ABSTRACT

In 2017, it was estimated that South Africa had about 80% of the manganese global resources, but produced only about 36% of the global manganese production. About 90% of the global output of manganese is currently utilised in steel production and there is currently no substitute for manganese in steel production. The global outlook for steel demand is expected to continue on a growth path into the near future. The expected increase in manganese demand is expected to lead to the need for the global manganese industry to invest in additional production capacity to meet the demand. South Africa needs to be more competitive regarding its significant manganese resources in order to grow her share of the global production.

The aim of this research study was to conduct a competitiveness analysis of the manganese industry using Porter's diamond model. Porter's diamond model was used because when it was compared to other competitiveness analysis models, it was found to be relatively more holistic. Porter's diamond model has four main aspects of the model, which are the factor conditions, demand conditions, related and supporting industries, and company structure, strategy and rivalry. The competitiveness of the South African manganese industry was compared to the manganese industries in Brazil, India, Ukraine, Australia, and Gabon since these countries have significant manganese resources outside of China and are major manganese producers.

The South African and Gabonese manganese industries were found to be less competitive in terms of the factor conditions compared to Australian, Brazilian, Indian and Ukrainian manganese industries. However, when it comes to the demand conditions, related and supporting industries and company strategies, structure and rivalry the South African manganese industry was found to be competitive or on par with the other major manganese producing countries. Overall, the Australian, Indian and Brazilian manganese industries were found to be more competitive than South Africa and Gabon. In conclusion, the South African manganese industry was found to be less competitive when Porter's diamond model was used to analyse competitiveness.

The South African manganese industry requires significant improvement mostly in the factor conditions in order to be competitive like Australia, Brazil and India. Issues such as quality education of its citizens in key sectors that drive the economy, the upgrading of the manganese, the management of scarce water resources, access to electricity and the threat of renewables on electricity costs, limited capital resources and foreign direct investment, and logistics competitiveness need to be addressed.