were used for the cluster selection in line with the *critical-case sampling* technique.

- ◆ Regional spread of the clusters based on six geo-political zones in Nigeria (South-East, South-South, South-West, North-Central, North-East and North-West zones).
- ◆ Sector focus and spread of the clusters.
- ◆ Level of the cluster dynamism.
- ◆ Organisational structure of the clusters (formal vs informal structure).
- ◆ Cluster size and diversity.
- ◆ PPP focus.
- ◆ Linkage to the research questions.

In this second-stage study, attention focused on four key stakeholder groups and their perceptions with regard to the scope for an acceleration of cluster developments.

- ◆ Public-sector institutions, including federal and state ministries responsible for economic planning, SME-policy formulation and SME-policy intervention as well as public-sector agencies involved in SME-cluster drives.
- ◆ Universities and research institutions.
- ◆ Organised private-sector institutions, including cluster associations, chambers of commerce and trade associations.
- ◆ Private-sector bodies with strategic interest in SME-cluster intervention, including financial institutions, corporates, SMEs and SME service providers.

In addition to these four key player categories attention is given to the actual and potential role of international aid agencies.

6.5 DATA-ANALYSIS APPROACH

Data collected through the different sources of phases 1 and 2 were analysed as follows.

Phase 1 survey

This survey combined interviews and the distribution of questionnaires to 21 clusters selected from a list of 55. A sample frame of 55 clusters was used and the critical-case-sample method was adopted in the selection of the 21 clusters.

The responses from the respondents on the questionnaire and the results of the interviews conducted were used to gather basic operational and technical information relating to the 21 clusters surveyed. This formed the basis of the comprehensive analysis done on current clusters in Nigeria, with the results of the analysis presented in Chapter 7. Information was extracted directly from the returned questionnaires (51 completed and returned out of 75 distributed). This shows a 68 per cent response rate. A compendium of the responses is included in Appendix 5.

Phase 2 survey

The data collated in the phase-2 survey of eight clusters was analysed using the Statistical Package for Social Sciences (SPSS). Relevant descriptive statistics are reported in Chapter 8. The research process included factor analyses using the Statistical Package for the Social Science (SPSS) to establish relationships among cluster-development factors and the way such relationships shape the partnership model proposed for Nigeria. The results of these analyses are included in Chapter 8.

6.6 VALIDITY OF RESEARCH INSTRUMENTS

The validity of the study results is reflected by the accuracy or otherwise of the data obtained in the survey in representing the variables of the study (Saunders et al., 2003; Graziano & Raulin, 2010). A number of steps were taken by the researcher to ensure the data collected were a true reflection of the themes and constructs.

- To assure the quality of the questions used in the questionnaire and their linkage to the key research a pilot run of the questionnaire was conducted on a number of respondents who are knowledgeable to the background of the study. The questionnaire was initially administered to ten respondents drawn from the four main categories, viz. industry,

university/research institutions, private-sector associations and public-sector institutions. Their responses were analysed and a final adjustment was made to the questionnaires based on these responses.

- The questionnaires were distributed and collated under the supervision of an experienced field researcher and his team. This enabled the researcher to clarify questions to the respondents and avoid possible ambiguities.
- The research questions from which the key research constructs were created, were linked directly to the specific questions in the final survey questionnaire (as shown in Table 6.3).
- Data collected was cleaned before subjecting it to further statistical analysis. This involved questionnaire checking, editing, coding and tabulation. Outliers were eliminated accordingly.
- Interviews conducted provided an important opportunity for the researcher to evaluate the questions that were used in the survey questionnaire.

6.7 RELIABILITY TEST

Reliability measures the degree to which research instruments give consistent results in repeated trials (Kothari 2004; White and Denholm 2011). Thus, the more reliable a data collection instrument is, the more consistent the measure is. In a typical qualitative study a number of steps can be taken to ensure the reliability of the data-collection instruments.

In line with Bamfo (2013) a number of such steps were applied in the study. These included the effective documentation of data-collection instruments, such as taking notes and recording the interviews conducted. This was analysed alongside the data collected statistically to ensure that no vital information was omitted.

6.8 CONCLUSION

The lessons derived from the different cluster and stakeholder responses in Nigeria (detailed in Chapters 7 and 8) as well as the international country cases (covered in Chapters 4 and 5) are then brought together in Chapter 9 to give guidance to the proposed approach towards Nigeria's clusterisation strategy.

CHAPTER 7

SMALL-BUSINESS CLUSTERING IN NIGERIA

7.1 INTRODUCTION

Having outlined the methodological approach to the cluster-focused fieldwork in Nigeria in the previous chapter, this chapter summarises the process and dynamics of Nigerian business clusters. This is done at two levels of detail, viz.

- ◆ information about a spectrum of 55 clusters across Nigeria and
- ◆ more detailed information about a selected 21 clusters.

The first section in this chapter reviews some early types of informal clusters in the context of Nigeria's complex process of regional and state development during the colonial and early post-colonial decades. Following this introductory section, basic data about 55 identified clusters in contemporary Nigeria are presented. This is followed by the more detailed review of cluster activities and challenges in 21 cases, all of which have been visited by the researcher. The in-depth analysis of the selected eight cluster cases and the role of cluster-development stakeholders are covered in Chapter 8. These two chapters and the international background then lead to the consideration of an integrated partnership model for accelerated cluster development in Nigeria, presented in Chapter 9.

7.2 EVOLUTION OF THE CLUSTERING PROCESS

Given Nigeria's large area and complex physical geography as well as the diverse socio-cultural structures of its huge population, it is only natural to find a highly differentiated structure of human settlements and activity clusters evolving over the decades in the different regions. To get this into perspective, we first briefly focus on early clustering processes and on the significance of differentiated regional developments in the evolution of these clusters.

7.2.1 Early clustering

As shown in other African countries, the low level of urbanisation in pre-colonial and colonial Nigeria also limited the scope for cluster developments in this country. Nevertheless, a few locational clusters evolved over the decades, mainly around transport hubs, religious or cultural centres and the few larger urban settlements. These hubs fulfilled some of the preconditions for cluster developments, although the lack of infrastructure

facilities and effective local- and regional-government structures as well as development catalysts limited the impact and growth potential of such clustering. Most of the business activities in these early clusters were linked to subsistence agriculture and trade, with limited scope for manufacturing and other value adding.

As discussed in Chapter 5 with respect to other African countries, the dominant position of colonial (foreign) business enterprises that tried to supply local needs via imports, prevented more systematic local business development and supply-chain expansions in the colonial and immediate post-colonial era of Nigeria, thus dampening clusterisation.

7.2.2 Differentiated regional development

The initiation and growth of Nigeria's early locational clusters have largely been shaped by the evolving regional-development process and pattern of the country. In terms of the broad geo-political zones, there are the northern and southern parts of the country, with each of them sub-divided into eastern, central and western zones (see Map 7.1). The southern zones were more accessible to colonial invasion and foreign-business engagement (through the harbours and along key rivers), while the northern zones were less accessible, which resulted in even lower urbanisation levels and settlement trends.

Looking at the regional economic base, the northern sub-regions (north-east, north-central and north-west) were strong on agricultural crop production, livestock farming and transborder trade with neighbouring countries like Chad and Niger. Some sub-regions were known for their glass and brass works, leather artefacts and certain mineral extractions (tin, iron ore, gold and copper), but even these resources were insufficient to create strong clusters.

The south-east and south-central parts of the country were known for agricultural produce like palm oil and cotton as well as fisheries and coal mining. Other growth sectors included crafts linked to wood, brass, bronze, leather and hand-woven textiles, iron works and pottery. Economic activities clustered around those resources, shaping regional economic identities and interregional trade.

In the colonial era the focus of economic development gradually shifted away from these local raw-material processing clusters to the harbour cities, government centres and the new oil-exploration centres in the south-west. This also meant that the colonial government made

little effort to expand, deepen or strengthen the traditional location clusters as a significant element in the country's economic-development strategy.



MAP 7.1: Nigeria's geo-political zones

SOURCE: Eze et al. (2014)

One positive effort towards cluster development and support was the creation of industrial-development centres (IDCs), as an early form of clustering and incubation parks. The first IDC was established at Owerri in 1962 by the Eastern Nigeria government and taken over by the federal government in 1970. The Second National Development Plan of 1970 to 1975 promised the setting up of IDCs in a further 15 places, including Benin City, Port Harcourt and Kano. Yet, with the rise of the oil era these efforts were neglected by the government, with little funding made available for the relevant infrastructure development and a general loss of momentum of the IDCs.

Bearing in mind the regional differences, more than 300 business clusters have evolved in Nigeria (spread around the country) over the past few decades. The number is large enough to show the significance of the clustering process in Nigeria's economic development, but it is at the same time far too small to play the role which dynamic clustering has played in developing countries, as shown in earlier chapters.

In order to explore the nature of a focused cluster-development strategy to accelerate the clusterisation process in Nigeria, we first have to get basic facts about existing business clusters as far as the relevant information is accessible. This is done in section 7.3, where basic facts about 55 clusters spread across the country are brought together.

Since it was not possible within the scope of this study to visit all 55 centres and collect detailed information about them, a sample of 21 clusters was selected and visited by the researcher. These 21 cases cover six of Nigeria's 36 states with the results summarised in section 7.4.

Thus, while it has been practically impossible to present the full picture of Nigeria's current cluster process and its strengths and weaknesses, the approach chosen should provide an objective overview of the current process and the dynamics of clusterisation in Nigeria.

7.3 PROFILE OF 55 NIGERIAN CLUSTERS

Several people have highlighted the range and diverse sizes of clusters existing in Nigeria (Uzor 2004, Basant 2002, Oyelaran-Oyeyinka 2005, Izuchukwu 2006), but due to the dearth of detailed data, there is no complete list available about clusters presently existing or evolving in the country. Thus, the list of 55 clusters in Table 7.1 is by no means exhaustive. The information in the table is based on personal visits of the researcher as well as references in the literature and *ad hoc* referrals with regard to existing and planned clusters.

The table shows

- ◆ the running number (1 to 55) of the listed clusters to ease referencing,
- ◆ the six geo-political zones of Nigeria, revealing the large number of clusters in the south-east (14) and south-west (17) of the country,
- ◆ the names of the clusters
- ◆ dominant activities in the cluster (i.e. the sector focus of each cluster),
- ◆ the organisational type of the clusters (formal, semi-formal, informal), also indicating clusters still in a planning stage and those identified as potential clusters (there are 23 informal, 16 formal/semi-formal, three infancy, five planned and 12 potential clusters listed),
- ◆ the source of the information (visit, referral or literature).

Table 7.1: Regional spread of some existing and potential clusters in Nigeria

No.	Region	Location, state	Name of cluster	Activities	Form of organisation	Mode of contact	No. on list of 21
1	North-Central	Kugbo/Abuja	Furniture-Makers Association Cluster	Furniture-Making	Semi-formal	Visit	1
2	North-Central	Dei-Dei Abuja	Dei-Dei Timber Cluster	Timber-Processing and Woodwork	Formal	Visit	2
3	North-Central	Abuja	Capital Conference Centre Cluster	Tourism	Potential cluster	Literature	
4	North-Central	Minna/Niger State	Leather Handicraft	Leather Handicraft	Informal	Referral	
5	North-Central	Niger State	Meat/Livestock Clusters	Meat/livestock	Potential cluster	Referral	
6	North-Central	Suleja/Niger State	Madatha Furniture Association Cluster	Furniture-making	Informal	Visit	3
7	North-Central	Kaduna Road, Suleja/Niger State	Kaduna Road Furniture-Makers Cluster	Furniture-making	Informal	Visit	
8	North-East	Alao in Borno State	Fishing and Irrigation Farmers Cluster	Agriculture	Informal	Literature	
9	North-East	Bauchi/Gombe states	Scenic-Nature Cluster	Tourism	Potential cluster	Referral	
10	North-East	Taraba State	Cassava Cluster	Agriculture	Informal	Referral	
11	North-West	Kano/Kano State	Leather Cluster	Leather processing	Formal	Visit	4
12	North-West	Zaria/Kaduna State	Leather Works	Leather works	Informal	Visit	5
13	North-West	Kano State	Sahara Gateway Cluster	Tourism	Potential cluster	Referral	
14	North-West	Kwoi Local Government area/Kaduna	Ginger Growers	Agriculture	Informal	Referral	<i>continued</i>

No.	Region	Location, state	Name of cluster	Activities	Form of organisation	Mode of contact	No. on list of 21
15	North-West	Kano State	Butchers Multi-Purpose Co-operative Society Cluster	Livestock processing	Formal	Visit	6
16	North-West	Aminu Kano Way Kano	Furniture Cluster	Wood work and furniture	Formal	Visit	
17	South- East	Nnewi, Anambra State	Automotive Cluster	Auto Parts	Formal	Visit	7
18	South-East	Powerline, Aba, Abia State	Shoes and Leather Cluster	Footwear production	Informal	Visit	8
19	South- East	Bakkasi, Abia State	Aba Leather and Allied Products Cluster	Footwear production	Formal	Visit	9
20	South- East	Aba, Abia	Tailoring and Fashion Design Cluster	Tailoring and fashion design cluster	Informal	Visit	10
21	South-East	Aba, Abia	Furniture-Makers Cluster	Furniture-making	Semi-formal	Referral	
22	South-East	Abakaliki/ Enugu State	Rice Mill Cluster	Agriculture	Informal	Referral	
23	South- East	Awka, Anambra State	Blacksmithing	Craft	Informal	Referral	
24	South- East	Aba, Abia State	Agric/Rice Zone/Cluster	Agriculture	Infancy	Referral	
25	South- East	Umuahia, Abia State	Agric Zone/Cluster	Agriculture	Infancy	Referral	
26	South- East	Bende, Abia State	Agric Zone/Cluster	Agric zone/cluster	Infancy	Referral	
27	South- East	Aba, Abia State	Feather and Fashion Clusters	Feather and fashion clusters	Informal	Visit	
28	South- East	Enugu, Enugu State	Furniture Cluster	Furniture cluster	Informal	Visit	11
29	South- East	Onitsha, Anambra State	Osakwe Polythene and Industrial Estate Awada	Polythene manufacturing	Semi-formal	Visit	12 <i>continued</i>

No.	Region	Location, state	Name of Cluster	Activities	Form of organisation	Mode of contact	No. on list of 21
30	South- East	Abakaliki, Ebonyi State	Rice Production and Processing Cluster	Agriculture	Informal	Literature	
31	South- South	Akwa Ibom	Cassava Cluster	Agriculture	Being planned	Literature	
32	South- South	Akwa Ibom	Oil Palm Production Cluster	Agriculture	Being planned	Referral	
33	South- South	Akwa Ibom	Raffia Palm Cluster	Agriculture	Being planned	Referral	
34	South-South	Calabar	Tropical Rainforest Cluster	Tourism	Potential cluster	Literature	
35	South-South	Calabar	Cat-Fishing Cluster	Fishing	Informal	Literature	
36	South-South	Akwa Ibom	Cane-Production Cluster	Cane production	Being planned	Referral	
37	South-South	Akwa Ibom	Metal Fabrication Cluster	Metal fabrication	Being planned	Referral	
38	South- West	Oshogbo, Osun State	Tie-and-Dye Cluster	Local fabric	Informal	Visit	13
39	South- West	Abeokuta, Ogun State	Tie-and-Dye Cluster	Local fabric	Semi-formal	Visit	14
40	South- West	Ojota, Lagos	Gidan Pari Scrap Cluster	Scrap processing	Informal	Visit	15
41	South- West	Ebute Meta, Lagos State	Timber/Wood-work Cluster	Timber-processing	Informal	Visit	16
42	South- West	Ikeja, Lagos State	Otigba ICT Cluster	ICT	Formal	Visit	17
43	South- West	Kobape, Ogun State	Rice-Production and -Processing Cluster	Agriculture	Formal	Referral	
44	South- West	Oba, Ogun State	Rice-Production and -Processing Cluster	Agriculture	Formal	Referral	
45	South- West	Orile, Lagos	Ceramic and Building Material	Ceramic and building material	Semi-formal	Referral	<i>continued</i>

No.	Region	Location, state	Name of cluster	Activities	Form of organisation	Mode of contact	No. on list of 21
46	South- West	Isolo, Lagos State	Chemical and Pharmaceutical Cluster	Chemical and pharmaceuticals	Informal	Visit	
47	South- West	Ajah, Lagos State	Education Cluster	Education	Potential cluster	Visit	
48	South- West	Mende, Maryland, Lagos	Cane Chair and Weaver Cluster	Cane chair and weaving	Semi-formal	Visit	18
49	South- West	Oko-Oba Agege, Lagos	Oko-Oba Abattoir Cluster	Meat-, livestock-processing	Formal	Visit	19
50	South-West	Ogun State	Atlantic Gateway Cluster	Tourism	Potential cluster	Literature	
51	South-West	Agbaeku-Eji	Shea Butter Cluster	Agriculture	Informal	Literature	
52	South-West	Osun State	Black Soap Cluster	Health care	Informal	Literature	
53	South-West	Ekiti State	Women Mat-Weavers Cluster	Weaving	Informal	Literature	
54	South-West	Ogun State	ofada Rice-Production Cluster	Agriculture	Informal	Visit	20
55	Virtual	Virtual	Nollywood Films Production	Film production	Potential Cluster	Literature	21

The identified clusters are spread across the different states in the six geo-political zones of the country, with the regional spread of the clusters underscoring the regional economic differentiation of Nigeria.

From the information collated about these 55 clusters a few trends and patterns can be deduced.

◆ *Regional spread*

With respect to the southern part of the country it was possible to identify and get basic facts about 38 clusters while only 14 could be identified in the northern part of the country. This reflects the level of economic disparity between the two sections of the country as earlier pointed out. In southern Nigeria, the spread of clusters among the zones is also interesting.

About a third of the clusters were found in the south-west zone, which has a history of dynamic commerce, agriculture and textile sectors. The zone hosted the federal capital before it was relocated to Abuja, but Lagos is still the country's economic capital, being more developed than all the other zones of the country. Its strength includes the advanced infrastructure, its maritime industry, the diversity of financial institutions, several sea ports and other business-enabling factors that support industries and small businesses. Other cities in this region, such as Ibadan, Oshogbo and Abeokuta are strong in agriculture, local fabrics and textiles, local arts and crafts as well as tourism.

The south-east zone, often called the *Japan of Africa* or *The Land of the Rising Sun*, is less developed in its infrastructure and other business-enabling factors owing to the fact that the zone recovered only gradually after the civil war between 1967 and 1970. Nevertheless, the zone has distinguished itself as the cradle of entrepreneurship and self-sustaining industrial growth in the country.

◆ *Dominant activities in the clusters*

The majority of Nigerian clusters are sector-based. Dominant sectors include agriculture and agro-processing, woodwork and furniture-making, the production of automobiles and auto parts, leather, clothing and footwear production as well as film production.

◆ *Form of organisation of the clusters*

More than 50 per cent of the clusters are informal, i.e. they have an unorganised system of production. Only a few are highly formal with the potential to initiate joint action through systems of rules and a critical mass of firms operating in the clusters. The level of formality of the clusters has been critical to their growth and upgrade. The main challenge now is to move a lot more of the informal clusters towards greater formality.

A common feature in almost all of the identified clusters is what Mytelka and Farinelli (2000) called vulnerabilities in the production strategy of the clusters. Thus, firms operating in the clusters are not well organised and are not effectively interacting within the clusters to support a continuous process of improvement. This is reflected in Navdi and Schmitz's (1994) classification of successful or nearly successful clusters as "those that have indigenous growth potential, with strong resilience to face economic crises while at the same time pursuing the process of sustained innovativeness". Oyelaran-Oyeyinka (2004) noted that successful clusters are able to achieve dynamism through substantial inter-firm linkages,

networking, joint actions and subcontracting, and they are able to compete in both regional and international markets.

◆ *Prospective clusters*

There are 13 prospective clusters listed in the different zones of the country. Preconditions for the evolution of new clusters include a critical mass of institutions needed to generate momentum for such clusterisation, geographical and social conditions that support clusterisation, such as historical transport and trade routes (including harbours) and local authority as well as regional-government's drive within local economic-development agendas.

◆ *Size differences*

Cluster sizes range from as few as 50 firms to as much as 10 000 firms in a cluster. This size diversity is linked to the core sector/industry of the cluster, its location and the level of formality of both the cluster and the firms operating in it. Highly informal clusters tend to be more in numbers of enterprises as opposed to formal clusters. Some of the clusters with a mixed blend of formality can have between a few and 500 formal operators and up to 5 000 informal operators. They include the Dei-Dei timber cluster in Abuja in the north-central zone, the automotive cluster in Nnewi (south-east zone) and the Otigba ICT cluster in Lagos (south-west zone).

Against this broad perspective of the 55 clusters the remainder of this chapter focuses on the 21 selected clusters.

7.4 REVIEW OF 21 SELECTED CLUSTERS

7.4.1 Basic information

As pointed out in Chapter 6, a range of 21 clusters was selected for more in-depth study. They are part of the 55 clusters presented in the previous section, and all were visited by the researcher. Basic facts about these 21 clusters are presented in Table 7.2 and more detailed aspects in Tables 7.3 and 7.4. Appendix 5 includes a three-part table covering the information obtained with regard to these 21 clusters through the questionnaires. The sequence of the 21 cases in Tables 7.2 to 7.4 and Appendix 5 is the same. The questions which guided the interviewers are listed in Appendix 6.

Table 7.2
Key facts about the 21 selected clusters

	Region	Location, state	Name of cluster	Dominant activities	Form of organisation	Size of cluster (no. of firms)
1	North-Central	Kugbo, Abuja	Furniture-Makers Association Cluster	Furniture-making cluster	Semi-formal	120
2	North-Central	Dei-Dei, Abuja	Dei-Dei Timber Cluster	Timber-processing and woodwork	Formal	4 000
3	North-Central	Suleja, Niger State	Madatha Furniture Association Cluster	Furniture-making	Informal	50
4	North-West	Kano, Kano State	Leather Cluster	Leather-processing	Formal	450
5	North-West	Zaria, Kaduna State	Zaria Leather Works	Leather works	Informal	120 to 150
6	North-West	Kano	Butchers Multi-Purpose Co-Operative Society Cluster	Livestock-processing	Formal	500
7	South-East	Nnewi, Anambra State	Automotive cluster	Auto parts	Formal, organised	85+ actively involved in manufacturing
8	South-East	Powerline, Aba, Abia State	Shoe and Leather Cluster	Footwear production	Informal	7 000
9	South-East	Bakkasi, Abia State	Aba Leather and Allied Products Clusters	Footwear production	Formal	10 000
10	South-East	Aba, Abia State	Tailoring and Fashion-Design Cluster	Tailoring and fashion-design cluster	Informal	5 000
11	South-East	Enugu, Enugu State	Furniture Cluster	Furniture cluster	Informal	200
12	South-East	Onitsha, Anambra State	Osakwe Polythene and Industrial Estate, Awada	Polythene-manufacturing	Semi-organised	300

	Region	Location, state	Name of cluster	Dominant activities	Form of organisation	Size of cluster (no. of firms)
13	South-West	Osogbo, Osun State	Tie-and-Dye cluster	Local fabric	Informal	80 to 120
14	South-West	Abeokuta, Ogun State	Tie-and-dye cluster	Local textile	Semi-formal	2 500 to 3 000
15	South-West	Ojota, Lagos	Gidan Pari Scrap Cluster	Scrap-processing	Artisanal/informal	500+
16	South-West	Ebute Meta, Lagos State	Timber, Woodwork Cluster	Timber/woodwork-processing	Informal	1 500
17	South-West	Ikeja, Lagos State	Otigba ICT Cluster	ICT	Formal	10 000+
18	South-West	Mende, Maryland, Lagos	Cane Chair and Weaver Cluster	Cane chair and weaving	Semi-formal	200+
19	South-West	Oko-Oba Agege, Lagos	Oko-Oba Abattoir Cluster	Meat/livestock-processing	Formal	3 000
20	South-West	Ogun State	ofada Rice-Production Cluster	Local rice production/agriculture	Informal	1 500
21	Virtual	Different places and states	Nollywood Film Production	Film production	Potential cluster	n/a

The sub-headings listed below are used for the more detailed information obtained through the visits, interviews and questionnaires as shown in Appendix 5.

- 1 Name of the cluster
- 2 Location, state
- 3 Region
- 4 Type of cluster
- 5 Dominant activity
- 6 Formality of enterprise
- 7 Number of firms in the cluster
- 8 Age of the cluster
- 9 Cluster origin

- 10 Linkage to cluster growth
- 11 Institutional support structures
- 12 Growth prospects
- 13 Infrastructural services/constraints
- 14 Financial services in the cluster
- 15 Business-support service providers
- 16 Interfirm networking/linkages
- 17 Links to other clusters
- 18 Export potential

Based on the profiles presented in Appendix 5, the discussion in the following sub-sections tries to extract significant trends and patterns of Nigeria's contemporary clusters.

7.4.2 Size and sector focus

Most of the clusters are sector-orientated with tenants often belonging to specialised groups within a focus sector like agriculture, forestry, mining, manufacturing, information technology and automotive parts. Porter (2001) called these clusters *Industry Clusters* and defined them as “geographically close groups of interconnected companies and associated institutions in a particular field linked by common technologies and skills”. Shields, Barkley and Emery (2008) further emphasised that these clusters are often found in small regions, being uniquely distinguished by their sizes, core industries and inter-firm relationships.

Table 7.3 shows the list of 21 clusters with information related to their dominant sectors. These can be segmented on the basis of the four major categories of clusters commonly found in Africa (Adeboye 1996, McCormick 1999, Oyelaran-Oyeyinka 1997, Van Dijk 1997, Bräutigam 1997), viz. location clusters, manufacturing-orientated clusters, higher technical-skills clusters and diversified clusters (see column on “Categorisation”).

◆ *Higher technical-skills clusters*

About 43 per cent of the sampled clusters employ higher technical skills in their mode of operation. These clusters are often classified as emerging clusters (Feser and Renski 2000), serving market segments in the lower- to middle-income bracket. This is particularly important because roughly 50 per cent of working-class Nigerians fall within

this income bracket, suggesting that there is a huge (and growing) local market for the products emanating from these clusters. They constitute a mixture of small and medium-sized firms with small enterprises usually operating as tenants. Among this group of clusters are Aba Leather and Allied Product Cluster at Osisioma Ngwa Aba (9) and the Shoe and Leather Cluster at Powerline (8) (both in Abia State and in close proximity to each other). These two clusters have a combined tenant strength of almost 20 000 informal, small- and medium-scale operators, dominating the huge local footwear industry and the export market in the West-African sub-regions. Despite the myriad of challenges and gross neglect by government, these two clusters have shown extraordinary dynamism, distinguishing them in the designs and high level of sophistication of their products from other clusters, not only in Nigeria but also in the neighbouring West-African countries. They are not only known for the production of footwear, but also for the production of travelling bags, ladies' handbags, corporate folders and upholstery materials for the furniture industry.

The Dei-Dei International Timber Traders' Association Cluster (2), located at Abuja, is a cluster of about 4 000 small and medium-scale operators in timber-processing and other building-material dealers including informal operators in related value-chain services and products. Its unique location at the heart of the Federal Capital Territory makes the cluster accessible to other related industries such as the upstream real-estate industry and the construction industry. The cluster has three sections inter-linked by product needs, market demand and supply chains within the building and construction industry. These sections are timber, building materials and allied products as well as metal construction and fabrication.

The Lagos Sawmill Association Cluster (16) is another higher technical-skills cluster located in the heart of Lagos, a vibrant cosmopolitan city of more than 10 mill. inhabitants. The cluster which overlooks the Atlantic Ocean and the famous Third Mainland Bridge has about 1 500 informal, small- and medium-scale operators engaged in timber and wood processing. It is a highly mechanised cluster, though not without its fair share of challenges inhibiting its growth and expansion.

◆ *Manufacturing-orientated clusters*

These are currently at a developmental stage, given that the number of small-business clusters actively involved in modern manufacturing processes is still limited. Two of the

most successful clusters in this category are the Nnewi Automotive Cluster (7) and the Osakwe Polymer and Polythene Production Cluster (12), located in Nnewi and Onitsha respectively in the south-east region. The Nnewi Automotive Cluster is involved in the manufacturing of motorcycle and motor-vehicle spare parts and components, which include cables and hoses, motorcycle engines and roller chains, automotive filters and exhaust systems.

Within the Nnewi Cluster, more than 10 000 firms operate, but only about 85 of them are directly and actively involved in manufacturing processes. Other firms provide value-chain and marketing services. This type of cluster tends to use specialised and sophisticated production techniques, often imported or adapted to suit local environments.

The polymer and polythene production cluster, located in Obosi, Anambra State, South-East Nigeria, has approximately 300 tenants fully engaged in manufacturing processes and employs highly mechanised and sophisticated production techniques.

◆ *Location clusters*

These are informal clusters, and they are the most commonly found enterprise clusters in Africa. Their lack of technical sophistication in their mode of operation makes them homes to artisans and craft operators. Among the sampled clusters included in this category are Butchers Multi-Purpose Corporative Society Cluster (6) located in Kano State, North-East Nigeria and the Cane Weavers Association Cluster in Maryland, Lagos (18), which produces chairs and other local crafted furniture from cane materials. There is also the Gidan Pari Scrap Cluster located in Ojota Lagos (15) promoting the “waste to wealth” concept through assemblage and recycling of waste materials, components and parts. It includes 500 to 1 000 informal (micro and small) scrap operators with linkages to large companies, which are major buyers of the unprocessed scrap material and components. These large companies either recycle the scrap material directly or export it overseas. The scrap material and components include disused auto parts, household equipment like air conditioners, refrigerators and kitchen utensils, various grades of metal and iron material as well as hardware material such as disused computers and television sets.

Other location clusters include the Lagos Butchers Association Cluster at Oko-Oba, Agege Lagos (19), a livestock-processing cluster with about 3 000 informal operators and a unique organisational structure that provides lessons for PPP interaction. Another interesting example is the Zaria Leather Works Development Association Cluster, which includes an incubator located in Kofor Gaya, Zaria Kaduna State (5). The incubator has about 150 tenants who are learning and applying the skills in the production of local footwear, using hides and skins. The incubator has funding support from the state government, backed by US-Aid programme support.

One of the textile and fashion-based location clusters is situated in Kent Street, Aba South, Abia State (10), containing about 5 000 informal and small-scale operators. It is a cluster of textile designers, tailors and clothing-material dealers. The cluster has a huge market in Nigeria, as their products and designs are comparable to quality imports. The cluster uses a marketing technique known as “Made in Aba”, a slogan used to describe a local adaptation of imported designs and production techniques for the manufacture of suits, men’s shirts and women’s wear.

◆ *Diversified clusters*

They are characterised by vertical specialisation of individual enterprises. This is akin to the hub-and-spoke clusters, which are characterised by the dominance of one or several large and vertically integrated firms or facilities surrounded by small suppliers (Zhang and Van Bulcke 2007). These clusters have a broad sectoral specialisation and, within the sectors, individual enterprises are not narrowly specialised. They include either medium or large firms or have close links to such firms or to other larger organisations outside the cluster (McCormick 1998). The Otigba ICT Cluster (17), located in Ikeja, Lagos South-West Nigeria, is a typical example of such clusters. It has more than 10 000 small, medium and micro-firms operating among branches of large and notable ICT companies with headquarters located elsewhere. In fact, the cluster has the reputation of being regarded as the “Silicon Valley” of Africa. Companies operating within the cluster include Hewlett Packard Corporation, IBM, Microsoft, Dell and Sony. The cluster is also home to a number of major manufacturers of mobile handsets such as Nokia, Blackberry, Samsung and Techno as well as major dealers of handsets including Slot, Microstation and Mizbeach.

Table 7.3
Sector focus of the 21 clusters

	Name of cluster	Sector	Categorisation	Origin of cluster	Level of development	Age of cluster in years
1	Furniture-Makers Association Cluster	Furniture production	Location cluster	Spontaneous growth	Artisanal/infancy	3+
2	Dei-Dei Timber Cluster	Timber-processing and woodwork	High technical-skills cluster	Long-term evolution	Dynamic	>20
3	Madatha Furniture Association Cluster	Furniture production	Higher technical-skills clusters	Spontaneous growth	Artisanal/infancy	>5-10
4	Leather Cluster	Manufacturing	Higher technical-skills clusters	Government initiative	Active	>10
5	Zaria Leather Works	Manufacturing	Location cluster	Long-term evolution backed by government initiative	Artisanal/infancy	20
6	Butchers Multi-Purpose Corporative Society Cluster	Agro-processing	Location cluster	Long-term evolution	Artisanal/infancy	>50
7	Nnewi Automotive Cluster	Manufacturing	Manufacturing-orientated cluster	Large companies as trigger points	Advanced	>20
8	Shoes and Leather Cluster	Manufacturing	High technical-skill cluster	Spontaneous evolution	Active	>20
9	Aba Leather and Allied Products Clusters	Manufacturing	High technical-skill cluster	Government initiative	Active	>20
10	Tailoring and Fashion Design Cluster	Manufacturing	Location cluster	Spontaneous growth	Active	>5
11	Furniture Cluster	Furniture production	Location cluster	Spontaneous evolution	Artisanal/infancy	>20
12	Osakwe Polythene and Industrial Estate, Awada	Manufacturing	Manufacturing-orientated cluster	Large companies as trigger points	Dynamic	<10 <i>continued</i>

	Name of Cluster	Sector	Categorisation	Origin of cluster	Level of development	Age of cluster in years
13	Tie-and-Dye Clusters	Manufacturing	High technical-skill cluster	Private company	Active	>5
14	Tie-and-Dye Clusters	Manufacturing	High technical-skill cluster	Long-term evolution along historical route	Active	>100
15	Gidan Pari Scrap Cluster	Scrap and recycling	Location cluster	Spontaneous evolution	Artisanal/infancy	>20
16	Timber/Woodwork Cluster	Woodwork processing	High technical-skill cluster	Long-term evolution	Active	>80
17	Otigba ICT Clusters	ICT	Diversified cluster	Spontaneous evolution	Advanced	>20
18	Cane Chair and Weaver Cluster	Furniture production	Location cluster	Spontaneous evolution	Artisanal/infancy	5-10
19	Oko-Oba Abattoir Cluster	Livestock-processing	Location cluster	Spontaneous growth	Active	>20
20	ofada Rice-Production Cluster	Agro-processing	High technical-skill cluster	Natural cluster	Artisanal/infancy	n/a
21	Nollywood Films Production	Entertainment	n/a	Spontaneous evolution	Dynamic	10+

7.4.3 Current levels of development

Table 7.3 also shows the origin, age and current levels of development of the surveyed clusters. Here we can use the classification of four types of clusters explained in Chapter 3, viz. artisanal, active, dynamic and advanced clusters.

◆ *Artisanal clusters*

Tambunan (2009) observed that clusters in their infancy stage often display the characteristics of informality, which include low degrees of inter-firm co-operation and of specialisation, a lack of momentum and dynamic action as well as low levels of productivity and innovativeness. often they produce the same products over time, using the same technology. The age of existence is often not a determining factor for the growth and development of such clusters. Some of them have existed for a long time but still do not show signs of growth and dynamism. These clusters are sometimes called survival clusters (Altenburg and Mayer-Stamer 1999), which are often considered too

insignificant to create a meaningful impact on the economy or attract strategic investments. Usually they also lack the critical mass needed to ignite joint action that can spring up internally-driven growth (Braun, McRae-William and Lowe 2005) or attract external markets and networks.

The eight clusters that display such characteristics in our sample include the Cane-Weavers Cluster in Maryland, Lagos (18), which came about because of the efforts of micro-weavers in the locality. Other examples are the Carpenters' Cluster at Onu-Asata, Enugu (11), the Gidan Pari Scrap Cluster in Ojota, Lagos (15), the Kubwa Furniture-Makers Association Cluster in Abuja (1), the Madatta Furniture Association Cluster in Suleja Road, Niger State (3), the Rice-Growers and -Processing Cluster in Abeokuta Ogun State (20) and the Zaria Leather Works Cluster in Zaria, Kaduna State (5). Some of these clusters have a long history of evolution, triggered by locality factors such as proximity to raw-material sources and a location known for particular crafts and traditions. The northern part of Nigeria is well known for nomadic cattle rearing, and the influence of such activities permeates around the villages and towns not only in the northern-most part of the country but also within the Kano and Kaduna axes. For example, the hides and skin trade has existed and prospered in this region for quite a long time, even predating the colonial era. Some clusters sprouted because of deliberate government action (thus referred to as policy-induced clusters). Others remained artisanal due to the neglect by government of the enabling infrastructure or low patronage.

Clusters could of course also spring up spontaneously from internal causes through some form of natural agglomeration of small-scale enterprise operators in a particular field or sector, rather than some external factors such as government-policy initiatives or programmes driven by the local government.

◆ *Active clusters*

Active clusters are not substantially different from artisanal/infancy clusters in the sense that they could be informal in terms of the structure of the operators and the nature of activities they engage in. However, active clusters have usually shown rapid development and upgrading in areas of operational skills, regional and export-market penetration and technology of operation. According to Tambunan (2009), active clusters display a high degree of both internal and external networking. The higher degree of

networking among the operators, coupled with a high level of dynamism of operational activities, is a precondition for joint action. Table 7.3 shows that eight of the 21 visited clusters could be rated as “active”.

◆ *Dynamic clusters*

According to Tambunan (2009), dynamic clusters have developed extensive trade linkages not only locally but also internationally. The linkage formation extends to key suppliers of components, raw materials and parts as well as technology transfers. Supratikno (2002) also observed that such linkage formation enables producers within such clusters to develop cutting-edge technology in their production system. Other features of this cluster include well developed inter-firm specialisation and extensive co-operation among firms in the cluster. The three clusters that fall within this category in the sample include the Dei-Dei International Timber Association Cluster in Abuja (2), the Nollywood Films Production Cluster (21), a virtual cluster of independent film producers with international reputation and the Osakwe Polymer Cluster located in Obosi, Anambra State (12). The Osakwe Polymer Cluster is located in the heart of the dynamic city of Onitsha, the economic hub of south-east Nigeria and the economic capital of Anambra State.

◆ *Advanced clusters*

Advanced clusters have an even more complex structure of operation with a higher degree of inter-firm specialisation and co-operation. This could be likened to the Italian *industrial-district concept* of agglomeration. Other features that distinguish these clusters from others include high levels of business networking between suppliers of components, raw materials, equipment and other inputs. Close relationships exist between firms in the clusters and providers of business services, traders, banks and other supporting institutions. There is also a strong possibility of cluster linkages with other clusters. Two major clusters in Nigeria that fall into this category are in the sample Nnewi Automotive Cluster in south-eastern Nigeria (7) and Otigba ICT Cluster, commonly called “Computer Village” (17). We can briefly comment on these two examples.

The Nnewi Automotive Cluster engages in the manufacturing and fabrication of automotive spare parts and the assembly of motor cycles. The firms consist of about 80 per cent SMEs, while a couple of large enterprises with branch outlets operate within the cluster. According to Oyelaran-Oyeyinka (2004) the cluster’s manufacturing

capabilities evolved through a long trajectory of trade and networking with local and foreign agents as well as visits to the factories of component and parts suppliers. There was a long period of accumulation of skills and expertise, not really borne out of exposure to formal education but through close business relationships with foreign agents who transferred technical skills to the owners and employees of the firms. Skills were also acquired through formal apprenticeship processes, which were quite common among entrepreneurs of south-eastern Nigeria. In addition, socio-cultural affinity and networking among the firms within the clusters fostered unity, trust and the initiation of joint actions in areas like the importation of raw materials, joint financing of infrastructure as well as joint advertising and marketing.

The Otigba ICT Cluster, popularly known as the Ikeja Computer Village, is another example of an advanced cluster in Nigeria. It was established in the early 1990s in a process of spontaneous evolution. The cluster started as an enclave for repairs, sales and distribution of stationeries, printers, photocopiers and other office equipment by a handful of dealers in a residential neighbourhood of Otigba and Pepple streets, in close proximity to the old Ikeja local government. This soon evolved into a hive of computer repairs and suppliers of component replacements, following the growing demand for computers and the first climax of the ICT evolution in Nigeria in the late 1990s. Oyelaran-Oyeyinka's detailed study of the cluster showed that it was really a steady rise to prominence of the cluster, from a simple spontaneous enclave of one-street stationeries and office-equipment dealers to a multi-street computer assemblage and allied products district, fuelled by the passion, resilience and heightened entrepreneurial spirit of the operators. Currently the cluster, which is comparable to the famous Italian Industrial District, has a tenancy of over 10 000 medium, small and micro-firms as well as a handful of large enterprises complemented by other support institutions.

7.4.4 Growth prospects

If we look at the growth momentum and the growth prospects of the 21 clusters, as indicated in the detailed tables in Appendix 5, we can once again note stark contrasts. Some of the clusters show strong growth prospects, due to factors ranging from the presence of a critical mass of enterprises as precondition for joint action, to growing momentum of the clusters' activities brought about by the presence of key infrastructure facilities and successful public-private-partnership initiatives. On the other hand, some show signs of decay or stagnation due to the apparent neglect of infrastructure developments, space constraints or a lack of

growth momentum. Table 7.4 summarises growth prospects and inherent growth factors in the 21 clusters. The column on “growth factors” only indicates critical positive as well as restrictive growth factors. These factors are also closely related to the other characteristics of the clusters covered in earlier subsections. This information, together with the details of the eight cases presented in the following chapter, constitute important inputs to the strategy presented in Chapter 9.

7.4.5 Institutional support and co-operation

As shown in the earlier comparative chapters, available support from both endogenous factors generated from inside the clusters and externally-driven support systems can often be linked to the development success of clusters.

Applied to the Nigerian case studies, such institutional support could come from one or more of the following categories of institutions or stakeholders.

- ◆ Central government or federal agencies (regulations, funds for infrastructure or research)
- ◆ Local authorities
- ◆ Smedan, as the main SME-support agency in Nigeria
- ◆ Foreign-aid agencies (e.g. US-Aid)
- ◆ Financial institutions
- ◆ Business-support suppliers (e.g. NGO-driven or parastatals)
- ◆ Trade associations active in particular sectors critical for the cluster (e.g. craft associations, chambers of commerce)
- ◆ Cluster associations (which evolved in the cluster)
- ◆ Community organisations (usually focused on social issues)

In the contact with the 21 clusters, little detailed information was made available about cluster-focused activities or inputs by these organisations or institutions. This is aside from conventional regulatory and basic infrastructure services provided by local authorities and relevant government departments. In seven of the 21 clusters the existence of trade associations was confirmed, and in a few clusters a chamber of commerce was formally established.

To illustrate the potential of proactive institutional support, we can briefly summarise the picture emanating in three of the more dynamic clusters.

◆ *Oko-Oba Abattoir Cluster, Lagos State (19)*

A deliberate PPP initiative brought together a number of institutions working in the cluster. These institutions include Smedan (providing advisory support), the government of Lagos State (which provided cluster spaces at affordable rentals), the state Ministry of Agriculture (which provides veterinary services as well as infrastructural services such as the road network and meat automobile vans) and the state Environmental Protection Agency (which provides sanitation services). Private-sector institutions (like Harmony Investment) provide managerial and administrative services to the cluster, micro-finance banks provide working capital and other short-term financing to local firms, and a number of commercial banks render general banking services to the cluster. A meat-processing and storage plant is being built and is to be managed by a private firm within the cluster. These efforts are further positively complemented by a number of well-organised and collaborative cluster associations. Taking these inputs together, they have contributed positively to the *active* level of development of the cluster, which has become a model of the PPP drive for clusters in Nigeria.

◆ *Otigba ICT Cluster in Ikeja, Lagos State (17)*

As one of the most advanced and innovative clusters in Nigeria the Otigba Cluster has a number of institutional support organisations located within the cluster. Smedan has a desk, which provides advisory support to cluster associations. The local authorities also have a presence within the cluster, although general opinion is that they are more involved in collecting rates and taxes from the cluster firms than rendering business-support services. The Nigerian police have a security post within the cluster to keep law and order. A number of micro-finance and commercial banks are located in the cluster to render general banking services, although there is no evidence of specially structured financing programmes for the firms operating within the cluster. Individual firms can apply for financing facilities directly at the banks, and their applications are said to be treated on merit.

Table 7.4
Clusters' growth factors

	Location, states	Name of cluster	Sector of operation	Growth factors
1	Kugbo, Abuja	Furniture-Makers' Association Cluster	Furniture production	<ul style="list-style-type: none"> • Largely dependent on government support and infrastructure • Critical mass needed to sustain growth
2	Dei-Dei, Abuja	Dei-Dei Timber Cluster	Timber-processing and Woodwork	<ul style="list-style-type: none"> • Steady growth but lacks momentum with respect to infrastructure and external linkages • Sustaining growth dependent on key industries and FCT policies • Location and space conducive for growth sustenance
3	Suleja, Niger State	Madatha Furniture Association Cluster	Furniture production	<ul style="list-style-type: none"> • Cluster is emerging • Critical mass a factor for joint action and growth • Currently lacks growth momentum due to space and location constraints
4	Kano, Kano State	Leather Cluster	Leather products	<ul style="list-style-type: none"> • Needs momentum for faster growth • Largely dependent on government support and infrastructure • Private-sector action could also spur growth
5	Zaria, Kaduna State	Zaria Leather Works	Leather works	<ul style="list-style-type: none"> • Cluster still evolving • Critical mass essential for faster growth • Basic infrastructure needed to accelerate growth
6	Kano	Butchers Multi-Purpose Co-operative Society Cluster	Agro-processing	<ul style="list-style-type: none"> • Cluster is diversifying steadily, but needs momentum for faster growth • Government involvement is key in sustaining cluster and addressing other environmental and sanitation issues • Space and location constraints could inhibit growth • Meat storage and processing plant is owned by an individual who was not willing/able to expand • Involvement of the cluster association may help, since a lot of dynamism, trust and co-operation exists among association members
7	Nnewi, Anambra State	Automotive Cluster	Manufacturing of motor cars and parts	<ul style="list-style-type: none"> • Future growth dependent on growth in key industries • Cluster growth also dependent on government policies • More PPP interaction could spur further growth • Existing critical mass could spur joint action among members and accelerate further growth • Cluster is diversifying steadily

continued

	Location, states	Name of cluster	Sector of operation	Growth factors
8	Powerline, Aba, Abia State	Shoe and Leather Cluster	Manufacturing of leather products	<ul style="list-style-type: none"> • Growth largely dependent on government support and infrastructure • Available critical mass could spur joint action and accelerate growth • More PPP interaction needed to accelerate growth
9	Bakkasi, Abia State	Aba Leather and Allied Products Clusters	Manufacturing of leather products	<ul style="list-style-type: none"> • Proximity to local markets helps growth • Innovativeness in production processes and product development are key advantages that help sustain growth • PPP initiative required to fast-track growth and address key constraints • Lack of trust and cohesiveness among cluster organisations and intra-cluster associations hampers growth and acts as impediment to joint action despite presence of critical mass • Linkages with local suppliers of machines and spare parts needed • Cluster activities at the moment are more labour-intensive due to lack of key factors required to upgrade to more mechanised systems of production; the key factors are power supply and lack of funding to enhance access to modern production
10	Aba, Abia	Tailoring and Fashion Design Cluster	Manufacturing of clothing	<ul style="list-style-type: none"> • Growth not linked to any external stimulus
11	Enugu, Enugu State	Furniture Cluster	Furniture production	<ul style="list-style-type: none"> • Space inhibits growth • Cluster lacks momentum and critical mass to spur growth • Infrastructure upgrade such as power supply needed to boost cluster momentum
12	Onitsha, Anambra State	Osakwe Polythene and Industrial Estate, Awada	Manufacturing	<ul style="list-style-type: none"> • Raw materials are mostly sourced locally from nearby petro-chemical plants, hence production capacity is not inhibited • Impact of technology on modern production technique in a highly mechanised cluster; stronger external linkages could further enhance technological advancement • Growth dependent on availability of appropriate funding sources and diversified development finance that can lower cost of production • Public-private partnership initiatives could stabilise growth by addressing key challenges such as infrastructure, finance, regulatory environment as well as security and could eliminate known hazards of production • Cluster is strategically located, hence market access both locally and internationally is key to cluster growth • Strong potential for future expansion

continued

	Location, states	Name of cluster	Sector of operation	Growth factors
13	Osogbo, Osun State	Tie-and-Dye Cluster	Manufacturing	<ul style="list-style-type: none"> Cluster needs momentum to spur growth
14	Abeokuta, Ogun State	Tie-and-Dye Cluster	Manufacturing	<ul style="list-style-type: none"> Cluster has grown steadily and will continue to grow Activities of the cluster are linked to local tradition and is associated with family business, hence sustainability and growth are assured Availability of local skills key to growth sustenance Proximity to raw material and markets spur growth Research by local university on relevant local traditions could spur further growth and the development of new techniques Strong export potential Infrastructure upgrading could spur further growth
-15	Ojota, Lagos	Gidan Pari Scrap Cluster	Scrap and recycling	<ul style="list-style-type: none"> Space and location constraints inhibit growth Little prospect of attracting much attention due to its perceived low contribution to the economy Cluster seen as dominated by survivalist entrepreneurs and ethnicity; alternative sources of income could endanger the survival of the cluster as many could leave for such other opportunities Cluster activities are not environmentally and socially friendly, hence government and local authorities could see it as a social and environmental nuisance Lack of innovativeness creates risk of extinction with time Needs key industries to create local demand for products
16	Ebute Meta, Lagos State	Timber, Woodwork Cluster	Timber-processing	<ul style="list-style-type: none"> Cluster growth has reached its saturation point Largely dependent on government support and infrastructure for further growth Environmental challenges impact on cluster's growth prospects Space is a major constraint to growth
17	Ikeja, Lagos State	Otigba ICT Cluster	ICT	<ul style="list-style-type: none"> Available critical mass should spur joint action and enhance cluster growth Future expansion depends on wider space Lack of trust and cohesiveness among cluster organisations and intra-cluster associations hampers growth and acts as impediment to joint action PPP initiatives required to fast track growth and address key constraints
18	Mende, Maryland, Lagos	Cane Chair and Weaver Cluster	Furniture production	<ul style="list-style-type: none"> Strong local associations are key to growth Nature of products and strong local and international markets are key to growth and sustenance

continued

	Location, states	Name of cluster	Sector of operation	Growth factors
19	Oko-Oba Agege, Lagos	Oko-Oba Abattoir Cluster	Livestock-processing	<ul style="list-style-type: none"> • Growth linked to action by state government and support institutions • Space and location are key factors for the cluster's growth • PPP-spurred growth and necessary upgrades in infrastructure, research and cluster management • Excellent environmental factors and sanitation • An excellent model for cluster development under PPP arrangements
20	Ogun State	ofada Rice-Production Cluster	Agro-processing	<ul style="list-style-type: none"> • Only informal, with no growth
21	Virtual	Nollywood Film Production	Entertainment	<ul style="list-style-type: none"> • Strong tradition of local family entertainment is the basis for cluster sustenance • PPP interaction needed to spur further growth • Cluster ability to attract independent funding either internally or off-shore is essential to reduce dependence on government and fuse itself into global best practices • Upgrade in product quality and production techniques key in meeting international standards and competitiveness • Strong leadership, co-operation and trust among cluster unions and associations essential for cohesion, joint action and to address peculiar cluster challenges • Need for more external linkages with international clusters (such as Hollywood and Bollywood) for production upgrade, quality and growth • High potential for growth

SOURCE: Compiled from information in Appendix 5 and interviews)

The Microsoft Academy provides training programmes to cluster tenants, focusing on the integration of Microsoft software into computer hardware. The cluster also has a well-organised association (the Computer and Allied Products Association of Nigeria), which plays a major role in enhancing co-operation, networking and joint action among members.

◆ *Automotive Cluster in Nnewi, Anambra State (7)*

With relatively little formal institutional support in its early stage, this cluster has grown to success through the resilience and entrepreneurial doggedness of key firms. Nnewi has now become one of the most advanced clusters in Africa (Unctad 2008, Abiola 2006). Oyelaran-Oyeyinka (2004) had earlier pointed out that government and institutional

support to the cluster may be relatively weak, but that institutions such as the Nnewi Chamber of Commerce, Mines and Agriculture as well as the National Association for Small Scale Industries have been crucial in fostering inter-firm networks, linkages with external firms and capacity-building. A number of financial institutions exist within the cluster, primarily to render general banking services, while micro-finance banks supply short-term working-capital finance for small firms. Import-finance facilities can be obtained from commercial banks using imported goods as collateral.

The local cluster association also plays a critical role in enhancing inter-firm collaboration and joint action. For example, supportive networking exists among firms, which jointly import materials, components and goods.

Thus, exceptions exist with respect to the availability of institutional support and co-operation, which is a critical factor underlying the strategy developed in Chapter 9. Chapter 8 will also contribute to this support dimension with its assessment of the role of cluster players linked to the eight centres.

7.4.6 Infrastructure support

Many of the clusters operating in Nigeria suffer from backlogs and bottlenecks infrastructure provision. This is primarily the result of limited involvement of governments in the various activities of the clusters. In Nigeria, as generally in Africa, responsibility for providing basic infrastructure such as road networks, power and water supply, telecommunication services and ports rests squarely on the shoulders of the three levels of government and their agencies. At the same time, the success and vibrancy of clusters depends critically on the quality of available infrastructure services within and around the cluster. For example, the quality of infrastructure services goes a long way in determining the extent to which firms can have access to both local and international markets or to attract other business-support services to the clusters.

Oyeyinka (2001) observed that most firms in clusters located in the South-East region of Nigeria engage in self-financing of their infrastructural needs. This includes the provision of electricity through investments in generating sets, provision of water through own drilling of boreholes and joint efforts of clustered firms in providing security, road networks and sanitation services within the clusters.

Information collated for the 21 clusters showed the following picture with respect to infrastructure deficits or needs.

- ◆ At 17 of the 21 clusters (80%) power shortages or regular power outages were reported.
- ◆ Eight of the 21 clusters (38%) lacked good access roads to the area, or they lacked internal roads.
- ◆ In seven of the 21 clusters (33%), workspace was felt to be a constraint.
- ◆ Four of the clusters (19%) lacked adequate water supplies.
- ◆ In at least two of the clusters security was felt to be a problem.

While the specific levels of shortages may be difficult to measure accurately, it should be clear that infrastructure development ranks as a significant issue in the Nigerian clusterisation process. After all, one of the alleged benefits of clusterisation is felt to be the economies-of-scale advantage for the development of infrastructure facilities, which all over Africa are a significant challenge (Mawardi, Choi and Perera 2011, Karaev, Kok and Szamosi 2006, Albaladejo 2001).

7.4.7 Financial services

Access to finance constitutes one of the key needs of small enterprises and is often a central issue in efforts to help or support medium-sized, small and micro-enterprises. In Nigerian cluster settings, like the 21 reviewed here, we find large numbers of such small enterprises lacking own capital, fixed assets and significant cash flow to cover day-to-day financing needs, let alone funds for expansion.

While there are basic banking facilities available in many of the clusters or in close proximity, these commercial banks focus primarily on conventional commercial banking facilities. Loan finance is mainly restricted to larger enterprises, which can provide the necessary collateral or have property ownership – which most of the small enterprises do not have.

Thus, the lack of access to working capital, asset finance and expansion finance is a critical problem for SMEs in many of the clusters. Firms may resort to personal savings, plough-

back of profits, inter-firm credit from subcontractors or some funds from group-credit schemes, but in their totality these sources are limited.

In the survey of the 21 clusters it was found that in only five of them financial institutions of significance and relevance for SMEs were operating inside the cluster. In all others appropriate financial services were felt to be “not available locally”.

The opportunity of utilising the organisational structure of clusters as a form of guarantee for individual firms’ borrowing from commercial banks (where fixed-asset collateral is unavailable or inadequate) is seldom considered by banks in their lending decisions about small firms operating in clusters. Many banks argue that the existing clusters are poorly organised and may not have firm control over their members. Therefore, they prefer transacting with individual firms purely on merit. In these cases, a form of cluster-linked credit-guarantee scheme supported by government might help to address the problem. This, again, stresses the need for PPP interaction.

7.4.8 Business linkages and capacity-building

In the effective development of business clusters a lot depends on the level of linkages that exist in the clusters. McCormick (1998) contends that the active cultivation of inter-firm linkages and entrepreneurial networking contributes significantly to the growth of enterprises. Schmitz (1997) believes that such linkages often trigger joint action within the cluster, leading to increased collective efficiency.

In this context we can distinguish different types of linkages. *Bilateral linkages* arise when two firms’ co-operation brings about joint action or collaboration such as joint purchase of raw materials, joint use of foreign contacts for diverse purposes, joint marketing or the sharing of expensive equipment. *Multilateral linkages* involve co-operation among many firms within the cluster, giving rise to joint action projects. This could be setting up a common facility within the cluster, tackling security challenges, providing power-generation facilities or initiating strategic alliances with universities and research institutions or corporate services (Porter 1998).

Karaev, Koh and Szamosi (2006) as well as Wolter (2003) go a step further to identify *co-operative linkages*. These could arise among firms leading to enhanced collaborative and mutual learning and knowledge-creation, with a spill-over among local firms.

We can also talk about *external linkages* between a cluster and firms external to the cluster. This can come in the form of networking and collaboration between firms within a cluster and firms in other clusters, either local or international. This form of linkage can help to open up foreign markets for local firms, it can lead to the transfer of technology to local firms and to technical co-operation aimed at overcoming technological gaps in production and management capabilities. Such linkages exist in a number of clusters in Nigeria, including the Nnewi Auto Cluster (7) and the Otigba ICT Cluster in Lagos (17).

In the Nnewi Auto Cluster, many local firms have linkages with firms from Taiwan, Germany, the USA, Japan and other Asian countries, which has resulted in technological linkages, product standardisation, skills development and assistance in the adaptation of foreign technology to local needs. These linkages have been developed through long-term relationships and have led to the acquisition of entire plants installed by the foreign partners. In addition, inter-firm linkages within the clusters have given rise to international subcontracting activities.

In the survey of the 21 clusters and in the personal contacts with cluster enterprises it has been difficult to get clear evidence of the range and intensity of existing or evolving business linkages. Leaving aside the more dynamic clusters covered in earlier subsections, the respondents acknowledged the value or potential of such co-operation but could not confirm or document proactive engagements.

7.4.9 Export capacitation

Eight of the 21 clusters (38%) are known to have a strong export potential, while the current export performance is quite low in many of the clusters. This applies in particular to informal clusters which have evolved over decades, but still have low levels of business organisation, let alone focused export marketing.

A cluster with high export engagement is the Nollywood Virtual Cluster (21), which has been involved in the export of Nigerian home videos, not only to African countries but also to other continents. Within Africa the home videos produced by the Nigerian industry have been a household name, and the products are not only exported for viewing but have helped to create a market in the entertainment industry in countries such as South Africa, Ghana, Zimbabwe, Botswana, Kenya and Benin Republic. The cluster is also involved in the

exportation of film-production technology, especially to countries in West Africa, given production collaborations between local actors and actors from neighbouring countries.

The Oko-Oba Abattoir Cluster (19) is another example of extensive exports as the market for processed livestock extends to neighbouring countries such as Benin Republic. In a few other clusters, the export potential is not very pronounced, but increased dynamism in clusters also boosts export awareness. Such clusters include the Gidan Pari Scraps Cluster (15) as well as the Aba Leather and Allied Products Cluster (9).

7.5 PARTNERSHIP CAPACITATION IN THE CLUSTERS

In our review of the clustering process in Chapter 3 we concluded that an active and effective partnership between the main cluster partners is one of the most important preconditions for the dynamic unfolding of the clusterisation process. Such partnerships have to include the three key players in the process, viz. business sector, public sector and “capacitation” sector (viz. research and training bodies). Etzkowitz’s *Triple-Helix* model was presented as the clearest approach to such a partnership strategy (Etzkowitz and Mello 1994). The model views the university as the centre of excellence in academic research-and-development activities, the industry as the provider of customer demands based on commercial activities and the government as the policy-maker and co-funder. The fusion of these actors in CDPs creates an opportunity for every facet of the cluster challenges to be addressed. These include (i.a.) funding, legislative and regulatory requirements, research, business-development services and organisational capabilities. Clar, Sautter and Hafner-Zimmermann (2008) believe that such interaction also has the potential to improve public investments with respect to fundamental needs such as infrastructure and technology development.

We have indicated under 7.4.5 that institutional support and co-operation between the different cluster players is in most cases still limited, although the three cases of intensive interaction already indicated what is possible. At this stage virtually none of the 21 cluster cases fully meet the conditions set in the *Triple-Helix* model. This, in essence, reflects the main challenge underlying this study and facing Nigeria’s development partners.

7.6 CONCLUSIONS OF THE PRELIMINARY ASSESSMENT

Based on the 55 and 21 cluster cases, our review of Nigeria’s current clusterisation process, seen in the context of the country’s overall economic development challenges and processes, leads us to a number of conclusions.

- ◆ Compared to the size and sector diversity of the Nigerian economy, the country has relatively few cluster developments of significant dimension.
- ◆ Given the proven significance of clusters in the development of other highly developed and emerging economies it is thus imperative for Nigeria to increase the number of successful clusters.
- ◆ A cross-section of 55 identified clusters, which span a wide range of regions and sectors, revealed some of the complexity and diversity of clusters so far existing in Nigeria.
- ◆ In some contrast to the more developed countries, micro-clusters or incubators so far play a very limited role in Nigeria; the standard approach is the evolution of macro-clusters.
- ◆ There is a wide difference in the effectiveness of the different clusters and with respect to key elements in cluster processes. Some clusters possess the critical mass of SMEs to spur joint action that sharpens competitiveness and dynamism. Clusters that possess such critical mass are found among ICT, footwear, leather and fashion clusters located in urban areas, which underscores the rising impact of urbanisation on African clusters.
- ◆ Many clusters have a long history of evolution, and in some cases such evolution is tied to local traditions, customs and local specialisations. These factors, if well advanced, could lead to vibrant LED. At the same time, a number of the clusters are still operating at their infancy level despite a long period of evolution. These clusters lack dynamism as well as innovation, and public-policy action will be needed to turn them around.
- ◆ The challenges of cluster growth and development in Nigeria are particularly strong in the areas of basic infrastructure, access to finance and access to basic technology.
- ◆ The level of networking and linkages among firms in the same cluster and between clusters is still low, which also hampers the knowledge and information flow among small-business firms.

Most importantly, there is a lack of co-ordinated partnership building in clusters existing in Nigeria. There is evidence of lots of informal involvements by institutions active in small-business development such as local chambers of commerce, banks and international agencies, but a co-ordinated partnership approach among key stakeholders in cluster

development is lacking. The *Triple Helix* concept is yet to gain acceptance in Nigeria, while a co-ordinated partnership involvement seems essential if local clusters are to be competitive.

The scope and dynamism of existing clusters as presented in this chapter provides us with the background needed to focus on the imperatives of a focused strategy for more effective cluster building, anchored on global best practices. This needs a closer look at the different support players of this clusterisation process in the next chapter and the structuring of such a strategy in Chapter 9.

CHAPTER 8

STAKEHOLDER DYNAMISM IN THE STRENGTHENING OF NIGERIA'S CLUSTERS

8.1 INTRODUCTION

Lessons from international experience presented in Chapters 4 and 5, have pointed to the need for a directional paradigm shift in the approach to clusterisation if meaningful and sustainable development of small businesses is to be achieved in Africa in general and Nigeria in particular. As background to the search for a new strategy focus in small-business-cluster development the last chapter looked at the present characteristics, structures and complexities of Nigeria's clusters. Starting with a broad range of 55 clusters, more in-depth analysis focused on 21 clusters actually visited by the researcher. This set the background for a more thorough assessment of eight clusters in this chapter, which constitutes the basis for policy recommendations for the strategy presented in the next chapter.

The eight cases of clusters selected for deeper analysis are highlighted in Table 8.1, being part of the 21 covered in Chapter 7.

While the focus in the last chapter fell on the diversity of clusters, their structures and progress, the focus now falls on the stakeholders actively engaged in the clustering process and the possible facilitation or promotion of clusters in Nigeria. Thus, we look at key drivers and stakeholders in the cluster process, with a view to understand their roles as well as effectiveness, both in existing and in new clusters. We also want to assess the relationship among key players in the cluster-building process, comparable to the equivalents in the countries reviewed in chapters 4 and 5.

The 55 clusters briefly presented in Chapter 7 were part of the much larger array of clusters spread across Nigeria. They probably covered most of the better-known larger and more dynamic clusters, although it was not suggested that they were the full number or a random sample. The basic intention was to cover a wide spectrum of clusters in terms of size, sector focus and degree of formality.

Table 8.1
Eight selected cases of clusters

Group of 8	Region	Location, state	Name of cluster	Activities	Case ID no. in group of	
					21	55
	North-Central	Kugbo, Abuja State	Furniture Makers' Association Cluster	Furniture-making	1	1
A	North-Central	Dei-Dei, Abuja State	Dei-Dei Timber Cluster	Timber-processing and woodwork	2	2
	North-Central	Suleja, Niger State	Madatha Furniture Association Cluster	Furniture-making	3	6
	North-West	Kano, Kano State	Leather Cluster	Leather-processing	4	11
	North-West	Zaria, Kaduna State	Leather Cluster	Leather-works	5	12
	North-West	Kano, Kano State	Butchers Multi-Purpose Co-operative Society Cluster	Livestock-processing	6	15
B	South East	Nnewi, Anambra State	Automotive Cluster	Auto parts	7	17
	South East	Powerline Aba, Abia State	Shoes and Leather Cluster	Footwear-production	8	18
D	South East	Bakkasi, Abia State	Aba Leather and Allied Products Clusters	Footwear-production	9	19
	South East	Aba, Abia	Tailoring and Fashion-Design Cluster	Tailoring and fashion-design cluster	10	20
E	South East	Enugu, Enugu State	Enogin Furniture Cluster	Furniture-making	11	28
C	South East	Onitsha, Anambra State	Osakwe Polythene and Industrial Estate, Awada	Polythene manufacturing	12	29
	South West	Osogbo, Osun State	Tie-and-dye Cluster	Local fabric	13	38
F	South West	Abeokuta, Ogun State	Tie-and-dye Cluster	Local fabric	14	39
	South West	Ojota, Lagos	Gidan Pari Scrap Cluster	Scrap-processing	15	40
	South West	Ebute Meta, Lagos State	Timber-Woodwork Cluster	Timber-, woodwork-processing	16	41
G	South West	Ikeja, Lagos State	Otigba ICT Cluster	ICT	17	42
	South West	Mende, Maryland, Lagos	Cane Chair and Weaver Cluster	Cane chair and weaving	18	48
H	South West	Oko-Oba Agege, Lagos	Oko-Oba Abattoir Cluster	Meat-, livestock-processing	19	49
	South-West	Ogun State	ofada Rice-Production Cluster	Local rice-production, agriculture	20	54
	Virtual	Virtual	Nollywood Film Production	Film production	21	55

Out of the 21 clusters listed in Table 8.1, eight were selected to have reasonable sector spread, relate to more than one region or state and to present a diversity of size and development dynamics (see Table 8.2). In addition, it was the intention to include relatively successful clusters from which significant lessons around the challenge of a cluster paradigm shift could be learned.

As explained in Chapter 3 and illustrated in the country cases, development-stakeholder groups play critical roles in the facilitation and promotion of cluster processes. The following four groups or categories of cluster-development stakeholders are central in this chapter's discussions.

- ◆ Public-sector institutions, including the different levels of government as well as parastatals and SME-support institutions
- ◆ Private-sector organisations, including business chambers and cluster associations
- ◆ Private enterprises (SMEs, larger enterprises, big corporates and foreign-owned businesses)
- ◆ Education and research bodies, focusing on small-enterprise development

In addition to these local players, foreign (aid) agencies are also included since they can play a significant role, as we will show in section 8.4.

As explained in Chapter 6, responses to a three-part questionnaire, distributed to a cross-section of 265 individuals and organisations within these four stakeholder categories, constitute the main information base for this chapter (see Appendix 3 for the questionnaire).

- ◆ Part A of the questionnaire aimed at background information relating to respondents' involvement in cluster activities.
- ◆ Part B looked for an assessment of the cluster covered in the survey (i.e. one of the eight selected clusters).
- ◆ Part C looked at the strategic direction of the CDP, i.e. "where are we going" or "where should we be going?"

The researcher personally administered most of these questionnaires. This also opened opportunities for clarifications and the absorption of related information and additional written material. Where personal contact with the researcher was not possible, a research assistant followed up the completion of the questionnaires. Out of the 265 questionnaires distributed, 216 were returned and useable.

The formal questionnaires were supplemented with informal interviews to get a better understanding of the clusters and the role of the interviewed stakeholders. Appendix 6 contains the questions underlying these informal discussions,

8.2 KEY FACTS ABOUT THE CORE CLUSTER CASES

Table 8.2 presents basic facts of the selected eight clusters reviewed in this chapter. This covers their location, estimated size and the length of the cluster evolution. We can briefly comment on some of these facts and the growth experience of these clusters as extracted from the questionnaire responses and interviews.

8.2.1 Size and age of the clusters

Each of the clusters has a mixture of medium, small and micro-enterprises. The number of firms in the clusters ranges from 200 operators in the Enugu Furniture Cluster to about 10 000 operators in the Bakkasi and Otigba clusters. The Otigba ICT Cluster in Lagos has roughly 80 per cent of the operators being informal businesses, with an average size of three employees, while about 15 per cent of the operators are small firms. The proportion of micro-operators could be as high as 60 to 70 per cent of the total number of operators. The levels of formality of the businesses operating in the eight clusters also differ. Significant numbers of informal operators (up to 30 per cent) exist in almost all clusters, with the formal operators providing a platform for learning and subcontracting for the informal businesses.

In the Nnewi Automotive Cluster, about 6 000 enterprises exist with only about 85 of them engaged in active automotive manufacturing. Others are involved in trading, subcontracting and the provision of supply-chain services in the cluster. All the firms engaged in active manufacturing are formal and at least medium-sized enterprises. In the Osakwe Polythene Cluster in Onitsha more than 85 per cent of the operators are formal enterprises and are engaged in active manufacturing, with the others providing value-chain supplies.

Table 8.2
Core cluster cases

	Name of cluster	Zone*	State	Est. no. of businesses in the states ('000)	Cluster	
					Age (years)	Size (firms)
A	Dei-Dei Timber Cluster	N-C	Abuja	273	20+	4 000
B	Nnewi Automotive Cluster	S-E	Anambra	500	20+	6 000
C	Osakwe Polythene Cluster in Onitsha	S-E	Anambra	500	10	300
D	Aba Leather Cluster in Bakkasi	S-E	Abia	410	20+	10 000
E	Enugu Furniture Cluster	S-E	Enugu	420	20+	200
F	Abeokuta Tie-and-dye Fabric Cluster	S-W	Ogun	420	100+	2 500 – 3 000
G	Otigba ICT Cluster in Ikeja	S-W	Lagos	885	20+	10 000
H	Oko-Oba Abattoir Cluster in Agege	S-W	Lagos	885	80+	3 000

* N-C = North-Central, S-E = South-East, S-W = South-West

As far as the age of the clusters is concerned, most of those shown in Table 8.2 are older than 20 years, with only one relatively young at five to 10 years (Osakwe) and two of very old age (80+ years for the Abattoir cluster and a full century for the Abeokuta Tie-and-Dye cluster).

8.2.2 Growth factors

In the questionnaire the respondents in the different cluster groups were asked to state and explain the forces underlying the growth of the respective clusters. Table 8.3 summarises the results, using the Likert-scale method, which arranges (dis-)agreement on a scale from 1 to 3 (1 = total disagreement and 3 = total agreement).

Out of the eight potential growth forces which are listed in the table, the aggregated responses range from 1,0 to 2,9. The superscripts on the Likert-scale values for each of the six separately listed clusters in the respective columns show the significance ranking in the particular cluster. Thus, in the Lagos Abattoir (butcher) Cluster [H] the most important three growth factors were seen as

- ◆ the particular location of the cluster (i.e. near Lagos) – 2,90
- ◆ the locally supplied raw material (i.e. the meat) – 2,82
- ◆ co-operation from government – 2,36

Table 8.3
Factors driving cluster growth

Growth factors	Aba Leather D	Lagos Abattoir H	Dei Dei Timber A	Tie-and-Dye F	Auto-motive B	Osakwe Poly-thene C	Others	Cluster average
Cluster location advantages	2,17 ⁵	2,90 ¹	2,64 ¹	1,93 ⁷	1,72 ³	2,75 ³	2,65 ¹	2,32 ¹
Raw material (locally) supplied	2,56 ³	2,82 ²	2,16 ⁴	2,79 ³	1,81 ¹	2,63 ¹	2,06 ²	2,27 ²
Special local skills or traditions	2,60 ²	1,64 ⁴	2,24 ²	2,86 ¹	1,78 ²	2,31 ²	2,42 ³	2,20 ³
Local art and crafts	2,80 ¹	1,36 ⁶	1,96 ⁵	2,71 ⁴	1,44 ⁵	1,81 ⁵	2,06 ⁴	1,92 ⁴
Heritage site	2,25 ⁴	1,00 ⁸	2,21 ³	2,86 ²	1,06 ⁷	1,29 ⁷	1,56 ⁶	1,68 ⁵
Government institution or offices	1,67 ⁶	2,36 ³	1,84 ⁶	1,92 ⁸	1,50 ⁴	1,00 ⁴	1,65 ⁸	1,66 ⁶
Research activities	1,50 ⁷	1,40 ⁵	1,76 ⁷	2,00 ⁶	1,39 ⁶	1,31 ⁶	1,44 ⁵	1,54 ⁷
Linkage to a university	1,50 ⁷	1,20 ⁷	1,67 ⁸	2,07 ⁵	1,03 ⁸	1,00 ⁸	1,38 ⁷	1,37 ⁸

Superscript figures represent ranking

In contrast, for this cluster the existence of a heritage site and/or proximity or linkage to a university were factors with no significance.

The last column in Table 8.3 gives the average ranking based on all eight survey responses, which is a very useful indication of the factors seen to have affected cluster growth in Nigeria in the long run. The three top factors were

- ◆ cluster location,
- ◆ raw-material supplies and
- ◆ special local skills or traditions.

This is very much in line with our discussions in chapters 4 and 5. The responses put the existence of local art and crafts, the presence of heritage sites and the support from government in a middle position as growth factors and linkages to universities or research activities as relatively insignificant growth factors (though with clear exceptions).

Against this background of the average ranking, we can better interpret the different cases. In addition, the cluster average provides a tool with which one can also assess the growth potential of other clusters and give direction in the strategising process.

8.2.3 Key needs of the clusters

During the literature review and in the earlier phases of the empirical research a number of factors evolved as critical preconditions or “needs” for the success of clusters. These eight factors are listed in Table 8.4, with the responses for seven of the clusters given in the main body of that table.

From the data it is striking how high the consensus level is for the different clusters and how uniform the ranking is, as shown in the average for all clusters (the last column). Thus, with one exception, all responses average above 2,50, which indicates strong agreement. The Otigba ICT Cluster [G] and the Dei Dei Cluster [A] are the only two with relatively lower agreement levels for most of the factors, although all are still at or above 2,0.

Table 8.4
Perceptions with regard to key needs of the clusters

	Aba Leather D	Lagos abattoir H	Otigba ICT G	Dei Dei A	Tie and Dye F	Automotive parts B	Osakwe C	All
Cluster management	3,00 ¹	2,91 ⁶	3,00 ¹	2,56 ²	2,64 ⁸	2,84 ⁵	2,38 ⁶	2,76 ¹
Cost reduction to firms in the cluster	3,00 ¹	3,00 ¹	3,00 ¹	2,29 ⁶	2,79 ¹	2,87 ⁴	2,38 ⁶	2,73 ²
Business support services	3,00 ¹	2,91 ⁶	2,00 ³	2,68 ¹	2,71 ⁴	2,90 ³	2,81 ²	2,66 ³
Access to finance	3,00 ¹	3,00 ¹	2,00 ³	2,44 ³	2,79 ¹	2,94 ¹	2,81 ²	2,65 ⁴
Infrastructure provision	3,00 ¹	3,00 ¹	2,00 ³	2,44 ³	2,79 ¹	2,94 ¹	2,63 ⁵	2,62 ⁵
Facilitating external linkages	3,00 ¹	3,00 ¹	2,00 ³	2,38 ⁵	2,77 ⁴	2,84 ⁵	2,87 ¹	2,59 ⁶
Capacity building	3,00 ¹	3,00 ¹	2,00 ³	2,12 ⁸	2,71 ⁴	2,81 ⁷	2,81 ²	2,56 ⁷
Business networking	2,89 ⁸	2,91 ⁶	2,00 ³	2,17 ⁷	2,71 ⁴	2,61 ⁸	2,13 ⁸	2,44 ⁸

Superscript figures represent ranking (Likert means)

Given the narrow spread of the response ratings, we can conclude that the different factors included in the table are all critical for the success of clusters and should thus be central to the design and execution of cluster-development strategies.

8.3 CLUSTER PLAYERS AND THEIR INVOLVEMENT

In section 8.1 above we listed the four main categories of development stakeholders who could be involved in the promotion or facilitation of cluster development. Two-hundred-and-eighty questionnaires were initially distributed, with 226 channelled to enterprises, 25 to

business-sector associations and 27 to public-sector institutions. Table 6.1 showed the response rate. The questionnaires *not* returned were virtually all from businesses, viz. the important other stakeholders all responded.

Responses to the general question about stakeholder engagement (existing, planned or “no relationship”) showed a very low level of existing engagement (12%) and even a low level of planned engagement (31%).

The results were similar with respect to institutions, which could provide direct support to clusters, as shown below.

	Involved %	Not really involved in the particular cluster (%)
* Public-sector departments involved in SME-cluster research	27,0	73,0
* Institutions linked to the cluster	48,4	51,6
* Centres linked to cluster programmes	38,7	61,3
* Organisations planning to set up clusters	30,9	69,1

Thus, cluster-support bodies are only in a limited extent engaged with the existing clusters; more of their attention may actually focus on new clusters or problem clusters,

If we are looking at the composition of the four stakeholder groups, the survey showed that

- ◆ about 75 per cent of the *association* and *business* respondents were business owners, with the rest being “consultants, advisors or facilitators”,
- ◆ about 78 per cent of the government respondents were civil servants, with the rest being “advisors”.

As far as the length of cluster engagement of the respondents is concerned, this depends largely on the age of the clusters, with the older ones showing five to 10 years engagement of the respondents.

Against this general background about the responses to the questionnaires, we can now look at two critical questions where responses can be detailed for the different cluster cases, viz.

- ◆ reasons for the actors’ involvement and
- ◆ contributions of the key stakeholders to cluster progress.

8.3.1 Motives for stakeholders' involvement

Looking at the reasons or motives given by the responding stakeholders for their involvement in cluster programmes, Table 8.5 summarises the picture for the individual clusters, once again using Likert scales. The last column provides a summary of all responses.

The major reason for the respondents' involvement in cluster programmes is identified as "economic-development support" (ranked as 2,68 on the overall level). "Development of the SME sector" and "stimulation of economic growth in the region/state/local government area" are two reasons ranked second and third with a score of 2,44 and 2,35, respectively. While these "development stimulation" motives are highly ranked, the commitment to government policies by the different agencies and general political motives are ranked much lower. In the Aba Leather and Lagos Abattoir clusters, "stimulation of collaborative partnership with the private sector" is a highly-ranked motive for involvement in the clusters, while it is only the fourth motive on the overall level.

Most of the motives given in the table show a much stronger consent in the Otigba ICT, Lagos Abattoir and Tie-and-Dye clusters. This seems significant since the motives of the actors drive their level of commitment to the cluster process.

8.3.2 Stakeholder contributions to cluster success

Table 8.6 presents the perception of the respondents with regard to the contribution of the different stakeholder groups to the clusters' success. The nine stakeholder groups are ranked in the table (in the last column) to the aggregates of the Likert scale. Table 8.6 shows low scores (generally between 1,5 and 2,5) across the clusters and on the overall basis. The low scores suggest little linkage or contribution that these participants had made towards the success of clusters. Overall, organised private-sector associations and business group-cluster associations are the only entities which were perceived to make strong contributions. The contribution of federal, state and local governments, corporate bodies and local communities were found to be in the middle (within the band of 1,5 to 2,5).

Table 8.5
Motives for involvement in cluster programmes

Motive	Aba Leather D	Lagos Abattoir H	Otigba ICT G	Dei Dei A	Tie-and-Dye F	Auto-motive B	Osakwe C	Cluster Average
Economic-development support	1,71 ²	3,00 ¹	2,60 ⁵	2,71 ¹	2,85 ³	2,54 ¹	2,88 ¹	2,68 ¹
Development of the SME sector	1,50 ⁴	2,90 ⁴	3,00 ¹	2,29 ³	2,92 ¹	1,85 ²	1,75 ²	2,44 ²
Stimulate economic growth in the region/state/local area	1,40 ⁶	2,18 ⁵	3,00 ¹	2,44 ²	2,92 ¹	1,68 ³	1,47 ³	2,35 ³
Stimulate collaborative partnership with the private sector in economic development	1,89 ¹	2,91 ²	2,60 ⁵	2,28 ⁴	2,67 ⁶	1,32 ⁶	1,13 ⁶	2,17 ⁴
Regional/state/local government reasons	1,50 ⁴	2,91 ²	2,60 ⁵	2,08 ⁶	2,77 ⁴	1,36 ⁵	1,44 ⁴	2,14 ⁵
SME public-policy intervention	1,00 ⁷	1,91 ⁶	3,00 ¹	2,16 ⁵	2,69 ⁵	1,20 ⁷	1,31 ⁵	2,13 ⁶
Purely political reasons	1,67 ³	1,36 ⁷	3,00 ¹	1,91 ⁷	1,58 ⁷	1,65 ⁴	1,00 ⁷	1,72 ⁷

N.B. Superscript figures represent ranking (Likert means)

Table 8.6
Significance of institutions for cluster success

Ranked stakeholders	Aba Leather	Lagos Abattoir	Otigba ICT	Dei Dei	Tie-and-Dye	Auto-motive	Osakwe	All
Organised private-sector associations	1,57 ⁵	2,55 ⁵	3,00 ¹	2,36 ²	2,86 ²	2,88 ²	2,75 ¹	2,67 ¹
Business group/cluster associations	2,60 ¹	2,60 ³	2,00 ³	2,52 ¹	2,92 ¹	2,94 ¹	2,63 ²	2,58 ²
State government	1,50 ⁶	2,91 ¹	3,00 ¹	1,92 ⁸	2,00 ⁵	1,97 ⁵	1,75 ⁴	2,25 ³
Corporate bodies	1,78 ⁴	2,91 ¹	2,00 ³	2,04 ³	1,79 ⁶	2,69 ³	2,19 ³	2,25 ³
Federal government	1,11 ⁷	2,60 ³	2,00 ³	2,00 ⁴	2,50 ⁴	1,81 ⁶	1,38 ⁷	1,98 ⁵
Local community	2,45 ²	2,20 ⁷	1,00 ⁷	1,96 ⁷	2,86 ²	2,16 ⁴	1,13 ⁹	1,91 ⁶
Local government	1,88 ³	2,09 ⁸	2,00 ³	2,00 ⁴	1,71 ⁷	1,81 ⁶	1,50 ⁶	1,91 ⁶
Partnership between government and private-sector groups	1,00 ⁸	2,27 ⁶		1,92 ⁸	1,71 ⁷	1,38 ⁸	1,64 ⁵	1,73 ⁸
University/research centre	1,00 ⁸	1,33 ⁹	1,00 ⁷	2,00 ⁴	1,14 ⁹	1,13 ⁹	1,31 ⁸	1,31 ⁹

N.B. Superscript figures represent ranking (Likert means)

If we look closer at the responses with respect to individual clusters, there are wide divergences, which is a reflection of the uniqueness of each cluster and the likelihood that respondents have different impressions and interpretations of the success factors and players. Thus, in the Lagos Abattoir Cluster the role of state government and corporate bodies is ranked very high, while private-sector associations and state government are ranked very high in the Otigba ICT Cluster. In a rather different context, business associations and corporate bodies are also ranked very high in the automotive cluster.

The table also shows that in most of the individual clusters partnership platforms and universities were seen to have very little to contribute to the cluster success. This points to the remote role these actors have been playing in the past in CDEs in Nigeria. Ironically, these groups of factors have been quite pivotal and effective to cluster success in advanced countries, as we saw in Chapter 4. This is certainly one key issue to be addressed in the bid to reposition and accelerate CDEs in Nigeria.

8.4 EXPECTED ROLES OF THE CLUSTER PARTNERS

Having looked at the role the main stakeholder groups were perceived to have played in the cluster process in the past, we now have to look at the future, i.e. the expected or desired roles that they *could* or *should* play in future CDPs. Where we so far focused primarily on four key stakeholder groups (government, business associations, universities and businesses), we can now add a further partner, viz. foreign agencies or support bodies (like US-Aid).

In this section, we summarise the responses from the four core groups about expected roles of these five cluster-development stakeholders. Linked to our earlier discussions about factors determining cluster dynamics and growth, we can list 12 factors, which seem to be needed for such growth and which are covered in the survey questions.

No. 1 Infrastructure provision

No. 2 Access to finance

No. 3 Training and capacity-building

No. 4 Facilitating external linkages

No. 5 Business-support services

No. 6 Business networking

- No. 7 Research activities
- No. 8 Cluster administration
- No. 9 Regulatory control and legislation
- No. 10 Policy advocacy
- No. 11 Policy advice and formulation
- No. 12 Policy implementation

In the following five subsections we present the respondents' reactions to the question how important, significant or useful each of the five stakeholders can be in addressing those 12 challenges. Thus, we are now not looking at the performance of specific clusters, but at the potential impact of development stakeholders on key cluster-development challenges.

8.4.1 Government institutions

Table 8.7 presents the views of the four core groups about the potential roles of government bodies in cluster facilitation, taking into account the 12 intervention areas. In this table they are ranked on the basis of the overall average of responses from the four core responding groups. If we take the Likert indicators above 2,50 as a sign of strong agreement, the highest six intervention areas are viewed as critical for the role expected from government. These include infrastructure development, easing access to finance, facilitating training, handling policy and regulatory processes as well as facilitating linkages with other countries.

This overall ranking seems logical and should serve as a good indication for the public-sector prioritisation of its cluster strategy.

If we look separately at each of the four core stakeholder groups then perceptions with regard to the desired role of governments differ quite significantly.

- ◆ *Government representatives* give regulatory and legislative controls the highest priority, followed by policy formulation and policy implementation. Much lower priority is given to the provision of (business) finance and training, probably because it is expected that other stakeholder groups should supply this.

Table 8.7
Expected roles of government in cluster developments

Intervention areas		Associations A		Governments B		Corporates C		University D		OVERALL	
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1	Infrastructure provision	2,83	1	2,60	3	2,65	1	3,00	1	2,68	1
2	Access to Finance	2,76	2	2,53	6	2,65	1	2,75	3	2,65	2
3	Capacity-building (training)	2,50	6	2,59	5	2,61	3	2,13	9	2,57	3
4	Facilitating external linkages	2,38	8	2,47	7	2,58	4	2,38	6	2,53	6
5	Business-support services	2,35	9	2,43	8	2,52	6	2,50	5	2,49	7
6	Business networking	2,24	11	2,37	11	2,51	7	2,13	9	2,44	10
7	Research activities	2,07	12	2,07	12	2,48	9	1,75	12	2,35	12
8	Cluster administration	2,27	10	2,37	10	2,46	10	1,88	11	2,40	11
9	Regulatory and legislative controls	2,45	7	2,69	1	2,50	8	2,75	3	2,54	5
10	Policy advocacy	2,60	4	2,38	9	2,46	10	2,38	6	2,46	9
11	Policy and advice formulation	2,53	5	2,63	2	2,56	5	2,38	6	2,56	4
12	Policy implementation	2,69	3	2,60	3	2,40	12	2,88	2	2,48	8

- ◆ The *private-business sector* (corporates) expects government to play a major role in infrastructure development with the easing of access to finance and training much in line with the overall ranking.
- ◆ In the case of business and cluster *associations*, there is agreement about the high priority of government support for infrastructure development and overall finance, but relatively greater attention is given to government's role in policy advocacy and policy implementation. These latter two areas relate clearly to tasks that also have to be tackled by these associations (e.g. negotiating regulatory exemptions for specific industries).
- ◆ For *universities and research centres* the government's roles in infrastructure development, policy implementation, easing access to finance and regulatory flexibility are the key reasons.

As far as the overall ranking of the lowest six expectation areas is concerned, the Likert indicators suggest relatively high consensus (2,35 to 2,49) with the deviations for the different stakeholder groups also limited.

We can conclude that expectations about the role of governments are diverse, but with high levels of agreement. The critical issues are the financial and other dimensions of the capacity of the Nigerian public sector to fulfil these roles. This question will be an important theme in Chapter 9.

8.4.2 Business associations

As explained in earlier chapters and illustrated in the country cases as well as the 21 Nigerian cases, different types of business, sector or cluster organisations can play a significant role as intermediary in CDPs.

Table 8.8 summarises the expectations held by the four core stakeholder groups about the role of business associations with respect to the 12 intervention areas.

Looking at Likert-indicator values above 2,5 there are only two of the 12 areas where expectations are relatively strong among all respondents, viz.

- ◆ promoting and facilitating business networking and
- ◆ facilitating networking between the clusters and external entities (which include regional, national and international linkages).

Almost as close in consensus are expectations about the active facilitation of business-support services (e.g. through information offices or mentorships developed by the associations) and support for training facilities.

An interesting paradox in the response pattern is the fact that government rates the role of associations in policy advocacy rather very low (10th place), while business associations rank themselves in the top two categories. One explanation for this is that business enterprises look upon associations as their pressure group to mobilise state support, while government can easily regard them as an instigator causing greater financial burdens.

Universities naturally, look upon business associations as tools to help expand training in the clusters (4), channel policy advice and advocacy (4) as well as influence legislation (4).

8.4.3 Corporates and financial institutions

In as far as private enterprises are in their numbers and range of activities the main players in any local economy the observations in this subsection are very important for the cluster dynamics. Here we are looking primarily at larger enterprises or corporates as well as foreign companies active in the cluster. They include financial institutions and private suppliers of business-support services (e.g. management consultants, accountants and marketing firms).

Table 8.9 summarises responses about the desired role of these corporates. Only one category has an overall rating of more than 2,50, viz. access to finance. This in itself is logical since financial institutions are part of this group and they are expected to provide funds for regular business finance and for expansion finance. of greater significance is the fact that all other intervention areas have means below 2,50, which implies relatively low expectations. Category 9 has been left out since the private sector cannot be active in the regulatory and legislative spheres. The only other relatively higher-valued expectations are inputs with respect to business networking and business-support services as well as training.

Underlying this response pattern seem to be two widely held perceptions, viz.

- ◆ the business community feels that supportive action should come from the public sector or specially established institutions (like NGOs or associations) and should not be expected from them,
- ◆ those outside the business sector feel that business is not willing to play proactive roles in development facilitation, since this might cause expenses not recovered through higher turnover or profit levels,

It will be one of the important challenges of an integrated cluster strategy to help change these perceptions.

8.4.4 Universities and research institutions

In our international reviews, universities and research centres were seen to play a significant role in the development and upgrading of clusters, in particular those with a high technology factor in production processes. As indicated earlier in this chapter, expectations with regard to Nigerian universities are so far quite modest (see Tables 8.3 and 8.6).

Table 8.8
Expected roles of business associations

	Intervention areas	Associations A		Governments B		Corporates C		University D		Overall	
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1	Infrastructure provision	2,07	10	2,07	10	2,06	12	2,00	10	2,06	12
2	Access to finance	2,44	6	2,47	3	2,44	7	2,00	10	2,42	5
3	Capacity-building (training)	2,56	4	2,60	2	2,39	9	2,75	1	2,45	4
4	Facilitating external linkages	2,60	3	2,41	6	2,54	1	2,50	3	2,53	2
5	Business-support services	2,53	5	2,47	3	2,48	4	2,38	4	2,48	3
6	Business networking	2,72	1	2,67	1	2,53	2	2,63	2	2,58	1
7	Research activities	2,07	10	2,10	9	2,47	5	2,25	8	2,36	8
8	Cluster administration	2,35	7	2,43	5	2,33	10	2,00	10	2,34	9
9	Regulatory and legislative controls	1,92	12	2,12	8	2,29	11	2,38	4	2,23	11
10	Policy advocacy	2,67	2	2,07	10	2,46	6	2,38	4	2,41	7
11	Policy formulation/advice	2,27	8	2,13	7	2,51	3	2,38	4	2,42	5
12	Policy implementation	2,25	9	2,03	12	2,40	8	2,25	8	2,31	10

Table 8.10 shows the responses from the four core categories with regard to the possible or desirable future roles of universities and research centres. Strong consensus exists with regard to the two core functions, viz. research activities and training or capacity-building, which have values above 2,50.

It is interesting that most of the other responses range above 2,0 (but below 2,5), which indicates reasonable agreement. Here we find the facilitation of external linkages (e.g. information centres at universities), networking (through visiting lecturers and other contact networks) and policy or advocacy advice (e.g. drafting strategy proposals) as typical examples of the valuable inputs from this stakeholder group.

Naturally, within the context of close partnerships between the stakeholder groups the role of universities could be much more valuable.

Table 8.9
Expected roles of private companies

	Intervention areas	Associations		Government		Corporates		University		Overall	
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1	Infrastructure provision	2,23	3	2,27	4	2,21	6	2,38	4	2,23	4
2	Access to finance	2,63	1	2,77	1	2,56	1	2,88	1	2,62	1
3	Capacity-building (training)	1,77	9	2,27	4	2,27	5	2,13	5	2,23	4
4	Facilitating external linkages	1,86	6	2,03	7	2,28	4	2,00	7	2,19	6
5	Business-support services	2,06	4	2,40	2	2,32	3	2,63	2	2,32	3
6	Business networking	2,28	2	2,40	2	2,45	2	2,50	3	2,43	2
7	Research activities	1,86	6	2,17	6	2,18	7	2,13	5	2,15	7
8	Cluster administration	1,69	10	1,97	8	2,02	10	1,88	9	1,98	10
10	Policy advocacy	2,00	5	1,97	8	2,04	9	2,00	7	2,02	8
11	Policy formulation and advice	1,80	8	1,93	10	2,05	8	1,88	9	2,00	9
12	Policy implementation	1,69	10	1,77	11	2,01	11	1,88	9	1,93	11

Table 8.10
Expected roles of universities and/or research institutions

	Intervention areas	Associations		Government		Corporates		University		Overall	
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1	Infrastructure provision	2,17	5	1,97	10	2,05	11	1,75	11	2,03	11
2	Access to finance	2,15	6	2,03	9	2,35	8	1,63	12	2,24	9
3	Capacity-building (training)	2,58	2	2,67	2	2,58	2	2,38	2	2,58	2
4	Facilitating external linkages	2,18	4	2,28	5	2,50	3	2,25	6	2,42	3
5	Business-support services	2,24	3	2,38	4	2,46	5	2,00	9	2,40	4
6	Business networking	2,11	7	2,17	7	2,48	4	2,38	2	2,39	5
7	Research activities	2,76	1	2,73	1	2,59	1	2,63	1	2,63	1
8	Cluster administration	2,06	8	2,10	8	2,38	6	2,14	7	2,30	8
9	Regulatory and legislative controls	1,71	12	1,80	12	2,03	12	2,38	2	1,98	12
10	Policy advocacy	2,07	8	2,27	6	2,37	7	2,13	8	2,31	7
11	Policy formulation and advice	2,06	10	2,43	3	2,32	9	2,38	2	2,32	6
12	Policy implementation	1,81	11	1,87	11	2,20	10	2,00	9	2,10	10

8.4.5 International agencies

In many of the clusters around the world the international dimension of cluster-related activities is significant and is seen to have a major impact on cluster growth. This can include export markets for cluster products, the importing of inputs along the supply chain, financial support or investments, skill supplies or training inputs and the exchange of cluster-management experience. In developing countries these external inputs are even more important, given resource and skills deficits.

Table 8.11 summarises responses about the role of such foreign support via international agencies (like US-Aid) or other support channels. The six top intervention areas (2,45+ on the Likert scale) reflect what one would logically expect, viz.

- ◆ financial support channelled through investments, foreign aid or other programme funds (2,59),
- ◆ facilitation of links with foreign firms, markets or suppliers (2,58),
- ◆ help with training and other ways towards capacity-building (e.g. study trips (2,55),
- ◆ assistance in the development of business-support services (2,54),
- ◆ networking between local and foreign firms (2,54),
- ◆ sharing research results or partnering with research projects (2,45).

All other intervention areas have low Likert values since they centre on local policies. For a country like Nigeria cluster-development links with countries on all continents should in future be extremely important, given the low level of local experience with cluster management and promotion, the many lessons that can be learned and the vast scope for partnership projects.

8.5 CONCLUSIONS

This chapter has used the 216 responses created from the eight selected clusters to get an in-depth view of the clusterisation process and the most critical factors determining cluster-development progress. Our focus has fallen on the role and significance of different players or stakeholders in the CDP.

The last five tables have shown the expected role of the five groups of players in the light of the twelve intervention areas, which are viewed as important for successful cluster

development. It is clear from these assessments that every player category has certain strong points or areas where the respondents expect them to make a relatively important contribution. Some areas, like policy implementation only have public-sector bodies as stakeholder group.

Table 8.11
Expected roles of international agencies

Intervention areas		Association		Government		Corporates		University		Overall	
		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1	Infrastructure provision	2,29	8	2,10	7	2,39	7	2,38	5	2,34	7
2	Access to finance	2,59	4	2,63	2	2,57	1	2,63	2	2,59	1
3	Capacity-building (training)	2,72	1	2,53	3	2,53	4	2,57	4	2,55	3
4	Facilitating external linkages	2,71	2	2,75	1	2,53	4	2,38	5	2,58	2
5	Business-support services	2,53	5	2,37	5	2,56	2	2,88	1	2,54	4
6	Business networking	2,61	3	2,47	4	2,55	3	2,63	3	2,54	5
7	Research activities	2,53	5	2,31	6	2,48	6	2,38	5	2,45	6
8	Cluster administration	1,87	11	2,10	7	2,20	10	1,75	12	2,13	10
9	Regulatory and legislative controls	1,64	12	1,89	11	1,99	12	2,00	10	1,94	12
10	Policy advocacy	2,40	7	2,00	9	2,31	8	2,00	10	2,25	8
11	Policy formulation and advice	2,20	9	2,00	9	2,21	9	2,13	8	2,17	9
12	Policy implementation	1,92	10	1,86	11	2,17	11	2,13	8	2,10	11

This situation, which is quite logical in the light of the particular nature of the different groups of players, leads to a first conclusion which seems fundamental for this chapter and, in fact, for the whole study about clusterisation as a way to strengthen SME development in Nigeria: *The close co-operation of the different development players or stakeholders is essential for effective cluster development.* Such co-operation and close interaction can be called PPP. In the absence of such public-private partnership, the clustering process cannot unfold effectively and speedily. Yet, the survey of the eight selected clusters has shown in Table 8.6 that in virtually all of them such partnership between government and the private

sector currently plays a relatively insignificant role. Thus, one of the key goals of an effective cluster-development strategy has to be the activation of such PPP.

A second conclusion relates to the relative significance of the five stakeholder groups for effective cluster development. The responses in the questionnaire rank them as follows.

		<u>Likert mean</u>
No. 1	Corporates and banks	2,74
No. 2	Public-sector bodies	2,67
No. 3	Organised private sector	2,66
No. 4	International development agencies	2,64
No. 5	Universities and research centres	2,33

It is significant how close the Likert means are for the first four categories, implying that they are regarded as virtually equally important. Only the research/training group has a lower rank, which may relate to the significance of traditional crafts in some of the eight clusters. With respect to the technology-focused newer clusters, the ranking of universities would most probably also have been higher.

A third conclusion relates to the success factors for the building and growth of effective SME clusters. The responses highlight five core factors.

	<u>Likert mean</u>
✧ Cluster location	2,85
✧ Spread of firm size in the cluster	2,74
✧ Proximity to markets	2,72
✧ Proximity to key facilities	2,72
✧ Number of firms in the cluster	2,65

It is striking how similar the ratings are for these general growth factors.

Finally, the sectors with significant cluster potential include the following.

	<u>Likert mean</u>
✧ Manufacturing	2,69
✧ IT and technology sector	2,49
✧ Service sectors	2,41
✧ Agricultural sector	2,31
✧ Tourism	2,26

The values for the sectors are relatively lower, which implies that the sector-focus is regarded as relatively less critical for cluster growth.

In the next chapter we broaden our perspective to transcend the 55–21–8 clusters discussed in Chapters 7 and 8, and we look at an integrated strategy for cluster-development facilitation in Nigeria.

CHAPTER 9

A CLUSTER-DEVELOPMENT STRATEGY FOR NIGERIA

9.1 INTRODUCTION

Our major concern in this study has been faster development, greater competitiveness and accelerated growth of small and medium enterprises in Nigeria, and how this can be achieved. The wide range of small-business constraints remain the strongest inhibiting factors towards achieving this position. Having reviewed a number of cluster cases and the literature, both in Nigeria and elsewhere, and having seen different approaches adopted by different countries in boosting the competitiveness of small businesses in the face of these constraints, we argue that clusterisation remains one of the most potent tools to tackle the identified constraints and strengthen small-business-development processes.

In this context, a distinction needs to be made between cluster development *per se* and SME support through the process of clusterisation. This study primarily explores the ways in which small businesses can be empowered to overcome challenges inhibiting their growth and competitiveness through the agglomeration of business clusters. This is quite distinct from clusterisation as a tool for broader LED.

Against this background we have looked closer at different cluster processes. We have also looked in some details at six country variations (outside Africa) of clustering processes, policies and strategies as well as the success they have achieved over time. We have shown that clusterisation has been far less intensive in Africa, given the uniqueness of challenges Africa as a continent has faced. We then reviewed the clustering process in Nigeria, based on a cross-section of 21 clusters located in different geo-political zones of the country. In addition, we looked more intensively at eight cluster cases spread across Nigeria, interviewing key stakeholders in the process in order to show their roles in supporting cluster growth and development.

In this chapter, we now bring all this together, showing how clustering processes could be accelerated, deepened and spread in order to further strengthen small-business development. We look for a strategy that takes into account the different lessons learned from international experiences and how they can help to build a constructive model of clusterisation for Nigeria.

Cluster processes differ from country to country and are usually shaped by the level of socio-economic development of individual countries, i.e. each country has its unique clusterisation features anchored on its level of economic and small-business development. Bearing this in mind, the chapter starts with a brief summary of the support needs of Nigerian SMEs, which should be addressed by either a clusterisation process or more conventional support policies. In line with the central focus of this study, attention is then focused on the clusterisation approach.

The next section summarises relevant clustering experiences, both internationally and in Nigeria, as covered in earlier chapters. This leads to an extraction of success criteria for proactive cluster-development support in Nigeria.

The actual process of cluster-development promotion centres around the support players, which interact in that process and which are covered in the following section. This includes the two central features of successful cluster processes, viz. PPPs in the process and the active engagement of process facilitators.

Following these critical factors, the chapter looks at key steps in a feasible cluster strategy. This, finally, leads to a schematic presentation or model of the proposed strategy and suggestions around the implementation process.

9.2 ADDRESSING THE SUPPORT NEEDS OF SMEs

In Chapter 2 we discussed in detail the problems and challenges facing SMEs in general and specifically in Nigeria. In the context of this study, there are two approaches to tackle these challenges, viz.

- ◆ *ad hoc* SME-support policies, programmes or interventions through different public-sector bodies and/or NPO or private-sector initiatives and
- ◆ the creation and strengthening of clusters with a strong PPP orientation, expecting that these clusters will help to address SME-support needs.

Table 9.1 summarises the main problems or challenges facing SMEs in a country like Nigeria. Under each of the 13 problem areas, the table shows how these can be tackled *either* through *ad hoc* SME-support policies (column B) *or* through clusterisation processes (column A). Experience has shown that while many of these obstacles can be addressed through clusterisation processes, only in some cases can *ad hoc* support policies have a

broad-based impact. What is more important, successfully focused support policies can always be included in clusterisation processes to further strengthen the impact.

Columns A and B in Table 9.1 show that the scope for effective and far-reaching support for SMEs is far greater and diverse in clustered environments, which underlines the rationale for his study.

Table 9.1
SME problems tackled through clusterisation or *ad hoc* SME support

Problems	A – Clusterisation	B – Focused SME policies
1 Poor access to market	<ul style="list-style-type: none"> ❖ Extension of the locally effective supply chain through interrelationships of small firms with large firms in the cluster ❖ Benefits of sub-contracting of input materials and components (value-chain services by large firms to small firms in the cluster) ❖ Joint product exhibitions, joint marketing and trade fairs by firms in the cluster ❖ Marketing the cluster to the wider world ❖ Cluster linkages to foreign clusters and buyers can strengthen marketing efforts of small businesses 	<ul style="list-style-type: none"> ❖ Government sponsorship of trade missions, international trade fairs and external linkages with foreign buyers ❖ Support policies encouraging the establishment of small-business export consortia and export-promotion councils for SMEs
2 Poor access to finance	<ul style="list-style-type: none"> ❖ Extension of trade credits by large firms to small firms through sub-contracting ❖ Inter-firm relationships within the cluster eases access to trade credits ❖ Financial institutions attracted in providing working-capital financing and fixed asset finance without much emphasis on collateral, thus leveraging on guarantees provided by cluster associations or sector associations ❖ Structured financing made available by government and financial institutions leveraging on the critical mass of SMEs in the cluster 	<ul style="list-style-type: none"> ❖ Government extension of credit-guarantee schemes, either directly or through financial institutions to small firms ❖ Support through collateral risk mitigation (movable assets collateral registry, etc.) ❖ Government setting up special SME funding schemes to finance asset acquisition and working capital ❖ Government setting up SME loan-refinancing schemes through SME industrial banks collaborating with the central bank <p style="text-align: right;"><i>continued</i></p>

Problems	A – Clusterisation	B – Focused SME policies
<p style="text-align: center;">3 Poor infrastructural provisions</p>	<ul style="list-style-type: none"> ❖ Provision of steady streams of infrastructure facilities, including road networks (in and out of the clusters), communication networks and access to internet facilities in the clusters ❖ Provision of workplaces as well as electricity and water supply in the cluster at affordable rates ❖ Inter-firm co-operation in the cluster can also trigger joint action in infrastructural provisions ❖ Positive externalities and spill-over effects as a result of close agglomeration can trigger infrastructural support from large firms to small firms in the cluster 	<ul style="list-style-type: none"> ❖ Government funds demonstration projects for infrastructure development in particular locations to benefit small businesses ❖ Government may finance the establishment of incubators to demonstrate its role in small-business support
<p style="text-align: center;">4 Security</p>	<ul style="list-style-type: none"> ❖ Joint action within clusters through local cluster vigilante groups ❖ Trust and adherence to local creed and code of conduct among firms in the cluster can reduce the tendency for theft, robbery and other criminal actions ❖ Discounted cost of security services due to economies of scale and a critical mass of SMEs in the cluster 	<ul style="list-style-type: none"> ❖ <i>Ad hoc</i> security projects (e.g. for incubators) by public authorities (e.g. municipalities)
<p style="text-align: center;">5 Unfavourable regulatory frameworks</p>	<ul style="list-style-type: none"> ❖ General cluster-focused efforts to keep regulations flexible ❖ Flexible export and import regulations by government for cluster trade ❖ Public procurement policy of the government could encourage sub-contracting among SMEs through cluster- and sector-based associations in the cluster ❖ Strong legislative support for SMEs can strengthen cluster-based industries and producers 	<ul style="list-style-type: none"> ❖ <i>Ad hoc</i> efforts to keep regulatory frameworks flexible (e.g. flexible business registration for small firms) ❖ Flexible export and import regulations by government for <i>ad hoc</i> cases ❖ Flexible regulations on acquisition of land and business premises by small firms
<p style="text-align: center;">6 Taxation issues</p>	<ul style="list-style-type: none"> ❖ Elimination of multiple layers of taxation by different government agencies in the cluster ❖ Tax holidays and incentives granted to new businesses in the cluster 	<ul style="list-style-type: none"> ❖ <i>Ad hoc</i> tax holidays and incentives granted to new businesses ❖ <i>Ad hoc</i> efforts to streamline and simplify taxation systems <p style="text-align: right;"><i>continued</i></p>

Problems	A – Clusterisation	B – Focused SME policies
<p style="text-align: center;">7 Poor access to technology</p>	<ul style="list-style-type: none"> ❖ Upgrade technology in the local cluster ❖ Technology diffusion in the cluster through interaction between small and large firms ❖ Effective linkage of local cluster firms with foreign technology firms, adapting foreign technology to local production needs ❖ Improving the basic infrastructure (including electricity, internet facilities, etc.), setting up common facilities in the cluster (e.g. through incubators) 	<ul style="list-style-type: none"> ❖ Technological support schemes to help SMEs establish linkages with academic and scientific institutions ❖ Setting up a technology-development fund for SMEs
<p style="text-align: center;">8 Training and skill needs</p>	<ul style="list-style-type: none"> ❖ Learning from each other's production and marketing techniques due to co-location and proximity ❖ Improved mentorship techniques as a result of co-location of large and small firms ❖ Supply-chain interactions among firms of diverse sizes operating in the cluster ❖ Learning institutions providing training and skill-development programmes in the cluster at affordable rates, leveraging on economies of large scale ❖ More active role of Smedan and other agencies in collaborating with cluster associations in efforts to upgrade skills and mentorships 	<ul style="list-style-type: none"> ❖ Providing direct training interventions to SMEs at affordable cost ❖ Providing direct capacity-building intervention programmes for small businesses
<p style="text-align: center;">9 Poor product quality</p>	<ul style="list-style-type: none"> ❖ Joint action in the clusters to establish collective efficiency in product and production technique standardisation ❖ Inter-firm learning and interaction to enhance product quality in the cluster ❖ Intensive research activities through research institutions and universities in the cluster 	<ul style="list-style-type: none"> ❖ <i>Ad hoc</i> support to encourage the establishment of quality control and regulatory agencies to address SMEs' product standards in line with international best practice
<p style="text-align: center;">10 Lack of supportive business services</p>	<ul style="list-style-type: none"> ❖ Critical mass of SMEs in the cluster stimulates the development of business-support services in the cluster ❖ Linkage with local business chambers, international agencies, NGOs and local cluster associations can drive the provision of support services in the clusters 	<ul style="list-style-type: none"> ❖ Specific enabling laws by government could empower government agencies to provide further support services to small businesses <p style="text-align: right;"><i>continued</i></p>

Problems	A – Clusterisation	B – Focused SME policies
<p style="text-align: center;">11 Unfavourable competitive factors</p>	<ul style="list-style-type: none"> ❖ Local competitive advantages can be strengthened through the protection of local and infant industries ❖ Government policies to encourage local sourcing of business inputs, stability of exchange rates and reviews of import and export duties for SMEs in the cluster ❖ With a shared pool of labour, the reduction in transportation costs and other shared operating costs, clustered firms can operate at reduced cost, which improves their profitability and competitiveness 	<ul style="list-style-type: none"> ❖ <i>Ad hoc</i> steps to improve competitiveness and local sourcing of products
<p style="text-align: center;">12 Poor business networking</p>	<ul style="list-style-type: none"> ❖ Inter-firm learning and collaborations in the cluster ❖ Spreading of business information, advice and mentoring in the cluster through cluster associations, business-sector associations and linkages with external agencies 	<ul style="list-style-type: none"> ❖ <i>Ad hoc</i> efforts to strengthen collaboration within sectors or specific places
<p style="text-align: center;">13 Poor access to information</p>	<ul style="list-style-type: none"> ❖ Inter-firm networking and learning facilitates exchange of information in the cluster ❖ Linkages with external institutions on technology diffusion ❖ Mentorship by large firms to small firms in the cluster ❖ Research activities by research institutions and universities involved in cluster programmes ❖ Geographical proximity strengthens communication between clustered firms and the exchange of knowledge and dissemination of information 	<ul style="list-style-type: none"> ❖ Government to set up information agencies for SMEs on export promotion, loan acquisition, and government support schemes available for SMEs

9.3 LESSONS FROM CLUSTERING EXPERIENCES

As we have shown in Chapters 4 and 5, cluster development experiences differ widely from country to country. As such the relevance and significance of their experience for Nigeria also varies widely. In this section we look at two dimensions of the lessons from clustering experiences. First, some common points are deduced from the experiences of the countries covered in Chapters 4 and 5. Thereafter some conclusions are drawn from Nigeria's clusterisation experience to date. Section 9.4 then draws from these lessons critical success factors that seem relevant for Nigeria's future cluster-development strategy.

9.3.1 International Lessons

The summarising columns in Table 9.2 on the eight countries reviewed in Chapters 4 and 5 present just the most critical lessons to be learned from their clusterisation processes and strategies. We first present the three Asian countries, followed by the two in Europe and the one focused country in Latin America, with Ethiopia and South Africa as African cases concluding the summaries. The subsection ends by highlighting a few points that seem particularly relevant for Nigeria.

Table 9.2
Clusterisation lessons from different countries

ASIA		
1 Japan	2 India	3 Indonesia
<ul style="list-style-type: none"> ❖ Bottom-up-driven cluster strategy ❖ Collaborative structure and PPP initiatives ❖ Alignment of cluster programmes to the country's economic development policy ❖ Proactive role of universities and research institutions ❖ Sector-focused cluster strategy ❖ Enhancement of inter-firm, intra-cluster collaboration and knowledge sharing ❖ Collaborative funding mechanisms ❖ Technology-driven cluster strategy ❖ Incubator system as integral part of cluster programmes ❖ Effective cluster linkages with support institutions and programmes 	<ul style="list-style-type: none"> ❖ Cluster programmes driven from all levels of government ❖ Thorough background assessment of Indian small-business-development challenges carried out prior to cluster programmes ❖ Active role of international agencies (e.g. Unido) ❖ Collaborative network of industry, universities and government (Triple Helix) ❖ Focus on existing clusters rather than new clusters ❖ Setting up SPVs to manage cluster programmes ❖ Participatory action plans for cluster partners ❖ SME-supportive action groups within the clusters 	<ul style="list-style-type: none"> ❖ Strong catalytic role of the public sector ❖ Cluster programmes linked to the country's economic development policy ❖ Phased cluster programme giving room for systematic and periodic progress reviews ❖ Active role of universities and research institutions in the cluster process ❖ Collaborative structure and PPP initiatives driven by government ❖ Bottom-up-driven cluster approach ❖ Sector-driven cluster focus and emphasis on regional competitive advantages

continued

EUROPE	
4 Italy	5 Hungary
<ul style="list-style-type: none"> ❖ Critical mass of SMEs gave rise to joint action in the Italian districts ❖ Districts are high-tech-driven ❖ Industrial districts built around core productive sectors ❖ Emphasis on co-operation, specialisation and flexibility ❖ Local authorities have a strong role in regulating and promoting core industries ❖ Active role of trade associations in the provision of infrastructure, training and other support services in the districts ❖ Industrial districts linked to addressing economic disparity of Italian regions ❖ Technology-driven strategy in many clusters ❖ Government active to create strong export-orientated enterprises ❖ Institutionalisation of SME support through policy and legislative frameworks 	<ul style="list-style-type: none"> ❖ Linkage of cluster programme to the national economic development agenda ❖ Bottom-up approach to cluster development ❖ Collaborative network of industry, universities and government (Triple Helix) ❖ Mono-funding scheme dependent on government, but not particularly healthy for the programme ❖ Cluster programme designed to conform with EU's requirement for membership, hence with little emphasis on Hungarian SMEs' peculiar challenges ❖ Integration of research and development ensured continuous upgrade and innovation of sub-sectors
LATIN AMERICA	
6 Brazil	
<ul style="list-style-type: none"> ❖ Clusters are private-sector-driven with government supportive roles ❖ Cluster programmes are sector-focused ❖ Strong support of business development and support institutions ❖ Active role of Sebrae, a public-private-sector institution ❖ Active role of local business chambers ensured grassroots mobilisation and sensitisation ❖ Limited role of foreign institutions 	

continued

AFRICA	
7 Ethiopia	8 South Africa
<ul style="list-style-type: none"> ❖ Dominance of government and its agencies gives little room for partnership evolution ❖ Cluster- and business-support programmes focused mainly on small and micro-enterprises ❖ Active pioneering role of international organizations ❖ Sector-focused cluster strategy ❖ Government approach did little to foster networking and collaborative linkages among small firms needed to enhance inter-firm learning and knowledge-sharing ❖ The criteria for the selection of clusters for development by government isolated small and micro-businesses that needed attention ❖ Segregation of small and micro-enterprises from medium and large enterprises in the government cluster programme hampered dynamism in the clusters, since it reduced the capacity of small and micro-enterprises to learn from large firms. It also hampered technology diffusion from large firms to small and micro-firms. 	<ul style="list-style-type: none"> ❖ Due to its unique political history, the country applied a pragmatic approach of micro-clustering to address the integration of blacks into the economic-development mainstream and at the same time used it to support its LED agenda at the dawn of majority rule ❖ The facilitating role of the government in the entire process helped build confidence and trust ❖ Cluster programmes targeted key sectors of the economy ❖ A one-size-fits-all approach adopted by the Department of Trade and Industry resulted in a lack of trust and buy-in by stakeholders and was viewed by various provinces as lacking credibility ❖ The macro-cluster programme was not linked to the country's economic-development plan, hence the seriousness of the programme was questioned, especially at provincial level ❖ Funding was grossly dependent on government, which endangered programme continuity ❖ The cluster-development model was founded on national rather than regional priorities, which led to many firms being disconnected from the broader programme ❖ Partnership integration in the cluster process was often lacking ❖ There was an apparent lack of inter-firm collaboration and inter-cluster linkages, which made learning, knowledge-sharing and technology diffusion among firms more difficult

Table 9.2 reveals a distinct range of lessons, which are brought together in the following eight points. They seem to be common to all the cluster-development experiences and as such seem vital for Nigeria's future cluster strategy.

- ◆ *Collaborative structures and a PPP approach* to cluster development enhance confidence, trust and commitments in the programme among the various stakeholders.
- ◆ A facilitative role of *private-sector institutions* in cluster development and management ensure transparency and trust among key stakeholders in partnership engagements, especially where public-sector institutions are involved. It also offers a measure of confidence to international agencies, who may be willing to play an active role in the clusterisation process.

- ◆ A supportive *role of the government* (especially in the areas of legislative and regulatory involvement) strengthens the willingness of other stakeholders to participate.
- ◆ *Universities and research institutions* have a vital role in cluster building and small-business support, ensuring constant cluster and product upgrades as well as the application of research spin-offs. This includes enhanced technology diffusion and the local adaptation of imported technology.
- ◆ Cluster-development programmes have to be aligned to countries' *economic-development policy*. This ensures cluster-programme continuity and government's active participation in the institutionalisation of small business support.
- ◆ *SPVs* can play a critical role in the facilitation of effective partnership engagements. This also helps to ensure the independence of the cluster programme.
- ◆ An active role of *international development agencies* ensures that international best practices are upheld and that opportunities for international linkages for the clusters and individual firms are expanded.
- ◆ *Collaborative funding mechanisms* from cluster partners ensure programme continuity.

9.3.2 Nigerian cluster experiences

Based on the detailed analysis of Nigeria's clusters in Chapters 7 and 8, this sub-section first summarises the main characteristics of the current process and then draws conclusions about weaknesses and shortcomings of the Nigerian clusterisation process to date.

9.3.2.1 Key characteristics of Nigeria's clusterisation to date

- a) Nigeria's business clusters are mostly *location-based*, with a fair *regional spread* of clusters, latching on the local competitive advantages of the regions and places. Clusters are found in all six geopolitical zones of the country, with the most dominant and dynamic ones located in the southern regions.
- b) Nigeria's cluster pattern is largely *sector-based*, with the dominant sectors including woodwork and furniture-making, agro-processing, automobile and auto-parts manufacturing, leather and footwear production, tourism and film production. Naturally,

quite a number of the clusters are *raw-material-based* (linked to oil, gas and agricultural products).

- c) So far most of Nigeria's few hundred clusters are *informal*, with critical masses of small and micro-enterprises, but few, if any, larger formal businesses.
- d) The *size of the clusters* differs widely, ranging from just over 100 to 10 000 enterprises.
- e) A good number of the clusters have a *long history of evolution*, with a few earlier ones regarded as highly successful (as shown in Chapter 7). Such successes can be ascribed to strong PPPs, effective cluster management, the existence of some SPV or a strong commitment of key cluster partners.

9.3.2.2 *Factors limiting the Nigerian clusterisation process*

A number of factors can be viewed as weaknesses of Nigeria's current CDP and the existing clusterisation strategy. The following 10 points summarise the more detailed discussion in Chapters 7 and 8.

- A) There is *no clearly articulated* and formalised *cluster-development policy* in existence in Nigeria. This makes it extremely difficult to get government commitments for cluster programmes or assure programme continuity and consistency. There is also no overarching (national) institutional framework for cluster support.
- B) Cluster programmes are *not formally linked* or aligned to (national) *economic-development plans* or policy bundles. At present it is difficult to position cluster development within the overall economic-development plans of the country.
- C) Linked to the above two points, the *public sector's role* in cluster planning, development and management is viewed as *rather passive*. This is giving the impression of a lack of seriousness with regard to clusterisation as a tool for small-business development.
- D) Many *private-sector institutions*, which could be relevant for cluster evolution, are seen as *inactive or non-committal* in this sphere. In part this is viewed as a result of the lack of strong, visible commitment on the public sector's side and/or the absence of proactive PPPs.

- E) Most clusters *lack strong and effective institutional support* for the evolution and proper functioning of the cluster-development process.
- F) Most clusters *lack infrastructural support* in spheres like road networks, electricity supply, internet facilities and affordable workspaces.
- G) Most clusters suffer from *difficulties to mobilise finance* for business operations and expansions.
- H) In most clusters *inter-firm linkages* and networks and *inter-cluster linkages are still weak*, which makes it difficult to initiate joint action or support programmes.
- I) *Research bodies and universities are playing a limited role* in Nigeria's clusterisation process. As a result the level and pace of technology infusion and upgrading is still limited. This backlog can also be linked to poor funding, insufficient infrastructure facilities and low levels of international linkages and networks in most of the clusters.
- J) *The level and intensity of partnerships* between the different (potential) players in clusterisation processes is still very low. This also relates to insufficient efforts to capacitate effective partnerships.

Naturally, a concerted clusterisation strategy should be seen to tackle (or, at least, attempt to tackle) these constraints of past clusterisation efforts.

9.4 CRITICAL FACTORS IN CLUSTER-BUILDING PROCESSES

Having summarised the lessons from international best practice and Nigeria's clusterisation process, we can now deduce from the earlier chapters a number of critical success criteria, which should constitute the basis for a Nigerian cluster-development strategy. Thus, for the successful development of new clusters or the strengthening of existing clusters, certain pre-conditions have to be met. The following 10 sub-sections summarise these conditions for successful clusterisation.

9.4.1 Location with evolving significance

The "appropriateness" of the location around which a cluster develops, can easily be viewed as one of the most critical factors – certainly in the early stages of a cluster's development.

The location factor can be specific raw materials (minerals suitable for exploration), agricultural products grown in the area and suitable for expansion, tourism attractions or major transport interchanges (e.g. long-distance crossings, airports, harbours, rail-links). Famous examples are wine-industry centres (like Stellenbosch in South Africa's Western Cape), world-class tourism centres and dynamic mining or oil-extraction centres.

The location factor is not only critical for the start or initiation of a cluster, but often it has a major influence on its growth and diversification. Thus, it is important that cluster-support players fully understand the location-shaped growth and the diversification potential of evolving clusters.

9.4.2 Catalytic factors at the start of clusters

The initial trigger of a cluster and early catalytic factors in the growth of a cluster are also critical factors for the longer-run evolution and growth pace of a cluster. The initial trigger could be a very special event, product (e.g. a craft output) or sector-focused activity. The presence of a unique value chain could create scope for subcontracting and supply-chain services. These could be just locally focused or they could be linked to the involvement of large local or foreign firms coming into the area.

In the case of most informal clusters there is little if any significant supply-chain impact or foreign involvement – which significantly limits the growth potential of these clusters.

The engagement of large local or foreign firms within such clusters can also provide a boost for technology transfers to small firms and a strengthening of their learning process. It may even result in foreign technology-intensive firms establishing an international branch in the local cluster, thus further facilitating technology diffusion.

9.4.3 Government support and direction

Although government is usually not the prime mover or key facilitator of cluster activities in the early phase, its role in regulatory direction and focused support is critical and virtually indispensable for the growth, competitiveness and sustainability of clusters. Portal (1998) believes that government support needed for clusters to succeed has to be strong, deliberate and systematic. This could be through, for example, integrating cluster processes into the national economic development plan (as shown in Japan, Italy, Hungary and Brazil). It could also be through the public sector (co-)funding critical development aspects of the process.

9.4.4 Infrastructure upgrading

Since infrastructure deficiencies are key obstacles in the evolution and strengthening of clusters, concrete efforts to upgrade or diversify infrastructure facilities and/or fill critical gaps should be viewed as central to any clusterisation strategy. Naturally, this calls for focused action by the different public-sector levels, but also private-sector players and even international aid agencies.

Evidence of the significance of this support is shown in the CDPs of Japan, India and Italy, where governments' deliberate plans and funding to develop key infrastructure facilities and upgrade existing ones enabled a faster evolution of the successful clusters.

9.4.5 Close interaction and interdependency of a critical mass of firms

The interdependence of firms in a cluster, leading to complex levels of co-operation and collaboration among the firms, is also a critical success factor. As the DTI (1998: 22) puts it, a cluster should be a “concentration of competing, collaborating and interdependent companies and institutions, which are connected by a system of market and non-market links”. This helps to spread innovations in the value chains and strengthens competitiveness and growth.

In this context, a critical mass of firms in related fields or (sub)sectors is vital to enhance the capacity to take joint action in the cluster and to achieve economies of scale in the handling of growth challenges.

To further stimulate and strengthen the learning process and the knowledge transfer to small enterprises in clusters, it is important that a mixed blend of SMEs and larger enterprises (including corporations) operate side-by-side in the cluster (Xin-ann 2010, Keeble and Wilkinson 1998, Boari 2001). Small firms will then network with the larger enterprises, which leads to increased knowledge transfer and the exploitation of research spin-offs. Large firms could then also be motivated to situate their research and development activities within the cluster and to try out the commercialisation of their research spin-offs in the local environment. In this context Figure 9.1 shows the results of a recent survey of the different reasons why large firms participate in clusters in some US states. For the purpose of this study the diversity of reasons is quite striking.

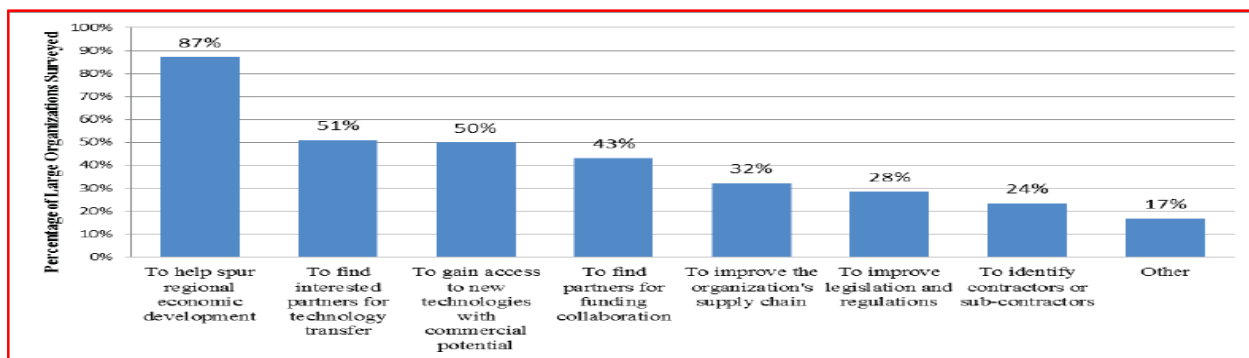


Figure 9.1

Reasons why large firms participate in a cluster

SOURCE: Guererro (2013)

The weakness of informal clusters can be directly linked to this need for a fair size spread of firms in dynamic clusters. Yet it also suggests that informal clusters may over time – given the impact of appropriate support interventions – succeed to attract a wider range of firms and thereafter pick up growth momentum.

9.4.6 Private-sector proactiveness in the clustering process

The critical role of the different levels of government and related public-sector institutions in the development of clusters has already been stressed (see 9.4.3 above). At the same time, globally successful clustering includes many cases where private-sector leadership and development engagement was the single most important factor for the success.

The Italian *Industrial-District* concept is a typical example of strong private-sector leadership within PPPs. The challenge here is that, notwithstanding such private-sector leadership, the public sector has still to provide its supportive role with respect to (i.a.) the macro-economic environment and regulatory frameworks. In fact, Porter (1998) stresses that government may often have to play the role of initiator, broker or facilitator in PPP efforts in the CDP, even though the private sector becomes the dominant partner.

At the level of local-government engagement in cluster development and cluster support, the managerial and financial weakness of local authorities in most African countries constitutes another significant challenge. Once again, this implies that much depends on private-sector support for such local authorities. Similarly, co-operation from regional and national authorities for such weak municipalities is often vital but may have to be triggered via private-sector initiatives.

Still within the context of the private sector business and sector associations should be highlighted as (potentially) important facilitators of the clustering process. This relates in particular to the fact that small and micro-enterprises have a limited capacity to interact with decision-makers and development actors at local, regional and national levels.

9.4.7 Education, training, research and media inputs

The country reviews as well as the Nigeria cluster reviews have stressed the important role of education and training bodies and research institutions in the spread and deepening of CDPs. This applies to cluster developments within specific places or regions and to linkages between clusters, both locally and internationally.

The active role of the local media (newspapers, radio, TV and ICT processes) and their interaction with international media should also be stressed here. Awareness with regard to clusterisation processes as well as related challenges and opportunities needs to be spread, and realistic pictures of ongoing processes (successes as well as failures and their lessons) need to be communicated. Here again, business associations, educational institutions, relevant public-sector bodies and the media should play significant proactive roles.

9.4.8 Complementary roles of cluster players

The country cases and the analysis of Nigeria's cluster experience (in Chapter 8) revealed a range of cluster players as well as a whole range of support activities to be fulfilled by these players. For the planning of effective cluster support, it seems important that there is clear awareness about the different roles, which they might be expected to play. The list below provides a summary of the potential cluster players, distinguishing between four broad categories. Table 9.3 shows the different areas where these players are able, expected or likely to contribute in a cluster-support process. These areas evolved out of our discussion of cluster-support processes and the need for support.

The main body of Table 9.3 gives an indication of the cluster-support matrix, viz. how different support players are engaged in different support areas. The matrix should be viewed as tentative in as far as the actual roles and proactiveness of the different player categories will differ from cluster to cluster. As shown in the international review, they also differ between cluster patterns in different countries. As such, the table should in the first place make us aware of the opportunities and likely differences in the supportive roles.

I Public-sector bodies

- 1 Central-government ministries (e.g. Federal Ministry of Commerce and Industry)
- 2 State-government ministries (e.g. ministries responsible for economic planning)
- 3 Public financial institutions (e.g. Bank of Industry)
- 4 Small-business-support agencies (e.g. Smedan) for both federal government and states
- 5 Other public agencies (e.g. local governments and related agencies)

II Private-sector institutions

- 6 Private financial institutions (including banks and private equity or venture-capital suppliers)
- 7 Private support-service suppliers
- 8 Business consultants
- 9 Large enterprises in the cluster (local- or foreign-rooted)

III Business organisations

- 10 Local/regional business chambers
- 11 Sector or trade associations
- 12 Local business groups

IV Other support institutions

- 13 Research centres, universities, business-training bodies
- 14 Local NGOs
- 15 International agencies

To conclude this subsection, we can mention a few examples of support players and their engagement, which seem particularly relevant for Nigeria's future strategy.

◆ *Organised private-sector institutions*

Local business chambers and trade associations can play a key role in the facilitation of internal and external business linkages, in small-business advocacy, capacity building, the facilitation of access to small-business support and in facilitating linkages with local and international financial institutions.

Table 9.3
Diversity of cluster players and their roles

Support action	Support suppliers	I Public-sector bodies				II Private-sector institutions				III Business organisations			IV Other support bodies		
		Government	Financial institutions	SME agencies	Other	Financial institutions	Support services	Consultants	Large enterprises	Chambers	Trade associations	Local groups	Universities	NGOs	International agencies
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	Policy formulation	✓					✓								
B	Facilitating enabling regulatory/legislative environment	✓													
C	Facilitating external linkages	✓		✓	✓		✓	✓	✓	✓	✓			✓	
D	Policy advocacy			✓	✓		✓			✓		✓		✓	
E	Infrastructure provisions	✓	✓		✓										
F	Facilitating access to finance	✓	✓	✓	✓								✓	✓	
G	Capacity-building and training			✓		✓	✓		✓			✓	✓	✓	
H	Facilitating access to business-support services			✓		✓	✓		✓	✓	✓	✓	✓	✓	
I	Facilitating business networking							✓	✓	✓	✓				
J	Research activities							✓				✓		✓	
K	Research spin-off and commercialisation						✓					✓		✓	
L	Cluster administration	✓					✓						✓		
M	Technology diffusion/transfer							✓				✓			

SOURCE: Deduced from the material covered in chapter 8

- ◆ *Universities and public research institutions*

These are expected to play key roles in research activities, capacity building and training, small-business-policy advocacy and the commercialisation of research outputs.

- ◆ *International agencies and NGOs*

They could be most useful in facilitating access to international finance and expertise as well as experience about cluster-development strategising. This could help establish direct linkages with foreign institutions, which could provide finance, technology and related support services.

- ◆ *Private-sector institutions or enterprises*

These should play a most critical role in any cluster process. Their roles include the supply of business finance, infrastructure facilities, business advisory, consultation and training services as well as steps to strengthen local supply chains.

- ◆ *Public-sector institutions*

They should play a central role in the support or facilitation of individual clusterisation processes, including relevant institutions or sections of the three levels of government as well as public-sector agencies (like Smedan and the Bank of Industries in Nigeria). Table 9.4 gives an indication of the scope to strengthen the role of these public-sector institutions.

9.4.9 Proactive public-private partnerships

In most of the clusters studied, especially the foreign clusters, proactive partnership relations between cluster players fulfilled a central role in small-business-development initiatives and the general development of the clusters. The clearest example of such partnership is the Triple Helix cluster where the core collaborative platform is between government, industry and universities. The need for such proactive partnerships can be linked to the following typical challenges of the clusterisation process.

- ◆ Weaknesses of individual public-sector institutions in their efforts to facilitate clusters.
- ◆ Lack of interest from the private sector in small-business and cluster-development initiatives, in particular when they distrust public-sector efforts or motivations.

Table 9.4
Strengthening the role of federal, state and local governments
in the cluster-development process

◇ Nigeria has a federal system of government with a three-tier government structure, including central, state and local government levels.
◇ Each tier of government can set up its own cluster-development plan through its ministry or agency responsible for small-business development and economic planning, using strategy guidelines from this study.
◇ The federal government might set up a central cluster-development agency at the federal level to co-ordinate cluster activities in the country. Such a central agency should play a co-ordinating, advisory and consultative role to the three levels of government.
◇ A cluster-development fund could be established at the central level to assist the federal-, state- and local-government agencies in their efforts to help build clusters.
◇ There should be a collaborative network among the three tiers of government which effectively engages the private sector in PPP interactions. The collaboration could be through
❖ information gathering and dissemination
❖ financial guarantees (by the federal government to the private sector to boost their trust and confidence in PPP engagements)
❖ training and capacity building for cluster officials at various levels of government
❖ fostering networks and linkages of clusters to international clusters in the areas of marketing, cluster visibility and technology infusion

- ◆ Inability or unwillingness of public-sector bodies to shoulder the financial and other resource burdens involved in setting up and managing small-business clusters.
- ◆ The need to engage a wider range of players in an active CDP.
- ◆ The negative effect of co-ordination failures and a loss of momentum in the clusterisation process.
- ◆ The need to evolve all-inclusive support structures for the cluster/s.

Our reviews of country experiences have shown that clusters, where proactive partnership engagements exist and where they are promoted, outperform those without such engagement. We can briefly refer again to some of those country lessons.

- ◆ The *Italian Industrial Districts* have their strategy rooted in the partnership dynamics of key actors in the small-business-development process. The collaborative platform

extends to include LED operators, which link the cluster to the grassroots development of the region and the local economy. No single stakeholder in the overall process has the capacity to mobilise all the relevant factors alone.

- ◆ The *Hungarian Pole Programme* engaged the Triple Helix concept, with its strong emphasis on networking and co-operation among key actors leading to the integration of research, innovativeness and development. Core funding came from government, but municipalities also played leading roles.
- ◆ In *Japan's Technopolis Programme* large corporates, universities and government agencies were also in active partnership relations.
- ◆ In *Indonesia*, universities were particularly active in establishing technology-development centres in certain clusters, stressing technology infusion in the operation of small businesses. There was also strong evidence of the active role of other players, like venture capitalists and commercial banks as well as providers of business-development services.
- ◆ In *India*, the lack of such effective collaboration and interaction resulted in the establishment of an SPV to manage clusters independently. This was facilitated by the support obtained from Unido, which played an active role in Indian clusterisation efforts.

In the Nigerian cases discussed in Chapter 8, the absence of strong and proactive partnerships explains the lack of development momentum of many of the existing clusters. Most individual players in existing clusters play a unilateral role without any significant partnership push. For example, players from institutions such as banks operating in those clusters, are merely driven by the strategic objectives of their organisation rather than collective objectives of PPP engagements.

We can distinguish here between a *formalised partnership approach* and an *informal partnership* existing in clusters. An informal partnership has no systematic and co-ordinated approach to partnership engagement among the various players in the clusters. The players are not in any agreement to co-operate with each other in a formalised interactive engagement while contributing to the clusters. On the other hand, a formalised interactive partnership is a system of institutionalised partnership engagement with a Memorandum of

Understanding (MoU) among players. Ideally, such MoUs guide the participation of individual players with respect to their assigned roles and responsibilities.

Informal partnerships, which are prevalent in most of the clusters in Nigeria, have failed to galvanise the clusters to growth and inhibited the competitiveness of the small businesses operating in those clusters. A notable exception is the Oko-Ob Abattoir Cluster, located in Agege/Lagos, where a collaborate PPP evolved, which resulted in the effective management of the cluster. The State Ministry of Agriculture provided regulatory controls, while the cluster management was undertaken by a private company, Harmony Investment Ltd.

Thus, to conclude, one of the most critical preconditions for effect clusterisation in Nigeria is a systematic framework of collaborative partnerships, similar to what can be seen in other parts of the world.

9.4.10 Process facilitation through a special purpose vehicle/entity

From the review of the cluster cases globally and in Nigeria, we know that clusters can be large, with the range of enterprises and cluster-development programmes often complex. Since neither the government nor any other player should be the ultimate “owner” or “director” of the partnership process, the need for some type of facilitating institution seems logical. Thus, in partnership-driven cluster-development programmes an independent entity is often engaged to manage the interaction of the various participating players in the process.

Such facilitating body may be viewed as an SPV, i.e. a legal entity or joint venture created by the cluster players to fulfil that co-ordinating role. In reviewing SPVs, Gorton and Souleles (2007 550) stressed the following characteristics of SPVs, which seem relevant for the CDP.

- ◆ It should be a corporate body or association registered under the Companies Act with the directors or trustees consisting of the members of the partnership programme.
- ◆ It should act as the primary cluster-programme facilitator, leaving full scope for all other partners to play their role.

- ◆ The partnership deed or scheme of operation, which spells out the mode of operations, should cover the SPV, which may eventually take charge of co-ordinating the cluster process.
- ◆ The management of the cluster by the SPV should be based on collective and democratic decision-making, with close links to the relevant local municipality.
- ◆ There should be full accountability of all SPV funding and close contact with funding institutions.
- ◆ As far as practically possible, there should be equitable participation and sharing of benefits, responsibilities and risks among the participating partners.
- ◆ Assets held by the SPV should be serviced via servicing arrangements.

Naturally, the size, composition and functioning dynamics of SPVs involved in different (larger or smaller) clusters will vary. Yet, the need for some facilitating body should be accepted as vital for effective clusterisation processes.

9.4.11 Conclusion

The ten critical factors summarised here are based on lessons learned globally and from clusterisation in Nigeria. As such, they should be viewed as lessons or essential guidelines for concerted CDEs in Nigeria. It is on the basis of these lessons that the next two sections bring together the framework of a cluster-development strategy, which could be applied to new or evolving clusters in Nigeria, if the pace and spread of cluster development is to be accelerated.

9.5 KEY STEPS IN AN INTEGRATED CLUSTER STRATEGY

Having reviewed the lessons from clustering experiences internationally and in Nigeria, and having looked at critical factors required in cluster-building processes, we now look at key steps in the creation and evolution of successful clusters, i.e. the elements of a cluster-development strategy.

At this stage, Nigeria does not have a formalised, focused strategy for small-business clustering and cluster development. Thus, we are looking for a “roadmap” leading to the creation, development or strengthening of existing and new SME clusters.

Such a roadmap should include three dimensions, as explained by Europa Innova (2008: 5).

◆ *A statement of general policy*

A cluster-policy document (which could be a White Paper) should spell out government’s strategic intentions as well as policy objectives. It should explain why such action is needed, is important and warrants national commitment. It should refer to both existing and new clusters.

◆ *Specific programmes within the strategy*

Government should have (or needs to design) specific programmes that help to achieve the goals set within the strategy. This includes the planning of cluster-development programmes and the mobilisation of financial, human and institutional resources to implement appropriate programmes.

◆ *Implementing agencies*

This dimension focuses on the actual implementation of the strategy through the different policies, the players in the process and relevant institutions. The latter could be very specific to the strategy (i.e. SPVs), or they could be NGOs or other (existing) bodies, which can be engaged to help with the implementation of the strategy.

The strategy should not be limited to the national-government level, but has to be driven from the three levels of government as well as the private sector – in line with the principles of PPPs.

In efforts to implement such a strategy systematically, we can distinguish six critical steps, each of which will have to be adapted to local circumstances and the interaction of cluster players.

9.5.1 Awareness creation and sensitisation

Creating public awareness about the role and purpose of the clusterisation process and its expected unfolding is a critical step in the strategy. This relates to the broader process of

clusterisation in the country and more specifically to actual or potential clusters at local level. It also relates the various stakeholder groups, whose buy-in is vital for the success of the process.

The awareness-creation process will have to include the government publishing the agenda of its small-business-development policy, with policy statements of relevant officials from the three levels of government adding further emphasis. On a broader level, periodic bulletins and interactive sessions with NGOs and private-sector institutions (like business chambers) can further strengthen the impact and encourage other stakeholders to join the initiative.

In this process the media and their coverage of this strategy and its unfolding should be viewed as critical, especially in the early phases of clustering initiatives.

9.5.2 Identification and engagement of relevant cluster players

The proactive engagement of organisations, stakeholders or players, which are important for the unfolding of the strategy, is a second vital step in the clusterisation strategy. Some may come forward on their own initiative, while others may have to be drawn into the process. Aside from the classical Triple Helix actors (government, industry and higher-education facilities), other key players include international agencies, business organisations, business-service providers and sector leaders. Through their engagement at an early stage, they may be able to give direction to the process and its institutional structure and may help to speed up developments.

Given the complexity of Nigeria's society and regional development patterns, it is crucial that in the different areas local stakeholder groups adequately represent the (local) business community – also incorporating, for example, traditional crafts and agro-sectors as well as informal business communities. It will be necessary to formally acknowledge the different groups or players in official cluster documents and give some indication of their expected roles. For example, it seems important in this process to clarify relations between informal traders or crafters and large retail groups or manufacturers of related products. This should help to turn potential animosities into co-operative relations.

9.5.3 Articulation of needs, priorities and interventions

Earlier chapters have looked at the range of problems experienced by small enterprises and at factors which determine the success of clusters. A cluster strategy has to be based on a detailed assessment of the problems effecting firms in each cluster. These needs, though unique in their detail and dynamism, are likely to include the following aspects.

- ◆ Access to finance for local enterprises
- ◆ Access to business and cluster-support services
- ◆ Networking and linkages between firms in the cluster
- ◆ Technology infusion
- ◆ Infrastructure expansion
- ◆ Business-related research
- ◆ Capacity-building among the cluster players

Again, there are many very specific problems or challenges, which shape the success of individual clusters. The overall strategy cannot present solutions to all of these, it can only help to create structures, which facilitate the solving of local challenges. The same applies to the prioritisation of local interventions and initiatives.

In this process of identifying needs and planning interventions to address these needs, the establishment of an SPV can be seen as one of the key tasks.

9.5.4 Determining cluster life cycles

Experience has shown that clusters usually evolve through long-term life cycles, which include distinct phases: pre-start-up, start-up, acceleration and consolidation, followed by stagnation or contraction, unless a new growth phase takes place. These life cycles apply to individual clusters, but they may also relate to several clusters in a region or clusters related to particular economic sectors.

For the effective support of CDPs, i.e. the unfolding of the strategy in specific locations, it is important for the key players to understand the dynamics of the local cluster/s. This should determine the level and scope of interventions needed by the players in the partnership. This

could be as wide as developing an entirely new cluster, or it could be as limited as addressing relevant needs in a specific development phase of an existing cluster.

9.5.5 Formalising the cluster-support process

Although many clusters evolve gradually and without strong organisational structures, it may be useful for effectively steered clustering processes to have a systematic framework for the evolution of the process.

Table 9.5 presents key steps within a systematically planned and controlled cluster-building process. Naturally, these steps have to be adjusted for each cluster project and particular local circumstances. Aside from this, the evolution of the process creates its own momentum and challenges, which will have to be tackled within the evolving framework.

9.5.6 Unfolding of the PPP process

Our discussion of the CDP has stressed the need for interaction between the different public- and private-sector players or stakeholders in the process, with the emphasis increasingly on PPPs. The interactions and the unfolding of these partnerships have to be adapted to the particular policies or programmes tackled, and to the dynamics of each cluster.

Thus, efforts and approaches with respect to (e.g.) the filling of infrastructure gaps will have to be tackled quite differently from efforts with respect to the mobilisation of small-business finance or the attraction of foreign investors.

Experience has shown that appropriate strategies are a function of factors like the current state of development of small enterprises in the area, the existing state of the cluster and the level of economic development and political stability of the country or region. Yet, irrespective of these and related differentialising factors, certain basic behaviour patterns stand out as preconditions for the successful unfolding of partnerships. The following seem to be particularly important (Bioalliance 2012).

Table 9.5
Steps in systematic cluster-building processes

1	Evolution of the lead champion or cluster facilitator * could be the government, a consulting firm or local business chamber
2	Sensitisation of the perceived stakeholders/players * through presentations, outreaches, informal discussions etc.
3	Obtaining buy-in from stakeholders/players
4	First/initial meeting/s of the stakeholders/players * often convened by the lead champion
5	Extraction of a MoU from key players to pursue the process
6	Diagnostic study of the proposed process * a consultant may be appointed for this task, which should include a life-cycle plan for the cluster
7	Agreeing about basic goals and objectives for a partnership approach to the cluster development
8	Setting up steering committees to work out modalities for various component parts of the process * sub-committees could be set up on some of the following core areas <ul style="list-style-type: none"> → Funding of support action → Information dissemination → Cluster management → Partnership governance → Cluster scope → Development strategy for the area → Training for enterprise development
9	Determination of the working of the PPP: who plays what role?
10	Crafting strategy documents based on the agreed points
11	Sign-off by key stakeholders/players in the partnership
12	Setting project timelines
13	Project execution /implementation
14	Periodic project evaluations

SOURCE: Own composition

The cluster development must be seen as a long-term process, with effective long-term commitments from government and business leaders.

- ◆ There must be bi-partisan support of cluster champions.
- ◆ Where needed, independent organisations must be involved and supported.
- ◆ There should be continuous re-assessment of the development process through the lifespan of the cluster, with emphasis on innovativeness and flexibility.
- ◆ There has to be broad understanding of the returns on stakeholder investments.
- ◆ Funding of cluster-development activities has to be sustainable.
- ◆ Accountability and trust of the cluster players is critical.
- ◆ Process goals and performance targets have to be set and reviewed regularly.

In addition to these conditions for successful cluster evolution, effective leadership is a further critical factor during the process. There is need for greater responsibility among all key players (public-sector institutions, private bodies, NGOs, etc.) if the process is to unfold more effectively than in the past. In creating workable cluster policies, serious attention has to be given to enabling factors to increase commitments to the process. Similarly, there is need for a meeting of the minds of all key players around the central objective of cluster development. In this context, the relative roles of the public and private sectors in the leadership of the CDP will have to evolve in each case. In addition, the process facilitator (the SPV) should play a central role through its interaction with the different players and in efforts to develop capacities for stronger partnerships.

9.6 SUMMARISING THE MODEL

In the light of the discussion of key elements of the CDP in the previous sub-sections, we conclude this chapter with two integrating steps.

- ◆ Presenting a summary of the development of a standard cluster, i.e. the essence of the cluster-development model (in this sub-section).
- ◆ Summarising key steps in the strengthening of Nigeria's cluster-development process (in section 9.7).

In earlier chapters we have shown and stressed the diversity of clusters and CDPs. The preconditions for cluster development in villages, towns or cities with different locations, resource endowments, settlement patterns and community structures differ widely, which creates differing cluster-evolution processes. Notwithstanding these differences, we can identify an underlying process as the essence of the model. Figure 9.2 presents four steps as the basis of the model.

- ◆ SME-constraint factors (and current cluster challenges) which have to be addressed in order to stimulate and expand SME growth, employment and LED [A].
- ◆ interaction of the different players or partners in the process of cluster formation and growth, facilitated by the SPV [B].
- ◆ impact of these interactions of cluster-development players upon the business-development process, which includes larger, small, informal and micro-enterprises [C].
- ◆ the beneficial outcomes of the CDP, which includes a positive impact on local small enterprises as well as broader local economic development (like job-creation and accelerated LED) [D].

We can briefly comment on each of the steps summarised in sections A to D of Figure 9.2.

◆ *SME-constraint factors* [A]

Earlier chapters have outlined and discussed the constraint factors limiting the growth and diversification of small enterprises (and dampening overall economic growth and job creation). Circumstances differ between countries and in the different regions and centres within countries, which calls for diverse approaches to these SME constraints. In the context of local CDP, these differences have resulted in a wide range of cluster types and cluster-development patterns, which we have reviewed in earlier chapters. Thus, one of the challenges for Nigeria's cluster-development strategy is to recognise the most appropriate cluster type for each location, and to assure that the cluster-support process is adjusted to that desirable pattern.

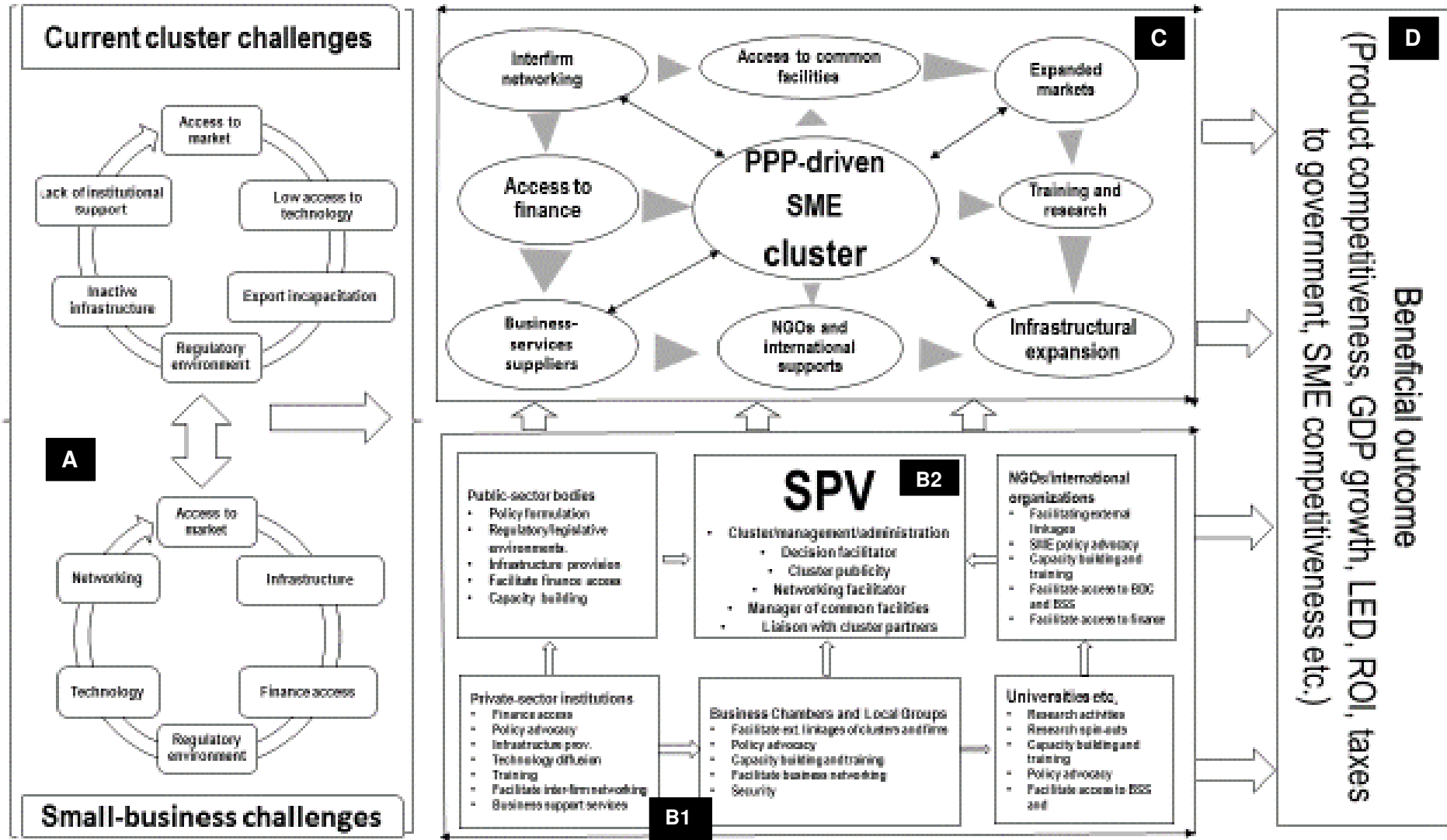


Figure 9.2
Elements of the cluster process

◆ *Public-private partnership interactions [B 1]*

As we showed in Chapter 3 and in the review of clustering processes internationally and in Nigeria, the dynamics of these processes is determined by the interaction of the different players. Section B 1 of the model shows the different player or stakeholder groups that should be interactive in that process.

The model shows five groups, with each group including a range of stakeholder sub-groups. For example, group 3 under B 1 (local chambers etc.) includes different business, trade or sector associations or chambers, which are relevant in the CDP. They may already exist (for example, mining chambers in mining centres) or there may be a potential and need for their creation.

In the dynamics of the CDPs, the players in these different groups (should) interact with each other to address development challenges, plan joint action or join forces in interactions with other groups. A dynamic cluster-development process would imply very complex processes of interaction between these stakeholders.

It is in this context, that experience from successful cluster developments has shown the importance of PPPs in those interactions. Problems should be tackled in a co-operative rather than confrontational way.

The literature on clustering and experience from developed countries have put particular emphasis on the Triple Helix model of close interaction and co-operation between government, the corporate business sector as well as higher-education and research centres. Yet, in the diversity of national economies, other combinations of close cluster partners may also be successful.

Here again, it is important to bear in mind the diversity of small-enterprise structures and sub-sector dynamics found in (the different regions of) a country. As shown in the Nigerian cases in Chapters 7 and 8, there are interesting examples of dynamic SME groups and their roles in CDPs. Learning from these examples is critical for efforts to accelerate cluster development.

◆ *Special-purpose vehicles [B 2]*

As explained in earlier chapters, proactive CDPs are often facilitated by specific bodies, institutions or processes, which help to get the cluster partners into effective co-

operation, or which try to tackle bottlenecks in the process. Such SPVs could be limited in their role or they could be functioning as cluster manager.

In Figure 9.2, a number of such functions are listed, with the cases in Chapters 4, 5 and 7 having supplied examples of their role. From these examples it is clear that for an acceleration of the CDP in Nigeria, the development of effective SPVs will be critical.

◆ *Dynamics of the business clustering [C]*

This is the most important step in the clustering process. Through the interaction of the different stakeholder groups and their impact on the local business scene – where informal, small, larger and micro-enterprises are operating – many of these SME-development constraints can be addressed. This applies, for example, to the greater diversification of financial institutions and their offers of funding for businesses. It also applies to the expansion of business-development services, which demand certain economies of scale to operate in a feasible way.

Segment C of Figure 9.2 lists eight impact dimensions, which together address most of the constraints usually experienced by SMEs. Not all of these will be covered sufficiently in clusterisation processes, but as the cluster grows, it will become easier to tackle the constraints. Naturally, much will again depend on the effectiveness of the relevant SPV and the CDP itself (i.e. the roles played by the different players and their interactions).

◆ *Overall beneficial outcomes [D]*

Successful cluster growth and diversification is bound to lead to growth in the GDP, increased employment, a boost to exports, higher SME competitiveness, increased government tax revenue, accelerated local research activities and, most likely, more diversified and dynamic community development. Most important, the cluster stakeholders should feel that their investment into the CDP has resulted in positive returns.

Once again, these overall outcomes will differ radically between small rural clusters, clusters in small to medium-sized urban settlements and those in larger towns.

As indicated at the start of this sub-section, this model focuses on individual clusters, bearing in mind that in Nigeria about 250 clusters can be identified at this stage, but many more are needed in order to accelerate the economic-development process and create more jobs.

In the case of a cluster in a specific location, all attention has to concentrate on that project and how the CDP can be accelerated, diversified and made sustainable. In the next sub-section we look at the whole process of cluster development in a region, state or Nigeria as a country. In particular we look at ways to assist local efforts to develop clusters and to address weaknesses in individual clustering processes.

9.7 STRENGTHENING THE BROADER CLUSTERISATION PROCESS

In the context of this study the challenge for Nigeria is the increase in the range and actual number of business clusters in the different areas of the country and the rapid growth as well as structural development of these clusters, so that they can have a significant and lasting positive effect on the (small-)business-development scene across the country.

In the last sub-section we presented a model or standard approach for the facilitation of individual clusters. Following that, we now have to look at factors or action areas that need to be addressed in order to strengthen and broaden the whole process of starting, developing and multiplying these clusters. Many of the relevant steps have been touched upon in the country reviews and the two chapters on Nigeria's existing clusters. It is not a function of this study to design or draft a formal cluster-development strategy or programme for either the federal authority or individual states of Nigeria. Our objective is to highlight critical factors or action fields that have to be addressed if the clusterisation process is to be accelerated and spread wider across the country.

Such a broad approach also has to help identify more cities, towns and other settlements where the potential for a cluster exists or could be created. It also needs to identify action that helps streamline the process of getting key cluster projects identified, followed by the actual support processes evolving along the lines summarised in the last sub-section.

A holistic approach towards this task distinguishes six dimensions.

- a) Publicising progress to date and opportunities ahead.
- b) Strengthening public-sector commitment to clusterisation.
- c) Strengthening private-sector commitment to clusterisation.
- d) Utilising foreign experience and support for the process.
- e) Developing strong PPP relations.

f) Tackling critical cluster-development issues.

Each of these challenges will be reviewed very briefly, giving some indication of the process that might ideally evolve.

9.7.1 Awareness-creation and goal setting

Cluster-development experts in Nigeria and international observers have suggested that local awareness with regard to the importance of the clusterisation process for Nigeria's economic development and about the actual pattern of existing and potential cluster developments is rather limited. This applies as much to public servants at the different levels of government as it applies to private-sector leaders and the media. Yet, such awareness and clear perceptions with regard to the ongoing process could be viewed as a vital factor in any broader-based efforts to accelerate the process.

Efforts in this field should come from the media, research and training bodies, business associations and the relevant sections of public-sector bodies. We can briefly list some of the desirable outputs of such efforts.

- ◆ Creating and making available *detailed databases* (i.e. statistics) of existing business clusters in Nigeria, with some indication of the respective location, size, structure, age, growth rate and special features of each cluster. Naturally, such a database would have to be regularly updated and should be made available across the country.
- ◆ Profiling *particularly successful or dynamic clusters* in rural, small town, city and metropolitan areas and spreading that information to help orientate the business public with regard to the clusterisation process in Nigeria and what it might mean for them.
- ◆ Producing regular features and profiles about *new (evolving) clusters* to show what can/does happen and what stakeholders in other places could learn from these processes.
- ◆ Reviewing *cluster-support policies* implemented by different public-sector authorities with some indication (or encouraged public debate) about the relative effectiveness of such policies. This, again, should motivate local authorities in places failing with clusters to reconsider their efforts.

- ◆ Profiling important lessons from other countries and spreading case studies of successful cluster developments in *countries comparable to Nigeria*.
- ◆ Encouraging *public debate with regard to prospective clusters* (at national, regional and local levels) and how their development could be accelerated, strengthened or given a particular stance. This will create competition between places, which should be productive if steered by national and regional goals. It could also help in the setting of more specific spatial, sectoral and other targets for regional and national cluster strategies.
- ◆ Revealing the positive role that *large corporations* are playing in evolving clusters, as a way to motivate other private-sector players towards that type of engagement.
- ◆ Actively debating alternative ways to generate supplementary finance for the activities needed to accelerate cluster developments.

If we bear in mind that Nigeria needs several hundred dynamic clusters in order to create an economic growth base for its large and rapidly expanding population, it should be clear that these tasks are necessary and deserve serious attention.

9.7.2 Strengthening public-sector commitment to clusterisation

The important role that the different levels of government can and should play in cluster-development efforts, has been explained in several sections of this study. Here we merely stress a few steps that might help with that process or assure greater effectiveness in their efforts.

- ◆ The cluster-development strategy of the government needs to be closely *linked to the national economic-development strategy or plan* of Nigeria. As indicated in Chapter 4, such linkage has helped other countries to strengthen commitments for cluster developments.
- ◆ Political leaders active in the economic-development sphere need to fully understand and embrace the significance of cluster development for local and regional development. This is particularly important at the municipal and sub-regional levels of government.

- ◆ Consideration should be given to the promulgation of a *legislative framework for state-supported cluster developments*. This might help to mobilise state funds for supportive action in this field (e.g. the co-funding of SPVs). Such legislation may also help to clarify roles and responsibilities of federal, state and municipal authorities as well as SPVs in this field.
- ◆ As far as practically possible, central government (in co-operation with the other two levels) should *identify time plans for new clusters* spread around the country. Furthermore, they should regularly (and publicly) monitor progress showing how these efforts link up with regional, local and sectoral economic development plans.
- ◆ Public authorities should *encourage public debates* about the potential of different places for specific cluster developments and how such potential could be activated through PPPs.
- ◆ The capacity of *local authorities* to play a proactive role in local cluster development needs to be strengthened through support from private-sector players, NGOs and foreign partners.

9.7.3 Strengthening private-sector commitment to clusterisation

Private-sector commitment to clusterisation has been shown to be crucial for successful cluster development, but has generally been relatively low in Nigeria. It evolves through the interaction of different players and processes with the following particularly important.

- ◆ Supportive roles of *business and sector associations*, whose leaders understand the dynamics of clusterisation.
- ◆ More focused *leadership* roles and contributions of *larger enterprises* which often dominate local development processes in urban areas (e.g. motor-assembly plants or shipping companies).
- ◆ *Supply-chain leaders* in local economies.
- ◆ *Local media*, which focus on the day-to-day dynamics of local business-development and the unfolding of the SME sector.
- ◆ *Leading business personalities*, interacting with local or regional political and business association leaders as well as the media.

- ◆ Local *higher-education and research institutions*, which provide training in local- and sector-development dynamics and may research the local scene of relevant sectors.
- ◆ Grassroots leaders in the *informal business sector*, who have to be accommodated in the emerging clusters.

9.7.4 Utilising foreign experience and support

In earlier chapters we have referred to (i.a.) the role of Unido and US-Aid as international bodies, which played a significant role in cluster-development efforts and planning in Africa. A number of more specific roles can be distinguished with respect to foreign support and interaction.

- ◆ Assist local public- and private-sector leaders in their learning about global clusterisation trends and challenges.
- ◆ Help local cluster players to articulate a national cluster strategy.
- ◆ Financially assist pilot projects or programmes in Nigeria.
- ◆ Help to establish contacts between Nigerian and international business leaders who could help in the CDP (e.g. liaison between business chambers).
- ◆ Encourage foreign corporate investors to respond to cluster opportunities in Nigeria.

It will, in the first place, be up to the national government to create or strengthen such foreign contacts. Yet, the proactive role of *local* business leaders, business associations, university academics and media representatives should not be underestimated. For example, it should not be too difficult to arrange annual “cluster-progress conferences” in Nigeria, with key persons from the international scene also attending, and with relevant contacts being strengthened or expanded.

9.7.5 Tackling critical cluster-development issues

In the model of individual clusters (in Chapter 3), we have identified a number of typical problems or challenges, which have to be tackled by the cluster players. Although each cluster evolves in a somewhat different way, most of the key problems apply to the majority of clusters. Thus, in the broader cluster-development strategy steps should be taken to help address these common problems. This applies in particular to the following issues.

- ◆ Identifying the *most appropriate (sub-)sectors* as basis for local cluster developments.
- ◆ *Training cluster stakeholders* and (sub-)sector leaders in development-support skills.
- ◆ Helping to *mobilise finance* for different public-sector interventions and for needs that should be privately funded. This calls for creative ways of mobilising development-finance sources from the public *and* the private sector as well as from joint funding sources.
- ◆ Addressing *infrastructure backlogs* and needs, which may be critical for the growth or unfolding of clusters (e.g. harbour and other transport facilities as well as reliable power supply).
- ◆ Facilitating the development of *local business incubators* as significant catalytic steps in local cluster developments.
- ◆ Countering or *curtailing corruptive practices and schemes* in the CDP, where these can drain valuable public resources or obstruct the effective evolution of projects.
- ◆ Facilitating the creation of effective SPVs for local clusters.

9.7.6 Developing strong public-private-partnership relations

To conclude this section about ways to strengthen Nigeria's cluster-development process we come to what is in many ways the central message of this study. Proactive and multi-dimensional partnerships are central to effective clusterisation processes.

As we have shown in Chapter 8 many of the potential players in clusterisation processes are either poorly committed or incapable to support effectively the CDP. It is here where other players may (or should) come forward to support the process and/or may motivate the more passive players to reconsider their stance. Thus, private players may take initiatives, hoping to increase steadily the input and role of relevant public players. This could, for example, be larger corporates, foreign investors or local business associations helping local municipalities to play their roles with respect to LED.

In a similar way local public-sector leaders could search for and motivate local business leaders to actively co-operate in the clustering process. This might, for example, relate to the improvement of local infrastructure facilities (where local authorities may lack resources).

The need for partnership relations also relates to the openness of cluster-development challenges. In the unfolding of clusters new challenges appear almost daily, with “solutions” not always clear. It is through partnership relations that appropriate interventions may become clearer and may get planned and implemented.

If we look back at the magnitude of Nigeria’s SME-development challenge and the diversity as well as complexity of development obstacles, it becomes clear just how important the partnership challenge is. Yet, there is no easy way to strengthen such partnerships. Experimenting and (jointly) learning from past practices in Nigeria and globally seems the most appropriate way.

CHAPTER 10

SUMMARY AND RECOMMENDATIONS

10.1 THE UNDERLYING CHALLENGE

Comparable to many other African countries, Nigeria is faced with serious socio-economic challenges, including high poverty levels and unemployment rates, stark inequality of income and wealth as well as a lack of sufficient social development. To address these challenges, economic growth in the country has to increase, and the growth process has to become more conducive to employment and grassroots development. To further increase the challenge, growth factors, which in the past helped to create impressive GDP increases (like oil and other exportable natural resources), cannot be relied on for widely spread economic development and growth in the future.

Broad-based economic growth has to include the public and corporate sectors as well as small-scale formal and informal enterprises. However, public-sector resources are limited and, as recent developments have illustrated in the resource sector, corporate-sector expansion may also be constrained, which dampens the growth-inducing role of these two major players.

This background has shaped the rationale for this study and the response to the research questions listed in Chapter 1: Nigeria needs a viable, dynamically growing small-business sector where development obstacles are addressed effectively. To achieve this, a systematic strengthening of business clusters in Nigeria's villages, towns and cities is critical, given the lessons from other countries and Nigeria's local developments in the past.

10.2 NIGERIA'S SMALL-BUSINESS SECTOR

Formally established small, medium and micro-enterprises are seen to constitute the core of the business sector in most of the dynamically growing economies. This, however, is not the case in much of Africa, including Nigeria, where the small-business sector is still dominated by informal and survivalist establishments. Reasons for this include the relatively low urbanisation levels of African communities, with business activities in the rural areas and widely dispersed villages largely limited to subsistence agriculture and informal micro-suppliers of basic household needs. Low household income limits spending and the opportunities for local small enterprises. Weak transport-infrastructure facilities make

contact with larger centres difficult and costly, which further dampens both the inflow and outflow of goods and services as well as access to finance, technology and business-support services.

Even in many of the larger towns and cities of Nigeria formally established, locally-owned and effectively run small and medium-sized enterprises are relatively scarce, due to a lack of dynamic and well integrated business clusters with proactive small-business-development strategies. This can also be attributed to the low level of industrialisation, the dominance of (export-focused) mining and the “resource curse”, the impact of global trade liberalisation and the passive role of governments in the field of small-business support.

Existing local small enterprises in Nigeria face a wide range of obstacles or impediments (including limited access to finance, business training, mentoring and networking support), which cannot be actively addressed through the existing, very limited network of support services. What is more, like most other African countries, Nigeria does not have a comprehensive, national SME policy, integrated with national economic-development policies and plans. To address this requires concerted efforts of both the public and private sectors.

Within this context the development of dynamic business clusters in Nigeria’s rural and urban areas thus becomes central in efforts to address the shortcomings of the small-business sector.

10.3 CLUSTER DEVELOPMENT IN NIGERIA

Nigeria already has a large number of business clusters spread around the country, with Chapter 7 presenting a broad view of 55 of these clusters and a more in-depth review of 21 clusters visited by the researcher. Across the country more than 200 clusters can be identified, which is a significant number, but still small compared to the total population, the current number of villages, towns as well as cities and the urgent need to expand private-sector job creation.

Although the level and dynamics of development in these Nigerian clusters differ widely, a number of trends and characteristics have been observed, which in many ways contrast significantly with the pattern revealed by the international examples of successful clustering.

We can briefly list 12 key points derived from the analysis in Chapters 7 and 8 as well as the research questions presented in Chapter 1.

- a) There is a regional spread of small-business clusters across the six geo-political zones of Nigeria. The dynamics of economic development across the regions drives the level of dynamism in the clusters, with the southern regions of the country contributing about 78 per cent of the clusters in the country.
- b) At this stage, most of the clusters are informal in their structure and organisation.
- c) Cluster dynamism and growth in Nigeria has so far been driven by factors like the locational advantage of places, proximity of raw materials, availability of local specialised skills, local arts and crafts as well as local traditions.
- d) Dominant activities in the clusters include manufacturing (e.g. automobiles and parts), woodwork and furniture-making, leather and footwear as well as agro-based processes.
- e) There are a good number of prospective clusters in different zones of the country, including tourism-based clusters.
- f) There are stark size diversities in the clusters, with some ranging from as few as 50 firms to as many as 10 000 firms. The size diversity can be linked to sector activities, location of clusters and level of formality of the firms in the cluster.
- g) In most cluster locations, infrastructure facilities show major gaps or weaknesses and a lack of concerted efforts of stakeholders to address these needs.
- h) Few financial institutions are located within the existing clusters to offer banking services to these firms. In general, banking institutions need to play a more active role in cluster developments.
- i) Most of the existing clusters are run either by local entrepreneurs or are supported by the government as an offshoot of more specific public-policy interventions.
- j) The growth prospects of most existing clusters depend on government support and policy directions, key infrastructure improvements and PPP interaction.
- k) Notwithstanding the recognised need for stronger government support for existing and prospective clusters, Nigeria currently does not have
 - ◆ a clearly articulated and focused cluster development and support strategy,

- ◆ clear alignments between its cluster-development inputs and the country's economic-development plans,
 - ◆ effective co-ordination between CDEs of the three levels of government,
 - ◆ sufficiently capacitated SPVs to facilitate cluster-growth processes.
- l) Partnership interactions between public- and private-sector players in the CDPs are still very weak.

Against this background, the time is ripe for an adjusted and concerted approach towards business clustering in Nigeria, taking into account lessons from the past and from other parts of the world.

10.4 LESSONS FROM OTHER COUNTRIES

During past centuries, the developed countries of Europe and Asia have gone through complex processes of urbanisation and the evolution of business clusters in urban areas. They have also experienced the emergence of strong and sizeable small-business sectors. Against that background, a rich literature on cluster development, different types of clusters and their roles in small-business development has evolved.

We have reviewed that literature, showing how many of the problems currently experienced by Nigeria's small enterprises might be addressed by more intensive clusterisation in this country. Central to the problems that have to be overcome is the need for greater economies of scale and the evolution of a critical mass of small businesses to make systematic and effective support action feasible. In this context, clusters have been differentiated based on their *growth phases* (initial phase, growth phase and mature cluster), the *relationship between firms* (horizontal, vertical or large unit-based clusters), *size* (hub and spoke, satellite and state-anchored), *sector dominance*, *formality* (formal, informal, spontaneous) and the *level of development* (artisanal, active, dynamic and advanced clusters).

In order to provide a broader comparative base for lessons to be learned by Nigeria from global trends in clusterisation processes, we have looked at experiences drawn from Japan, Indonesia, India, Hungary, Italy, Brazil, Ethiopia, and South Africa. Although the clusterisation approaches and specific policies and programmes with respect to smaller enterprises differ widely between these countries, the following 20 key factors can be recognised in the majority of cases.

- A The small-business sector is regarded as important in the national development process.
- B There is a specific (national) small-business-support strategy.
- C SME and cluster development are linked to the national economic-development strategy.
- D There is (differentiated) sector focus in the clustering.
- E Incubators constitute an *integral* part of cluster-development policies.
- F There are regional cluster policies.
- G Government plays an active role in the cluster-development programmes.
- H The provision of finance (on preferential conditions) is a firm part of cluster-development programmes.
- I There is deliberate foreign cluster involvement in some of the countries.
- J Universities and research centres are viewed as important in CDEs.
- K Rural/traditional sectors are also involved in CDEs.
- L Infrastructure development is a critical element in cluster development.
- M Linkages between subsectors, firms and development agencies are deliberately strengthened in CDEs.
- N Local sector associations and business chambers are viewed as important players.
- O Export promotion plays an important role in many of the clusters.
- P A lot of attention is given to skills development and a wider knowledge spread in the clusters.
- Q The diffusion of high-tech and sector-specific technology is pursued.

- R There is a lot of emphasis on the strengthening of value chains within clusters.
- S There is primary focus on existing clusters, but in a few countries particular emphasis falls on new clusters in the national cluster strategy.
- T Formal public-private partnerships are regarded as central in the unfolding of the clusters.

Although there are major differences between Nigeria and these other countries, the list of these 20 important characteristics should be taken as a starting point for the more detailed design of a relevant cluster-development strategy for Nigeria.

From the case studies it could be seen that Japan and Italy have particularly creative policy initiatives in their cluster-development strategies, while India and Brazil relate more to Nigeria in the lack of strong and effective CDEs. In South Africa, racial development initiatives (so-called “separate development”) were over some decades linked to regional CDEs, which reduced their relevance for other countries. Nevertheless, South Africa offers some valuable lessons for Nigeria, especially in the sphere of micro-clusters and incubators.

10.5 APPROACH TOWARDS A NATIONAL CLUSTERISATION STRATEGY

Accelerated growth and diversification of business clusters in Nigeria depends on the interaction of two closely related processes, viz. the

- ◆ initiation, evolution and growth of individual clusters located in particular places and
- ◆ creation and maintenance of an increasing pace of cluster initiations and expansions across the country, i.e. an acceleration of the clusterisation process.

In much of this study, the focus fell on individual clusters and how they can evolve with the appropriate engagement of key players. As stressed in Chapter 9, for the creation of a significant pace of cluster development in the country, enough attention has to be given to the broader process of country-wide cluster creation and expansion. Thus, a national clusterisation strategy has to integrate these two goals. A summary of these two elements of the strategy (considered in Chapter 9) can be condensed to the following ten critical steps.

➔ *Accept the need for accelerated clusterisation as a critical factor in Nigeria's economic-development efforts, bearing in mind the central role that an expanding small-business sector has to play in efforts to create jobs and stimulate economic growth.*

The challenge here relates to the awareness of policy shapers, business leaders and others influential in economic-development strategising about the need for clusters and their significant impact on Nigeria's future economic development. In this process, greater awareness about the role and impact of business clusters in other countries and on other continents seems essential.

Spreading this insight does not happen overnight. It has to be supported and steered by government, organised business and business leaders, to be further strengthened by the spreading of international and locally-focused research results with regard to cluster developments.

➔ *Increase awareness and understanding with regard to clusterisation patterns and processes that evolved in Nigeria's history.*

This includes a process that stretched over more than a century, leading to the evolution of many successful clusters, but also a wide range of less successful cluster initiatives. Government officials, politicians, business leaders and other players in the policy-shaping process should be aware of that history and the current pattern of evolving clusters. of particular importance is the awareness with regard to the geographic and sector-based spread of clusters and their relative success in the different regions of Nigeria.

Public debate about past efforts and processes should increase awareness about the challenges and, more importantly, make actual as well as potential players in local cluster efforts look closer at critical issues to be explored and action to be planned.

➔ *Recognise the key players in local CDEs.*

In our review of international cluster experience and the more detailed analysis of the eight Nigerian cluster cases, a lot of emphasis has been placed on important players or stakeholders in the CDP. Five key groups have been identified, viz.

- ◆ the different levels of government,
- ◆ private enterprises,

- ◆ business and sector associations,
- ◆ training and research bodies and
- ◆ international agencies.

Each of these groups should play a specific role in CDEs, with the desired roles differing widely between the types and development stages of clusters.

For example, the different levels of government should play key roles in the provision of infrastructure facilities for cluster areas and the creation of regulatory and policy frameworks for the specific cluster. Business associations on the other hand should facilitate local business networking and external linkages, provide business-support services and help with capacity building among local players in the process.

Aside from the five player groups experience from successful clusters also shows that cluster-focused SPV organisations may play a very significant and valuable role in early cluster-development phases. These could be public-sector-funded and -controlled or be a form of PPP.

➔ *Recognise and publicise development opportunities for prospective, new, emerging and mature clusters.*

This should be a process that evolves at different levels: inside towns and villages, in larger cities, at regional level, in sub-sections of metropolitan areas and on a national level. Opportunities have to be identified, debated and taken up by different players in order to be acted upon. Individual entrepreneurs (who identify and act on such opportunities), business leaders, development planners and other players have to pick up those opportunities so that they can interact and create momentum in the CDP.

➔ *Potential clusters have to be assisted proactively in their start-up phase.*

Here we are looking at systematic support and facilitatory action by the respective groups of players, like municipal officials, corporate planners, financial institutions (which may decide to open a branch in an evolving cluster) and training bodies, assisted by some SPV.

→ *Existing clusters should be helped to overcome critical development obstacles or trigger new opportunities.*

The most important obstacles and needs may centre on infrastructure facilities. It could also be national-government support to attract larger foreign investors as key firms in a particular subsector earmarked as local development catalyst (e.g. a large hotel group to help strengthen a local tourism cluster). Given the large number of established clusters in Nigeria, which *could* expand and become more diversified, this engagement is of critical importance for the clusterisation process.

→ *Maintain development momentum in mature clusters*

History shows that mature clusters may easily face problems, which dampen the development momentum, with the risk of a gradual decline in the cluster and its positive impact on local or regional development. This could happen due to mineral resource depletion, changes in strategic transport routes or the closure of catalytic firms. It is up to the main players to identify (or mobilise) new growth forces, which can lead a revised development process. For example, mining-based growth centres can refocus into the value-adding processing of the minerals.

→ *Strengthen the national cluster-development momentum*

The focus here is not the individual cluster but the nation-wide clusterisation process. Stakeholders have to accept that some clusters do lose their momentum, which just increases the need for more or revised efforts to get new clusters to evolve or expand. What is needed is a national perspective and commitment on cluster development (taking into account regionally differentiated business-development processes) and close co-operation between cluster-development leaders at the different levels of government and between the different places in (sub-) regions. This may require a statutory framework for a national cluster-development strategy. It also means that sufficient public-sector resources (channelled through diverse budgets) should be made available for cluster-development support, while the private sector at the same time accepts its obligation to help strengthen earmarked clusters.

➔ *Regularly review progress in the cluster-development process*

To strengthen the momentum further, there should be regular assessments of the progress of clusters in the different regions and sectors, with broad-based (public) discussion of progress and ways to tackle challenges.

➔ *Let the momentum of the clusterisation process be shaped by public-private partnerships*

To overcome the risks of inadequate performance of key cluster players, proactive partnerships between the different players in the process should be a central goal of the strategy.

These 10 action areas summarise the strategy proposed for an acceleration of small-business cluster development in Nigeria. Within the framework of this study it is *not* possible to present procedural or institutional details with regard to the way each of these action areas are to be implemented. As stressed all along, the cluster environments and dynamics differ too much, and the key players in each area may have to take different approaches to tackle practical issues. Even the high-level government interventions (like cluster legislation or SPV funding) will have to be shaped through existing channels or newly established bodies.

Notwithstanding these limitations of the study, it is felt that the strategy framework, if pursued systematically, should have a significant impact on SME policy-makers in both public- and private-sector institutions, leading to more detailed planning and operationalisation and better management of the clusterisation process.

10.6 NIGERIA'S POSITION IN AFRICA'S CLUSTERISATION PROCESS

In Chapter 5 we stressed the relatively low level of cluster developments across the African continent, notwithstanding its large and rapidly growing population and rising income levels. Exceptions are South Africa and Kenya, with northern African countries (Egypt, Morocco, Algeria, Tunisia and Libya) having shown progress in this sphere in the past, but having been seriously challenged lately by internal socio-political conflicts, which dampen their development momentum.

Based on its large and rapidly growing population, its resource endowments and the legacy of past cluster developments, Nigeria might be seen as a trendsetter for CDEs and related strategies on the African continent. It has examples (both successful and failed) of most of

the different types of clusters. Although most of the cluster-support interventions have been insufficient or ineffective in the past, there are ample lessons to be learned.

If Nigeria succeeds to give cluster developments greater attention and higher priority in its economic-development strategy (as suggested in this study), the country could become an example for similar re-prioritisation efforts in other countries. This would seem to be particularly useful for smaller African countries, where serious cluster development has to rely on co-operation efforts with neighbouring countries. Other spheres of positive impact could be training and research related to cluster processes, policies and management, the development of joint projects and the joint utilisation of inputs from international development agencies.

For such positive impact of Nigeria upon cluster developments across Africa, close co-operation between Nigeria and South Africa as well as Kenya would be beneficial. The three countries have had some success in the past, but currently need a major expansion and upgrading of their cluster-development strategies, with lessons relevant for other African countries and scope for wider co-operation.

10.7 SCOPE AND NEED FOR FURTHER RESEARCH

This study has tackled a very specific process (the development of clusters) within a very broad theme, viz. how to improve the competitiveness of small enterprises. In this context further research should relate specifically to cluster developments in Nigeria where it is relevant for local SME development.

Given the large number of business clusters already existing in Nigeria, and accepting the need for a much larger number in future, there is vast scope (and urgent need) for more research, with the following areas deserving particular attention.

- ◆ There is need for the *systematic documentation of existing clusters* located across Nigeria, which are relevant for small-business development. Ideally such research should link up with national statistics about demographic and LED trends and patterns. Such data should be enriched with information about the nature (or type) of each cluster and its growth pattern. It might even lead to the development of annual cluster-growth rankings.

- ◆ There is need for an increasing number of *systematic case studies about Nigerian clusters*, highlighting the different types and the underlying reasons for successes and failures to grow and effectively address the needs of SMEs. Put more broadly, there is need for some capacity (e.g. a focused research centre) to produce such case studies. In addition, there is need for the production of summary “fact sheets” about different clusters and regulatory frameworks, to be spread widely among policy shapers and development planners across the country.

- ◆ Each of the *major players or stakeholder groups* identified in the study deserves further research about their roles, diversity of action patterns and scope for greater effectiveness, given the diversity of clusters. More specifically, there is need for further research about the following.
 - ✧ How can *SPVs* be made more effective and sustainable in their efforts to steer and manage CDPs?

 - ✧ How can *business-finance* sources in evolving clusters be expanded and further diversified?

 - ✧ How can the role of *local authorities* in the CDPs be expanded and made more effective?

 - ✧ How can *foreign assistance* for cluster developments be expanded to reach a wider range of clusters and have its impact enhanced?

 - ✧ How can the positive impact of *business associations/chambers* in the clusterisation process be strengthened?

 - ✧ How can *training and applied research* related to the clusterisation process and specific cluster growth (sub-) sectors be expanded and funded?

 - ✧ How can the development (and funding) of *incubators* be accelerated and spread more widely across the country?

 - ✧ How can Nigerian cluster leaders more effectively and widely interact with *cluster partners in other African countries*?

- ✧ How can the accelerated diffusion of *modern ICT* (through clusterisation) help to tackle core challenges of Nigeria's small enterprises?

In conclusion, cluster-development strategising should be seen as an open-ended process with further research providing valuable inputs.

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APPENDICES

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Appendix 1

Survey Cover Letter



Dear Respondent,

Thank you for paying attention to this academic questionnaire. The purpose of this survey is to gather information about the SME clusters in existence as part of research on *Enhancing SME Competitiveness in Nigeria through Public-Private-Partnership in Cluster Development*.

SME clusters are considered to be a group of small firms operating in a defined geographical location, producing similar or related products or services, co-operating and competing with one another, learning from each other in order to overcome internal problems and create markets for their products and services.

We therefore request your assistance to complete the attached questionnaire to enable us gather information relative to these clusters. The survey is purely for academic purposes, and the information will be strictly confidential. You can use separate answer sheets for each specific cluster you are describing.

In addition, if you have information relating to other clusters that you may be aware of, kindly avail us such by stating the location details and contact addresses of people who might help to get more information relating to such clusters.

Thank you very much for your co-operation.

Many thanks.

Yours truly

anderson NWOSU

Ph.D. student at the University of Stellenbosch Business School, South Africa

Tel.: 0805 985 1778, 01-662 0812

Appendix 2

PHASE 1 Cluster Survey Questionnaire

1 Information about the respondent

1.1 Name (optional) _____

1.2 Tel. _____

1.3 Age _____ years

1.4 Gender (please tick): Male Female

1.5 Highest level of *education* (tick one)

Elementary School

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Post-school education

<input type="checkbox"/>
<input type="checkbox"/>

Secondary School

Overseas study

Completed High School

1.6 Role at the SME-cluster detailed in this response

Observer only

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Cluster official/manager

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Business owner

Researcher

Manager in local firm

Journalist

Other (explain)

2 Cluster profile

2.1 *Name* under which the cluster is generally known

2.2 *Type of cluster* (dominant activity/sector)

2.3 *Location*

State _____

Local government area _____

Major streets/pass ways _____

2.4 *Since when does the clustering of SMEs in this area take place?* (tick one)

- For the last 10 to 20 years already
- 5 to 10 years
- 2 to 5 years
- Last 2 years
- Only starting now

Comments _____

2.5 *Nature or formality of cluster activities* (tick one)

- Largely informal spread of small enterprises (no larger formal enterprises)
- Formal-sector enterprises dominate
- Mix of formal and informal SMEs

Comment:

2.6 *Approximate number of (formal and informal) enterprises currently active within the cluster* (tick one)

- | | | | |
|---------------|--------------------------|----------|--------------------------|
| More than 120 | <input type="checkbox"/> | 31 to 40 | <input type="checkbox"/> |
| 81 to 120 | <input type="checkbox"/> | 21 to 30 | <input type="checkbox"/> |
| 51 to 80 | <input type="checkbox"/> | 10 to 20 | <input type="checkbox"/> |
| 41 to 50 | <input type="checkbox"/> | <10 | <input type="checkbox"/> |

2.7 *Size-breakdown* of cluster firms

	Estimated number
Large multinational firms	
Larger local firms	
Small/medium-sized firms	
Informal operators	

2.8 *Types of producers* or service suppliers present in the cluster (tick)

	None	A few	Several	Dominant group
Mining				
Mineral processing				
Agri-processing				
Machinery and equipment				
Clothing and textiles				
Other manufacturing				
Tourism-related				
Financial and business services				
Transport-related				
Education and training				

Other

2.9 **Origin** of the cluster (tick one)

Long-term evolution	<input type="checkbox"/>	Community initiative	<input type="checkbox"/>
Large company as “trigger”	<input type="checkbox"/>	Spontaneous growth	<input type="checkbox"/>
Federal-government initiative	<input type="checkbox"/>	Transport interchange	<input type="checkbox"/>
State-government initiative	<input type="checkbox"/>	Tourist attraction	<input type="checkbox"/>

Other reasons for creation:

2.10 Indicate *significant linkages* of the cluster growth to the following []

	No linkage	Little interaction	Strong linkage
a Raw material locally supplied			
b Local arts and crafts			
c Heritage site			
d Special local skills or traditions			
e Government institution/offices			

Other _____

2.11 *Support* given to the cluster (tick for *each category*)

	Not at all	Some support	Very strong
a Community support for cluster			
b Local-government support			
c State support			
d Federal-government support			
e Corporate bodies			
f Support via business or group associations			
g Support from foreign government or development agency			

Comments: _____

2.12 How do you see the *growth prospects* of this cluster?

	Strongly agree	Do not know	Strongly disagree
a The cluster is declining and without growth prospects			
b It has developed in the past but is now stagnant			
c It has been growing steadily and will continue to grow			
d It has started to take-off and will expand rapidly			
e Its future depends entirely on government support and incentives			
f It could grow much faster, but lacks momentum			
g Future growth is too much dependant on the key industry			
h It is diversifying nicely			

Other:

2.13 How would you describe the *overall performance* of this cluster?

	Strongly agree	Do not know	Strongly disagree
a Very successful			
b Somehow successful			
c Not very successful			
d Failure			

Other:

2.14 Indicate *significant linkages* of the cluster success/failure to the following *institutions*.

	No linkage	Little interaction	Strong linkage
a Community involvement in cluster			
b Municipal-government involvement			
c Provincial-government involvement			
d National-government involvement			
e Corporate bodies involvement, including banks etc.			
f Involvement of business groups/cluster associations			
g Universities			
h Some form of partnership between the government and other private-sector groups			

2.15 Indicate *significant linkages* of the cluster success/failure to the following *factors*.

	Strongly agree	Do not know	Strongly disagree
a Key infrastructural facilities			
b Access to finance			
c Presence of business support services providers			
d Effective linkages with other similar clusters			
e Effective networking of firms within the cluster			
f Managerial capability of cluster association			
g Success of firms within the cluster			
h Cluster is continuously developing			

Other: _____

2.16 Indicate *the level of significance* in which the *public-private-partnership* is considered to be *effective* to the cluster in the following areas.

	No significance	Little significance	Strong significance
a Infrastructure provision			
b Cluster management			
c Business support services			
d Access to finance			
e Business networking			
f Capacity-building (training)			
g Facilitating external linkages			
h Cost reduction to firms in the cluster			

Others: _____

Appendix 3

PHASE 2 Stakeholder Survey Questionnaire

PART 1

Actual government involvement in the clustering process

1.1 Is your organisation involved in any *small-business cluster programme*?

Never been involved and no plan to do so
(Please skip Part 2 and complete Parts 1 and 3)

Not involved so far but may be

Actively involved

1.2 Name of organisation _____

1.3 Location

State	
Local-government area	
Major streets/pass ways	

1.4 Your role in the organisation

• Head of SME desk/department	
• Consultant/business owner	
• Employee	
• Researcher	

Other (*please explain*) _____

1.5 Is there any department involved in SME/small-business cluster research in your organisation?

- Yes
- No

If yes, please state the name of the centre/entity _____

1.6 **How long** have you been with the organisation? (tick one)

For the last 10 to 20 years already

5 to 10 years

2 to 5 years

Last 2 years

Just starting

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1.7 **Are there centres or entities** linked to your organisation on cluster programmes?

Yes

<input type="checkbox"/>
<input type="checkbox"/>

No

If yes, please state the name of the centre/entity _____

1.8 Is the organisation **linked to any existing cluster**?

Yes

<input type="checkbox"/>
<input type="checkbox"/>

No

If yes, please state the name of the cluster _____

1.9 Is any support programme of your organisation active in any cluster/s?

Yes

<input type="checkbox"/>
<input type="checkbox"/>

No

If yes please list the support programme/s.

1.10 Does the *organisation* have any plan towards *setting up any cluster*?

Yes

<input type="checkbox"/>
<input type="checkbox"/>

No

- 1.11 Is your organisation *collaborating* or planning to collaborate *with universities, organised private-sector institutions and/or private-sector companies in any cluster-related programme?*

Existing collaboration

No collaboration

Some sort of plan

No plan at all

Appendix 3

Stakeholder Survey Questionnaire

PART 2

Assessment of existing clusters

Note: a) If *no experience* with any existing clusters *ignore Part 2 and move to Part 3.*

b) If *experience* with several clusters (see attached list), we will appreciate your response for everyone that you know.

2.1 *Role of your organisation* at the SME cluster detailed in this response.

Only observer		Process owner/manager	
Business owner		Consultant	
Facilitator		Advisor	

Other (*please explain*) _____

2.2 *Name* under which the *cluster* is generally known.

2.3 *Type of cluster* (dominant activity/sector)

2.4 *Location*

State _____

Local government area _____

Major streets/pass ways _____

2.5 *Since when* does the clustering of SMEs in this area take place? (tick one)

For the last 10 to 20 years already	
5 to 10 years	
2 to 5 years	
Last 2 years	
Just starting	

Comments _____

2.6 *Size-breakdown of cluster firms*

	Estimated numbers
Large multinational firms	
Larger local firms	
Small/medium sized firms	
Informal operators	

2.7 *For how long has your organisation been involved with this cluster?*

For the last 10 to 20 years already	<input type="checkbox"/>
5 to 10 years	<input type="checkbox"/>
2 to 5 years	<input type="checkbox"/>
Last 2 years	<input type="checkbox"/>
Just starting	<input type="checkbox"/>

2.8 Approximate number of (formal and informal) *enterprises* currently active within the cluster (tick one)

More than 120	<input type="checkbox"/>	31 – 40	<input type="checkbox"/>
81 – 120	<input type="checkbox"/>	21 – 30	<input type="checkbox"/>
51 – 80	<input type="checkbox"/>	10 – 20	<input type="checkbox"/>
41 – 50	<input type="checkbox"/>	<10	<input type="checkbox"/>

2.9 *Types of producers or service suppliers present in the cluster* (tick)

	None	A few	Several	Dominant group
Mining				
Mineral processing				
Agri-processing				
Machinery and equipment				
Clothing and textiles				
Other manufacturing				
Tourism-related				
Financial and business services				
Transport-related				
Education and training				
Hi-tech, technology-related				

Others (please specify) _____

2.10 *Origin of the cluster* (tick one)

Long-term evolution		University initiative	
Large company as “trigger”		Spontaneous growth	
Federal-government initiative		Local community initiative	
State-government initiative		Research attraction	

Other reasons for creation _____

2.11 Indicate *significant linkages* of the cluster growth to the following.

	No linkage	Little interaction	Strong linkage
a Raw material locally supplied			
b Local arts and crafts			
c Heritage site			
d Special local skills or traditions			
e Cluster location advantages			
f Government institution/offices			
g Research activities			
h Linkage to the university			

Others (please specify) _____

2.12 What constitute your *motive/s* for involvement in this cluster programme?

	No linkage	Little linkage	Strong linkage
a Economic development reasons			
b Regional/state/LG development reasons			
c Development of SME sector			
d Stimulate collaborative partnership with private sector in economic development			
e SME Public Policy Intervention			
f Stimulate economic growth in the region/state/LGA			
g Purely political reasons			

Others (please specify) _____

2.13 Indicate *significant partnership participation* of the following entities in the cluster.

	No participation	Little participation	Strong participation
a The university			
b Organised private-sector group			
c Government institution (fed., state, local)			
d Local development agency			
e Local community			
f International agency			
g Public-private research institution			

Others (please specify) _____

2.14 Indicate the level of significance of the involvement of the following actors in cluster development to the growth of small businesses in Nigeria.

	No significance	Little significance	Strong significance
a The university			
b Private-sector institutions (incl. banks)			
c Organised private-sector group			
d Government institution (Fed., state, local)			
e Local development agency			
f Local community			
g International agency			
h Public-private research institution			

Others (please specify) _____

2.15 Indicate the *level of significance* in which the *public-private partnership* is or will be considered *effective to the cluster* in the following areas.

	No significance	Little significance	Strong significance
a Infrastructure provision			
b Cluster management			
c Business-support services			
d Access to finance			
e Business networking			
f Capacity-building (training)			
g Facilitating external linkages			
h Cost reduction to firms in the cluster			

Others (please specify) _____

2.16 How would you describe the *overall performance of this cluster*?

	Strongly agree	Do not know	Strongly disagree
a Very successful			
b Somehow successful			
c Successful			
d Failure			

Others: _____

2.17 Indicate *significant linkages* of the cluster success/failure in (2.16) above to the following institutions.

	No linkage	Little interaction	Strong linkage
a Community involvement in cluster			
b Local government involvement			
c State-government involvement			
d Federal-government involvement			
e Corporate bodies involvement, incl. banks, BOI, etc.			
f Involvement of business groups/cluster associations			
g Organised private-sector associations involvement (MAN, Nassme, Smedan)			
h University involvement			
i Some form of partnership between the government and other private-sector groups			

Others (please specify) _____

2.18 What do you consider the *most significant challenges facing small businesses* in Nigeria?

	No Significance	Little Significance	Strong Significance
a Infrastructure provision			
b Cluster management			
c Business support services			
d Access to finance			
e Business networking			
f Capacity-building (training)			
g Facilitating external linkages			
h Cost reduction to firms in the cluster			

Others (please specify) _____

Appendix 3

Stakeholder Survey Questionnaire

PART 3

Looking into the Future: Opinions with regard to PPPs

- 3.1 Indicate what the *role of the universities/research institutions* should be in a *public-private partnership initiative* in cluster policy.

	No role	Little role	Strong role
a Infrastructure provision			
b Cluster administration			
c Business-support services			
d Access to finance			
e Business networking			
f Capacity-building (training)			
g Facilitating external linkages			
h Research activities			
i Policy formulation and advisory			
j Policy advocacy			
k Policy implementation			
l Regulatory and legislative			

3.2 Indicate what the *role of the government (local, state, federal) and its agencies in a public-private partnership initiative* in cluster policy should be.

	No role	Little role	Strong role
a Infrastructure provision			
b Cluster administration			
c Business-support services			
d Access to finance			
e Business networking			
f Capacity-building (training)			
g Facilitating external linkages			
h Research activities			
i Policy formulation and advisory			
j Policy advocacy			
k Policy implementation			
l Regulatory and legislative			

Others (please specify) _____

3.3 Indicate what the *role of organised private-sector associations* (e.g. chambers of commerce, Nassme, local development agencies, etc.) *in a public-private partnership initiative* in cluster policy should be.

	No role	Little role	Strong role
a Infrastructure provision			
b Cluster administration			
c Business-support services provision			
d Access to finance			
e Business networking			
f Capacity-building (training)			
g Facilitating external linkages			
h Research activities			
i Policy formulation and advisory			
j Policy advocacy			
k Policy implementation			
l Regulatory and legislative			

Others (please specify) _____

3.4 Indicate what the *role of international agencies* (e.g. Unido, US-Aid, IFC, etc.) *in a public-private partnership initiative* in cluster policy should be.

	No role	Little role	Strong role
a Infrastructure provision			
b Cluster administration			
c Business-support services			
d Access to finance			
e Business networking			
f Capacity-building (training)			
g Facilitating external linkages			
h Research activities			
i Policy formulation and advisory			
j Policy advocacy			
k Policy implementation			
l Regulatory and legislative			

Others (please specify) _____

3.5 Indicate what the *role of private-sector companies* (banks etc.) *in a public-private-partnership initiative* in cluster policy.

	No role	Little role	Strong role
a Infrastructure provision			
b Cluster administration			
c Business-support services			
d Access to finance			
e Business networking			
f Capacity-building (training)			
g Facilitating external linkages			
h Research activities			
i Policy formulation and advisory			
j Policy advocacy			
k Policy implementation			
l Regulatory and legislative			
m Policy formulation and advisory			
j Policy advocacy			
k Policy Implementation			

Others (please specify) _____

3.6 In building effective clusters for SMEs, how important would you rate the following factors?

	Not important	Little importance	Significant importance
a Cluster location			
b Size of firms in the cluster (e.g. small, medium, large firms)			
c Number of firms in the cluster			
d Proximity to market			
e Proximity to key facilities			

Others (please specify) _____

3.7 In crafting *effective public-private partnership* policy for cluster development, how would you rate the *significance of the following actors*?

	Not significant	Little significance	Strong significance
a Universities			
b Organised private sector			
c Financial institutions (banks)			
d Government (LGA, state, federal)			
e International development agencies			

Others (please specify) _____

3.8 In crafting *effective public-private partnership policy* for cluster development, how would you rate the *significance of focus on the following sector?*

	Not significant	Little significance	Strong significance
a Manufacturing sector			
b Service sector			
c Tourism sector			
d IT and technology sector			
e Agricultural sector			

Others (please specify) _____

3.9 Do you think there should be a *difference in role play* between *local corporations as opposed to foreign corporations?*

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

Please explain: _____

In conclusion please provide the following information.

1 Information about respondent [*please tick* *as applicable*]

Prof.

Dr

Mr

Mrs/Ms

Surname and initials (*optional*) _____

Tel.: _____

e-mail address: _____

2 Respondent's highest level of education (tick one)

Elementary school

Secondary school

Completed high school

Post-school education

Overseas study

Appendix 4: Stakeholder Questionnaire Distribution by Locations

S/N	Name of institution	Location/state	Questionnaire distribution				
			Associa	Gov't	Univ.	Industry	TOTAL
1	Smedan	Otigba Cluster/Lagos State	4	1		30	35
2	Ministry of Comm. and Industry (Dir. of Industrial Operations)	Ogun State Secretariat		1			1
3	Ministry of Agriculture (Dir. of Information and Strategy)	Ogun State Secretariat		1			1
4	Adire/Campala Market Cluster	Itoku Abeokuta, Ogun State	4	1		20	25
5	National Association for Small Scale Industrialists (Nassi)	Abeokuta, Ogun State		1			1
6	Federal Agricultural Development Management (Fadama)	Abeokuta, Ogun State		1			1
7	Ministry of Agriculture	Lagos State Secretariat		1			1
8	Ministry of Women Affairs and Poverty Alleviation	Lagos State Secretariat		1			1
9	Ministry of Commerce and Industry	Lagos State Secretariat		1			1
10	Skye Bank (Abattoir Cluster)	Abattoir, Lagos State				1	1
11	Microfinance Bank (Abattoir Cluster)	Abattoir, Lagos State				1	1
12	Lagos Chamber of Commerce and Industry (LCCI)	Victoria Island, Lagos State	1				1
13	Bank of Industry Ltd	Marina, Lagos State				1	1
14	Nextzon	Victoria Island, Lagos State				1	1
15	National Association Chamber of Commerce Industry Mines and Agriculture (Naccima)	Ikeja Gra, Lagos State	1				1
16	Head office Diamond Bank Plc	Victoria Island, Lagos State				1	1
17	Ministry of Commerce and Industry	Abia State Secretariat		1			1
18	Ministry of Agriculture	Abia State Secretariat		1			1
19	Powerline Footwear Cluster	Aba, Abia State	1			22	23
20	Bakasi Footwear Cluster	Aba, Abia State	4			15	19
21	Ministry of Agriculture	Anambra State Secretariat		1			1
22	Ministry of Commerce and Industry	Anambra State Secretariat		1			1
23	Federal Agricultural Development Management (Fadama)	Awka, Anambra State		1			1
24	Applema Industrial Limited (Osakwe Cluster)	Anambra State	2			50	52
25	Nnewi Cluster	Nnewi, Anambra State				1	1
26	Anambra Chamber of Commerce	Nnewi, Anambra State	1	6		9	16
27	Innoson Industrial Estate	Anambra State				1	1
28	Fidelity Bank (Nnewi Cluster)	Nnewi, Anambra State				25	25
29	Fidelity Bank Plc	Head office (SME Desk)				2	2
30	National Association For Small Scale Industrialist (Nassi)	Awka, Anambra State	1				1
31	Yaba College of Technology	Yaba, Lagos			2		2
32	Nnewi Cluster	Nnewi, Anambra State	1				1
33	Enugu Carpenter Union	Enugu State	1			10	11
34	Small and Medium Enterprise (SME)	Enugu State		1			1
35	Ministry of Agriculture/Fadama Iii	Enugu State		1			1

continued

36	Federal Ministry of Agriculture	Fct, Abuja		2			2
37	Federal Ministry of Trade and Investment	Fct, Abuja		2			2
38	Dei-Dei Timber Cluster	Fct, Abuja	4			22	26
	Total		25	26	2	212	265

Appendix 5

Compendium of the Analysis of 21 Cluster Case Studies

	1 Name of cluster	2 Location, state	3 Region	4 Type of cluster	5 Dominant activity	6 Form of organization	7 No. of firms in the cluster
1	Kubwa Furniture Makers Association	Gado Nasko/Buhari LG	North/FCT	Production	Furniture making	Formal	120
						Informal	65
2	Dei-Dei Int'l Timber Association	Dei-Dei/FCT	North/FCT	Manufacturing	Wood processing	Largely formal enterprises	>2 000
					Metal construction and fabrication		>500
					Building materials and products		>700
3	Madatta Furniture Association	Suleja Road/Suleja	North/Niger State	Production	Furniture-making	Mix of formal and informal firms	about 50
4	Leather Cluster	Kano, Kano State	North/Kano	Manufacturing	Leather processing and footwear	Largely informal enterprises	450
5	Zaria Leather Works	Kofor Gaya/Zaria	North/Kaduna	Manufacturing	Leather works/footwear	Largely informal	120–150
6	Butchers Multi-Purpose Cooperative Society Cluster	Dala/IBB Way	North/Kano	Agric. processing	Meat processing	Largely informal	500
7	Automotive cluster	Nnewi	South East/Anambra State	Manufacturing	Auto spare parts manufacturing	Formally organised	85+ largely involved in manufacturing
8	Shoes and Leather Cluster	Powerline, Aba	South East/Abia State	Manufacturing	Shoe production	Largely informal	7 000
9	Aba Leather and Allied Product Cluster	Bakkassi/Osisioma Ngwa	South East/Abia State	Manufacturing	Shoe production	Largely informal	10 000

continued

	1 Name of cluster	2 Location, state	3 Region	4 Type of cluster	5 Dominant activity	6 Form of organization	7 No. of firms in the cluster
10	Textile and Fashion Cluster	Kent Street, Aba	South East/Abia State	Production	Garment and fashion	Largely informal	4 600
					Fabrics	Largely formal	80–120
					Clothing materials	Informal	100
11	Carpentry Cluster	Asata, Enugu	South East	Carpentry	Wood work	Largely informal	200+
12	Osakwe Polymer Cluster	Awada/Obosi	South East/Anambra State	Manufacturing	Polymer and polythene materials	Largely formal enterprises	300
13	Tie and Dye Cluster	Osogbo, Osun State	South West	Local fabric	Informal	80 to 120	15
14	Tye and Dye Cluster	Kenta Kampala Market, Ikotu Abeokuta	South West/Ogun State	Manufacturing	Local textile	Largely informal	2 500–3 000
15	Gidon Pari Scrap Cluster	Kogberegbe Street, Ojota	South West/Lagos State	Scraps and recycling	Scraps assemblage	Predominantly informal	500+
16	Timber, Woodwork cluster	Ebute Metta, Lagos	South West/Lagos State	Wood Processing	Sawmilling	Largely informal	>1 500
17	Otigba ICT Cluster	Ikeja	South West/Lagos State	ICT	Computer and allied products	Informal	4 500–6 500
						Formal	1 500–5 500
18	Cain Weavers Association	Mende/Maryland	South West/Lagos State	Production	Cain chair weaving	Largely informal	200+
19	Lagos Butchers Association	Oko-oba Agege	South West/Lagos	Agric. processing	Meat processing	Largely informal	3 000
20	Rice Processing Cluster	Abeokuta	South West/Ogun State	Production	Agric./Agric. processing	Largely informal	>1 500
21	Nollywood Films Production	Virtual cluster	Virtual cluster	Entertainment	Film production	Largely individual producers	n/a

	Name of cluster	8 Age of cluster in years	9 Cluster origin	10 Linkage to cluster growth	11 Institutional support structure available	12 Growth prospect
1	Kubwa Furniture Makers Association, FCT	<1	Spontaneous growth	Members commitment	State-government (minimal)	Largely dependent on government support and infrastructure
					Business associations	Need momentum for faster growth
2	Dei-Dei International Timber Association, FCT	>20	Long-term evolution	Local raw materials	Local-government authority	Steady growth but lack momentum such as infrastructure
				Local authorities	FCT Support	Growth prospect dependent on Govt policies
					Business association	Growth also dependent on key industries
3	Madatta Furniture Association, Suleja	5–10	Spontaneous growth	Presence of real-estate developers	None	Cluster is emerging
				Presence of government offices		Space constraint inhibits growth
4	Kano Leather Cluster, Kano	About 10	Federal-government initiatives	Raw material	Federal authorities	Needs Momentum for faster growth
				Special local skills	Business Association	Largely dependent on govt. support and infrastructure
Development agency						
5	Zaria Leather Works	About 1	Spontaneous growth	Local raw material	Community support	Cluster still evolving
				Local art and craft	Local authorities	Growth prospect dependent on Govt. support
				Special skills		Basic infrastructures needed to accelerate growth
6	Butchers Multi-Purpose Cooperative Society Cluster, Kano	>50	Long-term evolution	Local raw material	Local-government authority	Needs Momentum for faster growth
			Spontaneous growth	Hereditary	Business association	Diversify nicely

continued

	Name of cluster	8 Age of cluster in years	9 Cluster origin	10 Linkage to cluster growth	11 Institutional support structure available	12 Growth prospect
7	Automotive Cluster, Nnewi	>20	Large companies as trigger point	Government institutions and offices	Some form of government support	Future growth dependent on key industry
				Heritage site	Corporate bodies support	Growth also dependent on govt. policies
						Cluster is diversifying
8	Shoes and Leather Cluster, Powerline, Aba	>20	Spontaneous	Local raw materials, special skills, employment opportunities	Community- based; local- government authority	Largely dependent on government support and infrastructure
9	Aba Leather and Allied Product Cluster	>20	State-government initiative	Local raw material	Community- based	Prospect for steady growth
				Special skills	Local- government authority	Growth can accelerate with government support
				Employment opportunity	State- government (development of work place), cluster association- based	Basic infrastructures needed to accelerate growth
10	Textile and Fashion Cluster, Aba	>20	Long-term evolution backed by state- government initiative	Growth linked to special skills and tradition	None	Growth not linked to any external factors
11	Carpentry Cluster, Asata Enugu	3	Spontaneous growth	n/a	None	Infrastructure upgrade such as power supply needed to boost cluster momentum
12	Osakwe Polymer Cluster, Onitsha	<10	Large companies as trigger point	Raw material	Cluster association- based	Raw-material linkage
			Also community initiative	Private-sector- driven growth		Growth dependent on key industries
						Strong potential for future expansion

continued

	Name of cluster	8 Age of cluster in years	9 Cluster origin	10 Linkage to cluster growth	11 Institutional support structure available	12 Growth prospect
13	Tye and Dye Cluster, Osogbo	>10	Spontaneous Long-term evolution	Local raw material Local art and craft	Community-based Private-company support Linkage to local university	Growth dependent on government support
14	Tye and Dye Cluster, Abeokuta	>100	Long-term evolution	Local raw material	Community support, cluster association-based	Cluster has grown steadily and will continue to grow
			Tourist attraction	Local art and craft	Government at some point provided a place for relocation but was resisted	Steady growth but lack momentum such as infrastructure
			Community initiative	Special skills		
15	Gidon Pari Scrap Cluster, Ojota Lagos	>20	Spontaneous growth	Local raw material	Cluster association-based	Needs momentum for faster growth
				Special skills		Needs key industries to create demand for products
				Export potential		
16	Timber, Woodwork cluster, Ebute Metta Lagos	>80	Long-term evolution	Unemployment rate	Business association	Largely dependent on government support and infrastructure
			Spontaneous growth	Success of firms within the cluster	Local-government authority	Sort of stagnant
				Special local skills		Dependent on key raw materials availability
17	Otigba ICT Cluster, Ikeja	>20	Spontaneous growth	Local raw materials	International supply chain	Continuous growth prospect
				Government-agency office		
				Corporate bodies	Smedan (BSS) Capdan	Future expansion depends on wider space
18	Cain Weavers Association, Maryland Lagos	5–10	Spontaneous growth	Nature of product	None	Steady growth but lack momentum such as infrastructure
				Strong local association		Space constraint inhibits growth

	Name of cluster	8 Age of cluster in years	9 Cluster origin	10 Linkage to cluster growth	11 Institutional support structure available	12 Growth prospect
19	Lagos Butchers Association, Oko-oba Lagos	>20	Spontaneous Growth	Strong local association	State-government agency	Growth linked to state-government presence
				State-government support	Business association	Has strong potential for future growth
20	Rice Processing Cluster, Abeokuta	n/a	n/a	n/a	n/a	n/a
21	Nollywood Films Production	10 plus	Spontaneous growth	Family entertainment	None	Growth dependent on government policy on piracy, also level of technology infusion

	Name of cluster	13 Infrastructural services/ constraints	14 Financial services	15 BSS providers	16 Formal inter-firm networking	17 Evidence of cluster linkage	18 Export potential
1	Kubwa Furniture Makers Association, FCT	None	None in the cluster	None	None	None	None
2	Dei-Dei Int'l Timber Association, FCT	Power (minimal) Lacks good road network	Micro-finance banks present in the cluster	None	Interfirm linkages and value-chain services available	None	Strong
3	Madatta Furniture Association, Suleja	None	None within the cluster	None	None	Evidence of cluster linkage to a nearby cluster	None
4	Kano Leather Cluster	None	None within the cluster	None	None	None	None
5	Zaria Leather Works	Space constraint Electricity available	None within the cluster	None	None	None	None
6	Butchers Multi-Purpose Cooperative Society Cluster, Kano	Veterinary services available Electricity available	None within the cluster	None	None	None	None
7	Automotive Cluster, Nnewi	Availability of telecom services Electricity provided by cluster association Good Road network and security	Financial-services providers within the cluster	Smedan	Strong	Strong	Strong
8	Shoes and Leather Cluster, Powerline Aba	Lacks efficient transport system Lacks electricity supply Lacks good road network	Lacks access to finance	None within the cluster	Interfirm linkages and value-chain services available	Evidence of cluster linkage to a nearby cluster	None Products wholly for domestic market

continued

	Name of cluster	13 Infrastructural services/ constraints	14 Financial services	15 BSS providers	16 Formal inter-firm networking	17 Evidence of cluster linkage	18 Export potential
9	Aba Leather and Allied Product Cluster	Epileptic power supply Lacks good road network Lacks water supply Lacks good transportation system Cluster congestion	None within the cluster Tenants need financing for procurement and supplies Micro-finance bank available	None within the cluster	Interfirm linkages and value-chain services available	None	Export to West African countries
10	Textile and Fashion Cluster, Aba	Electricity and road network available	None within the cluster	None within the cluster	Interfirm linkages and value-chain services available	None	Minimal
11	Carpentry Cluster, Asata Enugu	Lacks efficient power supply	None within the cluster	None	Strong	None	None
12	Osakwe Polymer Cluster, Onitsha	Lacks electricity supply Lacks adequate water supply Good road network and security available	Banks within the cluster Needs finance for equipment procurement and raw-material supply	None within the cluster	Interfirm linkages and value-chain services available	None	None
13	Tye and Dye Cluster, Osogbo	Lacks electricity supply	None	None	None	None	Strong
14	Tye and Dye Cluster, Abeokuta	Cluster congestion Poor electricity supply Lacks adequate water supply	None within the cluster	None within the cluster	Interfirm linkages and value-chain services available	None	Yes and very strong

continued

	Name of cluster	13 Infrastructural services/ constraints	14 Financial services	15 BSS providers	16 Formal inter-firm networking	17 Evidence of cluster linkage	18 Export potential
15	Gidon Pari Scrap Cluster, Ojota Lagos	Poor electricity supply available Space constraint Lacks good road network	None within the cluster	None within the cluster	Interfirm linkages and value-chain services available	None	Semi-processed scraps are exported
16	Timber, Woodwork Cluster, Ebute Metta Lagos	Lacks regular power supply Lacks good road network Space constraints Poor waste management and sanitation issues	None within the cluster	None within the cluster	Interfirm linkages and value-chain services available	None	None
17	Otigba ICT Cluster, Ikeja	Cluster congestion Lacks electricity supply Availability of telecom services	Needs access to finance	Smedan	Interfirm linkages and value-chain services available	None	None
18	Cain Weavers Association, Maryland Lagos	Space constraint Security challenges Poor electricity supply	Bon provides financing	Smedan	Interfirm linkages and value-chain services available	None	Strong
19	Lagos Butchers Association, Oko-oba Lagos	Good road network and security Excellent power supply Availability of water supply Meat-processing plant available	Micro-finance banks Commercial bank available	Smedan MAN	Interfirm linkages and value-chain services available	None	Strong

continued

	Name of cluster	13 Infrastructural services/ constraints	14 Financial services	15 BSS providers	16 Formal inter-firm networking	17 Evidence of cluster linkage	18 Export potential
20	Rice Processing Cluster, Abeokuta	Road network Electricity supply very rare	None within the cluster	None	Strong	None	None
21	Nollywood Films Production	n/a	n/a	n/a	Virtual	n/a	Strong

Appendix 6

Questions for Informal Stakeholder Interviews

A Small-business owners/operators

- 1 How long have you been running your business?
- 2 What has the experience been like?
- 3 What challenges have you been facing in running your business?
- 4 Looking at Nigerian small businesses in general, what do you perceive as the key constraints they are struggling with?
- 5 Facing competition in your line of business, what are key factors inhibiting your efforts to remain competitive?
- 6 What types and levels of support do government and private-sector institutions currently give to small businesses?
- 7 What areas of government or private-sector support do you regard as particularly important to make small businesses in Nigeria more competitive?
- 8 Let us talk about small-business clusters. Do you think operating in a business cluster offers any specific advantages for small businesses?
- 9 What form of advantages does it offer?
- 10 What is your perception about the state of business clusters operating in your locality?
- 11 What could or should be done to make business clusters in Nigeria more effective, dynamic and support-orientated for small businesses?

B Cluster officials

- 1 Explain the organisation of the cluster you are engaged in.
- 2 What do you regard as the main challenges and issues existing in the cluster/s?
- 3 What support systems are available to small businesses within your cluster?

- 4 What roles are public- and private-sector institutions currently playing in the cluster development, and what role should they play in the clusters?
- 5 Are there inter-firm networks in your cluster? How effective have they been?
- 6 Give examples of joint action and collaborations in the cluster.

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- 1 What is your institution presently doing to support the small-business sector?
- 2 How effective do you think these support systems have been?
- 3 Is your organisation/institution currently involved in any cluster? If so, what is the nature of the involvement?
- 4 What areas of support do you believe are currently lacking in existing clusters?
- 5 Viewing cluster support from a private-sector perspective, do you believe they are doing enough, and if not, what should they be doing?
- 6 Is the Nigerian government doing enough to support small businesses?
- 7 How could public-private partnerships in cluster building boost the competitiveness of clusters and small businesses?
- 8 What is needed to strengthen the interaction of private and public stakeholders in cluster-development processes?