South Korea’s Shipbuilding Industry:
From a Couple of Cathedrals in the Desert to an Innovative Cluster

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Summary

After the publication of the competitive advantage of nations by Porter in 1990, the competitiveness of regional concentrations of industries has been often explained by the cluster concept. There are many definitions of clusters, but they mainly boil down to a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities. The shipbuilding industry in Korea can for sure be regarded as a competitive industry, as the spectacular rise of its world market share from 2\% in the early 1970s to the current 38\% impressively testifies, but can it be considered a cluster?

Based on an analytical framework consisting of a typology of clusters and a context-sensitive evolutionary approach, the paper will show that over the last thirty years Korea’s shipbuilding developed from a mere number of isolated, large shipyards (cathedrals in the desert) established by large conglomerates (\textit{chaebol}) in close collaboration with the central government into an innovative cluster. The cluster is on the one hand characterised by a strongly developed supply industry and specialised universities and research institutes, but on the other hand by a weak, yet increasing role for local and regional institutions. The specific and context-dependent characteristics of this innovative cluster are more important explanations for its competitiveness than the financial interventions by the central government, which are repeatedly put forward by European policy-makers in their trade war with Korea.

Key words: shipbuilding industry, Korea, innovative cluster, trade war, political lock-in.

1. Introduction

The shipbuilding industry is both a very global industry and an industry with much state
intervention (Cho and Porter, 1986; Stopford, 1997). During the history of the industry, there have been dramatic changes in global leadership (Cho and Porter, 1986; Stopford, 1997; Todd, 1991). At the beginning of the 19th Century, the USA was the world leading shipbuilding nation, at a time when ships were made of timber. From 1850, when the first steel ships were built, until 1945 Great Britain was the world leader in shipbuilding (in 1882 it captured 80% of the world market), whereas shortly after the Second World War Germany and some other European countries took over leadership from Great Britain. In the 1960s Japan became the world leading shipbuilding nation. Since 1973 South Korea has been building up and expanding its shipbuilding industry and since a couple of years Japan and South Korea share world leadership in shipbuilding (Figure 1). Among the emerging shipbuilding countries, Poland and in particular China are the most prominent (Michael, 2004). Whereas new countries successfully entered the world shipbuilding markets others, such as Sweden, had to withdraw from the market (Todd, 1991).

![Figure 1: Tonnage Completed and Delivered by Major Shipbuilding Regions from 1952 to 2002](image)

The shipbuilding industry has been a global manufacturing industry for a long time, since product needs are quite standardised for certain vessels and transport costs for completed ships are relatively low (Cho and Porter, 1986). At the same time, the industry is geographically highly concentrated, as it is dependent both on large singly manufacturing sites and on coastal locations and as the shipbuilding industry has always been dominated by one or a few countries.