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## APPLYING THE DIAMOND APPROACH TO THE COMPETITIVENESS OF THE AFRICAN SPACE INDUSTRY - A CASE STUDY OF GHANA

## Abstract

This paper positions Ghana's competitive capability in the space industry relative to Algeria, Egypt, Nigeria and South Africa, using the dual double diamond model developed by Dong-Sung Cho, Hwy-Chang Moon and Kim Min-Young.

The domestic and international components of physical factors, namely: 'factor conditions', 'country strategy, structure and rivalry', 'related and supporting industries' and 'demand conditions'; as well as human factors: 'workers', 'politicians and bureaucrats', 'entrepreneurs' and 'professionals', were assessed with a simplied quantitative model based on interval scales. Each dimension was broken down into causal variable components, which were then quantified through measurable proxy variables and weighted by Space industry members.

Results indicate that domestically, Ghana lies in the middle or bottom half of the rankings along all dimensions except 'entrepreneurs' and 'politicians and bureaucrats' where Ghana ranks second, with a score of 5.06, and first, with a perfect score of 10.0, respectively. Internationally, Ghana ranks second in the 'entrepreneurs' dimension with a score of 9.29, as well as second in the 'politicians and bureaucrats' dimension with a score of 9.30. Outside of those two dimensions, Ghana again ranks in the middle or bottom half of the rankings.

These results suggest that Ghana's competitive advantage vis-à-vis Algeria, Egypt, Nigeria and South Africa lies in the 'entrepreneur' and 'politicians and bureaucrats' dimensions. Ghana is relatively poorly positioned along the other dimensions. Overall, Ghana ranks 3rd in the domestic and international components of competitive advantage, displaying a total advantage only over Algeria and Nigeria.