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COUNTRY, INDUSTRY AND FIRM-SPECIFIC FACTORS IN GLOBAL COMPETITION

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Abstract

The speed of change in global industries has accelerated in the past twenty years. New players and new technologies have superseded long-time industry leaders. In this paper we try to explain the process why which some firms emerge as global leaders and what sort of competitive advantage they develop and sustain. We discuss under which conditions country-specific factors are more relevant than core competences explaining some companies' international success. In particular, we try to analyze the combination of country, industry and firm-specific advantages in some industries, and how this mix of advantage changes over time, either as a result of exogenous changes in the industry –e.g. deregulation– or as a result of strategic decisions taken by some industry players.

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1. Introduction

Changes in leadership in global industries have been dramatic over the past twenty years. If one looks at past and present rankings of the largest firms in terms of turnover or performance in major world industries, the main players may or may not be different, but their relative positions in critical markets are different. Tables 1 and 2 offer some data on the changes in market share of different players in the car and banking industries in the past decade.

This observation seems to be irrespective of the nature of the industry: it happens in high-tech, low-tech or mature industries, and in services as well. Can it be considered a basic pattern in international business?

The explanations given to the phenomenon of global competition and the ability of firms to compete internationally seem to focus on the possession of a basic advantage that gives a firm a leading edge in international markets. This advantage is firm-specific (Dunning, 1958; Kindleberger, 1969), monopolistic (Hymer, 1960) and exploited better by the firm that possesses it across boundaries, rather than traded in the market (Williamson, 1975; Caves, 1982; Casson, 1983).

The origin and nature of this monopolistic advantage in international competition as opposed to domestic competition is widely discussed in the literature. Essentially, explanations hover around three basic dimensions. The first one is economics. This has been considered the basic dimension of global strategy: the interdependence between competitive positions of a single firm in different geographical markets and the potential advantages of coordination of activities (Porter, 1986). According to this assumption, a firm chooses a global strategy, in order to take advantage of some scale or scope economies in one or more functions of the business system: manufacturing, R&D, finance or marketing. Strategic moves and, particularly, first-mover advantages appear as important determinants of international success in several industries (Lieberman and Montgomery, 1988).

The second dimension of global competition is technology, not only in terms of scale or scope economies, but also as the ability to create, develop and market core technologies and competences from which new products will spring off (Cantwell, 1989; Hamel and Prahalad, 1990). Core competences are associated with the notion of resources that a firm possesses, and that are non-tradeable, unique and difficult to imitate (Dierick and Cool, 1989; Barney, 1991).

Core competences are so critical that some authors argue that core technologies –and not basic manufacturing or marketing functions as the economic dimension of global competition tends to highlight– determine the geographical breadth of an international firm and the optimal degree of integration among national units (Kobrin, 1991).

The third basic dimension of global competition is organizational design, or the ability of a global firm to localize and integrate different business units in different markets, managing such complexity effectively.

The organizational dimension of global competition links up with the importance of effective organizational forms in implementing successful strategies for international growth and development (Chandler, 1962; Andrews, 1971). More recently, Chandler (1990) pointed out that the success of large industrial firms in the United States and Germany –firms with global presence– is based upon three main factors: investment decisions, scale and scope economies and effective organizations to effectively manage those firms.

Bartlett and Ghoshal (1989) also stress that the administrative heritage together with the ability of international firms to handle scale, local responsiveness and corporate learning across borders are critical in terms of understanding international success –or failure. The role of organizational design in international competition goes back to the work on transaction-cost economics (Williamson, 1975; Caves, 1982; Hennart, 1982; Casson, 1983; Teece, 1983). Decisions oriented towards economizing transaction costs by firms present in different markets are considered decisive to explain the emergence and growth of large corporations competing in international markets.

Lastly, a particular aspect of organizational design, institutional culture, has been mentioned as a potential factor explaining differences of performance in international competition (Piore and Sabel, 1984; Kogut, 1990; Kogut, 1991). Specifically, the national organization of work, training and learning appear to be closely related with the ability to compete in the international arena (Kogut, 1991).

Although the argument behind those dimensions might be compelling to better understand global competition and international success, they look from a single perspective at a rather complex phenomenon. Moreover, those arguments do not provide a coherent, nor a comprehensive framework to understand and predict the dynamics of global competition. For instance, authors emphasizing the critical role of core competences tend to overlook the importance of country-specific factors in creating those competences.

What should the basic features of such a framework be? Essentially, two. First, the framework should be comprehensive and integrative, that is to say, it should include, explain and integrate major factors observed in different industries. Second, the framework should try to coherently explain the recent evolution of competition in global industries and, at the same time, pose some major factors that will allow a better understanding of its future dynamics.

In this paper, we try to sketch some aspects of a framework elaborated along those lines. Essentially, we try to address some basic questions, looking at several global industries: Which are the basic sources of advantages for international firms? Is there any advantage that, under several conditions, is more critical and sustainable than others? Is there any relationship among the roles that the different levels of advantages play along the evolution of the industry? Is there any specific advantage that loses or gains importance when an industry matures? When a global firm loses global market share, is there any lever upon which the firm can build its renewal and regain edge in global markets?

The content of this paper is based upon specific case studies of the major players in four industries: automobiles (capital intensive), VCR (technology intensive), watches (mature) and banking (a service industry). In studying those industries, we try to understand the different sources of the firm's competitive advantage and their relative importance over time. The information gathered comes from interviews with managers, information provided by companies and public data. The methodology followed has been historical and inductive, in order to generate new ideas stemming from the real world that pave the way for more quantitative analysis. The basic measure to explain global success used in this paper is market share. This variable is not the only, nor the most important performance indicator of a firm, but provides a basic and useful information about the presence of global firms in basic markets.

In Section 2 we describe the initial framework that we use to better understand global competition that emerges from past contributions to the literature. We also pose some puzzles stemming from them. In Section 3 some basic propositions are formulated, based upon those case studies, that provide a refinement of some of the previous arguments. In Section 4 we end up with some conclusions for scholars and managers and formulate some ideas for further research along this direction.

2. Basic frameworks to understand global competition

Classical and more recent models of international trade (Krugman, 1990) that try to explain the flows of trade and investment across countries have failed to offer a relevant and comprehensive framework to understand global competition (Yoffie, 1993). Comparative advantage, factor proportions, scale economies or monopolistic competition offer stylized, but rather partials views of a more complex phenomenon. Economic theory has been a fertile ground where new ideas have popped up, but barren in terms of a more global, integrative framework.

In the eclectic economics-management and organization theory literature we can observe more promising venues. First, the so-called eclectic theory of international competition (Dunning, 1979, 1981). This theory provides a useful and provocative framework in which three dimensions appear to be critical: ownership advantages (advantages referred to specific firm competences and resources), locational advantages (advantages derived from being in particular countries) and internalization advantages (referred to the organizational design that economizes transaction costs and provides the right incentives to align different preferences of national subsidiaries).

The concept of ownership advantage links up with the ideas of firm-specific know-how (Hirsh, 1976), distinctive competence (Andrews, 1971) or, more recently, with the concept of core competence (Hamel and Prahalad, 1990) or, in general, with unique assets and resources (Barney, 1991).

Porter (1990) provides an alternative vision of global competition. The purpose of his research is to better understand the role of nations as natural environments in which firms that compete internationally create and sustain competitive advantages in international markets. Porter does not try to answer the question of which firm-specific advantages are critical (Grant, 1991), but rather in which environments these advantages can be cultivated.

Although the national diamond presented by Porter is comprehensive and rich, with a dynamic nature, that framework does not delve into the waters of the activities of the firm.

Specific advantages embedded in the way global firms organize and manage their business system seems to be less important in that framework.

By separating themselves from the role of the environment, Bartlett and Ghoshal (1989) also offer a third framework to understand why some firms are more effective than others in global markets. Their work is based upon a more administrative tradition within management theory. This observation means that their focus is not the economics of global competition, but rather how to organize and manage the complexity in firms that compete in global markets with several business units.

Those authors distinguish three specific aspects that are inherent to the nature of global firms: scale, local responsiveness and transfer of knowledge across borders. It is interesting to note that Porter (1986) had already observed two of those three factors, scale and integration. Bartlett and Ghoshal get deeper in the analysis of the managerial implications of such concepts, by using cases of established global companies. The creation of new mind-frame seems critical to integrate those factors in order to manage the inherent complexity of such firms.

In a recent work (Canals, 1991), using both empirical evidence and previous scholarly contributions, we offered a synthesis of those paradigms. The framework that emerges distinguishes between three levels of analysis –country, industry and firm–; to better understand global competition (1) (see Figure 1).

The basic rationale behind that framework is that firms compete in specific industries and in specific national markets, and not only in countries. At the same time, their local platform is a combination of country and industry specific factors. In Table 3 we provide a synthesis of the mix of advantages in the watch industry.

Last, but not least, it is highly difficult to separate firm-specific advantages from country or industry specific advantages. In the end, how can we say that a well trained technical force is a firm specific advantage and not a country specific advantage?

We will try to address all these questions in this and the next section, but we should start by defining what we understand by country, industry and firm-specific advantage.

A country-specific advantage for a firm that competes internationally is the one available to all the firms operating in that country by the fact of being there. In this category of advantage, we include basic factors such as wages,or the cost of capital; created, advanced factors such as the level of basic, secondary, university and technical education, the sophistication of the financial system, or the communications system; and policy factors such as tariff and non-tariff protection, or the structure of the tax system. Political, social and cultural factors play an important role in international competition (Lodge and Vogel, 1987), but in our frame work they interact and have a final impact through the three factors aforementioned.

It is obvious that policy factors will, in the medium term, affect both basic factors and the creation or improvement of created factors. The difference between policy factors and the other two factors is that the first reflect the flow of different policies, while the other two are snapshots of some factors at a certain moment.

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(1) Dunning (1981) distinguished between firm-specific advantage (ownership) and country-specific advantage (location). As we will see in this section, the use of these concepts in this paper is somewhat different.

The important feature of country-specific factors is that they reflect general conditions, stemming from the history of the country and the evolution of its social and economic structure, that affect all the companies operating in that country. As a result of those factors, a country or a region can become a unique gerographical context that fosters innovation (2).

The economic structure of the industry in which a firm –or a particular single business- unit of a firm– competes could be a source of advantage as well. The existence of high barriers to entry in the industry, because of economies of scale or political protection at a national or international level –for instance, the EC or the North-American Trade Agreement– are industry-specific and not firm-specific.

The same can be predicated of the position of a firm vis-a-vis its customers or suppliers and the way they interact, trade, learn and cooperate with one another. The nature of those relationships basically are industry-specific rather than country-specific. In fact, industries show very different patterns across countries in this respect. Obviously, anti-trust laws and national culture have an obvious influence in organizing such exchanges, but they are not the final, decisive driver of such advantages.

The nature of rivalry –based on cost or, rather, on offering higher value– and its intensity is also an industry-specific factor, although the influence of the national environment can not be dismissed. In particular, the patterns of alliance formation among rivals within an industry, or between rivals, suppliers and customers, show elements which are inherent to the industry itself, not to the country or the firm.

In this respect, Noria and García-Pont (1991) observe the existence of networks of firms in which one can distinguish strategic groups and strategic blocks of producers and suppliers in the car industry. The opportunities of cooperating, learning and improving cost positions and the quality of products are industry-specific (Hamel, 1991).

The internationalization process of firms is also well explained, not only in terms of specific, monopolistic advantages of single firms, but in terms of networks of firms within industries. Mattson (1984), among others, develops some models of the internationalization process of firms in the context of an industry. As far as this process is a source of advantage for specific firms –for instance, in terms of expanding market share, gaining scale or scope economies or learning from other markets and customers– we can state the existence of advantages related to the industry.

This argument is coherent whit the type of evidence on the geographical concentration of industries, recently presented by Piore and Sabel (1984), Krugman (1991) and Enright (1990). The importance of country-specific factors in this process of concentration is undoubtable, but most of the factors behind the success of those firms lies on features specifically related to the nature of the industry and critical relationships among its basic firms, customers and suppliers.

The third level of advantages observed in international competition is at the firm level. We can associate firm-specific advantages with monopolistic advantages defined by Hymer (1960), Kindleberger (1969) and Rugman (1981); ownership advantages, such as the

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(2) The argument is used by Shan and Hamilton (1991) and Shan (1992) to explain basic patterns of foreign direct investment from a rather innovative perspective. These authors claim that foreign direct investment is motivated by country-specific advantages embedded in recipient firms.

ones described by Dunning (1979); core competences (Hamel and Prahalad, 1990); technological innovation (Cantwell, 1989; Grant, 1991); knowledge (Rugman and Verbeke, 1992); strategic assets and resources (Dierick and Cool, 1989; Barney, 1991; Collis, 1991); organizational factors (Chandler, 1962, 1990; Bartlett and Ghoshal, 1989); risk diversification and hedging (Lessard, 1986); or, simply, strategic decisions which create large, irreversible commitments (Ghemawat, 1991).

In general, we can define a firm-specific advantage as a particular resource or factor grounded at the firm level, either physically (people, physical assets, technology, patents) or tacitly (know-how, team work, informal organization, culture, or management processes).

From a methodological viewpoint, it is important to distinguish between factors that, at some point, could be both country and firm-specific; for instance, a well-trained workforce. In general, a country might offer an excellent educational system, with highly educated and trained workforce. That is a general advantage related to country conditions.

Nevertheless, this advantage can be useless to a firm if it does not fit within the organization, culture and operations of that specific firm. Once and again we observe in the same country and the same industry firms that thrive and firms that fail. Both are likely to have the same national advantages, but the way these advantages fuse and dissolve in single firms differs across firms. That, in turn, results in firms that carve out advantages from country factors and others that do not.

This framework, that we will try to refine in the next section, offers some answers to questions posed earlier. First, the relationship between country, industry and firm-specific advantages.

Since a firm operates in an industry in one or more countries, firm-specific advantages are influenced and molded, to a some exent, by country and industry factors available to all the players. But, from the above discussion, the notion that the general factors impinge on specific firms depending upon those firms, emerges clear. The level of education and training of people offer neat examples of that interaction.

Second, it is the combination of country, industry and firm-specific advantages what creates a unique lever for specific firms to successfully compete in international markets. Country factors can be important, but ineffective in high-tech industries evolving towards maturity. The VCR or the semiconductor industry provide good examples of that proposition.

As a radical contrast, firms with some unique core competences can be damaged in international competition by country factors, such as political protection or an uncompetitive, artificially appreciated exchange rate. The German car industry offers some evidence of that case.

The main conclusion is that firms create and sustain advantages based upon specific assets and resources which evolved along certain patterns, some of them intrinsic to the firm, others depending upon the country and the industry.

In terms of the income statement of a firm, country factors affect some of the items of revenues and expenses. But the explicit, final impact depends upon the combination of the factors at the firm level, the level of tacit knowledge accumulated across different departments and levels of management and specific, largely irreversible decisions taken by firms themselves. In short, it is the firm that, by using a nation as platform and relationships

specific to the industry in which it competes, creates and markets products with a good price-value combination for its customers.

The third factor that this framework tries to explain is that industry factors are not country factors. When Porter (1990) includes some industry-specific factors in his national diamond, he is considering that rivalry among competitors or cooperation between producers and supplier or customers are bounded within countries. This contributes to the fusion between country and industry-specific factors.

But this is only a special case in industries which do not have a high degree of internationalization. In global industries (automobiles, consumer electronics or banking), the impact of industry effects leaks across national boundaries. Hard-nosed rivalry among firms from different countries in the same national markets or cooperative agreements among competitors might or might not have a national basis. Moreover, cross-border alliances, especially in the banking and car industries, do not have this national context, but rather an international one.

Notwithstanding the progress that this three-level of advantage framework offers, there are some basic questions that are still unresolved and that we will try to address in the next section. First, what role the three levels of advantage play in real industries? Second, what is the dynamics of global competition and the evolution of those advantages? In other words, what are the factors behind new industry leaders or failures of previous leaders? Third, is there any general pattern in explaining the new emergence of previously failed leaders?

3. The dynamics of competition in global industries

3.1. Categories of key advantages in international competition

Proposition 1. Country, industry and firm-specific factors are all important in explaining patterns of success and failures in global competition, although their relative importance may vary as industries evolve and mature. It is the unique combination of resources and assets by a specific firm –some of them directly related with the country and the industry in which the firm operates– that makes possible for that firm to succeed in international markets.

This proposition has been sketched in the previous section, but we would like to show in detail the dynamic nature of that combination of advantages in some specific industries. Let us observe the global VCR industry.

This industry was born in the United States in the early 1950s, when RCA announced the coming development of a television picture recorder. The USA offered an incredible environment to nurture the VCR industry: a large pool of engineers, and the world's largest consumer market, with the highest penetration rate of TV sets and, sophisticated, closely related industries.

Rivalry within the industry was fierce. RCA started the race, but it was Ampex the first firm to market the videorecording technology that rapidly became the standard of the industry. Other companies, such as CBS and CTI, jumped into the design and manufacturing of VCR. Ampex technology was the industry standard until the early 1980s, but, paradoxically, Ampex had quit the VCR industry in 1972, allegedly because of financial

distress. The same pattern was followed by RCA when in 1984 announced that it would cease the production of its Selectavision VideoDisc (Rosembloon and Freeze, 1985).

It is intriguing that the failure of the American firms in the increasingly global VCR market was due, not only to external factors such as a growing competition abroad, but to factors specifically related to country factors and to firm-specific factors.

The main country disadvantage for American firms was capital markets in the United States. Ampex suffered a great deal of pressure from capital markets to announce quarterly profits. This goal was incompatible at some point with developing a new technology whose profits would eventually arrive much later. Divestiture was the natural response.

This story shows clearly how country specific advantages –in this case, disadvantages– can overcome and counter the weight of other country advantages and, even more important, the possession of the basic technology.

Together with this country disadvantage, a firm-specific factor should be considered. Ampex and RCA cases are, in ways, parallel stories. Both companies achieved technological breakthroughs in the early stages of the VCR industry. They were successful, for instance, in developing high value, expensive video-recorders to professionals, but not in manufacturing or marketing simple, cheap products to the mass market.

The way of alliances was chosen by Ampex, that engaged with Toshiba to form a joint-venture, Toamco, apparently with manufacturing capabilities more sophisticated than those of Ampex. The problem was that Toamco did not have previous experience in producing high volumes of a complex, cheap product. The election of a partner was a failure.

RCA products were the market leaders in the US –the world's largest market in consumer electronics– from 1974 through 1988, year in which Panasonic took the lead (see Table 4). The emergence of the Japanese VCR industry is illustrative of the way that country, industry and firms advantages play in international competition.

The Japanese VCR industry had two broad, generic country advantages: a skilled population and the pressure on manufacturers to fulfill special demands, such as the miniaturization required because of the small size of homes in that country. But Japanese firms had a big disadvantage.

The technological level of the electronic industry in the early sixties was far behind that of the United States. In particular, first-mover advantages that Ampex and RCA possessed appeared to be unsurmountable by any other latecomer to the industry.

How did Japanese firms such as Sony, JVC or Panasonic manage their country disadvantages and how did they took over American firms? This is a long story, but the kernel of the argument boils down to a simple point. Japanese firms tried to compensate relative country disadvantages with industry and, mainly, firm-specific advantages.

Among industry advantages, we should mention the intense internal rivalry among the main players, stimulated constantly by the MITI. The Japanese government also supported the industry in two ways: through generic subsidies to the consumer electronics industry –from which all the main players in the VCR industry benefited, since they were large, integrated firms such as Sony or Matsushita–; and by helping Japanese firms acquire through licenses the best available technology.

Relationships among firms in the electronics industry was also a critical factor, because of the previous experience of the players in related industries, both in terms of developing the VCR and manufacturing cheap products in high volumes.

At the firm level, we can distinguish several factors as well. First and foremost, the ability of Japanese firms to improve incrementally their technology by introducing in each generation of VCRs what they had learnt from the market responses to the previous one. This was a calculated way of decreasing the risk associated with a major technological venture.

On the other side, Japanese producers were not interested in technological breakthroughs, but in manufacturing a very good and cheap product for the consumer market, at the lowest possible price manufacturing and miniaturisation capabilities were key. That pattern was quite different from the one followed by American firms.

Japanese firms realised their technological inferiority early and tried to offset that disadvantage by looking for convenient alliances with American firms. In the late 60s and early 70s, Sony and Toshiba , for instance, mounted an alliance with Ampex, with the basic purpose of learning from the leader. In the late 70s, when Japanese firms were already at the cutting edge of the industry in terms of technology, they established OEM agreements with American firms that were still unable to manufacture the right product for the American consumer market. By this means, by the late 70s Japanese firms with a consumer VCR got access to that market.

The Japanese success in this industry shows how the interplay of industry and firm advantages were sufficient to overcome relative country disadvantages in relation with American firms. On the other side, country advantages were critical in the beginning of the industry in the United States, but revealed insufficient in order to maintain a preeminent position in the long-term. Some specific-firm factors destroyed what country advantages had provided to this industry in its beginnings. This is a common lesson with other industries that we will analyze later.

The automobile industry insofar to the late 1970s shows a rather different picture from the VCR industry, in terms of a slower globalization process, a higher concentration of the industry, sharp fragmentation of national markets, high tariff and non-tariff barriers, etc. Nevertheless, the pattern of advantages enjoyed by global competitors shows a curious similarity.

In this industry we have necessarily to refer to the fragmentation of the markets in three main regions: the Unites States, Western Europe and Japan. Within Western Europe, each one of the larger countries turns out to be an important unit of analysis. In Table 5 we can observe market shares of larger players in Western Europe, between 1981 and 1991.

The differences in market share are striking. The loss of a clear preeminence by American firms, the emergence of Japanese firms as global competitors and changes in the European landscape were features of this industry in the 1980s.

The traditional dominance of American firms in the US and of European firms in Western Europe traces back to a different set of arguments. In the case of the United States the combination of country, industry and firm advantages is evident. The potential market was huge, the standards of living soaring year after year, the pool of engineers vast, and university and research centers were among the best of the world.

Those country advantages were combined with firm-specific advantages. American automobile firms were innovative, not only in terms of new technologies and products, but also in management (Chandler, 1962). These superior technological advantages and an important excess of financial resources led American firms into the European road, by building American transplants in some European countries.

European firms were dominant in their respective national markets: Fiat in Italy, Volkswagen in Germany or Renault in France. These firms had some technological expertise, but their main advantage for many years was an important domestic market protected by their governments. The car industry was considered of national interest.

Three main factors brought about an incredible revolution in the industry in the late 1970s and early 1980s. First, the two oil shocks. More expensive oil prices made consumers increasingly aware of the real costs of driving cars. Car makers had to change designs in order to economize costs. Second, a free trade wave swept through Europe in the early 80s, mainly as a result of the announcement of a Single Market by the end of 1992, with the abolishment of tariff, fiscal and technical trade barriers among European countries. Protection was bound to disappear in a few years.

Third, the Japanese revolution that evolved through incremental approaches, rather than in leaps and bounds. A combination of two engineering factors –inventory management and product development– caused a revolution in the industry: a decrease in the market share held by American firms and the emergence in the early 1980s of Japanese firms as global players.

In the dominance of American firms up to the rate 1970s, their failure in the 80s and the emergence of Japanese players in the global scenario, we can find some compelling arguments of the interplay of country, industry and firm-specific factors.

Nevertheless, there seems to exist a pattern according to which country-specific factors per se tend to be more quickly perishable than firm specific factors, as one can observe from the European car industry.

The world watch industry is also a good case. This industry was born and developed mainly in Switzerland. Factors at the country level played an important role in the early Swiss dominance of the industry. Among others, we can cite the educated population through the apprenticeship system; low labor costs because of part-time workers; strong national commitment to the industry; cultural factors and its implications for commerce.

Industry factors were also critical to the success of the industry: technology shared by the proximity of rival firms; cooperative marketing actions; proprietary technology; nation-wide regulation of access to the industry and sale of components to other companies outside those officially established; lower vertical integration with an important division and specialization of activities and skills among firms; and, lastly, control of the distribution system.

Swiss watch makers were leaders, nor only in Europe, but also in the United States, the largest market. But in the early 1950s the situation started to change, due to different new forces in the industry. We can single out at least three. First, the rising standards of living converted watches from a luxury product into a mass consumer good. Large production volumes and lower costs started to be decisive.

Second, a revolution in merchandising swept across the United States. Large supermarkets and malls spread around the country, and the opportunity to distribute products such as watches through these new channels was a real –not only theoretical– threat for traditional channels –mainly, jewelleries–.

In this context, some American firms, mainly Timex and Bulova, irrupted in the market with a revolutionary technology, inherited from the old, decrepit second-world war defence industry. The outcome of this combination of country factors and new technology was radical. Timex and Bulova started to gain market share, first in the United States and later in Europe.

Swiss firms were slow in reacting to this marketing and technological changes and their combination of country, industry and firms specific advantages was inefficient to deter the rise of American firms. Once and again, another combination of advantages was critical in order to become the leader in a global industry.

The pain inflicted by American firms to Swiss firms was similar to the one suffered by the former in the 1970s, as a result of the emergence of Japanese players such as Hattori-Seiko and Citizen.

Japanese firms found an important leverage in some country factors, such an important domestic market, dominance of distribution channels in Japan and an incipient but important consumer electronics industry.

The story of Japanese watch makers shows that, being country factors important, they became global players and provoked an important erosion of the Swiss and American dominance through distinctive firm competences in technology. In trying to distinguish their products from those of their competitors, they heavily invested in the quartz technology, by taking advantage of their past experiences in the consumer electronics industry in Japan.

In the mid 1980s, the reemergence of the Swiss industry, with the swatch and other stylish models, tells us an important lesson about the combination of the three levels of advantages described in this paper, and the critical role played by firm-specific factors in taking over the leadership of the industry. This point leads to a second proposition.

3.2. The evolution and relative weight of advantages

Proposition 2: In the emergent stages of some industries (in particular, those intensive in technology), country-specific factors seem to be important in combination with some firm-specific competences that give rise to a new technology or product. Hence, in the emergent stages, countries offer natural environments leading to the creation and development of an industry. When the first technology of the industry matures, firm-specific factors appear to be more decisive than country factors.

Those firm-specific factors have to do, not with general factors related to country characteristics –such as people or the cost of capital–, but with how people and resources are managed to achieve a new breakthrough.

In the cases briefly described in the previous section we find some evidence in support of this proposition. The emergence of new leaders in the VCR, car or watch industries seems to match with that general observation. The same applies to other industries such as fashion design, personal computers or semiconductors.

Nevertheless, at this point we require a bit of caution. What Proposition 2 states seems to refer to industries intensive in technology. Can we proclaim the same of other industries?

The commercial banking industry and a more profound analysis of the car and watch industry provide useful insights. In the case of banking, country factors appear to be incredibly important in order to prevent the industry from a true globalization process.

By country factors we refer to the importance of domestic demand. Even if finance has become highly global in certain segments of the market –mainly, capital markets–, the financial services industry is still nation-driven. German banks have a certain market share in France not because they market sophisticated products in Germany, but because they are in France, close to French customers. The same applies to American banks, that are the most sophisticated of the world in terms of financial innovation, but need desperately be in each one of the countries with a physical presence if they want to sell their products there.

The sad side of this story is that, since financial products tend to quickly become commodities, domestic firms have an important advantage: their national distribution network. This is the main reason behind the difficulty of foreign banks to nab important market shares in local markets. That reason also explains why, in general, foreign banks tend to accumulate more failures than local banks in foreign markets (Canals, 1993).

The banking industry tells us that, though innovation is important, country-specific factors tend to drive competition in local markets and prevent commercial banking from being a global industry.

Going back to the watch industry, we should distinguish in it three main segments: low price, disposable watches; traditional watches; and luxurious watches. In the lowest segment of the industry, what drives competition is not technology, brand reputation or design, but cost. When technology or design are not key it is the country that offers the cheapest costs –labour and capital– that is succeeding in the industry. The same observation can be stated of other industries, such as textiles or steel, in which cost and not quality is the main driver.

As a result of those observations, we can state that in low technological-content industries, country-specific factors tend to be more important than technological or managerial breakthroughs.

Finally, we will reconsider some features of the world car industry. What we said before about the emergence of new global players –Japanese firms– or reemergence of old players –Ford or Volkswagen– remains valid. But there is an important factor to bring here: coalitions between national producers and governments.

Different forms of Government support in the early 1950s and 1960s, and not technology, was the critical factor behind the consolidation of national car makers in most of Western European countries and Japan itself. Now, in the early 1990s, political competition is still important in those countries.

Market leadership is not only determined by technological superiority, but by tariff and non-tariff protection of national industries. Even in EC markets in which intra-communitarian trade has been completely liberalized, political competition impedes Japanese car makers to have a bigger say in the European industry.

What we observe in the car industry in terms of political competition seems to be common ground in other industries with plenty of government intervention, such as the semiconductor or the telecommunications industry.

These cases enough light upon the importance of pervasive country-specific factors in some industries with special characteristics and lead us to this Proposition:

Proposition 3: Country-specific factors such as the cost and supply of basic resources, domestic demand or government support are still drivers of competition in some industries (even mature ones), and temporarily invalidate the importance of other superior firm-specific factors.

3.3. Pattern formation of new industry leaders and reemergence of old industry players

In the evolution of several industries discussed in the previous two sections we observed some original ways followed by emerging leaders or remerging old players.

Some specific cases can be brought into the discussion to kindle it. The emergence of Toyota and Nissan as global players in the car industry in the late 1970s have to do with some strategic moves of critical importance. By strategic moves we mean large commitments of resources to specific investment projects, mostly irreversible (Ghemawat, 1991) and oriented towards the deveelopment of new competences and capabilities.

In the case of Japanese firms, the basic move consisted of cooperative agreements with suppliers and huge investments in product development –from design to market– that change the nature of the car industry and the way inventory and product design are managed. This is what we call a technological commitment.

This type of technological commitment was also critical in the reemergence of Swiss watch markets in the early 80s. New inventions –such as the Swatch– and new designs –such as the ones created by luxury brand makers–, with important commitment of resources to support new products, were decisive and highlight the importance of strategic decisions.

In the case of luxury brand makers, we can single out a third type of commitment –marketing commitment–, related to the distribution of new products through revitalized channels and advertising them in a different way.

The reemergence of Volkswagen in the mid-80s had to do with different reasons. To become the biggest player in Europe meant, in the early 1980s, to get more access into other national markets.

When Volkswagen announced in 1985 the acquisition of Seat, the Spanish state-owned car maker to speed up the way towards leadership in Europe, Volkswagen got involved in what we call a financial commitment.

That acquisition involved many risks. SEAT had been a big failure and its technological competences were scarce. Investments needed to revitalize the Spanish company were immense, despite the financial support the Spanish government by. The return on investment was supposed to be very low and, in the best scenario, the Spanish firm would pay out dividends as late as 1996.

But with this acquisition, Volkswagen achieved several objectives. First, it bought the biggest firm in the large Spanish market. Second, it acquired a firm in a country with much lower costs that in Germany. Third, Spain could be a successful platform to export in the future compact, cheap cars to other European countries and, perhaps, to Eastern Europe. Fourth, the management of the company convinced German unions that the traditional combination of low effort, complacency and high wages of the German car industry was no longer valid in the new Europe.

There is a final type of commitment also observed in some of the industries analysed, mainly, in the banking industry: the organizational commitment. By this concept we refer to major decisions on the way the company is organized and managed and, in particular, the integration and coordination with foreign subsidiaries (3).

Among the many cases we can observe in the banking industry, I will pick up only two. First, Citibank, the largest global player in the seventies, and now far behind some Japanese and European banks, but in the way to the recovery, at least in international markets.

In Europe, Citibank changed several times the structure of its organization in the late seventies and early eighties, piling up failure after failure, not only because of tight competition in those markets, but also because of basic organizational mistakes (Canals, 1993).

In an intent to overcome the classical centralization-decentralization dilemma, Citibank Europe came up in 1989 with a new structure that combined a mix of business centralized in some European offices and other business decentralized, breaking away from old cultural patterns in the bank. Although the process is slow, in some European countries –France or Spain–, Citibank is again being considered an important player in certain segments of the industry.

Bank of America offers a similar case. After the decline of the bank in the early 1980s and the turnaround in the late 1980s, the bank is facing international operations in a pragmatic way. The major organizational thrust in this case has been moving away from centralization in San Francisco, giving more operational power to national subsidiaries and creating a more accurate strategic control in San Francisco and London –the latter for European operations–. As a result, Bank of America is a commercial bank in the United States, but operates as an investment bank in some European countries.

These observations lead us to the following proposition:

Proposition 4: The pattern of emergence of new leaders or the reemergence of old players in a certain industry seem to be associated with some strategic decisions that involve huge resource and oriented towards the development of new competences and capabilities commitment of resources. We can distinguish between technological, financial, marketing and organizational commitments.

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(3) The nature of these decisions links up with the recent research conducted by Chandler (1990) on the success of large industrial firms and the contributions made by Bartlett and Ghoshal (1989) on the role of organizational design and administrative systems in global competition. Collis (1991) observes a similar pattern in the bearings industry.

4. Final comments

International competition and global strategies continue to be a puzzle in many industries. The patterns of emergence and decline of key players in major industries present different features, but in some cases it is possible to find some common points.

The observed patterns discussed in this paper do not pose the question of determinism in the evolution of industries. Rather, we try to set forth a number of propositions, contingent upon certain characteristics of the industry considered, that may shed additional light upon the phenomenon of global competition.

Country, industry and firm-specific factors (core competences) are determinants os success (or failures) in global competition, but their relative importance changes as industries envolve. Any single internationally successful firm enjoys a unique combination of resources and capabilities, to whose development country and industry factors may have contributed.

While stressing the importance of the national environment in global competition, in coherence with some recent studies, we argue that when an industry matures, firm-specific factors seem to gain increasingly more relevance, although domestic demand or government intervention may offset their importance.

Among firm-specific factors, decisions that imply large, irreversible commitments of resources of different nature (oriented towards developing new competences and capabilities) tend to be critical in explaining the emergence of new major industry players or the reemergence of old players climbing again to top positions in the industry.

Figure 1.
Categories of Advantages in International Competition:
An Integrative Framework

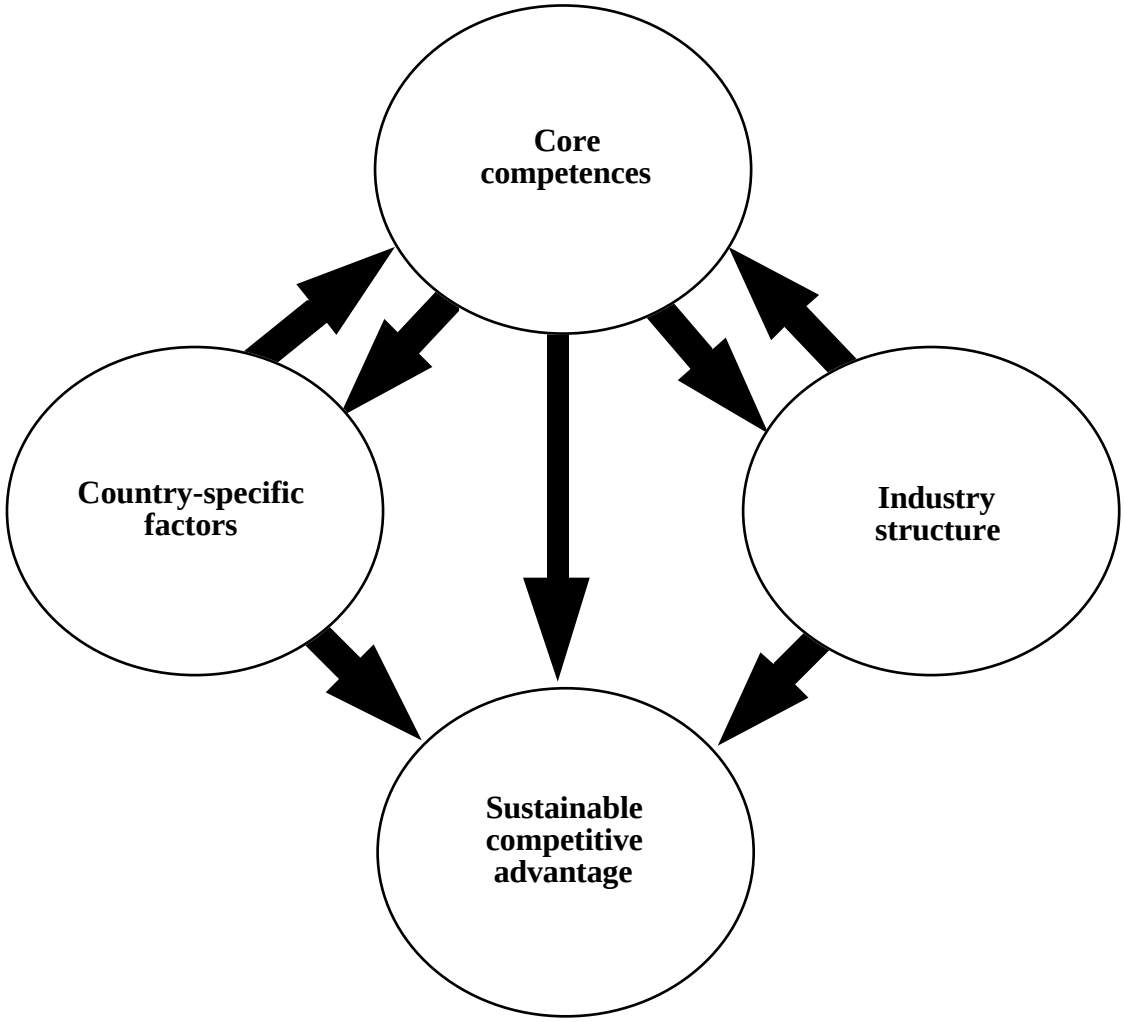

Table 1.
World Market Share of Leading Car Makers

	1981	1990
General Motors	20.9%	17.5%
Ford Motor	11.7%	14.6%
Toyota	8.2%	9.4%
Renault	6.8%	4.2%
Volkswagen	6.7%	6.8%
Nissan	6.5%	6.8%
Peugeot	5.5%	4.5%
Fiat	4.9%	5.3%
Chrysler	3.6%	5.4%
Honda	3.1%	4.0%

Source: Ward's Automotive World and EC

Table 2.
Ranking of the World's Largest Banks
(Assets $m)

	1991			1975	
1.	Sumitomo Bank	Japan	427,102		
2.	Dai-Ichi Kangyo Bank	Japan	445,707		
3.	Fuji Bank	Japan	418,956		
4.	Sanwa Bank	Japan	411,704		
5.	Crédit Agricole	France	307,203		
6.	Sakura Bank	Japan	420,348		
7.	Union Bank of Switzerland	Switzerland	183,911		
8.	Mitsubishi Bank	Japan	424,679		
9.	Barclays Bank	United Kingdom	258,339		
10.	Deutsche Bank	Germany	296,226		
1.				Bank America Corp	USA	58,696
2.				Citicorp	USA	55,538
3.				Chase Manhattan Corp	USA	41,143
4.				Groupe BNP	France	34,728
5.				Barclays Bank	United Kingdom	33,328
6.				Crédit Lyonnais	France	32,837
7.				Deutsche Bank	Germany	32,412
8.				National Westminster Bank	United Kingdom	31,892
9.				Dai-Ichi Kangyo Bank	Japan	28,910
10.				Sociéte Generale	France	27,651

Source: The Banker, Euromoney

Table 3.
The Watch Industry:
Competitive Advantages

	Country advantages	Industry advantages	Firm's competences
SWISS COMPANIES (Up to 1960)	• Low labor cost • Government support • Educational system	• Relationships with suppliers • Barriers to entry in distribution	• Manufacturing quality • Management of the network
BULOVA TIMEX (USA) (1960-1980)	• Growing demand • Distribution channels	--------	• Production automation • New product • Simple design at a low cost
CITIZEN SEIKO (JAPAN) (1980-1990)	• Low salaries • Government support	• Intense rivalry	• Process innovation • Customer orientation • International orientation
SWISS COMPANIES (1980s)	• Educational system • Basic infrastructure	• Network of suppliers and distributors	• Product innovation • Process innovation • Marketing capabilities

Table 4.
VCR Industry
U.S. Market Share (%)

	1980	1985	1988
Panasonic	15.0	12.1	13.1
RCA	27.5	13.8	11.3
Fisher	-	7.9	7.5
Sears	3.0	5.4	5.6
General Electric	3.1	5.2	5.0
Sharp	1.3	4.2	4.7
Sanyo	2.6	4.1	4.2
Magnavox	4.5	3.8	4.0
Mitsubishi	2.0	3.4	4.0
Zenith	6.1	3.6	3.8

Source: Television Digest, Japan Electronics Almanac

Table 5.
Market Share in Europe

	1991		1981
1. VW Group	16.9%	1. Fiat	14.7%
2. Fiat	12.9%	2. General Motors	14.5%
3. General Motors	12.8%	3. Ford	13.5%
4. PSA Group	12.0%	4. VW Group	12.0%
5. Ford	11.6%	5. PSA Group	11.5%
6. Renault	10.7%	6. Renault	11.5%
7. Others	23.1%	7. Others	23.3%

Source: EC

Table 6.
World Watch Industry

	% of World Production	
Country	**1960**	**1990**
Switzerland	72%	45%
Japan	8%	32%
United States	12%	5%
Others	8%	18%

Source: Federation of Swiss Watchmakers

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