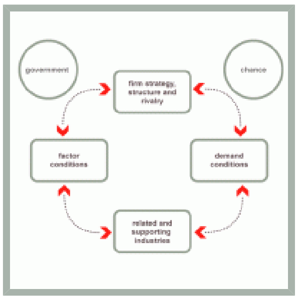
diamond model - competitive advantage of nations



characteristics

author:	Porter, Michael E.
country:	United States
period:	1990
type:	model
role:	consultant and manager
activity:	analyse and plan
topic:	strategic management and culture & internationalisation
abstr. level:	environment
perspective:	rational
status:	for review
module:	classics I
comments:	0

description:

In the mid-1980s, Professor Michael Porter of Harvard Business School developed a framework to assess the competitiveness of regions, states and nations.

In the early 1980s, U.S. industry saw its economic competitiveness eroded by Japanese and European competitors. Porter concluded that classical international trade theories, which mainly focused on slowly changing, “inherited” variables such as natural resources, climate, size of working population, etc., could only partially explain why nations gain competitive advantage in a given industry. This observation initiated a four year study of ten major trading nations and 100 industries that covered 50% of total world exports in 1985.

Successful international industries tend to be located within particular cities and regions. Geographic concentration is vital for firms to efficiently draw on each others resources and capabilities and to benefit from a shared culture and learning experience, supply capabilities and local infrastructure. Industry clusters are geographical concentrations of interconnected businesses, suppliers, and associated institutions in a particular field. Clusters lead to productivity increases, higher innovation rates and faster new business developments. Porter argued that productivity is the main factor for international competitiveness and that the standard of living of a country’s population can be improved as a direct result of increases in that factor. Clusters may take different forms between firms producing different products across value-added chains or between firms producing similar products at different stages of the same chain. Examples are banking in London and New York, chemical transport in Rotterdam, Houston and Singapore, film in Mumbai and Hollywood and Internet/Software in Silicon Valley and Bangalore.

Porter’s Diamond of competitive advantage model of nations consists of four main attributes that shape the national environment in which local, connected firms compete:

1. FACTOR CONDITIONS
The nation’s relative position in vital industrial production factors such as skilled labour or infrastructure, are important determinants of national competiveness. Both the level of individual factors and the overall composition of the resource mix must be considered. Factors can be country specific or industry specific. For example, Japan’s large pool of engineers -- reflected by a much higher number of engineering graduates per capita than almost any other nation -- has been vital to Japan’s success in many manufacturing industries.

2. DEMAND CONDITIONS
The nature of home demand for an industry’s products and services requires considering both the quantity and quality of the demand. For example, Japan’s sophisticated and knowledgeable buyers of cameras helped stimulate the Japanese camera industry to improve product quality and to launch new, innovative models.

3. RELATED AND SUPPORTING INDUSTRIES
The presence or absence in the nation of internationally competitive supplier and related industries is a key factor. Until the mid-1980s for example, the technological leadership in the U.S. semiconductor industry provided the basis for U.S. success in personal computers and several other technically advanced electronic products. Adoption of the automobile took off in the USA after the construction of a national system of highways and gas stations.

4. FIRM STRATEGY, STRUCTURE, AND RIVALRY
The national conditions that determine how companies are created, organised and managed, as well as the nature and extent of domestic rivalry. For example, the predominance of engineers on the top-management teams of German and Japanese firms results in emphasising the improvement of the manufacturing processes and product design. Furthermore, domestic rivalry creates pressure to launch new products, to improve quality, to reduce costs and to invest in new, more advanced technologies.

Porter stated two additional variables that indirectly influence the diamond:

5. CHANCE EVENTS
Disruptive developments outside the control of firms and governments that allow in new players who exploit opportunities arising from a reshaped industry structure. For example, radical innovations, unexpected oil prise rises, revolutions, wars, etc.

6. GOVERNMENT
Government choice of policies can influence each of the four determinants. Successful government policies work in those industries where underlying determinants of national advantage are present and reinforced by government actions. Government can raise the odds of gaining competitive advantage but lacks the power to create advantages on its own.

These six attributes promote or impede the creation of competitive advantages of firms, clusters, and nations. All conditions need to be present and favourable for an industry/company within a country to attain global supremacy.

Managers can use the diamond model during their internationalisation efforts to determine if the home market can support and sustain a successful internationalisation effort or to asses in which country to invest next. The model helps entrepreneurs decide where to start their next venture. Government officials can use the model for guidance on how to best build a supporting policy framework for a given industry.

assets:

- diamond model
  ProvenModels ● editor PM ● version 2.5 ● 301 KB
- factor conditions matrix
  ProvenModels ● editor PM ● version 1.7 ● 237 KB
- industry cluster sample
  ProvenModels ● editor PM ● version 1.3 ● 102 KB

pros:

- Porter□s Diamond model explains why corporations domiciled in certain countries are successful in penetrating foreign markets. This model can be used to assess competitive advantage of the national environment in which individual business units, organisations, or industries operate.
- The model helps to understand the dynamic interplay between a firm□s corporate strategy and the competitive advantages of a country □ the □habitat□ in which organisations operate. This model is an addition to Porter□s five forces model dealing with industry structure. The diamond model emphasises that a firm should only internationalise when it has a strong position in its home market.
- The model provides an explanation of why industry clusters are relevant
- Governments can play an active role in supporting the development of clusters countering the notion of public laissez-fair
- The model shows that apart from inter-firm rivalry, cooperation is a vital component of corporate strategy. Companies should form strategic alliances, especially with organisations in related and supporting industries.
- The model explains in part the □resource curse□ -- why a large natural resources base is not sufficient to develop industrial might.

cons:

- The situation in which all four attributes are correctly lined up to boost the development of a given industry provides only a higher probability that an industry will develop. Its development depends on personal action for the favourable conditions to be fully commercially exploited.
- The absence of any of the four conditions from the diamond domestically, may not inhibit companies and industries from becoming globally competitive. For example if related and supporting industries are not available locally, materials and components can be easily brought in from abroad because of advancements in transportation and the relaxation of import restrictions.
- Capacity gets created by better allocation of resources due to the pressure of competition. The model pays no direct attention to competence building.
- The level of importance of chance as a nucleus for change is not clear. How much □change□ is needed to make the transition to a globally competitive economic cluster?
- Cooperation directly between rivals is considered non advantageous due to the reason that it decreases the strength of rivalry. This view does not always hold, e.g. when - based on cooperation - industry standards get developed that grow the overall market.
- The importance of exchange rates and wage rates in the determination of competitiveness is overlooked. No comparative data for wages, price levels or cost levels in manufacturing were listed in the country fact files in Porter□s 1990 volume.
- The impact of virtual clusters where participants located across countries collaborate via Internet on Porter□s model has not been determined
- The model assumes that national free markets exist where firms compete head-to-head. This is not the case in many countries on this globe.
- Porter placed perhaps a too great an emphasis on the role of home based companies when the driving force is the multinational company
- Moon, Rugman & Verbeke argued that the Porter Diamond Framework is useful in a single country context but, as so much of a nation□s activity takes place in a regional, international or global context, it is important to consider the trade relationships between countries to gain a full understanding at the nation level. A Double Diamond Framework was proposed to consider the trade space between two countries.

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