

## **Doctoral Research Work: Topic**

# **Clusters, Networks and Innovation in Small and Medium Scale Enterprises: The Role of Productive Investment in the Development of Small and Medium Scale Enterprises in Nigeria**

**Researcher:** Osmund Osinachi Uzor

**Supervisors:** Professor Dr. Karl Wohlmuth and Professor Dr. Axel Sell

Institute for World Economics and International Management (IWIM), University of Bremen

### **Summary**

Fundamentally, this study departed from traditional static supply side approaches in SMEs analysis to an investigation of the dynamic factors in the industrialisation process. The study used Nigeria as a case study to verify various claims and counter-claims from the literature that SMEs in Africa possess the potential to create employment and to generate income; that African SMEs cannot sustain employment creation because they tend to generate low incomes; and that African SMEs are isolated and lack the potential individually to improve performance or to sustain competition; and that SMEs in Africa are very weak and lack the capability to play their role in the ongoing globalisation. To investigate these claims, the study used different analytical and empirical approaches that reflected not only on the impact of proximity in clusters but also on the influence of networks in SMEs' business activities. As globalisation pressure is intensifying, the study also examined how small and medium enterprises in Nigeria compete in an open market economy.

The investigations were necessary because of the deteriorating economic situation of large segments of the Nigerian population. The socio-economic structural changes in Nigeria have led to the trend of increased employment generation and income earning in micro- and small scale enterprises in Nigeria. Hence, the motivation of the study was to look into the following prevailing questions: Can micro, small and medium scale enterprises in Nigeria sustain employment? If yes, can the income generated in the sector become significant for reducing poverty? If yes, can the sector compete in an open market economy? These questions led to designing the research structure in terms of clusters, networks and innovation frameworks. This allowed the researcher to investigate the proximity factor in clusters, the

structure of the networks, and the innovative activity of the small and medium enterprises in Nigeria.

The empirical analyses of the study recognised the problem of the heterogeneity factor in SMEs, thereby disaggregating the enterprises into different subsectors as well as classifying the SMEs into clustered and dispersed enterprises. The analysis on clustering focused on how the output and the gross sales in small enterprises can be explained by territorially bounded externalities. The analysis of the networks questioned whether social networks really enhance firms' performance in the SME sector. In this case, the structure and the functions of enterprises in their networking were investigated. To the issue of innovation in SMEs, the study examined the extent to which small and medium enterprises can sustain competitive pressure in an open market by innovations. In general, the study showed how the three operational frameworks of SMEs with respect to clustering, networking and innovation are linked in empirical research.

The result of the empirical analyses provided the framework for a new industrial development model that centres on how domestic and foreign direct investment (ISMED model) can impact on growth in the Nigerian economy through SME development. This model tends to address the following problems: How can the technological disadvantages of the SMEs be reduced in order to foster linkages with large firms? How can the institutional and the policy environment be strengthened in order to improve the capabilities of the SMEs? The ISMED model is a simple interactive process based on the outcome of the empirical study. The model showed the processes on how domestic investment and investment supported by FDI can stimulate capability upgrading in SMEs. In policy support for the ISMED model, the study used a holistic approach to review and to analyse Nigerian industrial policies in the period between 1900 and 2007. This provided an insight on why a new policy approach for an industrialisation process is very necessary in Nigeria in this current phase of globalisation. In this context, policy recommendations were disaggregated into general and specific policy measures for SMEs, enterprise clusters, enterprise networks and innovation activities in Nigeria. The specific policy measures reflected the sectoral heterogeneity in terms of sectoral specific constraints. Hence, a policy matrix was designed for the implementation of the ISMED model in Nigeria and in Africa in general.

**Keywords:** Industrialization in Africa; Small and Medium Enterprises in Africa; Clusters, Networks and Innovation Activities in Africa; Policy Changes for SME Development