bookboon.com

# Globalization & the Nordic Success Model: Part I

Arto Lahti

Arto Lahti

# Globalization & the Nordic Succes Model – Part I

Globalization & the Nordic Succes Model – Part I

ISBN 978-87-7681-549-3

# Contents

# Preface

This book analyses the global economy from the viewpoint of innovative firms. The main contribution relates to the argument that the best way to solve the current and future challenges facing the global economy is through a better understanding of Schumpeterian entrepreneurship in its modern forms. Multinational companies sell global commodities and mass-customized products, often by utilizing general principles of applied microeconomics such as Porter's matrix of generic strategies. Innovative (growth) firms are viewing their global markets from a bottom-up perspective. The resource-based (RBV) view is an important element of the bottom-up perspective and has become well suited to innovative firms when the industrial organization (IO) school is like tailored for big multinationals. The RBV and the IO dates back to the history of strategic management doctrine by Alfred Chandler, intended to deconstruct the black box of the economist's production function into some more elemental components and interactions

In the Nordic countries a rapid deregulation of the ICT industry happed in the late 1980s. Being the first mover in digital mobile phones and shifting its focus to the opportunity share (Hamel & Prahalad, 1994, pp. 34-35), Nokia, the flagship of the Nordic firms, made bold leaps in the 1990s from a mass-producer of commodities (e.g. paper) to the absolute elite group of global high-tech firms. Nokia's growth story is one of the most spectacular (Schumpeterian) cases over time. In terms of orthodox IO, Nokia jumped over market barriers in the way that should not be possible and that might have led to a devastating price competition in the oligopolistic market (Scherer and Ross 1990). By adapting Romer's increasing return model, Nokia achieved an optimal market share on the global mobile phones markets (Buzzell and Gale, 1987). Tom Peters (Peters, 1990) debated about fragmented markets, referring to flexible with a wider variety of products to narrower markets. This was the market strategy that Nokia succeeded to implement. This book is based the writer's own history and writings about the Nordic success stories that are useful to read.

# 1. Schumpeter's economics and entrepreneurship

## 1.1 Timeless writers…

In the beginning of the 20th century, when Joseph Alois Schumpeter, a member of the **German Historical School** and, later, the father of entrepreneurship[1], started his academic career, and, somewhat later political career in Vienna, the dominant doctrine of neoclassical economics was laid down. Joseph Schumpeter wrote **Theorie der wirtschaftlichen Entwicklung** in 1911 that was published it as **Theory of Economic Development** in 1934. Schumpeter tried to introduce the concept of entrepreneurs into the set-up of neoclassical economics or the Walrasian System. Schumpeter could easily define the function of his type of entrepreneurs in this manner, but the analysis of the overall process of evolution required a radical reinterpretation of the system of general economic equilibrium. He thus made clear that he could not accept the standard interpretation of the quick Walrasian process of adaptation. Instead, he saw the innovative transformation of routine behavior as a relatively slow and conflict-ridden process. Schumpeter distinguished innovation as the function of the entrepreneur that is separate from the administrative function of the manager. This reinterpretation helped him to sketch out his theory of economic business cycles as reflecting the wave-form process of economic evolution under capitalism.

**During his career, Schumpeter insisted on the discontinuity between the Walrasian mathematically perfect model and innovative entrepreneurship.**[2]

A well-known representative of the British-American Economic School was Alfred Marshall who was the leading British economist at Cambridge between the 1890s and the 1920s. Marshall wrote eight editions of his book **Principles of Economics**[3], where he exerted great influence on the development of economic thought of the time. Marshall was concerned with theories of costs, value, and distribution and developed a concept of marginal utility, not entrepreneurship. Marshall made a distinction between the internal and external economies of the firm. External economies, **economies of scale**, depend on the firm's adaptation to industry developments while internal economies, **economies of scope,** are dependent on the resources, organization and management efficiency. For primarily methodogical reasons, Marshall introduced into economic analysis the concept of **representative firm** as the theoretical unit of analysis, instead of a real one.

**Alfred Marshall focused neoclassical economists' attention to the firm's optimizing (cost-minimizing) behavior and excluded entrepreneurial (innovative) behavior.**

Schumpeter never denied the genius of Marshall's writings. In his book **Business Cycles**[4], Schumpeter now a Harvard professor referred to Marshall's concept of the representative firm as the one that is used to hide the fundamental problem of economic change. It was not, perhaps, Marshall that Schumpeter criticized. It was Leon Walras' mathematically perfect, **The General Theory**, that was the primary reason for the distinction between entrepreneurship and economics. Walras made certain theoretical assumptions. One of them was to use the upward sloped parts of the average cost function, instead of the marginal cost function, as the supply curve of the firm that excluded the behavior of real firms out of the frames of the neoclassical economic theory.

Schumpeter's unique type of evolutionary analysis can hardly be understood unless we recognize that he developed it in relation to a study of the strength and weaknesses of the Walrasian form of Neoclassical Economics[5]. Joseph Schumpeter took care to distinguish his theory of economic development from the theory of the Walrasian process of adaptation. By contrast of Walras, Schumpeter gave much credit to human agency. Although a general equilibrium system is observationally equivalent to a system in which everyone is a completely rational optimizer, Schumpeter declares this to be an illusion (Schumpeter 1934, p. 40). Schumpeter (1939) proposed a three-cycle model of economic fluctuations or waves:

1. Kitchin inventory cycle (3-5 years)
2. Kuznets infrastructural investment cycle (15-25 years)
3. Kondratieff long cycle (45-60 years)

**Schumpeter argued that entrepreneurs create innovations in the face of competition and thereby generate (irregular) economic growth.**

Parallel to Schumpeter, Frank Knight[6], the founder of **Chigaco School**, wrote his book **Risk, Uncertainty, and Profit**. Knight's risk theory distinguishes between the objective probability that an event will happen, and, the immeasurable unknown, such as the inability to predict the demand of a new product. Knight expected that an entrepreneur would make his profit(s) in the market with immeasurable unknown or 'true uncertainty'. Knight argued that precise information about future events was not necessary nor even possible. Knight (1920, p. 268) corresponds closely to Schumpeter's claim that the circular flow of economic activity in a Walrasian equilibrium is maintained by a precisely-defined structure of mutually compatible routines. Profit, firms, and entrepreneurship, Knight argued, all depended on uncertainty. But the rationality for entrepreneurial profit making is an exercise of ultimate responsibility which by its very nature cannot be insured nor capitalized or salaried.

**The conceptualizations of Schumpeter and Knight are still valid and even more so in the time of globalization than earlier.**

During his career until the 1950s, Schumpeter gave economists food for thought with the concept of **creative destruction**. Schumpeter was well aware of the monopolistic power of big firms. In his book **Capitalism, Socialism and Democracy**[7], Schumpeter 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[8]. John Kenneth Galbraight was influenced in his **The New Industrial State** by Schumpeter's views on corporations. Schumpeter's prediction of corporatism did not negate his belief that free market capitalism is the best economic system.

As Arrow points out, information is an economic commodity, an experience good[9]. Multinationals have, perhaps, the best information to be used, and, thereby, **countervailing power**[10] that John Kenneth Galbraight launched as a parallel concept to Schumpeter's trustified capitalism. John Galbraith advanced Schumpeter's notion that technological innovations were no more the domain of individual innovators or an activity relevant to small business. 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. Private entrepreneurs were no more able to accumulate their cash flows. The huge growth of international financial markets since the 70s meant that multinatinationals could take advantage of their expertise in international financing.

**A so-called Schumpeterian entrepreneur is in many cases a management team of a big multinational.**

Joshua Karliner (1997, 5) gives some contemporary figures that describe global corporate jets and their positions:

- The number of global corporations in the world has jumped from 7.000 in 1979 to 40.000 in 1995.
- These corporations and their 250.000 foreign affiliates account for most of the world's industrial capacity, technological knowledge and international financial transactions.
- Global companies hold 90 percent of all technology and product patents worldwide and are involved in 70 percent of world trade.
- While the world economy is growing by 2 and 3 percent per year, the biggest global companies are, as a group, growing at a rate of 8 and 10 percent.

**Multinationals operating in all continents and markets (goods, services, financing, IPRs etc) are, perhaps, examples of trustified capitalism, but not of an orthodox monopoly. The reason might be Kenneth Arrow's[11] information paradox.**

Multinationals are influential and can determine certain rules of the policy making[12]. They invest in countries like China, owing to impressive economic growth rates in coming years. The only counter power of the curvailing or market power of big multinationals is entrepreneurial innovation that is the major source of creative destruction. In Schumpeter's thinking **creative destruction creates economic discontinuities, and in doing so, an entrepreneurial environment for the introduction of innovation, and earning monopoly profits.** Competition is a self-destructive mechanism that normalizes the profit level when the innovation effects, value added etc, have been utilized. Schumpeterian creative destruction is continuously going on. 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[13].

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 Alfred Marshall, John Maynard Keynes, Wassily Leontief, Milton Friedman and Paul Samuelson that represent the British-American Economic School. However, Schumpeter is historically influential and still up-to-date today in the global world. 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. However, Schumpeter's point is relevant since the system of general economic equilibrium has no real theory of endogenous or structural development that Schumpeter proposed.

Schumpeter's Theory of Economic Development can be seen as a coherent answer to the Marxian theory[14]. For Schumpeter, intra-capitalist competition entirely explains structural changes in economy, whereas for Marx structural changes have their roots in capital-labor struggle in the immediate process of production. Both Marx and Schumpeter depict competition as a dynamic process of differentiation and struggle among firms rather than as the static competition of the Walrasian System. Both Marx and Schumpeter understood that the role of prices as optimal resource allocators is drastically reduced, and capitalism is seen as an evolutionary process.

**In Schumpeter's own vision of the economic system, the theory of business cycles and the theory of growth are inseparable.**

**Referring to Knight's concept of 'true uncertainty', we might expect that there is more chaos[15] than business cycles in the global markets.**

Alfred Chandler is a successor of Joseph Schumpeter as a contemporary analyst of corporate histories and their role in the economic growth. In his book, Scale and Scope[16], Alfred Chandler compared the history of corporate capitalism in the U.S., Britain, and Germany during the time of the second industrial revolution. Chandler noticed that Britain was the pioneer of the industrial revolution until the 1880s. After that large, vertically integrated corporations in the U.S. were the ones that could develop management institutions, agglomerate the competitive capabilities over industrial districts like Detroit, and, thereby, take collectively bold, entrepreneurial steps to win the global race before the World War I. Chandler's interpretation of that paradox was that Britain's owner-managers feared the loss of control and opposed the necessary consolidation of corporate structures.

**Since the 1880s, the large vertically integrated corporation emerged in the U.S. to replace what had been a fragmented structure of production and distribution. Chandler is convinced that the hated U.S. antitrust policy forced trustified firms to reorientate from horizontal and forbidden agglomerates to vertical agglomerates.**

## 1.2 Schumpeter's entrepreneur[17] - interpretations

Joseph Schumpeter proposed that an entrepreneur, as innovator, creates profit opportunities by devising a new product, a production process, or a marketing strategy. An entrepreneurial discovery occurs, when an entrepreneur makes the conjecture that a set of resources is not allocated to its best use. Schumpeter did not define what an entrepreneur looks like. Schumpeter and other economists define the functions that an entrepreneur fulfils in an economy. Schumpeter suggests[18]:

- An **entrepreneurial function** is the act of will of the entrepreneur for the introduction of innovation in an economy, and a source of evolution in a whole society
- **Entrepreneurial leadership** is the source of creative energy for innovation and evolution
- **Entrepreneurial profit** is the temporary monopoly return on the personal activity of the entrepreneur

In order to clarify Schumpeter's entrepreneurship, we refer to two contemporary writings. Henry Mintzberg[19] has identified the **entrepreneurial mode of strategy making** as the one in which the power is highly centralized in the hands of one person. Strategy making in these firms tends to be intuitive rather than analytical. A strategist is a man who has a 'feel' for business, not a staff planner or technocrat. Entrepreneurial opportunities come in a variety of forms. In his book **Innovation and Entrepreneurship**[20], Peter Drucker defines entrepreneurship as purposeful tasks that can be organized –and are in need of being organized - and systematic work. Entrepreneurship is neither science nor art. It is practice.

**Recognition of entrepreneurial opportunities is a subjective process, but the opportunities themselves are objective phenomena that are not known to all parties at all times.**

A Schumpeterian entrepreneur is the hero of the drama. He is able to identify opportunities to define a new winning business concept. Entrepreneurial opportunities come in a variety of forms. For an entrepreneur to obtain control over resources in a way that makes the opportunity profitable, his or her conjecture about the accuracy of resource prices must differ from those of resource owners and other potential entrepreneurs[21]. As Kirzner[22] has observed, the process of discovery in a market setting requires the participants to guess each other's expectations about a wide variety of things.

Peter Drucker (1985) has described three different categories of opportunities:

- the creation of new information, as occurs within the invention of new technologies
- the exploitation of market inefficiencies that result from information asymmetry, as occurs across time and geography
- the reaction to shifts in the relative costs and benefits of alternative uses for resources, as occurs with political, regulatory, or demographic changes

According to Drucker's fascinating thinking, entrepreneurship requires practices and policies within the enterprise, so it requires outside, in the marketplace. It requires entrepreneurial strategies. Drucker identifies four specifically entrepreneurial strategies.

1. Being fustest with the mostest
2. Hitting them where they ain't
3. Finding and occupying a specialized ecological niche
4. Changing the economic characteristics of a product, a market, or an industry

These four strategies are not mutually exclusive. They can be combined. In the light of Schumpeter's entrepreneurship, the most interesting is **Being fustest with the mostest**. This is the strategy that a Confederate cavalry general in America's Civil War applied to win battles. Following this strategy, the entrepreneur is striving for leadership that is the **entrepreneurial strategy par excellence**. This is the core content of entrepreneurial literature and, especially the one used by high-tech entrepreneurs. Drucker's warning is that of all entrepreneurial strategies this strategy is the greatest gamble, making no allowances for mistakes and permitting no second chance. But if successful, it is highly rewarding. However, this strategy is the most intelligent interpretation of Schumpeter's entrepreneurial spirit:

**To use the leadership strategy requires careful analysis. There has to be one clear-cut goal and all efforts have to be focused on it. The strategy demands substantial and continuing efforts to retain a leadership position.**

**The leadership strategy is not the one with the highest success rate. In average, the most rewarding entrepreneurial strategy is creative imitation - it is 90 % of the whole as Peter Drucker has noticed.**

In his book **The achieving society**[23]**,** David McClelland asserts that human motivation comprises three dominant needs:

1. **High need for achievement -** High achievers should be given challenging projects with reachable goals. They should be provided frequent feedback.

2. **High need for affiliation -** High affiliation need is particular to the entrepreneurs that perform best in a cooperative environment. Networking is the actual concept.

3. **High need for power -** These entrepreneurs are looking for the opportunity to manage others.

David McClelland proposed that an individual's specific needs are acquired over time and are shaped by one's life experiences. People with a high need for achievement seek to excel and thus tend to avoid both low-risk and high-risk situations. They prefer work that has a moderate probability of success, ideally a 50% chance. This is exactly the same point that Peter Drucker has when he discusses of leadership strategy[24]. Taking moderate risks leads not to temporary monopoly profits. The second human motivation, a high need for affiliation is referring to harmonious relationships with other people. This type of entrepreneur performs well in customer service and client interaction situations. Schumpeter's creative destruction is not primarily of that type. A person's need for power can be one of two types: personal and institutional. Entrepreneurs who need institutional or social power want to organize. This is managerial, not entrepreneurial characteristic.

**Schumpeter's entrepreneurs[25] are those with a high need for personal power.**

Closely related to the concept of a high need for personal power is the belief in an internal locus of control. Rotter's **locus-of-control theory**[26] proposes that an individual perceive the outcomes of events as being either within or beyond his personal control and understanding. Individuals who believe in the ability to control the environment through their actions would be ready to take the risks of growth strategy - 'Being Fastest with the Mostest'[27]. The internal locus-of-control is not only crucial to Schumpeter's entrepreneurs. The real nature of Schumpeter's entrepreneurs is always to some extent a mystery. In order to provide some more relativity to the behavior of successful entrepreneur, we can refer to Vesper[28] who has described that there is a whole range of entrepreneurial styles:

(1) Solo-self-employed individuals,
(2) Team builders,
(3) Independent innovators,
(4) Pattern multipliers,
(5) Economy of scale exploiters,
(6) Capital aggregators,
(7) Acquirers,

(8) Buy-sell artists,
(9) Conglomerates,
(10) Speculators,
(11) Apparent value manipulators.

The primary challenge is to identify the entrepreneurial act that has the characteristics of successful innovation. Entrepreneurs are supposed to be champions, winners and megabucks - not losers or adapters. The body of entrepreneurial literature has forgotten the Schumpeterian entrepreneur. The model (figure 1 that seems to be valid to describe the reality of an innovative entrepreneur is the one developed by Hurst, Rush and White[29]. They have noticed that a creative management can operate in four levels:

1. Intuition,
2. Feeling,
3. Thinking and
4. Sensing.

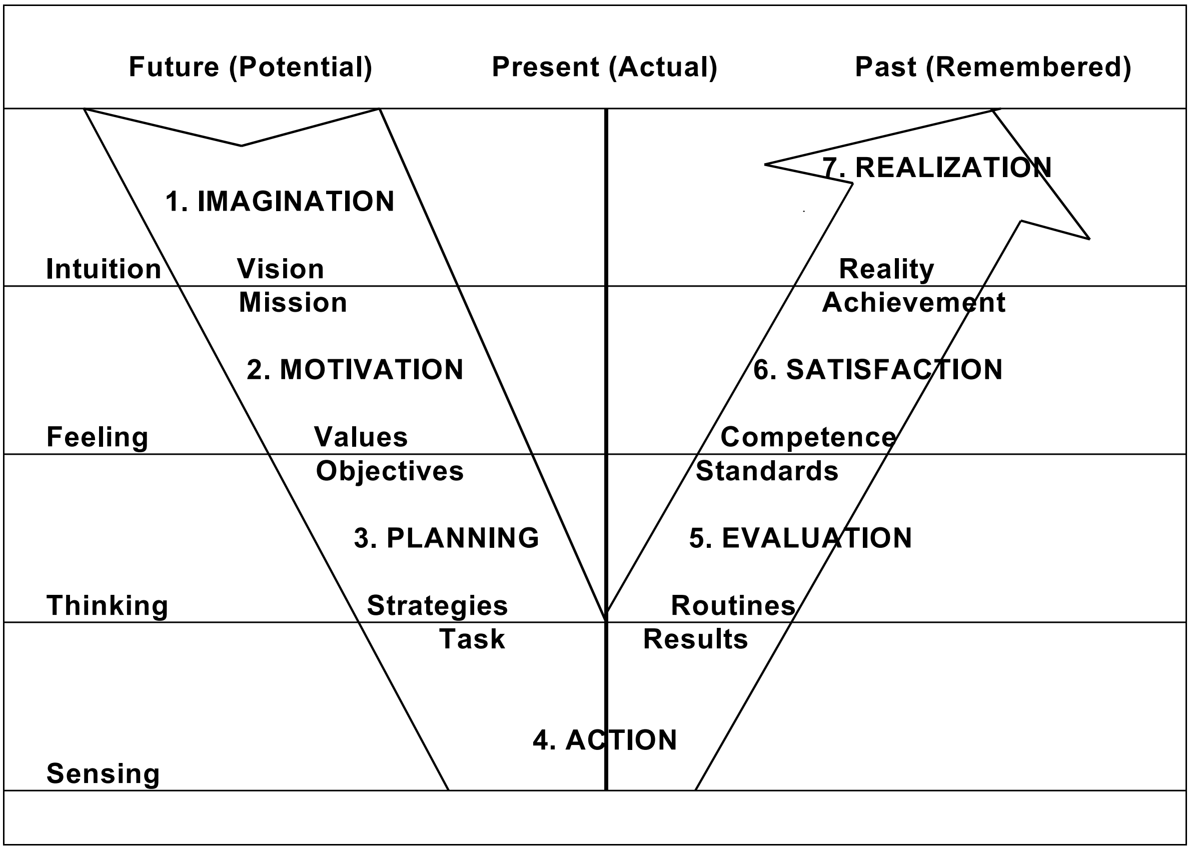


**Figure 1:** The entrepreneurial decision-making

According to a Jungian analysis, human behaviour is not due to chance; it is in fact the logical result of a few basic, observable differences in mental functioning. These differences concern the way people prefer to use their minds - the way they perceive and the way they make judgments. There are two ways of perceiving[30]:

1. Becoming aware of things thru our five senses - **sensing**, and
2. Indirect perception by way of the subconscious - **intuition**.

There are two ways of judging:

3. **Thinking**, a logical process aimed at an impersonal finding; and
4. **Feeling**, consisting of things that have personal, subjective value.

Either kind of judgment can team up with either kind of perception but one process must be dominant. This determines whether decisions are predominately made by perception or judgment. There are many combinations of personal styles of making decisions that are relevant to practical entrepreneurs. Some people dislike the idea of a dominant process and like to think of themselves as using all four equally. Jung, however, holds that such style keeps all the processes undeveloped and leads to a **primitive mentality**.

**One process - sensing, intuition, feeling or thinking - must be developed, if a person is to be really effective.**

Although people must use both perception and judgment, they cannot be used at the same moment. In order to come to a conclusion, people use the judging and have to shut off perception for the time being. In the perceptive attitude, judgment is shut off. **Thinking is essentially impersonal.** Its goal is objective truth, independent of the personality and wishes of the thinker or anyone else. So long as the problems are impersonal, like those of building a bridge, proposed solutions can and should be judged from the standpoint "true-false", and thinking is the better instrument. When the subject is people instead of things and some voluntary cooperation from those people is needed the impersonal approach is less successful. The true nature of entrepreneurial decision-making is that there is no more one stereotype of decision making. A dynamic, entrepreneurial business organization is more like network of different powerful actors. They have many various roles and positions (like employer, self-employed, investor, partner, venture capitalist, gatekeeper or subcontractor).

**In the sympathetic handling of people where personal values are important, feeling is the more effective instrument.**

**A commonly used metaphor referring to that is the Schumpeterian entrepreneur who is the hero of the drama.**

The Nordic winners have been especially skillful in the internationalization process of their companies. According to my own view, the Nordic winners can match the five critical elements of innovative, entrepreneurial strategy making:

1. Differentiating

2. Revolutionary

3. Holistic

4. Competitive

5. Realistic

A Nordic winner entrepreneur or business manager is often a unique personality and can run his company with bold jumps (that means differentiating in marketing). In order to succeed in innovativeness, a winner entrepreneur should be ready to accept the true uncertainty in terms of Frank Knight (this prerequisites revolutionary attitude). In terms of a good management practice, a winner entrepreneur with high intellectual and practical capacity needs a common sense in order to understand that his co-workers are only normal human beings and the global markets are volatile (this means holistic thinking), and, therefore, cost rationality is always a relevant issue (it means competitive behavior). Finally, an extraordinary personality has an inherent weakness of internal locus of control, although the only way to succeed is to accept the hard market facts (that is realistic attitude).

In the end of the 20th century, the dominant doctrine of industrial organization economics has been challenged. Many business writers seem to think that there are no lawlike theories such as economies of scale. In their books 'The Bigness Complex', Walter Adams and James Brock concluded that scientific evidences of the bigness mythology are contradictory. Small firms seem to produce about four times as many innovations per R & D dollar as middle-sized firms and 24 times as many as the big companies. Tom Peters refers to an industry fragmentation and to the emergence of niche companies. Some examples are: minilabs (photo finishing), minifactory, industrial boutique, store within a store, and factory in factory.

In Mintzberg's (1980) terminology, the inherent nature of strategy making is intended and realized. The problem of decision making in global industries with uncertainty as the dominant circumstance is that the 'normal' strategy process

1. **is intended but continues for ever (deliberate in Mintzberg's (1980) terminology) or**

2. **is more or less ad hoc co-ordination of chaotic processes that is not intended (emergent in Mintzberg's (1980) terminology) or**

3. **is intended but never implemented (unrealized in Mintzberg's (1980) terminology)**

This paradox can be visualized in figure 2 that is modification of the Minztberg's (1978) original model.

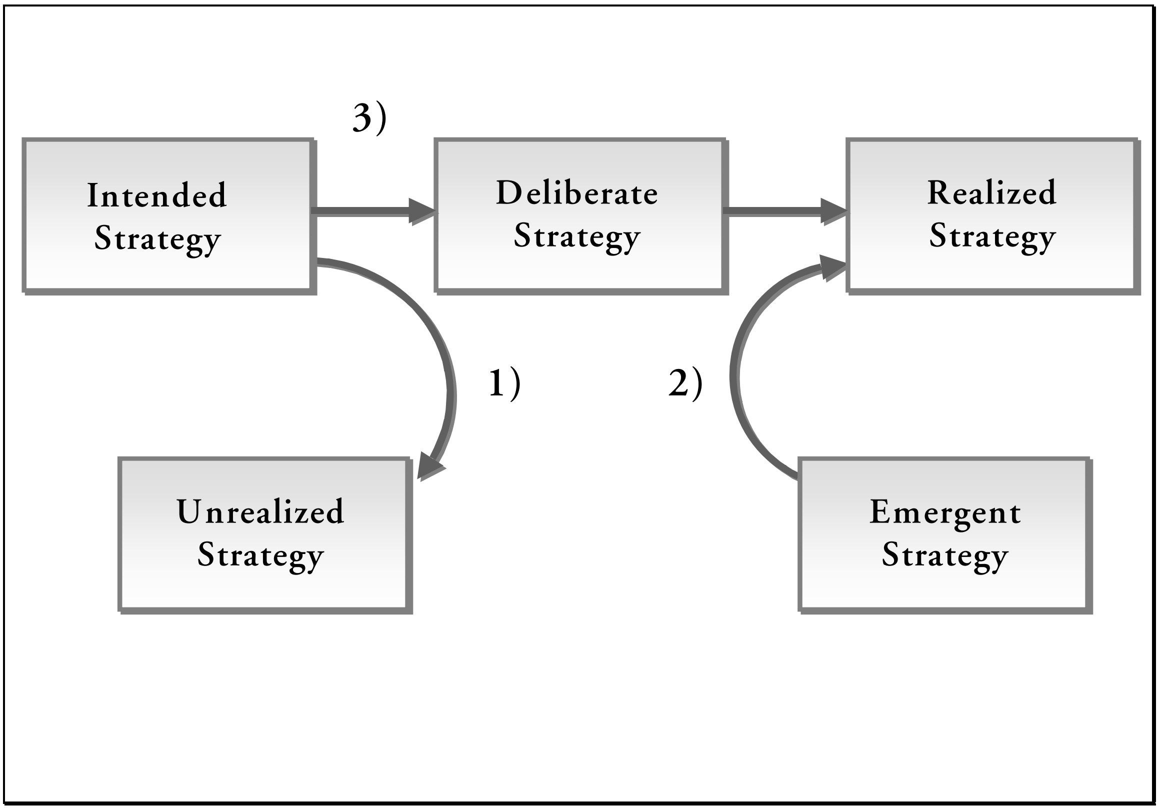


**Figure 2:** Mintzberg's model of decision-making

**Judging types seems to believe that entrepreneurial decision-making should be intended (willed and decided), while the perceptive types regard decision-making as something to be emergent (experienced and understood). Both are entrepreneurial in mind.**

In his book **Entrepreneurial Megabucks**, David Silver identifies a model of the valuation of business ventures that is well applicable to complex business problems. Silver characterizes his model as **fundamental law of entrepreneurial process**. In Silver's thinking the goal of investors, as well as entrepreneurs is the creation of wealth or high valuation (V), through the process of selecting a potentially successful entrepreneurial team (E) that can identify and conceptualize a large, multidisciplinary problem (P) and create an elegant solutions (S) which they intend to convey to the problem via a new company. In Silver's thinking an understanding of the equation will save billions of dollars of capital and perhaps trillions of hours of entrepreneurial time and energy.

$$V = E \times P \times S$$

Where V = Wealth or high valuation of a venture
E = Successful entrepreneurial team
P = Large, multidisciplinary problem
S = Elegant solutions

**Formula 2: Silver's model of the valuation of business ventures**

Silver's point is to analyze how successful entrepreneurs have succeeded in terms of 'fundamental law of entrepreneurial process'. Utilizing the model, Silver analyzed 'the 100 greatest entrepreneurs of the last 25 years'. His 'entrepreneurial scorecard' is inspiring since a company with high value (V) has many beneficiaries – entrepreneur, managers, employees and investors. In the epilogue Silver summarizes that 'being an entrepreneur is like being the builder of civilization'.

**In Silver's thinking an entrepreneurial team takes holistic responsibility of the Schumpeterian process of 'creative destruction'.**

## 1.3 The Nordic perspective

There are two regional success stories in the Nordic countries[31]:

1. **Western Denmark of Jylland**

During the past three decades, Denmark has been able to increase the number of industrial employment with about **50.000** persons in Jylland, which in the beginning of the 1970s was an agricultural area. Denmark's famous networking program is well documented by my research group. Denmark's success is primarily based on the so- called traditional industries.

2. **The Oulu region in Finland**

During the past three decades, the Oulu region in Finland could create another success story in the ICT cluster. The growth of industrial working places has not been as high as in Jylland, but Oulu region's entrepreneurship can be classified as knowledge intensive and its market scope as global, whereas Jylland's entrepreneurship is material intensive and market scope as pan-European. The Oulu success story is also well documented by my research group.

Western Denmark is referred to be a success story of job creation in traditional industries during the period 1970-1990[32]. In that region the agricultural sector is bigger than elsewhere in Denmark. The number of inhabitants is approximately 700,000 and - more than **50,000** new jobs were created in private trades and industries. Furthermore, there was a considerable growth in the number of jobs in the public sector. The big industrial development in rural communities and mainly in Western Denmark is a result of vertical disintegration (networking) of industries like the furniture industry combined with an entrepreneurial spirit. Local entrepreneurs have a relatively good educational background; especially within craftsmanlike professions[33].

In West Denmark there has been a transfer from a society, based on crafts and agriculture, into an industrial society, based on small and medium sized enterprises. The average mode of the "true" entrepreneur is: **a male, approximately 45 years old, a skilled worker who started business within the manufacturing sector or maybe related services.** In his family, traditionally, they were farmers or craftsmen. Later, of course, entrepreneurs are much younger and many more of them are well educated, but there are also many with no education at all. In areas with extra growth Tanvig (2003) could also find informal and horizontal relations between the individual industrial agents and other actors, often in the local area, which reminds of the concept of "industrial districts".

Oulu is a top player in the league of the world's technology clusters. Entering the elite of technology clusters is not a bad achievement for Oulu that was mainly known for the forest and chemical industry until the beginning of the 1980s. However, it is not the first time when Oulu is in a leading position in international business. In the 19th century, Oulu was an internationally important exporter of tar. The most important strength of Oulu is the ITC, especially wireless communications. In Oulu region, high-tech companies employ about 12 000 people; 20 % of all jobs are in the high-tech industry. The turnover of the production of high-tech products in the region is well over 5 billion euros. More than 9 % of the Finnish high-tech industry is located in a small area in Oulu and its surroundings. Nokia is the driving force of Oulu's ITC economy. [34]

The case of Oulu in Finland shows that the Nordic model of Schumpeter's entrepreneurship might indeed be, in some cases, successful[35]. In Oulu there is a collaborating group between entrepreneurs, government/ municipal authorities and university researchers, called Revontuliryhmä. This "Pro Oulu" group worked at a finer level of policymaking than national states and often propagated across national boundaries within the EU and globally[36]. Policy might therefore need to be developed at a regional and local rather than at a national level. The outstanding success of Oulu is mainly based on the good co-operation between different operators. The very same spirit has guided the building of relations between cultural and business life. Close co-operation between the private and public sectors is a recognized resource in the area.

**Nordic Small Business Research**[37] is an example of empirical study to elaborate opportunistic behaviour. This study from the year 1987 includes in an in-depth empirical analysis of 60 companies in three Nordic countries (Finland, Sweden and Denmark) and in four industries (clothing, furniture, metal and engineering and the IT-industry). The collected extensive database contains information on the entrepreneurial background and the company's strategy and performance. The model of entrepreneurial strategy making was made so that it covers the two stereotypes and three contingencies in-between (figure 3):

A. **Craftsman behaviour** is characterized by low social awareness and involvement, feeling of incompetence in dealing with a complex environment, and limited time orientation.

B. **Opportunistic behaviour** is characterized by high social awareness and involvement, confidence in his ability to deal with a complex environment, and an awareness of, and orientation to, the future.

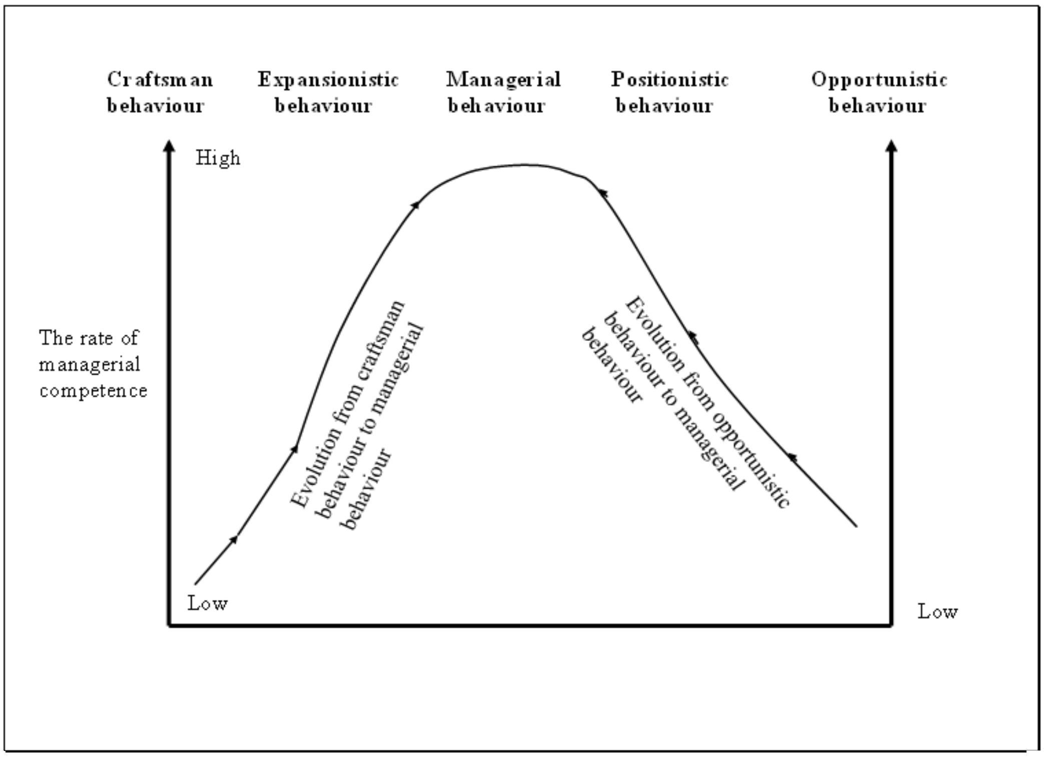


**Figure 3:** The five contingencies of entrepreneurs

A craftsman behaviour is a 'historical' stereotype of entrepreneur. Incapable in dealing with a complex environment, this type of entrepreneur is not successful any more in global industries. An opportunistic entrepreneur characterised by broadness in capability and openness in mind is the winner-type. These personality trails are also particular to successful scientists or artists in the emergent global society. **Based on the research of the Nordic countries, positionistic behavior with 80 % opportunism and 20 % craftsmanship is identified as the potential winner.**

Like the 'potentiality line' in figure 4 demonstrates, positionistic entrepreneurs were supposed to beat their competitors in the 1990s, which actually happened. The most important finding was that the **strategic marketing orientation** (which is the crucial content of opportunism) seems to be the winning characteristic of the entrepreneurial strategy making in the three Nordic countries. But as well we could find that a high level of managerial competence seems to be a valid estimation of a future high level of economic performance, like Alfred Marshall noticed a hundred years ago.

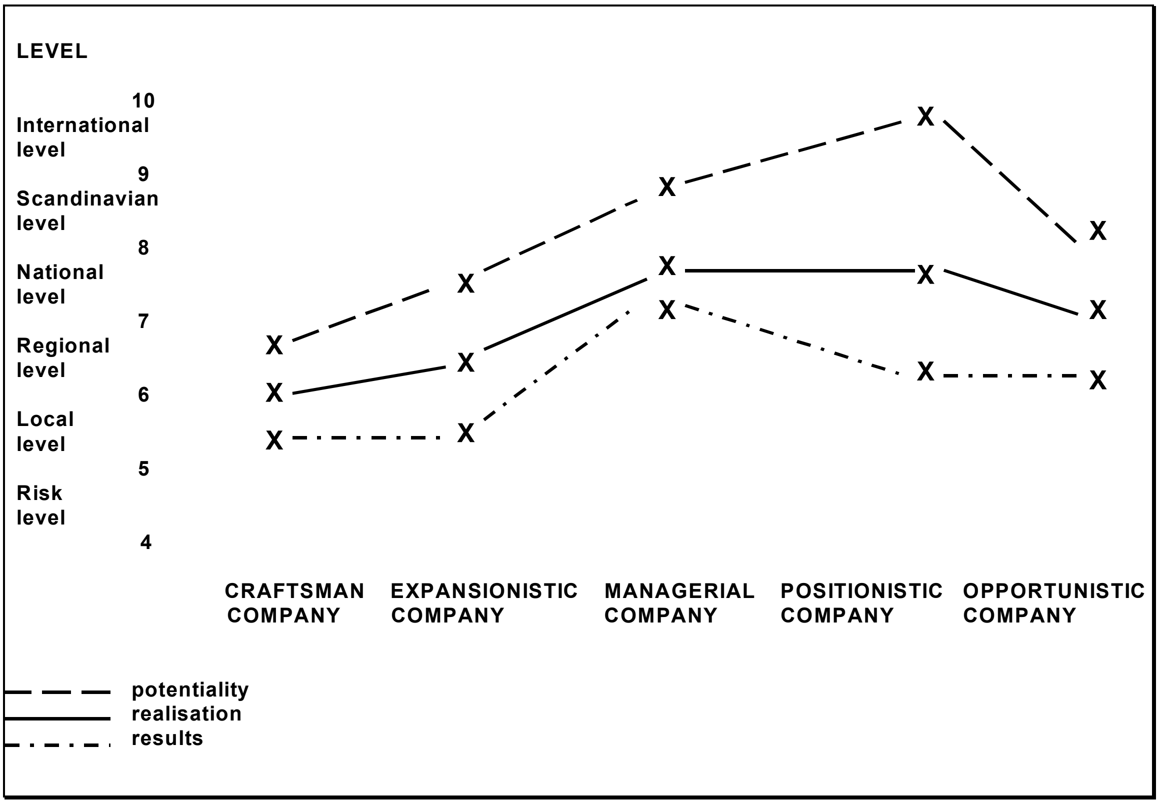


**Figure 4:** The performance of entrepreneurs

The Finnish success story in clustering in the 1990s has been the ICT-industries with at least the following advantages:

1. **Young technology life cycle** - Nokia was the pioneering company in the rapid penetration of mobile technology

2. **Low capital costs** – Nokia and other key companies of the ICT cluster could finance the innovative investments through the hype of the stock markets of the 1990s.

3. **Large expected demand in the selected global markets -** instead of focusing on current customers or product-markets, Nokia and its partners emphasize continuous reconfiguration of their offerings. They outperformed their global competitors and achieved a global leadership in the selected niche-markets.

4. **High industry profit margin -** Finnish ICT-companies adapted the notions of core competence by Hamel & Prahalad[38] and utilized alliances and resourceful networks.

5. **Efficient but not too keen competition -** Finnish ICT-companies were able to source complementary competencies from small start-up companies through spin-offs, investment in start-ups, global distribution links, and the training and education of future entrepreneurs.

In the Nordic countries the inevitable success of regional ITC clusters (like Oulu) has much to do with **Ericsson and Nokia**. but there are also more general institutional explanations. The Nordic countries have succeeded in their efforts to combine competitive and trustified capitalism in the Schumpeterian sense. The IT industry has earlier been state-owned. The early deliberalization and privatization transferred the focus from the state-owned trustified capitalism to the private and competitive capitalism. The pragmatism that often has been mentioned can be seen as the innovative, entrepreneurial behavior. Having its long history as a state-owned research laboratory, the core units of the **Nordic IT companies have been able to combine the university type of organization culture with the competitive behavior**.

**In the new challenging arenas of mCommerce (mobile commerce) entrepreneurial culture is powerful.**

The Nordic IT companies have their own model of temporary monopoly profits in the Schumpeterian sense. Like Hamel & Prahalad (1994, 34-5) suggest **Nordic IT companies have shifted their focus from market share to opportunity share**. A trustified window of opportunities may be easy to see in the case of mCommerce. The huge speculation with the global, internet-based markets with a billion users means that the process of discovery in a market setting is totally chaotic. Because entrepreneurial opportunities depend on asymmetries of information and speculations in the stock markets, there are many winners and loosers among the market participants.

**The accumulation of temporary monopoly profits to some winners like Nokia and the entrepreneurial opportunity or opportunity share in Nordic countries made it possible to integrate the Internet with mobility.**

# 2. Modern microeconomics

Microeconomics is a branch of economics that studies how individuals, households, and firms make decisions to allocate limited resources, typically in markets where goods or services are being bought and sold. Microeconomics examines how these decisions and behaviors affect the supply and demand for goods and services, which determines prices, and how prices, in turn, determine the supply and demand of goods and services. Neoclassical economics is often called the marginalist school. Marginal implies that economists look at what happens when "a small change" is made to the subject under study. The central concern of Walras and Marshall was with their role of prices in equilibrating supply and demand. **Marginalism** is the use of marginal concepts within economics.

**Marginal concepts include marginal cost, marginal productivity and marginal utility, the law of diminishing rates of substitution, and the law of diminishing marginal utility.**

Schumpeter did not deny the relevance of marginalism. Schumpeter could not accept that the Walras-Marshall's price theory totally excluded entrepreneurial function and a living entrepreneur from the frames of microeconomics. Schumpeter introduced the concept of **temporary monopoly profit** as the lifeblood of innovativeness. There was another Harvard professor, Edward Chamberlin[39], 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 Schumpter'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 microeconomic 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 5.

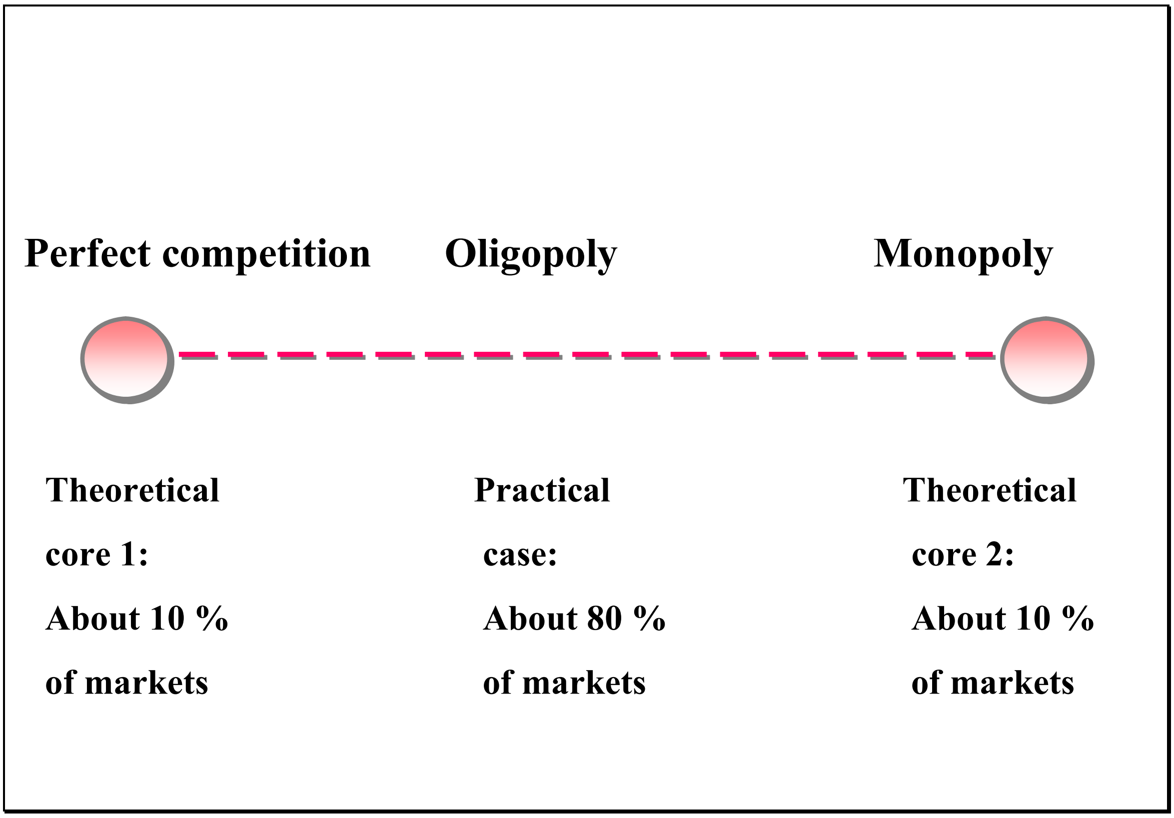


**Figure 5:** The dilemma of Schumpeter and Chamberlin

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 keen but for various reasons. Another dimension of competitive models is the **number of competitive firms** in the markets. There are three types: perfect competition, oligopoly and monopoly. Referring to Chamberlin's thinking, we present a more realistic classification of competitive models in figure 6.

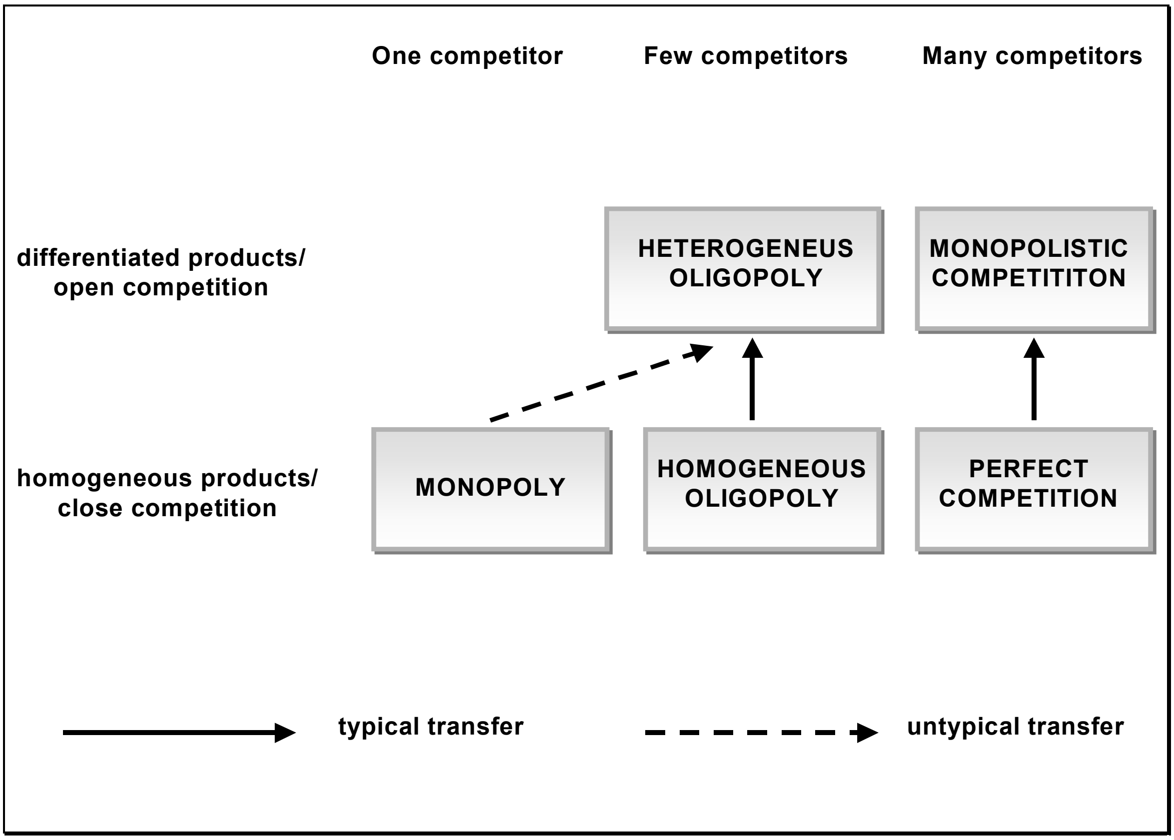


**Figure 6:** Chamberlin's classification of competitive models

In Chamberlin's (1933) classification of competitive models, the ICT-cluster is an excellent example of the transfer from the closed/ homogenous domestic markets (perfect competition) to the open/ differentiated markets. This is also called deregulation. The competitive models that are relevant in the Finnish ICT-cluster are a unique combination of heterogeneous oligopoly and monopolistic competition. The big multinational or global companies are assumed to dominate the areas of heterogeneous oligopoly. In the monopolistic industries, the market structure is fragmented and there are continuous changes in the rules of the game. In relation to the four technology-based arenas of IT-industries, the distinction between monopolistic competition and heterogeneous oligopoly can be visualized in figure 7.

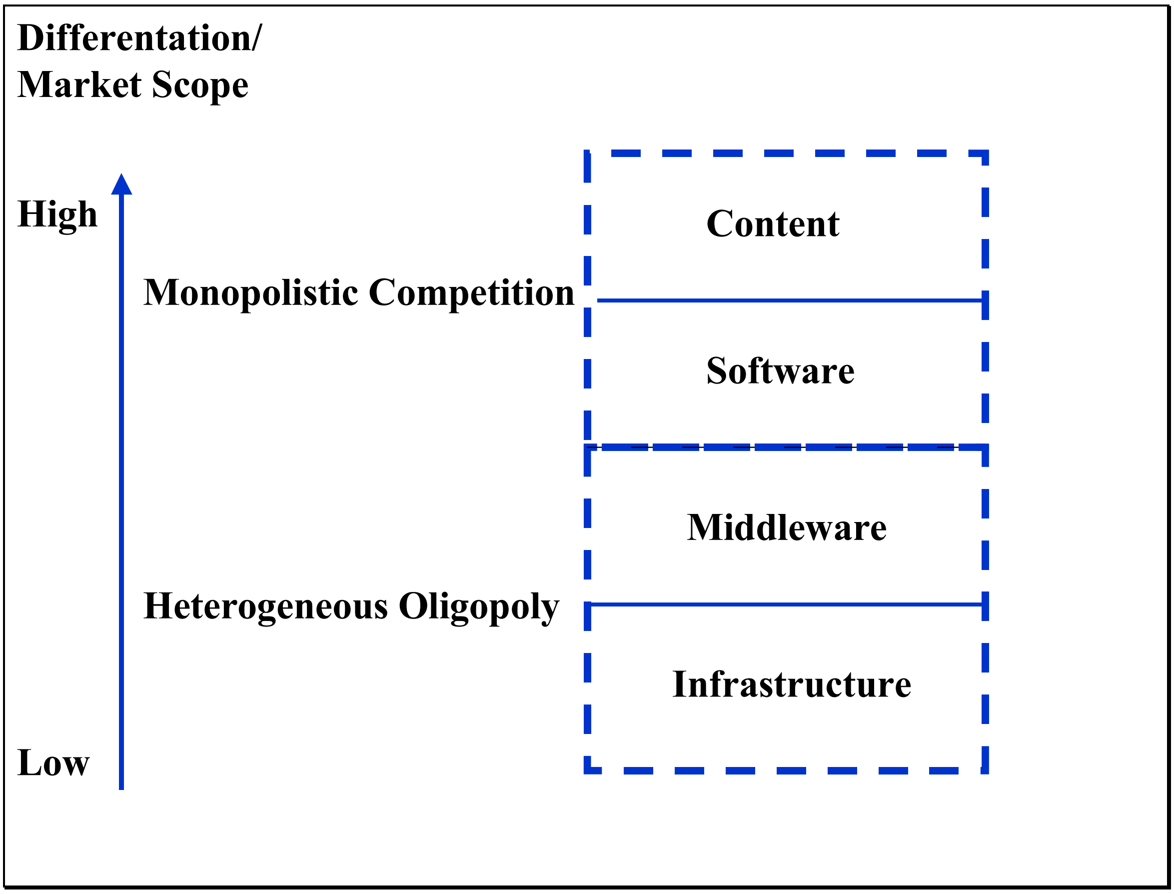


**Figure 7:** The distinction between monopolistic competition and heterogeneous oligopoly

In the global markets, the competitive mechanisms have different focuses in different industries. We can take an example. Finland is world-known of advanced ICT-cluster in which Nokia is the leading company. In that cluster (the concept is discussed later) all offerings of firms are heterogeneous or differentative. The two of competitive models have their own core areas:

1. **Heterogeneous oligopoly** is the core area of the infrastructure of the Finnish ICT-cluster.

2. **Monopolistic competition** is the core area of the content industries that belong to the Finnish ICT-cluster.

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 build on Chamberlin's model of oligopoly market(s) with relatively permanent market structure(s)[40]. The IO is the tradition that has been the most relevant framework of the Nobel Prize winners after the World War II. Schumpeter and Chamberlin have never received the Nobel Prize but they are both highly appreciated as the fathers of new disciplines:

1. **Schumpeter has been mentioned as the father of entrepreneurship and growth theories**

2. **Chamberlin has been mentioned as the father of marketing and industrial organization economics**

In the global markets, the offerings of firms are heterogeneous and differentative. The two of competitive models that are practical are:

1. **Heterogeneous oligopoly** which 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** which 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.

## 2.1 Industrial Organization Economics (IO)

Chamberlin's model of monopolistic competition was based on a firm's heterogeneity assumption that departs from Walras-Marshall's neoclassical microeconomics. Chamberlin's model was not accepted by Joe Bain's[41] Industrial Organization (IO) which focuses in characterizing the behavior of the Marshallian representative firm and can be interpreted as an extension of the neoclassical economic theory. The IO tries to verify empirically the presence of structural (or behavioral) barriers. In the IO theory the oligopolistic industry structure is characterized by entry (or exit) barriers, and market power. Inside the IO theory, the Structure-Conduct-Performance (SCP) paradigm concentrates on analyses of how the presence of structural barriers varies between industries. Relying closely on the neoclassical economic theory, Harvard's SCP approach seeks to explain how market processes direct the activities of firms in meeting market demand, how market processes break down and how these processes adjust to improve economic performance. The Chicago approach suggests that the institutions which guide the production and contractual operations of a particular market is more liberal to the monopolistic behavior of big firms and does not view strategies such as collusion necessarily as anti-competitive[42].

**Referring to Machlup (1967)[102] and Chamberlin[43], we argue that the traditional IO theory, as a mix of the Harvard and the Chicago approaches to IO, is valid for multinational, publicly listed firms. It's relevance to entrepreneurial, growth firms is less clear since the underlying assumptions are still the same as those of neo-classical theory.**

The relevant framework for the analyses of structural or behavioral barriers is that specified by Frederick Scherer[44]. Scherer divides the economic environment into **basic conditions** and **market structure**. The SCP paradigm assumes that the performance of a single industry is determined by how various kinds of firms in that industry can conduct their activities in terms of the structural characteristics of the economic environment (basic conditions, and market structure). Scherer's original model includes a broad list of variables. Conduct-variables are a mix of the Harvard and the Chicago research frameworks; Scherer includes certain aspects of the law and economics approach that is one of Chicago's core areas. Performance variables contain microeconomics and macroeconomics variables. More recently **public policy** variables are also included (figure 8[45]).

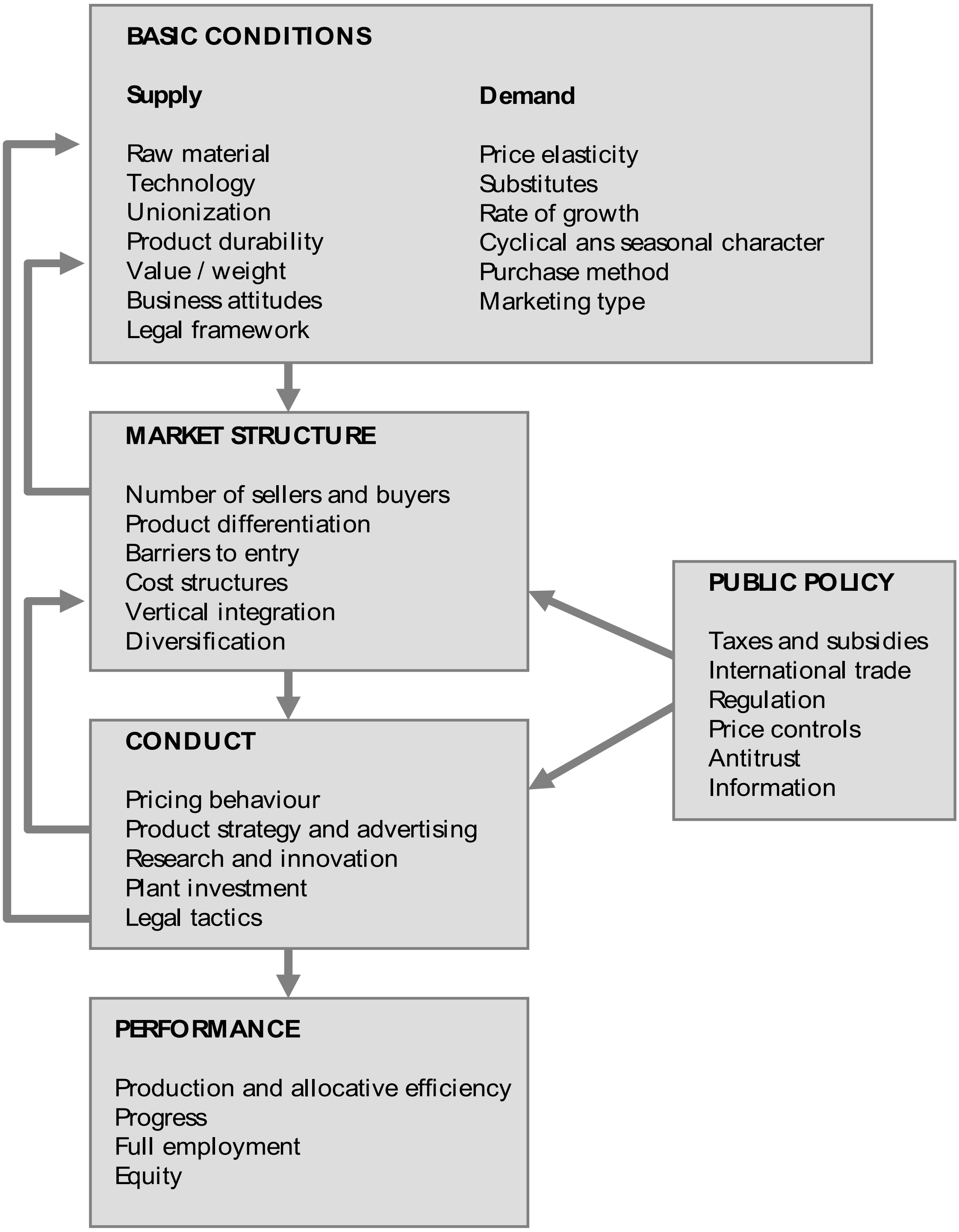


**Figure 8:** Scherer & Ross model

The Harvard Department of Economics, under the lead of Richard Caves, began to modify the traditional SCP model of structure and performance to include differing positions or strategic groups of firms within industries. The concept of **strategic group**[46] was proposed by Hunt[47] in his doctoral dissertation. He used this term to describe the asymmetry amongst firms and explain the performance he observed in the strategies of firms of the U.S. ‘white goods’ industry in the 1960s. This asymmetry resulted in four different strategic groups. Newman[48] and Porter[49] extended his analysis. The methodology used in these studies is a combination of cross-sectional data-bases and econometric analyses. This methodology is economic, but not compatible with the dynamic nature of the SCP model. Porter’s analysis of two strategic groups (‘leader’ and ‘follower’) was not statistically significant. However, Porter concluded that ‘leader’ groups outperform ‘followers’.

Richard Caves’ research program redefined Bain’s (1956) concept of **entry barriers** to **mobility barriers**. Mobility barriers are persistent structural features, not only at a firm level, but also at a group level, that give rise to structural or strategic, asymmetric mobility barriers protecting a given group from the entry of potential rivals and, thereby, permitting persistent performance differences between groups and, hence, between firms. The existence of mobility barriers means that some groups of firms can enjoy systematic advantages over others groups, which can be overcome only by strategic acts that can lead to Schumpeterian creative destruction, and, hence structural change in the whole industry structure. The redefinition of entry barriers into mobility barriers allows a richer and more realistic portrayal of the process of entry and the motives for diversification (cross-entry) ’[50].

**Caves' doctrine attempted to explain the diversity of demand and cost curves of firms within the same industry which has been one of the major topics of the work of two well-known professors (Joseph Schumpeter and Edward Chamberlin).**

**There is, however, a more fundamental aspect. Schumpeter criticized the concept of 'representative firm' that according to his notion has been used to hide the fundamental problem of economic change. Caves' strategic group construct seems to be static in its nature.**

There is another scientifically ambiguous tradition, associated with the Purdue University where Dan Schendel, together with Arnold Cooper, began the so-called "brewing" studies which explored the empirical links between organizational resource choices, interpreted as **strategy**, and firm's performance[51]. Where Caves' approach captures strategic groups from a top-down perspective, the strategic choice approach utilized by Purdue-studies[52] assumes that systematic similarities and differences exist between firms as a result of strategic resource choices (i.e. decisions to invest in assets which are often difficult and costly to imitate)[53]. The strategy view conceptualizes strategic groups **bottom-up** (firms with heterogeneous resource deployments are grouped into homogeneous groups). Firms are grouped, not because they are the same kind, but because they follow the same strategy yet differently[54].
While the Harvard studies relied on the cross-sectional data in their econometric analyses, Purdue-studies used time-series data in their longitudinal studies to draw valid inferences about the relationship between strategic group membership and performance differences. The Purdue studies sought to focus on individual firms and their patterns of competition within a single industry. A very important trait of this new theoretical stream was the utilization of numerous variables linked to strategy to identify competitive groups selected within the context of the particular industry under study. The Purdue model is the following[55]:

1. **Performance = f (controllable; non-controllable variables)**

2. **Performance = f(operations; strategy; industry structure)**

Although the Purdue-studies are not given much attention in the IO literature, the bottom-up approach opened avenues to diverse empirical studies in which strategic groups would be defined in terms of multiple key scope and tangible and intangible resources commitments of each firm[56]. The Purdue-studies complemented the Harvard doctrine. An interesting result of the two dissertations (Hatten and Patton) was that: In the strategic group of big brewing companies, the changes in market share and profitability were positively related but negatively related in the small ones.

**The Purdue-studies bottom-up approach is suitable to a set of innovative, growth firms, whereas the new Harvard approach of Caves and Porter is tailored to multinationals.**
**Growth firms cannot apply the 'structure determines strategy logic' in the same manner as multinationals. They can, however, create their market position through internal economies of scope, and through resources and willingness to internalize 'true uncertainty'.**

A strategic group is defined as a set of firms competing within an industry on the basis of similar combinations of scope and resource commitments[57]. In their intelligent analysis, McGee and Thomas (1986) concluded that **oligopolistic interdependence and homogeneity of firms become recognizable, not at the industry level, but at the strategic group level**[58]. Path-dependent strategic investments in information and technology acquired to develop factor market imperfections and isolating mechanisms are at the heart of strategic group formation. Firms making similar commitments develop similar competitive resources, pursue similar customers, view environmental opportunities in similar ways, and form strategic groups. The concept of **mobility barriers** between strategic groups rests, however, on the same structural features as barriers to entry into any group from outside the industry[59]. Strategic groups can serve here as reference groups or benchmarks, as the Purdue brewing studies suggested.

Pitt and Thomas[60] have developed the **Enhanced Structure-Conduct-Performance model (ESCP)** that is shown in figure 9. The ESCP simplifies a complex, empirical reality. The orientation of early strategic group studies (Harvard and Purdue) has been the 'Realized strategy' in terms of Mintzberg[61] (loop A), although the patterns of 'Strategic group structures' as sub-elements of the 'Structure of total industry' are not studied carefully. Loop C links are relative weak in practice[62]. Using ready-made data-bases and econometric models means that the 'Strategic group structure' is historical in nature. There are, of course, feedback mechanisms from the 'Firm performance' to the 'Firm conduct' and to the 'Strategic group structure'. The firm's performance outcome directly affects group structures subsequently; that is, variances in productive and allocation efficiencies produce differential long-run growth rates, potentially changing firm's postures and, ultimately, group composition[63]. How the 'Firm performance', the 'Firm conduct' and the 'Strategic group structure' are coupled is an important issue, (Loop B), as intended strategy in terms of Mintzberg. Lacking systematic empirical evidence, Pitt and Thomas see these links as weak and loosely coupled.

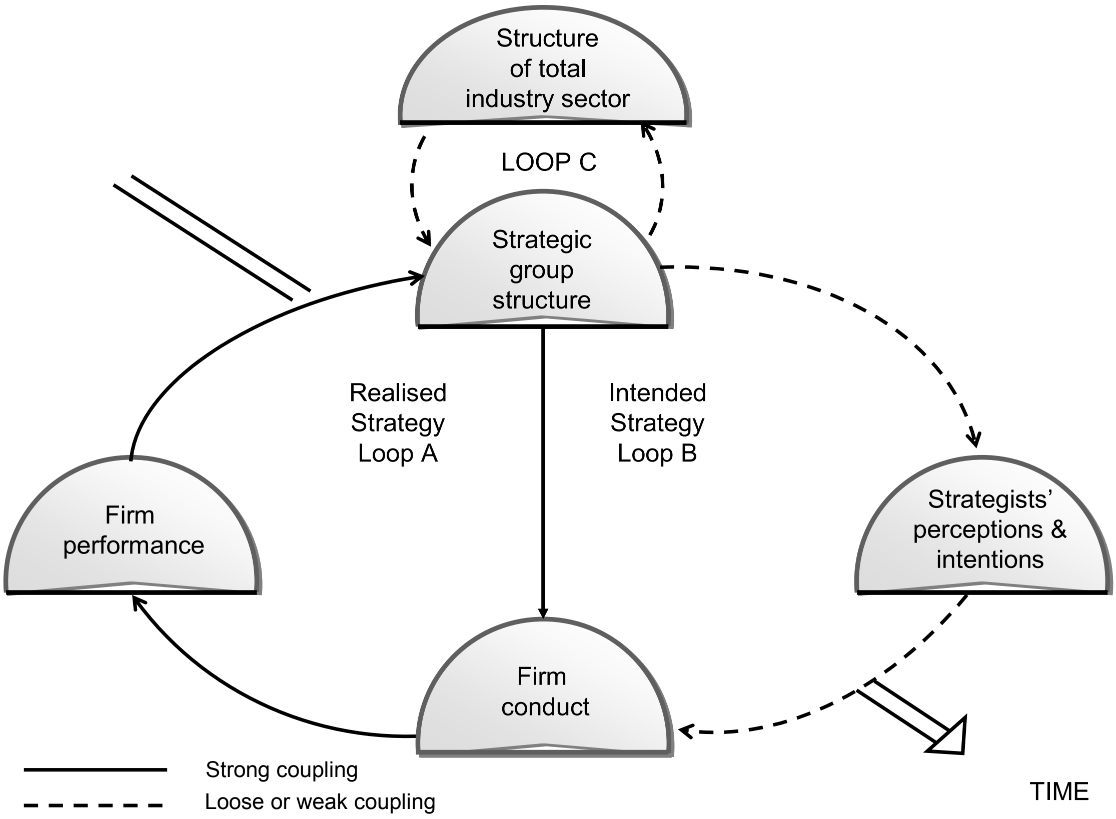


**Figure 9:** Enhanced Structure-Conduct-Performance (ESCP) model

# 3. Strategic management doctrine

## 3.1 Resource-based view

The resource-based view (RBV) of the firm is one of the latest strategic management topics to be enthusiastically embraced by scholars and consultants. The development of the RBV has its origins in early economic models and concepts of imperfect competition. One of the most fascinating is David Ricardo's overall model of resource-based competitive advantage in international trade between regions. Ricardo's book **Principles of Political Economy and Taxation** introduces the concept of **comparative advantage**. According to Ricardo, even if a country can produce its total production more efficiently than another country, it would get advantage from specializing in what it was best at producing and trading with other nations. In the simple Ricardian model, there is only one factor of production. However, the differences in technology can be advantageous in the production of a product if the country is relatively well-endowed with technology inputs that are used intensively in producing the product. Ricardo's overall model was reformulated by the Nobel Prize winner Bertel Ohlin. His model, called the **Heckscher[64]-Ohlin theorem**, incorporated a number of realistic characteristics of production[65].

**Ricardo's genius principles of comparative advantage are not only relevant for economists that analyze international trade. Similarly, it contends that a firm's resources, the combination of firm-specific and country-specific resources, are central to its positioning in markets.**

The notion of firm-specific knowledge-based or learning-based resource was subsequently developed by Edith Penrose[66]. Rather than emphasizing market structures, Chamberlin and Penrose highlighted a firm's heterogeneity and proposed that the unique assets and capabilities of a firm are important giving rise to imperfect competition and the attainment of super-normal profits. Chamberlin (1933) identified the key capabilities of a firm as technical know-how, reputation, brand awareness, patents and trademarks, many of which have been revisited in the recent strategy literature. Penrose (1959) provides the most detailed exposition of a resource-based view in the economics literature. **Resource-based (or knowledge) view is at the heart of Schumpeterian innovation and entrepreneurship.**

Penrose reinvented the theme of Schumpeter and Marshall. Penrose founded what has later evolved into the **dynamic capabilities of firms** approach in the modern microeconomics. In Penrose's thinking, opportunities rest on developed internal and external routines. Penrose takes the boundedness of cognition for granted, as in Schumpeter's theory, but at the level of the firm instead of the economy. Penrose proposed that a **firm's rate of growth is limited by the growth of (managerial) knowledge within it**. Penrose (1959, 31) provided a new, dynamic conceptualization of the firm - as 'an administrative organization and as a collection of resources' - designed to explain the firm level growth. Superior performance and a sustainable competitive position depend primarily on the heterogeneous resources available to the firm. Penrose distinguished the firm's tangible resources from services that these resources provide[67]. While the firm's tangible resources are finite, the resources from services these resources provide are mediated by the endless extensible body of managerial knowledge[68].

**According to Penrose (1959, pp. 11-14) price theory tells nothing about the growth of the firm.**

Herbert Simon, a Nobel Prize winner[69] was an important character of decision-making theory since the 1950s. As Herbert Simon insisted, **human rationality is bounded**. Three kinds of bounds may be identified. First, human beings are not good natural logicians, and consequently not good natural statisticians either; second, the premises for logical operations are often doubtful, and even more likely to be incomplete; and third, **cognition is a scarce resource, and so rationality has to be applied very selectively**. Simon's revolution in the concept of decision-making under uncertainty led far away from the **rational man** or **homo economicus** metaphors often assumed in mainstream economics.

**Simon is the most intelligent writer in the topics of bounded rationality and maximization by satisfying, i.e. setting an aspiration level which, if achieved, an individual will be happy enough with.**

Cyert and March[70], the pioneers of the **behavioral theory of the firm**, are concerned with the day-to-day behavior of the firm. The fact that short-period objectives can be described, whereas long-period objectives apparently need to be advocated, has a significance of its own in explaining business behavior. Simon's and Cyert's and March's writings are the foundation to the development of behavioral theory of the firm that can be interpreted as a complement of the mainstream theories. Simon's critique is justified like Penrose's, as a distinction from the equilibrium models of price theory, but Simon's intention was not to deny the usefulness of orthodox economic analysis. In Simon's thinking, the 'rules of thumb' are the best that economic agents, like entrepreneurs and business managers, can use in the 'bounded' and uncertain real world.

Alfred Chandler, a famous economic historian, can be named as the **father of strategic management**. In his book **Strategy and Structure**[71], he wrote of the transformation of capitalism as a system between the 19th and 20th centuries due to the effects of communication and transportation technology along with radical changes in managerial systems. He combined careful historical investigation of individual industrial enterprises with an in-depth analysis of theories of the firm. In Chandler's empirical data-base consisting of big multinationals, organization structure tends to become increasingly technical, professional and independent of ownership. Chandler' careful analysis revealed what Schumpeter had written a decade earlier. Big multinationals did not only passively adapt to prevailing market(s). **They grew to dominate sectors of the economy, and so doing, altered their structure and that of the economy as a whole**[72].

**Chandler advanced Penrose's thinking in the sense that an effective managerial hierarchy, called an organization structure, becomes the basic driver of the firm's (growth) strategy. According to Chandler's generally accepted axiom, a firm's organizational structure[73] and competencies must be suited to implement strategy[74].**

Early models of strategic decision making typically propose a rational process of setting objectives, followed by an internal appraisal of capabilities, an external appraisal of outside opportunities leading to decisions to expand or diversify based on the level of fit between existing products/capabilities and investment prospects[75]. Later, the pursuit of **sustainable competitive advantage** has been the idea that is at the heart of much of the strategic management and, later, marketing literature[76]. The resource-based and knowledge-based view, initiated by Schumpeter and Marshall, is targeted to deconstruct the black box of the economist's production function into some more elemental components and interactions, and until we identify these we cannot be confident about what is useful to observe over time[77]. A competitive advantage must, by definition, be **scare, valuable and reasonably durable**[78].

Value to customer(s) is, perhaps, the most critical element of competitive advantage. For a resource to be a potential source of competitive advantage, it must be valuable or enable the creation of value. In modern terms, gaining a competitive advantage through the provision of greater value to customers can be expected to lead to superior performance measured in conventional terms, such as market-based performance (market share, customer satisfaction) and financial-based performance (return on investment, shareholder wealth creation)[79]. The inability of competitors to duplicate resource endowments is a central element of the resource-based view. However the discussion of barriers to duplication has been complicated. Several overlapping classification schema have been proposed, like ex-post limits to competition[80], isolating mechanisms[81] and causal ambiguity[82].

**The idea of the learning capacity of a firm is frequently used to embrace the resource development that leads to a carefully differentiated product strategy in terms of Chamberlin's classification of competitive models.**

The firm's resources are imperfectly imitable for one or combination of three reasons[83]:

a. The ability of a firm to obtain a resource is dependent on **unique historical conditions**,

b. The link between the resource possessed by a firm and a firm's sustained competitive advantage is **causally ambiguous**,

c. The resource generating a firm's sustained competitive advantage is **socially complex**.

Resource-based theory of the firm recognizes that knowledge or competence is a difficult concept to define, far from being one-dimensional. For example, knowledge has been differentiated in terms of explicit vs. tacit, individual vs. collective, and common vs. context-specific[84]. Tacit, collective, context-specific knowledge is difficult to create, transfer, or integrate via markets and, thus, provides a rationale for firms. The resource-based view similarly suggests that this type of knowledge, if valuable and unique, may provide a competitive advantage because it is less imitable. A firm's intellectual resources should support that capability today, and its ability to learn should maintain it over time[85].

The knowledge-creating theory of Iikujiro Nonaka and Hirotaka Takeuchi[86] focuses on the transformation and communication of what is already known tacitly by employees[87]. The most valuable resources for generating superior performance are those that are difficult to imitate or substitute for, and that are embedded as 'core competencies' within the firm[88]. Such specialized resources are developed, not acquired, and should have low mobility. As Hofer & Schendel[89] suggested in figure 10, the internal model of resource allocation has a lot of feedback and interactive mechanisms. The efficiency of scope is not easy to maintain, since the most important internal resources (organizational, human and technological resources) are immobile and specified to certain external structure (product/ market resources and external capital market).

Based on the terminology used originally by Igor Ansoff[90], it is possible to say that circumstances in the most of industries of today are both **entrepreneurial** and **competitive**, which means dynamism in two levels: The unique uncertainty of innovative offerings and keen operative competition. In the 2000s, there is a bit more dynamism in the markets. We will be living at a time of chaotic discontinuities, which even more transfer the market game from low entrepreneurial requirement to high entrepreneurial requirement. In Schumpeter's terminology, there are lot of scope for innovations and monopoly profits. In Drucker's thinking, the **most successful innovations are knowledge based**.

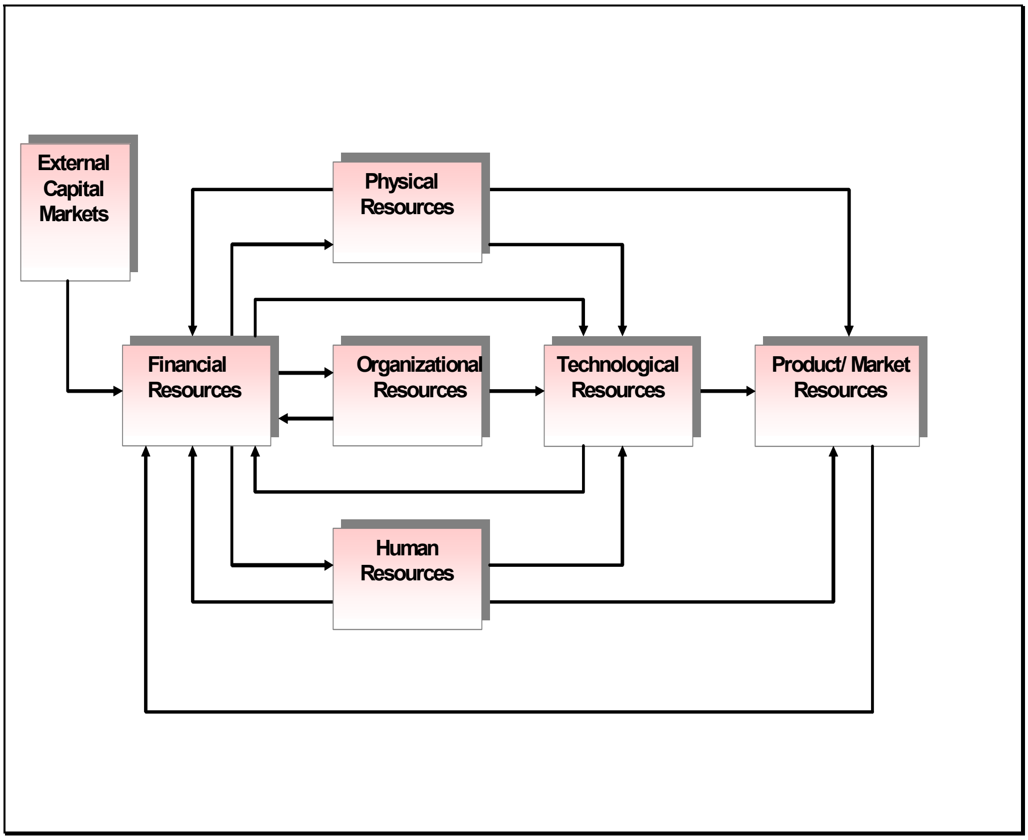


**Figure 10:** Hofer & Schendel model of resource allocation

Although a firm's resources are clearly identified by competitors, their imitation can be prevented through the legal system. Resources such as patents, trademarks and copyrights are protected through intellectual property laws. While the firm may be effective in appropriating value from its physical and financial assets, it may be less so in the case of intangible assets such as brand names and copyright[91]. Capabilities do not have clearly defined property rights as they are seldom the subject of a transaction resulting in a difficulty in their valuation. They have limited capacity in the short run due to learning but have unlimited capacity in the long run[92]. Individual skills are highly tacit. Where capabilities are interaction-based, they are even more difficult to duplicate due to causal ambiguity and they are the most likely source of sustainable competitive advantage.

## 3.2 Business strategy, the core content in SMEs

Brian Loasby[93] concludes that the development of a specialized skill depends on a variety of experiences. In the business strategy level, the most fascinating business model is the Boston Consulting Group's (BCG) **experience curve** from the 1960s[94]. In the 70s, the BCG's claim for the experience curve was that for each cumulative doubling of experience, total costs would **decline roughly 20% to 30%** because of economies of scale, organizational learning and technological innovation. BCG argued that experience-based cost reduction was not restricted to the early stages of production, but continued indefinitely; BCG provided convincing data showing experience effects in a broad variety of industries. BCG suggests that there is no naturally stable relationship with competitors on any product until one of the competitors has a dominant share of the market(s) for that product and until the product's growth saturates. Under stable market conditions, the profitability of each competitor should be a function of his accumulated experience with that product.

**Although the idea that some cost elements seems to follow a learning-by-doing pattern had been well-known since Frederick Taylor[95], it was ignored by orthodox economists.**

The logic of the experience curve is convincing. For the first time there was a simple, parsimonious account of what competitive advantage is like, and how it is gained in the long run.[96] [97] BCG's experience curve is most applicable to material-intensive firms. For knowledge intensive, growth firms a combination of experience curve and economies of speed[98] is more critical, as showed in figure 11.

**A tentative experience curve for growth firms is based on the assumption of a quick scaling effect through economies of speed, when the original BCG's claim for the experience curve with roughly 20% to 30% of costs might still be valid for most of the multinationals.**

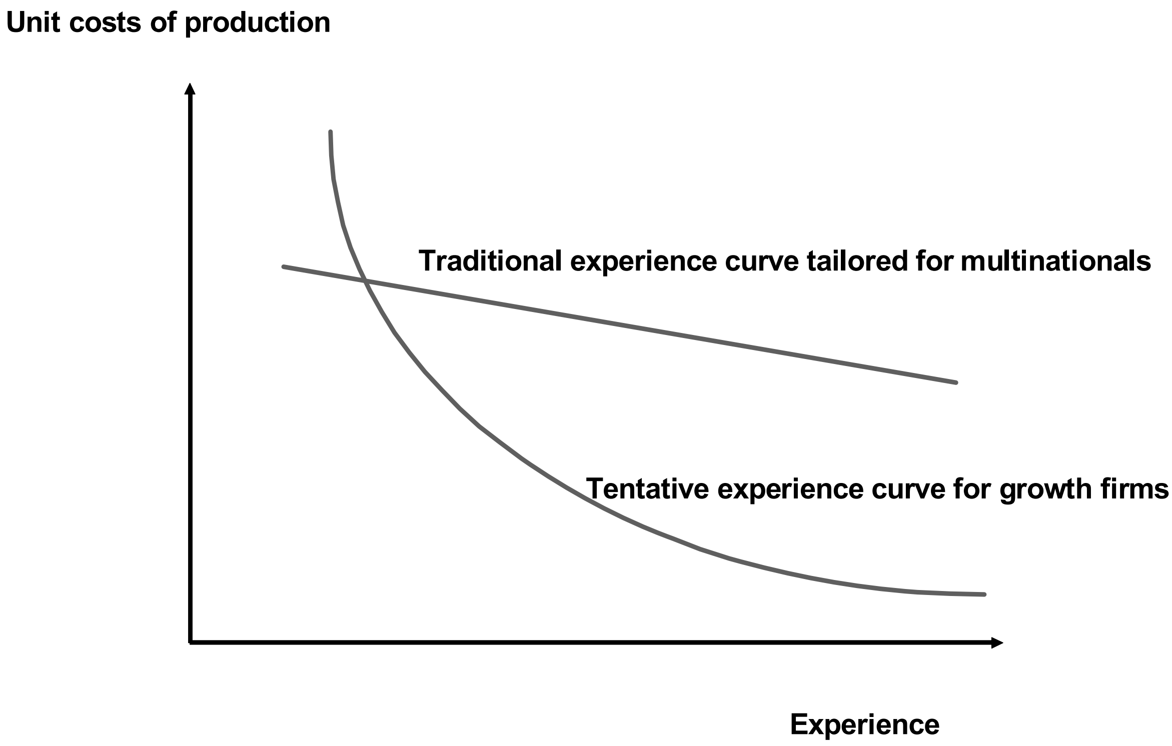


**Figure 11:** A modified experience curve of BCG

BCG stimulated academic research[99], like the Profit Impact of Market Strategy (PIMS) studies[100 101]. PIMS was initiated by General Electric in 1972 and housed at the Strategic Planning Institute (SPI). PIMS informed managers that they could increase share, and thus profit, by redefining their market scope (i.e., redefine their competitors and presumably their market share position). The PIMS contribution has been to provide insight and principles derived from an analysis of statistical data. Since 1972 some 450 corporations and 3.000 strategic business units have contributed annual data, for periods that range from 2 to 10 years, and covering a wide spectrum of industries in North America and several countries in Europe. It has been used by managers and planning specialists of the participating companies in several ways. For example, researchers have drawn on PIMS to explore various dimensions of performance, economies of vertical integration or conditions favouring investments in mechanizing and automating. PIMS is closely related to Marshall's principles school as a compact package of well-verified rules of the firm's profit making[102] and, applicable for any of globalizing firms, multinationals[103].

**The PIMS completes the notion of a tentative experience curve for growth firms, often medium sized firms. There is empirical evidence for the success of medium-sized firms[104105] with diverse demand and costs curves. Market turbulence or creative destruction in global markets provides a lot of market niches for medium sized firms to conquer. This is a starting point of business strategies of SMEs.**

For each of businesses three kinds of information are collected:

1. **Description of the strategy and tactics** that a business unit follows. These include such things as pricing, R&D spending and market expenses.

2. The **business unit's market structure**. Measures of market structure include such things as differentiation, market growth rate and entry conditions.

3. The **business unit's competitive position in its marketplace**. Measures of competitive position include relative market share and relative perceived quality.

The vital difference between the PIMS approach and portfolio classification systems is that the portfolio systems attempts to explain business performance in terms of a few key factors and portfolio systems utilizes the case data of a company and of an industry in attempt to posit a business into a matrix. For instance, the growth-share-matrix, as its name implies, assigns businesses to one of four groups based on market growth rate and relative market share. The PIMS research program has assembled a database to determine how strategies affect results under different circumstances. PIMS contribution is to provide insight, principles derived from a formal analysis of statistical data. The PIMS Competitive Strategy Paradigm is described in figure 27 (Buzzell and Gale, 1987). Since the mid-1970s, the PIMS data base has been used by managers and planning specialists of the participating companies in many ways.

Applications of PIMS-based analysis include developing business plans, evaluating forecasts submitted by division managers, and apprising possible acquisitions and divestitures, among others. In over 100 published studies researchers have drawn on PIMS to explore various dimensions of performance, economies of vertical integration or conditions favouring investments in mechanizing and automating.

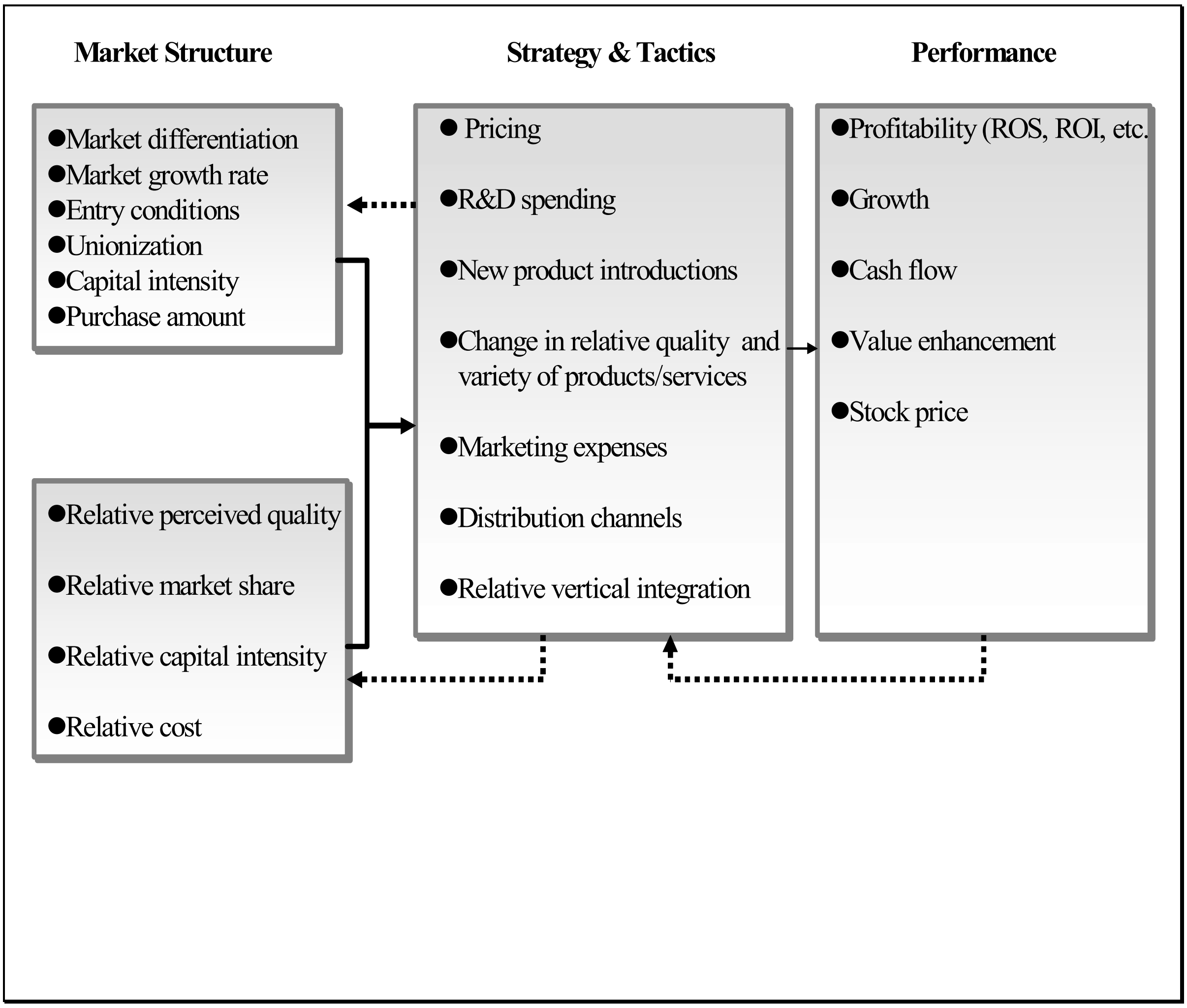


**Figure 12:** The PIMS Competitive Strategy Paradigm

The problem is that the material in the PIMS database is relatively general and aggregated to give any guidance for strategy decisions in a specific industry. Some management authorities have doubt whether they are meaningful to such broad questions. They believe that each situation is so distinctive that generalizations are virtually impossible. The PIMS research program has been criticized. Lubakin and Pitts (1985)[106] raised this issue comparing 'the policy perspective' and 'PIMS perspective' that involves a mechanistic application of formulas to complex management problems. Buzzell and Gale answer to the criticism: "We do not claim to have discovered universal and precise 'laws of strategy', like those of physics. But, once again, we suggest that there are general relationships that can provide valuable guidance to mangers"

The main result of the PIMS complements perfectly the BCG's claim for the experience curve with an indefinite unit costs reduction. For multinationals that still apply Marshall's 'representative firm' concept, BCG's original claim for the experience curve with roughly 20% to 30% of cost reduction provides a useful account. In globalizing markets, the huge cumulative market demand facilitates a substantial unit costs reduction, because of economies of scale[107]. What is interesting is that the PIMS studies have identified the logic that could be well applicable to innovative, often medium-sized, growth firms. The PIMS studies show that the average return on investment in market segments of less than $ 100 million dollars is 27 percent, while the return in large (billion dollar and over), less differentiated markets averages about to 11 percent[108]. One of the most challenging results is the strong contribution of relative market share to profitability (figure 13).

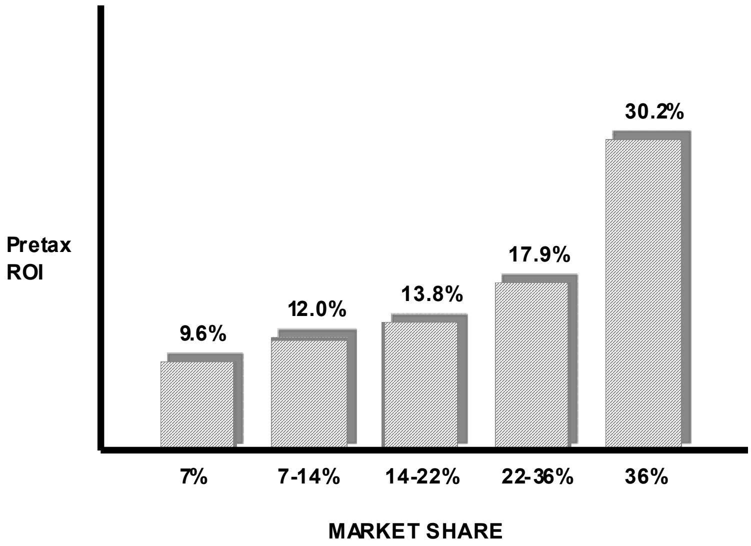


**Figure 13:** Main result of PIMS

During the 1980s, the most influential writer was undoubtedly Michael Porter with his book **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. From a competitive strategy, Levitt's[109] claim to reject the intelligent doctrine a' la BCG and PIMS is understandable[110]. However, Porter's model in figure 14 that is far too trivial compared to the latest studies. Porter divided a company's market scope in two ones: **industry wide** and **particular segment only**. Anyone who has read Porter's dissertation[111] could recognize that this is the same division into big (industry wide) and small (particular segment only) companies. This is not very much more than what any policy-maker or business manager already knows.

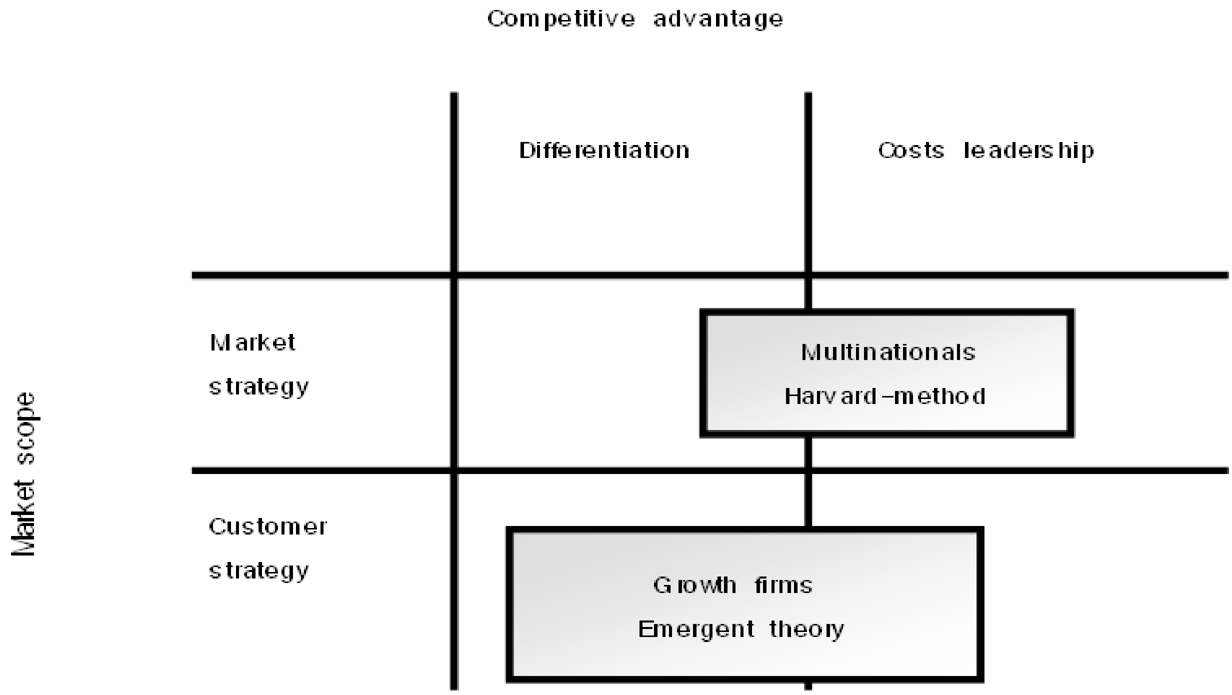


**Figure 14:** An interpretation of Porters generic strategies

# 4. Lahti's resource-based approach to business strategy and microeconomics

## 4.1 Framework

In Lahti (1983, p. 31) the theoretical and empirical analysis (Figure 9) of links between the group structures and the industry sector structure is firm conduct. The major innovation is to divide the firm conduct-concept into two sub elements:

1. **Strategic industry competition of the performance potentiality**

There is assumed to be an interaction between the firm's business definition (Abell, 1980)[133], the strategic dependence of firms within a common strategic group and the strategic industry competition at the industry sector level.

2. **Operational Industry Competition focusing on the performance realization**

There is assumed to be an interaction between the firm's functional strategies, the functional dependence of firms within a common strategic group and the operational industry competition at the industry sector level.

The third element is called 'Performance achieved'. There is assumed to be an interaction between the firm's economic performance, the economic performance contribution that a common strategic group adds to to the firm's economic performance and the operational industry competition at the economic performance of the industry sector. The model (figure 15) is a more comprehensive view for seeking explanation to the firms' performance.

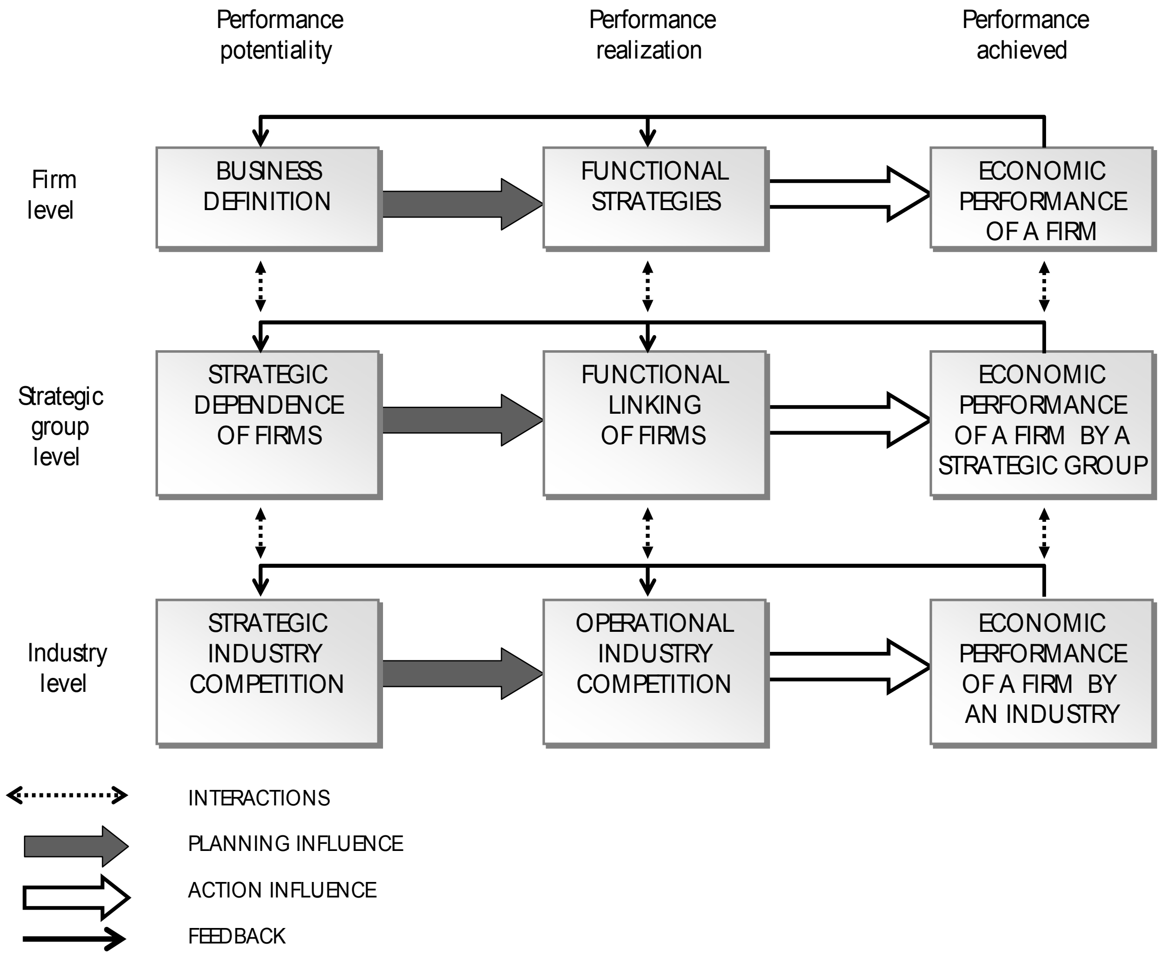


**Figure 15:** The three hierarchical processes of Lahti's model

The empirical study the Finnish knitwear industry contained:

1. The **history analysis of the industry evolution** from the early 1960s to the early 1980s that illustrated the multi-faced phenomenon of the historical reality in terms of Alfred Chandler

2. The **quantitative database** used in objective indicators consisting of financial, marketing, and production records available of a typical knitwear firm. The data-base collected included a 13 year span (1969-1981) and covered 13 firms.

3. **Five firm cases** that described in details how these firms responded to the business environment's changes in three levels of performance.

The 13 knitwear firms that could provide complete data were divided into three strategic groups (big, medium-sized and small) according to their size that seemed to be the most crucial element of strategy behavior. The methodology selected was in much the same as used in the Purdue studies. The new innovation was that Lahti's empirical study was conducted in the way that the systematic differences in the two conduct elements ('Performance potentiality' and 'Performance realization' and one result element ('Performance achieved') were analysed within each of strategic groups (big, medium-sized and small). Based on the comprehensive, sequential analyses, Lahti (1983, p.169) concluded:

**It is basically the actions of the leading sub-groups within strategic groups (big, medium-sized and small) that through their strategic/ operative actions and performance create the image of industry attractiveness.**

The revised model of industry evolution through strategic group formation is shown in figure 16. The complete model contains also a revised model for the firm's and industry's level.

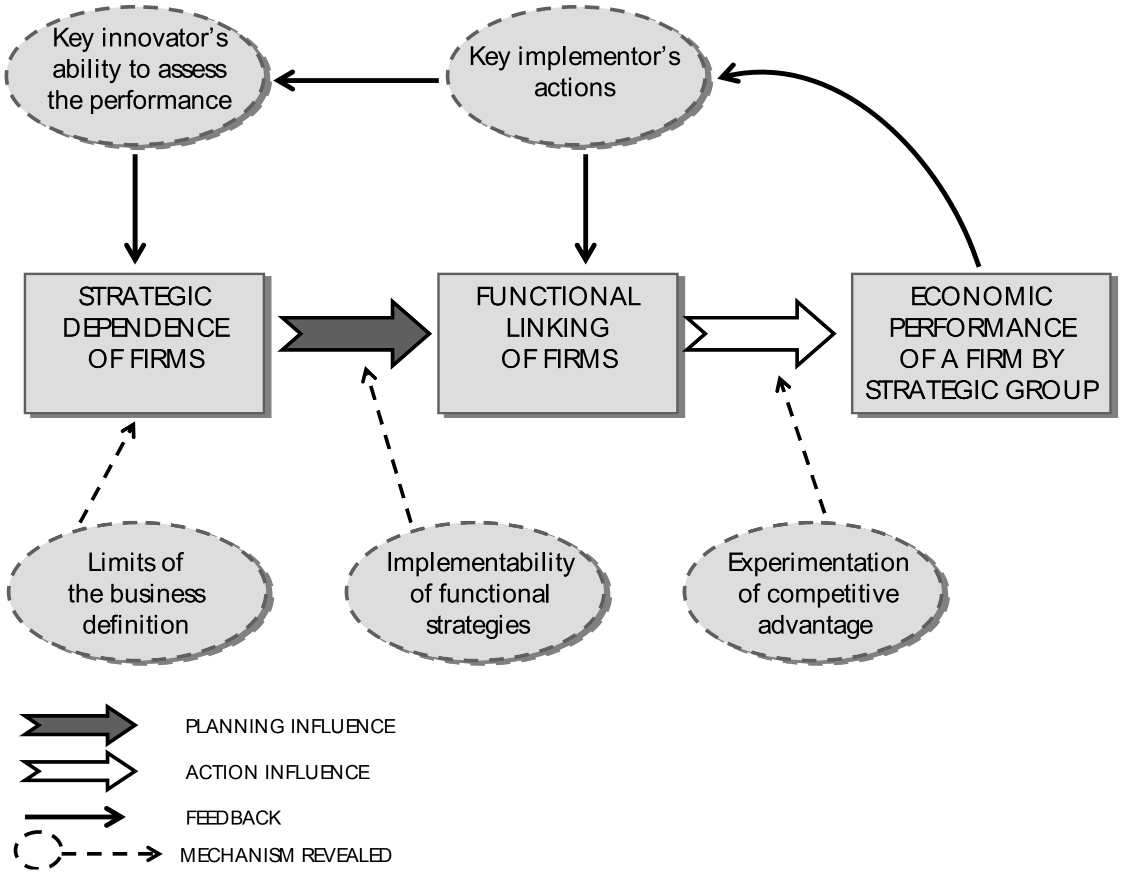


**Figure 16:** The revised model of industry evolution through strategic group formation

In order to operationalize the BCG and PIMS model for SMEs, we need a more robust conceptualization of business strategy. This is exactly the focus professor Arto Lahti's research work after his dissertation[112]. Lahti's contribution is to model the development of a specialized skill in deployment of a firm's resources. Lahti's model links the 'Realized and Intended strategy making' to the 'Firm performance' in the within-industry approach. The learning aspect[113] is essential to innovative, growth firms with idiosyncratic resources and continuous performance variations according to the life cycles of innovations[114]. Therefore, a balance between innovativeness and process efficiency or market efficiency (differentiation) is needed. A framework model is shown in figure 17.

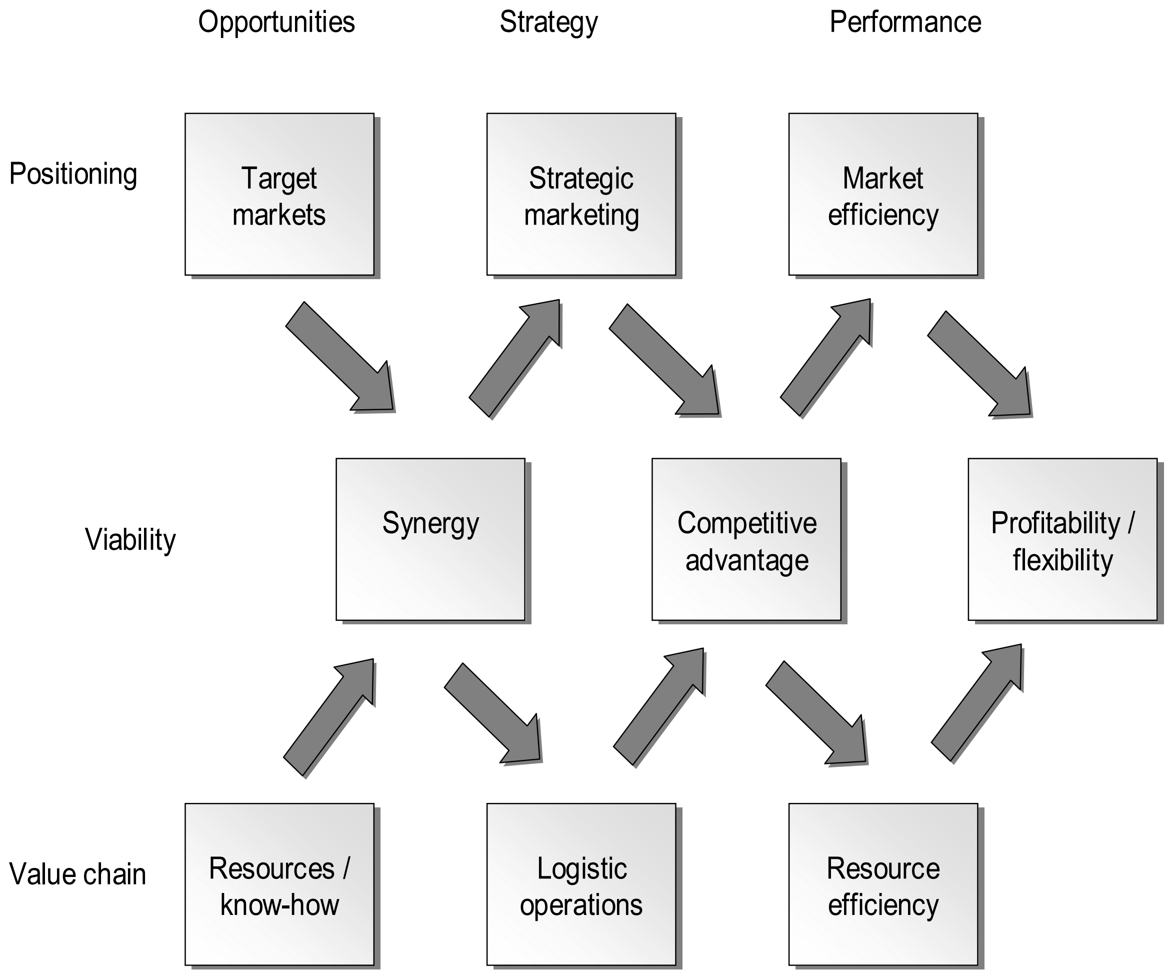


**Figure 17:** Lahti's model: Strategy-Performance model

This model has been widely used in many research projects in the EU[115]. The model is Schumpeterian in its very nature. The starting point of temporary monopoly profits is always the entrepreneurial environment and the 'Opportunities'. The 'Strategy' is Schumpeterian in its nature[116], since strategy making is targeted to find new business prospect. Temporary monopoly profit(s), the 'Performance', is the result from the fit with opportunities and strategy. Besides time, strategy making has contextual dimension. Alfred Marshall, the **father of management**, divided a firm's economies of scale into internal and external. The modern interpretation of Marshall's external economies of scale is the 'Positioning' and of internal economies of scale the 'Value chain'. What is in-between these two economies. There is management's major concern, the 'Viability'. In addition to the 'Profitability', there is the 'Flexibility' as another performance measure. The 'Synergy' and the 'Competitive advantage' are the two criteria of the fit between opportunities and strategy.

**Lahti's model is unique since it has been developed solely for growth firms, often medium-sized firms and tested empirically in many EU countries and many industries. The model has been developed for benchmarking of SMEs[117]**

There are many modifications of Lahti's framework model. One of them is the one that Pekka Killström[118] presents in his dissertation. Killström calls his model **Advanced Strategy-Performance model (ASP-model)**. This name refers to Killström's effort to develop further Lahti's model that is called **Strategy-Performance model**. Killström has more detailed division of strategy making stages (figure 18). He renames Lahti's 'Opportunities' in the 'Choice of potential' and Lahti's 'Strategy' into the 'Market potential exploitation'. Lahti's 'Performance' is divided into two sub-stages: 'Strategy process results' and 'Final results'. In terms of Schumpeter's dynamics, Killström's ASP-model is 'Advanced'. Killström refers to Chamberlin's notion of market imperfections. His idea is that business can be defined according to his four stages of strategy making. Killström summarizes the 'Defining features' of his four stages.

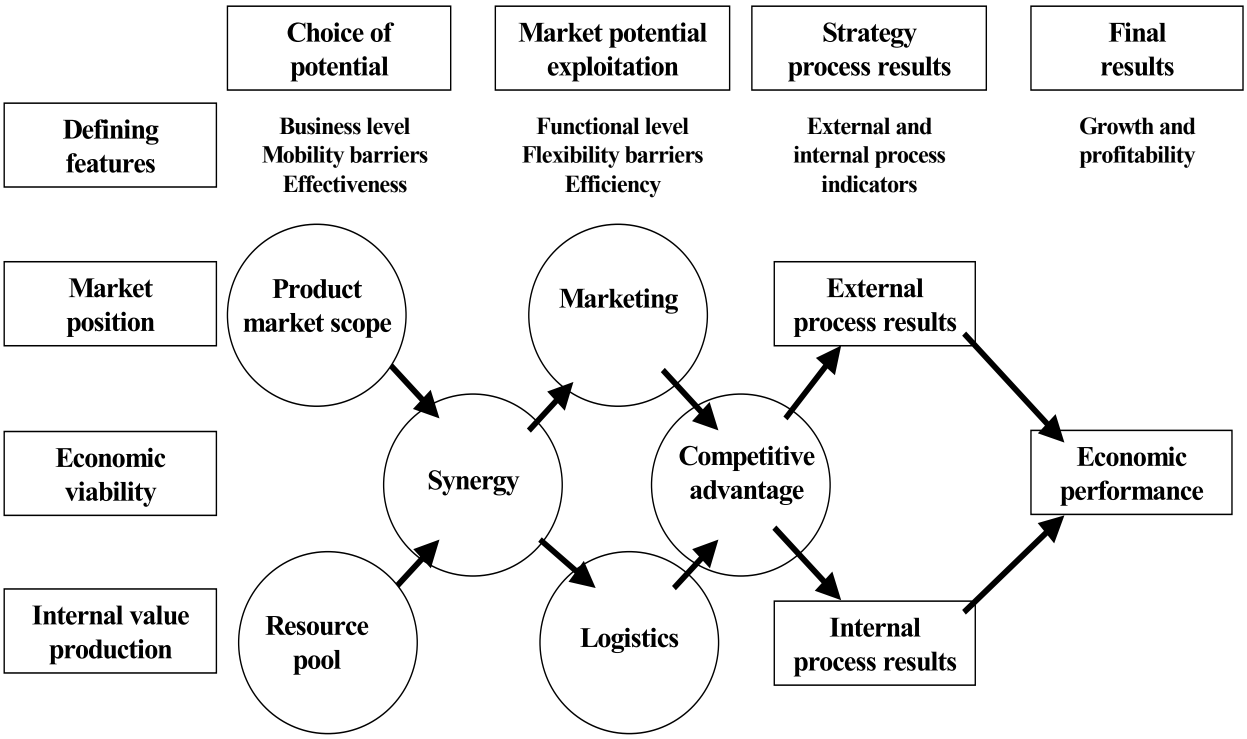


**Figure 18:** Killström: Advanced Strategy-Performance model

Like Lahti's model, the ASP-model is based on the assumption that strategy-performance-linkages are multifaceted. A comprehensive or even holistic approach with many various variables is needed to capture the most relevant strategy-performance-linkages. A detailed description of a firm's strategy and performance do help managers to interpret the competitive process, differences between competitors, strategy actually followed and consequences on the performance of relevant competitors. An individual firm within an industry is strongly connected with its markets, as Chamberlin claimed. The key concepts in Lahti's and Killström's model are related to the **strategic groups of firms within an industry** and the **mobility barriers**, which protects it against the competition coming from rest of the strategic groups.

**Killström (2006, p. 72) adds the concept of flexibility barriers that are based on the strategy implementation capabilities and are possibly creating mechanisms at the functional level of individual firms. The industry as a whole, the strategic groups and individual firms are influenced by the industry specific entry and exit barriers.**

Killström's concept of flexibility barriers is interesting since it has much common with the 'dynamic capabilities of firms' approach that is developed by Edith Penrose and her followers. Another parallel concept is **lateral rigidity as a behavioral characteristic in strategic decision making** that Reijo Luostarinen used in his dissertation[119]. Luostarinen's sees a firm's internationalization as an organizational learning process where changes in the product-operation-market (POM) strategy are a result of an increase in knowledge of internationalization. Luostarinen's POM models describe an incremental behavior that reflects uncertainty.

**The learning and incremental behavior are central features in process models of internationalization.**

## 4.2 Strategic group analysis

One of the contributions rooted back to Chamberlin is the existence of competitive groups of firms within an industry markets. The problem is the **heterogeneity and complexity of markets**[120], as Edward Chamberlin proposed already in the early 30s. Multinationals have collectively and implicitly made decisions to avoid heterogeneity of markets. They have concentrated to globally sell commodity products. Growth firms that in most cases are medium sized firms in relation to multinationals cannot solve their market positioning in that way. Their only sustainable advantage is the learning capacity[121]. They have to accept market complexity and heterogeneity that are the major sources of competitive advantage. A strategic group concept[122] is useful because **it cumulates the group's learning capacity about strategic group specific mobility barriers**. Medium sized firms are too small to learn the market strategy of the global markets in many continents.

Lahti's dissertation[123] is one of the first dynamic studies where the strategic group membership and performance linkages are explored 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). Lahti's empirical study the **Finnish knitwear industry** contained, as mentioned earlier, a sequential process of analyses:

1. **The history analysis** that is useful to understand the industry evolution from the early 1960s to the early 1980s in the period when Finland was integrated to international markets.

In that time, the trigger of industry evolution was Finland's integration to the EEC[124] together with some evolutionary changes in the production technology, buyer demographics and distribution channels. The Finnish knitwear industry was in the trap of declining profitability of overpopulated strategic positions in the EFTA[125] markets.

2. **Economic modeling combining time-series and cross-sectional data**. The quantitative data used in objective indicators consisting of financial, marketing, and production records. The data-base collected included a 13 year span (1969-1981) and covered 13 firms.

It is basically the actions of the leading sub-groups within strategic groups (big, medium-sized and small) that through their strategic and operation actions and performance achieved create the image of industry attractiveness. This means that the strategic group evolution in a small and open country like Finland is highly personalized. There were strong personalities in the industry that tried to utilize the combined technological revolution and market integration. Some of them succeeded and some not, exactly like Peter Drucker described in his book. The most interesting entrepreneurial strategy to utilize creative description was 'Being fustest with the mostest', by which the entrepreneur is striving for leadership. Drucker's warning that of all entrepreneurial strategies this strategy is the greatest gamble, making no allowances for mistakes and permitting no second chance, is exactly the truth of the industry evolution from the early 1960s to the early 1980s. The gambling of Eero Häkli to create Norlyn, a knitwear conglomerate, was famous. He went bankrupt and died as a young man. The winner type was Seppo Hyyppä that systematically developed Finn Karelia Virke.

3. **Five firm cases** describe in detail how these firms responded to the business environment's changes in three levels of performance.

Researchers showed that established mental maps lead managers to ingnore contradictory data of the current state of a firm[126]. In the same way, a strategic group structure maintains collective mental maps of managers. One or more strategic group member firms can act as evolutionary agents to force the existing strategic group structure to the transition process. Lahti[127] included a detailed analysis of how successful strategic group member firms acted as evolutionary agents in the knitwear industry in Finland in the 1970s. Some firms (Nanso and Virke) could act as evolutionary agents to break the established mental maps of the managers in the knitwear industry. The leading firm in the industry (Suomen Trikoo) was challenged to reorientate, which never totally succeeded. The leading firms in the Finnish knitwear industry are nowadays the change-agents (Nanso and Virke) and the former leader (Suomen Trikoo) has been merged with a change-agent (Nanso).

**The 13 knitwear firms that could provide complete data were divided into three strategic groups (big, medium-sized and small) according to their size which seemed to be the most crucial element of strategy behavior. The methodology selected was much the same as used in the Purdue studies. Lahti's empirical study was conducted so that the systematic differences in the strategy and performance were analyzed within each of the strategic groups (big, medium-sized and small). This was a new contribution to the field of research.**

Lahti (1983) is one of the pioneering studies of the substantive performance tradition within the strategic group paradigm (table 1).

| | 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) |

**Table 1:** Studies Testing the Robustness of Groupings[128]

Parallel to Lahti, Kumar[129], Fiegenbaum and Thomas[130], Vikkula's[131] have studied how a firm's strategic choice affected its performance over time. There are two excellent dissertations aiming to develop framework of strategic group evolution from the strategy-performance-pattern viewpoint:

**1. Salimäki[132]**

Salimäki studied **13 leading design firms in Finland in the 90s** and positioned them, using experts, into three strategic groups so that they together construct an **empirically grounded model of the mainstream pattern of design industry's internationalization**. The strategic group studies initiated by Richard Caves in Harvard, and later in other leading schools of economics, have their focus on the oligpolistic interdependence of the firms belonging to the same strategic group. These studies were aimed to characterize the behavior of the Marshallian representative firm. The empirical research has quite often been based on the industry definition of the Standard Industrial Classification (SIC) and the statistical data available (industry definition using materials and technologies as common basis). The strategy has been defined by using only one (size) or just few elements. Porter's dissertation is, perhaps, the most famous example. Porter could find that the firms in the same industry have differences in behavior depending on the size of the firm.

Chamberlin's notion of monopoly elements of competitive firms was based on assumption of firm's heterogeneity in their resources. As mentioned earlier, Purdue-studies were the innovator of this aspect. Applying the bottom-up approach, Purdue-studies could inevitably verify that systematic similarities and differences exist between firms, not because of industry characteristics, but as a result of strategic resource choices. Firms are grouped, not because they are the same kind, but because they follow the same strategy, yet differently. This viewpoint has later been widely accepted by strategic management researchers who see the strategic group theory as a practical tool to analyze firm level strategies[133]. Salimäki followed the methodology of Purdue-studies in the sense that he used a broad number of elements to operationalize strategy. Salimäki divided firms into strategic groups according to their similarities and differences in products, markets and technologies[134].

Salimäki's study is based on a **broad definition of the industry group, called design industries that are seen as one market arena with the common market structure and substructure of strategic groups**. The members of the groups are using similar strategies and are protected by similar mobility barriers. The study is a **qualitative multi-case study** and the unit of analysis is a firm. The model combines the strategic (broad, holistic operationalisation of strategy) choices of a firm (potential) and the operative processes (realisation) with the business performance (result). The model also includes the **13 themes** that were used in the company interviews. The analyzed companies were chosen so that most of the leading firms of each industry could be analyzed (strategic choice of the research objects). Altogether **13 firms** are included. The empirical study had the following stages:

1. **Choice of the firms -** qualitative theme-analysis guided by the Lahti's Strategy-Performance – model

2. **Evaluation and grouping the companies** by a group of experts (possible strategic groups) constructing the international success model of a Finnish design company

3. **Comparing the results to earlier studies**

4. **Analysis of the suggested strategic groups and mobility barriers**

The dimensions found in the data described each of the 13 themes of the gathered data. Furthermore, each dimension was given the values that existed and the dimensions and values were defined (operationalised). Altogether about one hundred qualitative or quantitative values were identified in the data. The analyzed companies (13) were positioned by the expert group on a 3 x 3 matrix as shown in figure 19.

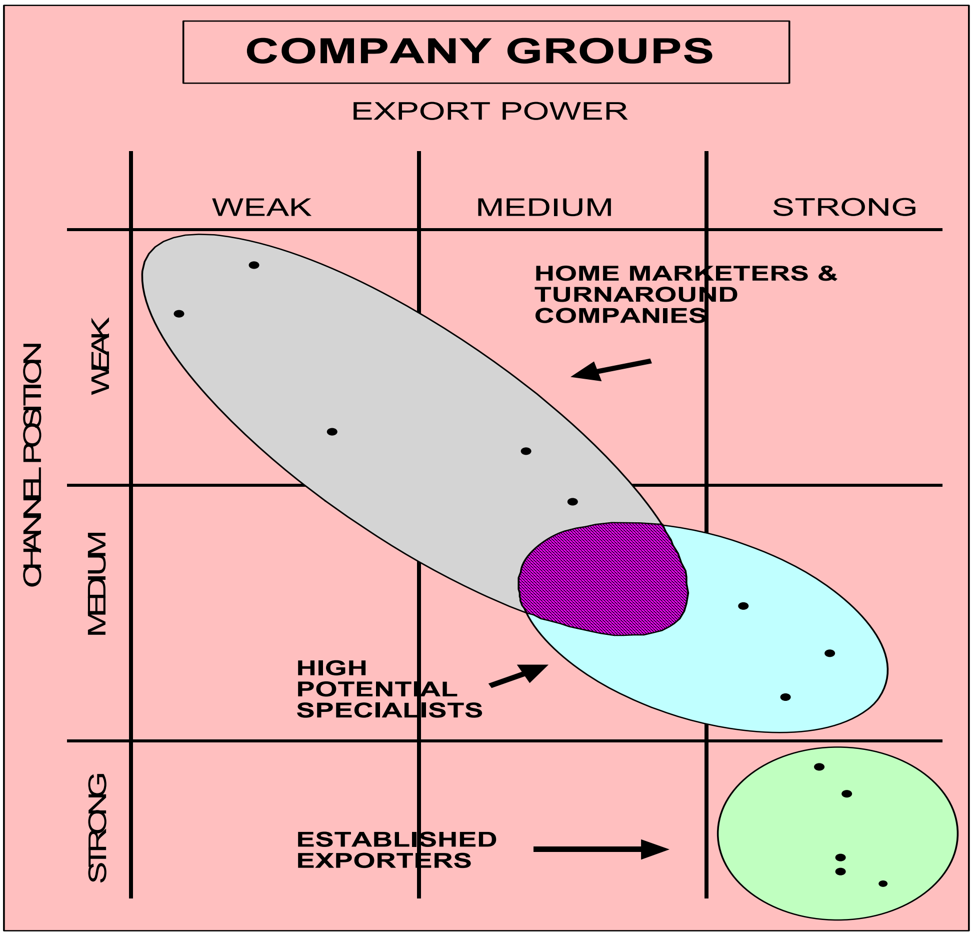


**Figure 19:** Strategic groups of design industries

The strategic groups and their key characteristics are:

1. **Home marketers and turnaround firms** (5 companies)

   Firms acting mainly on the home market or companies in the beginning of their internationalization process

2. **High potential specialists** (3 companies)

   The business is based on a locally competitive innovation (normally material technology and production process)

3. **Established exporters** (5 companies)

   Firms with stable market position and medium/large volume in Central Europe

**2. Killström**[135]

Killström's dissertation aimed to contribute to the understanding of the strategy-performance differences of the firms within an industry. The theoretical framework is positioned to following the guidelines of Lahti and Salimäki. The empirical target was **telephone operator firms** in Finland that were challenged by deregulation of the home markets. Killström's operationalized model covers the critical strategy and performance elements of the firm, based on the ASP-model. Like Lahti, Killström used **econometric modeling**

(1) to identify the relevant strategic groups

(2) to reconstruct strategy-performance-models of various strategic groups

(3) to identify the best and worst performing telephone firm within each of the strategic groups.

Referring to the studies applying the Purdue-methodology, Killström assumed that the strategy-performance-patterns depend on the scope of resource configurations, external effectiveness and the internal efficiency of the firm and finally, on the role of the entry, exit and mobility barriers. Besides econometric analysis, Killström made **case-analyses** to get better understanding of the industry dynamics. This is the same methodology that Lahti had. Killström's methodological contribution was to use **marketing research method** to highlight the motivations and mental models of the firm managers.

**Killström concluded that it is evident that none of the selected approaches can alone explain the differences in strategy-performance-patterns of firms within an industry.**

Killström concluded that the 'Effectiveness' in his ASP-model is the strategy element that defines the strategic direction of the firm. Respectively, he believed that the 'Efficiency' is a good measure of how successfully the 'Strategy' is implemented. Referring to his ASP-model, Killström divides the broad concept of barriers into two ones. The entry and exit barriers refer to the industry portfolio of the firm and the mobility barriers to the business level effectiveness. In the completion of the strategy-performance-pattern, Killström contribution is the 'Flexibility barriers', a new strategy implementation level mechanism. Furthermore, by including the internal and external process results as the preceding stages of the economic performance in the ASP-model, the importance of the strategy implementation measurement, the knowledge of the market was emphasized.

The **size** of the firm is the key clustering criteria for constructing the strategic groups. The size, in terms of the firm's total resources, reflects the strategic market possibilities. It is also a most convenient referral point for the managers, who, with their mental models, make the strategic decisions for the firm. The ASP-model was also applied within the strategic group to capture the strategy-performance- dynamics in circumstances when the telecom industry turned from a monopoly towards an oligopoly, and emerging digital technology provided a lot of prospect to launch new services. The data has been collected from the public statistics, from Finnet Group Association, Sonera Ltd and Mainostieto Ltd. by means of market research. The internal personnel research data has been collected using a questionnaire. In the data analyses, direct distributions and **principal component analysis** methods have been utilised.

Killström could identify four strategic groups of firms:

1. **A National Group**

   The National Group with the one large-sized group member was the leader of the industry evolution from the geographically limited market towards the new potential market. The mobility barriers were constructed through the growth of fixed-assets and the personnel resources. The flexibility barriers consisted of mobile phone and data transmission business growth, reduced prices for company customers, enormous advertising growth and the increase of company accesses and personnel costs. The strategy resulted in a rapid increase in turnover share, but a decreased profitability share.

2. **Helsinki Group**

   The Helsinki Group with one large-sized group member moved slowly towards the same strategic direction as the industry leader. The ingredients for mobility barriers were the increase in fixed assets and personnel education by internal financing. The flexibility barriers were created from the fixed-net and mobile call business, price level and advertising increase as well as capital cost and channel rent decrease. The strategy process resulted in profitability share growth but only a moderate turnover share growth.

3. **Regional Group**

The Regional Group with mid-sized group members focused on local markets, but moved towards the mobile call and data transmission market. The mobility barriers were constructed with personnel and fixed-assets growth. The flexibility barriers show moderate service growth, cautious price increase together with growth in personnel and capital costs as well as with channel rent growth. The strategy resulted in the decrease of turnover and profitability shares. Altogether, the Regional Group developed slowly towards the new competitive environment in the industry's evolution.

4. **Local Group**

The Local Group with small-sized group members focused on local markets, but moved towards the new market. The mobility barriers were constructed with high solvency growth and a decrease in personnel size. The flexibility barriers are labelled with cautious price changes, decreased capital costs and channel rent growth. The strategy resulted in a small turnover share growth and a decreased profitability share. The Local Group developed slowly towards the new competitive environment.

The applied ASP-model shows differences between the strategic groups. The dynamism and the role of the managers' mental models within the strategic groups is shown through the best and the worst performers. The strategic group evolution leaders were clearly identified. Despite the varying potential, the best performing group members followed systematically different strategies and performed systematically better in nearly all aspects compared with the poor performers.

**Killström's study showed that strategy-performance-linkages and industry evolution are relevant at the business level, and that the business model should include two result measures:**

**(1) effectiveness of strategic group mobility barriers and (2) efficiency of operational level flexibility barriers, both of which together reflect the managers' mental decision models in practice (figure 20).**

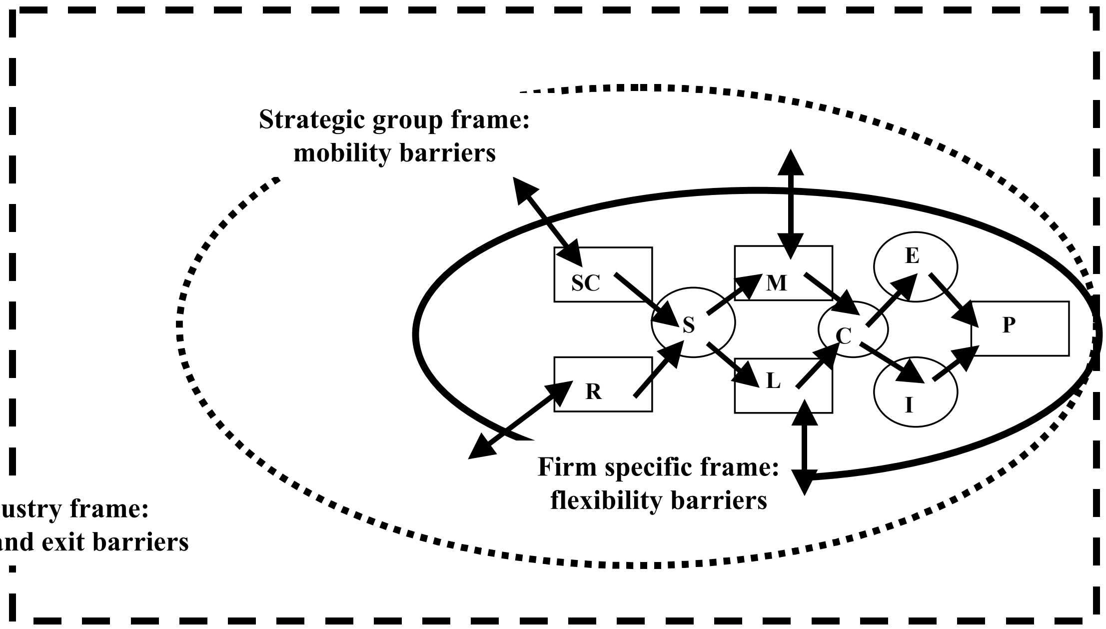


**Figure 20:** Flexibility barriers

**The Finnish dissertations provide promising results and evidence that strategic groups are 'real', not "artifacts" constructed by researchers. The dilemma that most researchers of the topic have is the methodology selected. Using solely cross-sectional data is not a correct approach since 'real' strategic groups are highly dynamic.**

The challenge is to examine **how an industry evolves** exactly as McGee & Thomas (1986) suggested. In order to understand industry evolution or revolution, a researcher needs historical data, time series data, and lots of case analyses at the firm level. Group members may well react in parallel to environmental changes due to their common resources, strategies, histories and managerial mindsets[136], and as such create mobility barriers undeliberately or unintendedly. The Finnish dissertations include in-depth case-analyses and 'really' small and medium-sized firms in their data-bases. The intended strategy loop B was not so weak, as Pitt and Thomas expect (see figure 9). The same implication has been given by Peteraf[137] who develops a **dynamic theory of strategic group identity**. According to the theory, managers cognitively partition their industry environment to reduce uncertainty and to cope with bounded rationality.

The organizational theories of social identification and social learning are used to describe how cognitive groups converge into strategic, competitive groups and how group level identity emerges.

**The Finnish studies do not support the findings that some firms may consistently perform better than others within the same strategic group[138], since a high performance is always temporary. The performance contribution of a strategic group is weak[139]. When SMEs are concerned, the strategic group contribution is the mutual learning of group members, not operative profit making.**

## 4.3 Bechmarking methods for SMEs

### 4.3.1 Some principles

The principles of benchmarking have originally been developed in Japan. During the early 50s, Japanese experts used to visit western business companies that openly welcomed new members of the industrialized society. Japanese specialists had not only welcome visit on their minds. By paying attention to the manufacturing processes, when visiting companies, and analyzing their products the Japanese experts invented a benchmarking procedure.

**Japanese firms could overcome western firms which is an indicator of the usefulness of benchmarking.**

According to Karlöf and Östblom[140], the benchmarking ethics is built on frankness, honesty, long-term benefit and businessmanship. Mutual use of benchmarking data is essential. All information should, first of all, be treated as confidential and the partners should never be asked for information that the initiating company would not be prepared to release itself. In the case of competitive or industry benchmarking which concentrates on practices of current or future competitors, sensitive areas should be avoided. The Japanese benchmarking procedure violated most of these ethics principles. Benchmarking is a popular version of the **comparative analysis**, traditionally used in economic analyses. At a firm level, benchmarking means enhancement in competitive advantage **by learning from the best practices of relevant firms**. Compared with traditional competitor analysis, the benefit of benchmarking is that it reaches also the processes behind the surface[141].

Anderson & Pettersen[142] defined benchmarking types based on what is compared. They have tree types:

1. **Performance benchmarking** – that deals with outcome characteristics such as price, speed and reliability.

2. **Process benchmarking** – that deals with discrete work processes and operating systems.

3. **Strategic benchmarking** – that assesses areas of strategic importance, for instance culture and value systems

Bramham[143] introduces two additional areas of benchmarking:

4. **Operative benchmarking** – that deals with procedures of day-to-day responsibilities of a manager like allocation of people resources, absence level, training costs or requirement process.

5. **Business benchmarking** – that deals with matters of business structure and organization.

Bambergen and Fiegelbaum[144] include one more type that is

6. **Customer benchmarking** – that can be used as strategic reference points.

The final type of benchmarking could be:

7. **Collaborative benchmarking** – deals with information sharing and mutual learning without having the superiority target in mind.

A relevant framework for benchmarking is the well-known **Balanced Scorecard** of Kaplan and Norton[145] that represents a composite measure of strategic performance. According to Kaplan and Norton, it is important that the measurement system extends to monitor in a balanced manner those critical areas of performance and can be derived from strategy. Kaplan and Norton present a set consisting of four views planned to give management crucial information at a glance. The scorecard includes both the long-term strategic objectives and the mechanisms for achieving those objectives. The Balanced Scorecard of Kaplan and Norton (1992, 1993) is a normative model planned to guide a multi-branched firm work coherently with its strategic plan.

**Although the principles are easy the adapt, any constructive use of the Balanced Scorecard requires a considerable amount of analytical skills, not expected to be found abundantly in SMEs.**

One of targets of Lahti's research program was and still is to develop an **expert system for SMEs**. Professor John D. Little at M.I.T. has been a pioneer in expert systems. One of the best known models from the 1960s is called MEDIAC, which was designed to support media planning. Little[146] introduced decision calculus, which combines managerial judgement in marketing models. In the 1970s Arthur Little proposed database systems for the strategic market management. As he expected, the task of sifting through huge quantities of data to find useful information has been easier with the help of expert systems.

**Arthur Little was the first to apply artificial intelligence (AI) (expert system) in marketing and manifested the new to utilize AI in the light of Herbert Simon.**

Walden[147] emphasizes that the development of expert systems as support systems for strategic market management should be an ongoing process characterized by continuous prototyping and revisions. There is a need to build more theoretical and conceptual knowledge in the knowledge base. Knowledge acquisition is widely recognized as a major bottleneck in the development of knowledge-based systems. Strategic market management is a verbal dialogue. Human experts have difficulty in articulating knowledge accurately. Verification and validation are critical for the development of expert systems. The challenging new approaches are the areas of hybrid systems, i.e. the attempts to combine expert systems with neural networks. Some tentative attempts have shown exciting possibilities for applications of hybrid systems to deal with strategic marketing issues.

**The lack of formal and rigorous validation and verification techniques is the reality of today. Almost none of the expert systems applications built in marketing have been validated.**

Walden (1992, 144) describes the key issues in figure 21.

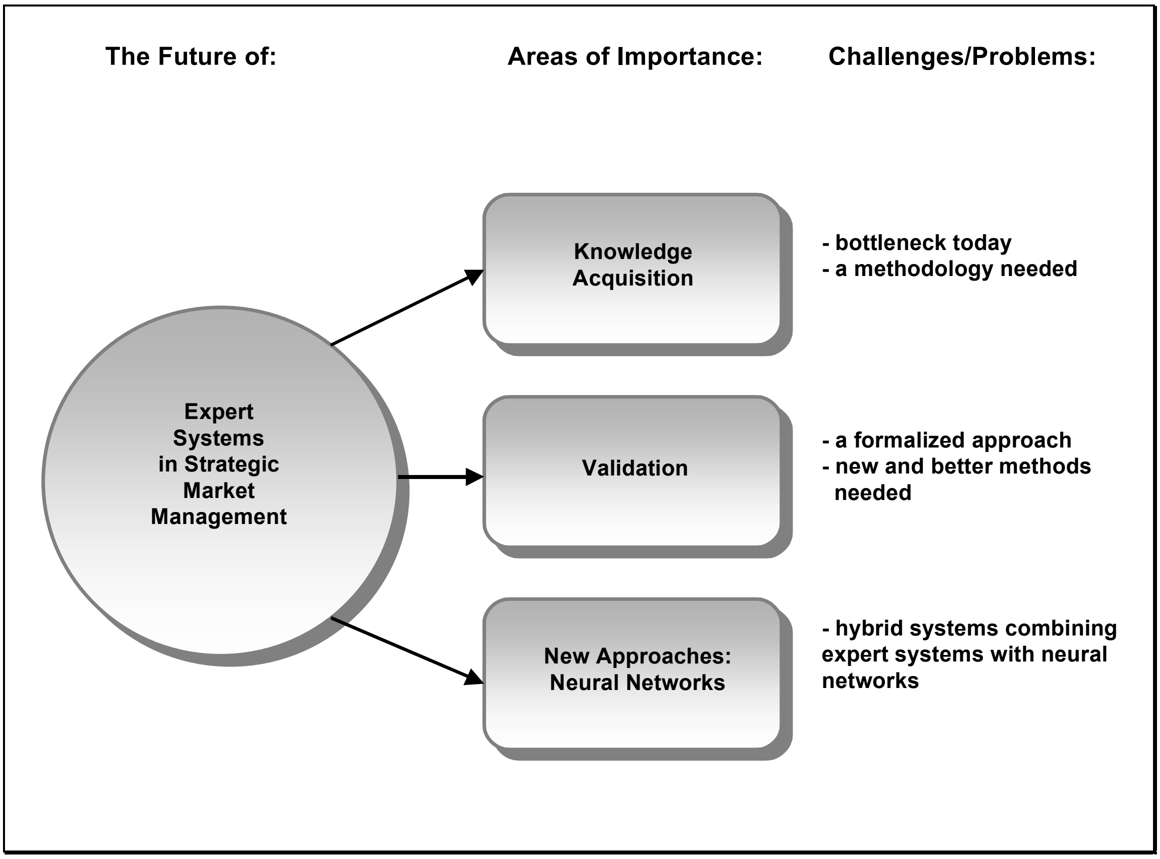


**Figure 21:** Walden's vision of challenges and problems

**Conventional techniques are not satisfactory for a reasonable evaluation of knowledge-based systems since knowledge-based systems have incompletely specified functions. The computerization of knowledge is the missing element in most marketing support systems, although expert system technology will play an increasingly important role in marketing.**

Validation is the most important means of providing an expert system application with quality and confidence. The validation of knowledge-based systems is far more complex than verification and has been limited to experiments with system and a human evaluation of output. There is no check that all knowledge is 'correct', and there is no way to prove that the system has no significant gaps in its coverage. How to develop an expert system for the market strategy management in the creative industries is a multidisciplinary problem. Why it should be done is easy to understand since any verified and valid market strategy database contributes to the profits or utilities of various actors.

There are many types of expert knowledge that a system should include:

1. **Rule knowledge**, which is formal, and consists of the premises and conclusions of the rules; it can be enhanced with confidence factors to indicate uncertain knowledge

2. **Tabular knowledge**, which is factual and organized as a standard relational database

3. **Procedural knowledge**, which is technical and represented by rule-controlled algorithms, which are built in some conventional programming language and return mostly numerical results as the controlling rule

4. **Taxonomic knowledge**, which is factual and describes objects, with their attributes and hierarchies

5. **Natural language formulation knowledge**, which is informal and contains substitute texts for dialogues with the user

6. **Informal knowledge associated with the taxonomic knowledge**, collection of substitute texts which helps the user assign a value to the attributes of given objects

### 4.3.2 Lahti's benchmarking method for SMEs

One of the major contributions of the Finnish dissertations (Lahti, Salimäki and Killström) is a specific benchmarking method that is based on Lahti's theoretical framework model or on its extensions by Salimäki and Killström. One additional element that is relevant for any of SMEs is **cash flow**, although it is not an entrepreneur's own will or major target. SMEs in most EU-countries have the same legal and administrative obligations than multinationals but in most case only one person's resources. A modern interpretation of these facts is that SMEs should prefer net cash flows. As Hofer & Schendel[148] suggested (see figure 10), the internal model of resource allocation is complex. The modern financial theories are useful to understand the valuation of a firm's assets in the light of Lahti's model[149].

**The modern financial theories can be used to compensate the lacking market theory. Being shareholder value -oriented as financial theories propose, an innovative entrepreneur can find the optimal corporate governance mechanism for his or her business.**

The theoretical market value of a firm can be expressed in the following formula:

$$MV = GV + SV$$

**Formula 1: Theoretical market value of a firm**

A firm's theoretical price or market value (MV) can be thought of as the sum of the capitalized value of its current earnings stream, substance value (SV) plus the market value of future investments offering above-market returns, goodwill value (GV)[150]. Funding of these opportunities leads to additional earnings and goodwill value is converted in assets. The valuation problem is SMEs is that the substance value can be negative but still the goodwill value is high. According to the formula, this means that the market value of future investments, offering above-market returns, is something that is out of the frame of the modern financial theories. The relation between goodwill value and substance value is highly dynamic. Goodwill value consumption leads to abnormal earnings growth until the innovation's potentiality or temporary monopoly position has been fully realized.

**As Schumpeter vividly argued of competitive dynamism, the profit marginal and goodwill value will erode simply because of the competitive nature of markets.**

In Lahti's benchmarking method, a firm's value is divided in the so-called **Winner-Model** into three elements:

1. **Goodwill-value or goodwill-value** is dependent on:

    (1) Target market position
    (2) Customer value utilizing

2. **Substance value** is dependent on:

    (1) Dynamics of resource agglomeration
    (2) Mobilization of resource to create customer functions

3. **Market value** is the sum of goodwill-value and substance-value created by management through

    (1) Strategic management decisions
    (2) Operative management decisions

Theoretically the winner-model can be visualized in figure 22.

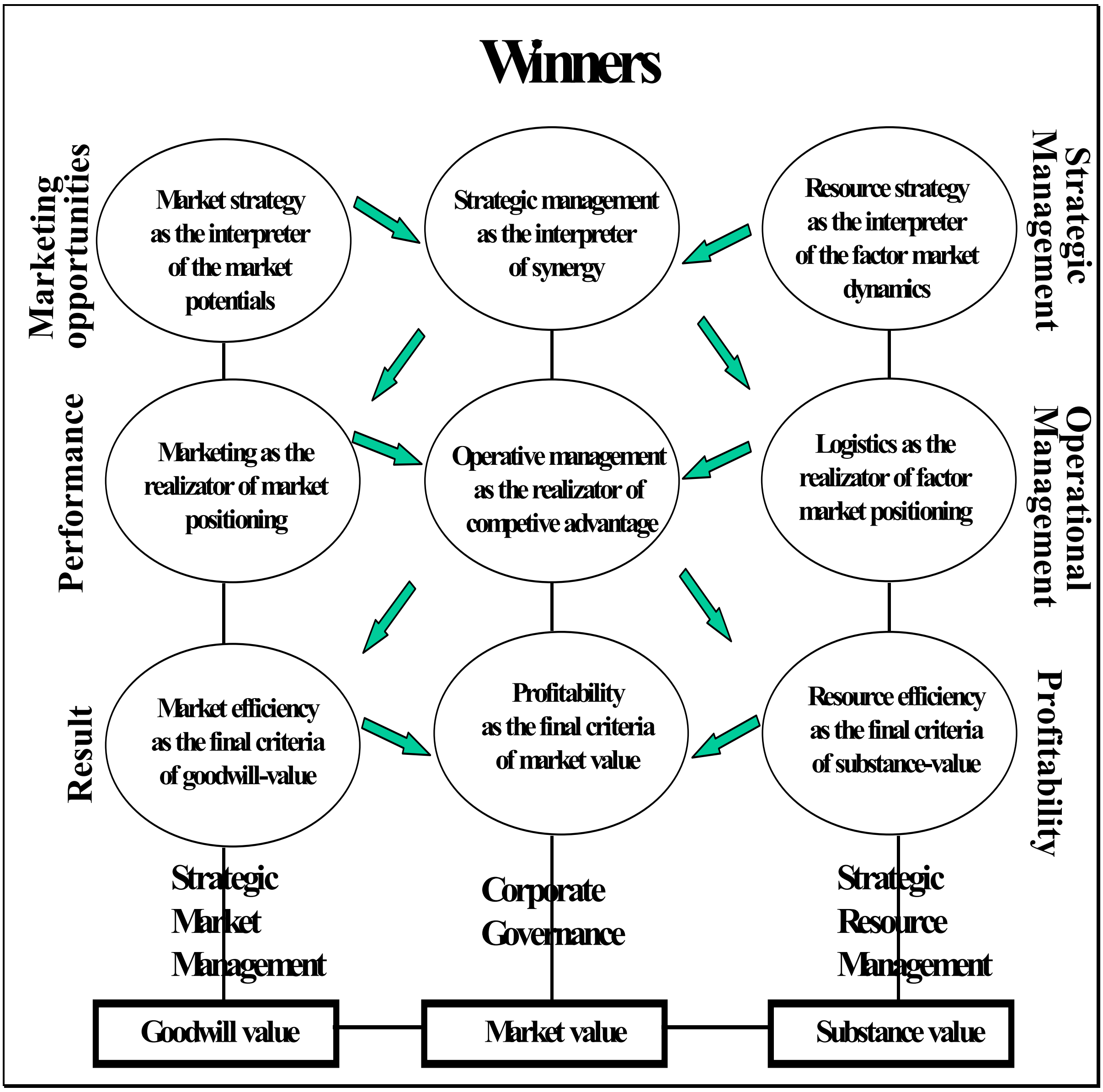


**Figure 22:** Winner-model as a framework

The model has been divided into three sub-models according to the frame model:

1. **Strategic marketing analysis**
2. **Resource analysis**
3. **Management analysis**

Each of the three sub-models has its own working sheets.

### 4.3.3 Strategic marketing analysis as an example

Chamberlin is an economist and the father of marketing. Therefore, the theoretical underpinning of marketing is economics. Marketing itself has borrowed more heavily from the economic theory than from any other discipline[151]. This means that on the issue of exchanges between the firm and its markets, economic more than social or political has the primary emphasis with an assumption of rationality in marketing decisions. Nevertheless, the potential benefits of integration with these traditions should not be ignored as is demonstrated by recent contributions that combines institutional theory and the resource-based view in an analysis of sustainable competitive advantage[152]. Later, the topics of strategic marketing are adapted including strategic analysis, positioning and international marketing. The current tradition is built on the work of industrial economists and has been growing in popularity in the strategy literature since the mid-1980s. More than one firm in a given market can have a competitive advantage[153]. Specificity is the idea that transactions within the firm and with its external constituents are idiosyncratic to individual firms[154].

George Day[155] argues that winners are guided by a shared strategic vision and are driven to be responsive to market requirements. There are no standard formulas on how to cope in chaotic environment, but like Day (1990) emphasizes there is distinctive features of successful responses to the chaotic market environment. One of them is **external orientation**, an adaptive planning process, a continuous creation and renewal of new sources of competitive advantage. The managerial challenge is that marketing problems are characterized by various degree of uncertainty due to uncontrollable factors present in the human judgement. Strategic marketing emphasizes that strategy development needs to be externally oriented – towards customers, competitors, the market and the market's environment. David Aaker[156] stresses the need for a system that provides assistance in an inherently complex decision making, sensitive enough to be applied in a variety of situations.

Through its insights into the nature of competitive advantage, the resource-based view of the firm has already made an important contribution to the field of strategic marketing. International marketing strategy is likely to be particularly enriched by perspectives from the resource-based view of the firm. According to Ricardo, international competition highlights the important differences between country-specific resources and firm-specific resources. From a competitive viewpoint, the focus of attention was on the basic input into the production process and on how endowments of these factors varied from country to country. Attention was also paid to the role of geographic location as a country-specific resource. Geographic nearness to markets was found to influence investment decisions while the role of cultural proximity or psychic distance was proposed as a key variable by stages model theorists like Reijo Luostarinen. But borrowing as it does from strategic management, it also recognises the role of industry effects in observed performance levels which is evident in the ongoing debate on the relative importance of both firm and industry factors[157].

The contextual challenge of strategic marketing is to balance between **Serve or Create.** 'To 'Serve' is nowadays referred as market orientation and contends that the key to the attainment of organizational goals is **identifying the needs and wants of the target market and delivering products and services that satisfy these needs**. 'To Create' or innovation orientation or knowledge orientation refers to issues such as **technological superiority or inventing superior products.** Since the 50s when Drucker[158] stated that the sole purpose of a firm is to create and keep customers, customer orientation has been the trend. In Theodor Levitt's[159] thinking, the key issue is 'to run the business, not customers'. In the 90s, parallel with the globalization, the customer orientation is subsumed under the idea of market orientation.

Having creative entrepreneurs in mind, the key challenge is to move from the simple expert model towards models that allows practical benchmarking. The key findings of benchmarking might be useful to analyse because benchmarking is a bit more collaborating than the 'PIMS principles'. Lahti's Strategic Marketing model is developed for SME benchmarking (figure 23).

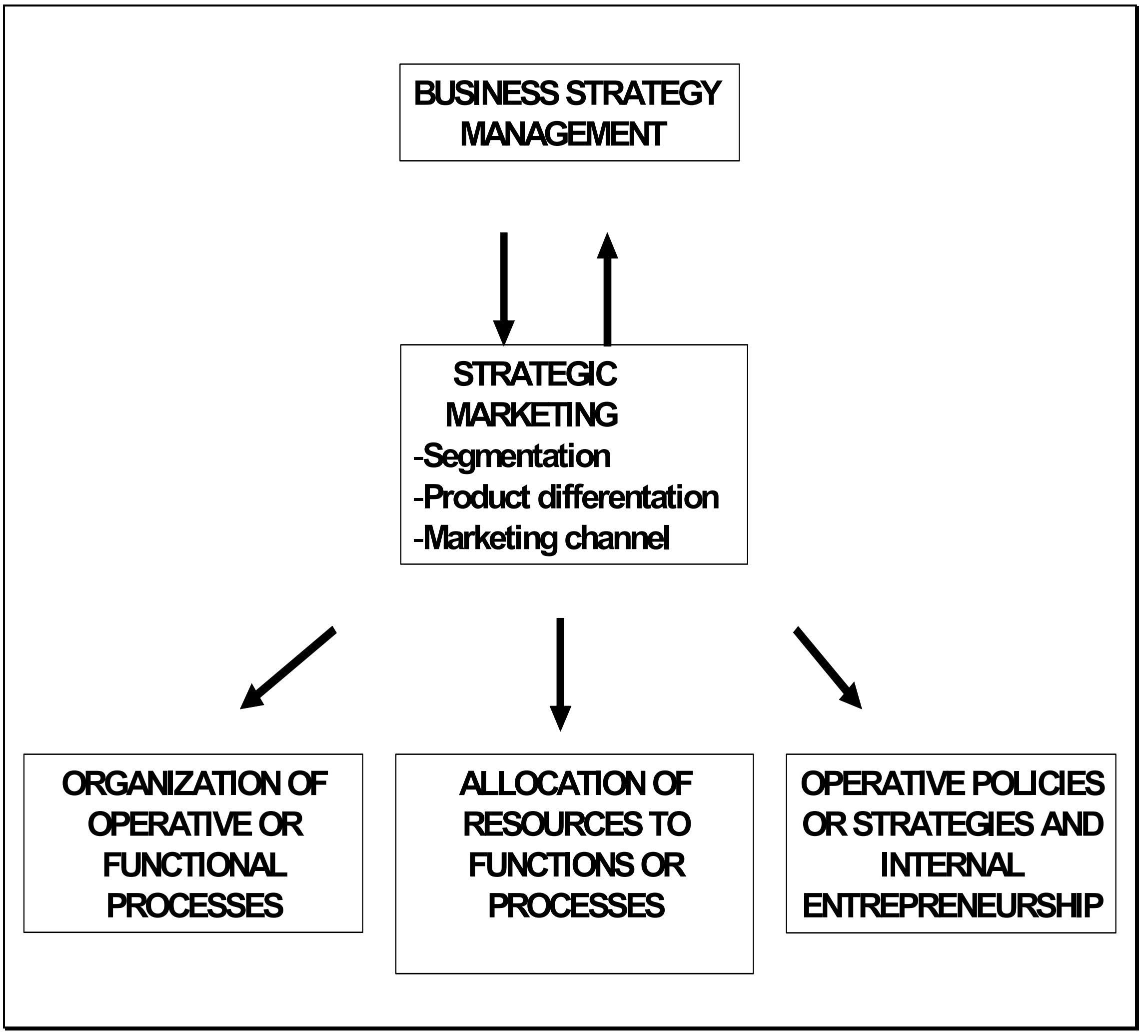


**Figure 23:** Lahti's Strategic Marketing model

In short, the resource-based view of the firm also promises to greatly inform issues relating to international marketing strategy. Firms in different countries may originate from and operate in very different environments. Consequently, they may develop resource configurations that can have a dramatic impact on international competition as illustrated, for example, by the initial success of Japanese firms in the United States. In addition, the focus of much international marketing literature has been on the economic, cultural and business characteristics of markets and how this influences international market selection and market growth decisions. The resource-based view of the firm provides an important supplementary perspective, namely, whether or not firms have the capacity for international expansion and whether unique country-specific resources will enable them to attain competitive advantages abroad.

The key issue is knowledge based product differentiation and differential advantage. Like Rumelt (1984) conceptualizes, the isolation mechanism (like causal ambiguity, team-embodied skills or special information) provides a basis to isolate a company or a company group from the keenly competitive market arena. The dominant model of global competence competition is monopolistic competition which is a mixture of competition and monopoly. Product differentiation attempts to create niches in the market through innovations, and it can be viewed as an attempt to create a quasi-monopoly. How to conceptualize the mechanisms behind a sustainable competitive advantage and innovations is a challenge. What is important to notice is that the market (or competitive) strategy is the arena of global firms that have huge marketing budgets that allow them to differentiate their offerings through mass-customization their offerings and to utilize location and ownership advantages in all continents[160].

Knowledge-intensive, growth firms have another differentiation strategy, the **customer-specific differentiation**. It is a strong capability, since global giants cannot combine large-scaled marketing and logistics with customer-specific strategies. The mobility barriers of medium-sized firms have much to do with operative business strategies (marketing and logistics). In most cases the major mobility barrier element is related to the local multinationals that dominate the marketing channels and logistics of innovative offerings. In figure 24 an application of Chamberlin's'[161] positioning model is shown, modified for the software industry.

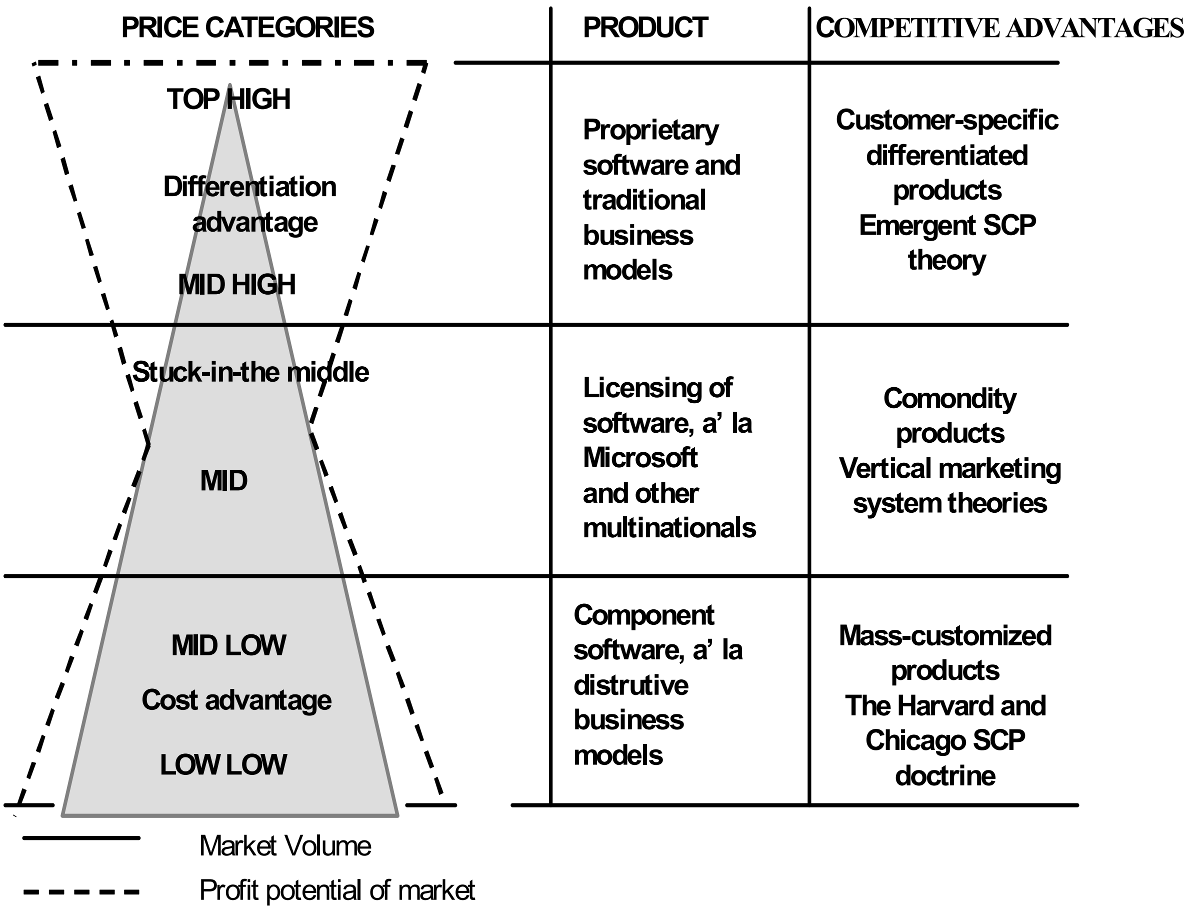


**Figure 24:** The Nordic niche-strategies

The customer-focused marketing concepts, such as segmentation, positioning and the product-life cycle, have also influenced thinking in strategic management[162]. 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 resource-based view of the firm focuses attention on the ability of the firm to deliver on its desired positioning strategy. For example, if the firm seeks to become a customer service leader in an industry, it needs to develop the resources that are necessary to enable it to try to attain such a position. Among its distinctive capabilities are a customer-focused organisational culture and an obsession with detail at every level of the organisation.

**Many researchers referring to Porter's generic strategies have misunderstood the intelligent notions of Schumpeter and Marshall and their followers.**

The relevant analysis of the entrepreneurial environment is, however, the dynamics of strategic groups, since at a strategic group the level the mutual learning of differentiation, diverse demand and cost curves of firms, can be found[163]. The strategic group level within an industry is the very much the same as product or product line. This is exactly the level on which Edward Chamberlain focused on his theory of monopolistic competition and product differentiation.

It is clear the original list of McGee & Thomas (1986) is still relevant to describe the mobility barriers in the traditional business strategy context. Our major proposition is that for the knowledge intensive, growth firms, there are additional elements of mobility barriers that Killström (2004) calls flexibility barriers in his dissertation of the Finnish telecom industry. The original concept is, perhaps, Richard Rumelt's[164] isolating mechanisms that protect a firm's core competence from environmental uncertainty[165]. Rumelt focuses on knowledge, especially tacit knowledge[166]. Isolating mechanisms are asymmetries, derived from costs of contracting that protect entrepreneurial rents (temporary monopoly profits in terms of Schumpeter) from imitation. To manage uncertainty, growth firms must develop their contractual, legal-economic function, intellectual resources and capabilities to manage new mobility barriers like the patent portfolio of multinationals.

# Endnotes

[1] Liisa Lintunen has made an excellent dissertation of the epistemological status of Schumpeter (Lintunen, Liisa (2000) Who Is the Winner Entrepreneur? An Epistemological Study of the Schumpeterian Entrepreneur (dissertation), Helsinki School of Economics, series A-180, Helsinki).

[2] In Loasby's thinking evolutionary economics is based on the growth of knowledge, not on the mathematical model to be found in the works of Walras. (Loasby, Brian (1999) Knowledge, institutions and evolution in economics. Routledge, London, pp. 2-4).

[3] Marshall, Alfred (1920) Principles of Economics. an Introductory Volume, Macmillan, London.

[4] Schumpeter, Joseph (1939) The Business Cycles, McGraw-Hill, New York.

[5] This development was largely performed in his first book Wesen und Hauptinhalt der theoretischen Nationalökonomie from the year 1908, which in English might be called 'Essence and Scope of Theoretical Economics'.

[6] Knigth, Frank (1920) Risk, Uncertainty, and Profit, Chicago, University of Chicago Press.

[7] Schumpeter, Joseph (1950) Capitalism, Socialism and Democracy, McGraw-Hill, New York.

[8] Since the 60s, Schumpeter's prediction was almost fulfilled in the EU countries. The social climate needed to allow entrepreneurship to thrive did not exist and competitive capitalism collapsed from within as democratic majorities voted for the creation of a welfare state and placed restrictions and social costs upon entrepreneurship.

[9] Individuals intending to obtain information either by purchase or production cannot know in advance the costs and benefits of certain types of information before they have acquired it.

[10] John Kenneth Galbraight has been the most influential economist in that topic. Countervailing power is a theory of Galbraight that describes a certain level of collusion between large firms and the government in order to create monopoly profits (Galbraight, John Kenneth (1956) American Capitalism: The Concept of Countervailing Power, Boston: Houghton Mifflin).

[11] Arrow, Kenneth (1962), Economic Welfare and the Allocation of Resources for Invention, in Richard R. Nelson (ed.), The Rate and Direction of Inventive Activity: Economic and Social Factors, National Bureau of Economic Research, Conference Series, Princeton: Princeton University Press, pp. 609-625.

[12] Karliner, Joshua (1997) The Corporate Planet: Ecology and Politics in the Age of Globalization, San Francisco: Sierra Club Books

[13] Lazonick, William (1991) Business Organization ant the Myth of the Market Economy, Cambridge University Press (p. 126).

[14] Marx, Karl & Friedrich Engels (1867, 1885,1894) Das Capital, Volume I-III

[15] Peters, Thomas (1990) Thriving on Chaos, Harper & Row, New York.

[16] Chandler, Alfred (1990) Scale and Scope. The Dynamics of Industrial Capitalism, The Belknap Press of Harvard University Press, Cambridge.

[17] Lintunen, Liisa (2000) Who Is the Winner Entrepreneur? An Epistemological Study of the Schumpeterian Entrepreneur (dissertation), Helsinki School of Economics, series A-180, Helsinki, is an excellent dissertation of the topic from management point of view.

[18] Lintunen, Liisa, (2000)

[19] Mintzberg, Henry (1980) The Nature of Managerial Work, Englewood Cliffs, J., Prentice Hall, New York.

[20] Drucker, Peter F. (1985) Innovation and Entrepreneurship. Practice and Principles, Heinemann, London.

[21] Casson, Mike (1982) The Entrepreneur: An Economic Theory, Oxford: Martin Robertson.

[22] Kirzner, Israel (1979) Perception, Opportunity and Profit: studies in the theory of entrepreneurship, Chicago, University Press.

[23] McClelland, David (1961) The achieving society. Princeton: Van Nostrand.

[24] Drucker, Peter F. (1985) Innovation and Entrepreneurship. Practice and Principles, Heinemann, London.

[25] Lintunen, Liisa (2000) uses the term winner entrepreneur

[26] Rotter, Julian B. (1966) Generalized expectancies for intemal versus external control of reinforcement, Psychological Monographs, 60, No l. A good summary: Wade, Carole and Travis, Carol (1999) Invitation to Psychology. New York, Oxford University Press.
[27] Drucker, Peter F. (1985) Innovation and Entrepreneurship. Practice and Principles, Heinemann, London.
[28] Vesper, Karl (1980) New Venture Strategies, Englewood Cliffs, N.J., Prentice-Hall.
[29] Hurst, David, Rush, James, and White, Roderick (1989) Top Management Team and Organizational Renewal, Strategic management Journal, Vol. 10, 1989, pp. 87-105.
[30] Hirsh, Sandra Krebs (1991) Using the Myers-Briggs Type Indicator in organizations: A resource book (2d ed.), Consulting Psychologists Press, Palo Alto, California
[31] I would like to suggest that the area of collaboration can be rooted to my in-depth field research in many European countries like Denmark, Sweden, Norway, Nothern Italy and Scotland. The main content of my research is the analysis of elements of healthy regional development.
[32] Maskell, Peter et al. (2001) Competitiveness, Localised Learning and Regional Development: Specialisation and Prosperity in Small open Economies, Routledge, London.
[33] Tanvig, Hanne (1990) Virksomheders etablering og udvikling i Ribe amt. Rapport fra en spørgeskemaundersøgelse, Regionalforskning 16/90, Sydjysk Universitetscenter. Esbjerg.
Tanvig, Hanne (2003) Myten om de mange iværksættere i landdistrikter, Working Paper 4/03. CFUL, Esbjerg
[34] Donnelly, Tom and Hyry, Martti (2004) Urban and Regional High Technologies: The Case of Oulu, Local Economy, Volume 19, Number 2, May 2004, pp. 134 – 149.
[35] Cooke, Philip (2002) Knowledge Economies. Clusters, Learning and Cooperative Advantage, Routledge, Taylor and Francis Group. London.
[36] Quah Danny.T. (2001) ICT clusters in development: Theory and evidence, London School of Economics Working Paper, London, UK.
[37] Lahti, Arto and Pirnes, Hannu (1988) Nordic Small Business Research, ISBC 88, Helsinki.
[38] Hamel, Gary, and Prahalad, Coimbatore K. (1994) Competing for the Future, Harvard University Press, Cambridge.
[39] Chamberlin, Erdward (1933) The Theory of Monopolistic Competition, Harvard University Press, Cambridge.
[40] Bain, Joe (1956) Barriers to Competition, Harvard University Press, Cambridge.
[41] Bain, Joe (1956) Barriers to Competition, Harvard University Press, Cambridge.
[42] Stigler, George J. (1968) The Organization of Industry. Chicago: University of Chicago Press.
[43] Chamberlin, Edward (1933) The Theory of Monopolistic Competition, Harvard University Press, Cambridge.
[44] Scherer, Frederic (1980) Industrial Market Structure and Economic Performance, Rand McNally and Company, Chicago.
[45] Scherer, Frederic and Ross, David (1990) Industrial Market Structure and Economic Performance. Houghton Mifflin Company, Boston, p. 5.
[46] Strategic behavior of the firms is the key criteria by which the groupings are observed.
[47] Hunt, Michael .S. (1972). Competition in the Major Home Appliance Industry, 1960–1970, Unpublished Ph.D. dissertation, Harvard University.
[48] Newman, Howard H. (1973). Strategic Groups and the Structure-Performance Relationships: A Study with Respect to the Chemical Process Industries, Unpublished Ph.D. dissertation, Harvard University.
[49] Porter, Michael. E. (1973) Consumer Behavior, Retail Power, and Manufacturing Strategy in Consumer Goods Industries, Unpublished Ph.D. dissertation, Harvard University.
[50] McGee, John and Thomas, Howard (1986) Strategic groups: Theory, research and taxonomy, Strategic Management Journal Vol 7 141-160 (1986) pp.141-160.
[51] Rumelt, Richard. P., Schendel, Dan. and Teece, David J. (1991), Strategic Management and Economics, Strategic Management Journal. Vol 12, pp. 5-29.
[52] Hatten, Kenneth J. (1974) Strategic Models in the Brewing Industry, Unpublished doctoral dissertation, Purdue University.

Patton, G. R. (1976): A Simultaneous Equation Model of Corporate Strategy:The Case of the U.S. Brewing Industry, Unpublished doctoral dissertation, Purdue University.
[53] McGee, John & Thomas, Howard (1989) Strategic groups: a further comment, Strategic Management Journal, 10. pp. 105-107.
[54] Hatten, Kenneth J. and Hatten, Mary L. (1987) Strategic Groups, Asymmetrical mobility barriers and Contestability, Strategic Management Journal, Vol. 8, p. 333.
[55] Scherer, Frederic and Ross, David (1990) Industrial Market Structure and Economic Performance. Houghton Mifflin Company, Boston, p. 5.
[56] Cool, Karel O. & Schendel, Dan (1987) Strategic Group Formation and Performance: The Case of the U.S. Pharmaceutical industry 1963-1982, Management Science, p. 1104.
[57] Cool and Schendel (1987) p. 1106
[58] McGee and Thomas (1986) p. 160
[59] McGee and Thomas (1986) p. 14
[60] Pitt, M. and Thomas Howard. (1994) Industry Groups and Strategic Management: A Reappraisal of Strategic Group Concepts and Research Methodologies in Daems, Herman and Thomas, Howard (eds.) Strategic Groups, Strategic Moves and Performance, Pergamon, p. 85.
[61] Mintzberg, Henry (1980) The Nature of Managerial Work, Englewood Cliffs, J., Prentice Hall, New York.
[62] Pitt and Thomas (1994) p. 86.
[63] Pitt and Thomas (1994) p. 85.
[64] Eli Heckscher and his student Bertil Ohlin in the 1920s
[65] Ohlin, Bertel (1933) Interregional and International Trade, Cambridge: Harvard University Press.
[66] Penrose, Edith (1959) The Theory of the Growth of the Firm, Oxford University Press, Oxford.
[67] Penrose (1959) p. 25.
[68] Penrose (1959) p. 78.
[69] Simon, Herbert (1960) The New Science of Management Decisions, Harper & Row, New York.
Simon, Herbert (1979) Rational Decision Making in Business Organizations, American Economic Review, pp. 493-513.
[70] Cyert, Richard & March, James (1963) Behavioral Theory of the Firm, Englewood Cliffs, NJ: Prentice Hall
[71] Chandler, Alfred (1962) Strategy and Structure, The M.I.T. Press, Cambridge.
[72] What, perhaps, nobody could image in beginning of the 1960s when Chandler published his results is that his axiom became the foundation for a new paradigm, the strategic planning or management paradigm and to an enormous industry of strategic consulting.
[73] The top innovation is the multidivisional structure, M-form.
[74] Primarily the product/market strategy.
[75] Ansoff, Igor H. (1965), Corporate Strategy, McGraw Hill Book Company, New York.
[76] Day, George S. and Wensley, Robin (1988) Assessing advantage: A framework for diagnosing competitive superiority, Journal of Marketing 52 (April), pp. 1-20.
[77] Schendel, Dan (1996) Editor's Introduction to the 1996 Summe Special Issue: Evolutionary Perspectives on Strategy, Strategic Management Journal, Vol. 17, pp. 1-4.
[78] Barney, Jay (1991) Firm Resources and Sustained Competitive Advantage, Journal of. Management 17(1), pp. 99-120.
[79] Buzzell, Robert, Gale, Bradley (1987) The PIMS Principle, The Free Press, New York.
[80] Peteraf, Margaret (1993) The cornerstones of competitive advantage: A resource-based view, Strategic Management Journal. 14 (March), pp. 179-191.
[81] Rumelt, Richard (1984) 'Towards a Strategic Theory of the Firm', in Lamb, R., (ed.) Competitive Strategic Management, Englewood Cliffs, Prentice-Hall.
[82] Reed, Richard and Robert DeFillippi J. (1990) Causal ambiguity, barriers to imitation and sustainable competitive advantage, Academy of Management Review 15 (January), pp. 88-102.

[83] Dierickx, Ingemar and Cool, Karel (1989) Asset Stock Accumulation and sustained competitive advantage, Mangement Science, vol. 35, pp. 1504-1511.
[84] Spender, J-C., "Making Knowledge the Basis of a Dynamic Theory of the Firm", Strategic Management Journal, Vol. 17 (Winter Special Issue), 1996, pp. 45-62.
[85] Lei, David, Hitt, Michael and Bettis, Richard (1996) Dynamic Core Competences through Meta-Learning and Strategic Context, Journal of Management, Vol. 22, No. 4, 1996, pp. 549-569.
[86] Nonaka, Iikujiro and Takeuchi, Hirotaka (1995) The Knowledge-creating Company, Oxford University Press, Oxford.
[87] Spender, J.-C. (1996) Marking Knowledge the Basis of a Dynamic Theory of the Firm, Journal of Strategic Management 17, p. 47.
[88] Hamel, Gary, and Prahalad, Coimbatore K. (1994) Competing for the Future, Harvard University Press, Cambridge.
[89] Hofer, Charles W. and Schendel, Dan (1978) Strategy Formulation. Analytical Concepts, West Publishing, New York.
[90] Ansoff, Igor (1979) Strategic Management, The Macmillan Press Ltd., London.
[91] Grant, Robert (1991) The resource-based theory of competitive advantage: Implications for strategy formulation, California Management Review 33 (Spring) pp. 114-135.
[92] Wernerfelt, Birger (1995) The resource-based view of the firm: Ten years after, Strategic Management Journal. 16 (March) pp. 171-174.
[93] Loasby, Brian J. (1998) How do we know? In: Boehm, Stephan, Frowen, Stephen F., Pheby, John (eds) Economics as the Art of Thought: Essays in Memory of G. L. S. Shackle, Rutledge, London.
[94] Boston Consulting Group (1970) Perspectives on Experience Curve, Boston Consulting Group, Inc., Boston.
[95] Taylor, Frederick (1911) The Principles of Scientific Management, New York: Harper Bros.
[96] The logic of experience-based competition was not actually imported from economics, but was instead developed within strategic management literature and, then, exported to economics (Rumelt, Schendel, and Teece, 1991, p. 12).
[97] A high market share means high experience and lower costs, implying high margins and profitability. It implies improved cash flows whereas a low market share implies the loss of cash and profits. Growth, therefore, indicates attractiveness.
[98] The notion of economies of speed is from Chandler, Alfred (1990) Scale and Scope. The Dynamics of Industrial Capitalism, The Belknap Press of Harvard University Press, Cambridge.
[99] In the 1970s, business schools began to look systematically at performance data. At Helsinki School of Economics, Professor Veikko Leivo motivated his students to study the performance linkages of business strategy. The story of the market-share effect provides a good illustration of this dynamic.
[100] A good summary: Buzzell, Robert D. and Gale, Bradley T. (1987) The PIMS Principles, The Free Press, New York.
[101] Since the 1970s, PIMS has been an important benchmarking method in Finland. Many of the Finnish international enterprises have used the PIMS database to learn the "principles" of profit contribution. I worked as an economist in the central association of technology industries in the late 1970s. In that time, companies like Nokia started to apply PIMS.
[102] Machlup, Fritz (1967). Theories of the Firm: Marginalist, Behavioral, Managerial, American Economic Review, 57(1), pp. 1-33.
[103] There are about 40 000 multionationals and they have about 250 000 subsidiaries all around the world. (Karliner, Joshua (1997) The Corporat Planet, Sierra Club Book, p.5)
[104] Adams, Walter and Brock, James (2004) The Bigness Complex, Industry, Labour and Government in the American Economy, Stanford University Press, California.
[105] Clifford, Don and Cavanagh, Dick (1985) The Winning Performance: How American's High Growth Mid-Sized Companies Succeed, Bantam Doubleday Dell Pub.

[106] Lubakin and Pitts (1985) 'The PIMS and the policy perspective: a rebuttal', Journal of Business Strategy, Summer, pp. 85–92.
[107] Exactly as Adam Smith, the father of economics, stated.
[108] Buzzell & Gale (1987)
[109] Levitt, Theodore (1983) The Globalization of Markets, Harvard Business Review, May-June.
[110] Perhaps, a more analytical conclusion is that the new IO (and strategic group doctrine) is still a relevant market theory for management and entrepreneurs (Ramos-Rodriquez, Antonio-Rafael and Ruiz-Navarro, Jose (2004) Changes in the Intellectual Structure of Strategic Management Research: A Bibliometric Study of the Strategic Management Journal, 1980-2000, Strategic Management Journal, Vol. 25, 981-1004, p. 1001).
[111] Porter, Michael (1973) Consumer Behavior, Retail Power, and Manufacturing Strategy in Consumer Goods Industries, dissertation (unpublished), Harvard University.
[112]Lahti, Arto (1985) Strategy and Performance of a Firm (Yrityksen strategia ja menestyksellisyys), Publications of Helsinki School of Economics, D:69, Helsinki.
Lahti, Arto (1986) Entrepreneurship an Economic Perspective, Publications of Helsinki School of Economics, D-Helsinki
Lahti, Arto (1986) The Success of SMEs in the Open Industries (Pienyritysten menestyminen kilpailussa avoimilla toimialoilla), Publications of Helsinki School of Economics, D:76, Helsinki.
Lahti, Arto (1986) Strategic Groups as a Part of Corporate Strategic Planning. An Empirical Investigation in the OKO Banking Group (Strateginen ryhmä konsernistrategian osana. Empiirinen tutkimus osuuspankkijärjestöstä), unpublished, Helsinki.
Lahti, Arto (1987) Strategic Marketing (Strateginen markkinointi), Arto Lahti, Helsinki.
Lahti, Arto (1988) Strategic Corporate Analysis (Strateginen yritysanalyysi), Weilin&Göös, Espoo.
Lahti, Arto (1991) The Competitive Position of Nordic Furniture Industry (Pohjoismaisen huonekaluteollisuuden kilpailuasetelma), Publications of Helsinki School of Economics, F:289, Helsinki.
Lahti, Arto (1992) Marketing As a Competitive Advantage (Markkinointi kilpailuetuna), International Networking Publishing INP Oy, Keuruuprint Oy, Keuruu.
Lahti, Arto (1998) Marketing Analysis (Markkinointianalyysikirja), Board Advisor Service B.A.S. Oy, Helsinki.
Lahti, Arto (2000) Creative Entrepreneurship and New Economy: the Challenge of the Nordic IT Cluster, Publications of Helsinki School of Economics,W:248, Helsinki.
Lahti, Arto (2002) The Modern Micro Economics and Innovative Growth Companies: Schumpeterism is still up-to-date (Moderni taloustiede ja innovatiiviset kasvuyritykset: schumpeterismi on edelleen ajankohtainen, Keuruun laatupaino Oy, Keuruu.
Lahti, Arto (2005) The New Industrial Organization (IO) Economics of Growth Firms in Small Open Countries like Finland, Publications of Helsinki School of Economics, Helsinki
[113] Reger, Rhonda K. and Huff, Anne (1993) Strategic groups: a cognitive perspective. Strategic Management Journal, 14, pp. 103-124.
[114] Lawless, Michael, Bergh, Donald & Wilsted, William (1989) Performance variations among strategic group members: an examination of individual firm capability, Journal of Management, 15, pp. 649-661.
[115] There are about 300 case analyses of growth firms, from Nordic countries, Italy, Benelux-countries, Estland, Italy, Spain, France and Scotland.
[116] Lintunen, Liisa (2000) Who is the winner entrepreneur, is a fascinating epistemological analysis of that.
[117] Fiegenbaum and Thomas develop a new approach by arguing that strategic groups are used as reference groups when firms formulate their future competitive strategy. Their major argument is that an industrial group's structure describes the competitors' strategies and capabilities and enables competitors to define and direct their future moves towards a better position within the industry. (Fiegenbaum, Avi and Thomas, Howard (1995). Strategic groups as reference groups: Theory, modeling and an empirical examination of industry and competitive strategy. Strategic Management Journal, 16. pp. 461–476).

[118] Killström, Pekka (2005) Strategic Groups and Performance of a Firm. Towards a New Competitive Environment in the Finnish telecommunication industry), (dissertation), Helsinki School of Economics, A-248, Helsinki
[119] Luostarinen, Reijo (1979) Internationalization of the firm. An empirical study of the internationalization of the firm with small and open domestic markets with special emphasis on lateral rigidity as a behavioral characteristics in strategic decision making (dissertation), Helsinki School of Economics, A-30, Helsinki.
[120] Peters, Thomas (1990) Thriving on Chaos, Harper & Row, New York.
[121] The theoretical underpinning is the famous hypothesis of Alfred Marshall and Edith Penrose that the limit of management's learning capacity has much to do with the firms' ability to grow. (Penrose, Edith (1959) The Theory of the Growth of the Firm, Oxford, Oxford University Press).
[122] McGee, John, and Thomas, Howard (1986) 'Strategic Groups: Theory Research and Taxonomy', Strategic Management Journal, Vol. 7, pp. 141-160.
[123] Lahti, Arto (1983) Strategy and Performance of a Firm. An Empirical Investigation in the Knitwear Industry in Finland 1969-1981 (dissertation), Helsinki School of Economics, A-41, Helsinki.
[124] European Economic Community
[125] European Free Trade Association
[126] Prahalad, Coimbatore K. and Bettis, Richard. P. (1991) The Dominant Logic: A New Linkage between Diversity and Performance, Strategic Management Journal, Vol. 7, pp. 485-501.
[127] Lahti, Arto (1983) Strategy and Performance of a Firm. An Empirical Investigation in the Knitwear Industry in Finland 1969-1981 (dissertation), Helsinki School of Economics, A-41, Helsinki.
[128] Pitt, M. and Thomas Howard (1994) Industry Groups and Strategic Management: A Reappraisal of Strategic Group Concepts and Research Methodologies in Daems, Herman and Thomas, Howard (eds.) Strategic Groups, Strategic Moves and Performance, Pergamon, p. 93.
[129] Kumar, Nagesh (1990): "Mobility barriers and profitability of multinational and local enterprises in Indian manufacturing", Journal of Industrial Economics, 38: 4, pp. 449-463.
[130] Fiegenbaum, Avi, Sudharshan, D., and Thomas, Howard (1990): "Strategic time periods and strategic groups research: Concepts and an empirical example", Journal of Management Studies, 27: 2, pp. 133-148.
[131] Vikkula, Kaisa (1993): Strategic Choice and Performance in the Securities Intermediation Industry: An Empirical Analysis of Strategic Groups in Scandinavia, The Helsinki School of Economics, Helsinki.
[132] Salimäki, Markku (2003) Suomalaisen design-teollisuuden kansainvälinen kilpailukyky ja kansainvälistyminen (International competitiveness and competitive advantage of the Finnish design-industry), (dissertation), Helsinki School of Economics, A-220 , Helsinki.
[133] Thomas, Howard & Venkatraman, N. (1988) Research on strategic groups: progress and prognosis, Journal of Management Studies, November, pp. 537 - 555.
[134] Abell, Derek E. (1980) Defining the Business: The Starting Point of Strategic Planning, Prentice-Hall, Inc., Englewood Cliffs, New Jersey.
[135] Killström, Pekka (2005) Strategic Groups and Performance of a Firm. Towards a New Competitive Environment in the Finnish telecommunication industry), (dissertation), Helsinki School of Economics, A-248, Helsinki
[136] Peteraf, Margaret & Shanley, Mark (1997) Getting to know you: a theory of strategic group identity, Strategic Management Journal, 18 (Summer Special Issue), pp. 165-186.
[137] Peteraf, Margaret (1993): "The cornerstones of competitive advantage: A resource-based view", Strategic Management Journal, 14: 3, pp. 179-191.
[138] While mobility barriers can explain some of the sustainable performance differences among strategic groups and, among firms of different groups, performance differences exist among firms holding identical strategic positions within an industry (Carroll, C., Pandian, J. R. M., and Thomas, H. (1994): "Assessing the height of mobility barriers: A methodology and an empirical test in the U.K. retail grocery industry", British Journal of Management, 5: 1, pp. 1-18).
[139] Thomas, Howard & Venkatraman, N. (1988) Research on strategic groups: progress and prognosis, Journal of Management Studies, November, pp. 537 - 555.

[140] Karlöf, Bengt & Östblom, Svante 1993) Benchmarking, a Singpost to Excellence in Quality and Productivity, John Wiley & Sons Inc., New York, pp. 81-85.
[141] Vaziri, Kevin (1992) Questions to answer before benchmarking, Quality Process, Vol. 25, 1992, 81-85.
[142] Andersen, Bjorn and Pettersen, Per-Gaute (1996) The Benchmaking Handbook, Chapman & Hall, London.
[143] Bramham, John (1977) Benchmarking for People Managers, Institute of Personnel and Development, London.
[144] Bambergen, P., Fiegenbaum, Ali (1996) The role of strategic reference points in explaining the nature and consequences of human resource strategy, Academy of Management Review, Vol. 21, No:4, 1996, pp. 926-958.
[145] Kaplan, Robert and Norton, Davdid (1992) The Balanced Scorecard – Measures that Drive Performance, Harvard Business Review, Vol. 70, No. 1.
Kaplan, Robert and Norton, David (1993) Putting the Balanced Scorecard to Work, Harvard Business Review, Vol. 71, No. 6, 1993.
[146] Little, John (1970) Models and Managers: The Concept of a Decision Calculus, Management Science, Vol. 16 (April).
Little, John (1986) Research Opportunities in the Decision and Management Sciences, Management Science, Vol. 32 (January) 1986.
[147] Walden, Pirkko (1992) Expert Systems in Strategic Market Management, (dissertation), Åbo Academy Press, Turku.
[148] Hofer, Charles W. and Schendel, Dan (1978) Strategy Formulation. Analytical Concepts, West Publishing, New York.
[149] According to Michael Jensen, the modern financial theories are uaseful to valuate future prospects or real options of innovative firms (Jensen, Michael. (1992) The Modern Industrial Revolution, Exit, and Failure of Internal Control Systems, Journal of Finance).
[150] The price to earnings rate (P/E) is simply the reciprocal of the market capitalization rate and, the P/E of a firm with substantial market opportunities will be at a premium to the base P/E.
[151] Bartels, Robert (1988) The History of Marketing Thought, Columbus, Publishing Horizons.
[152] Oliver, Christine (1997) Sustainable competitive advantage: Combining institutional and resource-based views, Strategic Management Journal, 18 (October), pp. 697-713.
[153] Richard Caves's student, Michael Porter, has been famous of his books, see: Porter, Michael (1980) Competitive Strategy, Macmillan, Free Press, New York.Porter, Michael (1985) Competitive Advantages, Macmillan, Free Press, New York.
[154] Williamson, Oliver (1985) The Economic Organization. Firms, market and policy control, Wheatsheaf Books.
Williamson, Oliver (1987) The Economic Institutions of Capitalism. Firms, market and Rational Contracting, Free Press, New York.
Williamson, Oliver (1991) 'Strategizing, Economizing, and Economic Organization', Strategic management journal, Vol. 12, pp. 75-94.
[155] Day, George S. (1990) Market-Driven Strategy: Processes for Creating Value. New York: Free Press.
[156] Aaker, David (1988) Strategic market management (2nd ed.). New York: John Wiley. & Sons
[157] Henderson, Rebecca & Will, Mitchell (1997) The interactions of organisational and competitive influences on strategy and performance, Strategic Management Journal 18 (Summer Special Issue) pp. 5-14.
[158] Drucker, Peter (1954). The Principles of Management. New York, NY HarperCollins Publishers
[159] Levitt, Theodor (1975) Marketing Myopia, Harvard Business Review, October-November.
Levitt, Theodor (1986) Marketing Imagination, Macmillan, Free Press, New York.
[160] Dunning, John (1993) The Globalization of Business, London: Routledge
[161] Alfred Sloan in the GM was one of the first managers that utilized Chamberlin's product differentiation model positioning GM's five car brands in five price categories. (Sloan, Alfred (1963) My Work With General Motors, Doubleday, New York).
[162] Day, George (1992) Marketing's contribution to the strategy dialogue, Journal of the Academy of Marketing Science 10 (May) pp. 323-329.

Day, George (1994) The capabilities of market-driven organizations, Journal of Marketing. 58 (October) pp. 37-52.

[163] The paradox is, however, that many studies of growth firms take Porter's matrix of generic strategies as a relevant analysis of entrepreneurial environment in terms of Schumpeter.

[164] Rumelt, Richard (1984) "Towards a Strategic Theory of the Firm", in Lamb, R., (ed.) Competitive Strategic Management, Englewood Cliffs, Prentice-Hall, New York.

[165] Barney cites the effects of a unique history, causal ambiguity, and social complexity as also contributing to non-imitability. (Barney, Jay, Firm Resources and Sustained Competitive Advantage, Journal of Management, Vol. 17, 1991, pp. 99-120).

[166] Schumpeter's notion of temporary monopoly profits is the common challenge