

“International trade and entrepreneurship – why Germany is so overwhelming among EU-27-countries?”

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SECTION 1. Macroeconomic processes and regional economies management

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International trade and entrepreneurship – why Germany is so overwhelming among EU-27 countries?

Abstract

Clustered Multinational Corporations (MNCs) own elements of trustified capitalism in terms of Joseph Schumpeter. MNCs invest heavily in global R&D and marketing, and they signal market power in the markets and countervailing power in politics as John Kenneth Galbraight noticed. Because MNCs dominate the global commodity markets, they can collectively determine the rules of the game in the global economic evolution or revolution. The dilemma in most EU-27-countries is that they have not been able to develop their own management doctrines. They apply the U.S. Harvard-Chicago Industrial Organization (IO) model without critics. The most influential writer has been Michael Porter. His models of competitive strategy or national diamonds, show clusters are far too trivial to be applicable in EU-27 countries that have a long history as the civilized nations compared with the U.S., Germany is an exception. Germany and the German speaking Europe has their own management doctrine initiated by Friedrich List and modified by Joseph Schumpeter. List argued that economic policy had to be adapted to the needs of specific nations to create the National System of Innovation for Germany. Schumpeter gave micro level advices of economic incentives for entrepreneurs. The third economic miracle (Wirtschaftswunder) in Germany since 1990s is a combination of List's and Schumpeter's thinking. Germany's global success recipe is more useful for EU-27 countries than Harvard-Chicago IO model.

Keywords: entrepreneurship, multinational corporations, innovation, international trade, hidden champions (HDs).

JEL Classification: F10.

Introduction

The key concept propagating openness in international trade is comparative advantage (Ricardo, 1817), which can be found in the accumulation of the factors, where the nation has the most favorable comparative costs. Since the mid 1990s, when the WTO was established, the industrialized countries oriented towards absolute advantage (Smith, 1776). An indicator of that is the rapid adoption of Porter's (1990) cluster model in the EU countries. The term diamond refers to that fact that the home country of the cluster is permanent. Porter's cluster hypothesis is not unique. Regional agglomeration is the central topics in the New Economic Geography (Krugman, 1991). Porter believes that localization economies, not urbanization economies, draw on information flows. Being near competitors suppliers, a firm enhances its knowledge of industry operations.

Porter's approach for clustering is relevant to the U.S. in which most companies are domestic market-oriented. German companies are international. *Transnationality Index* (share of foreign operations in sales, personnel and assets) is for ABB and Linde over 85% and for famous U.S. companies much lower: General Electric (52%) or General Motors (48%). In the U.S. only some SMEs are internationalized, e.g. Gibson Guitars and Harley Davidson

(Schuman & Himmelreich, 2011). In Germany there are about 340.000 international SMEs (Mittelstand) and about 100.000 of them have FDI-operations (Venohr & Meyer, 2007). They are architects of German regional clusters by *bottom-up approach*. Even Canada is far more international than the U.S. (Rugman, 1991). Canadian companies are integrated with the U.S. and, the home market-based clustering in not valid.

Clusters are far from being permanent. Substituting labor with capital and technology, along with shifting production to lower-cost regions has resulted in waves of firm *downsizing* throughout the EU and the US. The impact of relocation of industrial activities out of the home-base is called *Wintelism* (Hart & Kim, 2002). The critical skills of industrial districts (Marshall, 1920) become commodities, and multinational corporations (MNCs) relocate their production units globally. Germany is an exception among the EU countries. Germany's national system of innovation is a major competitive advantage. The geographical proximity seems to matter in 16 Laender. The Chinese "Dragon" and the Indian "Tiger" are crossing many EU-companies except German ones. Vehicles, machines, electronic devices and chemicals account for more than half of Germany's exports. Germany is dependent on import energy. Germany's trade balance is negative with oil and gas importers. Holland is the petroleum center of Europe. The former East Europe is important for

Germany as a part of subcontracting systems e.g. in the auto industry. Germany has about 100 billion export surplus with ten biggest trade partners that are the most serious competitors in international trade (Table 1). Germany has succeeded to win its best or worst competitors. This is a convincing evidence of the export power of Germany as the most diversified economy in the world. Germany is competing with top product quality and process efficiency, e.g. the high energy efficiency of industrial firms and traffic infrastructure. In relation to high efficiency German labor costs are low although German competitiveness cannot be identified in low wages. Hans-Werner Sinn is deeply concerned by the inability and unwillingness of most politicians to look at basic economic issues, face up to economic realities and translate them into the right policies (Sinn, 2012). Germany is highly dependent on the EU economy. The growing performance gap between Germany and big EU-countries, such as France and Italy e.g. in the car industry might have political consequences and even jeopardize the future of the European integration.

Table 1. Germany's exports and imports in 2012 (billion euros) and trade balance

Country	Exports	Imports	
France	104	86	+18
U.S.	86	50	+36
UK	72	48	+24
Holland	70	77	-7
China	66	64	+2
Austria	57	42	+15
Italy	55	43	+12
Switzerland	48	38	+10
Belgium	44	37	+7
Poland	42	33	+9
Russia	38	37	+1
Czech Republic	31	33	-2
Spain	31	26	+5
Sweden	21	21	0
Turkey	20	12	+8
Japan	17	22	-5
Hungary	16	18	-2
Denmark	15	12	+3
Korea	11	9	+2
Brazil	11	10	+1
German total	1.097	909	188

Source: Available at https://www.destatis.de/EN/FactsFigures/NationalEconomyEnvironment/ForeignTrade/TradingPartners/Tables/OrderRankGermanyTradingPartners.pdf?__blob=publicationFile.

In WTO Doha trade negotiations Germany has been actively working for eliminations of non-tariff barriers that mean 5-10% extra costs (relation to the trade

value) for partners of international trade¹. Germany is not yet a fully open global player. Germany has still its "protected islands" e.g. in the banking and finance sector. Germany promotes sustainable development, healthcare and consumer protection. Germany's competitive edges are openness, predictability, and fair legislation. Germany pushes forward trade negotiations between the EU and Asian and South American nations to make market entries for companies easier. Over 5,000 foreign companies operate in Germany and employ over 3 million persons. In 2007-2011 there were 3,535 FDI-projects by 3,000 foreign companies in Germany. Most of FDI operations established service units, only few production units, in 39 various sectors in Germany².

1. The German success recipe 1 – national system of innovation

Friedrich List (1841) argue that economic policy has to be adapted to the *needs of specific nations*. He was a member of the German historical school of economics. His main concept is *national system*. List argued that a nation's true wealth is its productive power, rather than its current exchange values. During his career, List advised Germany and the U.S. to develop education, railways and technology. Contrary to Smith (1776), List argued that private economic interests must be subordinated to the strengthening of the nation. List's ideas have been the basis for three economic miracles (Wirtschaftswunder) in Germany: (1) Zollverein 1834-1919; (2) West German from the 1950s to the 1960s; and (3) globalization of Germany since 1990s, and for the completion of the vision of European economic integration by Bundeskanzler Konrad Adenauer (1949-1963).

Joseph Schumpeter (Lintunen, 2000) was a well-known member of the German historical school of economics. He modernized List's doctrine as the Harvard professor. He propose that an entrepreneur, as innovator, creates profit opportunities. An entrepreneurial discovery occurs, when an entrepreneur makes the conjecture that a set of resources is not allocated to its best use. The *temporary monopoly profit* rewards entrepreneurs on innovations that are the major source of evolution in a whole society. Schumpeter's dynamic view of List's doctrine is based on a good balance between MNCs and innovative companies:

1. *Creative destruction* is associated with radical or drastic innovations of entrepreneurs entering

¹ <http://www.bmw.de/DE/Themen/Aussenwirtschaft/handelspolitik-eu-wto.html>.

² http://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation.pdf/.

unexplored market where there are low entry barriers for new entrants utilizing the common pool of knowledge stock. Creative destruction is a microeconomic process by its nature but has macroeconomic implication for economic growth (Agion & Hovitt, 1998).

2. *Creative accumulation* is associated with institutionalized innovation by MNCs that carry out innovation along established technological trajectories. MNCs dominate R&D investments and commodity markets worldwide, and they impact on industry life cycles and market structures (Scherer, 1999). Kenneth Arrow, the Nobel Prize-winner, claimed that a market leader in oligopoly is not ready to take the risk of radical or drastic innovations (Arrow & Hahn, 1971).

German companies innovate and try to maintain their differentiation positions by customer-orientation. They are highly Schumpeterian of their business thinking. German MNCs will be unique and differentiated to avoid the devastating oligopoly power games. Siemens and Bosch are global market leaders in their niches. In WIPO statistics of 50 biggest PCT-applicants¹ in 1978-2011 Siemens (19,719 PCT-patents) and Bosch (17,197 PCT-patents) are at the top with Philips (24,966). A strong evidence of Germany's technology excellence is *Fraunhofer-Gesellschaft* that is the second among science communities after the U.S. University of California (3,555 PCT-patents). German MNCs are internationally oriented – even earlier state-owned companies, e.g. Deutsche Post. They finance their domestic investments by incomes from international operations. As Venohr & Meyer (2007) estimate, there are over 340,000 export companies in Germany and over 100,000 German companies are active in FDI operations. Germany's National System is not power-oriented as the Harvard-Chicago IO model (Scherer and Ross, 1990) widely applied in other EU countries where big companies are stacked in devastating domestic oligopoly power games.

Germany consists of 16 federal states that are independent states although their historical status varies as the current economic performance (Table 2). Three of states are “free” (Freistaat): Bayern (since 1919), Sachsen (1990) and Thüringen (1994). Two are city-based states (Stadtstaat) and “free” (Freie und Hansestadt): Hamburg (1806) and Bremen

(1806). The states have their own legislation, constitution, parliament and government. At the federation level federal states use their constitutional power in parliament (Bundesrat) in which the voting power is related to the number of people. History matters! Differences in economic performance between regional states are major. Germany's successful reunification has reduced differences. Germany has still its core states, e.g. Bayern, and its periphery, the earlier East Germany. The Harvard's top-down methodology (Scherer and Ross, 1990, p. 5) is too static although widely used. *The Schumpeterian methodology is compatible with the dynamic nature of German historical school of economics.*

Table 2. GNP (nominal, billion euros) in 2011-2012

Federal states	GNP 2011	GNP 2012	Change, %
Baden-Württemberg	382	389	1,7
Beyern	456	465	2,0
Berlin	101	103	2,4
Brandenburg	56	57	2,3
Bremen	26	27	2,7
Hamburg	93	95	2,5
Hessen	226	229	1,5
Mecklenburg-Vorpommern	35	36	3,9
Niedersachsen	224	230	2,5
Nordrhein-Westfalen	572	582	1,7
Rheinland-Pfalz	114	117	2,3
Saarland	31	31	0,6
Sachsen	95	96	1,2
Sachsen-Anhalt	51	52	2,6
Schleswig-Holstein	75	77	2,5
Thüringen	48	49	1,4
Germany	2.592	2.643	1,9

Source: Available at http://www.statistik-portal.de/statistik-portal/en/en_jb27_jahrtab65.asp.

Germany's economic geography is based on urbanization economies that Porter excludes of diamonds. Inside and between regional states there are urban networks of small cities/towns that constitute unique metropolises. In Germany there are only 14 cities with over 500,000 inhabitants, and only one mega-sized metropolis (over 10 million inhabitants): Rein-Ruhr metropolis-region (biggest cities Köln, Düsseldorf, Essen and Dortmund), 9 medium-sized metropolis regions, and 4 million-cities: Berlin, Hamburg, München and Köln. These diversified metropolis-regions are the economic engine of Germany's third economic miracle (Wirtschaftswunder). Germany (Reichskirche) was one of the most civilized nations already in the 800s when the U.S. or America was populated by wild Indian tribes. Germany's identity cannot be captured by trivial top-down clustering of companies and other economic actors.

¹ The Patent Cooperation Treaty (PCT) signed in 1970, provides a unified procedure for filing patent applications to protect inventions in each of its contracting states. In 2008, there were 139 contracting states to the PCT that constitute the International Patent Cooperation Union. See http://www.wipo.int/export/sites/www/freepublications/en/patents/901/wipo_pub_901_2012.pdf.

Table 3. German cities and their economic regions (agglomeration) and metropolis regions

City	City 2010	Aggl. 2012	Metrop.
(1) Köln	1,02	1,90	11,69
(1) Düsseldorf	0,59	1,22	11,69
(1) Dortmund	0,58	4,70	11,69
(1) Essen	0,57	4,70	11,69
(2) Berlin	3,51	4,30	5,95
(3) Frankfurt am Main	0,70	1,93	5,52
(4) Stuttgart	0,60	1,80	5,29
(5) München	1,38	2,00	5,20
(6) Hamburg	1,80	2,60	4,27
(7) Hannover	0,53	1,13	3,88
(8) Nürnberg	0,51	1,20	3,50
(9) Bremen	0,55	0,85	2,73
(10) Leipzig	0,53	1,21	2,40
(10) Dresden	0,53	0,75	2,40

Source: <http://de.wikipedia.org/wiki/Deutschland>.

Kenichi Ohmae (1995, 1996) predicted that the collapse of nation states is to be expected. Region states with sound socio-cultural structure are the winners of regional agglomeration. Region states constitute fertile ground for stimulating innovations and competitiveness of existing firms, encourage entrepreneurship and attract inward investments. Economic activities are concentrated geographically. Most people in core countries, and a growing number in periphery countries, live in large, densely populated metropolitans. Ohmae refers to his home country, Japan, where the Tokyo metropolitan, a region state, totally dominates the Japanese global business. Metropolis regions in Germany are exiting or emergent winners as region states. John Dunning (1993, 1997) has proposed that the domestic influences on the diamond should be considered as a specific case of the global influences.

In Germany there are 140 universities of which 11 have been named Elite-Universitäten¹. The EU Commission has selected 10 top universities; 4 of them are in Germany. German universities have a glorious history of genius scientists. 34 Nobel-prize winners are related to *Ludwig-Maximilians-Universität, München*: e.g. Wilhelm Röntgen (physics, 1901), Max Planck (physics, 1918), Werner Heisenberg (physics, 1932), and Otto Hahn (chemistry, 1944); and 29 to *Humboldt-Universität, Berlin*: e.g. Albert Einstein (physics, 1921) and Max Planck (physics, 1918). Germany has 2.4 million

students (42% universities)². Germany has a well-organized exchange of students: 115,000 German are studying abroad and 264,000 foreign students in Germany. 31% of German students have as their area of specialization in mathematics, computer science, engineering, etc.³ In 2012 R&D-investments were 1,469 billion dollar worldwide⁴. Germany dominates the EU with 91 billion dollar (26% of EU). Research-intensive industries accounted for 12.4% of gross value added in Germany (high-tech (9.5%); cutting-edge technology (2.9%)). Germany is the number one worldwide⁵. Germany focuses 15 top clusters (Spitzencluster)⁶ and 12 core technologies (Schlüsseltechnologien)⁷:

1. Biotechnologies (Biotechnologie).
2. Service business (Dienstleistungswirtschaft).
3. Automotive and traffic (Fahrzeug- und Verkehrstechnologien).
4. ICT (Informations- und Kommunikationstechnologien, IKT).
5. Aviation technologies (Luftfahrttechnologien).
6. Maritime technologies (Maritime Technologien).
7. Microsystem technics (Mikrosystemtechnik).
8. Nanotechnologies (Nanotechnologien).
9. Photonics / Optics (Photonik / Optische Technologien).
10. Production technologies (Produktionstechnologien).
11. Space technologies (Raumfahrttechnologien).
12. Material technologies (Werkstofftechnologien).

2. The German success recipe 2 – realistic view of global competition

Thanks to Schumpeter and his followers, Germany is at least one step ahead other EU countries in competition policies. Schumpeter was well aware of the monopolistic power of big firms. Schumpeter (1942) made his famous prediction of the transition from competitive capitalism to trustified capitalism. Schumpeter shared Marx's conclusion that capitalism will collapse, although from various reasons. Schumpeter predicted that the success of capitalism will lead to a form of corporatism and to fostering of values that are hostile to entrepreneurship, especially among intellectuals. John Galbraight (1956) shared the

¹ HU Berlin, University of Bremen, University of Cologne, TU Dresden, University of Tübingen, RWTH Aachen, FU Berlin, Heidelberg University, University of Konstanz, LMU Munich and Technical University of Munich.

² <http://www.guardian.co.uk/world/interactive/2012/may/31/european-students-statistics-interactive>.

³ <https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/BildungForschungKultur/Bildungsstand/Aktuell.html>.

⁴ Battelle, R&D Magazine; http://www.rdmag.com/sites/rdmag.com/files/GFF2013Final2013_reduced.pdf.

⁵ <http://www.gtai.de/GTAI/Content/EN/Invest/SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation.pdf>/ High Innovation Rate.

⁶ <http://www.bmbf.de/press/3239.php>.

⁷ <http://www.hightech-strategie.de/de/92.php>.

same views. His countervailing power concept, the collusion between large firms and the government, is a parallel concept to Schumpeter's trustified capitalism. Like Schumpeter Galbraith found that the static economic efficiency was a barrier to innovate, because only through the accumulation of monopoly profits could innovations be financed.

In his life's work, Schumpeter not only recognized the need for a theory of economic development, but also came to understand that such a theory would have to deal with the impacts of transition from individual to collective entrepreneurship in the process of technological change (Lazonick, 1991). Although economists would agree with the judgment that an entrepreneur is a central figure in economics, Schumpeter's writings were, at least temporarily, ignored by many brilliant Nobel prize-winners, economists like John Maynard Keynes, Wassily Leontief, Milton Friedman and Paul Samuelson that represent the British-American Economic School. The ignorance for Schumpeter's writings is the major reason why the British-American Economic School, the dominant doctrine

of neoclassical economics, has been and still is separate with the German Historical School.

Schumpeter introduced the concept of temporary monopoly profit as the lifeblood of innovativeness. There was another professor, Edward Chamberlin (1933), who also opposed the neoclassical Walras-Marshall price theory that solely relied on two theoretical models of competition (perfect competition and monopoly) and excluded the reality of imperfect, monopolistic competition. Chamberlin contributed the concept of differentiation that is a parallel concept of Schumpeter's concept of innovation. Chamberlin's work can be considered revolutionary, in the sense that he conceptualizes a market structure characterized by both competitive and monopoly elements, and that is the point that makes his work so important to the modern micro-economic theory. Differentiation through innovativeness (economies of scope) is an entrepreneur's best strategy in competition against the market power of multinationals (economies of scale). A modern interpretation of Chamberlin's analysis of competitive models can be summarized in Figure 1.

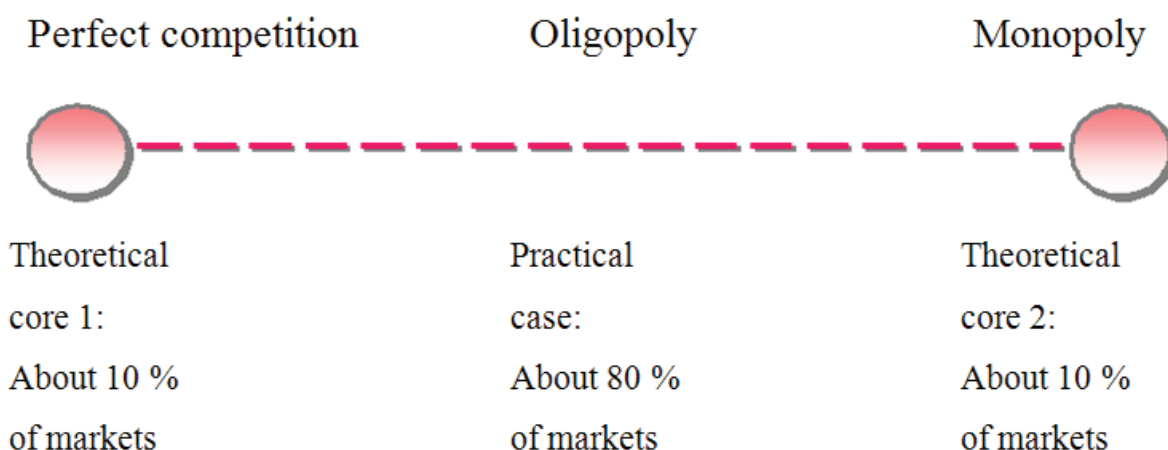


Fig. 1. The dilemma of Schumpeter and Chamberlin

For Chamberlin, perfect competition, per se, is an abstraction, because the real behavior of firms is not like pure price competition. Chamberlin's contribution to microeconomics is that he offered product differentiation as the explanation for a downward falling demand curve of an individual product. Chamberlin proposed that the demand of an individual product depends on the quality of the product and selling activities. Chamberlin insisted on the claim that at an individual product level, there are two basically different kinds of competition:

1. Price competition.
2. Non-price competition.

The problem with the neoclassical microeconomics is the exclusion of non-price competition that through differentiation of products is the major means of firms to earn monopoly profits. Both kinds of competition can be kept but for various reasons. Referring to Chamberlin's thinking, we present a more realistic classification of competitive models in Figure 2.

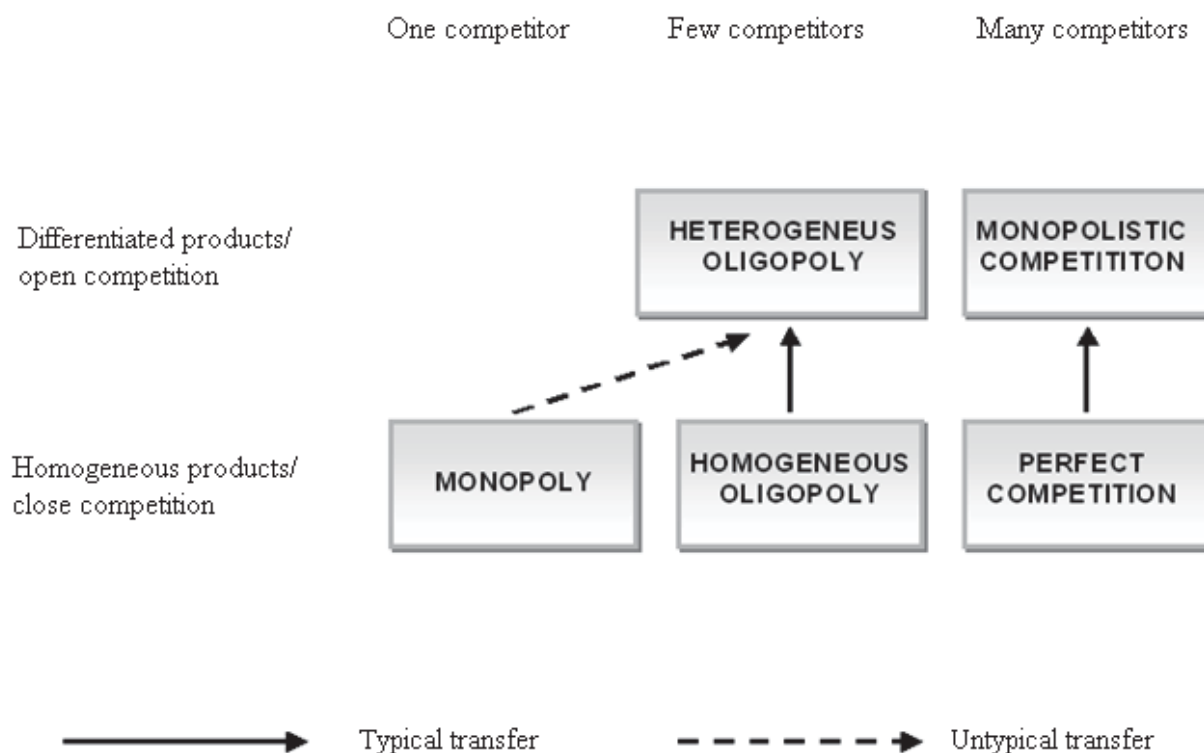


Fig. 2. Chamberlin's classification of competitive models

Chamberlin's major target was to modernize the neoclassical theory. Schumpeter shared the same interest. Both failed in that. However, they have laid down a more realistic approach to study oligopoly which is the dominant type of competitive relations. Most of the leading schools of economics have their focus on the industrial organization economics (IO) that is built on Chamberlin's model of oligopoly market(s) with relatively permanent market structure (Bain, 1956). In the global markets, the offerings of firms are heterogeneous and differentiated. The two of competitive models that are practical are:

1. *Heterogeneous oligopoly* is the core area of Harvard-Chicago industrial organization (IO) doctrine. IO-doctrine is the theoretical construction on which extensions of managerial economics are built and later, strategic management doctrine. Oligopoly, as Chamberlin interprets it, is accountable to the mutual dependences between few competitors that are positioned in the same industry or markets.
2. *Monopolistic competition* is the core content of the marketing doctrine. When the number of competitors is sufficiently large, the mutual dependences of competitors are relaxed and the marketing tools, like advertising and selling, are important to differentiate a firm's offerings from

market average offerings. However, because the number of competitors is large, monopolistic competition embodies elements of perfect competition in addition to monopoly. But as long as a firm can maintain its differentiation strategy, features of monopoly are dominating, since for differentiated products the demand curve is negatively sloped.

The dilemma of most EU-27 countries is that they have not been able to develop their own management doctrines. They apply the U.S. Industrial Organization (IO) model without critics. During the 1980s, the most influential book was undoubtedly Michael Porter's (1980) *Competitive Strategy*. In a remarkably short time, Porter's writings on mobility barriers or generic strategies became broadly used in teaching, consultation, and research projects. Indeed, Porter moved economics closer to the strategic management and is the author of influence in the topic as the huge number of citation reveals. Porter's model in Figure 3 that divides a company's market scope in two ones: *industry wide* and *particular segment only*. Anyone who has read Porter's dissertation (Porter, 1973) could recognize that this is the same division into big (industry wide) and small (particular segment only) companies.

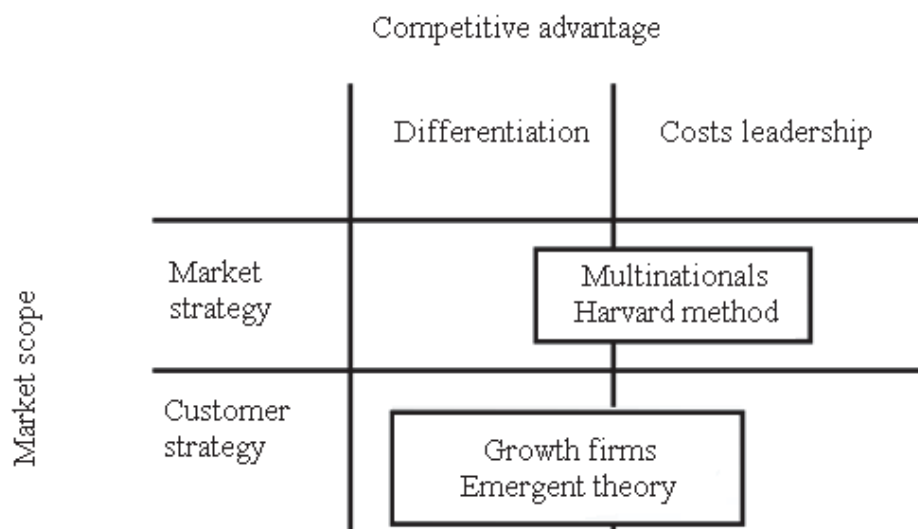


Fig. 3. A reinterpretation of Porter's generic strategies

Porter relies on abstract oligopoly model. He is not willing to accept the fact that his generic strategies are not theoretical but empirical. Oligopoly is accountable to the mutual dependences between few MNCs that are positioned in the same market and try to dominate markets by internalizing them. NMCs take advantage of homogenous segments in global markets. Serving these segments with standardized products offers *economies of scale* for NMCs. Aggregated preferences for certain product can emerge simultaneously worldwide which provides huge prospects for certain commodities (e.g. Nokia's mobile phones in the 90s). Germany has a large population of MNCs of which many are market leader in their segments, e.g. Volkswagen. German MNCs have the well-trained management teams who are able to win by their global market strategies.

Hidden Champions has applied to conquer global markets as Hermann Simon describes in his excellent book (Simon, 2009). Hidden Champions are best in the world in monopolistic competition. They have collectively constructed the *emergent growth theory for highly innovative and customer-oriented companies*. The empirical facts are unbelievable. Venohr (2010) has estimated that in German there are 1500 companies that are world-market leaders (among three best) in their own segments. About 1350 of them are Hidden Champions (HD). About 90% of HD companies act in B2B markets and the most important industry group is the Machinery & Equipment industry.

HD companies have a unique idea for market definition. They prefer to specialize in globally heterogeneous and marginal market segments that multinationals use to avoid because of low growth

prospects and high customer-specific transaction costs. One of the major reasons is that NMCs, through strategic entries, build-up overseas capacities in order to stop potential rivals from entering the most potential market segments. NMCs attempt to establish market power through strategic alliances, joint ventures and collaboration over R&D and make portfolio investments abroad to increase and obtain control of critical resources (Cross, 2000). HD companies have succeeded to win by *complementary business strategies* and, thereby avoided the competitive power of NMCs. In 1994-2004 HD companies succeeded to grow by 8.4% when German DAX companies (NMCs) grew by 4.9% (Venohr & Meyer, 2009). There are about 2710 HD companies worldwide and about one half of them in Germany¹.

The *German management method* is based on training inside companies. Therefore, German managers know their companies in-depth. The German apprentice education system is certainly the best in world to train humble managers who are really interested to serve their customers worldwide.² Strategic marketing emphasizes that strategy development needs to be externally oriented, towards customers, competitors and markets. David Ricardo's comparative advantage concept highlights the importance of differences between country-specific resources and firm-specific resources. Germany is the best home market for B2B products and services. Service business has been growing 1,428% (Table 4) during the two decades of globalization in 1990-2011. Germany is the third in service exports after the

¹ DZ Bank Group, Confidence in the German Mittelstand, page 14. Available at www.geschaeftsbericht.dzbank.de/.../DZBANK_Group.

² German Mittelstand: Engine of the German economy, sivu 5. See www.bmwi.de/.../factbook-german-mittelstand,propert...

U.S. and the UK. German B2B export companies are mainly providing integrated B2B services to their global customers. As the official WTO statistics

demonstrate, Germany is certainly much bigger service exporter perhaps the number one as global service exporter.

Table 4. Service exports in 1990-2011 (billion dollars) and the growth rates

Country	1990	2011	
U.S.	45	581	1.291
UK	25	274	1.096
Germany	21	253	1.204
China	1	182	18.200
France	30	167	556
Japan	20	142	710
Spain	-	140	140
India	2	137	6.850
Holland	-	134	134
Singapore	-	129	129
World	292	4170	1.428

Source: WTO Secretariat. Available at http://www.wto.org/english/news_e/pr688_e.htm.

The customer-focused marketing concepts, such as segmentation, positioning and the product-life cycle, have also influenced thinking in strategic management (Day, 1992, 1993). Product/brand positioning is a core strategic marketing activity and firms can seek to adopt a number of distinct positions in the marketplace. These may involve positions based on price, premium quality, superior service and innovativeness. The major paradox is that Porter's generic strategies dominate the SMEs literature in most of EU-27 countries when German Mittelstand/HD companies are utilizing German doctrine of strategic marketing. A good summary of key points is given by Simon (1996, 2009) and Venohr and Meyerr (2007, 2009):

1. They strive for market leadership worldwide in their markets/segments.
2. Market definition (Abell, 1980) is narrow from customer and technology perspectives
3. They serve the target markets through their own subsidiaries and do not delegate the customer relationship to third parties.
4. They close to their customers in particular to their top customers. They are value, not price oriented.
5. They are innovative in both products and processes. Innovation activities are globally oriented and continuous.
6. The overall company orientation is technology and market driven.
7. They are close to their top competitors and defend their position actively. Competitive advantages are product quality and services.
8. They rely on their own strengths. They mistrust strategic alliances and outsourcing. They see the

foundation of their competitive superiority in things which only they can do.

9. They have strong corporate cultures associated with excellent employee identification and motivation. Selection for jobs is sharp.
10. Their leaders are strong and stay at the helm for decades.

George Day (1990) argues that winners (1) are guided by a strategic vision and (2) responsive to markets and customers. This is the method that German HD companies have developed during two past decades. Following their integrating model of marketing HD companies develop their own resource configuration models that are oriented toward customer needs and wants. The key issue is the humble choice of markets segments, to make good business of any kind of goods and articles, not to follow trends or hit lists. Product differentiation is the key of German businesses. It means a long run commitment to serve customers and to invent better products for them. So simple to be true! Marketing channel is the third element of German success receipt. German companies prefer to internalize their marketing channels to keep customer secrets in a strict control. So simple to be true! Germany's *customer-specific differentiation* is not well known since global gurus dominate the English literature and media. The paradox is that German companies have made a better version of the U.S. industrial method that helped the U.S. succeed for about hundred years until the 1980s. Alfred Sloan (1963), the famous CEO of GM was one of the first managers that utilized Chamberlin's product differentiation in positioning. Now German companies are in the top positions. HD companies are in the top (Figure 4).

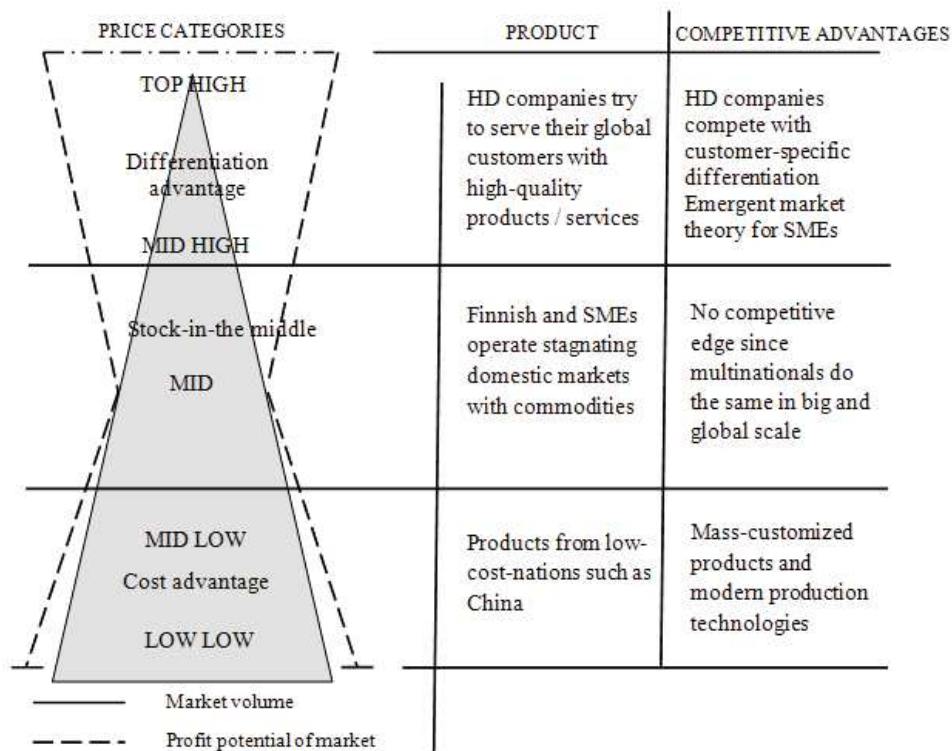


Fig. 4. The Nordic niche-strategies

Conclusion: what is wrong with the EU's SME policy?

As to SMEs internationalization, Finland is in marginal position as it was during 1970s when I started my carriers as an industrial economist in the Federation of Finnish Technology Industries. Olavi Punakivi is finishing his dissertation about the theme "Investment and profitability of SMEs in Finnish technology industries". He has a large data-base of

SMEs in technology industries. The EU Commission (2003/361/EY) defines SMEs so that the main factors determining whether a company is an SME are: number of employees and either turnover or balance sheet total. According to this definition, there are about 23 million SMEs in the EU area and they employ about 100 million persons¹. In Germany Mittelstand is a broad category of companies including about 99% of 3.7 million companies in Germany, and about 95% Mittelstand-companies are controlled by families².

Table 5. The EU Commission (2003/361/EY) SMEs definition

Company category	Employees	Turnover	Balance sheet total
Medium-sized	< 250	≤ € 50 m	≤ € 43 m
Small	< 50	≤ € 10 m	≤ € 10 m
Micro	< 10	≤ € 2 m	≤ € 2 m

Source: Available at <http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/>.

Punakivi adapts the German broad definition of Mittelstand so that he has six categories of SMEs (number of persons):

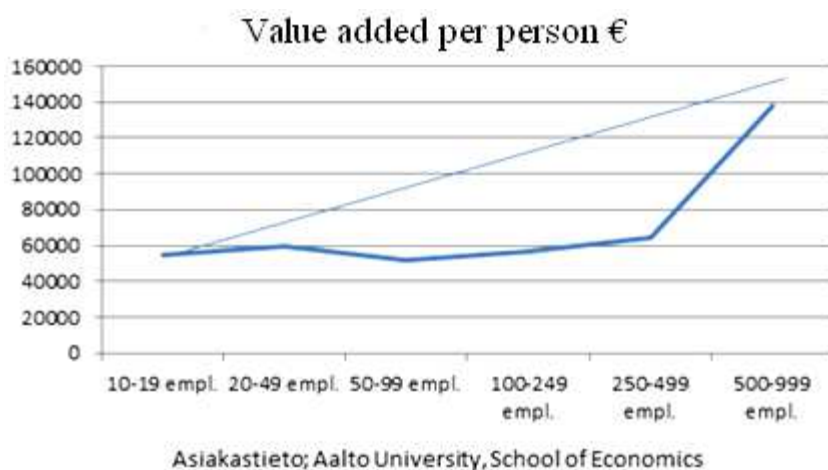
1. Early-stage growth companies (10-19 persons).
2. Mature growth companies (20-49 persons).
3. Small medium-sized companies (50-99 persons).
4. Big and medium-sized companies (100-249 persons).
5. Internationalizing medium-sized companies (250-499 persons).

6. Globalizing medium-sized companies (500-999 persons).

This kind of definition of SMEs is useful (Figure 5). The six size categories comprise a *pattern of growth for SMEs*. In the figure there is one indicator of the pattern (Value added per person). As shown in the figure, companies in five categories are about the same level in value added per person. Some of these SMEs are already investing intensively in internationalization. Only one category (Global medium-sized companies, 500-999 persons) had a high return on investment in internationalization as Hidden Champions in Germany.

¹ http://ec.europa.eu/competition/state_aid/studies_reports/sme_handbook.pdf.

² German Mittelstand: Engine of the German economy – BMWi. Available at <http://www.bmw.de/.../factbook-german-mittelstand.pdf>.



Source: Olavi Punakivi.

Fig. 5. Value added per person

The EU's SME concept is misleading. It is built on the implicit assumption that small and medium-sized companies are isolated from the global competition. This is not the truth. The German SME concept is not a static one relying solely on company size. Germany SMEs or *Mittelstand* are globally oriented. They are aware of the fact that when markets are open their only success recipe is to grow quicker than NMCs. During two past decades they have succeeded to do that.

The Harvard-Chicago IO doctrine is solely relying on top-down approach. The European and German bottom-up approach is important to take into account (McGee and Thomas, 1986). This approach is veri-

fied in Finland by 4 dissertations: Lahti (1983), Salimäki (2003), Killström (2005), and Luukkainen (2012). Lahti's model of strategy and performance are used as the main framework model (Figure 6). Lahti's model links the 'Realized and intended strategy making' to the 'Firm performance' in the within-industry approach. The learning aspect is essential to innovative growth firms with idiosyncratic resources and continuous performance variations according to the life cycles of innovations (Lawless, Bergh and Wilsted, 1989). A balance between innovativeness and process efficiency or market efficiency (differentiation) is needed.

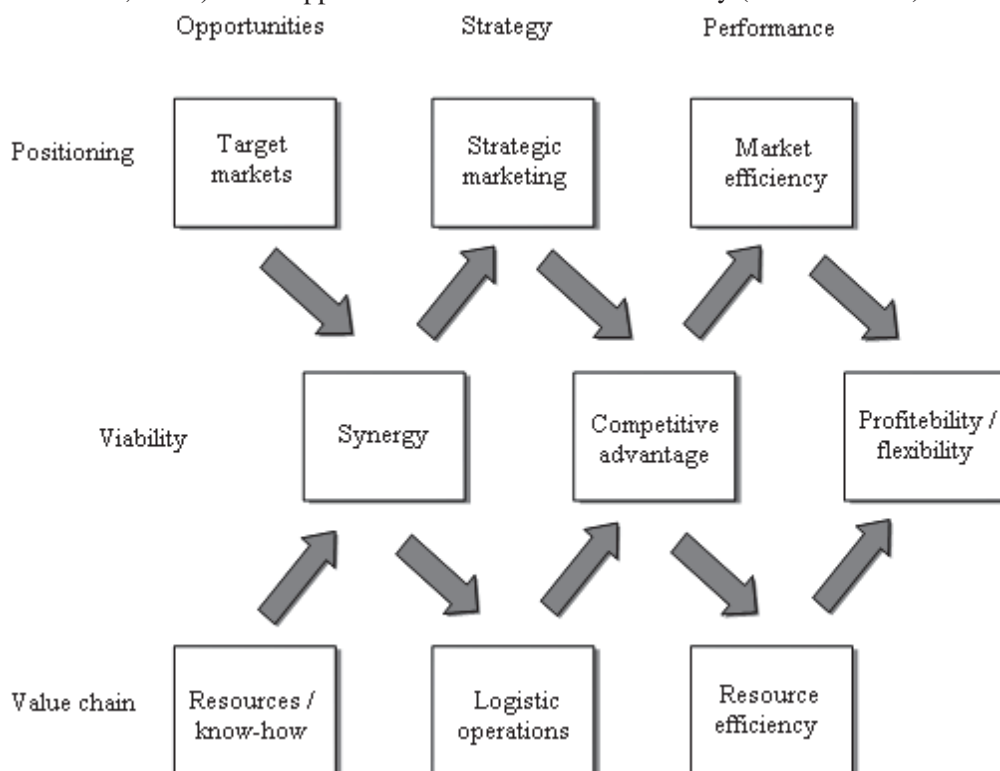


Fig. 6. Lahti's model: Strategy-Performance model

This model has been widely used in many research projects¹. The model is Schumpeterian in its nature. The starting point of temporary monopoly profits is the ‘Opportunities’. The ‘Strategy’ is Schumpeterian in its nature, since strategy making is targeted to find new business prospect. Temporary monopoly profit, the ‘Performance’, is the result from the fit with opportunities and strategy. Edith Penrose’s (1959) hypothesized the firm’s ability to grow depends on the management’s learning capacity. Therefore, the “within sector studies” are needed to find out the “Substantive measures of performance”, as Pitt and Thomas convince through Table 6. Lahti

(1983) is one of the first dynamic studies of strategic groups in a whole industry composed of firms with different size (small, medium-sized and big) and performance models (high performers/innovator and low performers/conservative) (Pitt, and Thomas, 1994, p. 93). The “across sector studies” have had the major emphasis since they are useful to identify the current and potential clusters according to Porters’ (1990) contribution. Although clusters are always useful to know, small and medium sized firms cannot base their strategy making on cluster concept. They need more robust concepts and methods (Lahti, 2010).

Table 6. Studies testing the robustness of groupings¹

Prior classification was via:				
	“Substantive” measures of		“Perceptual” measures of	
	Structure/conduct	Performance	Group structures	Patterns of conduct
Within sector studies	Hunt (1972)	Lahti (1983) Johnson and Thomas (1987)	Dess and Davis (1984)	Dess and Davis (1984)
Across-sector studies	Harrigan (1980) Tushman and Anderson (1986)	Porter (1979) Newman (1973) Rumelt (1973) Tushman and Anderson (1986)	Snow and Hrebiniak (1980)	Snow and Hrebiniak (1980)

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