Chapter 13
Harnessing Externalities to Enhance Competitiveness in an Industrial Cluster: Experiences in a South African Cluster

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ABSTRACT

This chapter investigates the effects networks have on the acquisition of external economies. The objectives of this chapter include determining if businesses located in clusters are benefitting from external economies and identifying the extent to which these firms are using their networks in accessing these external economies. Six SME business owners were interviewed. They form part of an automotive manufacturing network based in Port Elizabeth in South Africa. The researchers used content analysis and pattern matching to analyse the data. The findings indicate that the entrepreneurs interviewed were all using their networks to gain external economies. They used networks to gain technology spillovers in the form of information on new trends and processes in the industry and highlighted the fact that the network contacts provided opportunistic information. The study also found that some of the entrepreneurs used their network to source skilled employees from the pooled labour market and obtain specialized services and input.

INTRODUCTION

Industrial clusters are a group of companies and institutions geographically close, and related to a particular field, linked by common and complementary features. It is a compact network of relationships developed between actors within a specific geographical area (Vidal-Sune & Fonts-Ribas, 2012). There has been considerable interest in this as a research area. Governments seek
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the formula to become world powers in high-
technology industries. Multinational corporations
look for the right clusters to locate their factories,
laboratories and headquarters. Scholars question
whether competitive advantage is sustainable for a
group of firms and wonder what mechanisms might
drive cluster success. Economic geographers
provide convincing evidence for the existence of
clusters in a wide variety of industries (informa-
tion technology, biotechnology, motion pictures,
high-fidelity equipment, racing car production,
winemaking among others) and propose that
firms within these clusters are often inordinately
successful as a group. One of the explanations
for this success is that clusters create economic
externalities that benefit its members.

Externalities are becoming increasingly im-
portant for firms that wish to remain competitive
in today’s hostile and rapidly changing business
environment. This point is highlighted by Gor-
don and McCann (2000, 514), “A more general
explanation is that substantial changes in the
economic environment over the past 25 years or so
(involving internationalisation, greater instability
in product markets and more intense competi-
tion with a greater emphasis on quality/variety,
at least for first world producers) have increased
the importance of flexibility, encouraging greater
reliance on external than internal economies of
scale.” Fujita and Thisse (2002) suggest that these
economies provide the explanation for clustering.
There are two types of economies.

Internal economies arise when firms increase
their scale of production. Hence, they incur lower
average costs of production, either through spe-
cialization or other factors. When average costs
fall, giving the price of the good to be constant,
profit margins of these firms will be increased.
Thus, the individual firm benefits from internal
economies. External economies when all firms in
an industry experience decreasing average costs
of production, which can be due to economies of
concentration, information and disintegration.

Internal and external economies depend on
several factors. Internal economies arise due
to technical economies, which are when a firm
increases its scale of production; it is able to del-
egate specific jobs to its workers. Hence, through
specialization in a single job, the workers are able
to improve their productivity through attaining
higher levels of dexterity and skill through rep-
etition. Thus when productivity per worker rises,
the firm is actually producing a greater amount
of goods and hence, the average cost of the good
falls. Of course, internal economies also depend
on other factors, such as marketing economies,
which basically states that a firm making bulk
purchases on raw materials would be able to enjoy
cheaper prices.

External economies on the other hand, depend
mainly on three different economies. As men-
tioned above, economies of concentration states
that when firms in an industry are located close
together, they can enjoy the pool of skilled work-
ers and infrastructure provided by locality. Hence,
through the provision of such valuable manpower
and infrastructure, firms are able to attain lower
average costs of production by employing these
skilled workers with high productivity, or using
the efficient road and communications networks
to reduce transport and managerial costs. Un-
like internal economies, external economies are
independent of the size of the individual firms in
the industry as both small and large firms benefit
from it.

This study aims to investigate the effect net-
works have on the acquisition of external econo-
 mies. The objectives of the study are:

1. To determine if businesses located in clusters
   are benefitting from external economies; and
2. To identify the extent to which these firms
   are using their networks in accessing these
   external economies.
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