Michael E. Porter. *The Competitive Advantage of Nations.* New York: Free Press, 1990. 855 pages. Hardbound. UK£ 25.

Trade is a field of economics that is useful for investigating the issue of economic competitiveness. A nation's advantages in competing against other nations are reflected in its performance in international economic transactions. Earlier theories on trade (Ricardian and Heckscher-Ohlin) analysed a nation's *inter-sectoral* comparative advantage. Due to the intuitive appeal of these theories, governments have implemented various policies designed to improve comparative advantage in factor costs by reducing interest rates and resorting to devaluation, special depreciation allowances, export financing, etc. There is now a growing awareness that these theories are unrealistic as to many industries, although they can be useful in explaining broad tendencies apparent in the patterns of trade.

On the other hand, technology-gap and product-cycle models attempt to explain absolute advantage based on cross-country variations in technology—an important departure from the Heckscher-Ohlin world. Absolute advantage refers to the absolute cost advantage of a nation over another in producing a product. Trade occurs as a result of a nation's owning an absolute advantage earned from its technological lead over another.

The Competitive Advantage of Nations by Michael Porter addresses some very important issues related to trade in goods and services: Why do some nations succeed and others fail in international competition? Why are firms based in a particular nation able to create and sustain competitive advantage against the world's best competitors in a particular field?

Porter expresses his strong conviction that a decisive national economic environment allows firms to create and sustain competitive advantage in particular fields, and hence in the competitive advantage of nations. He emphasises that although much can be learned through an economy-wide approach (which reflects national characteristics) to understand the competitive success of a nation, yet the industry-specific circumstances, choices, and outcomes overshadow the macro approach. An industry is where competitive advantage is either won or lost. The nation influences the ability of its firms to succeed in particular industries. The outcome of many struggles in individual industries determines the state of a nation's economy and its ability to progress. Thus a firm must understand the national attributes that are most crucial in determining its ability, or inability, to create, foster, and sustain competitive advantage in international terms.

A nation's standard of living in the long term depends on its ability to attain a high and rising level of productivity in the industries in which its firms compete. This rests on the capacity of its firms to achieve improving quality or greater efficiency. The influence of the home nation on the pursuit of competitive advantage in particular fields is of central importance to the level and rate of productivity growth achievable. The long-dominant model used to explain the influence of nations in succeeding internationally in particular industries is showing certain weaknesses. It is unable to explain why firms based in particular nations are able to compete successfully in particular industries, nor can it explain why a nation's firms are able to sustain their competitive positions over considerable periods of time.

Porter explains, convincingly, why previous efforts to explain the competitiveness of an entire nation have been unconvincing, and why attempting to do so is tackling the wrong question—as some see national competitiveness as a macroeconomic phenomenon, driven by such variables as exchange rates, interest rates, and budget deficits. Interestingly, many nations have experienced rapidly rising living standards despite budget deficits (Japan and Korea), appreciating currencies (Germany and Switzerland), and high interest rates (Italy and Korea). The view that competitiveness depends on possessing abundant resources has been contradicted by the most successful trading nations which are resource-poor. Likewise, the view that competitiveness is the most strongly influenced by governmental policy (targeting, protection, export promotion, etc.) is not confirmed by a broader survey of experience conducted by the author.

For Porter, the only meaningful concept of competitiveness at the national level is the national productivity with which a nation's resources are employed. Sustained productivity growth requires that an economy continually upgrade itself. A nation's firms must relentlessly improve productivity in existing industries by raising product quality, adding desirable features (differentiated products), improving product technology, boosting production efficiency or improving the quality of factors of production through technological progress. Firms must also develop a capability to compete in even more sophisticated and new industry segments, where productivity is generally higher. This also absorbs human resources freed up in the process of improving productivity in existing fields, say, with the introduction of automation.

Expanding exports of competitive industries exerts an upward pressure on the exchange rate, making it more difficult for the relatively less productive industries in the nation to export. Employing subsidies and protection to maintain such industries only slows down the upgrading of the economy and limits the nation's long-term standard of living. Thus the ability of a nation to export many goods produced with high productivity, which allows the nation to import many goods involving lower productivity, is a more desirable target because it translates into higher national productivity. A fall in the world export share in the high productivity industries is a danger signal for a national economy. A rising sophistication of exports can support productivity growth even if overall exports are growing slowly.

To explain "competitiveness" at the national level, one must understand the determinants of productivity and the rate of productivity growth—inter-linkage of these determinants is the core of Porter's theory. To find answers, one should not focus on the economy as a whole but on specific industries and industry segments. This is because human resources, for example, which are the most decisive in modern international competition, must possess high levels of specialised skills in particular fields and be developed with much effort, just like the development of commercially successful technology. These are not the result of the general educational system alone. Competitive advantage is a dynamic and evolving process and is created and sustained through a highly localised process. Differences in national economic structure, values, institutions, and histories contribute profoundly to competitive success. It must be underscored that cost advantage grows as much out of efficient-to-manufacture product designs and leading process technology as it does out of factor costs or even economies of scale.

Four broad attributes (hereafter called the "*Diamond*") of a nation that shape the environment in which local firms compete (and which promote or impede the creation of competitive advantage) are:

1. *factor conditions*: the nation's favourable position in factors of production, and advanced and specialised factors, including communication infrastructure and highly educated personnel;
2. *demand condition*: the nature of home demand for industry's product or service;
3. *related and supporting industries*: the presence or absence in the nation of supplier industries and related industries that are internationally competitive;
4. *firm strategy, structure, and rivalry*: the conditions in the nation governing how the companies are created, organised, and managed, and the nature of domestic rivalry.

The role of government in national competitive advantage is important in influencing all four determinants.

Porter suggests that a corporate leader firm must set its sights on creating and sustaining competitive advantage as measured against the best worldwide competitors. Firms should aspire to sustain success rather than mere survival or the temporary profits of harvesting market position. The following principles/ways are important for both domestic and global competition.

1. Competitive advantage grows fundamentally out of improvement, innovation, and change. A company should actively seek out pressure and challenge, not try to avoid them. Some of the ways of doing so are as follows: sell to the most sophisticated and demanding buyers and channels; seek out the buyers with the most difficult needs; establish norms of exceeding the toughest regulatory hurdles or product standards; find

sources from the most advanced and international home-based suppliers; treat employees as permanent; establish outstanding competitors as motivators; identify and serve buyers with the most anticipatory needs; investigate all emerging new buyers; find the localities whose regulations foreshadow those elsewhere; discover and highlight the trends in factor costs; maintain ongoing relationships with centres of research and sources of the most talented people; study all competitors, especially the new and unconventional ones; bring some outsiders into the management team; and serve home buyers who are international and multinational.

2. Competitive advantage involves the entire value system (array of activities). Close and ongoing interchange within the national cluster are integral to the process of creating and sustaining advantage. These interchanges include senior-level management contact, close links with R&D institutions, reciprocity with researchers for testing new products, and cooperation in penetrating and serving international markets.
3. Competitive advantage is sustained only through relentless improvement, continuous technological progress and efforts to differentiate products, and position in the home and global markets.
4. Sustaining the advantage demands that its sources be upgraded. A firm should develop advanced human resources and internal technical capability; have more sources of advantage at its disposal so that the imitator has more to match. It should make its less sustainable advantages obsolete: for example, automating away much of the advantage of relatively low-cost and productive labour. Destroy old advantages by creating new ones, lest a rival should do so.
5. Sustaining advantage ultimately requires a global approach to strategy. Penetrate foreign markets. Diversify production and serve sophisticated buyers and markets. Increase global production and foreign sourcing. Keep up with technology development abroad. Meet the best competitors. Locate regional headquarters. Select foreign acquisitions and make international alliances.

In Porter’s theory, there is a role for government policy to influence national advantage. However, government does not control the national advantage policy; it can only influence the “diamond”. The central goal of the policy is to deploy a nation’s resources with high and rising levels of productivity. The role of the government here is to stimulate such dynamism and upgrading.

There is a wide range of government policies that have a bearing on national advantage in some industries. In this regard, education and training policy, science and technology policy, tax policy, health-care policy, anti-trust policy, regulatory policy, technical standards, environmental policy, fiscal and monetary policy, trade policy, provision of hard and soft infrastructure, procurement policies, and many others are relevant. Government policy has a role in shaping the breadth and international success of related and supporting industries in the country, and is integral to the competitive upgrading of other industries. Such policies include the policies towards the media and cluster formation. Finally, government policy has much influence on the way in which firms are created, organised, and managed; and on their goals, and on how they compete.

This book has a strong message for the Pakistani economy, which is suffering from virtual stagnancy of total factor productivity as follows. Government policies towards industry in Pakistan must recognise that the “diamond” is a system, which makes policies in many areas interdependent. At present, a weak linkage has constrained the development of the economy. There is, thus, a need for progress on each determinant. Policies in Pakistan often aim to improve one aspect of the national environment but impose unintended consequences by not addressing the others.

The Government should not overstate or overplay its role in national competitive advantage. Past policies have indeed adopted such a course, which has created an economy of dependent, backward-looking, and ultimately unsuccessful firms. The Government should recognise those areas in which it has a legitimate influence in creating the conditions for economic prosperity. As a top priority, the Government should provide an enabling environment for factor creation and formation of clusters, which already exist in some form. The Government should also adopt policies that create an environment conducive to the development and advantage of industries and do not unnecessarily raise the cost of production. Local firms should be encouraged to be responsive to modern business and manufacturing practices.

Zafar Mahmood

Pakistan Institute of Development Economics,
Islamabad.