Chapter 2: Theoretical Frameworks of National Competitiveness

In this chapter, we first discuss the concept of national competitiveness. Scholars and institutions have been very prolific in proposing their own definitions of competitiveness. Relying on multifaceted opinions, a condensed concept of national competitiveness is proposed. The evolution of competitiveness and the causes of competition among nations are included in this section.

In the second and third sections of this chapter, Porter’s Diamond model and the stages of competitive development are presented. The model is a dynamic of competitiveness and it is also comprehensive because it aggregates all the ideas of competitiveness from classical to modern. The last section examines the “golden” rules of competitiveness that is fundamental to the analysis in the following chapters.

2.1 The Concept of Competitiveness

In recent years, the concept of competitiveness has emerged as a new paradigm in economic development. Competitiveness captures the awareness of both the limitations and the challenges posed by global competition. Although its importance is acknowledged (Porter 2004, p 19), competitiveness has been a controversial topic among economists and scholars, especially competitiveness at national level.

2.1.1 National Competitiveness

National competitiveness has become a widely used term in economic literature in recent years. However, the wide and frequent usage of the term is not always based on a clearly defined meaning, and a lot of misunderstandings and contradiction are based on this terminological non-exactitude (Reiljan 2000, p7). In almost all papers concerning the competitiveness of a nation, it is not clearly determined what the target of a nation’s competitiveness is. There is no accepted definition of competitiveness, and the term seems to mean different things to different researchers – some may stress a country’s technological leadership, whereas others stress export shares, productivity or its growth rate (Boltho 1996, p 2; Fröhlich 1989, p 22; OECD 1992; Porter 1990, p 25). This refers to the typical treatment of the issue, meaning that instead of defining the competitiveness of a nation, various factors that influence competitiveness are explored. Most of the studies mentioning the competitiveness of a nation present the factors used to measure the competitiveness, however the concept itself is not defined. It is impossible to imple-
ment a correct measurement and interpret the results adequately when the target is not defined (Reiljan 2000, p9). On the basis of such studies it is hard to derive theoretically proven and practically applicable proposals.

The necessity of improving national competitiveness, its maintenance and emerging issues are being intensively discussed in both economic theories and practical life. The market economy is the competitive economy and therefore different theories consider competition to be an important part of economic activity. The increasing importance of national competitiveness can be explained by strongly economic integration and globalization, that also requires a constant growth of competitive strength (Reiljan 2000, p10).

Some economists have expressed very serious reservations about its meaning as they believe the idea to be very elusive. One of them is Krugman. He argued that definition of national competitiveness is a futile exercise and a dangerous obsession. National economies are not in direct competition with one another. One nation cannot go bankrupt in the way firms do. He argued that the notion of national competitiveness makes no sense (Krugman 1994, p 44). In addition, Reich (1990) stated that national competitiveness is one of the rare terms of public discourse that have gone directly from obscurity to meaninglessness without any intervening period of coherence.

Confusion in terminology and problems with defining competitiveness are not reasons for eliminating the term or ignoring practical analyses of the competitiveness of a nation. Fortunately, their arguments have not stopped thinking and research on national competitiveness (Hämäläinen 2003, p3). Lall (2000b) argued that national competitiveness, in fact, is a real issue that can be defined and measured. Porter stated that the concept of national competitiveness is meaningful and it is explained by national productivity (Porter 1990, p6). According to Porter, in order to understand competitiveness, the beginning point must be the sources of a nation’s prosperity. A nation’s standard of living is determined by the productivity of its economy, which is measured by the value of goods and services produced per unit of the nation’s human, capital, and natural resources. The World Economic Forum defined competitiveness as ability of a country to achieve sustained high rates of growth in GDP per capita (WEF 1996, p 19). In the World Competitiveness Yearbook (2003), IMD clarified that national competitiveness is the ability of a nation to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its people. This concept emphasizes a climate in which firms compete.

In contrast, OECD expresses a country’s export share in international markets. National competitiveness is defined as ability of a nation to, under free trade and
fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real income of its citizens over the long term. This makes competitiveness as a zero-sum game, because one country’s gain comes at the expense of others. This view of competitiveness is used to justify intervention to skew market outcomes in a nation’s favor (Porter 2003, p25).

Some others argued that economies may become more competitive by keeping their currencies undervalued through nominal depreciations. In the short-term there can be important gains in price competitiveness due to exchange rate fluctuations largely resulting from short term speculative capital flows. These exchange rate changes are much more volatile than productivity. The result is there can be sudden dramatic changes in price competitiveness without any change in the fundamentals. A strategy of keeping currency undervalued, however, will most likely be unsuccessful in the long-term since it may only mask and perpetuate a lack of productivity in the country’s firms (UNIDO 2002). Countries that systematically rely on devaluation to maintain their competitiveness often fail to improve productivity and sustain economic growth in the long term.

Boxes: 2-1 Definitions of competitiveness

“Competitiveness, a field of economic knowledge, which analyses the facts and policies that shape the ability of a nation to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its people“ (IMD’s World Competitiveness Yearbook, 2003).


“National competitiveness refers to a country’s ability to create, produce, distribute and or service products in international trade while earning rising returns on its resources” (Scott, B.R: and Lodge, G.C., “US competitiveness in the world economy”, 1985, p3).

“Competitiveness includes both efficiency (reaching goals at the lowest possible cost) and effectiveness (having the right goals). It is this choice of industrial goals which is crucial. Competitiveness includes both the end and the means toward those ends” (Buckley, P.J. et al “Measures of International Competitiveness: A critical survey “ Journal of Marketing Management, 1998).

“Competitiveness should be seen as a basic means to raise the standard of living, provide jobs to the unemployed and eradicate poverty” (competitiveness advisory group “Enhancing European Competitiveness” second report to the
President of the Commission, the Prime Ministers and the Heads of State, December 1995).

"Competitiveness is the degree to which a nation can, under free trade and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real income of its people over the long-term" (OECD)

"The ability to produce goods and services that meet the test of international markets while citizens earn a standard of living that is both rising and sustainable over the long-run" (the First Report to the President and Congress, 1992. US Competitiveness Policy Council)

"Competitiveness implies elements of productivity, efficiency and profitability. But it is not an end in itself or target. It is a powerful means to achieve rising living standard and increasing social welfare – a tool for achieving targets. Globally, by increasing productivity and efficiency in the context of international specialization, competitiveness provides the basis for raising people’s earnings in a non-inflationary way" (Competitiveness Advisory Group – Ciampi Group, Enhancing European Competitiveness, first report to the President of the Commission, the PM and the Heads of State, June 1995)

"Competitiveness should be seen as a basic means to raise the standard of living, provide jobs to the unemployed and eradicate poverty" (Competitiveness Advisory Group – Ciampi Group, Enhancing European Competitiveness. Second report to the President of the Commission, the PM and the Heads of State, June 1995

Source: IMD

In general, the studies from different scholars and organizations mention different aspects of the concept of national competitiveness. However, the concepts of competitiveness involving productivity and living standard are more widely accepted. In this study, the concept of national competitiveness is based on the following academic views of competitiveness from well-known different economists and organizations, which has inspired our research on national competitiveness. National competitiveness refers to a nation’s ability to create and sustain economic growth, and raises the standard of living of its citizens by improving national productivity in condition of a market economy.

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5 The definition is based on the concept of the WEF, IDM, the report to the President and Congress, 1992 US Competitiveness Council, and the notion of competitiveness by M.Porter.
Obviously, productivity is fundamental to national competitiveness and a nation’s living standard in the long term. Productivity will secure sustained economic growth and improvement in citizens’ living conditions. Productivity depends both on the value of a nation’s products and services, measured by the prices they can command in open markets, and the efficiency with which they can be produced (Porter 2003, p25). Productivity growth leads to rise in real incomes and living standards (Haque 1995, p23). Productivity is the target, not exports per se. Only if a country expands exports of products or services it can produce productively will raise national productivity (Porter 2003, p26). The productivity of nations is ultimately set by the productivity of their companies (Porter 2000, p 41 ). An economy cannot be competitive unless companies operating there are competitive, whether they are domestic firms or subsidiaries of foreign companies. The productivity of the entire economy matters for the standard of living, then, not just the trade sector (Porter 2004, p35).

The world economy is not a zero-sum game. Many countries can improve their prosperity if they can improve productivity (Porter 2004, p 21 ). Productivity allows a nation to support high wages, a strong currency, attractive returns to capital, and with them a high standard of living (Porter 2003, p26). It would be a delusion to consider that it is possible to gain competitiveness in conditions of low productivity. Developing countries, like Vietnam or China, have internationally competitive industries because the low cost of production is stem from the lower real wages. However, low wage based competitiveness is fleeting (Porter 1990). It would be wrong to consider a nation to be competitive if it is gained on the ground of low labor cost, decreasing wages and irrelevant working conditions. It rather refers to low level of competitiveness of a country because it is not able to guarantee higher income to its citizens (Mosley 1993, p 225). The central challenge in economic development, then, is how to create the conditions for rapid and sustained productivity growth (Porter 2003, p 25).

Ultimately, the target of national competitiveness is “general welfare”. All other interpretations, including trade issues, are seen as major factors of competitiveness (Kitnmantel 1995, p106). The competitiveness of a nation is described by welfare of its citizen and economic growth. According to Fagerberg, competitiveness reflects the ability of a country to secure a high standard of living for its citizens relative to the citizens of other countries (Fagenberg 1996, p48). Landau’s approach emphasizes the growth of citizens’ living standard in line with relatively equal distribution of wealth, providing jobs to everyone who is able and willing to work; and doing it without harming the living standard of the next generation (Landau 1992, p299). Improving the standard of living and general welfare are considered to be final objectives of competitiveness (Tellisuuden Kestkusliitto 1989, p3). Success in foreign trade and foreign investment inflow can be seen as
Determinants that influence national competitiveness (see further in the next chapter).

**Industry Competitiveness**

Competitiveness of an industry, formed by the set of enterprises with similar activities could be to a certain extent similar to that of enterprise’s competitiveness (Reiljan 2000, p14). Meanwhile, the industry is competing with other industries in the internal economy. In terms of the international economy, industry competes with similar foreign industries in other countries. The competitiveness of an industry is to a great extent determined by the economic and political framework. There are several factors that contribute to the growth of a certain industry’s competitiveness such as the tax system, subsidies or import export terms etc. The overall research of economic and political benefits or restrictions and their impact allows one to evaluate where the industry operates efficiently, or just relies on benefits.

**Enterprise Competitiveness**

At the level of firm, competitiveness can be defined rather simply. Firms are competitive, if their products and their prices fit the requirements of the relevant markets, and they remain profitable in their business.

Enterprise competitiveness is the ability to sustain a market position by inter alia supplying quality products on time and at competitive prices through acquiring the flexibility to respond quickly to changes in demand and through successfully managing product differentiation by building up innovative capacity and an effective marketing system (Altenburg 1998). The competitiveness of a firm is the ability to do better than comparable firms in terms of sales, market shares and profitability, and is achieved through strategies. Buckley argued that a firm is competitive if it can produce products and services of superior quality and lower costs than its domestic and international competitors. Competitiveness is synonymous with a firm’s long-term profit performance and its ability to compensate its employees and provide superior returns to its owners (Buckley 1998, p176).

The main difference between the competitiveness of an enterprise and that of a nation is that the enterprise will go bankrupt if it remains uncompetitive for long whereas a nation never goes out of business no matter how badly it is managed or how uncompetitive it is. When an economy loses its competitiveness, this is reflected in its declining employment, economic recession, rising inflation and deteriorating welfare rather than elimination from the market (Reiljian 2000, p 27). A nation remains competitive when it maintains some competitive industries and firms, and a competitive climate in which its firms compete. In turn, a competitive
industry encompasses a firm or some firms which remain competitive in both domestic and international markets.

2.1.2 Motivations of Competition among Nations

Nations compete because world markets are open (IMD 2005, p 610) and they become more open over time. Why did nations finally agree to lower their barrier, at least for economic reasons? The answer probably lies in the aftermath of the Great Depression. Many scholars, J.M. Keynes in particular, have shown that an economic slowdown in 1929 developed into a worldwide depression in the 1930s because nations adopted protectionist policies. In order to prevent such a situation happening again, the Bretton Woods agreement, in 1944, sought to liberalize international trade. Today, tariffs on goods are less than 4% among members of the World Trade Organization (WTO). Moreover, the OECD, since its creation, has fostered the development of the free movement of capital, goods and services, at first among developed countries and then worldwide. Finally, free trade areas such as NAFTA and regional integration organizations such as NAFTA and regional integration organizations such as the European Union have reinforced this development.

Technology and globalization have accelerated the trend toward a World, which is not only open, but also transparent and immediate. Enterprises now benefit from an enormous choice in selecting their business locations. Consequently, nations need to promote their comparative advantages in various areas. For instance, competitiveness used to only focus on the ability to show aggressiveness on world markets through exports and foreign direct investment (FDI). Today, competitiveness also emphasizes the ability to develop attractiveness, both to foreign and local firms, for activities that generate economic wealth. (IMD 2005, p 611). There is no common recipe for competitiveness in every nation. Each individual country needs to adapt them to their own environment. Competitiveness strategies succeed when they balance the economic imperatives imposed by world markets with the social requirements of a nation formed by its history, value systems, and traditions. Some scholars claim that nations themselves do not compete, rather, their firms do. There is no doubt that competitive firms are main engines of a nation's competitiveness. They are at root of wealth creation. Nevertheless, over the last decades governments' role has increased to such an extent that it is simply impossible to ignore their influences on modern economics. Several recent studies continue to underline the key role of nations in shaping the environment in which firms operate. A significant part of the competitive advantage of nations stems from far-reaching incentive policies which are designed to attract foreign investment.
2.1.3 Evolution of Competitiveness Concept

Different goals and social values have been stressed at different stages of the development of economic thought and by different economic schools. Therefore the methods and means proposed for achieving high level of competitiveness have been also different. It explains also the difference between schools on the definition of competitiveness and its formation. In other words, the concepts of competitiveness is result of a long history of thoughts, which will help to define the various aspects of this more modern and complex concept (IMD 2005 p 617).

Representatives of the Mercantilist attitude do not consider the concept of competitiveness to be ambiguous. It seems obvious to them that countries compete with each other in the same way as corporations do. To a Mercantilist competitiveness means country’s ability to export as much as possible and the “winner” is the one whose export volume exceeds import.

The classical model considers imports to be the purpose of trade. Exports are a cost to the country - produced but not consumed. Or to put it differently, exports are an indirect way to produce imports, because it is more efficient than the producing imported goods itself (Krugman 1996, p17-25). Representatives of classical school have expressed in several theories, especially the importance of achieving cost advantages. Adam Smith stated in his theory of absolute advantage that the one who is able to produce with the lowest cost in the world has the absolute advantage and thereby it determines basis of competitiveness (Smith 1776). David Ricardo explored comparative advantages in international trade. According to his view, international trade and specialized productions are implemented if comparative ratios of production costs by countries are different. This means that basis of exports can be only a relative advantage. Ricardo’s view is that international trade is created by difference of labor productivity among countries (Ricardo 1817, p 89-105).

The Neo-classical school understands the limitations of both the Classical and the Mercantilist position. They find the arguments for intervention in economical processes unimpressive. Representatives of the Neo-classical school are cynical about the likelihood that subtle arguments for intervention can be translated into productive policies in the real world (Krugman 1996, p20). David Ricardo explained that comparative advantage arises from differences in labor productivity, but did not satisfactorily explain why labor productivity is different between countries. Hecksher-Ohlin’s neo-classical theory of relative advantage argued that comparative advantage arises from differences in resource endowments and a country should specialize according to resource-endowments. It means that a country should specialize in products which production costs are relatively low because the factors of production are abundant (Best 1993, pp. 188).
Economists of Keynesian school want government to support domestic firms wherever there seems to be a winner-takes-all competition for future monopoly profits. The competitiveness of nations, as well as corporations, is determined by the efficiency of governmental economic policy. Both Europe and Japan consider government policy to be an effective factor of economic growth (Thurow, L 1992, p35). It is believed that the role of the government is to provide necessary conditions so that everyone can enter the market by which competitiveness is enhanced (see further in the next chapter).

**Finally,** Michael Porter who has tried to aggregate all these ideas into a systemic model, called the “Diamond” model. He stated that the only meaningful concept of competitiveness at the national level is national productivity (Porter 1990, p6). According to Porter, national prosperity is created, not inherited. Therefore his model is a dynamic of competitiveness. Porter model is also comprehensive because it includes not only factor conditions, as most traditional theories, but also other important variables simultaneously (see further in the next section). His model has played an important role in analyzing and assessing as well explaining the competitiveness of a nation by researchers and international organizations in recent years.

### 2.2 Porter's Diamond Model

Michael Porter offers a well-known model, the diamond model, which can help understand the competitiveness of a nation in global and regional competition. It is the fundamental model for much recent research involving national competitiveness such as the global competitiveness report (WEF-World Economic Forum) and the world competitiveness yearbook (IDM-Institute for Development Management). To find out what drives the national competitiveness of Vietnam, we use this as our basic model.

#### 2.2.1 Determinants in the Model

Why does a nation achieve international success in a particular industry? Why is one company more competitive than any other company in a particular industry and in a nation? Why do some nations remain more competitive than other nations? (Porter 1990, p 1-5).

The answer lies in the “Diamond” model which analyses the environment in which local firms compete. The model takes four environmental factors into consideration.
1. The factor condition is the nation’s position in factors of production, including skilled labor, natural resources or infrastructure, necessary to compete in a given industry.

2. The demand condition is the nature of the domestic demand for the industry’s products and services.

3. The related and supporting industries denote the presence or absence in the nation of supplier industries and related industries that are internationally competitive.

4. The firm strategy, structure and rivalry are the conditions in the nation governing how companies are created, organized, managed and nature of domestic rivalry.

The determinants, individual and as a system, create the context in which a nation’s firms are born and compete: the availability of resources and skills necessary for competitive advantage in an industry; the information that shapes what opportunities are perceived and the directions in which the resources and skills are deployed; the goals of owners, managers and employees that are involved in or carry out competition; and most importantly, the pressure on firms to invest and innovate.

When a national environment permits and supports more rapid accumulation of specialized assets and skills—sometimes simply because of greater effort and commitment—companies gain competitive advantages. When a national environment affords better ongoing information and insight into product and process needs, companies reap competitive advantages. Ultimately, nations succeed in particular industries because their home environment is the most dynamic and the most challenging and it stimulates and prods firms to upgrade and widen their advantage over time.

Nations are most likely to succeed in industries or industry segments where the national “Diamond”, a term Porter uses to refer to the determinants of a system, is the most favourable. The “Diamond” is a mutually reinforcing system. The effect of one determinant is contingent on the state of others. Favourable demand conditions, for example, will not create competitiveness unless the state of rivalry is sufficient to cause firms to respond to them. Advantages in one determinant can also create and upgrade advantages in others (Ibid., pp 132).

Chance and government, two additional determinants, can affect other determinants in differently important ways. Chance events are developments outside the control of firms, such as pure inventions or breakthroughs in foreign market demand. Government, at all levels, can improve or reduce from the national advan-
The role of domestic rivalry illustrates how the diamond operates as a self-reinforcing system. Vigorous domestic rivalry stimulates the development of unique pools of specialized factors, particularly if the rivals are all located in one city or region. For example, the University of California at Davis has become the world’s leading centre of wine-making research, in line with the California wine industry. In furniture and shoes industries, Italian consumers have learned to expect more and better products because of the rapid pace of new product development that is driven by strongly domestic competition among hundreds of Italian companies (Ibid., pp 146). Domestic rivalry also promotes the formation of related and supporting industries.
Figure 2.1: Porter's Diamond Model

- A local context and rules that encourage investment and sustained productivity improvement
- Meritocratic incentive systems across all major institutions
- Open and vigorous local competition

- Sophisticated and demanding local customers.
- Local customers needs that anticipate those elsewhere
- Unusual local demand in specialised segments that can be served nationally and

Sources: Porter (1990) and The Global Competitiveness Report 2004-05
The effects can work in all directions: sometimes suppliers become new entrants in the industry that they have been supplying, in turn, highly sophisticated buyers may themselves enter a supplier industry. Another effect of the diamond’s systemic nature is that nations are rarely home to just one competitive industry; rather, the diamond creates an environment that promotes clusters of competitive industries. Competitive industries are not scattered helter-skelter throughout an economy but usually linked together through vertical (buyers and sellers) and horizontal (customers, technology and channels) relationships. One competitive industry can help to create others in a mutually reinforcing process. Japan’s strength in consumer electronics, for example, drove its success in semiconductors toward the memory chips and integrated circuits these products use.

In general, the interplay among determinants encourages competitiveness among firms, industries and ultimately nations as described by Porter’s diamond model (see Figure 2.1).

2.3 Stages of Competitive Development

National economic development or competitive development is a process of development stages. Each stage reflects the characteristic sources of advantages of a nation: productivity, a nation’s competitiveness position, and national economic development level. Nations at different levels of development face distinctly different challenges (Porter 2004, p24).

The stages do not purport to explain everything about a nation or its development process. Some important concerns in development are inevitably left out, and no nation will fit a stage exactly. Instead, the stages are an effort to highlight attributes of a nation’s competitiveness. Despite the diversity of most economies, we can identify a predominant or emergent pattern in the nature of a nation’s competitiveness at a particular time. The pattern is reflected in the industries and segments in which the nation’s firms can successfully compete as well as the types of strategies they employ.

A nation’s competitiveness strategy is an art of balancing and enhancing a country’s absolute advantage and comparative advantages. In each stage of development, the country has to decide which factors to utilize; in which industries to invest; and where to innovate (Porter 1990, p 544-546).

Therefore, defining stages of competitive development is important to derive strategic implications for a nation’s competitiveness. Porter suggests four different stages of national competitive development: factor-driven; investment-driven;
innovation-driven and wealth-driven. In this section, we only introduce the first three stages, and analyze in detail the factor-driven and investment-driven development stages, which are the most meaningful for the research of developing countries (Figure 2.2).

**Figure 2.2: Stages of Competitive Development**

![Diagram of Stages of Competitive Development]

Sources: Porter (1990)

### 2.3.1 Factor-Driven Development

The resources-driven development is the initial stage, in which most companies from all internationally successful industries in a nation draw their advantages solely from basic resources of production such as: natural resources, or an abundant and inexpensive semi-skilled labor force. In the "Diamond" model only factor conditions are an advantage (Porter 1990, pp 546). This source of competitive advantage limits the range of industries and industry segments in which the nation's firms can successfully compete in international terms.

A nation's indigenous companies in such an economy compete solely on the basis of price in industries that require either little product or process technology or technology that is inexpensive and widely available. Technology is sourced largely from other nations and not created. This occurs in some industries via imitation, import and foreign direct investment (Porter 2003, pp 28). More advanced product designs and technologies are obtained through passive investment in turn-key plants or are provided directly by foreign firms that operate production bases in the nation. In this stage, companies compete on price and few of a nation's companies have direct contact with end users. They have limited roles in value chain, focusing on assembly, labor-insentive manufacturing, and resource extraction. Foreign firms provide most of the access to foreign markets. Domestic demand for exported goods may be modest (Porter 1990, pp 546-548).

In this stage, an economy is sensitive to world economic cycles and exchange rates, which drive demand and relative prices. It is also vulnerable to the loss of factor advantage to other nations and rapidly shifting industrial leadership (Porter 2003, pp 28). While the possession of abundant natural resources may support a higher per capita income for a sustained period of time, a resources-driven economy is one with a poor foundation for sustained productivity growth.
The resources-driven stage is one that has characterized virtually all nations at some point time. Nearly all developing nations are at this stage, including transition nations such as China and Vietnam.

### 2.3.2 Investment-Driven Development

The next stage is investment-driven development. In this stage, national competitiveness is based on the willingness and ability of a nation and its companies to invest aggressively. Companies invest to construct modern, efficient, and often large-scale facilities equipped with the best technologies available on global markets. They also invest to acquire more complex foreign products and process technology through licenses, joint ventures and other means, which allow competition in more sophisticated industries and industry segments. Such technology is typically a generation behind international leaders, who are unwilling to sell the latest generation. In this stage, however, foreign technology and methods are not just applied but improved upon (Porter 1990, pp 549). The ability of a nation’s industry to absorb and improve foreign technology is essential to reaching the investment-driven stage, and is the crucial difference between the resources- and investment-driven stages.

In this stage, basic resources become gradually advanced and a modern infrastructure is created through heavy investment from government, companies and individuals. Increasingly skilled workers and a growing pool of technical personnel, still paid relatively low wages, operate the sophisticated facilities and provide the internal capability to assimilate and improve technology (Porter 2003, p 29). Intense domestic competition in the industries in which the nation competes propels companies to invest continuously to push down costs, improve product quality, introduce new designs, and modernize production processes.

In the investment-driven stage, competitiveness is drawn from improving factor conditions as well as firm strategy, structure, and competition. While a nation’s firms still retain competitive advantages in basic resources costs, competitive advantages widen to include low-cost but more advanced factors and the presence of well-functioning mechanisms for resource creation, such as educational institutions and research institutes.

The investment-driven stage, as its name indicates, is one where the ability and willingness to invest is the principal advantage rather than the ability to offer unique products or produce with unique processes. At this stage, companies still compete in price-sensitive segments of the markets, and product designs often reflect foreign market needs. Domestic demand in this stage is largely unsophisti-
cated, because it exists in only a narrow and still emerging base of sophisticated industrial firms. A nation creates competitive advantage more from supply push than demand pull. Related and supporting industries are largely undeveloped in the nation at this stage. Production is almost solely based on foreign technology, foreign equipment, and even foreign components. As a result, process technology is modern but behind that of global leaders, and dependence on foreign suppliers constrains the pace of innovation. Typically, industries are relatively mature and produce either end products, basic components or undifferentiated materials. In mature industries, foreign rivals’ plants may be obsolete, providing opportunities for a nation’s firms to gain an advantage because of greater willingness to invest in modern assets.

The investment-driven stage is characterized by rapid gains in employment and the bidding up of wages and factor costs. Loss of competitive position in the most price-sensitive industries and segments begins. An investment-driven economy is concentrated on manufacturing and on outsourced service exports (Porter 2003, p 28). The economy becomes less vulnerable to global shocks and to movements in exchange rates than in the resources-driven stage, but it remains fragile.

The proper role of government in this stage reflects the sources of national competitiveness. Given that competition still rests heavily on factors and the willingness to invest, government’s role can be important. It can be important in such areas as channelling scarce capital into particular industries, promoting risk taking, providing temporary protection to encourage the entry of domestic rivals and the construction of efficient scale facilities, stimulating and influencing the acquisition of foreign technology and encouraging exports. Government, at this stage, must also usually take the lead in making investments to create and upgrade resources, though companies and individuals must begin to play a growing role as well (Porter 1990, p 549-552).

2.3.3 Innovation-Driven Development

In the third stage, innovation-driven competitive development, all the determinants are at work and their interaction are at the strongest. This stage is called innovation-driven because firms not only appropriate and improve technology from other nations but create them (Ibid., pp. 554). National competitiveness due to factor costs becomes less important. Instead of factor cost advantages, the ability of produce innovative products and services at the global technology frontier using the most advanced methods becomes the dominant source of competitive advantages (Porter 2003, p 28). New mechanisms emerge to create advanced and specialized factors and continually upgrade them. Favorable advanced factors, demand conditions, and the presence of related and supporting industries in the
nation allow firms to innovate and sustain innovation (Porter 1990, p 555). Consumer demand becomes increasingly sophisticated because of rising incomes, higher level education, increasing desire for convenience, and the invigorating role of domestic competition.

In this stage, firms compete internationally in more differentiated industry segments. They continue to compete on cost but now it depends not on factor costs but on productivity due to high skill level and advanced technology. The markets of price-sensitive segments are gradually transferred to firms from other nations. Companies also compete with self-contained global strategies and possess their own international marketing and service networks along with growing brand reputation abroad (Porter 1990). Foreign manufacturing develops in those industries whose structure favors a dispersed value chain either to reduce cost or to enhance marketing effectiveness in other nations. This stage also marks the onset of significant foreign direct investment.

In the innovation-driven stage, world-class related and supporting industries develop in important clusters. The clusters started in the factor and investment-driven stages become deepened and widened. In this stage, particularly, sophisticated services succeed in international competition and it becomes an important part of the economy.

This stage is also the most resistant to macroeconomic fluctuation and exogenous events. Industries are less vulnerable to external shocks and exchange rates movements because they compete on technology and differentiation. Firms’ global strategies provide a buffer against such fluctuations. The proliferation of successful industries reduces dependence on any one sector.

Government’s role in this stage is markedly different from the previous one. The appropriate philosophy and types of intervention change. Allocation of capital, protection, licensing control, export subsidy, and other forms of direct intervention lose relevance or effectiveness in innovation-driven competition (Porter 1990). In this stage, a government must rely more on the private sector. As an economy broadens and deepens, government cannot hope to keep track of all existing and new industries and all the linkages among them. Instead, government’s efforts are best spent in indirect ways such as stimulating the creation of more and more advanced resources, improving the quality of domestic demand, encouraging new business formation, preserving domestic rivalry, and other areas.
2.4 The “Golden” Rule of National Competitiveness

In order to achieve a sustainable economic growth in the long run, it is essential for a nation to further build and sustain its productivity and competitiveness. Competitiveness is a multi-faceted phenomenon, which involves economic, social, political and international dimensions and relates to all players in the economy. Competitiveness cannot in the long-term be sustained unless all the dimensions contributing to it are properly addressed. It is however often the case that these dimensions result in conflicting priorities, especially in the short-term where, for instance, the attainment of social objectives may conflict with economic efficiency considerations. The achievement of competitiveness across all these dimensions in a sustainable manner will depend upon golden rules that could result in win-win situations for economic players in the long-term. The golden rules for competitiveness therefore cover virtually all aspects of economic policy and require inputs from all social partners (IMD 2005, p 615).

2.4.1 Creating a Stable and Predictable Legislative Environment

There are two fundamental legislative factors that strongly influence competitiveness. One is the orientation of legislation toward business in areas such as property rights and the burden and predictability of taxation. Such legislation and taxation must be as non-burdensome and as business-friendly as possible. It must be stable and predictable to minimize the possible risks to business. In addition, legislation has to be directly geared to stimulate business activity and promote competitiveness, by voiding distortions in product and factor markets, enforcing product safety and environmental standards and encouraging business competition.

The second aspect is the efficiency with which the rule of law is enforced. This entails adequate security and judicial services and the absence of corruption. An essential requirement for the conduct of business and investment is the respect of property rights in a country, the minimization of corruption and the upholding of the rule of law in general. Although these issues may appear obvious, they constitute the principal reason why a number of countries with relatively low costs, significant economic potential and substantial resources fail to attract the investment required to realize their competitiveness.

2.4.2 Working on Flexible and Resilient Economic Restructure

This involves, first and foremost, sound and disciplined public finances. A lower share of government expenditure in the national output allows more resources to be profitably used in the private sector, directly as government absorbs fewer labor and financial resources and indirectly, by leading to a lower tax burden. The
second aspect of a macroeconomic structure conducive toward competitiveness is to have consistent and credible monetary and exchange rate policies. The third aspect is a market-oriented structural policy where resources are allowed to find their most profitable employment via the price mechanism and where markets are encouraged to function efficiently and competitively.

2.4.3 Investing in Physical and Technological Infrastructure

Infrastructure services should be provided at good quality and competitive costs in order to sustain competitiveness. Such services span beyond the provision of essential utilities and include information and communication technology needs. Of crucial importance within this context is a sound national financial system that enjoys a good reputation among market players and which effectively channels saving funds into investment while providing an efficient payments system.

2.4.4 Promoting Private Savings and Investment (Domestic and Foreign)

Attracting investment and foreign direct investment in particular, involves a proper mix between offering fiscal and other financial incentives and providing an appropriate economic climate for business in line with the golden rules for competitiveness discussed here. National competitiveness is nowadays increasingly dependent on the latter, as countries vying for international investment are all offering more or less equally attractive financial investment packages.

2.4.5 Developing Ability to Sell on the International Market (Exports)

This involves market aggressiveness and a pro-active approach to take advantage of potential opportunities, so as to anticipate the dynamics of demand and continuously balance the marketing mix in the most effective manner possible. This may involve substantial and on-going restructuring activities, particularly if these were previously oriented toward captive domestic markets.

2.4.6 Focusing on Transparency in Government

The quality and efficiency of public administration can make a substantial impact on business costs and competitiveness. Public administration provides a number of essential services to business as well as performing a regulatory role. It is important for a nation's competitiveness strategy that such services will be provided as efficiently as possible, while regulation is kept to the minimum required to achieve its aims, thereby resulting in the lowest possible burdens on the business sector. Administrative procedures faced by businesses should be reviewed toward
this end. Transparency and procedure simplification facilitate the efficient operation of businesses and enhance their competitiveness.

2.4.7 Harmonizing a Relationship between Wages Levels, Productivity and Taxation

Competitiveness requires that labor costs remain within the bounds of the growth of its productivity. The role of the social partners is to ensure that efficient work practices are sought at all times, to enable firms to succeed in the competitive challenge, making it possible to share the benefits of higher profits and higher wages, reaped via increased productivity and competitiveness. It is important that wages do not move out of line with productivity, especially in the public sector where a hard budget constraint does not exist, as is normally the case in private sector operations. At the same time, the effect of taxation as a wedge between the productivity of labor and the reward received for work effort is to be minimized as much as possible by, amongst other things, moderating direct tax progressiveness to the extent possible.

2.4.8 Preserving the Social Structure by Strengthening the Middle Class

Social cohesion is important in its own right, but it is also indispensable for a country to sustain its competitiveness and its international image as a suitable and stable place where to invest and conduct business. In this respect, the welfare system has a role to play by moving away from all-encompassing schemes toward more focused programs aimed at fulfilling genuine needs. Efforts toward improving tax compliance by the higher-income earning stratum of society would also allow an easing of tax burdens on other segments of society and improve social consensus on measures aimed at improving national competitiveness.

2.4.9 Investing Heavily in Education

In an increasingly globalized world where physical and financial resources are highly mobile across countries, the quality of human capital accounts for a significant part of the competitive success of a country. Human capital availability is not only an important determinant of business investment, but is also the main engine of knowledge dissemination and innovation.