

Moderating Effect of Porter's Diamond Framework Between Firm Strategies and Export Performance: A Conceptual Model

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Abstract: Generic firm strategies are composed of 3 main firm strategies: cost leadership, differentiation and focus strategies. Any firm who desires a prominent performance in the national or international business environment should follow one of these strategies and adapt itself to the demands of the relevant strategy. Competitive Advantage of Nations framework, on the other hand, asks the question "why some nations prosper in some industries whereas others cannot". According to this framework, nations with favorable factor and demand conditions, a proper context for firm strategy and rivalry, together with complementary related and supporting industries are said to prosper better than the ones who lacks these determinants. In this paper, Competitive Advantage of Nations Framework is treated as a proximate environment for firms that are competing internationally and a moderating effect of this framework on the relationship between generic firm strategies and firms' export performances is proposed. The conceptual model and relevant propositions are offered according to the findings in the literature.

Keywords: Generic Firm Strategies, Competitive Advantage of Nations, Competitive Advantage, Export Performance, Five Forces Framework

Özet: Jenerik Firma Stratejileri 3 ana stratejiden oluşmaktadır: düşük fiyat, farklılaşma ve odaklanma stratejileri. Ulusal ya da uluslararası iş ortamında başarılı olmak isteyen herhangi bir firmanın bu stratejilerden bir tanesini seçip, onun gereklerine uyum sağlaması gerekmektedir. Ülkelerin Rekabet Gücü modeli ise bazı ülkeler bazı endüstrilerde başarılı iken bazılarının neden bu endüstrilerde başarılı olamadığı sorunuyla ilgilenmektedir. Bu modele göre faktör ve talep koşulları, firma stratejileri ve rekabet için uygun bir ortam, ve bunları tamamlayıcı nitelikte ilgili ve destekleyici sektörlerin olduğu endüstrilerin daha başarılı olduğu, bu koşullara sahip olmayanların ise başarılı olamayacağı iddia edilmektedir. Bu çalışmada Ülkelerin Rekabet Gücü modeli, uluslararası piyasalarda rekabet eden firmaların sahip olduğu yakın çevre koşulları olarak ele alınmış ve önerilen modelde jenerik firma stratejileri ile firmaların ihracat performansları arasındaki ilişkiyi modere eden bir etken olarak kullanılmıştır. Çalışmada, kavramsal model ile birlikte yazına uygun olarak ilgili önermelere de yer verilmiştir.

Anahtar Kelimeler: Jenerik Firma Stratejileri, Ülkelerin Rekabet Avantajı, Rekabet Avantajı, İhracat Performansı, Beş Kuvvet Analizi

1. INTRODUCTION

According to Porter (1980), the essence of formulating a competitive strategy is relating a company to its environment and the state of competition in an industry depends on five competitive forces: threat of new entrants, bargaining power of suppliers, bargaining power of buyers, threat of substitute products and rivalry among existing firms (Porter, 1980). In coping with the five competitive forces in an industry and to gain Competitive Advantage (CA) in the market through value creation, firms should pursue any of the following generic competitive strategies: cost leadership, differentiation and focus (Porter, 1980). Firms who do not choose any of these strategies and concentrate on the demands of the strategy, are called “stuck in the middle” companies and has no chance in being successful and has a sustainable profitability.

Competitive Advantage of Nations Framework (Diamond Framework), which is used as a moderating variable in the conceptual model, outlines four broad attributes of a nation that shape the environment in which local firms compete: factor conditions, demand conditions, related and supporting industries, firm strategy, structure and rivalry. There are two additional factors that can affect the model indirectly: chance and government. According to Porter (1990), the collective strength of these attributes for a country promotes or impedes the creation of CA for that particular nation.

The conceptual model, proposed in this article, treats generic firm strategies as the independent variable, and export performance as the dependent variable while analyzing the moderating effects of the Diamond Framework on this relationship. The article commences by explaining each framework in detail and continues with the proposed conceptual model and propositions.

2. COMPETITIVE STRATEGIES

Since 1980s, how a firm achieves and maintains a CA has aroused great attention in the strategy literature, and resulted with the emergence of two dominant yet competing perspectives: competitive forces perspective (Porter, 1985) and the resource-based view (RBV²) (Barney, 1991). According to

² According to RBV, differential firm performance is accepted to be due to firm heterogeneity rather than industry structure (Dyer and Singh, 1998). RBV argues that CA stems from a firm's unique assets and inimitable capabilities (Zhou, et.al. 2008). According to Barney (1991), firms

competitive forces perspective, industry structure and a firm's strategic positioning are primary drivers of CA (Zhou, et.al, 2009). In this view, which is also named as "the industry structure view", supernormal profits are seen as a function of a firm's membership in an industry with favorable structural characteristics (Dyer and Singh, 1998: 660). In this perspective, the unit of analysis is the industry.

Harvard School Approach to the analysis of CA focuses mainly on the study of the influence of the external environment on a firm's strategy (Calcagno, 1996). As a member of this approach, Micheal Porter has played an important role in the development of CA construct. According to Porter, competitive strategy is "the search for a favorable competitive position in an industry" (Porter, 1985: 1) and the state of competition in an industry depends on five competitive forces: threat of new entrants, bargaining power of suppliers, bargaining power of buyers, threat of substitute products and rivalry among existing firms (Porter, 1980).

2.1. Five Forces Framework

The Five Forces Framework is depicted below:

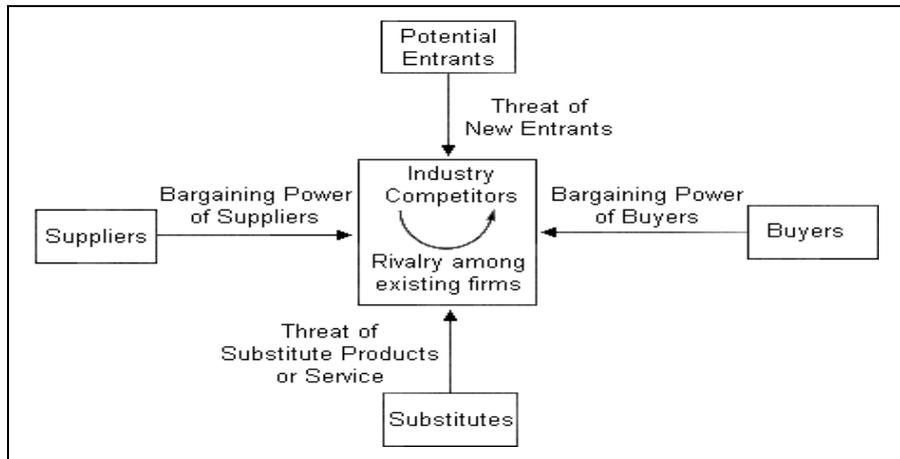


Figure 1: Porter's Five Forces Framework

Source: Porter, M.E. (1980), *Competitive Strategy, Techniques for Analyzing Industries Hand Competitors*, New York: Free Press, p.4

will achieve CA over competing firms if they can accumulate resources and capabilities that are rare, valuable, and difficult to imitate (Barney, 1991; Rumelt, 1984). Barney (1997) later combined the condition of imperfect substitutability with that of imperfect imitability and added the firm's ability to exploit the resource (Chan et.al. 2004). These attributes of firm resources are indicators of how heterogeneous and immobile a firm's resources are and thus how useful they are in determining sustained CA.

According to this framework, there are five forces affecting the state of competition in an industry. The first one is the entry barriers and these include elements related to the easiness and difficulties of entering a market. These elements are economies of scale, proprietary product differences, brand identity, switching costs, capital requirements, and access to distribution, absolute cost advantages, government policy, and expected retaliation (Porter, 1980). The seriousness of the threat of entry depends on the existence of one or more of these elements and a potential entrant will not risk its resources in case of a serious reaction potential. Secondly, determinants of supplier power are connected with the power of suppliers in the eyes of producers. Some elements of this force are differentiation of inputs, switching costs of suppliers and firms, presence of substitute inputs, supplier concentration, and importance of volume to supplier, cost relative to total purchases in the industry, threat of forward and backward integration in the industry (Porter, 1980). Threat of supplier power might squeeze the profitability of an industry in case any of these situations exists. Similar to supplier power, the third force, buyer power, is connected with the power of buyers in the eyes of the producer. Analogous to supplier power, this threat also has the power of eliminating profits in an industry. Determinants of this force are buyer concentration vs. firm concentration, buyer volume, and buyer switching costs relative to firm switching costs, buyer information, and ability to backward integration, substitute products, product differences, and brand identity. Threat of substitute products, is related with the relative price performance of substitutes, switching costs, and buyer propensity to substitute. By placing a ceiling on prices it can charge, substitute products or services limit the potential of an industry. Level of rivalry in an industry include points related to rival and industry analyses and some examples are industry growth, product differences, fixed costs, brand identity, switching costs, diversity of competitors, exit barriers, corporate stakes, and informational complexity (Porter, 1985). Intense rivalry in an industry might be due to certain factors such as numerous competitors, slow industry growth, high fixed costs or perishable products, and high exit costs. In these cases, the rivalry in an industry is high, leading to low levels of profitability.

The collective strength of these forces determines the long run profitability of an industry. Every industry has a different combination in terms of these forces and thus has different levels of profitability. *“The goal of a competitive strategy for a business unit in an industry is to find a position in the industry where the company can best defend itself against these competitive forces or can influence them in its favor”* (Porter, 1985: 4).

In coping with the five competitive forces, there are three generic competitive strategies that firms can pursue: (1) overall cost leadership, (2) differentiation, (3) focus (Porter, 1980).

A. Generic Firm Strategies

These generic strategies are shown on the figure below:

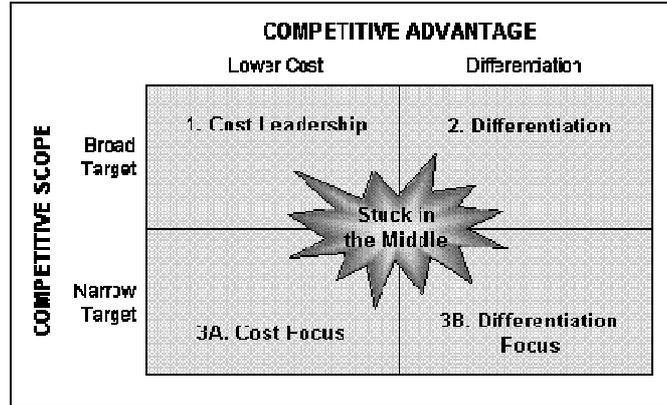


Figure 2: Generic Competitive Strategies

Source: Porter, M.E. (1980), *Competitive Strategy*, Techniques for Analyzing Industries and Competitors, New York: Free Press, p.39.

According to this view, firms who want to be successful and has a sustainable profitability in their industry should choose one of these strategies and concentrate on the demands of this strategy. If they cannot select a strategy and try to implement any two or three of them together, they are called `stuck in the middle` companies. In this case they are very vulnerable to attacks from competitors and it is very hard to sustain a profitable future for these companies.

i. Cost Leadership Strategy

Cost leadership strategy is dealing with cost reduction through efficient production and experience, tight cost and overhead control, cost minimization in areas like R&D, service, sales force, advertising, and so on (Porter, 1980: 35). Low cost position protects the firm against all five competitive forces. The bargaining power of suppliers and buyers decrease because in this low price range, there are not many companies to trade with. Moreover, new entrants and substitutes are threatened to enter due to low margins, and rivalry in the existing industry is not tough since there are only a few, or may be only one company who can offer these low prices.

One should be aware of `cost drivers` while makes an analysis. Porter defines cost drivers as `the structural causes of an activity` and according to him these causes can be more or less under a firm's control. There are ten cost drivers that are determining the cost behavior of value activities: economies of scale, learning/spillovers, and the pattern of capacity utilization, linkages,

interrelationships, integration, timing, discretionary policies, location and institutional factors (Porter, 1985: 70). By exploiting these drivers, a firm can gain cost advantage in its industry.

ii. Differentiation Strategy

Differentiation, which decreases the price sensitivity of customers through creating brand loyalty, is creating a unique service or product in an industry. By so doing, a firm can distinguish itself from the rest of the players and their products/services. Creation of brand loyalty will provide a firm, insulation against competitive rivalry among existing firms and also will create an entry barrier for potential competitors. A differentiator company can enjoy high levels of profitability since it does not have to care about competitors and price wars between them. There are certain approaches to differentiation: design or brand image, technology, features, customer service, and dealer network (Porter, 1985).

Miller discusses two types of differentiation: innovation and market differentiation (Miller, 1987, 1988). “A market differentiation advantage occurs when a firm creates a unique image in the marketplace and achieves customer loyalty through meeting customers’ particular needs (Miller, 1987), and an innovation differentiation advantage arises when a firm creates “the most up-to-date and attractive products by leading competitors in quality, efficiency, design innovations, and style” (Zhou, et.al, 2008: 3).

Moreover, a firm pursuing a differentiation strategy should be aware of buyers’ value and purchase criteria concepts. A firm can increase a buyer’s value either by increasing the buyer performance or by lowering the buyer cost. On the other hand, purchase criteria are composed of two forms of criteria: use and signaling criteria. A use criterion is related with the direct usage of the product, whereas the signaling criterion is related with the image of the product for the customer. The company should focus on both of these criteria in order to pursue differentiation strategy.

There are certain drivers for uniqueness. These are policy choices, linkages, timing, location, interrelationships, learning/spillovers, integration, scale, and institutional factors (Porter, 1985: 124-127). A firm must examine each of these drivers for its own circumstances and determine the best possible fit while trying to gain differentiation advantage.

iii. Focus Strategy

The last strategy is about serving a particular segment of an industry. This strategy takes its roots from the argument that some segments are poorly served by broad based players. In this generic strategy a firm can either focus on a

particular buyer group, segment of the product line, or geographic market. The aim of the company is to serve a smaller portion of the market but serve this segment as `best` as it can. To succeed that, firms should still need to achieve either cost leadership or effective differentiation, but their market is more limited in scale. By directing its capabilities to specific target segments, the focuser seeks CA even though it does not possess a CA in the market overall.

An organization may also choose a combination strategy by mixing one of the generic strategies of low-cost or differentiation with the focus strategy. Regarding the focus – cost leadership strategy, firms might attempt providing outstanding customer service, improving operational efficiency, controlling the quality of products or services and extensive training of front-line personnel (Obasi et. al., 2006: 50). Similarly, to serve the market with a focus – differentiation strategy, firms might try producing specialty products and services and producing products or services for high price market segments (Obasi et. al., 2006: 51).

Porter (1980, 1985), emphasizes that businesses should commit to one and only one generic strategy. Failing to do so, firms “stuck in the middle” and such firms lack “*the market share, capital investment, and resolve to play the low cost game, the industry wide differentiation necessary to obviate the need for a low cost position, or the focus to create differentiation of low cost in a more limited sphere*” (Porter, 1980: 41).

B. Factors Effecting the Success of Generic Strategies

There are some factors that are playing important roles in the determination of comparative advantage (CA). The first among them is the technology. Technology is influential in the value chain and thus plays a very important role in determining CA, both in cost and differentiation strategies. A firm should be aware of this influence and the general path of technological change in its industry. Afterwards, this firm should choose the best technology strategy to enhance its CA. For instance, it should decide whether it wants to be the technology leader or follow the strategy of technology licensing.

Furthermore, resources that the firm has, and the way it utilize them is vital, as well. According the Resource Based Theory, firms with rare, valuable, non-substitutable and non-imitable resources, would generate heterogeneity and thus distinguish themselves from the other players. Through these resources, they will benefit either from favorable cost or differentiation position. Resources are classified under three categories: physical capital resources (i.e. physical technology, plant, equipment, geographic location), human capital resources (i.e. training, experience, judgment, intelligence, relationships), and organizational capital resources (i.e. formal reporting structure, formal and informal planning, controlling and coordinating systems) (Barney, 1991). According to Lado and Wilson (1994) a firm's resources encompass all input

factors—both tangible and intangible (trade secrets, contract, licenses, data bases, etc. (Hall, 1993), human and nonhuman - that are owned or controlled by the firm and that enter into the production of goods and services to satisfy human wants” (Amit and Schoemaker, 1993). According to Porter (1991), resources are not valuable in and of themselves. Resources are only meaningful in the context of performing certain activities to achieve certain CA. Thus the competitive value of resources can be increased or decreased by certain factors, such as technology, competitor behavior, and buyer needs (Porter, 1991).

The analysis of substitution and complementary products are important “in finding ways to widen industry boundaries, exposing industry segments that face a lower substitution risk than others and developing strategies to promote substitution or defend against a substitution threat” (Porter, 1985). Thus a company who is good at these analyses can create a CA more easily and sustain it for longer time. According to Porter (1985), a company should not allow other firms to supply complementary products, but rather should control these products itself through bundling, or cross subsidization. It is imperative to have control over these products in order to properly adapt to demands of the generic strategy chosen.

Industry segmentation and horizontal strategies are also effective on effectiveness of firm strategies. Segments in an industry stem from differences in buyer needs and cost behaviors. Segmentation is especially important for firms who are looking for a focus strategy. By investigating the differences in different segments of the industry, a focus strategy, either cost focus or differentiation focus, could be more healthily created. Horizontal strategies, on the other hand, are the strategies between different individual units of a multiple business firm and effectiveness of these relations between these units, at group, sector or corporate levels, has important effects on the results of generic strategies on firm performance. Similarly, interrelationships³ among business units and understanding the strategic logic of these interrelationships are also critical for the success of generic strategies such that having proper interrelationships among business units would complement on the effectiveness of the firm strategy.

³ There are three main interrelationships among business units: tangible, intangible and competitor interrelationships (Porter, 1985: 324). The first one of these strategies is related with sharing activities in the value chain among related business units. The second interrelationship, on the other hand, is related with the transference of management know-how among separate value chains. The third interrelationship, which is competitor interrelationship, stems from the fact that there are firms who are competing with each other in more than one industry (multi point competitors). These firms can interact with each other through both tangible and intangible interrelationships.

3. COMPETITIVE ADVANTAGE OF NATIONS (DIAMOND FRAMEWORK)

In addition to firm level comparative advantage (CA) analyses, there is also a research area where international CA at the industry level takes place. According to Porter (1990), particular nations have particular CA's in certain industries and diagnosing the sources of these advantages is crucial for a country. By the help of this research, it is aimed to understand why a nation succeeds in particular industries but not in others.

The original Competitive Advantage of Nations model outlines four broad attributes of a nation that shape the environment in which local firms compete that promote or impede the creation of CA: factor conditions, demand conditions, related & supporting industries, firm strategy, structure and rivalry. There are two additional factors can also affect the model: chance and government (Porter, 1990).

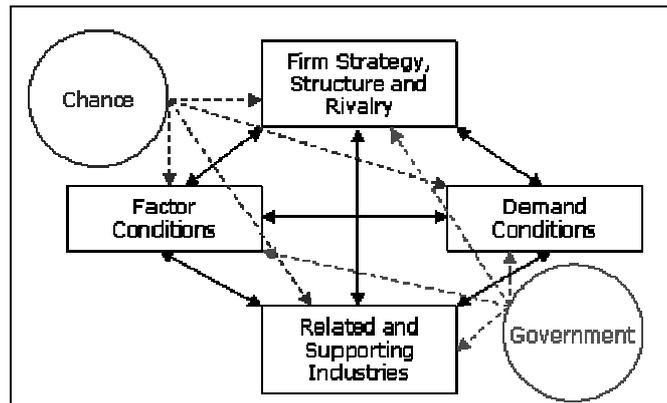


Figure 3: Diamond Framework

Source: Porter, M.E. (1990), *The Competitive Advantage of Nations*, New York: The Free Press, p.127.

In the model, all factors act individually and as a mutually reinforcing system. For instance, favorable demand conditions will not lead to CA unless rivalry is sufficient to cause firms to respond. CA based on one or two factors is possible but usually unsustainable in the long run because of competitive reaction. Countries should try to attain advantages in all aspects of the diamond and sustain them in the long run.

3.1. Factor conditions

Factor conditions comprise of natural resources, climate, location, labor, skilled employees, debt capital, technological infrastructure, and university research institutes. According to Porter (1990: 74-78), factor endowments of a

country are five groups. These are human resources, physical resources (nation's land, water, mineral, hydroelectric power sources, and climatic conditions), knowledge resources, capital resources and infrastructure. Moreover, these factors are split into two: basic vs. advanced factors and generalized vs. specialized factors (Porter, 1990).

Table 1: Factor Conditions

Basic Factors	Natural resources, climate, location, unskilled and semiskilled labor, and debt capital
Advanced Factors	Modern digital data communications infrastructure, highly educated personnel, university research institutes in sophisticated disciplines
Generalized Factors	Highway system, a supply of debt capital, a pool of well-motivated employees with college educations
Specialized Factors	Narrowly skilled personnel, infrastructure with specific properties, knowledge bases in particular fields

Source: Porter, M.E. (1990), *The Competitive Advantage of Nations*, New York: The Free Press, p.78.

Factors most important to CA are advanced and specialized factors. According to Porter (1990), basic factors tend to be inherited or require modest investment, thus not creating a non-imitable resource for the nation. Nevertheless, advanced factors require larger sustained investments and are more difficult to produce. Thus they add a distinctive value to the nation relative to other nations. For instance, natural resources and cheap labor are not effective factors while creating CA cause they cannot long forever. Similarly, compared to generalized factors, specialized factors are more useful in attaining CA cause they are less available globally or to outsiders.

Factor creation requires continual investments in factor-creating mechanisms like education institutions and research institutes. In addition private as well as public investment needed.

3.2. Demand conditions

Demand conditions are related with the home demand. According to Porter (1990), due to the proximity of it, home demand is much more important for the

CA compared to foreign demand. Moreover, quality, size, and pattern of growth also reinforce the competitive advantage of a nation.

Three broad attributes of the demand conditions are significant: Nature of buyer needs, size and pattern of growth of the home demand, and internationalization of domestic demand (Porter, 1990). In terms of the first broad category that is the nature of buyer needs, advantage created mainly through the pressure to innovate. For instance, sophisticated and demanding buyers would play an important role in pushing the industry to innovate. In addition to that, segment structure of demand is also vital since industries gaining advantage in global segments would benefit from home demand conditions more compared to the ones gaining advantage in segments that are less significant to other countries. Lastly, anticipatory buyer needs, where needs of home based buyers anticipate those of other nations, play positive role in gaining advantage.

Size of the home demand can be significant in certain kinds of industries with high R & D costs or substantial economies of scale or high levels of uncertainty because the home market can be comforting in the making of investment decisions (Porter, 1990). Number of independent buyers in the nation and rate of growth of home demand can be as important because they can encourage innovation. Furthermore, early home demand can anticipate buyer needs in other markets helping firms to become move sooner and get established in industry. Lastly, early saturation of the home demand forces firms to continue improving and upgrading processes and products. Reinforced when there is still buoyant growth in foreign markets (Porter, 1990).

Regarding the internationalization of domestic demand, Porter (1990) states that if domestic demand internationalizes then it can pull a nation's products and services abroad through mobile or multinational local buyers. Moreover, as domestic needs get transmitted into foreign buyers, home demand influences foreign needs and thus creates advantage for the nation.

3.3. Related or supporting industries

Related and supporting industries for an industry under CA analyses are also vital. If there are industries that are sharing the same technology, inputs, distribution channels, skills, customers, or that are providing complementary products, this particular industry has more CA (Oz, 1999).

CA in supplier industries confers potential advantages on a nation's firms because they produce inputs that are widely used and are important to innovation or internationalization. Competition in related industries in a nation is no less significant. Related industries are those in which firms can coordinate or share activities in the value chain or those involving complementary products. These industries provide opportunities for information flow and

technical interchange, and success in one industry can pull through demand in complementary industries (Oz, 1999).

3.4. Firm strategy, structure and rivalry

Firm strategy, structure and rivalry are the last attribute of the framework. The conditions in the nation governing how companies are created, organized, and managed, and the nature of domestic rivalry are all important. There are distinguishable national patterns of goals, typical strategies and ways of organizing firms and the fit between these patterns with the needs of the industry play crucial role in attaining CA. For instance, in Italy, small/medium firms that are privately owned and run like extended families dominate the business environment and thus Italy became successful in industries that fit in these standards (such as furniture and footwear). In another European country, Germany, where hierarchical structures and practices take place and top managers have technical backgrounds, industries complying with these standards advanced.

Willingness to compete globally can be affected by management attitudes - willingness to travel, language skills etc. Moreover, nations succeed where goals and motivations of firms, managers and employees are aligned with sources of CA. Moreover company goals (influenced by ownership structure, motivation of owners and holders of debt) and individual goals (reflected in reward systems and social values to work, also attitudes to wealth) are asserted to be important factors for nation's CA in an industry. Relationship between manager and employee, and influence of national prestige/priorities are also critical (Oz, 1999).

Association between vigorous domestic rivalry and the creation and persistence of CA in an industry was one of the strongest empirical findings of Porter's study. Nation's tend to lead where there are a number of strong local rivals. This views contrasts with traditional views on economies of scale and "national champions" (Oz, 1999). According to Porter (1990) domestic rivalry creates visible pressures to innovate, pushing each other to lower costs, improved quality and service. Moreover, domestic rivalry pressures companies to sell abroad in order to grow, particularly if economies of scale are important. Pressure also forces firms to upgrade sources of CA because lower level sources are available to all firms in the industry in that nation. Geographic concentration amplifies these effects (Oz, 1999).

Later on, this factor is updated by Porter (2002) with a new name: "context for firm strategy and rivalry". The reason was mainly the criticisms on the factor being a "rest of all" determinant.

3.5. Government and Chance

“Government” and “chance” factors are indirectly effecting the functioning of the abovementioned four major determinants. Government has a role of reinforcing the determinants of national advantage rather than trying to create one itself (Oz, 1999).

Government is not treated as a determinant but rather as a factor affecting the determinant. Government is taken as a fashioner of the market by Porter and said to have the power to improve or detract from national advantage. According to Porter (1990: 681) “*government is a pusher and challenger*”. Government effects on the factor creation is listed to be via its effects on improving education and training⁴, science and technology⁵, infrastructure, capital, information and direct subsidies. Moreover, government should also intervene on factor and currency markets to promote the international competitiveness of industries in the nation. This is done through devaluation, playing with input prices, wages, and workforce growth. Regarding the next determinant, demand conditions, government might be influential through government procurements, regulation on products and processes, stimulating early or sophisticated demand, technical standards, foreign aid and political ties, improving the buyer industry structure and the level of buyer information. Related and supporting industries might be developed by the government by policies toward media, cluster formation, and regional policies. Lastly, the government could also improve the context for firm strategy and rivalry through a favorable trade policy, supporting foreign investment atmosphere in the nation, influencing individual and company goals, improving domestic rivalry (via regulation of competition, protection and domestic rivalry, and inter firm cooperation), forming new businesses and via internationalization of firms (Porter, 1990).

According to Porter, only companies themselves can gain CA. They do that by perceiving industry change⁶, through pressures for innovation⁷ and also by

⁴According to Porter (1990: 681), “*governments should pursue to create a sound educational policy, where educational standards are high, teaching is prestigious and a valued profession, the majority of students receive education and training with some practical orientation, there are respected and high quality forms of higher education besides the university, there is a close connection between educational institutions and employers, firms invest heavily in ongoing in house training through industry associations or individually, and immigration policies allow the movement of personnel with specialized skills*”.

⁵ Characteristics of an effective policy on science and technology necessitates “*a match between science and technology policy and the patterns of competitive advantage in the nation’s industry, emphasis on research universities instead of government laboratories, principal emphasis on commercially relevant technologies, strong links between research institutions and industry, encouragement of research activity within firms, primary emphasis on speeding the rate of innovation rather than slowing diffusion, a limited role for cooperative research*” (Porter, 1990: 681).

⁶ Porter gives the road map for that in his book. According to him in order to perceive change, “*firms should identify and serve buyers (and channels) with the most anticipatory needs,*

influencing the government policy (Porter, 1990: 619). He sees nations as a platform that facilitates the chance on international success of firms. According to him implications for governments to facilitate CA are through focusing on specialized factor creation, avoiding intervening in factor and currency markets, enforcing strict product, safety and environmental standards, sharply limiting the cooperation among industry rivals, promoting goals that lead to sustainable investments, and rejecting managed trade (Porter, 1990).

Chance factor, on the other hand, is explaining the factors that are outside the control of firms. Examples for this factor might be inventions, oil shocks, wars, external political developments and major shifts in foreign market demand. These developments create discontinuities that unfreeze or reshape industry structure and provide opportunities to gain advantages over others.

3.6. Criticisms on the Framework

The main framework, that is briefly explained above is useful in determining a country's advantages. However, there are certain criticisms on the framework in the literature. Some of the scholars (e.g. Gray, 1991; Stopford and Strange, 1991) criticize the framework due to the lack of a formal analytic modeling. According to Rugman and Verbeke (1993) Porter's case studies lack a homogenous analytical tool to determine the importance and precise impact of each determinant on the industries' competitive position. For that reason, it is extremely difficult to operationalize the diamond and put it into practice⁸. Regarding the applicability of the diamond, Rugman and Verbeke (1993) states that case studies described in Porter (1990) do not allow managers to clearly analyze how particular determinants can lead to improved or deteriorated competitive advantage.

The methodology used by Porter is also a subject of criticism (Bellak and Weiss, 1993; Jacobs and de Jong, 1992; Narula, 1993). According to these

investigate all emerging new buyers or channels, find the localities whose regulations foreshadow those elsewhere, discover the highlight trend in factor costs, maintain ongoing relationships with centers of research and the sources of the most talented people, study all competitors, especially the new and unconventional ones, bring some outsiders into the management team" (Porter, 1990: 619).

⁷ According to him, *"firms should 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, source from the most advanced and international home based suppliers, treat employees as permanent, establish outstanding competitors as motivators" (Porter, 1990: 619).*

⁸ Authors suggest that each determinant might be systematically analyzed with the help of the conventional SWOT analysis. Porter's model is empirically tested by Cartwright (1993). He analyzed several industries in New Zealand and found that these industries are performing well internationally although they do not have the requirements for success as identified by Porter's framework (Rotterdam, et.al., 2007).

authors Porter's heavy dependence on world export shares create a problematic situation regarding the methodology. The way Porter measure international competitiveness is via export shares and his sample set is mainly competitive industries. His choice of export shares as an indicator of international competitiveness is found to be lacking a coherent view (Bellak and Weiss, 1993; Cartwright, 1993; Eilon, 1992; Grant, 1991; Rugman and D'Cruz, 1993). Porter measures international success as an industry's ability to export and to engage in outbound foreign direct investment. Inward FDI is seen as a sign of weakness by Porter (Davies and Ellis, 2000). However, Rugman and D'Cruz (1993) applied the model to Canada and found that two-way nature of foreign direct investment (FDI) is crucial in explaining the international competitiveness of countries.

Moreover, industries chosen by the author are mostly successful and competitive industries and this selection is said to create a bias in the study (Harris and Watson, 1993; Yetton et al., 1992). Porter is criticized for "picking" successful industries in his study. Rugman and D'Cruz (1993) indicated that the model has a better fit for large countries such as USA, EU and Japan and thus a differentiated diamond is needed for different regions in the world.

Porter's treatment of multinational corporations and FDI is another debate in the literature. Scholars (Bellak and Weiss, 1993; Dunning, 1993; Hodgetts, 1993; Rugman and D'Cruz, 1993; Rugman and Verbeke, 1993; Rugman, 1991) criticize Porter on these issues because Porter does not include multinational and transnational corporations and organizations in his study. Whether a nation is a relevant unit of analysis for such a study is discussed by these authors. According to them, Porter has a narrow understanding of these variables in his model. Although, Porter responded these ideas by saying that nation is still the important and the suitable unit of analysis, there are scholars who assert "competitive advantage" might even be localized in a nation (Dunning, 1993). Tough, the problem with the framework is the fact that Porter chose national level as the best geographic indicator for an industry's "proximate environment" shaping its success over time. However, other geographic levels, such as local, regional, foreign or global might also be important for particular determinants of international success (Dunning, 1990).

Porter fails to address supranational organizations. This is strengthened by the findings in the Turkish case study of Oz (2002), where subsidies and protectionism were one of the main obstacles for a better fit of the model (Rotterdam et.al., 2007). Dunning (1993) emphasizes the importance of globalization and integration in several parts of the world. Dunning (1992, 1993) also proposes to add "transnational business activity" as a third exogenous variable into the model. Porter's response to these assertions is by saying that geographic scope of competition and geographic locus of

competition are two different things (Oz, 1999). In his view, competition can be global but the sources of this advantage are local (Porter and Armstrong, 1992).

The diamond framework, itself is also criticized. "Firm strategy, structure and rivalry" is found to be a "rest of all" category (Grant, 1991). Regarding the domestic rivalry and its effects on the international competitiveness is an important issue as well. Porter asserts that, the more competitive an industry in a country, the more successful would it be in the international arena. However, there are studies showing the opposite. For instance, in her study about Turkish industries from the Diamond perspective, Oz (1999) found that some industries with a monopolistic or oligopolistic market structure succeed in the international arena. Moreover, there are other studies showing proof regarding this misperception of Porter (e.g. Dobson and Starkey, 1992; Smith, 1993).

The treatment of the government in the framework is heavily criticized as well. According to Porter (1990), government is the fashioner of the diamond rather than being a determinant on its own. Government has an influence on all four determinants and do not have a direct influence on the international competitiveness. Nevertheless, Oz (1999) found that government controlled industries succeed in the Turkish case, showing that government is vital for international competitiveness, especially in developing countries. Oz (2002) in her study supported the Porter's diamond model in general but not perfectly. The main reason for the improper fit was caused by the role of government in Turkey. The role of government defined by Porter, was no way sufficient to cover Turkey's direct government involvement. According to Oz (2002), this was caused by measures like subsidies and protection of industries. According to Stopford and Strange (1991) small and poor countries cannot afford to take place in industries with heavy capital requirements and thus governments are necessary. According to these authors government should be added as a fifth element to the framework. In his response to this criticism, Porter stated that the main role of the government is to challenge and press the industry to fight for international competition. According to him, governments set the "rules of the game" (Dunning, 1993). Too much help from the government would undermine industry success (Porter, 1990). Other criticisms on the indirect role government in the model are by Harris and Watson (1993), Van den Bosch and De Man, (1994).

National culture is another debate in the literature. For instance, Van den Bosch and Van Prooijen (1992) assert that impact of the national culture in the international competitiveness got little attention in the Porter's model. Authors admit that national culture has an effect on the competitive advantage via other determinants, but still needs more explicit treatment.

Some scholars share the idea that double and/or multiple linked diamonds might reflect the sources of advantage better than the single diamond

framework (Hodgetts, 1993; Rugman and D’Cruz, 1993; Rugman and Verbeke, 1993; Rugman, 1991). According to these authors, some countries, such as Canada and USA, do not act alone in the international arena, such that the home diamond of Canada should also include USA diamond cause it is the main international partner of the country. For those situations, it is better to include a second or multiple linked diamond for the partner country.

The model is also criticized about its treatment of the macroeconomic policy (Daly, 1993; Gray, 1991). Moreover, O’Shaughnessy (1996) claimed that Porter neglects the role of history, politics and culture in the model. Similar to that Rotterdam, et. al, (2007) claimed that history and culture should be added to the framework. There are some other scholars (e.g., Bellak and Weiss, 1993; Dunning, 1992; Grant, 1991; Gray, 1991; Rugman and D’Cruz, 1993; Rugman, 1991; Thurow, 1990) who challenge the originality of the framework (Oz, 2002).

Having summarized the major criticisms against the model, we should finish this section, by stating several credit for the study. Smith (1993) claims that Porter’s firm oriented approach is an original contribution to the development theory. In addition to Smith, Gray (1991) argues that the work of Porter is a valuable and rich material; whereas Dunning (1992) claims “extensive field research of Porter advanced our knowledge of why corporations domiciled in some countries have been successful in penetrating foreign markets in some product areas but not in others”. In addition to that, Grant (1991) mentions that “the main contribution of the Competitive Advantage of Nations is in extending the theories of international trade and international direct investment to explain more effectively observed patterns of trade and investment between developed countries” (Grant, 1991: 539). Grant also states that shortcomings of the study are trivial when compared to its achievements (Oz, 1999).

4. THE CONCEPTUAL MODEL and PROPOSITIONS

4.1. The Conceptual Model

As explained in the introduction, this study proposes a relationship between generic firm strategies and export performance of a company. Nevertheless, this claim is not new in the literature. For instance, Baldauf et. al., (2000) analyzed a similar relationship between business strategies and export performance, including the environment and firm characteristics as other independent variables. The contribution of this study would be treating the Diamond Framework as the moderator variable in-between firm strategies and their export performances.

In this regard, the conceptual model is as follows⁹:

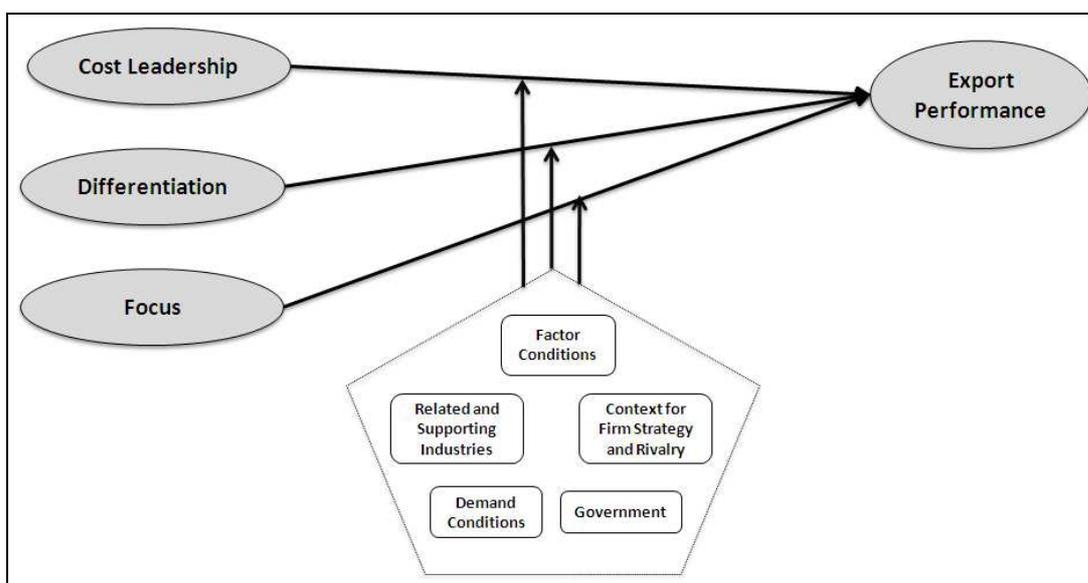


Figure 4: Conceptual Model (Prepared by the Author)

According to Baron and Kenny (1986), a moderator is a qualitative (e.g., sex, race, class) or quantitative (e.g., level of reward) variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable. In other words, moderation implies that the causal relation between two variables changes as a function of the moderator variable. In the proposed model, this role is given to the determinants of the Diamond Framework and the effects of firm strategies on companies' export performance are proposed to be strengthened by favorable national factors.

The reason of choosing export performance as the dependent variable is because this construct is one of the most widely used constructs measuring international competitiveness of firms. Although there are other contracts to measure international competitiveness of companies, such as foreign direct investment, export performance is suitable for the purposes of this study

⁹Although there are four direct and two indirect factors in the Diamond Framework, "chance" factor is eliminated from the moderator list because by definition, these events are neither controllable nor predictable. If the model is tested empirically, for instance, the error terms in the regression equation will capture these effects. Thus, this factor is not included in the model.

because the aim of the conceptual model is not to propose a comprehensive model for international competitiveness of companies but rather to propose a relationship between Generic Firm Strategies and the Diamond Framework.

4.2. Propositions

There are three sets of propositions in this model. The first set is about the relationship between cost leadership strategy and its effects on the export performance through the moderating effect of the Diamond Framework.

Firms pursuing cost leadership strategy, should reduce their costs through efficient production and experience, tight cost and overhead control, cost minimization in areas like R&D, service, sales force, advertising and so on (Porter, 1980: 35). Factors in the Diamond Framework might have influences on these activities and if this influence is positive, this would contribute to firms' export performances. For instance, when the workforce in the country is skillful and thus can perform efficient production, this would lead to a higher export performance via decreasing operating costs. Moreover, if the demand conditions in the country allow firms to perform mass production, this would help them enjoy economies of scale. From this starting point, first set of propositions, stating a moderating effect between cost leadership strategy and the Diamond Framework is created. Propositions in this set mainly claim that the more favorable Diamond Framework factors for the company are, the better would be the effect of the cost leadership strategy on firm's export performance. The list of propositions in this set is as follows:

P1a: The effect of the cost leadership strategy on export performance increases with favorable factor conditions

P1b: The effect of the cost leadership strategy on export performance increases with favorable demand conditions

P1c: The effect of the cost leadership strategy on export performance increases with favorable related and supporting industries

P1d: The effect of the cost leadership strategy on export performance increases with a favorable context for firm strategy and rivalry

P1e: The effect of the cost leadership strategy on export performance increases with favorable government interventions

The second set is related to the effect of Diamond Framework on the relationship between differentiation strategy and export performance. Differentiation strategy, as discussed earlier is distinguishing a firm from other, through design, brand image, technology, features, customer service and dealer network (Porter, 1985: 37). Drivers of uniqueness for companies are listed as policy choices, linkages, timing, location, interrelationships, learning/spillovers, integration, scale and institutional factors (Porter, 1985:124-127). Through the

help of uniqueness, firms can lessen the price sensitivity of customers and can gain loyalty. This brand loyalty will then provide insulation against competitive rivalry and also entry barrier for potential competitors. Diamond Framework would positively moderate the relationship between differentiation strategy and export performance if it contributes to the drivers of uniqueness. According to the propositions in this set, the more favorable Diamond Framework factors for the company are, the better would be the effect of the cost leadership strategy on firm's export performance. The list is as follows:

P2a: The effect of the differentiation strategy on export performance increases with favorable factor conditions

P2b: The effect of the differentiation strategy on export performance increases with favorable demand conditions

P2c: The effect of the differentiation strategy on export performance increases with favorable related and supporting industries

P2d: The effect of the differentiation strategy on export performance increases with a favorable context for firm strategy and rivalry

P2e: The effect of the differentiation strategy on export performance increases with favorable government interventions

The last set of propositions is on the moderating effect of the Diamond Framework on the relationship between focus strategy and export performance. Focus strategy, is concerned with the serving a narrow strategic segment in an industry, which could either be a particular buyer group, segment of the product line or geographic market. During these efforts, if companies take place in a positive national context, meaning there is positive moderating effect via the Diamond Framework; companies would more easily reach their export targets while following focus strategy. From this argumentation, the last set of propositions is built and is listed below:

P3a: The effect of the focus strategy on export performance increases with favorable factor conditions

P3b: The effect of the focus strategy on export performance increases with favorable demand conditions

P3c: The effect of the focus strategy on export performance increases with favorable related and supporting industries

P3d: The effect of the focus strategy on export performance increases with a favorable context for firm strategy and rivalry

P3e: The effect of the focus strategy on export performance increases with favorable government interventions

5. CONCLUSION and DISCUSSION

Generic Competitive Strategies should be taken into consideration by companies if they want to perform better in an industry. Firms should pick one of these strategies, and follow the demands of this strategy. Moreover, these strategies are valid both national and international contexts.

Competitive Advantage of Nations framework is used to measure the competitiveness level of countries in certain industries. This framework, although criticized in the literature due to its deficiencies, is still the most accepted and used framework both in the literature and also in terms of implementation to the business environment. Regarding the literature there are various studies checking the suitability of this framework to certain countries. For instance, Oz (2002), in her study, applies the framework to the Turkish Business Environment and supported the Porter's diamond model. Oz (2002) concluded by saying that the framework is suitable and useful in determining the international competitiveness of industries in Turkey. With respect to the implementation of the Framework to the business environment, Global Competitiveness Report published annually by the World Bank could be given. This report uses the Diamond framework to build up the competitiveness index. For this study, each year countries are measured with respect to their levels in the Diamond Framework and take their places in the competitiveness index. Stakeholders who have interest on the country take this index into consideration while giving their investment decisions.

In this study, Diamond Framework is used in a conceptual model as a moderator to the relationship between firm strategies and export performance. This situation, itself, is the one of the main contribution of this paper to the literature. Although there are some studies in the literature analyzing the relationship between firm strategies and export performance (i.e. Baldauf, et.al, 2000), there is no study treating the Diamond Framework as a moderator in between this relationship. Moreover, although there are some authors using the Diamond Framework in quantitative studies, such as Cartwright (1993¹⁰), the Diamond Framework is mostly used in qualitative studies in the literature¹¹. By

¹⁰Porter's model is empirically tested by Cartwright (1993). He analyzed several industries in New Zealand and found that these industries are performing well internationally although they do not have the requirements for success as identified by Porter's framework (Rotterdam, et.al., 2007).

¹¹For instance, Rugman and Verbeke (1993: 11) claim that "since Porter's case studies lack a homogenous analytical tool to determine the importance and precise impact of each determinant on the industries' competitive position, it is extremely difficult to operationalize (put into practice) the Diamond".

proposing a quantitative role to the Framework, this study is contributing to the literature from this perspective as well.

Using this framework as a starting point, further studies could measure the moderation with the help of items in the literature. There are numerous items for generic firm strategies in the literature. Some of the studies including items for generic firm strategies are as follows:

Table 2: Studies Including Items for Generic Firm Strategies

Allen et. al., 2006	Miller and Friesen, 1986
Ariyawardana, 2003	Panayides, 2003
Aulakh et al., 2000	Powers and Hahn, 2004
Barth, 2003	Robinson and Pearce, 1988
Bush and Sinclair, 1992	Wan, 2004
Dess and Davis, 1984	White, 1986
Hansen et al., 2006	Wright, 1987
Koo et al., 2004	Yamin et al., 1999

Source: Prepared by the author

Similar to generic firm strategies, there are plentiful items for the export performance construct as well. The list of some studies including items for the export performance is as follows:

Table 3: Studies Including Items for Generic Firm Strategies

Alvarez, 2004	Lee and Habte, 2004
Baldauf, et.al., 2000	Ling Yee and Ogunmokun, 2001
Cadogan, et.al., 2002	Majocchi, et.al., 2005
Contractor and Mudambi, 2008	Peng and York, 2001
Dosoglu and Guner, 2008	Pla Barber and Alegre, 2007

Estrin, et.al., 2008	Rodriguez, 2005
Filatotchev, et.al., 2001	Seyoum, 2006
Haahti, et.al., 2005	Sousa & Bradley, 2008
Hasnat, 2002	Styles, et.al., 2008
Kuivalainen, et.al., 2007	Verwaal and Donkers, 2002
Lages, et.al., 2008	Wilkinson and Brouthers, 2006

Source: Prepared by the author

Lastly, the Competitive Advantage of Nations Framework is also operationalizable such that, Porter (2002) provides us the items for attributes other than the government factor. For the “government” factor, some qualitative study is required before starting the quantitative research, though.

If the proposed moderation effect is proved to be positive, managerial implementation of the model would be imperative. If the Diamond Framework is positively moderating the relation between firm strategies and export performance, then we would come to the conclusion that managers should take into consideration the Diamond Framework and the level of the country they operate, in terms of this framework while doing international business. Moreover, they should act in a way to improve the conditions of the framework for the home country.

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