

Part I: Fundamentals of niche research

The following part of the thesis is divided into two theme blocks. The first part of the chapter will focus on highlighting the historical development of niches (chapter I.1). This will play an important role in determining the sequence of events which have led to the current research situation. It will offer an explanation of why and how the niche concept made its way from its roots in ecology to social sciences and finally it will explain its use in organizational and management studies, thereby emphasizing the progression of knowledge and the different perspectives that have changed in regards to research in niche studies.

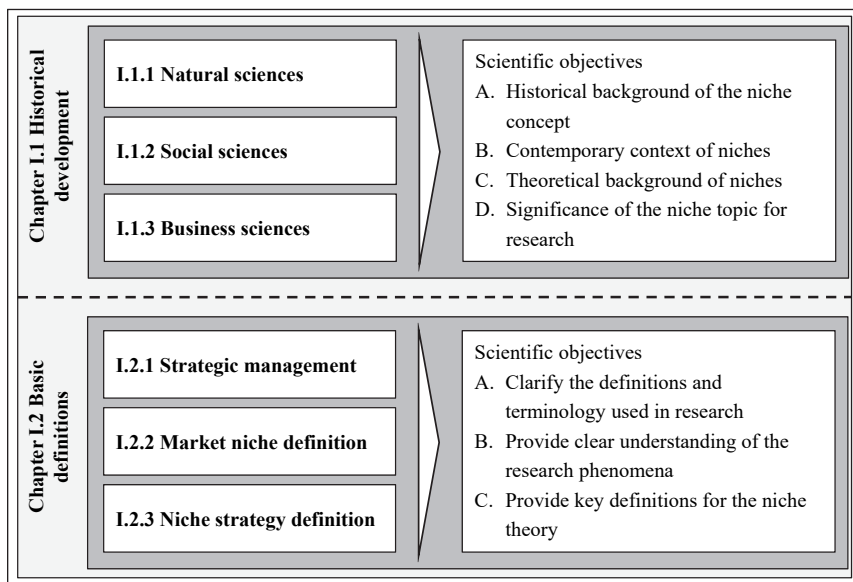


Figure I-1: Structure of Part I

The second part of the chapter (chapter I.2) will focus on clarifying the basic definitions, which will provide the groundwork for the strategic niche management model. As niche studies begin to mature in management sciences, more specifically in strategic management, we are usually left with more questions than answers regarding the different interpretations of the niche. Therefore, the aim is to provide a clear understanding when referring to niches and to explain the different meanings

and applications of the niche in organizational and management sciences. The second chapter will end the first part with key definitions of the market niche for strategic management.

I.1 Historical development of niches in sciences

The objective of the first chapter is to shed some light on the historical development of the niche concept in sciences. After defining the goals, the approach and method for the review of the existing body of knowledge on the niche subject,²⁸ the chapter will be divided into three subchapters. The first one will focus on the origins of niches in natural sciences (Subchapter I.1.1), the second subchapter will deal with the cross over into social sciences (Subchapter I.1.2) and finally the last subchapter will deal with niches in organizational and management studies (Subchapter I.1.3).

Besides specialized literature in its own field organizational and management research makes use of a wide body of literature. As the analogies and metaphors from other academic fields are often used to explain a specific phenomena, there is a necessity for an excursion into other disciplines such as biology and social sciences in order to comprehend the niche concept.²⁹ This will provide a summary, comparison and contrast of the research from the key authors of key ideas and themes.³⁰ These key ideas and themes from the literature reviewed will be joined into a coherent and cohesive argument, which sets in context and justifies the research on the topic of niches in strategic management.³¹ This leads to the objectives

²⁸ The aim of the literature review is to map and assess the existing intellectual territory in niche studies. Cf. Tranfield et al. (2003), p. 208. The definition of the literature review depends on the emphasis put on its role and purpose in the research objective. Ridley (2008), p. 3. For the purpose of this thesis the literature review will be defined as “The selection of available documents (both published and unpublished) on the topic, which contain information, ideas, data and evidence written from a particular standpoint to fulfill certain aims or express certain views on the nature of the topic and how it is to be investigated, and the effective evaluation of these documents in relation to the research being proposed.” (Hart (2007a), p.13).

²⁹ Cf. Saunders et al. (2007), p. 57; Mingers (2000), p. 219.

³⁰ Cf. Saunders et al. (2007), p. 61.

³¹ Cf. Ridley (2008), p. 2. These arguments will also include four aspects of being critical within the context of the literature review (critique of rhetoric, critique of tradition, critique of authority and critique of objectivity). Mingers (2000), p. 225; Saunders et al. (2007), p. 58; Hart (2007a); 176.

of this chapter that will assist by enlightening the current state of knowledge in niche studies:

- *provide a historical background of the niche concept,*
- *fit the niche concept into a contemporary context of organizational and management research,*
- *provide a theoretical framework for the niche concept in sciences, and*
- *provide the significance of the niche concept for the topic at hand.*

These ideas and themes from each of the three scientific disciplines relevant for research on niches are structured according to the system of science (see Figure I-2). The first chapter will follow the chronological structure of development of niches in sciences starting with natural sciences, followed by social sciences and finally in business sciences.

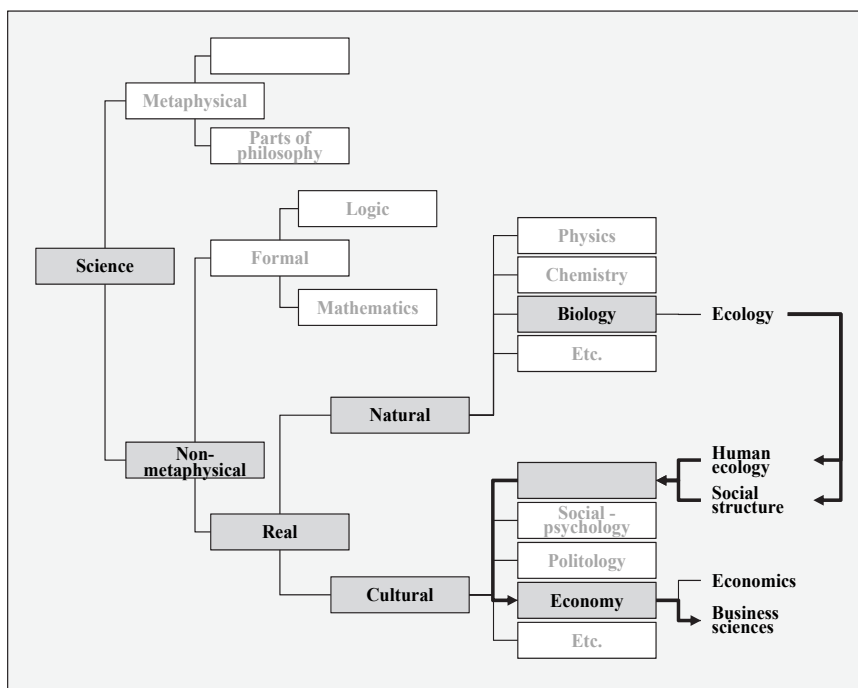


Figure I-2: Niches in the system of science.

(Source: own interpretation after Raffée (1993), p. 23; Zelewski (1994), p. 6)

The comparison of the three scientific fields will show key authors, literature, theories or schools of thought which had a major influence on the development of the field. It will also create links between the different scientific fields as the research from natural sciences strongly influenced the development of niches in social and organizational and management sciences.

The research literature process included both primary and secondary sources.³² These were mainly comprised of books (textbooks and academic monographs), journals (mainly peer-reviewed and also some non-peer-reviewed) and the World Wide Web. The literature was primarily sorted on the basis of relevance to the subject and secondarily on relevance inside the field based on the number of citations.

I.1.1 The origins of niches in natural sciences

The etymological origin of the word niche can be traced back to the Old French language where the word was *nicher*; meaning to make a nest.³³ Nowadays, the word niche has different meanings, ranging from a recess in a wall for holding a statue or urn, to a person's situation that suits their abilities to more of a business application, where it focuses on a specialized area of demand for a product or service.³⁴ However, the focus of the niche in the following three sub-paragraphs will be on its meaning and application in ecology. Before full attention can be turned to this topic, there will first be a short placement of ecology into the scope of sciences, first of all in natural sciences and afterwards into biology.

The origins of niches can be traced back to natural sciences. The idea of natural sciences is tied to the naturalistic approach of studying the universe, which is characterized by following the rules or laws of natural origin. A second application of natural sciences is tied to the use of the scientific method. Fields of science apply the use of a scientific method to study human behavior and society. This separates

³² Whereby primary sources are defined as the literature produced by authors who originally conducted the research on a particular topic or formulated the theory contained in the literature. Secondary sources are, literature where the author was not a direct observer or participant in the creation of the original concept or idea being described. Cf. Gall et al. (2003), p. 92; Bryant (2004), p. 69.

³³ Coming from the Latin word *nidus*, nest. Cf. Hoad (1993), p. 312.

³⁴ Cf. N.U. (2000a).

natural sciences from other disciplines such as mathematics and logic, which apply a different methodology.³⁵

Biology is a branch of the natural sciences on the study of life, which studies living organisms and how they interact with each other and their environment.³⁶ Biology as a whole, which is a vast field, examines the structure, function, growth, origin, evolution, and distribution of living things both past and present. It classifies and describes the various forms of organisms, how organisms function, how species come into existence and the interactions they have with each other and with the natural environment.³⁷ To be able to study these relationships, biology uses the scientific method to gain data about the world, by developing potential answers to questions which are then tested to determine the validity of the proposed solutions. Biological sciences can generally be summoned into three main core components; the study of plants called botany, the study of animals called zoology and the study of microorganisms called microbiology. These three disciplines can be broken down even further based on the level of detail used to study these organisms and the different methods applied to study them. The detailed fields are; biochemistry, cellular biology, physiology and ecology.³⁸

As mentioned above, ecology presents a sub branch of biology and is the scientific study that studies the relationship between organisms and their environments.³⁹ The term ecology or Ökologie was first used by the German biologist Ernst Haeckel in 1866 when he defined it as the science of relationships of the organism to the surrounding outer world (Haeckel (1866), p. 286). A very important word in the definition above is the word environment and its meaning in the ecological sense.

³⁵ Cf. Hardy (1992), p. 120f; Knight (2004), p. 4ff.

³⁶ The word biology comes from the Greek language, bio meaning life and logos meaning knowledge. There is some controversy in the scientific community regarding the definition of life, for the following definition of biology, life will be defined as: "An organized genetic unit capable of metabolism, reproduction, and evolution." (Purves (2004), p. 2). Cf. Enger et al. (2009), p. 21.

³⁷ Cf. Campbell et al. (2006), p. 2f.

³⁸ The main building blocks of the scientific method can be summarized into four core components: 1) accurate and diligent observation, 2) formation and testing of hypothesis, 3) candidness for new information and ideas, and 4) being able to submit own ideas to the assessment of others. These components are interlinked and do not necessarily have to be followed in this particular order. Cf. Enger et al. (2009), p. 3.

³⁹ The term ecology has its etymological origins in the Greek language from *oikos*, meaning the family household and *logy*, meaning the study of. Cf. Smith/Smith (2006), p. 3. Enger et al. (2009), p. 312; Friederichs (1958), p. 154; Balgooyen (Nov., 1973), p. 1200.

It is important to understand that the environment is not only comprised of the physical conditions but also from the living factors that surround the organism.⁴⁰ The living factors that affect an organism are called biotic, and the nonliving factors are called abiotic.⁴¹ These biotic and abiotic conditions affecting the organism can be analyzed on different levels; individual, population, community and ecosystem. The individual level looks at singular organisms and analyzes their interactions with their area of living while population is a group of individuals of the same species that occupy a certain area⁴² and the community is the mutual coexistence of different species living and interacting within an ecosystem, which is made up of all interacting communities in an area and their interactions with their abiotic environment.⁴³

After this short introduction, the role of ecology in sciences can be grasped better which is important for understanding the primary role of the niche and also for the spillover from ecology to social sciences. In the following three points, there will firstly be an analysis of the *(1) primary use and the meaning of the word niche*, which will be followed by the *(2) formalization, enhancements and the decline of the niche concept*, and concluded by the *(3) reformulation of the niche concept*, before moving on to social sciences.

(1) Primary use and meaning of the niche

The first point will explore the introduction of the term niche into sciences. Main attention will be put on the pioneers who coined the expression in biology and how the niche was understood, applied and what were some of the critiques of niches. Besides the explanation of why the niche was first use its importance for further research will be elaborated as well.

The concept of the niche was first introduced in 1917 in a paper by Joseph Grinnell,⁴⁴ who was a field biologist and zoologist and is also credited with the

⁴⁰ Cf. Smith/Smith (2006), p. 3.

⁴¹ Cf. Enger et al. (2009), p. 312. Under the term abiotic there can be factors such as water, light, temperature, wind and others, and biotic factors include all other living organisms, that inhabit the same area as the species. Purves (2004), p. 1025.

⁴² The relationships between populations may differ as some populations compete for the same scarce resources or one population may be the food source of the other. Cf. Smith/Smith (2006), p. 5.

⁴³ Cf. Smith/Smith (2006), p. 5; Enger et al. (2009), p. 313.

⁴⁴ „These various circumstances, (...) go to demonstrate the nature of the ultimate associational niche occupied by the California Thrasher.” (Grinnell (1917b), p. 433). The

introduction of the ecological niche. He used the word niche to describe an animal's geographical position and factors which limit its range on the example of the California Thrasher (see appendix A-1).⁴⁵ Although he never mentioned the niche explicitly, Grinnell began to develop the idea of the niche in a much earlier paper, where he researched the food habits and limitation of food supply of animals.⁴⁶ His efforts came full circle in 1928 when he defined the ecological niche as:

“(...) the concept of the ultimate distributional unit, within which each species is held by its structural and instinctive limitation, these being subject to only slow modification down through time.” (Grinnell (1928), p. 435).

The first part of the definition, where the niche is mentioned as the ultimate distributional unit applies the niche as a habitat concept in which the niche takes the role of a structural item or the foundation of the ecological community. The second part describes the particularly uniqueness of the niche. This was already pointing to a principle that would later become known as the competitive exclusion principle and its role as a unit of geographical distribution.⁴⁷ The work of Grinnell was important for the further development of the field in two ways. Firstly, it was the distributional nature of the niche, which he used to explain the distribution of species over a geographical area. Secondly, he used the distribution of species under

use of the word niche by Grinnell is probably due to the fact, that at the time, he was studying the bird populations in California and where they reside. The word niche was used in its original etymological context meaning to nest, as where the bird population in question nested.

⁴⁵ Cf. Grinnell (1917b), p. 433.

⁴⁶ He argued that no two species with similar food habits can remain evenly balanced in the same region. The species which is better suited for the local conditions would survive at the expense of the less fitted rival. Cf. Grinnell (1904), p. 375ff.

⁴⁷ Cf. Patten (1980), p. 157. „No two species in the same general territory can occupy for long identically the same ecological niche. If, by chance, the vagaries of distributional movement result in introducing into a new territory the ecological homologue of a species already endemic in that territory, competitive displacement of one of the species by the other is bound to take place. Perfect balance is inconceivable.” (Grinnell (1928), p. 436).

the *ceteris paribus* assumption; which is the absence of interaction with other species.⁴⁸ His work has pioneered the field of the ecological niche, with the pre-interactive conception of the niche as the position of a species in an environment in which it can thrive as opposed to the environment in which it actually resides.⁴⁹

Charles Elton was an English zoologist and animal ecologist and the so called founder of the “Eltonian” niche in ecology. His main contributions to the ecological niche was in 1927 and *Animal Ecology*,⁵⁰ where he defined the niche as the term that describes the status of an animal in the community not only to describe what an animal does but also what it looks like. He complemented this definition with two additional explanations; firstly; where he describes the niche of an animal as its place in the biotic environment, and its relation to food and enemies, and secondly; that an animal’s size and its food habits can widely be defined by its niche⁵¹. Elton focused on the niche as a function of a species; he defines this function through the species relation to the ecological community. He saw the niche as an organizational structure system in which the niche is a unit of a structure that can be applied in various systems and the niche represents a distributional concept as well.⁵² This was a big step forward in comparison to Grinnell; Elton defined the niche as a post-interactive concept, where he argued that the niche of an animal is the environment in which it actually resides.⁵³

An important finding for the further development of the ecological niche was the competitive exclusion principle better known as the Gause principle, which is one of the main concepts in population ecology. The principle was first developed

⁴⁸ Grinnell argued that (1) each animal occupies a given area, that includes a habitat or a range, which can be used to describe its characteristics, along with its food habits and physical features, (2) species differ in the area that they cover, ranging from species, that cover great areas of a habitat, to species that are local or limited in their distribution, (3) many species can be located within the borders of the range of their habitat. Cf. Grinnell (1917a), p. 115.

⁴⁹ Cf. Vandermeer (1972), p. 107.

⁵⁰ Besides the definition ecological niche, he also made important strides for animal community regarding food chains and the food cycle, the size of food and the pyramid of numbers. Cf. Hardy (1968), p. 4; Macfadyen (1992), p. 501.

⁵¹ Cf. Elton (2001), p. 63f.

⁵² Cf. Patten (1980), p. 157.

⁵³ Elton also argued that the animal selects its own environment in contrast to the prior popular theory of the natural selection of the animal by the environment. This meant that the chances of an animal finding an appropriate niche, in which it can reside, increased dramatically.

by Italian mathematical biologist Vito Volterra.⁵⁴ Although Volterra first developed the concept, it was Gause who extended the concept from two species competing for the same ecological niche to a number of species competing for more ecological niches.⁵⁵ As a result of this competition all but one species competing in the same ecological niche will perish.⁵⁶ This concept achieved maturity with Hardin's 1960 definition of the competitive exclusion principle, where he said that no two populations that occupy exactly the same ecological niche and thereby also inhabit the same geographic area, and if population A reproduces even slightly faster than population B, then population A will completely displace population B and B will become extinct.⁵⁷ Since its introduction the competitive exclusion principle has been subject to criticism from other authors, who conducted a number of field studies to prove the violation of this theory.⁵⁸ This has led to a number of limiting assumptions for the competitive exclusion principle.⁵⁹

Despite the criticism, the competitive exclusion principle is still one most important and studied laws of nature. This theorem also had two significant implications for the future development of niches. Firstly, as already mentioned in the introduction section of this chapter, many species live together in communities and their survival in the community depends on the type of niche they occupy or how their niche differs from the niche of other populations. Meaning that the survival of

⁵⁴ Volterra used mathematical models to prove that two species which require the finite food resource for their survival, cannot coexist, consequently meaning that one of the species will be eliminated. Cf. Volterra (1926), p. 558f; Volterra (1928), p. 7ff.

⁵⁵ Cf. Rescigno/Richardson (1965), p. 85.

⁵⁶ "It is admitted that as a result of competition two similar species scarcely ever occupy similar niches, but displace each other in such a manner that each takes possession of certain peculiar kinds of food and models of life in which it has an advantage over its competitor." (Gause (2003), p. 19).

⁵⁷ Hardin also made some additional assumptions to the exclusion principle, to increase the validity. Firstly, the two populations in question cannot be interbreeding. Secondly, the ecological niche defined in the principle had the same understanding as Elton's niche. And finally, that there is a distinction of a weak and strong form of the principle, based on inclusion or exclusion of the last condition of population reproduction. The weak form includes this condition, and the strong form does not, because of the axiom of inequality, which states that no two things are completely equal. Cf. Hardin (1960) p. 1292.

⁵⁸ These efforts have been mainly focused on finding examples of species where the Gause principle does not apply. Cf. Ayala (1969), p. 1078.

⁵⁹ These assumptions include: resource seasonality along with immigration, environmental fluctuations, density-dependent competitive abilities, errors of exploitation and habitat patchiness. Cf. Fahrig (1988), p. 130.

the species in a community depends on the type of resource it uses the place and time when it performs its activities in the community, how it interacts with other species, or how the population of the species is controlled within the community. Secondly, the niche difference described above enables the coexistence of species in communities through the evolution of species diversity.⁶⁰

From its earliest use the niche was associated with two things, which would also be key for its development in business sciences. Firstly, the niche was seen as a geographical area in which animals can survive and thrive. Secondly, through the competitive exclusion principle, the niche was also brought in association with competition. After clarifying the origins of niches and its primary meaning the next point will look into how the niche concept was formalized and expanded.

(2) Formalization, enhancements and the decline of the niche concept

Based on the pioneering work done by the authors who brought the niche concept on the map in biology, this point will focus on how the niche was firmly established in natural sciences. Besides the formalization main critique points which led to a decline in niche research will also be examined.

It was not until a couple of decades later that the niche concept reached maturity, when Evelyn Hutchinson developed the formalization of the ecological niche as a hyperspace, a concept that sparked a revolution in niche theory and in the field of ecology.⁶¹ Hutchinson defined the niche as:

“The term niche (...) is here defined as the sum of all environmental factors acting on the organism; the niche thus defined is a region of an n-dimensional hyper-space, comparable to the phase-space of statistical mechanics.” (Hutchinson (1944), p. 20).

The basis for his niche theory was the idea of using hyperspace as a geometric technique to demonstrate data from the environment.⁶² He upgraded the previous research of Grinnell and Elton, by not only measuring the geographical position of a species, but also different environmental variables such as temperature, salinity,

⁶⁰ Cf. Whittaker/Levin (1975), p. 3.

⁶¹ His definition was leaning on the niche understanding as defined by Gause as opposed to the generally accepted understanding of the niche by Elton. Cf. Hutchinson (1944), p. 20.

⁶² The main advantage with the application of geometric objects for determining ecological niches, is the use of various mathematical concepts, such as set theory and bases that span a space among others. Cf. Haefner (1980), p. 125.

and predator concentrations among others. By assigning these variables to different axes, and plotting the data on these axes, he was able to create a multi-dimensional hyperspace.⁶³ Although this approach was very interesting from a mathematical point of view it did not add much value to the scientific concept of the niche except for the presentation of the data. This definition was further developed in 1957, where Hutchinson introduced the concept of the fundamental and the realized niche. He proved that the conditions in which species could viably live are often greater than those where the organism actually lives. This situation is typically the consequence of interactions with other living organisms.⁶⁴ Thus the fundamental niche can be defined as all aspects of the n-dimensional hyper-volume in the absence of other species in which an organism can exist. The realized niche on the other hand is the part of the fundamental niche to which the species was restricted due to interspecific interactions with other species.⁶⁵ This definition was an important step towards understanding the complexity of the niche. Hutchinson's niche solved the long lasting problem of the three different approaches to niches in ecology; the niche as morphological features (life form) of a species, the niche as the activities and responses (behavior) of a species and the niche as an operational environment (habitat) of a species.⁶⁶ It was now possible to map all three approaches in the multidimensional hyperspace.

As Haefner later pointed out several deficiencies with the geometric method were used by Hutchinson for the definition of the niche. He first argues that the niche has not reached its functional peak in ecology because it is still not free of conceptual and formal deficiencies. The second one was the failure to recognize the

⁶³ Cf. Popielarz (2007), p. 67; Hardesty (1975), p. 71; Silvert (1994). These axes represent the various biotic and abiotic factors in a community, which produce different responses from the populations of the community. Colwell/Fuentes (1975), p. 283.

⁶⁴ Cf. Vandermeer (1972), p. 109; Rejmánek/Jeník (1975), p. 104; Alley (1982), p. 165; Colwell/Fuentes (1975), p. 284.

⁶⁵ Cf. Hutchinson (1957), p. 416ff. To develop the theory Hutchinson used four limiting factors: 1. It is assumed that all points in each fundamental niche show equal chance of organism survival, and the points outside this fundamental niche zero chance for organism survival, 2. It is assumed, that it is possible to linearly order all environmental variables, 3. The model is set to a single point in time, 4. Only some species are to be researched at once, as their inclusion makes little difference to the entire community. Hutchinson (1957), p. 417. The definition of the fundamental and realized niche was later complemented by Vandermeer. Vandermeer (1972), p. 110f.

⁶⁶ According to these new facts, Rejmanek provided a new definition of the niche: "(...) as the total of relationships between a living organism (population, species) and its complete environment, both biotic and abiotic." (Rejmánek/Jeník (1975), p. 104).

importance of the life cycle of the organism. The next deficiency was the previously absent aspect of the appearance of species in the geometric metaphor, which is in contention with the observable characteristics of the niche. The majority of niche definitions apply to several ecological levels such as individuals, populations, species and ecosystems. On the other hand, Hutchinson held firmly to the definition of the niche as a characteristic of a species. Finally, Haefner argued that the multidimensional hyperspace can stay manageable and easily manipulated for up to four axes dimensions and renders it useless for more dimensions.⁶⁷

Despite this criticism, Hutchinson's niche remained the main concept, as this formalization enabled the first measurements of the niche. Following the work of Hutchinson, a group of authors led by Levins, MacArthur, Pianka, Roughgarden and Colwell studied the aspect of competition as it was becoming the main lever that was driving ecology. They designed a group of theoretical models that investigated how many and how similar species could exist within a given community. The focus was on measuring niche breadth, niche partitioning, niche overlap and niche assembly.⁶⁸ Levins defined the niche as a fitness measure in an environment space, with the measures of niche breadth, dimension, overlap, and community diversity, which are the adequate determinants for the niche and community.⁶⁹ Afterwards, Levins and Colwell made niche measurements in nature so that vigorous activity in the field of the ecological niche theory was created.

This period was followed by the decline of the niche concept in ecology. The three major critique points were:

- that competition is not necessarily the driving force in ecology,
- that the niche theory lacks an adequate null hypothesis and statistical rigor and
- that the use of the term niche was not consistent and ambiguous.

⁶⁷ Cf. Haefner (1980), p. 126ff.

⁶⁸ Niche breadth is the variety of resources or habitats used by a species, niche partitioning is the degree of differential resource use by coexisting species, niche overlap represents the mutual resource use by different species and niche assembly is the colonization and organization of species in new or abandoned habitats. Cf. Pianka (2000), p. 279f.

⁶⁹ Levins also developed a set of questions, which the niche theory has to answer and these questions regarded the following subjects: degree of specialization, determinants of species diversity, species coexistence, environmental division of species, and the species effects on evolution of other species within a community. Cf. Levins (1968), p. 39f.

The first point of the critique was developed by Simberloff and Wilson researching the colonization of island populations, where they said that the extinction of a species was not the result of interaction with other species but rather the inability to colonize the environment under any conditions.⁷⁰ They argued further that the competition for limited resources does not affect the immigration rates of populations, which is contrary to prior belief that higher immigration could only be balanced by a higher extinction rate with the equilibrium of the species remaining unchanged.⁷¹ The second critique point in which Connor and Simberloff argue that the use of biographic data to show intraspecific competition on islands, fails to provide and test a null hypothesis and that the test of the null hypothesis for several species living on the mainland and islands provides no cause for the rejection of the null hypothesis.⁷² The third critique point addresses the use of the term niche and its consistency, as it can be used from three different viewpoints, depending on the focus of research. The first view is from the living environment of the organism, the second is from morphological attributes of the organism and the third viewpoint is from the external activities performed by the organism.⁷³

The result of this critique led to the emergence of the so called *unified neutral theory of biodiversity and biogeography*,⁷⁴ which was pioneered by American ecologist Stephen Hubbel. The aim of this theory is to explain the diversity and relative abundance of species in ecological communities, although like other neutral theories of ecology, Hubbell's theory assumes that the differences between members of an ecological community of tropically similar species are "neutral," or irrelevant to

⁷⁰ Cf. Simberloff/Wilson (1969), p. 289. "(...) species equilibria reached before the extinction rates could be greatly influenced by interspecific interactions such as predation and competition (...)" (Simberloff/Wilson (1970), p. 934).

⁷¹ Cf. Simberloff (1974), p. 173; Johnson/Hubbell (1975), p. 1389; Hubbell/Johnson (1977), p. 949.

⁷² Cf. Connor/Simberloff (1979), p. 1138. This critique was an answer to the assumption made by Diamond in 1975, where he assumed that competition was the primary cause of species interactions and later looked to rationalize the data based on this assumption. Cody (1979), p. 342f.

⁷³ Cf. Rejmánek/Jeník (1975), p. 101.

⁷⁴ Neutrality in this context can be defined as the distinction in the characteristics of species and does not influence the possibilities of a species being present or absent in a given community, it also does not influence the changes in the total number of given species. The neutral theory is a set of mathematical theories that formalize the hypothesis of neutrality, hereby triggering the possibility of quantitative predictions on the number of species, their relationships to the environment and other viewpoints of the community organization. Cf. Holt (2006), p. 2.

their success.⁷⁵ The main axiom of this theory was in contrast to mainstream ecology which is built on the assumption that species differ in niches. These differences in the niche lead to species limiting their own population more than they limit other populations and hereby promoting the coexistence of different species. Neutral theory builds upon the assumption that species do not differ in their fitness and the influence they have on each other. The main elements of the niche that were driving the research in ecology in the last century are obsolete in the neutral model, where the only driver of the population dynamics is the variation in birth, death and dispersal rate.⁷⁶ The main issue with the neutral theory is its core assumption that the differences between species do not matter. Ignoring these differences makes it impossible for the neutral theory to deal with ecosystem characteristics.⁷⁷

The importance of the neutral theory for the niche theory was not in its criticism but rather in the things that are said about the niches of species.⁷⁸ This means that the complementary nature of emphasis of each theory leads to a better and more founded understanding of the other theory. By placing the neutral theory within the classic coexistence theory this leads to the realization that the main laws regarding neutrality are well established. On the other hand, the neutral theory leads to a refinement of the niche paradigm by focusing on fitness equivalence and making reference to the point that the niche differences in many communities are not as big as originally assumed.⁷⁹

The niche achieved its formalization as a multidimensional hyperspace, however the main critique points also represented the decline in niche research in ecology. Much of the critique of the niches in ecology is similar to the critique of the niches in business sciences, especially the points about statistical rigor, consistency and ambiguity. Next stage in the development of niches in natural sciences is the return to prominence with the reformulation of the niche concept which is described in the next point.

⁷⁵ Cf. Hubbell (2006), p. 1387; Jr. Leigh (2007), p. 2075; McGill et al. (2006), p. 1411; Ricklefs (2006), p. 1424.

⁷⁶ Cf. Adler et al. (2007), p. 95.

⁷⁷ Whereby the use of the neutral theory restricts itself to (1) employment of a null hypothesis, (2) fields where neutrality dominates, (3) trying to resolve otherwise inaccessible subjects, (4) forecasts exceeding the hypothesis of the neutral theory, which requires a more life-like deduction. Cf. Jr. Leigh (2007), p. 2085.

⁷⁸ Specific species attributes such as physiological permissiveness, breeding strategies, dispersal abilities and body size are not included in the neutral theory. Cf. Gaston/Chown (2005), p. 2.

⁷⁹ Cf. Adler et al. (2007), p. 103.

(3) The reformulation of the niche concept

In the third point niches in natural sciences will be examined from a more contemporary point of view. The focus will be placed on the new advances made in the niche concept and on enhancements and clarifications made to the already existing body of literature.

The contemporary approaches to the niche concept are mainly based on new insights gained from the research done by Odling-Smee et al on niche construction, and Chase and Leibold's reconfiguration of the niche and neutral theory.

Odling and Smee's work is based on the role of the organisms in the environment. They do not take the classical view of natural selection which has been vastly researched and empirically tested in the past decades but instead the focus is on a point of view that received far less attention from the scientific community; namely the interaction of a organism with the environment. In this interaction the environment organisms influence some processes of the natural selection, which take place in their own local environments. This interaction called "*niche construction*" by the authors, where an organism alters its environment or that of other species with the environment and phenotypes of organisms in the process of evolution, is not sufficiently enlightened or as described in the title of their book it is "*The neglected process in evolution*".⁸⁰

⁸⁰ Cf. Odling-Smee et al. (2003), p. 1; Aaron M.Ellison (2004), p. 881f.

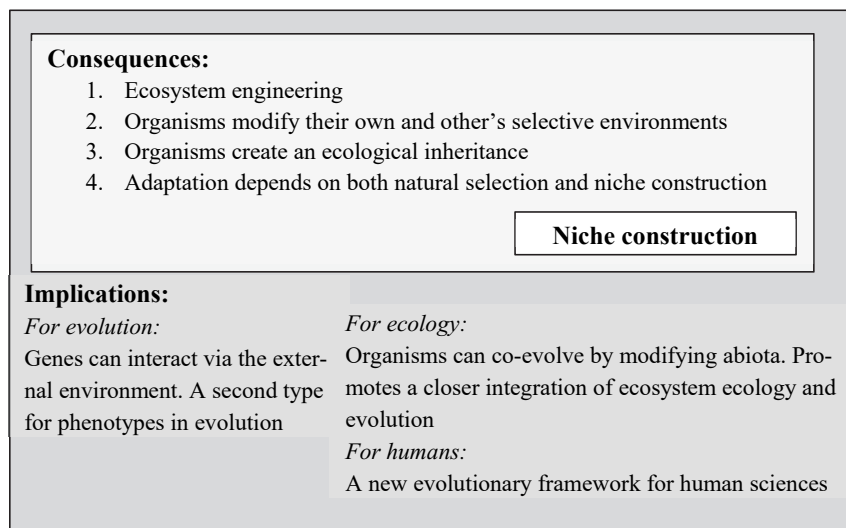


Figure I-3: Niche construction: its consequences and implications.

(Cf. Odling-Smee et al. (2003), p. 3.)

The objective of the authors was to place niche construction alongside natural selection as the second key contributor of evolution and thereby making a path for the development of new theories and contributing towards a better understanding of the evolutionary process (see figure I-3).

Chase and Leibold took a different approach to the niche concept, which enabled them to provide a synthesis of the previous research on the topic and translate it into a common language, clear some previous misinterpretations regarding the concept and offer new findings and interpretations about the ecological patterns and processes. The primary issue was the inclusion of different processes and not only the competition for resources. Another major issue was to clarify the difference between the matters relating to an organism's response to the environment and how matters relate to the way the organism effects and changes its environment. The last issue relates to the relevance of the niche to different spatial scales, which need to be made more important at larger scales and not just narrow scales, as current practice dictates.⁸¹ On the basis of these findings, Chase and Leibold proposed a new contemporary definition of the niche concept. It is a more general definition of the

⁸¹ Cf. Chase/Leibold (2003), p. 14; Leibold/McPeck (2006), p. 1402.

concept, which consolidates the different interpretations of the concept, whereby the niche is defined as:⁸²

“(...) the joint description of the environmental conditions that allow a species to satisfy its minimum requirements so that the birth rate of a local population is equal to or greater than its death rate along with the set of per capita effects of that species on these environmental conditions.” (Chase/Leibold (2003), p. 15)

The findings of Chase and Leibold can be summarized in a consolidated framework that gives a deeper understanding of the following categories, regarding the niche concept:⁸³

- community assembly and the role of the structural elements in this assembly,
- community structure from the viewpoint of local and regional spatial scales,
- the relationship between context dependence and its effect on species interactions and
- species sorting, in regards to the connection between the larger scale biotas and changes in the local communities and ecosystems.

The last contribution from Chase and Leibold was the development of the neutral theory, where they researched the relationships between the way species respond and affect different areas of their natural environment. The objective was to map a pragmatic and simple to understand framework, which is based on niche demands and effects.⁸⁴

To summarize the development of the niche theory in ecology before moving on to the foundations made in natural sciences to social sciences, it is possible to trace the beginnings of the niche theory to Grinnell and Elton. Following their groundwork, the Gause's competitive exclusion principle was perhaps the only law of nature ever to be proposed in ecology. Hutchinson's stringent formalization of the concept paved the way for attempts at applying such theory in nature, simultaneously and independently, made originally by Levins and Colwell and later followed by others. Contemporary research led by Odling and Smee focused on the role of the organism in its environment. On the other hand Chase and Leibold research build on a synthesis and common understanding of previous research which

⁸² A second definition was also created, but its aim was to address a number of graphical and analytical models in ecology.

⁸³ Cf. Chase/Leibold (2003), p. 176.

⁸⁴ Cf. Aaron M. Ellison (2004), p. 880f; Chase/Leibold (2003), p. 178f.

led to the development of the neutral theory. The next sub-chapter analyzes how the niche gained its place in social sciences.

I.1.2 Social sciences

The literature review continues with an overview of niches in social sciences. Following the structure of the previous chapter there will first be a short introduction of social sciences and sociology before moving on to the niche concept.

Social sciences comprise academic disciplines concerned with the study of the social life of human groups and individuals including anthropology, communication studies, criminology, economics, geography, history, political science, psychology, social studies, and sociology.⁸⁵ The main difference between natural and social sciences is the primary focus of research. Natural sciences concern itself with detailed and exact specification of consistent, iterative sequence of events, which can therefore be predicted in nature. Therefore the gathered scientific knowledge is based on the experience in the form that can be determined by senses and the logical conclusions derived from these experiences.⁸⁶ Social sciences on the other hand are a variety of organized academic and applied disciplines, which try to explain the behavior and social relations of human beings with the application of the scientific method.⁸⁷ However, these two branches of science became much more interrelated with the progression of inderdisciplinarity between natural and social sciences.⁸⁸

⁸⁵ Cf. Black (1993), p. 1. Science is defined as: "(...) the use of systematic methods of empirical investigation, the analysis of data, theoretical thinking and the logical assessment of arguments to develop a body of knowledge about a particular subject matter." (Giddens (2008), p. 78).

⁸⁶ Cf. Bain (1947), p. 9f.

⁸⁷ Cf. Treiman/Smelser (1982), p. 6. The main deficiency of social sciences stems from the fact that social science research considers many variables, of which not all can be controlled. Unlike the research in natural sciences which usually takes place in a laboratory, where control over variable contributing factors is much easier to achieve. In addition, social science also has to battle with the low level of consensus in social sciences on common theories, complicated measuring instruments and research tools that are applied, and the various schools of thought regarding the conducted research. Black (1993), p. 1f; Law (2006), p. 7f.

⁸⁸ Cf. Lattuca (2001), p. 10. "Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts and/ or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline area or research practice." (N.U. (2005), p. 2).

Social sciences started applying concepts from natural sciences to social sciences in order to research the social phenomena. This interdisciplinarity was also key for the study of the niche concept in social sciences.

Sociology is the science that examines the study of social groups, how their internal forms of organization look, the processes that modify or sustain these organizational forms and the relationships between these groups.⁸⁹ Sociology is one of the youngest academic disciplines, its foundation can be traced back to the middle of the nineteenth century when the word was first coined by August Comte and marked by the works of Marx, Weber and Durkheim. The growth of sociology can be attributed to many overlaps with other disciplines, but it does not just overlap, it also exceeds the borders of traditional social science disciplines with many excursions into natural sciences. Therefore many concepts which find their origin in sociology have been adopted by other disciplines. The first research methods in sociology were quite simple and descriptive, but the period over the last fifty years has seen a shift towards more rigorous formulations of hypotheses, larger and better data sets, complex statistical models amongst others, which has led to an improved standard of scientific rigor in sociology.⁹⁰ This development also coincides with the maturation of social sciences and the greater level of detail, placed on methodological rigor.⁹¹ This will also be noticeable in the following chapter as the research applied to the study of the niche in sociology often deals with methods developed in natural sciences. The methodological rigor and detail also gained steam towards the end of the twentieth century.

The origins of niches in sociology can be traced back to the theoretical foundations laid by Georg Simmel.⁹² He was one of the first generations of German

⁸⁹ Cf. Johnson (1998), p. 2; Giddens (2008), p. 4. Therefore sociology is, similar to the human society, meaning that it is varied, contested and ever changing, this makes sociology very difficult to look at from a single perspective and to describe with closure. Cf. Calhoun (2005), p. 1.

⁹⁰ Cf. Calhoun (2005), p. 15; Stolley (2005), p. 11.

⁹¹ Sociology can be characterized as *empirical* in the sense that is based on observation and reasoning and its results are not based on speculation, *theoretical* as it tries to explain complex occurrences in logical and connected propositions, *cumulative* that new research builds on previous theories or work, *nonethical* in the sense that it does not make the distinction between good or bad actions, but only tries to explain them. Cf. Johnson (1998), p. 2.

⁹² For Simmel's main contributions in sociology see Simmel (1950); Simmel ((1908) 1968); Simmel (1955b); Simmel (1896). It was the basic philosophy of Simmel that man should strive to gain knowledge, to make better decisions which would enable a more successful way of life. Cf. Helle (2001), p. 111.

sociologists at the beginning of the twentieth century. He studied philosophy and history at the University of Berlin, where he chose to stay after his studies were finished as an unpaid lecturer whose income depended on student fees.⁹³ His main contributions to sociology were on the topics of social structure and social network analysis. He went away from the organist and idealist views of society, which were represented by the work of Comte and Spencer. According to Simmel, society is made up of a complex network of relationships between individuals who consistently interact with one another. This interaction and various patterns and forms of this interaction, are at the center of the study of society.⁹⁴ His work pioneered the concepts which would later become the two of the main branches of sociological thought; the first one dealing with *human ecology* and the second one with *social structure*.⁹⁵

After laying the groundwork of the basic concepts and placing the focus of the analysis on sociology, the next step will be to evaluate the role and development in the two sociological schools of thought mentioned above; (1) *The niche in human ecology*, and (2) *The role of the niche in social structure*, and to finish the excursion into social sciences, the final point will deal with the (3) *niche in contemporary sociology*.

(1) The niche in human ecology

First point of niches in social sciences will address the issues in human ecology. Before focusing on the role of the niche in human ecology there will be a short introduction into human ecology. The main part of the chapter will be centered around the development of the niche concept in human ecology and its parallels to the niche in business sciences.

The definition of human ecology is similar to the definition of ecology from the previous paragraph. It can be described as the study that deals with humans and human societies and analyses their complex interactions with other biotic and abiotic components of the environment, which are ever changing.⁹⁶ It is concerned

⁹³ Cf. Coser (2003), p. 195.

⁹⁴ Cf. Coser (2003), p. 178.

⁹⁵ Cf. Popielarz (2007), p. 67.

⁹⁶ Cf. Campbell (1995), p. 7; Steiner (2002), p. 3. The study of human ecology in itself is an interdisciplinary field, as it brings together multiple fields or research involved in the

with the way that individuals act as a group in order to achieve better use of their habitat.⁹⁷

The niche in sociology started to develop in human ecology with the main idea from Simmel's essay *The Metropolis and Mental Life* which was summarized and developed by Robert E. Park.⁹⁸ Park studied together with Simmel in 1899-1900 at the University of Berlin. Robert Park was later one of the main founders of the Chicago school of sociology.⁹⁹ Park described the city as not only a physical mechanism of artificial construction but saw it more as a process of the people who live in it, thereby making it a product of human nature.¹⁰⁰ Roderick McKenzie one of the contributors to Park's 1925 publication *The City*, brought the ideas from Chicago to the University of Michigan. He began working on a project extending beyond the urban context, which was due to McKenzie's untimely death and finished by Amos Hawley a student of his in 1950 under the name Human Ecology. This volume can be summarized as the first effort to formulate a coherent theory of human ecology since the 1920's when the ideas of plant and animal geologists were applied to human society.¹⁰¹ In his later work, Hawley discovered that the prevailing occupation with spatial distribution became a theoretical dead end. Instead, Hawley came to the conclusion by gaining inspiration from works of biologist such as Elton, Braun-Blanquet, Allee and others that the adaptation to the environment is a collective phenomenon. The environment was to this point left out of the empirical research in human ecology mainly because of its breadth and Hawley put the environment at the center of discussions as the ultimate source of livelihood for a

study of individuals and groups, environments as the setting for life and resources, individual and family life and other disciplines concerned with human development, values and the human ecosystem. Miller (2003), p. ix.

⁹⁷ Cf. Micklin (1998), p. 28.

⁹⁸ "The deepest problems of modern life flow from the attempt of the individual to maintain the independence and individuality of their existence against sovereign powers of society, against the weight of the historical heritage and the external culture and technique of life." (Bridge/Watson (2007), p. 11). Here Simmel argues that human behavior is formed by its environment and he mentioned three core themes, which are size, division of labor and money or rationality. Cf. Saunders (1995), p. 56.

⁹⁹ Park and Thomas were one of the leading contributors to the Chicago school of sociology. The focus of this school was on empirical research and gaining insight into the research done in the contemporary world. The trademark was the implementation of first hand research with general ideas as part of an organized program. Cf. Bulmer (1986), p. 2f.

¹⁰⁰ Cf. Park (1997), p. 1.

¹⁰¹ Cf. Hollingshead (1950), p. 684f.

population.¹⁰² This adaptation to the environment by the population can be accomplished only through organization. This realization has mounted the way for the sociological conception of the niche. His work put human ecology in the domain of sociology as one of the several paradigms.¹⁰³

Hawley's work would later be upgraded by two of his students, Michael Hannan and John Freeman in *The population ecology of organizations*. Their work represents one of the current uses of the niche as a theoretical tool in sociology and defines the niche of an organizational population as:¹⁰⁴

"(...) the (realized) niche of a population is defined as that area in constraint space (the space whose dimensions are levels of resources, etc.) in which the population outcompetes all other local populations. The niche, then, consists of all those combinations of resource levels at which the population can survive and reproduce itself." (Hannan/Freeman (1977), p. 948).

The work of Hannan and Freeman takes a strictly ecological approach in the study of organizations. This ecological approach also entails an important theory fragment, which has to be discussed in the scope of their organizational niche the *niche width*.

The fragment theory on niche width distinguishes between the generalist and specialist type of organizations.¹⁰⁵ Specialist organizations maximize their exploitation of the environment and accept the risk of experiencing a change in that environment. On the other hand, generalist organizations accept a lower level of exploitation in return for greater security. Meaning that part of the efficiency resulting from specialism can be attributed to lower requirements for excess capacity¹⁰⁶. The

¹⁰² Cf. Micklin (1998), p. 41.

¹⁰³ Cf. Hawley (1992), p. 3.

¹⁰⁴ The niche definition of Hannan and Freeman is based on the 1957 definition from Hutchinson, as mentioned in the first paragraph on the development of niches in ecology. Based on this definition, the environmental selection, which means the fit between local conditions in their environments, is the driver by which competing organization manage to survive.

¹⁰⁵ The work of Hannan and Freeman was based on Levin's 1962 "Theory of Fitness in a heterogeneous environment" and 1968 "Evolution in changing environments" which represented an evocative perspective of the theory of niche width. Their approach represented a distinct ecological approach to the research of formal organizations (Cf. Hannan/Freeman (1977), p. 946). The differentiation between generalism versus specialism, is essential to biological ecology and to a population ecology of organizations (Hannan/Freeman (1977), p. 947).

¹⁰⁶ Cf. Hannan/Freeman (1977), p. 948.

niche theory shows that specialism is generally favored in stable or certain environments, hence meaning that generalists will appear inefficient because access capacity will be reasoned as redundant. However, the main contribution of the niche theory is probably the finding that generalism is not always optimal in uncertain environments.¹⁰⁷ Thus, the niche theory explains variations in industry structure in different industries. The theory shows how different structures in different industries (generalist versus specialist organizations) are shaped by relevant environments (see figure I-4).

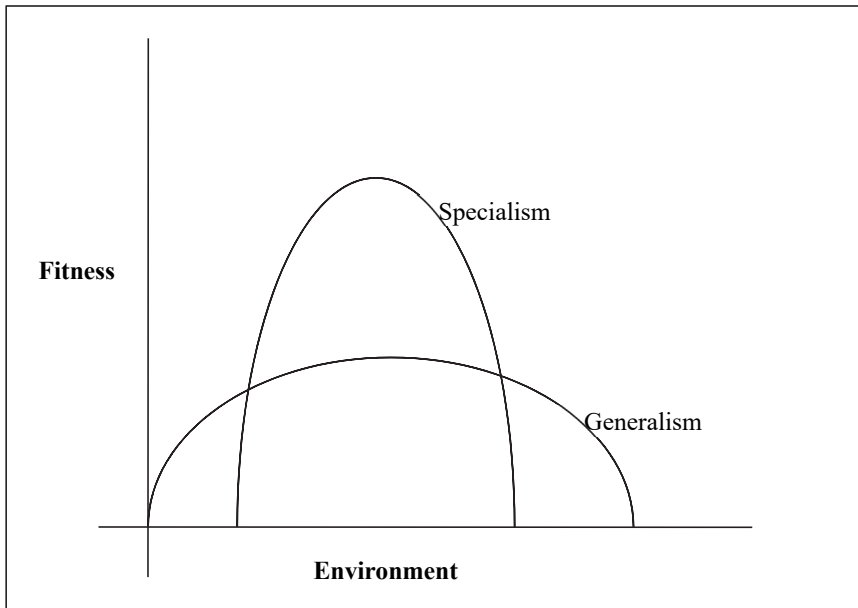


Figure I-4: Generalism vs. Specialism.

(Source: Hannan/Freeman (1977), p. 947)

Another important niche theory fragment which has to be considered in the scope of this review is *resource partitioning*. The previous paragraph showed that the

¹⁰⁷ This is because organizations that try to adapt to every environmental state use up most of their time adapting structure and not enough time on other organizational action. The exception is produced by environments which place very different demands on the organization and the duration of environmental states is short relative to the life of the organization. Cf. Hannan/Freeman (1977), p. 958.

niche width theory deals with the dynamics of environments and how they generate they are generalist or specialist. Resource partitioning on the other hand is concerned with the way markets are usually divided into two non-competing populations of generalists and specialists. In the early stages of the market when there is a saturation of firms, most of them try to generate the largest resource base. The ensuing competition between the firms forces them to differentiate to some degree, although the general strategy upon market entry is usually a generalist strategy. With the progression of economies of scale only a few generalists manage to survive and they move towards the center of the market. The clean out of the market and the move of the generalists towards the center of the market opens up small pockets of resources on the edges of the market in which a specialist can thrive. This leads to the partitioning of the market into generalist and specialist resources.¹⁰⁸

There are two main contributions which human ecology has made for the development of niches in business sciences, specialization as opposed to generalism and better market performance in specific segments through specialization. These two contributions represent two of the main underlying assumptions made in niche research in business sciences. After examining the niche in human ecology and enlightening the main concepts and development path, the next point will deal with the niche development in social structure.

(2) The role of the niche in social structure

The excursion of niches in social structure will begin with a brief explanation of core ideas behind social structure. After gaining familiarity with the topic the role of the niche and its development within social structure will be addressed.

Although social structure is one of the most frequently used sociological terms, its meaning still cannot be clearly conceptualized or generally accepted. The notion of social structure as relationships between various members or groups or as lasting and relatively stable patterns of relationships emphasizes the idea that society is arranged into structurally related groups or a composition of roles, with different functions, meanings or purposes. Social structure therefore applies to three main categories:

¹⁰⁸ When the market has a low degree of concentration, specialist forms of organizations do not perform as well as in highly concentrated markets. Cf. Carroll (1985), p. 1270ff.; Anand Swaminathan (2001), p. 1170ff.

- clear relations between members or groups to each other,
- patterns of behavior and relationships, which are relatively stable within a certain society and
- the integration of social institutions and norms into social systems, with the purpose of influencing the behavior of the participants within these social systems.¹⁰⁹

Having grasped a basic understanding of social structure, the focal point will now turn towards the history and influence of the niche in social structure.

The second article from Georg Simmel that contributed to the development of niches in social structure was called "The Web of Group Affiliation". He describes the social groups, which are composed of individuals. It is through these group affiliations that people are defined as individuals, leading to the realization that our individuality is born at the center of the different influences that affect us. Through the relationships between social groups, organizations and individuals Simmel described the mission of group affiliation, which is a function of organic and rational membership in the structuring of social environments and limitation of the behavioral options. He was able to achieve this objective by applying a unique social geometry.¹¹⁰

Simmel's work together with the contributions from Lazarsfeld on the concept of property-space and Merton's work on social structure,¹¹¹ laid the groundwork for the work of Peter Blau a professor from Columbia University. Blau created a macrosociological theory of social structure, which was based on the spatial conception of social structure in 1977.¹¹² His conceptualization of social structure was restricted to the distribution of a population between various social positions which show and influence the relations between people. Therefore social structure shows the differentiation between people. They are based in the social distinctions that people make in the relations regarding their role and social associations. These distinctions can be observed in the different roles and positions, which consequently

¹⁰⁹ Cf. Crothers (1996), p. 14ff; Merton (1968), p. 216; Merton (1976), p. 184; Merton/Sztompka (1996), p. 9ff.

¹¹⁰ Cf. Simmel (1955a), p. 194f; Popielarz (2007), p. 67.

¹¹¹ For more details the concept of property space, see Lazarsfeld (1937); Barton (1955) and Merton's work on social structure see footnote 113.

¹¹² Blau has outlined the theory of the structure of social associations, which was elaborated in his paper "Inequality and Heterogeneity". Cf. Blau (1977), p. 50.

impact the ensuing social associations. At the level of an entire population, distributions exist for every type of position. On the other hand, the macro structure of societies is a multidimensional space of social positions under which people are divided and which impact their social relationships.¹¹³

This social structure based on the spatial conception developed by Blau was later used by McPherson in his ecology of affiliation.¹¹⁴ McPherson's model was designed to enable a better understanding of interorganizational relationships. The theoretical contribution of this model enabled the connection of the field of organizational demography with the macrostructural theories.¹¹⁵ McPherson's work had upgraded Blau's work with two complementary components. These two components will become much clearer when they will be explained within the niche context of social structure. The first one was the so called principle of homophily, which was originally developed by Lazarsfeld and Merton.¹¹⁶ This would allow to identify homophilous social ties as a nongenetic medium for trait inheritance. The second contribution came from the recognition of the close relationship between Blau's multidimensional social space and the theoretical resource space described in Hutchinson's niche model from 1957. This contribution would then allow a set-theoretic or spatial analysis.¹¹⁷ The role of the niche in McPherson's model was to provide answers as to why only some people are potential members of an organization. It explains the importance of the niche for human organizations. The resource dependency of organizations is defined by the characteristics of the members of organizations, where organizations recruit them from a limited segment of the community. Organizations are connected in time through common members and will recruit them from areas of geographical proximity rather than from remote areas.

¹¹³ Cf. Blau (1977), p. 28. Blau differentiates the society in his macrosociological theory into two different generic forms; one being inequality and the other heterogeneity. Inequality is the distribution of people according to their hierarchical social ranking. Heterogeneity represents the distribution of people which is not based on ranking. Knottnerus/Guan (1997), p. 112.

¹¹⁴ McPherson developed an ecological model of competition of social organizations for members in his 1983 paper "An ecology of affiliation". Cf. McPherson (1983b), p. 519.

¹¹⁵ Cf. McPherson (1983b), p. 531.

¹¹⁶ Homophily is the principle that a contact between similar people occurs at a higher rate than among dissimilar people. Homophily as the pervasive fact means that cultural, behavioral, genetic or material information, which flows through networks, will tend to be localized. McPherson (2004), p. 416. The original formulation of homophily is distinguished between a status and a value homophily and this definition was developed by Lazarsfeld and Merton in 1954. Cf. Lazarsfeld/R. K. Merton (1954), p. 18ff.

¹¹⁷ Cf. Popielarz (2007), p. 68.

Organizations that have a niche overlap will tend to recruit their members from the same pool.¹¹⁸ On the other hand, social networks play a vital role in the process of recruitment. Due to the homophily of these social networks, existing members of organizations tend to recruit potential members from their own social networks. Consequently, the potential members of organizations are people who have related sociodemographic attributes as the existing members. Therefore potential members of organizations which could be recruited can be found within or at the border of the organization's niche.¹¹⁹ The model of McPherson has primarily been applied in the study of voluntary associations; however, it has also been extended to the study of cultural forms and social movements.¹²⁰

The relevance of niche in social structure for this thesis is mainly in its contribution to resource dependency, through which it explains that the resource dependency of organizations is determined by the type of members and the resource pool from which an organization can draw its members. Based on the understanding gained from the niche in social structure the last part of the niches in social sciences will deal with contemporary niche research in sociology.

(3) The niche in contemporary sociology

The last part of the review of niches in social sciences will include an analysis of the niche in contemporary sociology. There have been several advancements in the field since the last major works in human ecology and social structure described above. The main advancements have been made regarding the inclusion of (a) *new methodologies* in the research process, (b) identifying additional types of *niche spaces*, (c) inclusion of *interdisciplinary research* and (d) *the integration of various perspectives* into sociological research.

¹¹⁸ Cf. McPherson (1983b), p. 520f.

¹¹⁹ Cf. McPherson et al. (1992), p. 156f. This homophily explains the genetic transmission in the relationship between niches and social networks. The niche of an organization is able to remain relatively stable as long as the attributes of its current members are being copied on to new members, which occurs through the recruitment within homophilous social networks. Similarly, the niche of an organism can remain stable because the attributes of the organisms are inherited in the following generations through the process of genetic inheritance. Popielarz (2007), p. 75.

¹²⁰ For more on the research of voluntary associations, cultural forms and social movements also see McPherson (1983a); McPherson/Smith-Lovin (1986); Popielarz/McPherson (1995); Cress et al. (1997); Popielarz (1999); Rotolo (2000); Noah (2003); Rotolo/Wharton (2003).

(a) Progress in the field of niche research in sociology can only be achieved with the development of new methodologies, which enable further advancements and upgrades. The current advancements in methodology are based on two tools. The first one is the hypernetwork sampling technique, which was also called a dual network and is very well known in mathematical literature. These networks can be created if there is an existing set of elements, which is joined together by a set of relations. If this relation also manages to define a new set of elements, which are connected by relations defined by the first set of elements, then a hypernetwork is created. The main advantage of this hypernetwork is that it enables the research of system attributes at both the individual and organizational level, by employing only information from the individual level.¹²¹ The second tool was the translation of the event history analysis to a sociological context. These event histories were gaining value for sociologists, who look for answers to questions which have a much broader scope than the questions which can be answered with panel data.¹²² This enabled the research dynamic changes in social phenomena and the identification of casual relationships in the underlying process over a period of time. The event history in relation to the niches enabled an analysis of longitudinal data, which was a necessary step in advancing the testing of arguments made by the ecological theory.¹²³

Following the basis of these two tools was the development of new methodologies such as nonmonotonic systems of logic, semantics and multidimensional scaling. Nonmonotonic systems of logic are the inclusion of new premises, to reflect newly acquired knowledge in revoking the existing conclusions. This method

¹²¹ The view on the hypernetwork can be twofold: it can be viewed as if it consists of individuals who are joined by common membership in organizations or it can be viewed as organizations which are joined by individuals who are part of more organizations at the same time. Cf. McPherson (1982), p. 227.

¹²² Cf. Tuma/Hannan (1984), p. 43.

¹²³ Cf. Nancy Brandon Tuma/Hannan (1979), p. 236; Bartholomew (1985), p. 267; Bye/Hennessey (1985), p. 776; Arminger (1986), p. 538f; Clogg (1986), p. 697; Sorensen (1986), p. 693.

has helped in the formal verification of ecological theories.¹²⁴ The graphic representation of niches was done with the assistance of semantics and multidimensional scaling.¹²⁵

(b) One of the main advantages of the niche concept as a theoretical tool is that it can be used to map a broad range of social entities. If there is a clearly defined conceptual space in which the social entities and their niches can be located, the niche is given as a theoretical tool the potential, to understand the nature and dynamics of any social entity.¹²⁶ This can be observed with the application of the two main schools of sociology that deal with the niche and enable the identification of new niche spaces: human ecology and social structure.

Those authors dealing with human ecology and follow the path set by Hannan and Freeman¹²⁷ are inclined to concentrate on profit oriented organizations and define the niche within the borders of a firm's general activity or its operations. The niche is a key factor towards the understanding of the competition between firms. It separates companies from one another on the basis of its competitive distinctiveness. Therefore a niche does not only paint the competitive environment of a company but it also determines the way in which a company competes with others. In this sense the outcome of the performance of a niche company is the result of the extent to which the company is involved in inter-firm networks.¹²⁸ This short excursion into the following subject matter of business science, to demonstrate the identification of new niche spaces will be extensively examined in the next point. However, it is still also important to point out the interdisciplinary nature of the niche which can be already witnessed in the first two points of the literature review.

The research that has been done in social structure puts an emphasis on the foundations laid by McPherson and concentrates on the research of sociodemographic niche spaces. This research is focused on determining the cause for the changes in the sociodemographic composition of occupations. These can be traced back to the competition among occupants in this sociodemographic space. The main upgrade to McPherson was the ability to move on beyond research of voluntary

¹²⁴ Monotonicity is a set of conclusions, which can be derived from an existing set of premises and will grow monotonically with the addition of extra premises. Cf. Hannan et al. (2003), p. 313.

¹²⁵ See the approach used by Hsu/Podolny (2005), p. 190ff., and by Mohr/Guerra-Pearson F (2007), p. 1888ff.

¹²⁶ Cf. Popielarz (2007), p. 77.

¹²⁷ Cf. Hannan/Freeman (1977).

¹²⁸ Cf. Echols/Tsai (2005), p. 219f.

associations, cultural forms, and social movements and include other sociodemographical phenomena such as labor relations and others.¹²⁹

(c) The growth of the niche concept in social sciences has also encouraged excursions into other disciplines of sociology besides human ecology and social structure, where it could find ties to the core conceptions. The assertion of structural equivalence in population ecology paved the way for the connection of niche based ecological models with industrial economics.¹³⁰ Economists have discovered that there are many similarities between the two fields of research. For one, ecologists have discovered that the competition for resources and the examination of equilibria displays how the environmental restriction affects the size of populations. There is also the effect of competition on specialization and how efficient the usage of resources is.¹³¹ There are four main areas in which there are overlaps from which economics can draw lessons from social sciences on the niche topic. First there is the evolutionary approach to the explanation of the economic phenomena, second is the modeling done in the area of entry and exit rates, third is the use of the competitive exclusion principle for the research of source and structure of product differentiation and specialization in markets and fourth are the limitations and the constraints with which organizations are faced when reorganizing their structures.¹³² The first results of these excursions between disciplines can be seen in the integration of resource partitioning and sunk cost theories.¹³³

(d) Lastly, there are attempts at the integration of the two main perspectives that dominate niche research in sociology. Population ecology and social structure employ a common conception of the niche, which comes from the biological sub-

¹²⁹ Cf. Rotolo/McPherson (2001), p.1096.; Sorensen (2004), p. 151f.

¹³⁰ Cf. DiMaggio (1986) , p. 35. „The connection between structural equivalence, input-output sectors and markets has been long recognized by network analysts but that work developed with closer ties to organizational sociology and industrial economics than to population ecology.” (Burt/Talmud (1993), p. 139).

¹³¹ However there are not only similarities between the two fields, there are also some differences which have to be accounted for. The first one is the absence of strategic behavior from members of natural populations, which as a consequence leads to the use of simple models. The second difference is in the dynamics of theory. Where economics is more static (focus on the properties of equilibrium) the population ecology is much more dynamic (focus on the process that leads to equilibrium). Cf. Geroski (2001), p. 507f.

¹³² Cf. Geroski (2001), p. 532ff.

¹³³ Cf. Boone/van Witteloostuijn (2004).

field of ecology. These two perspectives also employ an open system view of organizations and other social entities. The most comprehensive empirical body of work in the field of integration of these two concepts is the “The duality of niche and form: the differentiation of institutional space in New York City” from Mohr and Guerra-Pearson.¹³⁴

In conclusion, one can summarize that the niche in social sciences has been introduced into sociology from its origins in ecology. The niche found its place in sociology through the work of Simmel, which paved the way for the two major branches in sociology which would drive the research in the field: human ecology and social structure.¹³⁵

The niche in human ecology developed through the work of Park and the Chicago school of sociology, which was then upgraded by Hawley who also coined human ecology as one of the main branches of sociology.¹³⁶ The niche reached its maturation in human ecology with the work of Hannan and Freeman.¹³⁷ The niche in human ecology has two main research programs: the niche width theory and the resource partitioning theory.

Social structure followed a similar path of development as human ecology. Merton’s work on social structure and Blau’s macrosociological theory of social structure built on the work of Lazarsfeld on the concept of property-space.¹³⁸ This research came full circle with the work of McPherson on the sociodemographic niche theory, which is the dominant research program in social structure.¹³⁹

Contemporary research of the niche in sociology deals with the implementation of new methodologies into niche research, the discovery of alternative niche spaces, interdisciplinary research with other fields of research (mainly industrial economics) and the research on the integration of the two main perspectives of niche research in sociology, human ecology and social structure.

¹³⁴ There are some differences between the two perspectives in some details. Most often the literature in niche research in social sciences draws on the work of Hannan/Freeman (1977) and McPherson (1983b) and uses the analytical tools developed by DiMaggio (1986). Cf Popielarz (2007), p. 79; Mohr/Guerra-Pearson F (2007).

¹³⁵ The beginnings of human ecology and social structure can be found in Simmel’s two essays “The Metropolis and Mental Life”, Simmel (1950), which was key for human ecology and “Conflict and The Web of Group-Affiliations”, Simmel (1955b) for social structure.

¹³⁶ See Park et al. (1925), and Hawley (1950).

¹³⁷ See Hannan/Freeman (1977).

¹³⁸ See Lazarsfeld (1937), Merton (1968), and Blau (1977).

¹³⁹ See McPherson (1983b).

After portraying the development of the niche from its origins in ecology and its accent to one of the main concepts of sociology, the attention will now turn to the core of the thesis, which is namely the development of niches in business sciences.

I.1.3 The role of niches in business sciences

The approach to the role of the niche in business sciences will differ from the previous chronological approach used in natural and social sciences. Since the niche in business sciences is at the core of the thesis, it also requires a more detailed approach than the one used in the previous two sub chapters.

Although the niche possesses a formidable economic relevance, so far it has failed to gain much recognition as a scientific subject. Aside from this relative irrelevance in the scientific community, the niche in business sciences also lacks an adequate examination of the influence of structural framework. As a consequence of an unclear structural framework and an insufficient scientific foundation are the different estimations on niche attractiveness. Thus divergence is especially highlighted in the assessment of the niche site, its potential for growth and the strategic recommendations for this niche. This leads to a large diversity with regard to the content and the understanding of niches in literature. Therefore the aim of this sub-chapter will be to clarify the different conceptions and through this clarification enable the synthesis, which will later be done in the third part of the thesis.

The sub-chapter will be similarly structured into three points as in the previous two. (1) There will be an analysis of the *existing niche concepts in business sciences*, where these concepts will be analyzed. (2) There will be an overview of the historical development of *the niche in strategic management*. (3) There will be an analysis of *niche approaches and future directions in contemporary strategic management*.

(1) Existing niche concepts in business sciences

The examination of the existing concepts in business sciences will be the first step in the analysis of the niche in business science. This examination will focus on the scientific background of these concepts, explain their main attributes and provide main critique points of each of them. These early concepts all heavily rely on the conception of the niche in ecology and consequently employ many characteristics

which could already be observed in the literature review of the niche in ecology. The information gained about the function, formation, development and structural characteristics of niches in regard to business sciences, possesses a great relevance for the construction of analogies and a better understanding of niches in relation to mass markets.

The examination of existing niche concepts in business will be divided into four parts: (a) the ecological concept, (b) the market psychological concept, (c) the evolutionary concept and (d) other concepts in business sciences.

(a) *Ecological concept.* The first ecological niche concept was developed by Klaus Günther in 1950, who was a member of the Institute for Genetics at the Freie University of Berlin.¹⁴⁰ He defined the niches through the so called matrix-patrix relationship between the environmental conditions (System I) and the organizational and behavioral characteristics of a species (System II).¹⁴¹ Günther sees these environmental conditions and species specific as two different dimensions.¹⁴² Ecological niches in this concept are created when both dimensions overlap, meaning that System II has to be compatible with System I. (see figure I-5)¹⁴³

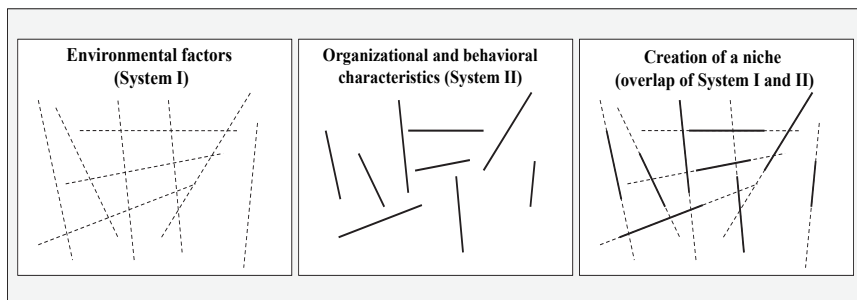


Figure I-5: The creation of a niche through the overlap of environmental factors and species specific systems

(Source: Spiegel (1990), p. 4; Günther (1950), p. 55et seqq)

The compatibility of both systems implies in a biological sense that a species is able to survive on the basis of its characteristics under the given environmental conditions.

¹⁴⁰ Cf. Rosenbaum (1999), p. 31; Danner (2002), p. 14.

¹⁴¹ The organizational and behavioral characteristics are mainly determined through morphological and physiological specifics of a species. Cf. Spiegel (1990), p. 4.

¹⁴² Cf. Günther (1950), p. 82.

¹⁴³ Cf. Günther (1950), p. 80f.

The exact fit of environmental factors and species specific systems, which is a prerequisite for the creation of niches, leads to a high level of individuality of an ecological niche and explains the frequent parallel existence of numerous related species which have a similar way of life.¹⁴⁴ An insufficient overlap in one of dimensions can already provide protection for a weaker species from its superior enemies.

The formation of the number of dimensions of a species has additional important implications. There is a positive correlation between the number of dimensions of a niche and the growing specificity and a negative one with the number of different species, which means the competitors in a given niche. On the other hand, a large number of dimensions implies that it will be much harder for a species to find a suitable niche. The reason for this can be found in the number of dimensions that a species can defend against its competitors and also their formation and consequently the borders of a niche.¹⁴⁵

The special dimension in the Matrix-patrix model of Klaus Günther only plays a secondary role in comparison with the classical understanding of a niche according to Charles Elton. Günther is focused more on the important role of measuring the function of the dispersion and density regulation of a species.¹⁴⁶ A central consequence of this regulatory function is the existence of an inter-specific and intra-specific competition of species within a given niche. In inter-specific competition an entire species can fall into the process of selection, on the other hand the survival of species is secured in intra-specific competition, although there can be suppression of the weaker individuals.¹⁴⁷ Inter- and intra-specific selection is narrowed down with the even distribution of individuals in the habitat and as a result this distribution forces the weaker individuals to look for new ecological niches in order to assure their own survival.

An additional important aspect of the ecological niche concept is the continued development of the organizational and behavioral dimension of species, which is in large part determined by competitive pressure in the habitat as well as by the potential for continued development, competitiveness and the ecological width of a

¹⁴⁴ Cf. Günther (1950), p. 83; Ludwig (1948).

¹⁴⁵ Cf. Spiegel (1990), p. 5.

¹⁴⁶ Cf. Rosenbaum (1999), p. 35ff.

¹⁴⁷ Cf. Spiegel (1990), p. 3.

species.¹⁴⁸ This way each species can achieve a connection with evolutionary factors of random and planned variation, internal or external selection and retention, as well as the expansion of their own niche or even the creation of new niches.¹⁴⁹

The aspects mentioned above as well as the existence of two interacting groups of system components especially justify the economic relevance and the ability to transfer the ecological niche model onto service and commodity markets. The following reasons support this claim:

- the economic markets are also constructed from two multidimensional systems. The products with their supply dimensions can be compared with the species specific (organizational and behavioral) dimension (System I) and the consumers respective demand, with the environmental conditions (System II);
- correspondingly with the ecological interdependencies, there are also analog determinants in business sciences for the creation, occupation and the allocation of niches: the competitive pressure in markets, the ability to further enhance (the attractiveness) and the width of product offering, as well as the competitive ability of the suppliers (see figure I-6).¹⁵⁰

¹⁴⁸ Cf. Rosenbaum (1999), p. 38.

¹⁴⁹ Cf. Spiegel (1990), p. 4.

¹⁵⁰ Cf. Rosenbaum (1999), p. 36ff.

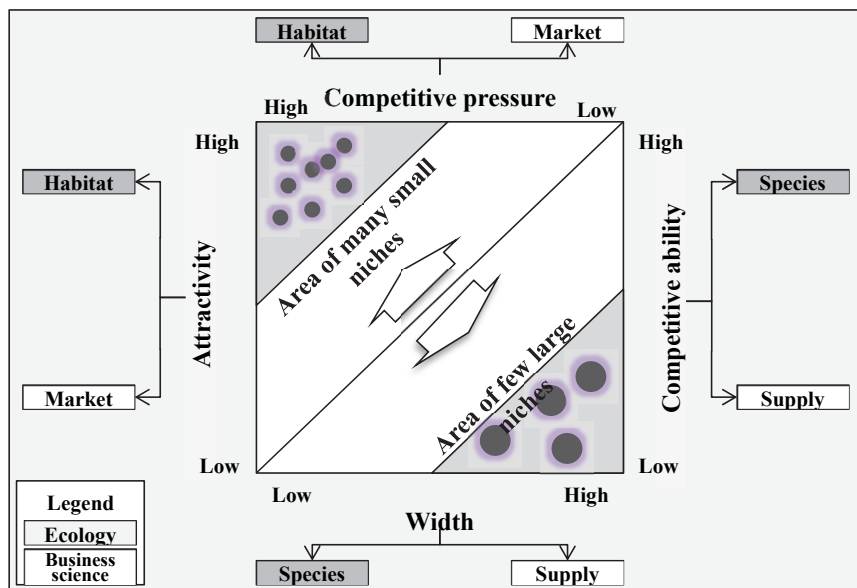


Figure I-6: Allocation of ecological and business science niches

(Source: Own interpretation on the basis of Rosenbaum (1999), p. 39.)

As a result, different combinations of a high supply width, low competitive ability of supply as well as low competitive pressure, and lacking market attractiveness are created. These are areas with few and therefore large market niches. These interdependencies are also analog valid for ecological niches.

Although this ecological niche concept possesses a significant relevance, it is not possible to build an independent economic niche theory based on analogies in order to provide a tangible course of action for a company which operates in the real market economy.¹⁵¹ Another deficiency of the ecological niche model is that it is of static nature, meaning that the Matrix-patrix relationship is only able to explain the developments until the point of creation of a niche. It also has only the ability to show the evolutionary developments in reference to the species specific system.¹⁵²

Following the analysis of the ecological niche concept, the review will focus on the market psychological concept of Spiegel. This is the first concept which tries

¹⁵¹ On the basis of the ecological niche models, it is possible to build analogies in relation to the creation of economical niches and their relationship to mass markets.

¹⁵² Cf. Rosenbaum (1999), p. 44ff.

to explain the creation and development from a business science point of view and to expand the understanding of the analogy building done previously by the ecological niche concept.¹⁵³

(b) *Market psychological concept.* The market psychological concept of Bert Spiegel found its first practical application with the research done by the Institute for Market Psychology in Mannheim between 1953 and 1954.¹⁵⁴ This study constituted the beginning of the use of the term niche in a business science sense. On the basis of this study, Spiegel developed a concept on the structure of opinion dispersion in the social field, which became known as the market psychological niche concept. This concept integrates the insight gained from the niche research in biology and the knowledge about consumer research from marketing and psychology. According to Spiegel, the social field includes only those individuals for which there is an attribute subject such as a product, so that each individual can be part of various social frameworks.¹⁵⁵

On the basis of a one dimensional observation of the social field of opinion, e.g. an economic market and the dispersion of individuals between two initial bipolar characteristics, Spiegel develops an n-dimensional model. The emergence and the structure of a market niche are created on the basis of the specific constellation of the supply and demand dimensions.¹⁵⁶ In contrast to the ecological niche concept of Günther, who explains the creation and structure of niches among other things with competitive pressure, Spiegel uses attraction. These attractions were operationalized through a “*force field*”, an expression coined by Kurt Lewin, which means the attribute of an objective to become oriented towards a solution.¹⁵⁷ The effect of a force field on an individual can be shown one-dimensionally with an arrow whose height varies upon the intensity of the effect (see figure I-7a).

¹⁵³ Cf. Danner (2002), p. 8.

¹⁵⁴ Cf. Rosenbaum (1999), p. 45; Danner (2002), p. 20f.

¹⁵⁵ A product becomes relevant for an individual within a market niche, if it is noticed, and the individual builds an opinion or a preference regarding this product. Cf Spiegel (1961), p. 12ff.

¹⁵⁶ Cf. Rosenbaum (1999), p. 46f.

¹⁵⁷ Cf. Spiegel (1990), p. 5.

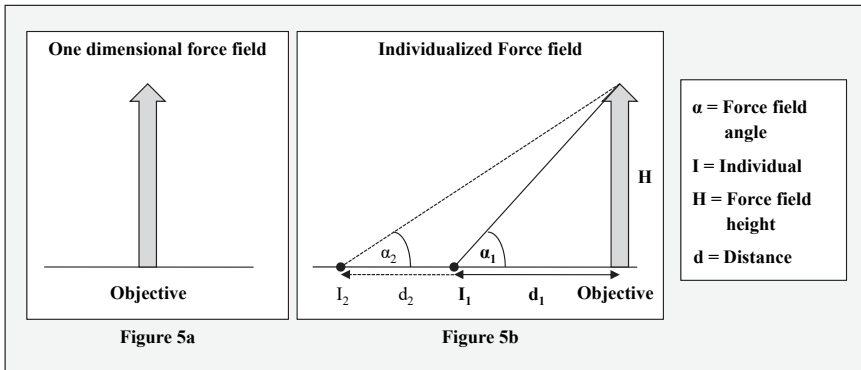


Figure I-7: Representation of a force field in the social field.

(Source: Own interpretation on the basis of Spiegel (1990), p. 6)

This viewpoint is not sufficient for a social field which is comprised of numerous individuals because it leaves open several important questions. This model cannot explain the strength of the intensity with which an objective works on an individual and it respectively cannot find out what determines this effect. Additionally it cannot explain why an individual does not always prefer an objective with a higher force field.¹⁵⁸

On the basis of the reasons stated above, it is necessary to explain the force field in a more complex model as an individual dimension. The individualization of the force field can be achieved through the positioning of individuals with a different distance to an objective, so that an objective in dependence to the distance is perceived with a different level of attractiveness for each individual¹⁵⁹, whereby the distance can be spatial, based on time or semantics. As a central consequence of the expansion of the model, the subjective force field character of an objective is now the size of the tangent of the angle α (force field gradient), which varies from the objective in dependence to the objective force field height (H) and the distance (d) (see figure I-7b).

As a last step, Spiegel transferred the original model through a ninety degree turn onto a complex social field. Through the turn the gradients and arrows are not visible anymore but are implicitly present in the visualized dispersal and density of a discipleship in a social field.¹⁶⁰ Analog to the matrix-patrix model of Günther, a

¹⁵⁸ Cf. Spiegel (1990), p. 5.

¹⁵⁹ Cf. Danner (2002), p. 20f.

¹⁶⁰ Cf. Spiegel (1990), p. 7.

subject of opinion classifies itself in the social field, where there is a maximal overlap between System I and System II.¹⁶¹ The environment specific System I of the ecological model is equivalent to the consumer (e.g. expectations, needs) in the psychological market concept of Spiegel and on the other hand the species specific System II is comparable to the demand side (e.g. product quality, price level), which should satisfy the dimensions of System I.

Through the positioning of the competing supply in different market segments niches that are more or less distinctive are created based on the distance between the supplies.¹⁶² Based on this Spiegel differentiates between two different types of niches: manifest and latent (figure I-8)

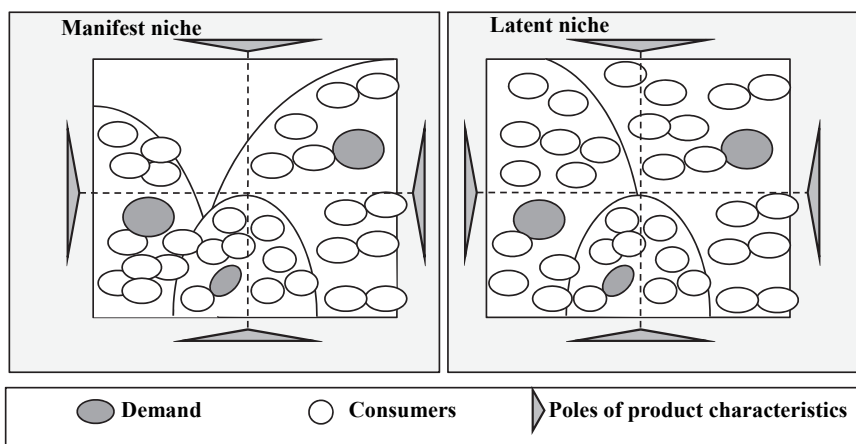


Figure I-8: Manifest vs. Latent Niches

(Source: Spiegel (1990), p. 7)

Manifest niches can be identified, when the current consumer needs are not fulfilled by the existing supply, which leads to a creation of a niche.¹⁶³ Consequently, the identification of market gaps and occupation of manifest niches is economically very feasible. Due to the existence of at least some competitors or because of the

¹⁶¹ Cf. Spiegel (1990), p. 8.

¹⁶² Cf. Spiegel (1961), p. 102.

¹⁶³ A detailed description of the differences between a market niche and a market can be found in Spiegel (1961), p. 143.

fast occupation of the manifest niches through a new or a modified existing supply, manifest niches are very hard to find in reality.¹⁶⁴

The main characteristic of latent niches contains the consumers with the lowest force field gradient, which are individuals whose preferences are the least satisfied through the existing supply. Therefore, latent niches are most appropriate for the introduction of new supply into the market. Even though they have a low force field height at the introduction, they will still manage to attract a considerable number of consumers through the short distance to the supply.¹⁶⁵

A considerable limitation of the psychological market model of Spiegel is the fact that it can only display a social field, e.g. by the derivation of supply and demand relationships in a market, whereas other influences remain unconsidered.¹⁶⁶ Additionally, Spiegel's concept allows only those competitive changes, which are induced by the supply side.¹⁶⁷ Regardless of these shortcomings, the psychological market concept performs the transformation of the findings from biology into the "*economic reality*" and hereby provides a significant contribution in the development of a founded understanding of niches in business sciences. It has to be especially pointed out that the approach of the niche suppliers is shaped through specialization and concentration on partially satisfied or unsatisfied consumer needs. The framework and premises developed by Spiegel are used as a basis for the evolutionary theoretical concept of the niche developed by Michael Rosenbaum.¹⁶⁸ His approach expands Spiegel's market psychological concept through the inclusion of dynamic and evolutionary developments on the side of the consumers.

(c) *Evolutionary concept.* Before moving on to the evolutionary concept of Rosenbaum, there will first be a short introduction into the evolutionary theory. Evolution as a term was first coined by the English philosopher Herbert Spencer, and stood for progress.¹⁶⁹ The basics of the evolutionary theory go back to findings of Darwin from the eighteenth century.¹⁷⁰ Many authors see the basic mechanisms of the pluralistic evolution theory, which assumes several independent factors of evolution as universal and applicable in other fields, e.g. companies.¹⁷¹ To facilitate

¹⁶⁴ Cf. Spiegel (1990), p. 7; Danner (2002), p. 24; Rosenbaum (1999), p. 78.

¹⁶⁵ Cf. Spiegel (1990), p. 7; Danner (2002), p. 25; Rosenbaum (1999), p. 78.

¹⁶⁶ Cf. Danner (2002), p. 23.

¹⁶⁷ Cf. Rosenbaum (1999), p. 58.

¹⁶⁸ Cf. Rosenbaum (1999), p. 58 et seq; Danner (2002), p. 23.

¹⁶⁹ Cf. Wuketits (1995), p. 1.

¹⁷⁰ Cf. Wuketits (1995), p. 1; Kieser/Woywode (1999), p. 253.

¹⁷¹ Cf. Wuketits (1988), p. 14.

easier understanding and classification of the factors of evolution and of the evolutionary niche concept, the evolutionary process of the synthesized evolutionary theory, will be shortly enlightened:¹⁷²

- The object of analysis is the population, which is defined through a common gene pool. Each individual has a distinct specific combination of a part of the gene pool (genotype).
- The gene pool is expanded through mutations, whereby mutations are omnidirectional.
- A combination of genetic characteristics of two different individuals is achieved through reproduction. The new individual is never an exact copy, so that variation is a consequence of reproduction.
- A directed change of the gene pool happens through the process of selection. Selection is the result of different capabilities of adjusting to the environment, which influences the success rate of reproduction.¹⁷³
- The creation of new species occurs through a spatial separation of at least two groups of a population. Genetic isolation takes place, which makes/prevents successful breeding between individuals of two different populations.

The business science has been going through a transformation of the scientific archetype since the 1980's, by going from the classical mechanics as the basic theory of physics, to the theory of live organic systems as a component of biology.¹⁷⁴ Authors such as Leonhard Bauer and Herbert Matis are talking about a return of social and business sciences back to their core, back to the time of David Hume and Adam Smith.¹⁷⁵ The paradigm change is happening primarily on the basis of the growing complexity and the interdependency between internal and external factors. These factors make it necessary to view the economy as a live system and as all living things, subject to a process of evolution.¹⁷⁶ The evolutionary theory as an alternative approach to the generation of economic knowledge, does not categorically exclude the findings from mechanics. Therefore, it has the advantage because it is able to

¹⁷² Cf. Kieser/Woywode (1999), p. 254f.; Danner (2002), p. 27.

¹⁷³ Darwin uses the term struggle for existence and survival of the fittest to describe this phenomena.

¹⁷⁴ Cf. Oeser (1989), p. 7.

¹⁷⁵ Cf. Bauer/Matis (1989), p. 5f.

¹⁷⁶ Cf. Dopfer (2004), p. 93; Oeser (1989), p. 8.

integrate the empirical concepts of natural sciences and the concepts of business science in humanities.¹⁷⁷

On the basis of the evolutionary theory, the concept of Rosenbaum expands it to an n-dimensional niche model through the integration of dynamic elements.¹⁷⁸ Rosenbaum's focus of research lies foremost in the creation and the development of niches and considers them from a supply as well as a demand perspective. Following the research of the ecological and market psychological concept, the evolutionary factors determine the creation, structure and development of niches and are joined together by the principle of functional causality. Additionally, niches are influenced by diverse inter- and intra-system interdependencies of the environment; the entire market and other sub-systems of the market (figure I-9).

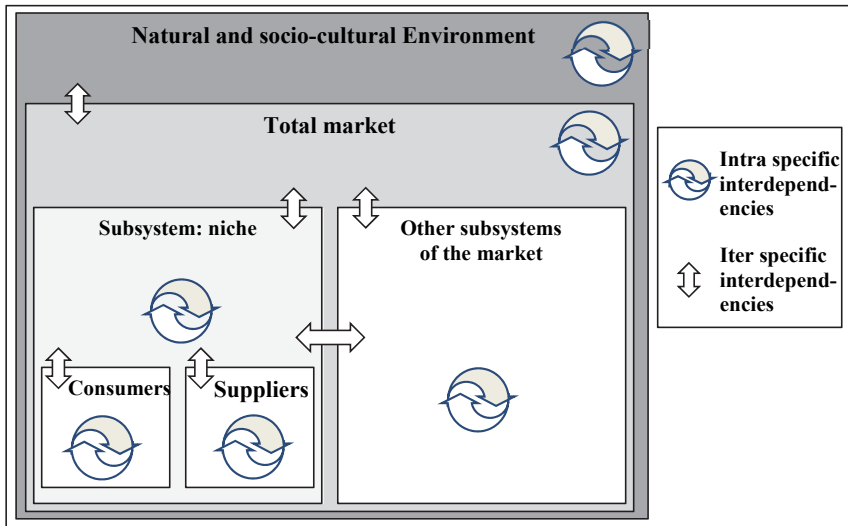


Figure I-9: The niche as a sub-system of the total market

(Source: Rosenbaum (1999), p. 124)

Rosenbaum developed his concept step by step, starting with a two dimensional attribute space and upgrading it up to an n-dimensional concept.¹⁷⁹ This should

¹⁷⁷ Cf. Rosenbaum (1999), p. 20f.

¹⁷⁸ For example Rosenbaum allows this in his concept in that new niches can be created in the process of creation of new markets.

¹⁷⁹ Cf. Rosenbaum (1999), p. 123.

characterize the evolutionary processes of the market as well as the supply and demand side. Analog to the evolutionary theory as a new market structure does not displace the old one but instead builds on it.¹⁸⁰ The expansion of the attribute space through the generation of an additional supply-demand dimension leads to the creation of a niche. This niche is primarily characterized through a low competitive intensity in comparison to other market constellations with fewer dimensions. The main criteria of a niche is the so called “*niche factor*” or factor-mix, which differentiates the niche supply from other supply in the market.¹⁸¹

On the other hand, in analogy, the evolutionary theory presumes that market complexity rises because of its development and that this development is marked by its own dynamics. The process of human development, the corresponding growth of creativity and spiritual productivity leads to a further differentiation of supply and demand so that new paths of development or niches are created (figure I-10).¹⁸²

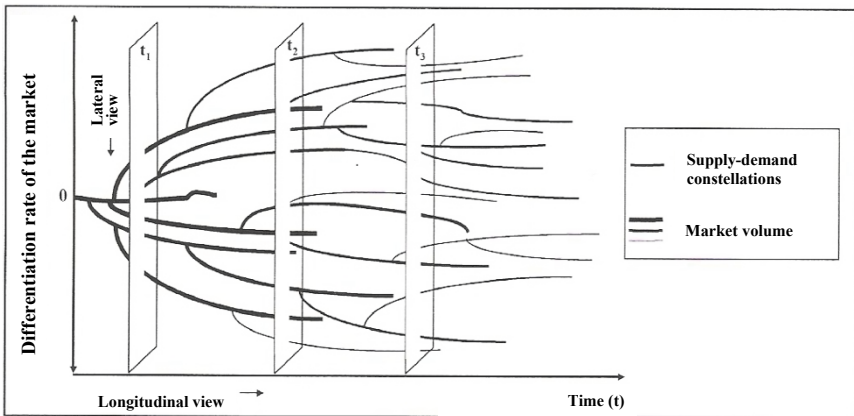


Figure I-10: Evolutionary development of markets

(Source: Rosenbaum (1999), p. 120).

¹⁸⁰ Cf. Rosenbaum (1999), p. 188ff.

¹⁸¹ Cf. Rosenbaum (1999), p. 189.

¹⁸² Cf. Rosenbaum (1999), p. 188; Danner (2002), p. 29ff.

This continuous niche building leads to an improvement of the total market structure; with a growing number of niches more and more individuals can consume their ideal product. According to figure I-8 the development of individual paths correspond with the specific supply-demand constellation of a market.¹⁸³ Due to the increasing rate of differentiation and the creation of new development paths, the average volume of a market decreases with time.¹⁸⁴

Whereas the psychological market concept of Spiegel can only differentiate between manifest and latent niches, Rosenbaum also makes the differentiation between *horizontal* and *vertical niches*.¹⁸⁵ A horizontal niche is characterized by the fact that it can be found between other market constellations and has the same number of supply-demand dimensions available. These are found in market segments, where there are only a limited number of consumers who demand similar product dimensions so that these segments are usually smaller but still profitable. Horizontal niches can, be divided similarly as with the psychological market concept, into latent and manifest niches (figure I-11).¹⁸⁶

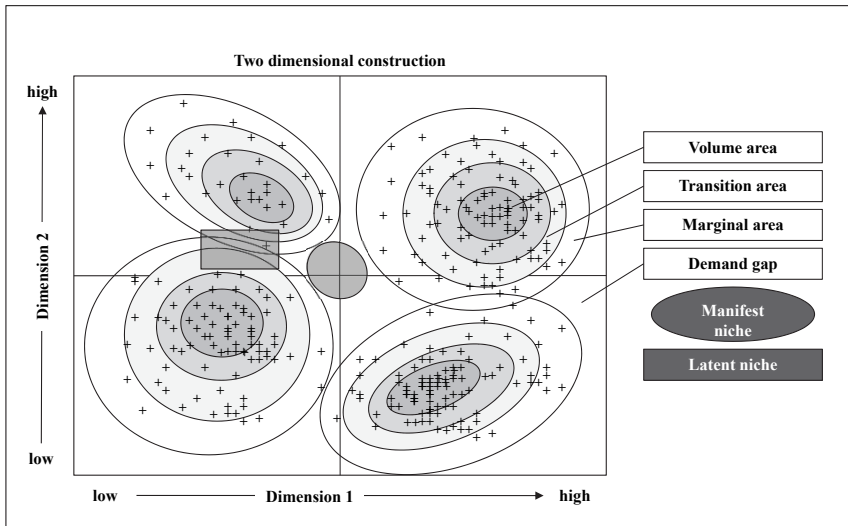


Figure I-11: Horizontal and vertical niches in a two dimensional construction
(Source: own interpretation on the basis of Rosenbaum (1999), p. 126ff).

¹⁸³ Cf. Rosenbaum (1999), p. 199f.

¹⁸⁴ Cf. Rosenbaum (1999), p. 120f.

¹⁸⁵ Cf. Danner (2002), p. 33ff; Rosenbaum (1999), p. 124ff.

¹⁸⁶ Cf. Danner (2002), p. 33f.

On the basis of Cavalloni (1991) and Stahr (1995), Rosenbaum makes the distinction between volume areas with a high demand density and marginal areas where the demand is scarcer.¹⁸⁷ Additionally, there are also transitional areas, which cannot be clearly separated from the two previously described areas and demand gaps which are without the presence of consumers.¹⁸⁸ Through the further development of the force field in Rosenbaum's concept, the total distance of an attribute to the individual is not a deciding factor anymore. The decisive factor is the sum of the weighted single distances of the positional values for the individual demand position.¹⁸⁹ In contrast to the horizontal niche, the vertical niche is a result of evolutionary processes, e.g. new or changed demand structures on the demand side or innovations on the supply side. These processes on the supply and demand side lead to a higher dimensioning of the market (figure I-12).

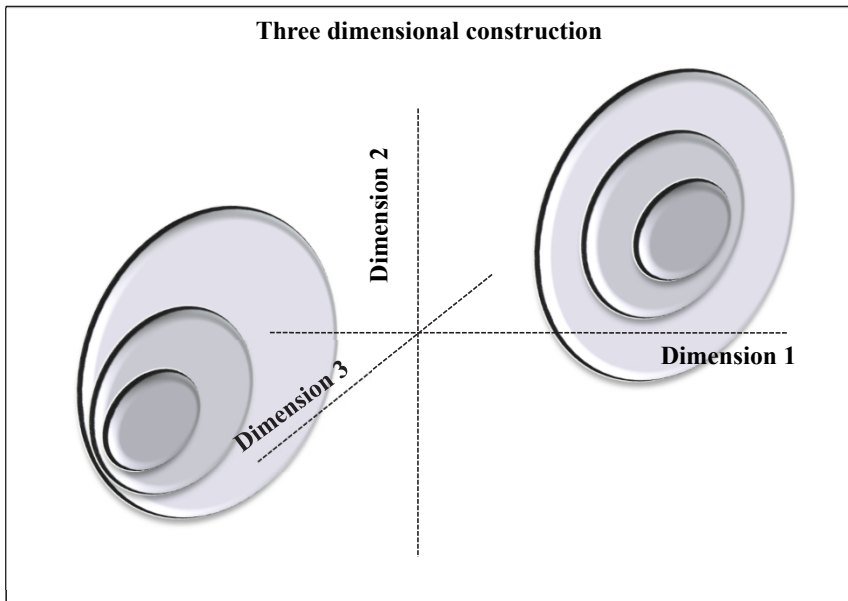


Figure I-12: Horizontal and vertical niches in a multidimensional construction
(Source: own interpretation on the basis of Rosenbaum (1999), p. 126ff).

¹⁸⁷ Cf. Cavalloni (1991); Stahr (1995).

¹⁸⁸ Cf. Rosenbaum (1999), p. 126.

¹⁸⁹ Cf. Rosenbaum (1999), p. 375.

(Source: own interpretation on the basis of Rosenbaum (1999), p. 126ff).

Even though the evolutionary theoretical of the n-dimensional niche concept is currently the most distinguishable explanation approach for niches, there are however some restrictions and limitations. Part of these restrictions and limitations can be found in the assumption that the evolutionary developments of niches cannot be exactly prognosticated because of the parallel effects of coincidence and necessity. The reason being, that external effects caused by coincidence cannot be prognosticated.¹⁹⁰ Additional limitations are that markets cannot be clearly bordered, not all biological analogies are clearly defined and operationalized and that it neglects the influence of individual actors on the creation and development of niches.¹⁹¹

Despite these shortcomings, the following central insights can be gained in relation to the market niches and the n-dimensional niche concept, which should be considered in the niche definition for strategic management:

- Niches are subsystems of mass markets, which are subsystems of the total markets. The total market is also influenced in part by superordinate systems.
- Niches are created through evolutionary processes of the total market, the supply and demand constellations, consumer behavior or actions taken by the companies:
 - Niches can be created and changed from the supply as well as from the demand side. This way niche markets are able to achieve considerable volume
 - Niches are not areas free of competition but they are subject to competition induced by the process of evolution and dynamic changes
- Horizontal and vertical niches can be identified. Especially vertical niches that are created e.g. through the higher dimensioning of its supply have higher market entry barriers and offer a better level of protection from new market entries and takeovers.¹⁹²

(d) *Other niche concepts in business sciences.* Besides the ecological, market psychological and evolutionary concept, which present the more comprehensive theoretical concepts, there are other research results which deal with the topic of the niche in business sciences. As opposed to the three concepts mentioned above, which exclusively research the niche phenomenon, these other concepts look at the

¹⁹⁰ Cf. Rosenbaum (1999), p. 186f.

¹⁹¹ Cf. Kieser/Woywode (2006), p. 339ff.

¹⁹² Cf. Rosenbaum (1999), p. 373ff; Danner (2002), p. 32.

niche in a secondary or subordinate role. In the following there will be a short overview of other niche approaches.

The *niche approach in economics*. The niche is discussed within economic literature as the contrary position to the trend product policy under the keyword “horizontal product differentiation”.¹⁹³

D’Aspermont, Gabszewicz and Thiesse (1979) conclude from their model of product development that the product should differentiate as much as possible to prevent strong price competition.¹⁹⁴ Böckem on the other hand shows in her model that the decision should be based on the two extremes of the product development decision. On the basis of the game theory in oligopolistic markets, she was able to show this decision using the example of two products with a dynamic optimization of Nash-equilibrium of the two decision criterions product design and price.¹⁹⁵ The decision of these criteria is due to the presumption that the product per se does not have any usefulness, but rather its attributes and the price presents a second independent parameter.¹⁹⁶

The main conclusions and implications of this economic niche model are:¹⁹⁷

- Market niches are small and are occupied as an option to avoid the competition on the total market
- A mediary position on this strategy continuum maximizes the welfare of the individual company as well as the entire economy and not the focus on one of the two product development possibilities.

Cavalloni’s *qualitative explanation of the niche*. With the help of an institutional, functional and instrumental dimension of a business segment Cavalloni (1991) has developed a model space, which was used for a qualitative explanation of a niche.¹⁹⁸ For this purpose, he first expanded the systematization approach of Abell through a competitive component, with which he was able to display several companies in his model space. On the basis of a different distribution of companies and the following varying spatial density, Cavalloni was able to derive the central,

¹⁹³ The trend product policy is the positioning of the supply, according to the preferences of the majority of the consumers. Cf. Böckem (1993), p. 536.

¹⁹⁴ Cf. D’Aspermont et al. (1979), p. 1145f.

¹⁹⁵ This insight implies that the suppliers choose the product attributes and prices in dependence of one another.

¹⁹⁶ Cf. Lancaster (1966), p. 133f.

¹⁹⁷ Cf. Rosenbaum (1999), p. 65f.

¹⁹⁸ Cf. Cavalloni (1991), p. 13f.

marginal and transitional as well as gaps, which he used, to display the general characteristics of a niche:¹⁹⁹

- Central areas are marked by a high company density, many competitors and high demand.
- Gaps are market segments, which are not utilized by any market capacity.
- The consumer-need combinations are relatively seldom in the marginal areas because of their peculiarity; they possess a low density.
- Transitional areas apply to the other areas that are left standing, besides the areas mentioned above.

In time there can be movement and displacements between the individual areas. Cavalloni defines the niches as the business segments in marginal areas, which:

"(...) are characterized through market services, which do not satisfy the differentiated consumer need in up to a satisfactory degree." (Cavalloni (1991), p. 16)

Following the review of niches in general business sciences, a conclusion can be made that niches are generally defined and identified by the following characteristics: they are built on analogies from ecology and sociology, which are then adapted into business sciences, they can be identified through unsatisfied demand by the existing market supply and they are a small specialized market constellation, which offers shelter from the competition. In addition, they are created through the evolutionary market processes and maturation which lead to a higher degree of market differentiation, which as a result leads towards the development of new niches. After this basic introduction into niches in business sciences the analysis will turn to the role of the niche in strategic management.

(2) The niche in strategic management

The niche in strategic management will look at how niches and niche strategies were initially developed and applied within the emerging field of strategic management.²⁰⁰ This overview will start with a short introduction into strategic management before focusing on the specific fields in which a niche strategy can be observed and also explaining its original meaning in strategic management.

Strategic management is a young scientific discipline whose roots date back to the 1960's. It has been pioneered by the works of Chandler (1962), "Corporate

¹⁹⁹ Cf. Cavalloni (1991), p. 15ff.

²⁰⁰ A comprehensive definition of a niche and strategic management will be provided in the sub-chapter "I.2.1 The niche and strategic management".

Strategy”, Ansoff (1965), “Corporate Strategy” and Andrews (1971), “The Concept of Corporate strategy”.²⁰¹ The beginnings of niches in strategic management studies can be traced back to the 1960’s as they mark the transition in how organizations are viewed. In this time the study of organizations shifted from closed to open systems. Prior to 1960 organizations were viewed independently from their environments and all vital processes and events were internal to the organization. After 1960 the organizations were viewed as highly interdependent with their environments, meaning that it is possible to cross organizational boundaries and that they can change in time.²⁰² Following this period, three main events shaped the field of strategic management and subsequently the development of the niche. This included the works of Schendel and Hofer (1979) and Porter (1980) and the *inauguration of the Strategic management Journal* in 1980.²⁰³ It was Porter’s (1980), “Competitive Strategy” that produced the basis for the further development of the field and much of the produced content. His work marked the breaking point where strategic management ceased to rely on the methodologies and toolkits developed by consulting companies and started its own systematic and theoretical analysis of the firm level strategy.²⁰⁴

Based on these developments several schools of thought and paradigms emerged in the field of strategic management. The following will be an overview of some of them, where the niche and niche strategy have also found its role.

(a) *Market-based view*. The market-based view was created on the basis of the critique of the key-success-factors.²⁰⁵ The majority of researches in strategic management decided to continue the research of key-success factors within the scope of clearly defined theoretical and methodological foundations. Porter (1980)

²⁰¹ Cf. Chandler (2001); Ansoff (1965); Andrews (1980).

²⁰² Cf. Scott (1981), p. 407.

²⁰³ See Schendel/Hofer (1979); Porter (2004). Schendel and Hofer’s (1979) „Strategic Management: A New View of Business Policy and Planning” is considered as one of the most important contributions to the field of strategic management. This collection of papers and commentaries represented the state-of-the-art research in the field of strategic management. The objective of the book was to define the domain of the relatively young and emerging field of strategic management, analyze the existing research done in the field and propose guidelines and directions for future research. Cf. Evered (1980), p. 536f; Summer/Sobol (1981), p. 99.

²⁰⁴ Cf. Sridhar P. Nerur (2008), p. 320.

²⁰⁵ This critique was based on the lack of a theoretical and methodological foundation of the key-success-factor research. However, the basis of this critique was rarely the search for success factors in companies. Cf. Nicolai/Kieser (2002), p. 580ff.

developed the market-based-view on the basis of theoretical foundations of the industrial organization, which he managed to transfer onto strategically relevant research questions.²⁰⁶ The basis of the industrial organization is the *structure-conduct-performance* paradigm, which is built on the assumption that the market characteristics (structure) determine the behavior of companies (conduct), which then leads to the success or failure in the market (performance).²⁰⁷ The development of this paradigm is attributed to the work of Mason (1939) and Bain (1956) on the industrial organization. Mason studied the effects of the organizational structure of a company and its response to certain market conditions and the elements of market structure. He discovered some of these elements such as the concentration of buyers and/or sellers and product differentiation among others. These two factors according to Mason (1939) are vital for the analysis of price and production policies and the determinants of industry structure.²⁰⁸ Similarly to Mason, Bain pioneered his work on measuring monopoly power, scale advantages and business efficiency of large organizations.²⁰⁹ It was not until 1956 when Bain defined the entry barriers as:

“(...) the advantage of established sellers in an industry over potential entrant sellers, these advantages being reflected in the extent to which established sellers can persistently raise their prices above a competitive level without attracting new firms to enter the industry (...)” (Bain (1956), p. 3)

These entry barriers may not be as obvious in their effect on industry structure but are vital for the structure-conduct-performance relationship. These entry barriers were economies of scale, absolute cost advantages which are independent of scale, product differentiation, and capital requirements. The extent to which these entry barriers deter competitors from market entry depends on the gap between price and minimal cost at which an entry can be deterred.²¹⁰

Porter (1980) has taken these basic ideas from the industrial organization and modified them by including a behavioral component, which is the importance of

²⁰⁶ Cf. Hungenberg (2000), p. 61.

²⁰⁷ Cf. McWilliams/Smart (1993), p. 64.

²⁰⁸ Cf. Mason (1939), p. 66. Mason's work was centered around the monopoly and consequent research on industry structure. Because of this focus, the main objects of research were large companies. Mason (1949), p. 1266f.

²⁰⁹ Cf. Bain (1941), p. 271; Bain (1942), p. 566; Bain (1954), p. 15f; Bain (1956), p. 336; Bain (1969), p. 99.

²¹⁰ Cf. Andreano/Warner (1958), p. 67; Qualls (1972), p. 146f.

the managerial decisions for a company.²¹¹ According to Porter the market structure is determined by the five competitive forces: the entry of new competitors, the threat of substitutes, the bargaining power of buyers, the bargaining power of suppliers and the rivalry among the existing competitors. The stronger the threat of these five forces the lesser is the attractiveness of the industry and it is more difficult for a company to achieve a sustainable competitive advantage.²¹² Through his work, Porter was able to create an independent field of research in strategic management, which became known as the market-based view.²¹³

Based on the five competitive forces Porter developed three generic strategies (see figure I-13a), with which a company can develop a defensible position and outperform the competition:²¹⁴

- *Cost leadership strategy.* The objective of the cost leadership strategy is to be among the lowest cost producers in a given industry. By implementing rigorous control over costs the company aims to achieve above average returns with lower prices. This cost strategy is based on the company's ability to create economies of scale or economies independent of scale with aggressive pricing.²¹⁵ The economies which are independent of scale have the ability to

²¹¹ Cf. Bamberger (2005), p. 40f. For a detailed overview of the structure-conduct-performance paradigm see appendix, Figure A-1.

²¹² Cf. Porter (2004), p. 4ff. See also appendix, Figure A-2. Although there is no common definition of competitive advantage, it is usually defined as a combination of positional superiority and distinct competences. Day (1988) describes competitive advantage as: "(...) *This integrated view is based on positional and performance superiority being a consequence of relative superiority in the skills and resources a business deploys. These skills and resources reflect the pattern of past investments to enhance competitive position. The sustainability of this positional advantage requires that the business set up barriers that make imitation difficult. Since these barriers to imitation are continually eroding, the firm must continue investing to sustain or improve the advantage.*" (Day/Wensley (1988), p. 2).

²¹³ Although the roots of the concept date back to the 80s and 90s, the market-based view is presently still not viewed upon as a gone out-of-date concept. Cf. Hungenberg (2000), p. 61.

²¹⁴ Cf. Porter (2004), p. 11ff. See also Dess/Davis (1984), p. 469; Miller/Friesen (1986), p. 37f; Watkin (1986), p. 10; Chrisman et al. (1988), p. 417f; Jones/Butler (1988), p. 202f; Murray (1988), p. 391ff; Cronshaw et al. (1994), p. 20; Lim Gaik Eng (1994), p. 44f; Marlin et al. (1994), p. 156; Allen et al. (2007), p. 434ff; Akan et al. (2006), p. 45ff; Parnell (2006), p. 1141; Allen et al. (2007), p. 73f; Gurău (2007), p. 370f.

²¹⁵ Aubrey (1972) defines economies of scale as: "(...) *the effect on average costs of production of different rates of output, per unit of time of a given commodity, when all possible adaptations have been carried out to make production at each scale as efficient*

provide a more sustainable competitive advantage for the company than scale based economies. These scale independent economies can be classified into three categories: access to raw materials, access to product or process technology and access to distribution channels. The competitive advantage of a cost leadership strategy consequently stems from the company's ability to lower prices to the level of the most efficient competitor and still earn superior profits.

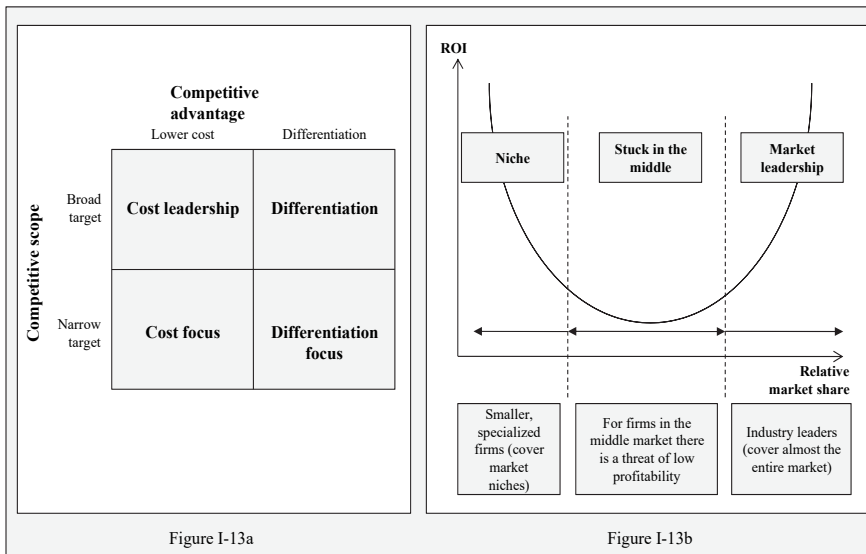


Figure I-13: Porter's generic strategies and stuck in the middle.

(Source: Cf. Porter (2004), p. 12et seqq)

as possible." (Silberston (1972), p. 369). Economies of scale simply state that the average cost per unit will decline with the increasing scale of production. Cf. Curry/George (1983), p. 218f; Martin (1984), p. 1192; Hill (1988) p. 402; Gold (1981), p. 5f. There are three different origins of economies of scale, there are economies of scale which affect: capital costs per unit, operational costs per unit and economies of scale which affect both aforementioned sources per unit. Sources which affect capital costs are initial fixed costs and working capital, sources which affect operating costs are the specialization of labor and vertical linking economies, and sources which affect both capital and operating costs increase in size and specialization. Silberston (1972), p. 374.

- *Differentiation strategy.* The objective of this strategy is to create a unique product or service by emphasizing design or brand image, technology, customer service and other features. This differentiation is typically associated with high investments in costly activities such as research, product or service design and marketing. The emphasis of customers on the importance of product attributes is a necessary prerequisite for a differentiation strategy. With a successfully implemented differentiation strategy a company is able to create price elasticity on the part of the buyers. This inelasticity leads to the creation of entry barriers thus enabling the company to achieve higher margins and reduce the power of buyers because of a lack of an appropriate substitute. The cost leadership and differentiation strategies according to Porter (1980) are mutually exclusive.
- *Focus strategy.* This strategy is aimed at satisfying only a specialized segment of the entire market, which consists of certain types of customers, limited geographic market, or a narrow range of products. By pursuing a focused cost leader or differentiation strategy a company is able to satisfy this specialized market segment more effectively or efficiently than its competitors, which operate in the broader market. Thus a company is able to achieve differentiation by better satisfying the needs of a particular customer segment or achieve lower costs in serving this customer segment.

The first differentiation between these strategies is based on the decision, if a company wants to achieve competitive advantage with a cost strategy (e.g. lower prices), or differentiate itself from the market (e.g. high quality products) and this determines the means in achieving competitive advantage. The second differentiation determines the competitive scope, if a company wants to be present on the entire market, or focus only on a segment of the market.²¹⁶

The niche strategies can be found in the area of focus strategies and instead of focusing on the entire market, only a selected segment of the market is developed into a niche. These focus strategies enable the identification of neglected target markets or customer groups, for which there optimal conditions in meeting their demand and the strength of the competitors is the weakest.²¹⁷ The basic idea behind the niche as a strategic option is the assumption that a company can achieve its narrowly defined objectives much easier than a competitor in the general market

²¹⁶ Cf. Porter (2004), p. 12ff.

²¹⁷ Cf. Miller/Friesen (1986), p. 37.

(see figure I-13b). These niches are created from various characteristics such as geographical position, consumer characteristics and product specifications or requirements. The niche strategy is most effective, when the consumer has specific preferences and when it has not been previously used by other competitors.²¹⁸ This niche strategy is usually applied by smaller companies, which do not possess the resource level to develop a cost leadership or a differentiating competitive advantage at the total market level.²¹⁹

If a company does not decide upon one of the generic strategies or if it employs a combination of different generic strategies, it faces the risk of being “*stuck-in-the-middle*”. This means that the company has no clear strategic profile and tries to be everything to everyone, and consequently is not able to develop a competitive advantage. As a result the companies that are stuck-in-the-middle are usually less profitable than companies with a clear strategic profile, either as a specialist or a generalist.²²⁰

A limitation of Porter’s niche is the fact that Porter in fact does not provide a definition of a niche nor does he give any indication as to why niches are created, what their structures look like or what their development is like. Additionally, Porter’s view of the niche is restricted only to the view from the supplier’s side and only gives general recommendations.

(b) *Resource-based view*. The resource-based view developed as a critique of the shortcomings of the market-based view, as more and more authors became dissatisfied with the lack of attention, which was placed on the role of organization-specific factors in the analysis of strategic groups. This sparked a new interest in firms’ resources as the basis of a company’s competitive advantage, instead of strategic group membership. It was the beginning of the digital age which sparked a renewed interest in the firm’s resources. The previous basis for strategy formulation where strategic groups and industry boundaries were drawn became increasingly difficult to maintain because of the disappearing physical boundaries. Due to vast

²¹⁸ Cf. Allen et al. (2007), p. 436.

²¹⁹ Cf. Gurău (2007), p. 371.

²²⁰ Cf. Segev (1989), p. 499; Schwalbach (1991), p. 306; Cronshaw et al. (1994), p. 22. Porter’s insistence on the inability to follow multiple strategies at once may be unnecessarily limiting, as some of the most successful companies in the world were able to simultaneously implement different strategies (e.g. Toyota). The decision to follow one or multiple generic strategies should be based on the industry and consumer conditions, which may or may not favor a mixed strategy. Cf. Lim Gaik Eng (1994), p. 46.

environmental changes the creation of a sustainable competitive advantage was becoming increasingly more difficult. Therefore research started focusing again on the organizational resources as a source of sustainable competitive advantage in the changed environmental conditions.²²¹ The RBV was built upon the research done by Penrose (1959) and Wernerfelt (1984) and formalized as one of the most premier paradigms of strategic management by Barney (1991).²²²

The RBV as opposed to the MBV takes an “*inside-out perspective*” of the company and is based on the idea that the success of companies cannot exclusively be explained by the predominant market structures or text book behavior of the companies.²²³ The reasons for the success can be found in the specific resource constellations of a company.²²⁴ The resources and their utilization build the foundation for the success of companies. This central idea of the key role of resources and their constellation for a company also became known as the “*resource-conduct-structure*” paradigm.²²⁵ Competitive advantage according to the resource-based view can be achieved, if the resources meet the following four criteria:

“(…) (a) it must be valuable, in the sense that it exploits opportunities and/or neutralizes threats in a firm’s environment, (b) it must be rare among a firm’s current and potential competition, (c) it must be perfectly imitable and (d) there cannot be strategically equivalent substitutes for this resource that are valuable but neither rare or imperfectly imitable.” (Barney (1991), p. 106)

The different constellations of these resources give a company its distinctive competences, which then translate into a competitive edge over its rivals. The resources

²²¹ Cf. Parnell (2006), p. 1141f. Although in the developing stages of the RBV, resources were also viewed in the scope of the MBV and presented similar outcomes as the models developed by Porter’s generic strategies and competitive forces. This point is further emphasized by Wernerfelt (1984), when he characterizes a resource as anything which could be considered a strength or a weakness of a firm. Wernerfelt (1984), p. 172ff.

²²² See Penrose (1996); Wernerfelt (1984); Barney (1991).

²²³ The market-based view explains the long term success of companies mainly through the industry structure in which a company operates. The key determinant in a company’s success is not solely dependent on the opportunities and risks on the market but also a product of a company’s internals strengths and weaknesses, which play a key role in determining company success. Cf. Hungenberg (2000), p. 62.

²²⁴ For the purpose of this thesis resources will be understood as defined by Daft (1983): “*Firm resources include all assets, capabilities organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness.*” (Daft (1983), p. 87.

²²⁵ Cf. Bamberger (2005), p. 42.

have to build complex casually ambiguous relationships with other firm-specific resources and capabilities to create the difficult to imitate competences. The creation of this competitive advantage is enabled through imperfect or incomplete factor markets, which create barriers that disable the mobility and equal distribution of resources across competing companies. The characteristics of the resource markets influence the resources themselves and their rent generating potential. This potential is not only developed as a response to factor market imperfections but also as the result of unique historical circumstances and the accumulation of specialized capabilities. This leads to the conclusion that a sustainable competitive advantage according to the RBV perspective can be achieved as a result of sound managerial action, exclusive resource accumulation and deployment, the strategic factors of the industry and the imperfections of the factor markets.²²⁶

The main critique of the RBV falls in the domain of the tautological nature of the RBV. This means that the reasoning in RBV is circular, meaning that the resource value can only be estimated in certain contexts. The use of resources can lead to a competitive advantage. This advantage defines the competitive structures which are relevant for the company and these structures again define what a valuable resource is. This would mean that the basic assumptions of the RBV are true by definition and can therefore not be subjected to empirical testing. Although in defense of the RBV, Barney (1991) countered that the way in which this critique is set up, all strategic management theories would be considered tautological.²²⁷

Lastly, it is important to note that although the market- and resource-based views have a different view on gaining a sustainable competitive advantage, they cannot be viewed as opposite but rather as complementary. Strategic success in the market can only be achieved if the resources of the company meet the demands of the consumers. This leads to the conclusion that the only way the resources represent a value is if they are able to generate products that are able to compete on the market.²²⁸

The role of the niche in the resource-based view can be identified within the competitive behavior that produces a niche as a result of *disruptive technology* (as sometimes also referred to as *disruptive innovation*). Disruptive innovation is based

²²⁶ Cf. Mahoney/Pandian (1992), p. 363f; Lado et al. (1992), p.84; Day (1994), p. 38; Hunt/Morgan (1996), p. 109; Oliver (1997), 698f; Barney et al. (2001), p. 626f; Lockett et al. (2009), p 11f. See also appendix, figure A-3.

²²⁷ Cf. Priem/Butler (2001a), p. 27f; Priem/Butler (2001b), p. 58f; Barney (2001), p. 41; Fahy (2000), p. 100f.

²²⁸ Cf. Bea/Haas (1997), p. 31.

on the notion that new products with inferior performance can displace existing technologies by first focusing on low-end cost orientated customers and then revolutionizing the entire market (see figure I-14).²²⁹ Disruptive technology can be defined as:

“A disruptive technology is a technology that changes the bases of competition by changing the performance metrics along which firms compete.”
(Danneels (2004), p. 249)

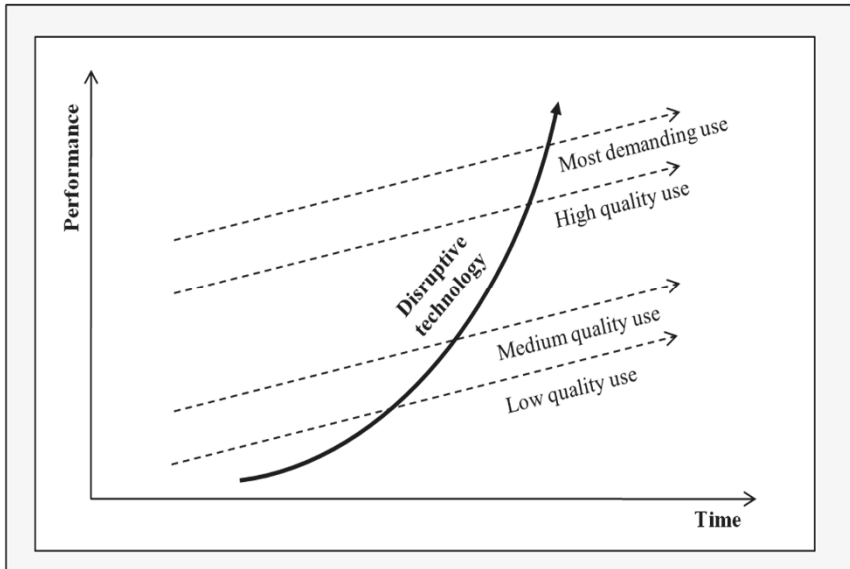


Figure I-14: Disruptive technologies (disruptive innovation) over time.

(Source: own interpretation on the basis of Ron Adner/Zemsky (2005b), p. 233et seqq)

These disruptive technologies showcase technologies, which have inferior performance in comparison to the mainstream technologies. This performance dimension is vital for the mainstream customers. Therefore, disruptive technologies in their early stages are only able to satisfy market niches, which place value on the special performance characteristics of these technologies. In time, this niche technology is developed even further to meet the demands of the mainstream customers, although

²²⁹ Cf. Christensen (1997), p. 39ff. Debruyne (2005) defines the niche innovation within the disruptive technology framework as the introduction of a new technology, which creates a new market opportunity in the scope of an existing industry setting. Debruyne/Reibstein (2005), p. 55f.

it still remains inferior in performance in comparison with the mainstream technology. The technology disruption takes place when the new technology despite its inferior performance manages to displace the incumbent technology in the mainstream market.²³⁰

The main focus is on the needs of the customers, which represent the foundation for benefits which the customers can derive from the product. The benefits which the customers look to achieve from a certain type of product determine the characteristics of the products, which have value from the customer perspective. As a result, various products can offer a differentiating level of performance in different product dimensions. Consequently, this technological disruption is the consequence of three factors:²³¹

- Mainstream technologies which are outperformed by disruptive technologies on factors, which are the most important for mainstream consumers,
- mainstream customers which switch to disruptive technology despite the superior performance of the mainstream technology
- failure to recognize and react to the threat of newly disruptive technologies by incumbent companies.

The disruptive technology has forced managers and scholars to reconsider the approach towards how technological threats and opportunities are assessed. The approach is moving away from the classical supply-side explanations of technology development, which are based on the interaction of firms and technologies. Instead it focuses on the impact of market demand, more specifically on consumer demand and its role on technology development.²³² There are many examples of disruptive technologies, perhaps the most prominent being the example of the hard disk drive industry.²³³

The connection between the disruptive technologies and the niche is established in the commercialization stage of the disruptive technologies, where the new technology positions itself in a niche market segment. From here on out the disrup-

²³⁰ Cf. Utterback/Acee (2005), p. 1; Kassicieh et al. (2002), p. 668; Danneels (2004), p. 247; N.U. (2001), p. 10f; Ron Adner (2002), p. 668; Ron Adner/Zemsky (2005a), p. 231; Danneels 2006, p. 2f; Markides (2006), p. 19; Tellis (2006), p. 34; Padgett/Mulvey (2007), p. 375.

²³¹ Cf. Danneels (2004), p. 249; Ron Adner (2002), p. 669.

²³² Cf. Ron Adner (2002), p. 668.

²³³ Cf. Christensen (1997), p. 5ff.

tive technology can either remain in its niche or move on and challenge the mainstream technologies in the total market. According to Adner (2005), the disruptive technologies have to be separated from the niche technologies, which remain isolated in their market niches and do not proceed to compete in the mainstream market.²³⁴ However, the interest of this thesis is exactly on the technologies, which choose to remain in its protected market niches.

Debruyne/Reibstein offer the example of online-brokers in which the niche position sets a mechanism of competitive behavior in motion, if the central resource, on which the niche position is based is not inimitable up to an adequate degree.²³⁵ As soon as the competitors have the possibility of entering the market niche, looking from a resource standpoint, three key factors are decisive, if a market entry can happen:²³⁶

- The opportunity to harvest profits from the entry into the niche, in connection with the financial consequences of a niche entry.
- The relevance and the attractiveness increase, which is attributed to the niche with the market entry of competitors.
- The market entry of competitors in the niche reduces the perceived risk of market entry.

Debruyne/Reibstein have empirically shown that the behavior of competitors, as well as the characteristics of the firm are the two decisive factors for a market entry into a niche. Scale and the resource configuration play a central role. The similarity of companies in these two dimensions increases the probability that their response to a disruptive technology in a niche will be similar as well.

The main critique of the concept of disruptive technologies is based on the scope to which the main propositions apply to. The notion is that disruptive technologies enter the market with an inferior performance to that of incumbent products. Utterback (2005) states various examples, where the disruptive technology enters the market with an enhanced performance than the mainstream technology.

²³⁴ Cf. Ron Adner/Zemsky (2005a), p. 229f.

²³⁵ Online-brokers are a typical disruptive innovation, which is initially inferior to the existing products on the market. It first attracts low-end customers, before attacking the established market segments. Cf. Christensen/Overdorf (2000), p. 72. The technical infrastructure was the central resource, which enabled the creation of a niche position (at least for a short period of time), in the case of the online-brokers. Debruyne/Reibstein (2005), p. 56.

²³⁶ Cf. Debruyne/Reibstein (2005), p. 57.

Similarly some new technologies which were considered disruptive, also introduced a technology at a higher cost than that of the initial technology.²³⁷

The next paragraph will move away from the internal company perspective of the resource based view. The essence of the relational view is that a company harvests its competitive advantage from the relationships from within its network.

(d) *Relational view*. The relational view is complementary to the resource-based view with a quintessential difference of focusing on networks. The relational view sees the sources for competitive advantage also on the outside of the companies, namely in its relationship with other companies. Key for the relational view is the understanding that a company does not only have interactions with its competitors, but also with other actors in its external environment. This external environment consists of various network suppliers, customers, regulators, trade associations and others.²³⁸ If the relationships with other companies would be viewed as a resource, the relational view could be classified as a sub-branch of the resource-based view.²³⁹ The advantage of network relationships can only be realized, if both companies invest in the mutual network. As a consequence, the analysis of competitive advantages cannot be restricted to one company, but has to consider the relationships between the companies in these networks. Through the combination of resources and the investments in common processes, these companies are able to achieve interorganizational competitive advantages.²⁴⁰ There are four different dimensions of interorganizational cooperation, which are conceivable and empirically relevant:²⁴¹

- Investments in relationships-specific products/ value building processes
- Knowledge exchange and collective learning
- Consolidation of resources for the creation of unique products
- The reduction of the transaction costs between the two parties

The niche in the relational view can be observed within *business ecosystems*.²⁴² The increasing industry consolidation, which is dominated by large companies, is leading to the creation of business ecosystems.²⁴³ A business ecosystem represents a

²³⁷ Cf. Utterback/Acee (2005), p.7f; Markides (2006), p. 24; Tellis (2006), p. 38.

²³⁸ Cf. Deephouse (1999), p. 148f.

²³⁹ Cf. Dyer/Singh (1998), p. 660.

²⁴⁰ Cf. Oliver (1990), p. 241.

²⁴¹ Cf. Dyer/Singh (1998), p. 662.

²⁴² See Iansiti/Levien (2004).

²⁴³ Deans et al. (2003), p. 6.

business community of interacting companies, business units, technologies and products, who all exhibit dynamics which are similar to the dynamics displayed by an ecosystem. The network relationships in this community play a vital role because their interactions at one level can impact the development and shape of these relationships on other levels (see figure I-15).²⁴⁴

A central role in the business ecosystem is played by the keystone. Keystone companies are those whose role is the most vital for the ecosystem because they create advantages for the entire ecosystem and its members.²⁴⁵ A keystone's strategy is based on the general well being of the ecosystem which benefits the keystone, as well as all the members in the business ecosystem. It is concerned with the management of resources, shaping network structure and maintaining the external health of the ecosystem.²⁴⁶

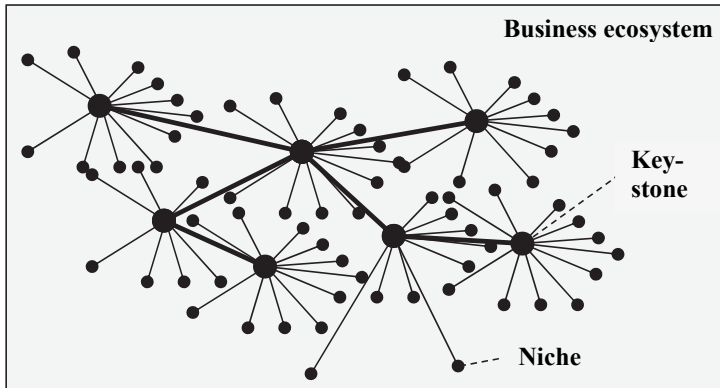


Figure I-15: Business ecosystem.

(Source: Iansiti/Levien (2004), p. 73.)

The niche strategy in the business ecosystem is defined as:

“(...) an operating strategy that specializes capabilities, to differentiate a business within an ecosystem domain. The fundamental advantage of a niche

²⁴⁴ Cf. Moore (1996a), p. 26.

²⁴⁵ The health of the entire business ecosystem is dependent upon the health of the keystone. The removal of a keystone company from the ecosystem could potentially have a devastating effect on the survival of other companies through the entire business ecosystem. Examples of a keystone are companies such as Microsoft. Cf. Iansiti/Levien (2004), p. 68.

²⁴⁶ Cf. Iansiti/Levien (2004), p. 82.

player (...) is specialization. Niche players specialize by leveraging the services provided by the keystone in their ecosystem and by concentrating on the acquisition of businesses and technical capabilities that directly support their niche strategy.” (Iansiti/Levien (2004), p. 128)

These niche players have a typical number of relationships and represent a critical part of the ecosystem because of their quantity. They are usually situated at the edges of the ecosystem and rely heavily on the health of the entire ecosystem for their existence.²⁴⁷

As can be observed from the various branches of strategic management described above, there are various viewpoints on what constitutes a niche or a niche strategy. One can make the conclusion that niches in strategic management are based on:

- specialization in a market segment which they can satisfy better than the competition, either through lower costs or product differentiation,
- through a combination of resources, which enables the company to achieve innovations that are initially placed in the lower end of the market before enhancing the product capabilities and attacking the mass market and
- through the leverage of its network relationships within the business ecosystem where they can achieve a competitive advantage by concentrating on business acquisition and technical capabilities.

All these characteristics will be considered and included in the development of a niche definition for strategic management in chapter I.2. Following the overview of the niche in strategic management is an upgrade of the primary research with the new developments and trends in niche research in contemporary strategic management.

(3) Niche approaches and future directions in contemporary strategic management

After reviewing the fundamental niche literature in strategic management, the following point will focus on the evolution of the basic literature. This will provide an understanding of how the niche has developed and how it has been applied in subsequent research projects. The emphasis will be placed on four key works:

- (a) Danner’s (2002) “*Strategisches Nischenmanagement - Entstehung und Bearbeitung von Marktnischen*”,

²⁴⁷ Cf. Iansiti/Levien (2004), p. 68., p. 125f.

- (b) “*Wachsen in Nischen*” from Kröger/Vizjak/Ringlstetter (2006),
 - (c) Trachsel’s (2007) „*Nischenstrategien und ihre Bedeutung für den Unternehmenserfolg*“, and
 - (d) „*The Long Tail - Der lange Schwanz*“ from Anderson (2007).
- (a) Danner’s work was one of the first publications, which exclusively dealt with the topic of strategic niche management. His objective was to explain the creation of niches, define and separate the niche strategies from other approaches, determine the possibilities for niche strategy formulation and find an application for these strategies.²⁴⁸ This application of strategic niche management was based on a process model.

According to Danner a niche is defined as a profitable market segment, which is created when a producer in a segmented market specializes on certain consumers, products or regions and satisfies the demand for the first time or more precisely.²⁴⁹ As can be observed, this definition of the niche is based on Porter and the market-based view.²⁵⁰ The niche is defined with three-dimensions; consumers, products or geographical region (see figure I-16).

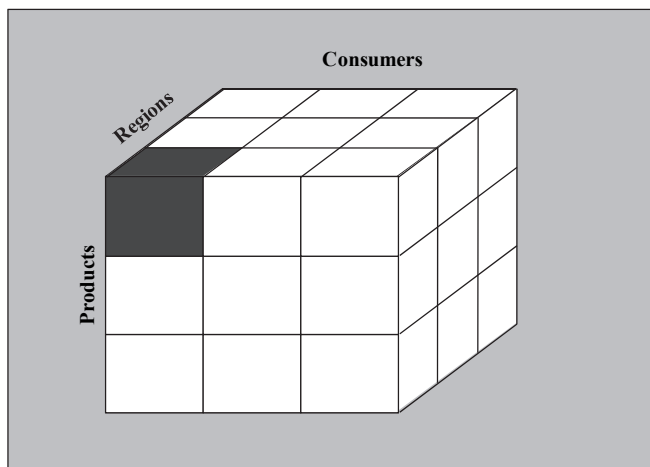


Figure I-16: Formulation of niche strategies.

(Source: Danner (2002), p. 225.)

²⁴⁸ Cf. Danner (2002), p. 3f.

²⁴⁹ Cf. Danner (2002), p. 55.

²⁵⁰ See Porter (2004).

The market has to be segmented if a niche is to be identified, but the segmentation alone is not sufficient for a market niche to exist. A market segment is considered a niche if it realizes any of the three niche economies: individualization, specialization, and concentration.²⁵¹ Based on this definition Danner goes on to define a niche strategy. Which he describes as an approach aligned to create a market niche by focusing on a market segment and to shape it as goal oriented.²⁵²

From the knowledge gathered in the previous point on niches in strategic management, an obvious shortcoming of Danner's niche and niche strategy definition is that it fails to include any of the other three views. It uses only a top-down-approach, whereby completely neglecting the role of company resources, processes and its relationships with its competitors. In conclusion, Danner is only able to identify those niches which are the result of external market observations, based on unfulfilled demand and failing to include the internal and relational capabilities of companies to create niches.

Following Danner, the next approach is based on industry structure and niche strategies as an answer to the adaptation to this structure.

(b) The work of Kröger/Vizjak/Ringlstetter (2006) on the growth of niches is based on the findings made about industry structure by Deans/Kroeger/Zeisel (2003) "*Winning the Merger Endgame*". The merger endgame is based on the concept of industry consolidation, which states that:

"All industries consolidate and follow a similar course. (...) Industries are transformed during consolidation; thus the pattern inevitably forms an S curve that divides into four stages. Each stage implies specific strategic and operational imperatives (...)." (Deans et al. (2003), p. 4.)

The industry consolidation process usually happens in 20-25 years and is divided into four stages: opening, scale, focus, and balance and alliance stage. According to their findings on industry consolidation the authors conclude that:²⁵³

- Company size is irrelevant in the process of industry consolidation; If a company wants to survive, it has to grow.
- A company cannot survive the merger endgame exclusively with organic growth; it has to include anorganic growth as well.

²⁵¹ Cf. Danner (2002), p. 52f.

²⁵² Cf. Danner (2002), p. 63.

²⁵³ Cf. Deans et al. (2003), p. 5.

- The niche markets cannot remain protected once the competition becomes global.²⁵⁴

On the basis of these findings, Kröger/Vizjak/Ringlstetter (2006) developed 9 different niche strategies which will enable niche players to survive the process of industry consolidation (see figure I-17).²⁵⁵

These 9 different niche strategies: regional niches, target group niches, product niches, branding niches, speed niches, innovation niches, cooperation niches, market split-up and counter niches are designed for the different phases of the merger endgame curve. Although a niche strategy is recommended for a certain phase, it does not mean that a company cannot employ it in a different phase, if the industry structure would permit it. The general idea is that a company has to evolve its niche according to the industry structure in order to survive the industry consolidation. A company which fails to develop its niche strategy further will fall prey to industry consolidation once the niche strategy does not provide a competitive advantage in relation to its stronger competitors. These strategies however, do not necessarily have to be followed sequentially but can instead be developed according to the company's core competences in ascending order.²⁵⁶

It is based on the influence of industry structure in regard to the strategic options of a company in a specific industry. From this standpoint Kröger/Vizjak/Ringlstetter (2006) take the classical market-based view approach, which is used to determine the company's position in an industry. Additionally, the authors were also able to integrate two additional views, which are included in the strategic possibilities of a niche player, namely, the core competences of unique resource structures and the ability of companies to achieve a competitive advantage through its network relationships.

²⁵⁴ Although the authors do not state what constitutes a niche market.

²⁵⁵ These 9 strategies were based on the hypothesis that approximately 80% of the companies in the market are potentially designated niche players. This was done through the analysis of approximately 32,000 stock listed companies worldwide, which account for about 60-70% of the total global GDP in a particular country. In addition, there are about 660,000 total companies worldwide and if we consider the hypothesis above, that 80% of the companies are potential niche players there is about 600.000 potential niche players globally. Cf. Kröger et al. (2006), p. 10f.

²⁵⁶ Cf. Kröger et al. (2006), p. 25ff.

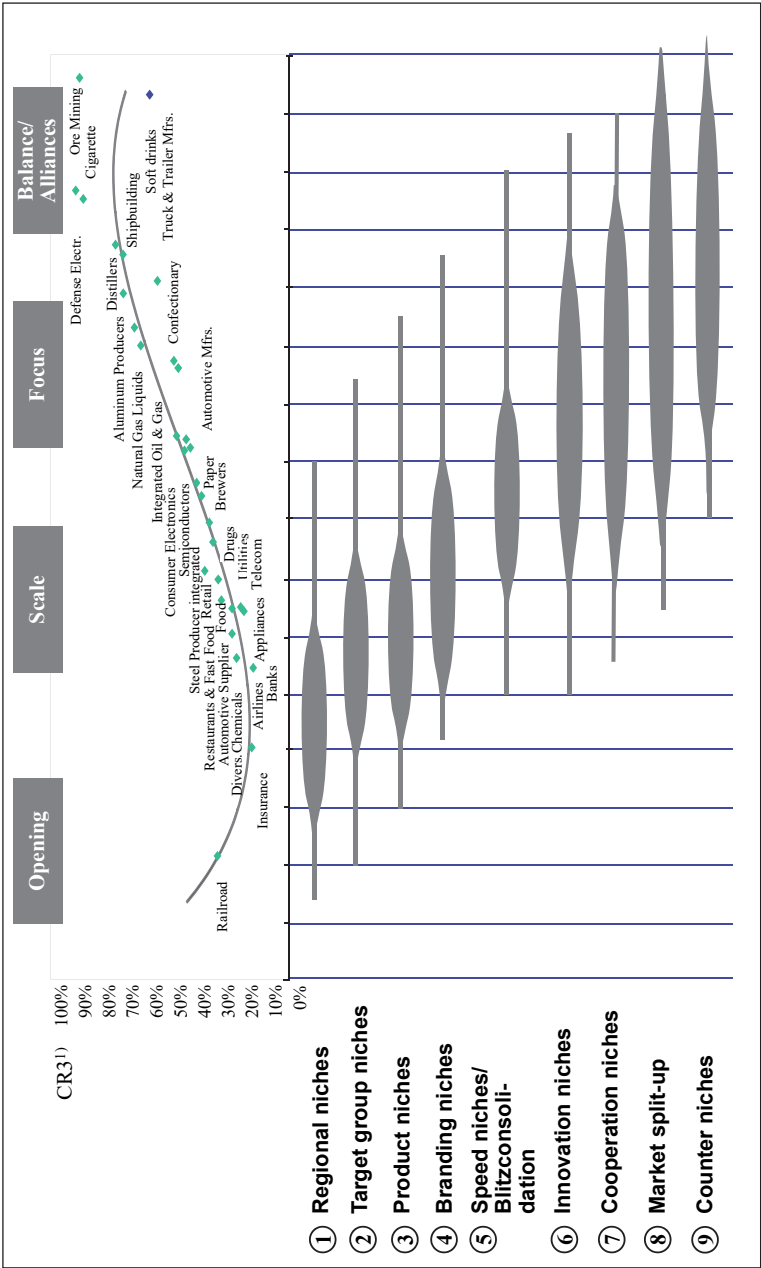


Figure I-17: Merger endgame curve and the niche strategies. (Source: Kröger et al. (2006), p. 15)

(c) Much of Trachsel's work on niche strategies is based on the framework designed by Danner (2002). Trachsel expanded the formulations from Danner and in addition explored certain nice strategies with the help of critical success factors.

His main objectives were to identify the relevant niche strategies, which can be found in the field of strategic management and research the relationship between the success and these strategies under the influence of contextual (environmental) factors.²⁵⁷ To achieve this objective he based his research on the classical outside-in perspective of the market-based view. As part of the market-based view, the contingency approach was applied in order to determine the different possibilities of the relationship between industry structure-strategy-success.²⁵⁸

His approach towards a definition of a niche and niche strategy followed a similar pattern as Danner's. Trachsel defined the (market) niche as a limited market area, which encompasses a certain market segment (group of customers) and/or a certain part of the market (product group) and/or covers a limited geographical area in which there are unsatisfied or insufficiently satisfied needs and an existing possibility to satisfy these needs better than the competition.²⁵⁹ He goes on to define a niche strategy in very simple terms as a competitive strategy, whose objective is the development of market niches.²⁶⁰

This definition of a niche is constructed from two parts. The first part is the market restriction or limitation which is based on Porter (1980), who sees this limitation in focusing on a market segment as part of the market or a geographic area.²⁶¹ The second part is based on the extent of demand satisfaction, which is aligned with the understanding of Danner.²⁶² Although the extent of demand satisfaction is defined through unfulfilled needs and unsatisfied needs, it does not recognize the ability of a company to create a need for which there was previously no demand. This

²⁵⁷ Cf. Trachsel (2007), p. 19. The objective of the contingency approach is to make built statements on a medium abstraction level about the relationship, the situation and behavior, to determine the course of action, which is appropriate for the given situation. The results of the contingency approach are findings, which are valid in most cases but not all cases, and therefore have a higher level of generalization. Jenner (1999), p. 27.

²⁵⁸ Cf. Trachsel (2007), p. 33.

²⁵⁹ Cf. Trachsel (2007), p. 57.

²⁶⁰ Cf. Trachsel (2007), p. 70.

²⁶¹ Cf. Porter (1983), p. 67.

²⁶² Cf. Danner (2002), p. 55. Trachsel additionally expanded the understanding of demand satisfaction by including the latent and manifest niches formed by Spiegel. These have been already extensively discussed in the market psychological niche approach in business sciences. Spiegel (1990), p. 7.

is due to the shortcomings of the application of the market based perspective. Additionally, the author discards three potential components of a niche definition because of the aforementioned limitations of the market based perspective. These components are: protection from competition, a higher willingness to pay, companies capabilities.²⁶³ On the basis of these assumptions and limitations, the author was able to identify six different types of niche strategies.

The main issues facing the research done by Trachsel are more or less the same limitations which were already mentioned in the shortcomings to Danner's niche understanding. Nonetheless, the author managed to enhance and develop the understanding of the market niche and identify six different market niche strategies through an empirical analysis of the critical success factors with the application of contextual factors.

(d) Lastly, there will be an overview of Andersen's "*The Long Tail*".²⁶⁴ This publication is based on the influential article with the same name, which Andersen published in wired magazine in 2004.²⁶⁵ The author explains why and how the market for digital technologies is changing from a mass market to a market of niches. He predicts that the future of the business will be in selling less, but in a greater number of product types. This revolutionary change in market conditions will create a mass of market niches.²⁶⁶ The reason for this occurrence is in the long-tail phenomena (see figure I-18).

²⁶³ The exclusion of these components will not be analyzed in detail at this point. It is sufficient to say that a niche definition based only on the market-based view is insufficient. A detailed description of these components will be provided in chapter I.2 Niche definition for strategic management.

²⁶⁴ The phrase „long tail“ comes from the statistical expression for the low-frequency portion of a statistical distribution.

²⁶⁵ As a result of reader feedback to this article, the long tail had an average of 5.000 readers per day. Andersen wrote a book about the long tail, based on his own findings and user feedback. Cf. Hitt (2007), p. 83.

²⁶⁶ Cf. Hitt (2007), p. 83; Lidstone (2007), p. 679.

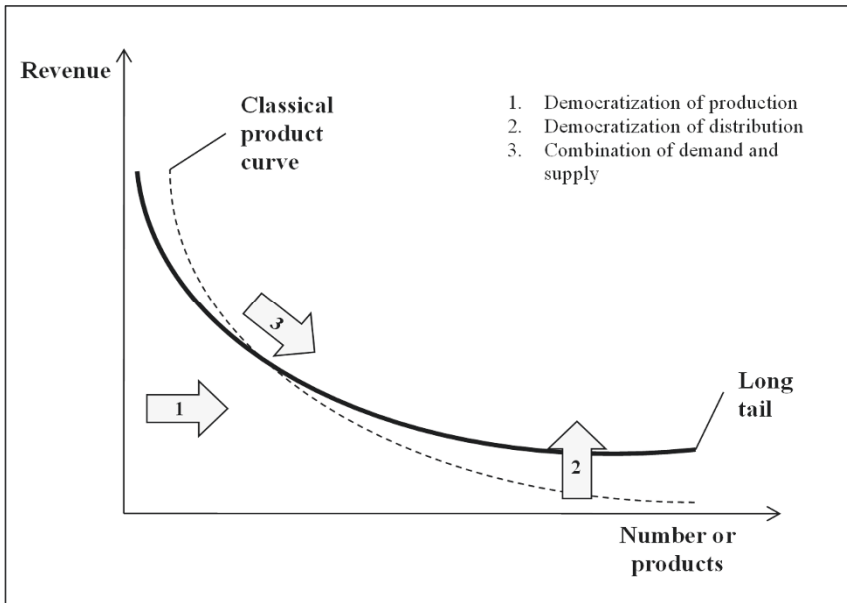


Figure I-18: The long tail.

(Source: own interpretation according to Anderson (2007), p. 22f.)

The long tail is the consequence of a historical development which started with a high segmentation rate before the industrial revolution, over to a phase of concentration on the mass market and finally to a new segmentation at the end of the twentieth century.²⁶⁷ Three forces have and still shape and influence the form of the long tail. These forces are: democratization of production, democratization of distribution and the combination of demand and supply.²⁶⁸ These three forces have the following characteristics:

- The overall number of offered commodities is increased if a growing number of individuals have access to the production technology.²⁶⁹ This *democratization of production* extends the long tail to the right (see arrow 1 in figure I-16).

²⁶⁷ Cf. Anderson (2006), p. 7.

²⁶⁸ Cf. Anderson (2006), p. 54ff.

²⁶⁹ E.g. a growing number of personal computers enables individuals the creation of digital contents by themselves.

- The produced commodities have the possibility to be distributed by a large number of individuals; this increases the number of individuals who are the consumers of a specific product type.²⁷⁰ This situation is called the *democratization of distribution* and it makes the long tail thicker (see arrow 2 in figure I-16).
- The *combination of demand and supply* lastly reduces the search costs of the consumers and makes the niche products easier to communicate.²⁷¹ This force makes the long tail thinner in the area of top-selling commodities and thicker in the areas dominated by commodities which are not top-sellers (see arrow 3 in figure I-16).

The occurrence of these three forces, either individually or in combination, leads to a simplification of segment development into niches. The basic conception to develop niches within the long tail includes two relevant imperatives:²⁷²

- *Make everything available.* This includes the first two forces, democratization of production and distribution.
- *Help me find it.* This enables the interaction between interested consumers and producers through the means of the appropriate direct or indirect communication.

Whereas new possibilities of niche strategies are being constantly created, the continuous segmentation of the mass market on the other hand is dissolving the competitive borders. Consumers can step into the role of the producer and for instance create and distribute their digital contents because of the democratization of production and distribution techniques. The creation of new market opportunities also brings forth the creation of new competitors in the market.²⁷³

Although the long-tail can be applicable only to some products – most notably to digital media and includes only the market-based perspective on niche creation, it brings forth a revolutionary concept for the creation of new niches.²⁷⁴ It no longer sees the mass market as the dominant market but rather as a market that is dissolving

²⁷⁰ E.g. e-bay is an example where products can be distributed by every user, for only a marginal cost.

²⁷¹ E.g. word of mouth communications, customer reviews of products on Amazon and different types of blogs where consumers can exchange their views and opinions.

²⁷² Cf. Anderson (2006), p. 54ff.

²⁷³ Cf. O'Reilly (30.09. 2005).

²⁷⁴ Although there have already been some excursions into other areas of applicability product liability exposure. Cf. Warfel (1993).

and being segmented into many niches. The second important discovery lies in the conclusion that a broad product differentiation will eventually have a greater total benefit than a narrow product assortment with only top selling products. It proves that the 80/20 rule of traditional retailers is irrelevant in the digital media business because the long tail markets: (a) have a much wider product offer than traditional markets, (b) because these products can be located much easier and are much more evenly divided between top-sellers and niches and (c) because niche economics are similar to the economics of top-sellers, profits can be generated across the board.²⁷⁵

In conclusion of the first part of the first chapter there will be a short summary of the key findings from the literature review. These findings can be summarized with the following points:

- Through its development in ecology, social and business sciences, the niche was never considered a research field where there is no controversy. There is little agreement as to what a niche actually is and what its primary focus of inquiry is. These differ from author to author not only in business sciences, which was the youngest discipline to adopt the niche as its own, but also ecology and social science, where the niche is sometimes considered mature concept.
- The niche and niche strategies in strategic management are usually confined to the market-based view of the firm. This paradigm has developed the most sophisticated approaches and strategies for niche management. Coincidentally, the main limitations of the market-based view also happen to be the limitations of the niche research in this field, namely, that it limits the research possibilities to the external influences (market, consumer, product group).
- This review was able to prove that the market-based view is an insufficient methodologically and does not provide a complete picture of niches in strategic management. There are three additional fields of strategic management, which have to be included in the discussion of the niche: resource-based view, process-based view, and the relational view. These three views provide a unique point of view, which was previously out of sight because of the limitations of the market-based view.
- The inclusion of these additional three views enabled new and exciting discoveries about the niche, which were previously not known. E.g. niches can

²⁷⁵ The abundance of the 80/20 rule happens mainly because of the cost and limitations impacts traditional retailers have on shelf space, warehousing and distribution. Cf. Hart (2007b), p. 275.

be created in stagnating markets, niche products can have inferior performance and still be successful on the market and niche markets in specific cases are dissolving mass markets...

Based on these conclusions, it is starting to become obvious that there are many more facets to the niche in strategic management than previously assumed. It will therefore be the goal of the second part of the first chapter to provide a new definition of a market niche for strategic management. This definition will be based on the new insights gained from the literature review and will present an integral part for the creation of the strategic market niche management model as a framework for the creation of strategic management theory of market niches.

I.2 Niche definition for strategic management

The second part of the first chapter will deal with the definitions of the niche in strategic management. These definitions will be constructed on the groundwork done in the previous chapter and will use the insights from all three analyzed disciplines. Definitions of strategic management, niche and niche strategy will be the main outcome of this chapter. The results of these definitions will later have a strong influence on the model building process because the definitions will present an integral part of model building.

The second part will be structured into three sequential and connected parts in regard to the content, which will lead to the final objective of the first chapter, a definition of a niche for strategic management. Similarly to the first part, the chapters will start out very broadly before being narrowed down to the topic at hand. The first chapter of the first part will focus on the definition of strategic management (chapter I.2.1). Although this may seem trivial, a *strategic management* definition is not as self explanatory as one may assume due to the interdisciplinary nature of the field. The second part will deal with the *definition of a niche* (chapter I.2.2); this will answer the question of what constitutes a niche, which are its main characteristics and how it can be identified. The third part will integrate the findings from the first two parts in order to formulate a *definition of a niche strategy* for strategic management (chapter I.2.3).

I.2.1 Strategic management

The question of what strategic management is, is not quite as easy to answer as initially thought. Strategic management as a field does not have a long history. It is in its core an interdisciplinary field which overlaps with various other disciplines, such as economics, sociology, psychology, marketing, and finance.²⁷⁶ If one considers the current status of the field, it can give a complex picture of numerous approaches and paradigms. Instead of a conclusive general theory, which encompasses strategic management there are many independent statements, which have been derived from different concepts and approaches.²⁷⁷ One of the objectives of this sub-chapter is also to find the appropriate statements on the basis of which, conclusive definitions of the niche and niche strategy will be possible.

This sub chapter will be structured in three points, (1) dealing with the *structure, objects and processes of strategic management*, (2) will explore the *different levels of strategy*, and (3) the final point rounding up the sub chapter with the *definition of strategic management*.

(1) Structure, objects and processes of strategic management

The first point will provide a basic understanding of strategic management, what are its main objects and which processes it includes. This understanding is key in order to provide comprehensive niche definitions which are aligned with the basic principles of strategic management and strategy.

Strategic management is based on strategic decisions. Strategic decisions can be classified as those management decisions, which from a superordinate standpoint decide the strategic direction of a company. Their objective is to ensure the long term success of the company which must incorporate the following criteria:²⁷⁸

- to recognize and understand path dependencies,
- it has to be able to react to the current dynamics of change, and
- it has to be able to implement strategic programs on the foundations laid by the previous two points.

²⁷⁶ Strategic management scholars embrace the diversity and the interdisciplinary nature of the field as an advantage rather than a problem. Cf. Sridhar P. Nerur (2008), p. 319; Rajiv Nag (2007), p. 935.

²⁷⁷ Cf. Bea/Haas (1997), p. 24f.

²⁷⁸ Cf. Vance (1970), p. 6; Hungenberg (2000), p. 6.

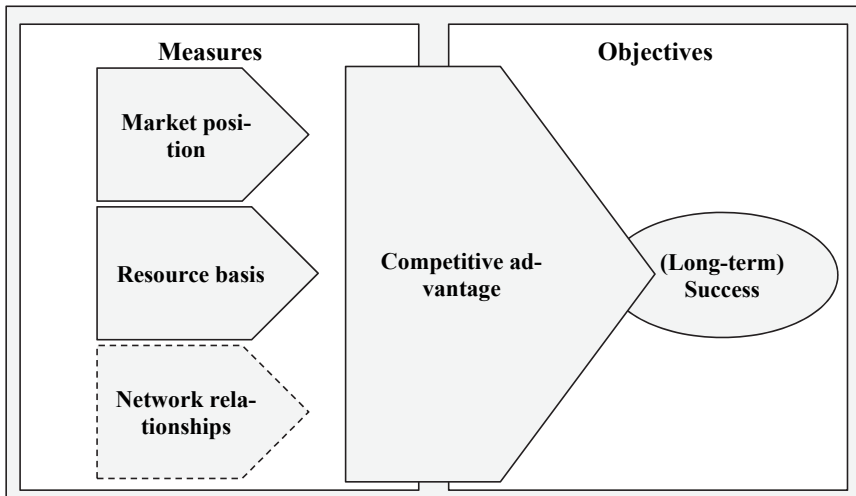


Figure I-19: Basic understanding of strategic management.

(Source: own interpretation according to Hungenberg (2000), p. 6.)

These objectives are comprised of the decisions regarding the market positioning of the company and its resource configuration (see figure I-19). The network relationships have been purposely detached from the other two components. Firstly, because their importance and the number of research publications devoted to them has exclusively grown in recent years, particularly in regards to the strategic decisions and secondly because of their importance to niche strategies.²⁷⁹

Based on this, one can conclude that strategic management makes informed decisions about the future, which are determined through the weighing of possibilities regarding the impact and effects in regards to the main objective of the company – to achieve long-term success. Strategic management can be labeled as a planned evolution, whereas the opposite would be unplanned random development.²⁸⁰

Looking at strategic management from the aspect of the objects which they include, a distinction can be made between the following three objects: *strategies*, *structures* and *systems*. A distinction can be made between these three objects based on the applied approach for each of the circumstances they are trying to explain.

²⁷⁹ The importance of the process-based and relational view for the inclusion into the niche definition has been highlighted in the sub-chapter I.1.3 point (2).

²⁸⁰ Cf. Kirsch (1997), p. 290.

This is primarily based on the purpose and objectives of the research on a specific topic (see figure I-20a).²⁸¹

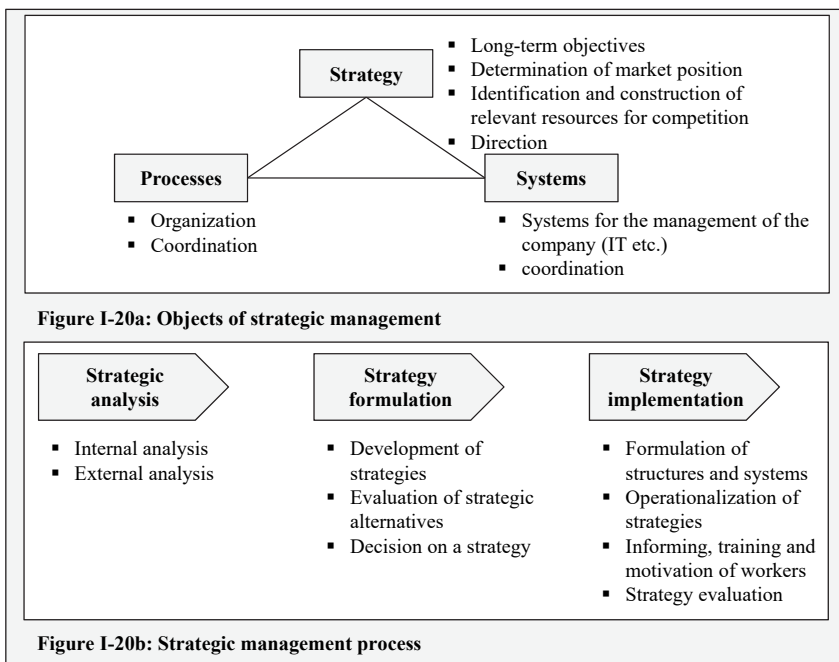


Figure I-20: Objects and process of strategic management.

(Source: own interpretation according to Hungenberg (2000), p. 8et seqq.)

A strategy is made up of four key components:²⁸²

- determining the future position of the company in its environment,
- decisions on technologies, resources and capabilities, which will enable the company to achieve this position,
- the allocation of these technologies, resources and capabilities to achieve a competitive advantage and
- the communication of criteria and standards upon which the successful implementation of the strategy will be measured upon.

²⁸¹ Cf. Hungenberg (2000), p. 8.

²⁸² Cf. Hinterhuber (1984), p. 24.

Processes, as understood in the context of strategic management can be defined as the implications/outcomes of activities.²⁸³ This view also includes different forms of how these processes unwind and are complemented by the inclusion of a content oriented perspective.²⁸⁴

The systems within strategic management can be summarized as vital instruments, which are necessary to manage a company. They can be very different and are therefore separated into two parts: as a subject matter of strategic management, and as an institutional framework. The subject matter view of systems include various management, planning, controlling and other systems within a company. They become the components of the realization of the company policy, through the construction and alignment of structures and systems. On the other hand, the management systems, organizational structure and company structure represent the institutional framework of the company where the processes of strategic management take place. They influence the activities, as well as the results of strategic processes and therefore have the ability to create and implement new objectives and strategies.²⁸⁵

In summary, the objects of strategic management are those instruments which determine the course and development of a company, by establishing the foundations upon which the company can achieve and realize its future direction. Strategies give a company direction for the future activity while the systems and processes coordinate these activities in the interests of the strategy.²⁸⁶

The strategy process can be divided into three different steps (see figure I-20b):²⁸⁷

- *Strategic analysis*: the main objective of this step is the decision on which strategy to choose. In order to be able to make this decision a company must first analyze the necessary internal and external environment of the company.
- *Strategy formulation*: on the basis of the strategic analysis, the company makes different strategic alternatives, which it can choose from. These alternatives decide about the appropriate positioning of the company in its competitive environment. The final decision on an appropriate strategic alternative is based on the degree of fulfillment of company objectives.

²⁸³ These include the about decisions, actions and interactions which lead to the creation of objectives and strategies.

²⁸⁴ Cf. Bamberger (2005), p. 93.

²⁸⁵ Cf. Kirsch (2001b), p. 218ff; Ringlstetter (1995), p. 156ff; Bamberger (2005), p. 93f.

²⁸⁶ Cf. Vance (1970), p. 5; Hungenberg (2000), p. 9.

²⁸⁷ Cf. Hungenberg (2000), p. 9f.

- *Strategy implementation:* if a strategy is to be realized, the company has to perform certain activities in order to enable the realization of the envisioned strategy. It is therefore the objective of the strategy implementation that the appropriate course of action is taken in order to assure the selected strategy is implemented according to plan. For this purpose, the processes and systems have to be aligned with the strategy. On this basis, the planned changes of strategies, processes and systems are operationalized and executed.

After gaining a basic understanding of the objectives, objects and processes of strategic management and their interdependencies and influences on one another, the attention will turn towards the different levels of strategy, namely the corporate and business unit level.

(2) Different levels of strategy

After determining what constitutes strategic management and how the process of strategic management looks like, there will be an overview of how it applies to different company levels. In general we can identify strategy at three different levels of a company: the *corporate* level, the *business unit* level, and the *functional* level strategy. For the purpose of this thesis only the corporate and business unit level strategies will be included, since the functional level strategy can already be labeled as too operational for it to be included into the analysis.²⁸⁸

The corporate level strategy generally deals with the question of “*Where to compete?*” and the business level strategy with the question of “*How to compete?*”. These strategies can be described as:

- *Corporate strategy.* Includes all areas of business of a company and is the objective of company policy and strategic management. It specifies, on the basis of which intentions and in which markets the company will compete and how the business units are to be managed – hence where to compete.²⁸⁹ The main component of a corporate strategy is the strategic target portfolio. This target portfolio dictates how the company resources are divided among

²⁸⁸ Functional level strategies use the organizational hierarchical foundation as a relational foundation. They deal with the implementation, coordination and interfaces of operational tasks. Functional areas in a company are e.g. production, marketing, logistics, finance and accounting etc., therefore they present a vital component of company success. Cf. Steinle (2005), p. 304.

²⁸⁹ Cf. Steinle (2005), p. 304.

the different business units, entails the key steps that will lead the company from its current position to its envisioned position and the objectives and means to achieve this target portfolio in the planned time.²⁹⁰

- *Business level strategy.* As opposed to the corporate level strategy, the business unit strategy is located at a different level and also has different content. The objective of the business units is to be amongst the leading competitors in the market segment in which the business unit currently operates or will operate. Therefore, the business unit strategy must include the market objective, meaning the product or services which it will supply to consumers on the basis of certain technologies, its competitive advantage in the market, a time plan to achieve these objectives, and the expected results of these actions.²⁹¹

This distinction is not only important for the differentiation between corporate and business level strategies but also has two important influences on how niches are understood. As the corporate strategy deals more with the market-based perspective of determining where the company should position itself in the market, the business level strategy deals with the internal perspective of how the company's resources and relations should be used to generate a competitive advantage. This distinction is important because it often leads to confusion; as most approaches to niche strategy are market based and describe corporate strategies but at the same time they develop and apply niche strategies at the business unit level without making a clear distinction. These corporate strategies usually include technology and innovation as a competitive advantage of the niche strategy, without acknowledging the business unit level aspect.

The second aspect has to do with company size. Companies that employ a niche strategy are usually considered to be small in size and competing in a remote segment of the market, which is of no interest for the market leader. Considering the distinction between corporate level and business level strategies one can make the conclusion that the application of a niche strategy at a business unit level is irrelevant to company size. A market leader that employs a mass market corporate

²⁹⁰ The attributes of a successful target portfolio are business units in attractive markets, synergy effects between business units, a healthy risk-benefit ratio and a healthy cash flow. Cf. Hinterhuber (1984), p. 132.

²⁹¹ Cf. Steinle (2005), p. 305; Hinterhuber (1984), p. 76.

strategy can also pursue a niche strategy in one of their business units as a complementary strategy. This is important for the study of niches since the company size does not limit the application of a niche strategy at the business unit level.

Based on the conclusions gathered so far on the basic understanding of strategic management, its objects and processes and deeper insight into different levels of strategy, a definition of strategic management can be provided. This is the objective of the next point.

(3) Definition of strategic management

In order to provide a definition of strategic management a three step approach will be applied in this point. Firstly, the main parameters of strategic management will be observed. Secondly, an overview of existing definitions of strategic management will be provided. Lastly, the most suitable definition for this thesis will be selected and explained.

As already previously mentioned, the field of strategic management is interdisciplinary in its nature; therefore there is also a number of definitions of what strategic management actually is and what it represents. These definitions are used in accordance to the different viewpoints the authors pursue in the explanation of phenomena in strategic management. Therefore, the first objective will be to create a general overview of existing definitions and their contents and based on these definitions a definition of strategic management will be selected, which will then provide the basis for the following definition of a niche and niche strategy.

Most of the definitions of strategic management are defined within the context of the following parameters:²⁹²

- general development of the company,
- long-term company success,
- internal and external aspects of the company,
- creation of the opportunity to succeed, and
- a superordinate perspective upon which the decisions are based.

Based on these parameters is the following overview existing of strategic management definitions (see figure I-21).

²⁹² Cf. Hungenberg (2000), p. 4ff.

Economics	(a) The strategic management field is—positively—the scientific study of the plans that firms build and implement in order to achieve and maintain competitive advantage, and—normatively—the attempt to identify optimal plans for achieving and maintaining competitive advantages (b) A field aimed at understanding competitive heterogeneity (c) Strategic management is the interdisciplinary field that studies the behavior of companies and other market parties, in terms of their strategic behavior, the choices they make with regard to organizing their production, their interrelationships, and their competitive positioning. All of this is set against a thorough understanding of the broader environment in which companies have to operate
Sociology	(a) The study of firms' performance from a platform of tangible and intangible resources in an evolving environment that includes their market and value network (b) I think of the field relatively broadly. I would say that it encompasses the definition and implementation of an organizational course of action. Central to the determination of those actions is an understanding of the relationship between choices available to a manager and firm performance (which I would define far more broadly than profitability to include dimensions such as innovation and survival). Hence, most research in the field either concerns understanding the links between organizational actions (routines) and performance outcomes, or considers how one actually goes about changing these routines (c) The study of how organizations create value, including not only 'the plan' but also the organizational configuration that it is combined with
Marketing	(a) It is a field about what drives performance of certain businesses and which strategy works (b) I view the field of strategic management as eclectic, involving all the various business functions such as finance, marketing, supply chain, economics, psychology, statistics, etc. More specifically, it involves firm boundaries, market and competitive analysis, strategic positions and dynamics, and internal organization (c) The field looks at substantive and process issues such as strategy content, governance mechanisms, strategy choices, market driven strategy, choices of markets, advantage, value propositions, configuration, reacting to markets, and structure, Governance, CEO, leader, strategic choices
Management	(a) Developing an explanation of firm performance by understanding the roles of external and internal environments, positioning and managing within these environments and relating competencies and advantages to opportunities within external environments (b) Strategic management is the process of building capabilities that allow a firm to create value for customers, shareholders, and society while operating in competitive markets (c) The study of decisions and actions taken by top executives/TMTs for firms to be competitive in the marketplace

Figure I-21: Strategic management definitions.

(Source: Rajiv Nag (2007), p. 946).

Although these definitions of strategic management were summoned from authors in different fields, they show many generalities in the application of the same conceptual elements.²⁹³

On the basis of the contemporary work done in the search for an appropriate definition of strategic management, this thesis will use the definition developed by Nag/Hambrick/Chen in (2007). They define strategic management as:

“The field of strategic management deals with the major intended and emergent initiatives taken by general managers on behalf of owners, involving utilization of resources, to enhance the performance of firms in their external environments.” (Rajiv Nag (2007), p. 944)

This definition is constructed of six components.²⁹⁴

- *Major intended and emergent initiatives.* This includes the strategy, operations, investments, diversification and others, which represent the planned activities, as well as learning and innovation as the more up and coming activities which take place in a firm.
- *Taken by general managers on behalf of owners.* This part deals with the key figures that are involved in the process of strategy research, such as the CEOs, top management, the boards as well as agents and owners.
- *Involving utilization of resources.* This addresses the resources and processes that the managers apply in their strategic initiatives. It includes both the internal resources and processes such as knowledge and capabilities as well as external ones, such as relations which connect the company with its environment.
- *To enhance the performance.* This component refers to the growth, performance and competitive advantage amongst others, which are some of the key objectives of strategic management.
- *Of firms.* This refers to the main object of analysis, which are the firms, companies, strategic business units and functional areas.
- *In their external environments.* This includes the immediate external environment of a company which includes its market, competitors and industry, as well as the broader external environment.

²⁹³ These conceptual elements include: strategic initiatives, internal organization, managers and owners, resources, performance, firms and the environment. Cf. Rajiv Nag (2007), p. 947.

²⁹⁴ Cf. Rajiv Nag (2007), p. 942f.

For the purpose of this thesis this definition covers all the relevant areas of strategic management. This concludes the first of the three definitions. Based on these definition, the niche and niche strategy will be defined in the following sub-chapters.

I.2.2 Definition of a niche

Following the definition of strategic management, the foundation has been laid down on which the definition of a niche can be built. There will be a synthesis of the entire review up until now in order to extract the essence of the niche and provide a clear and unambiguous definition of the niche for strategic management.

This sub chapter will be structured into two parts; the first part will look at the structure of the definition and what are its main components and similarly to the definition on strategic management the second part will review the current definitions before providing a working definition for strategic management.

(1) Main components of a niche

The first point will outline the main aspects of the niche which are relevant for this the purpose of providing a clear and unambiguous definition of a niche. Each of the aspects will be detailed and explained why it is relevant for the niche definition.

The niche has managed to keep some of its main characteristics through its development from ecology to business sciences. Similarly to the ecological definition, the niche in business sciences displays many of the same issues that have caused ambiguity within the ecological scientific community. There is the issue of what aspect of the niche is being observed; ecology dealt with the topic throughout the development of the niche in terms of whether the niche is defined through the geographical position of an animal in its community through the characteristics and attributes that the animal itself exhibits or through the resources which it requires for its survival.²⁹⁵ Similarly, the niche in business sciences deals with three different points of view: the niche as a market constellation, as a strategic option of a company and as an unsatisfied consumer demand.²⁹⁶ Therefore, it is vital to select the

²⁹⁵ Cf. Grinnell (1928), p. 435; Elton (2001), p. 63f.; Hutchinson (1944), p. 20; Adler et al. (2007), p. 95.

²⁹⁶ Cf. Cavalloni (1991); Stahr (1995); Rosenbaum (1999), p. 126; Porter (2004), p. 12ff; Barney (1991), p. 106; Iansiti/Levien (2004), p. 128; Trachsel (2007), p. 42ff; Danner (2002), p. 37ff.

appropriate definition of a niche for strategic management to avoid any conceptual obscurities in model building. The definition will focus on three key aspects:

- (a) *Competition.* Similarly to the ecological thinking, where the competitive exclusion principle states that no two species can occupy the same ecological niche without one of the species becoming extinct, is the understanding of competition in strategic management.²⁹⁷ The niche in strategic management is a part of the market which protects the company from the entry of new competitors. The creation of entry barriers results in a higher competitive intensity, which is the product of a limited ability of companies in the general market to gain access to the market niche.²⁹⁸ As a result, niches have two distinct advantages: they appear unattractive for competition because of lower revenue expectations or because the competitors are unaware of this niche.²⁹⁹ This leads to the conclusion that the objective of the niche is to protect the company against scale. The scope and duration of this protection depends on the market and industry structure and the competitive forces affecting them. The following characteristics can also be labeled under the term economies of concentration, where the company has a distinct advantage in a lesser resource and cost intensity than the mass market.³⁰⁰
- (b) *Market segmentation.* Markets can be defined as economic venues of exchange, where demand and supply meet and the formation of prices happens.³⁰¹ Niches present an alternative to the mass market. They can be separated from the mass by segmentation into market areas which are different from the mass market (see figure I-22). Porter defines this segmentation as:

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²⁹⁷ Cf. Gause (2003), p. 19. Whereby the ecological niche is the overlapping of resources, which both species require in order to survive. This competition occurs when the resources become scarce and the species start competing for these scarce resources. Eventually the stronger species survive and eliminate its competitors from its ecological niche.

²⁹⁸ Cf. Miller/Friesen (1978), p. 929. This occurs for two reasons; firstly, the market leaders do not invest heavily in niche market segments because of the higher level of difficulty to gaining market access and secondly, the product of services of market leaders are not competitive in these segments and therefore their presence only marginally raises the competitive intensity.

²⁹⁹ Cf. Böckem (1993), p. 535; Cavalloni (1991), p. 26.

³⁰⁰ Cf. Danner (2002), p. 53.

³⁰¹ Cf. Demmler (1997), p. 36.

³⁰² Porter additionally mentions that the product or buyer differences which have no influence on the structure of competitive advantage can be important at the internal company

“Differences in structural attractiveness and in requirements for competitive advantage among an industry’s products and buyers create industry segments. Segments grow out of both differences in buyer behavior as well as differences in the economics of supplying different products or buyers.” (Porter (2004), p. 234.)

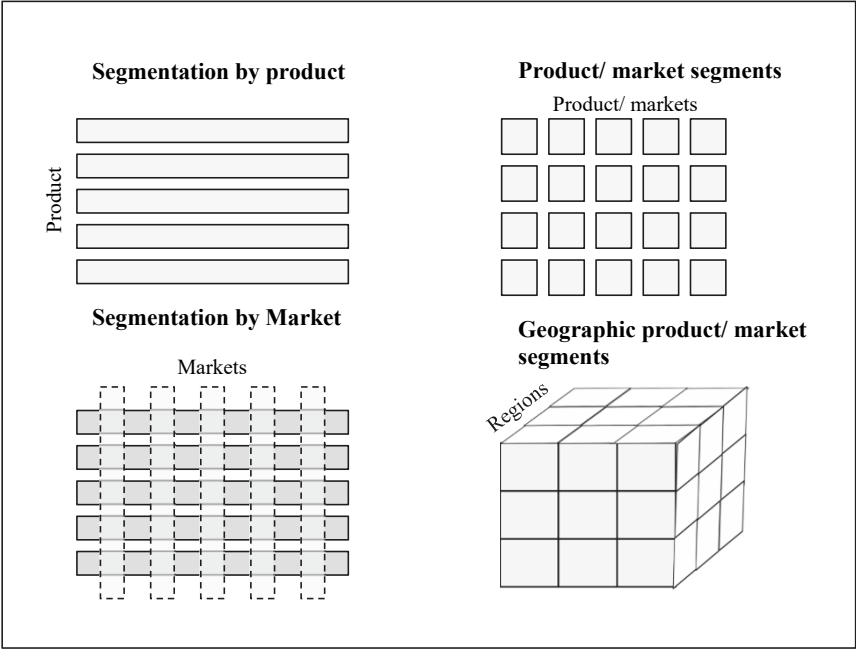


Figure I-22: The evolution of market segmentation

(Source: Garda (1981), p.18)

The most important thing is that the niche offers a more attractive market segment than the undifferentiated mass market in order to be considered covetable. This is achieved through the economies of specialization where the niche provider focuses on a customer segment, region or specific product.³⁰³

(c) *Demand satisfaction.* This is the last component of the niche. The demand in a niche can be summarized through the specialization of providers on

level but do not have to receive any additional attention with regards to the competitive strategy. Cf. Porter (2004), p. 234.

³⁰³ Cf. Danner (2002), p.52.

unfulfilled demand, better satisfying existing demand or by creating new demand altogether. This can be labeled as economies of specialization and through the individualization of demand leads to the creation of strategic barriers.³⁰⁴

Competition, market segmentation and demand satisfaction are the three main components which represent the basis for the definition of a niche in strategic management. This definition will be provided in the following point.

(2) Market niche definition

The definition of the market niche represents the second integral definition of this sub chapter. In order to develop the niche definition for this thesis, an overview of existing niche definitions will be provided. Based on the groundwork and definitions from strategic management and existing definitions a market niche definition will be defined and explained.

To show the diversity of the niche definition and its meaning there will be a short overview of the existing niche definitions in sciences (see figure I-23). As one can gather from the definitions in figure I-23, there are some reoccurring themes in several of these niche definitions which are described with the words such as “market”, “resources”, “specialization”, “competition”, and “relationship”. As already discussed in the previous point they will provide the cornerstone of the market niche definition in strategic management.

Based on these insights and those gained from the historical development of niches in sciences, the niche in strategic management can be defined as:

The market niche is a specialized market constellation that protects against scale, by satisfying unfulfilled demand, better satisfying existing demand or creating new demand altogether.

This definition consists of three parts:

- *Specialized market constellation.* Meaning that it is separated from the mass market and consequently displays unique characteristics, which are appealing to some consumers.
- *Protects against scale.* Meaning that the niche offers protection from other competitors of the mass market to companies that are within its borders. This

³⁰⁴ Cf. Danner (2002), p.52.

protection is connected with the unique capabilities a company has to possess in order to thrive in the niche.

Natural sciences	“(…) the concept of the ultimate distributional unit, within which each species is held by its structural and instinctive limitation, these being subject to only slow modification down through time.” (Grinnell (1928), p. 435). “The term niche (…) is here defined as the sum of all environmental factors acting on the organism; the niche thus defined is a region of an n-dimensional hyper-space, comparable to the phase-space of statistical mechanics.” (Hutchinson (1944), p. 20).
Sociology	“(…) the (realized) niche of a population is defined as that area in constraint space (the space whose dimensions are levels of resources, etc.) in which the population outcompetes all other local populations. The niche, then, consists of all those combinations of resource levels at which the population can survive and reproduce itself.” (Hannan/Freeman (1977), p. 948). The role of the niche in McPherson’s model was in providing answers as to why only some people are potential members of an organization. It explains the importance of the niche for human organizations. (cf. McPherson (1983), p. 520f.)
Business sciences	“(…) are characterized through market services, which do not satisfy the differentiated consumer need in up to a satisfactory degree.” (Cavalloni (1991), p. 16) “(…) an operating strategy that specializes capabilities, to differentiate a business within a ecosystem domain. The fundamental advantage of a niche player (…) is specialization. Niche players specialize by leveraging the services provided by the keystone in their ecosystem and by concentrating on the acquisition of businesses and technical capabilities that directly support their niche strategy.” (Iansiti (2004), p. 128) According to Danner a niche is defined as a profitable market segment, which is created, when a producer in a segmented market, specializes on certain consumers, products or regions, and satisfies the demand for the first time or more precisely. (Cf. Danner (2002), p. 55.)

Figure I-23: Niche definitions in sciences

- *Satisfies unfulfilled demand, better caters to existing demand or creates new demand altogether.* Meaning that a company that is active in a niche is capable of better understanding the existing or unfulfilled needs of demand than its competitors. Additionally, these companies are capable of creating a new need for which there was previously no demand.

Based on this definition of a market niche and the definition of strategic management, the final definition of the first chapter will add the strategic component to this definition to come full circle and complete the first part of the thesis.

I.2.2 Definition of a niche strategy

The conclusion of the chapter I.2 will be a synthesis between the previous two definitions provided in sub chapters I.2.1 and I.2.2 in order to complete the definition framework for the strategic niche management theory. Before moving to the core of the sub-chapter, there will firstly be a short explanation of the meaning and content of strategy. Following this definition, the sub-chapter will be, similarly to the previous chapters, divided into two parts: the analysis of the main components of a niche strategy and the definition of the niche strategy.

Strategy plays a key role in the survival and growth of a company in a fast-paced and changing environment.³⁰⁵ In the long-term, only those companies which have a clearly defined strategy and are able to implement this strategy in an efficient manner will be able to survive, grow, and develop. It therefore presents a framework, in which decisions are made and represents the type and direction the company will have in the future. Strategy answers the question of what and for what reason the company will exist and look like in the future. The implementation of the strategy on the other hand answers the question of how the company will realize its future vision. As a result, strategy states in which areas and for what reason a company will be active in.³⁰⁶

With a better understanding of strategy, the focus can now turn to the components that enable a company to successfully implement a niche strategy.

(1) Main components of a niche strategy

Before coming to the definition of a niche strategy an analysis of its main components has to be completed. This will assure the definition will include the relevant components along with the findings from the previous sub chapters.

³⁰⁵ The word strategy comes from the Greek word „Strategos“ which described the decisions made by military leaders. Strategy made its way to the business sciences, through its introduction in the economic game theory, where strategy was described as the planning of a certain combination of actions. Each of these actions is planned in on the basis of dependence between own actions and the actions taken by a third party, which would potentially influence own actions. Cf. Hinterhuber (2007), p. 55.

³⁰⁶ Cf. Hinterhuber (1984), p. 23f. With the strategy, the future position of a company in its environment is determined through the ability of a company to: create products or services to satisfy the demand of certain consumer groups or markets, ensure appropriate returns for the stakeholders, purchase the necessary resources from its suppliers at acceptable conditions for both parties and to achieve a productivity level, which ensures a increase in the profit potential. Cf. Hinterhuber (1984), p. 24f.

As previously indicated in sub-chapter I.1.3 on the topic of the niche in strategic management, there are three key components of the niche strategy: *market*, *resources* and *network relationships*. In the following each of these components will be highlighted in order to arrive at a definition of a niche strategy for strategic management.

- *Market*. Market was already a subject topic when analyzing the main components of a niche.³⁰⁷ The market-based view places the focus on the outside-in-perspective and the strategies focus on the three different types of strategies concerning the market: product, consumer (or consumer demand) and geographical region. A company is able to achieve a competitive advantage by better satisfying or understanding market needs in one of these three segments.
- *Resources*. Resources change the perspective from the market and turn it onto the company itself. Although this changes the point of view it has to be considered complimentary to the market based view, as only a thorough understanding of the market can enable a company to configure its resources in order to meet the needs of the market. This resource configuration has to be unique, in the sense that competitors cannot exploit the same capabilities in order for a company to achieve a competitive advantage.³⁰⁸
- *Network relationships*. The last component of a niche strategy focuses on the company's relationships to its environment. A company is able to achieve this through specialization and by leveraging the capabilities of the other companies in its network through their mutual relationships.³⁰⁹

On the basis of these components and the understanding of strategy, the last step will be to define a niche strategy for strategic management.

(2) Niche strategy definition

With the inclusion of findings from the previous two definitions and the literature review on the niche topic, the first part can be concluded with a definition of a niche

³⁰⁷ The difference between the market from the niche and the niche strategy standpoint is in the fact that the niche focuses on the object or the topic of research, as in this case the market, whilst the niche strategy emphasizes the “why” and “how” to satisfy a certain market or industry. Cf. Trachsel (2007), p. 57.

³⁰⁸ Cf. Barney (1991), p. 106.

³⁰⁹ Cf. Iansiti/Levien (2004), p. 128.

strategy for strategic management. This definition will firstly be formulated, before being broken down into its constituent elements. The niche strategy in strategic management can be defined as:

A competitive strategy that determines where the company will compete and how it will utilize its resources and network relationships, in order to achieve a competitive advantage in its niche.

The main components of this definition can be broken down as follows:

- *Strategic management.* As in the basic idea of strategic management as previously defined. This can be observed in the objectives of strategic management to achieve an enhanced performance of the firm in its external environment; with the utilization of resources. This is the result of actions taken by general management on behalf of their owners.³¹⁰
- *Strategy.* The definition incorporates the basic idea of a company's strategy in determining where to compete and how to compete. This also includes the differentiation between the corporate and business unit strategy. The corporate level strategy is focused on the market-based view in determining where the company should compete and the business unit level strategy, with how the company can achieve its advantage in the markets where it competes.
- *Market Niche.* It is based on the understanding of a market niche as a specialized market constellation, which protects a company against scale by satisfying unfulfilled demand and better catering to existing demand or creating new demand altogether.
- *Unique capabilities for niche creation.* Finally, the unique capabilities refer to the company's ability to create niches with a market, resource, and relational approach.

This definition concludes the first part of the thesis. Based on the insights gained during the overview and with the definitions, the objective of the second part will be to find a suitable paradigm in strategic management, which will be capable of serving as a framework for the construction of a niche model.

³¹⁰ Cf. Rajiv Nag (2007), p. 944.



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