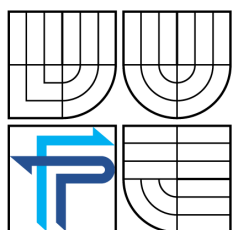


VYSOKÉ UČENÍ TECHNICKÉ V BRNĚ

BRNO UNIVERSITY OF TECHNOLOGY



FAKULTA PODNIKATELSKÁ

ÚSTAV MANAGEMENTU

FACULTY OF BUSINESS AND MANAGEMENT

INSTITUTE OF MANAGEMENT

SHIFT TO SERVICE-ORIENTED ECONOMY AND ITS IMPACT ON CORPORATE STRATEGY

POSUN K SERVISNĚ ORIENTOVANÉ EKONOMICE A JEHO DOPAD NA STRATEGII
FIRMY

DIPLOMOVÁ PRÁCE

MASTER'S THESIS

AUTOR PRÁCE

AUTHOR

Mgr. JIŘÍ ŠMERDA

VEDOUCÍ PRÁCE

SUPERVISOR

Ing. ROBERT ZICH, Ph.D.

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Summary

The work introduces service-oriented economy paradigms in a broader context and shows their influence on corporate and business strategies. It tries to put together traditional corporate and business strategy models and the new emerging service science. The work points out major ideas of the service-oriented economy in a confrontation with the traditional product-oriented economy. As a result of the comparison, the work shows a need for a new approach in business behavior coming out of current efforts in the world. As the final result, the work brings in practical set of recommendations for corporate and business strategy formulation in service economy. In the practical part of the thesis, the results are demonstrated and applied to the strategy of a selected company.

Abstrakt

Práce představuje v širším kontextu paradigmata servisně orientované ekonomiky a ukazuje jejich vliv na podnikové a firemní strategie. Pokouší se dát dohromady tradiční modely podnikových a firemních strategií s nově vznikající vědou o službách. Práce ukazuje hlavní myšlenky servisně orientované ekonomiky v porovnání s tradiční produktovou ekonomikou. Jako výsledek srovnání práce poukazuje na potřebu nového přístupu k byznysu, který vychází z aktuálního dění ve světě. Práce přináší sadu doporučení pro formulace podnikových a firemních strategií v servisní ekonomice. V praktické části jsou výsledky demonstrovány a použity pro strategii ve vybrané firmě.

Keywords

corporate strategy, business strategy, strategic management, service strategy, service economy, service-oriented economy, service-based economy, service view, service system, Service Science, Management and Engineering, SSME

Klíčová slova

strategie firmy, byznys strategie, strategický management, strategické řízení, servisní strategie, servisní ekonomika, servisně orientovaná ekonomika, ekonomika založená na službách, servisní pohled, servisní systém, Service Science, Management and Engineering, SSME

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Declaration

I hereby declare that this master thesis is my own work and effort. All information sources used are properly cited including complete reference to the original work.

Mgr. Jiří Šmerda

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I would like to thank my supervisor Robert Zich for his advice, patience and openness for slightly non-traditional nature of the work than it is common at Faculty of Business and Management. Thanks also gratefully go to my colleagues from the Laboratory of Knowledge and Information Robots at Faculty of Informatics, Masaryk university, especially to the laboratory leader Zdenko Staníček, who has revealed the importance of services for me. My thanks also go to Petra Hocová and Roman Dušek, who discussed many issues with me and gave me several inspirational ideas.

Mgr. Jiří Šmerda

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Chapter 1

Introduction

The first chapter explains the motivation for writing the thesis about strategies and services. It reveals the importance and dominance of a service sector in the world today and points out a need for a shift in strategic management rooted in the product-oriented economy age. The chapter also introduces the main goals of the work and describes groups of readers whom the text should be designated and useful for. At the end, a brief summary of following chapters is presented.

1.1 Motivation

It took a very long time when services become dominant in world developed economies. At the beginning, people had to gather or hunt to stay alive. As it was very demanding, people realized that they would obtain more if they try to make food and tools by themselves. The wealth came from the earth that time, especially from agriculture, mining or breeding. The sources were limited and therefore there was a strong competition of them. Later, the richest countries, which were able to process and transform the sources, became richer using factories and manufactures. Although the value of a man raised, people were still replaceable by mechanical machines. It is not long time ago when people started to earn most of the money from services. The focus is on intellectual work now and it is a question what will come later.

Another question follows – how should we ensure that the world’s economy will grow in the future? A factory production is higher and higher to keep their profits growing. The supply is wider and wider and, as a result of that, we can choose from more and more types of products. And what will happen then? We will not be able to eat 100 rolls per day as well as we will not be able to drive four cars simultaneously.

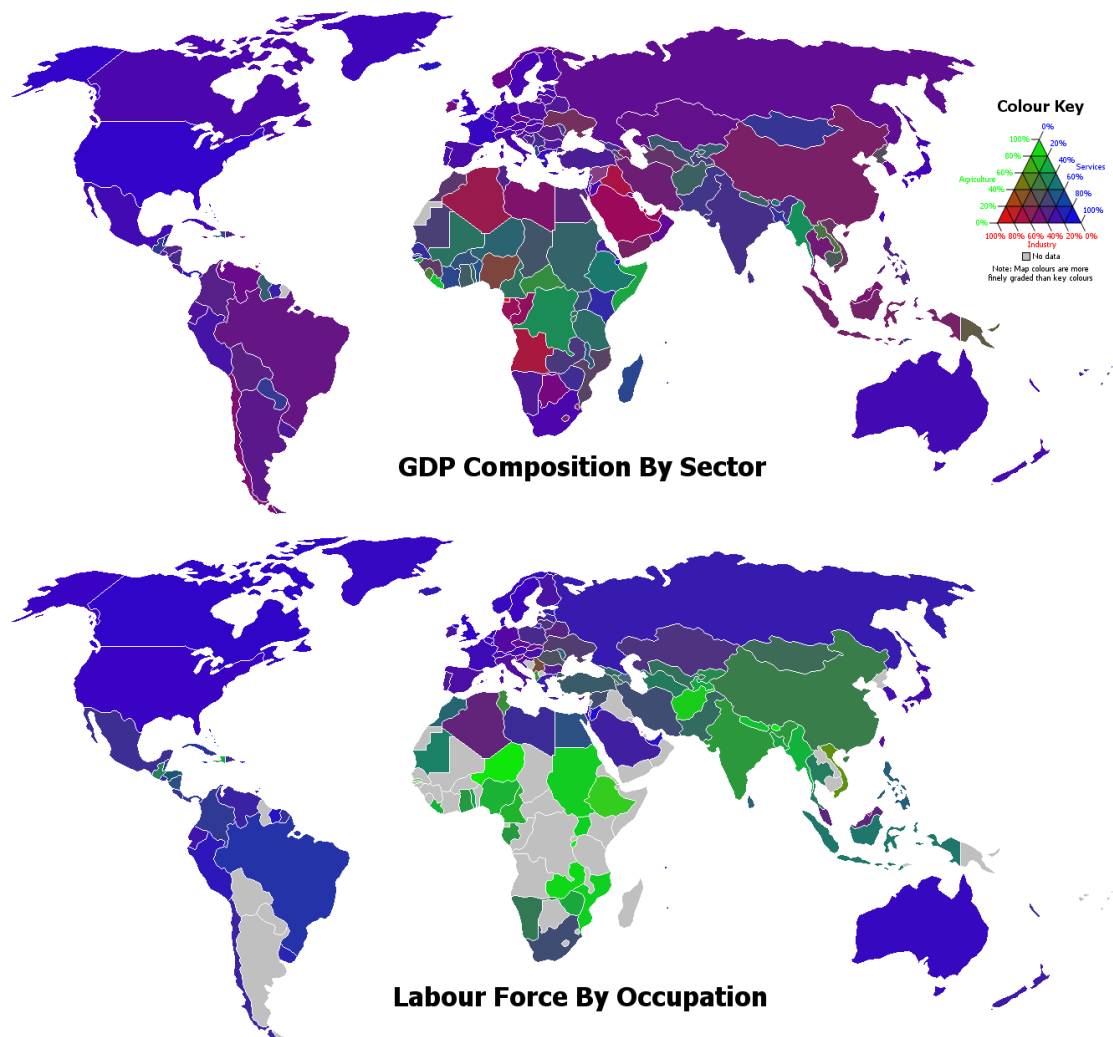


Figure 1.1: GDP Composition by Sector and Labor Force by Occupation [10]

The answer resides in services. In services area, the limitations are not so strict so that services provide us a large space for economic growth. As we can see on the first map (Figure 1.1 up), in the most developed countries most of their gross domestic product is earned by services. The second map (Figure 1.1 down) illustrates the sector where majority of inhabitants is employed. The situation is very similar, even “better” for the service sector: most people in developed countries work in the service area.

The described development goes from the material and tangible things to intellectual, intangible and abstract areas. The focus moves from an ownership of a product to gain value from services, no matter if the service is provided by the product which I own or it is provided by something or someone else. The traditional idea of product exchange meaning “I have something, I trade it, I receive

SEC. 1106. STUDY OF SERVICE SCIENCE.

- (a) **Sense of Congress:** It is the sense of Congress that, in order to strengthen the competitiveness of United States enterprises and institutions and to prepare the people of the United States for high-wage, high-skill employment, the Federal Government should better understand and respond strategically to the emerging management and learning discipline known as service science.
- (b) **Study:** Not later than 270 days after the date of enactment of this Act, the Director of the Office of Science and Technology Policy, through the National Academy of Sciences, shall conduct a study and report to Congress regarding how the Federal Government should support, through research, education, and training, the emerging management and learning discipline known as service science.
- (c) **Outside Resources:** In conducting the study under subsection (b), the National Academy of Sciences shall consult with leaders from 2- and 4-year institutions of higher education, as defined in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)), leaders from corporations, and other relevant parties.
- (d) **Service Science Defined:** In this section, the term “service science” means curricula, training, and research programs that are designed to teach individuals to apply scientific, engineering, and management disciplines that integrate elements of computer science, operations research, industrial engineering, business strategy, management sciences, and social and legal sciences, in order to encourage innovation in how organizations create value for customers and shareholders that could not be achieved through such disciplines working in isolation.

Figure 1.2: The U.S. National Innovation Investment Act [25]

money and the process of interaction is finished” is shifting to the service idea meaning a long-term interaction between service providers and service clients.

Governments are aware of the increasing importance of services in many countries. And it is not only the importance of services itself, but it is also crucial to study services and establish service science as a real science taught and researched at universities. In the United States, US House and Senate voted to approve “The U.S. National Innovation Investment Act” on August 2nd 2007 and the president has signed it [24]. The text can be seen in Figure 1.2.

Although services are inseparable and common parts of our lives, “product-exchange” paradigm still retains in peoples’ minds as a business leading concept. Leaders of many companies still tend to think “How should we sell our service?” in the concept of selling a product. But the nature of services is so different from the nature of product that it deserves another point of view and other business practices for being successful in the future.

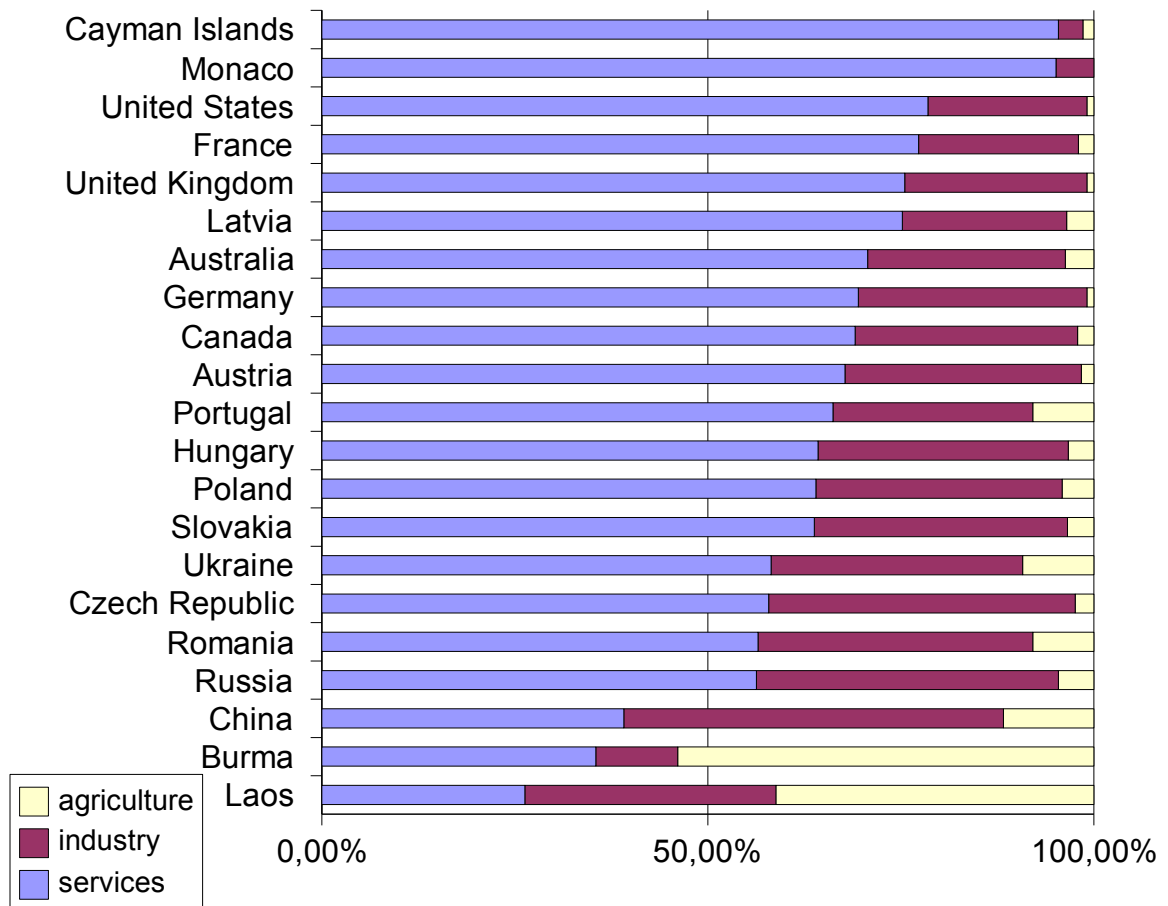


Figure 1.3: GDP Composition by Sector of Selected Countries [8]

Corporate strategies drive companies at the marketplace. To make strategies which will be suitable for the service economy, it is necessary to redraw concepts of traditional strategies originating in the age of the product oriented economy and bring fresh innovative ideas to develop successful service oriented corporate strategies.

According to Figure 1.3 based on information from World Fact-book [8], the Czech Republic with 58 % GDP coming from the service sector does not classify itself to the group of the world most developed countries. The countries like Poland, Slovakia, Hungary and even Ukraine have slightly higher percentage of services. On the other hand, they have also higher percentage of agriculture. If we consider the trends in developed countries, we can assume that the percentage of services will grow in the Czech Republic as well as in the other countries.

The preparation of people starts in education. Unfortunately, most of management and business oriented universities are not well prepared for service chal-

lenge and they still retain to teach theories based on the product oriented economy nowadays. The Faculty of Business and Education¹ at Brno University of Technology² also lacks the support of the trend. This master thesis should try to point out the importance of service science and stimulate further research in the service science area. But, of course, this is not its only major goal. The main goals will be introduced in the next section.

1.2 Goals

The ultimate goal of this master thesis is to introduce service-oriented economy paradigms in a broader context and show their influence on corporate and business strategies. It tries to put together traditional corporate and business strategy models and the new emerging concepts of services. The work will point out major ideas of the service-oriented economy in a confrontation with the traditional product-oriented economy.

As a result of the comparison, the work will show a need for a new approach in corporate behavior coming out of current efforts in the world. As the final result, the work will bring in recommendations for a corporate and business strategy formulation. The work lays stress on interdisciplinary approach, especially a relationship between the service-oriented economy and information technologies.

In the practical part of the thesis, the results will be demonstrated and applied to the strategy of a selected company.

1.3 Target readers

The work is intended to be useful for several groups of readers, both in business and academic area.

At first, company managers and leaders can draw ideas and methods from the text to modify and develop strategies of their companies to become consistent with the present and future market situation.

Secondly, the thesis can serve as a starting point for students and academic researchers to the area of service science. They can learn the basic principles of strategic and service management and in case they are interested they can find

¹<http://www.fbm.vutbr.cz>

²<http://www.vutbr.cz>

and read many articles and books concerning the service themes which are cited here.

1.4 Contents

The thesis references many articles and books especially about strategic management and service science. It tries to extract “the best of” them and put together many various theories and show important relationship between them. As it will be introduced later, the relationships and connections are the things which matter.

The work is divided into three logical parts. The first theoretical part is divided into two chapters: The chapter about strategic management introduces the main concepts of classical strategies based on the product economy, which are well known and used all over the world. The following chapter shows the basics of emerging service science – its principles and interdisciplinary overlaps, especially the relationship with economy and informatics.

The focus of the second part is concentrated on the proposal of strategies in service environment. This is the place where the content of the first part is used and combined with many concepts and ideas, such as blue ocean strategy, experience economy or an idea of co-creation. As a result, the proposals for services strategies are formulated in this chapter.

The result of the second part is then applied to the certain company in the third part. The concepts of the proposed strategy are shown in practice.

The thesis ends with a brief conclusion evaluating the work generally. It shows contributions of achieved results and draws further interesting challenges to the future.

1.5 Methodology

Although the nature of the work is rather theoretical, it does not miss practical aspects directly usable in everyday business. The work on the thesis consisted of two phases.

The first phase was dedicated to a deep study of strategic management literature as well as a study of modern strategic management publications and books such as Blue ocean strategy or Prahalad’s books. Information about service paradigm was gathered from publications by Vargo and Lusch and also from

ones which were supported by IBM including Spohrer's papers and presentations. All information sources can be found in the bibliography section.

In the second phase, gathered information and concepts were used to deduce new relationships and ideas. Then, an outline of the work was proposed and filled gradually. Finally, the proposed ideas were applied to a real business company where the author works.

Chapter 2

Strategic Management Basics

If we want to deal with strategies in service economy environment, we have to introduce basic principles of strategic management coming from the traditional product-oriented paradigm. Only then we will have a base which enables us to reference and modify it in a context of services. The chapter describes especially the classical school of strategic management primarily based on Michael Porter's ideas. The goal of this chapter is not to provide a comprehensive explanation of strategic management as a whole. It should point out the main ideas only to be used in later chapters.

2.1 What Is Strategy?

At first we will introduce three definitions of the strategy concept from three different points of view. We begin with the most general definition, continue with the definition in a context of game theory (because business can be considered to be a large game) and finish with the exact definition of strategy in a business area. Although there exist many definitions of strategy in business, the employed one comes from the book which is cited most frequently in this chapter.

Strategy in general: A strategy is a long term plan of action designed to achieve a particular goal. Strategy is differentiated from tactics or immediate actions with resources at hand by its nature of being extensively premeditated, and often practically rehearsed. Strategies are used to make the problem easier to understand and solve. The word derives from the Greek word *stratēgos*, which derives from two words: *stratos* (army) and *ago* (ancient Greek for leading). *Stratēgos* referred to a 'military commander' during the age of Athenian Democracy [31].

Strategy in game theory: In game theory, a player's strategy, in a game or a business situation, is a complete plan of action for whatever situation might arise; this fully determines the player's behavior. A player's strategy will determine the action the player will take at any stage of the game, for every possible history of play up to that stage [30].

Strategy in business: Strategy is an integral and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage. By choosing a strategy, a firm decides to pursue one course of actions over others. The firm's executives are thus setting priorities for the firm's competitive actions. Strategies are organic in that they must be adapted over time as the external environment and the firm's resource portfolio change [12].

As we can see from the definitions, we can say in general that strategy specifies goals we want to achieve and draws a way how we want to reach it. The goals and objectives define the situation we want to attain. We can distinguish strategies according to many criteria including time, importance or detail aspect. These and many more aspects play an important role in strategic management.

2.2 Strategic Management

In the previous section we shed light on the strategy concept. However, it is not enough to have only a vague vision of strategy. The main task is to manage that the strategy will be properly formulated, followed and the defined goals and objectives will be successfully fulfilled. And it's the time to use practices of strategic management.

Strategic management is the art and science of formulating, implementing and evaluating cross-functional decisions that will enable an organization to achieve its goals and objectives. It is the process of specifying the organization's objectives, developing policies and plans to achieve these objectives, and allocating resources to implement the policies and plans to achieve the organization's objectives. Strategic management, therefore, combines the activities of the various functional areas of a business to achieve organizational objectives [7].

The main concepts of strategic management include terms as follows [12]:

Strategic competitiveness is achieved when a firm successfully formulates and implements a value-creating strategy.

Sustained (or sustainable) competitive advantage occurs when a firm implements a value-creating strategy and other companies are unable to duplicate it or find it too costly to imitate. An organization is assured of a competitive advantage only after others' efforts to duplicate its strategy have ceased or failed. In addition, when a firm achieves a competitive advantage, it normally can sustain it only for certain period. The speed with which competitors are able to acquire the skills needed to duplicate the benefits of a firm's value-creating strategy determines how long the competitive advantage will last.

Risk is an investor's uncertainty about the economic gains or losses that will result from a particular investment.

Above-average returns are returns in excess of what an investor expects to earn from other investments with a similar amount of risk. Understanding how to exploit a competitive advantage is important for firms earn above-average returns.

Average returns are returns equal to those an investor expects to earn from other investments with a similar amount of risk. In the long run, an ability to earn at least average returns results in failure.

Strategic management process is the full set of commitments, decisions, and actions required for a firm to achieve strategic competitiveness and earn above-average returns.

The general process of strategic management is illustrated in Figure 2.1. As we can see, the process begins with an analysis of external and internal environment of the firm. When the analysis is finished, the process continues with a formulation of a strategic intent, vision and mission of the firm. According to results of the previous steps, strategic analysis is performed and the best strategy is chosen from possible solutions.

Then the resultant strategy is formulated and implemented. The details included in this phases can be seen in Figure 2.2. The formulation and implementation should lead to strategic competitiveness and to above-average returns. Due to the dynamics which happen in the current environment it is crucial to provide feedback to the phases of strategic management process and adjust the strategy according to the changes.

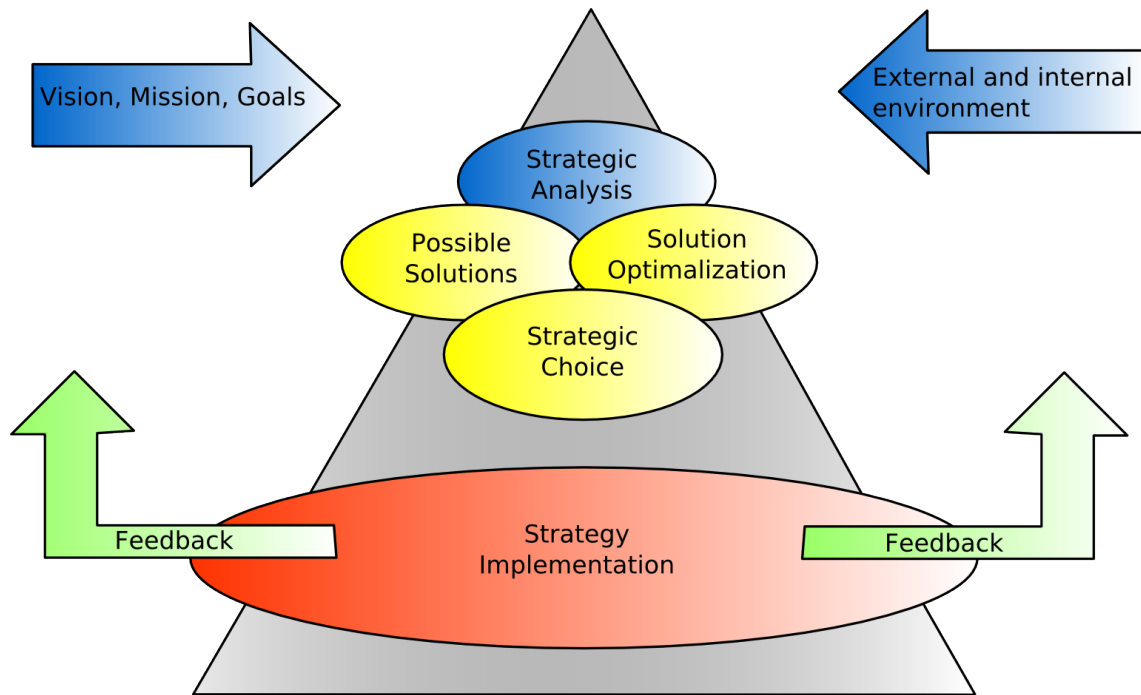


Figure 2.1: The Strategic Management Process [34]

Now we know basic terms of strategic management and are aware of the phases of strategic management process, so that we can move to an exploration of strategies structure and hierarchy.

2.2.1 Hierarchy of Strategies

Although the strategic management process in Figure 2.2 introduced steps leading to the strategy formulation, it did not show relationships between single strategies. Thus, this section will explain the structure using Figure 2.3. Figure shows the hierarchy of strategies as it is taught at the Faculty of Business and Management at Brno University of Technology¹ [34].

As we can see in Figure 2.3, the *corporate strategy* lies on the top of the hierarchy. Originally, the term was used to describe the pattern of decisions that determined a company's goals, produced the principle policies for achieving these goals, and defined the range of business the company was to pursue. Taken literally, this would mean that corporate strategy addressed any and every strategic issue facing a company [6].

Over time a distinction came to be made between *business-level strategy* – the issue of how to build a sustainable competitive advantage in a discrete and iden-

¹<http://www.fbm.vutbr.cz>

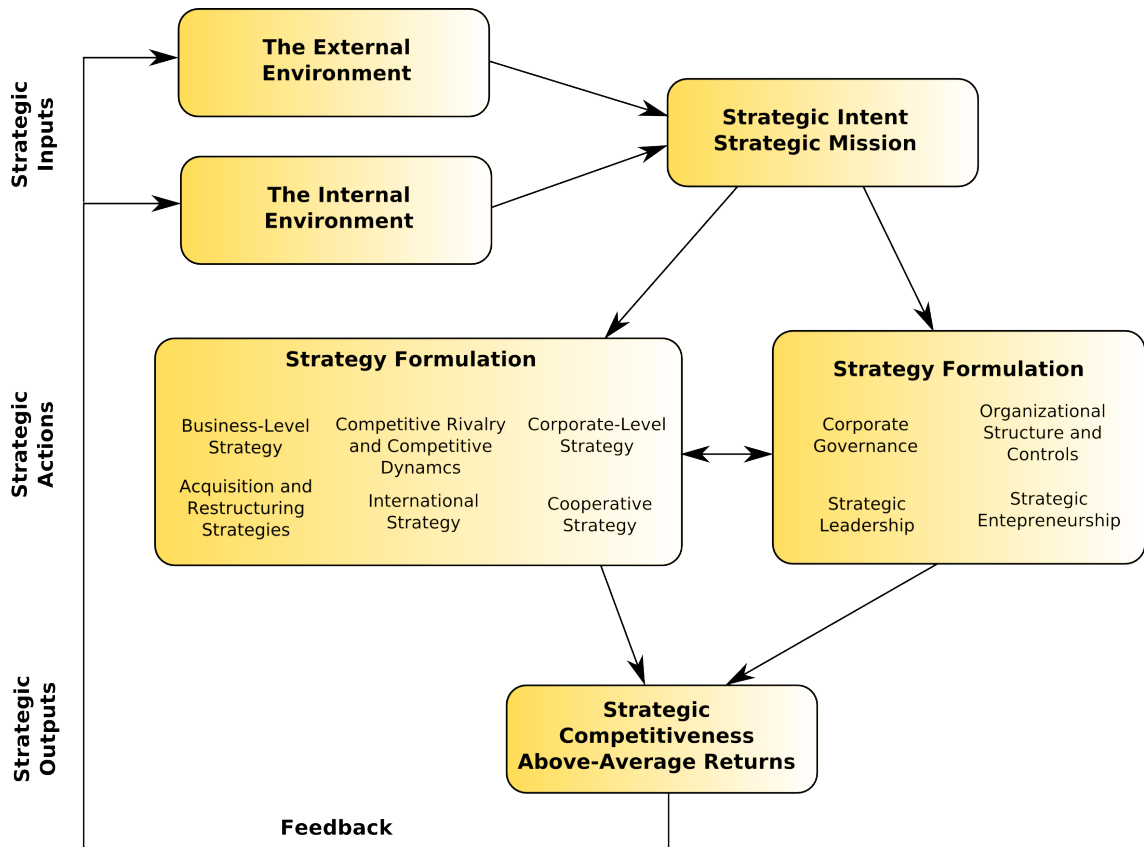


Figure 2.2: The Strategic Management Process – More in Detail [12]

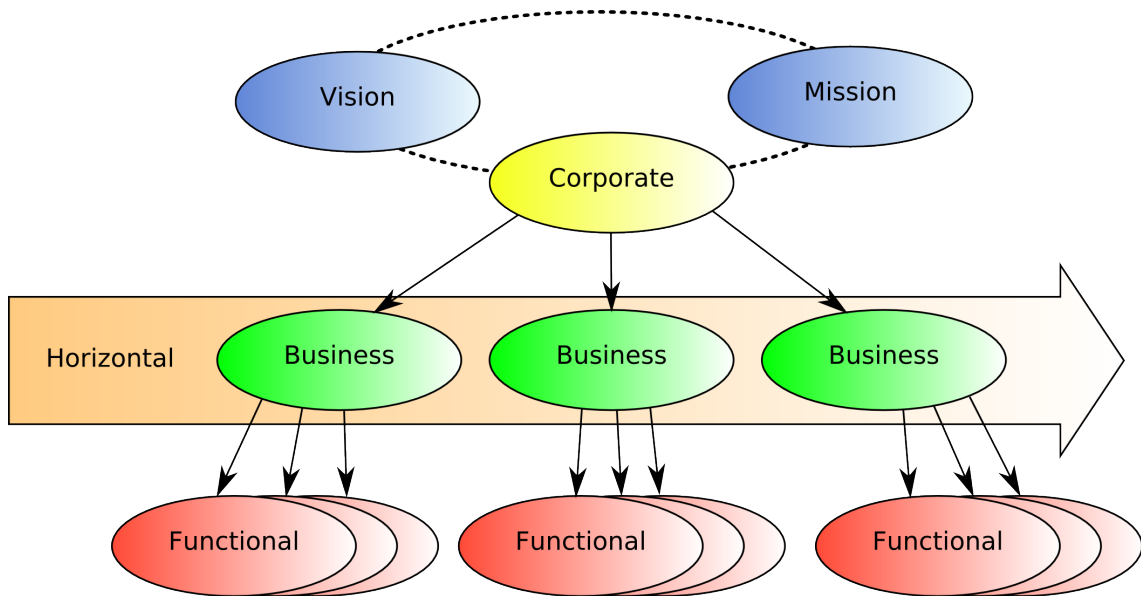


Figure 2.3: Illustration of The Hierarchy of Strategies [34]

tifiable market – and *corporate-level strategy* – the overall plan for diversified company [6]. *Business-level strategies* are specific for each strategic business unit (SBU) in the firm. However, the strategy levels are blurred as well as many important areas overlap between the levels, so it is hard to make a strict distinction between them.

Collis and Montgomery [6] define *corporate strategy* as the way a company creates value through the configuration and coordination of its multimarket activities. It draws on an understanding of business strategy and focus on the relationship between the whole and the parts of the firm, in particular on whether individual business units are made better or worse by their presence in corporation.

The book [18] introduces definition as follows: *Corporate strategy* is concerned with the firm's choice of business, markets and activities, and thus it defines the overall scope and direction of the business. The corporate strategy serves as a base for all derived strategies.

Corporate advantage occurs when the elements work together as a system to create value through multimarket activities. Although some value may be created at the corporate level itself, most corporate advantages are realized at the business-unit level, where individual businesses use benefits of corporate affiliation to outperform their rivals in a particular industry [6].

Horizontal strategy deals with relationships between strategic business units. Its purpose is to coordinate strategic business units and interests which they have in common.

Functional strategies lies at the bottom of the hierarchy. They extend the upper level and solve strategic management of particular areas such as research and development, human resources etc.

The whole system of strategies have to be consistent and the strategy on the lower lever must come out from the strategy on the higher level. Only then the system will help the organization to achieve its goals and objectives.

2.3 Approaches to Corporate Strategy

A view at the corporate strategy concepts has been developing since 1960s. The evolution is summarized in Table 2.1.

The progress went from the general concept of corporate strategies through the concepts of multidivisional structures and diversification, portfolio planning (with the well known BCG matrix of growth/share), value-based strategy (with

the main objective of maximizing shareholder value) to the most recent Porter's generic corporate strategies and Prahalad's resource based view strategy. Many tools developed in the described stages are still widely used nowadays. However, the stress is usually laid especially on Porter's approach supplied with resource based view. Hence, the thesis will also deal with the last two perspectives: generic strategies and resource based view strategies.

2.3.1 Generic Strategies (Porter)

Michael Porter worked on strategies both at corporate and business-unit level. We begin with an introduction of his four types of corporate strategies. These lay along a continuum of increasing corporate involvement in the operation of business units [6].

Porter's corporate strategies

Two of Porter's archetype corporate strategies, *portfolio management* and *restructuring*, could be applied in corporations whose businesses were essentially unrelated. A firm following a Portfolio management strategy added little real value to its units because they were run autonomously with minimal corporate involvement. In contrast, the restructuring required the corporate office to act as more than just a banker and reviewer of individual business units [6].

The remaining two strategies, *transferring skills* and *sharing activities*, could only be used in companies where the businesses were related to some degree. Transferring skills involved disseminating a particular capability, such as consumer marketing, across multiple business units [6].

As Collis and Montgomery [6] notice, these ideas had barely gained currency when the focus of research and managerial practice shifted from the corporate office itself to the resources and capabilities of the firm as a whole.

Porter's business-unit strategies

On the other side, Porter's business-level generic strategies are considered to be one of his most famous results. They will be introduced in later sections of this chapter.

I/O Model of Above-Average Returns

The I/O model of above-average returns (see Figure 2.4) uses Porter's five forces model of competition as an analytical tool. It is focused on external factors – especially industrial structure.

Grounded in economics, the I/O model has four underlying assumptions [12]:

1. The external environment is assumed to impose pressures and constraints that determine the strategies that would result in above-average returns.
2. Most firms competing within a particular industry or within a certain segment of it are assumed to control similar strategically relevant resources and to pursue similar strategies in light of those resources.
3. The resources used to implement strategies are highly mobile across firms. Because of resource mobility, any resource differences that might develop between firms will be short-lived.
4. Organizational decision makers are assumed to be rational and committed to acting in the firm's best interests, as shown by their profit-maximizing behaviors.

As illustrated in Figure 2.4, we can see that everything comes out from external environment. The model assumes that the industry segments are determined and it suggests that above-average returns are earned when firms implement the strategy dictated by the characteristics of the general industry, and competitor environments. The firm's resources play a minor role.

2.3.2 Resource Based View Strategy

On the other hand, the resource based strategy is focused on the internal resources of the firm. We consider resources to be the assets, skills, and capabilities of the firm. Resources are the critical building blocks of strategy because they determine not what a firm *wants to do*, but what it *can do* [6].

The process of applying resource-based strategy is shown in Figure 2.5. To craft a resource-based strategy, a firm must first identify and evaluate internal resources to find those on which it should base its future competitive advantage. This process involves defining the set of resources the firm possesses, and then applying the test laid out in the principles section to determine which of those are truly valuable [6].

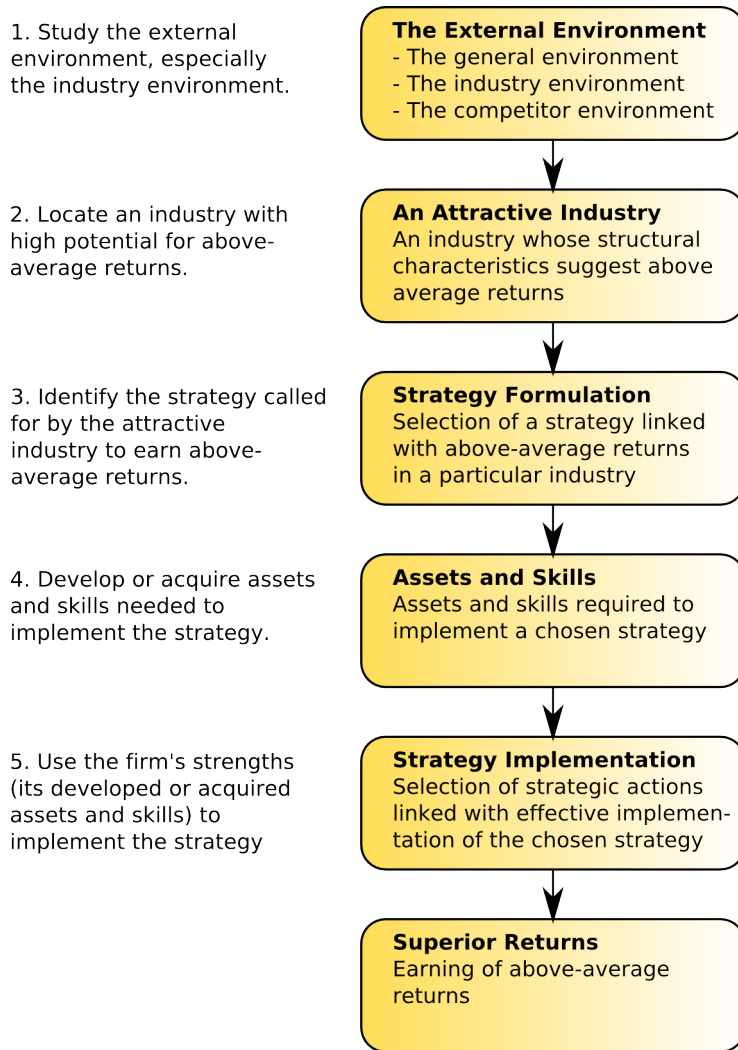


Figure 2.4: The I/O Model of Above-Average Returns [12]

As described by Prahalad and Hamel [19], the main objective is to discover resources and capabilities which become core competencies. Core competencies are resources and capabilities that serve as a source of competitive advantage for a firm over its rivals. Core competencies have these characteristics:

1. Potential access to a wide variety of markets – the core competency must be capable of developing new products and services.
2. A core competency must make a significant contribution to the perceived benefits of the end product.
3. Core competencies should be difficult for competitors to imitate. In many industries, such competencies are likely to be unique.

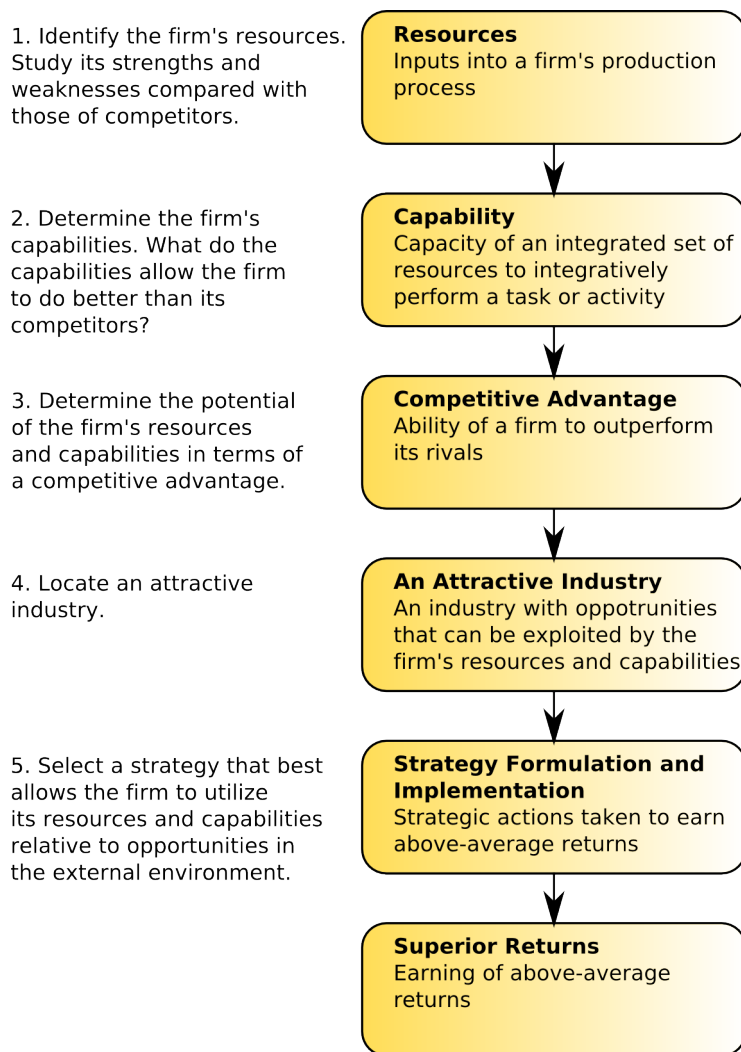


Figure 2.5: The Resource Based Model of Above-Average Returns [12]

Hitt [12] argues that many resources can either be imitated or substituted over time. Therefore, it is difficult to achieve and sustain a competitive advantage based on resources. Despite this fact, we will see the importance of resources especially in service strategies later. Hitt at least gives an example with core competencies of managers: Managerial competencies are important in most firms. For example, managers often have valuable human (education and experience) and social capital (ties to important customers or critical external organizations such as suppliers). Such competencies may include the capability to effectively organize and govern complex and diverse operations and the capability to create and communicate a strategic vision.

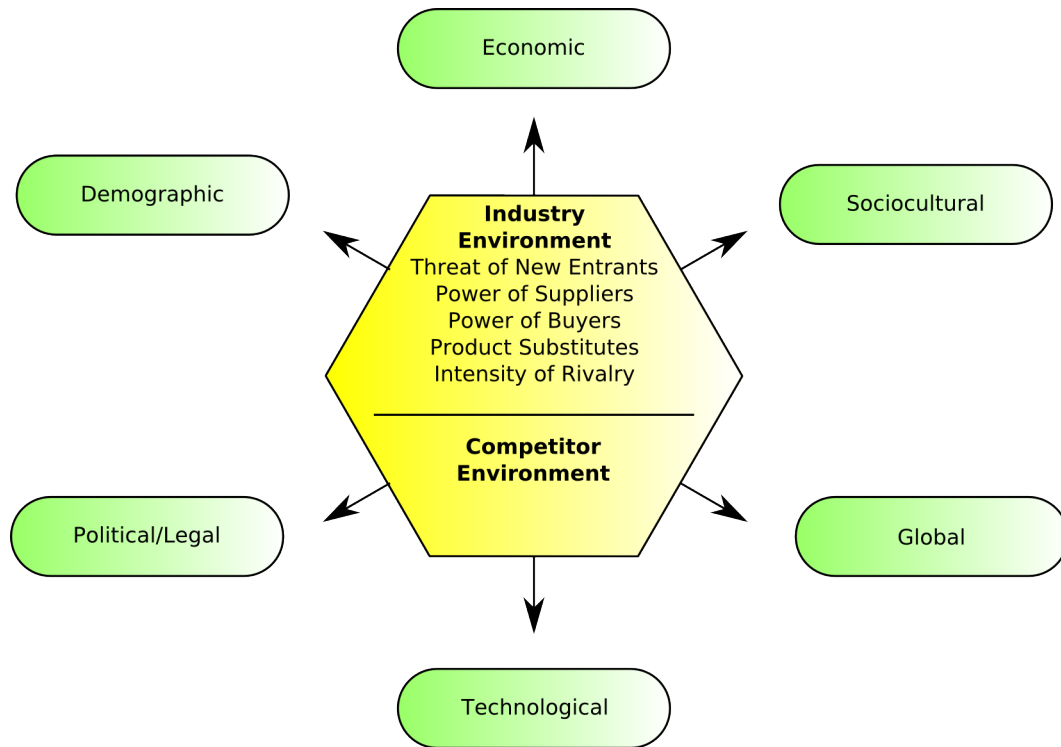


Figure 2.6: External Environment [12]

2.4 External Environment Analysis

Returning to the strategic management process (Figure 2.2), this section will bring more details which describe external environment.

The general scheme of the external environment is shown in Figure 2.6. The firm has to cope with many factors. A firm's external environment is divided into three major areas: *the general, industry and competitor environments* [12].

The general environment

The *general environment* is composed of dimensions in the broader society that influence an industry and firms within it. We group these dimensions into six environmental segments [12]:

Demographic: population size, age structure, ethnic mix etc.

Economic: inflation rates, interest rates, personal savings rate, gross domestic product etc.

Political/Legal: antitrust laws, taxation laws, labor training laws etc.

Sociocultural: workforce diversity, attitudes about the quality of work life, shifts in preferences regarding product and service characteristics etc.

Technological: product innovations, focus on private and government supported R&D expenditures

Global: important political events, critical global markets, newly industrialized countries, different cultural and institutional attributes

The industry environment

The *industry environment* is a set of factors that directly influences a firm and its competitive actions and competitive responses. Compared to the general environment, the industry environment often has a more direct effect on the firm's strategic competitiveness and above average returns [12]. A rigorous examination of a firm's external environment was systematized in the methodology of industry analysis. Careful industry analysis can help establish whether a particular industry is likely to prove attractive to average competitor; it can also shed light on profit differences among the competitors in that industry. More broadly, industry analysis illuminates the competitive landscape in a way that aids the formulation of effective strategies [6]. The most popular framework for industry analysis is Michael Porter's "five forces" model for assessing average industry profitability (see Figure 2.7).

The competitor environment

The *competitor environment* is the final part of the external environment requiring study. Competitor analysis focuses on each company against which a firm directly competes. In a competitor analysis, the firm seeks to understand [12]:

- What drives the competitor, as shown by its *future objectives*.
- What the competitor is doing and can do, as revealed by its *current strategy*.
- What the competitor believes about the industry, as shown by its *assumptions*.
- What the competitor's capabilities are, as shown, by its *strengths* and *weakness*.

As we can understand from introduced concepts, the stress is laid on the static industry division into segments. However, as we will see later, it is harder to exactly define service segments and easier to create new segments.

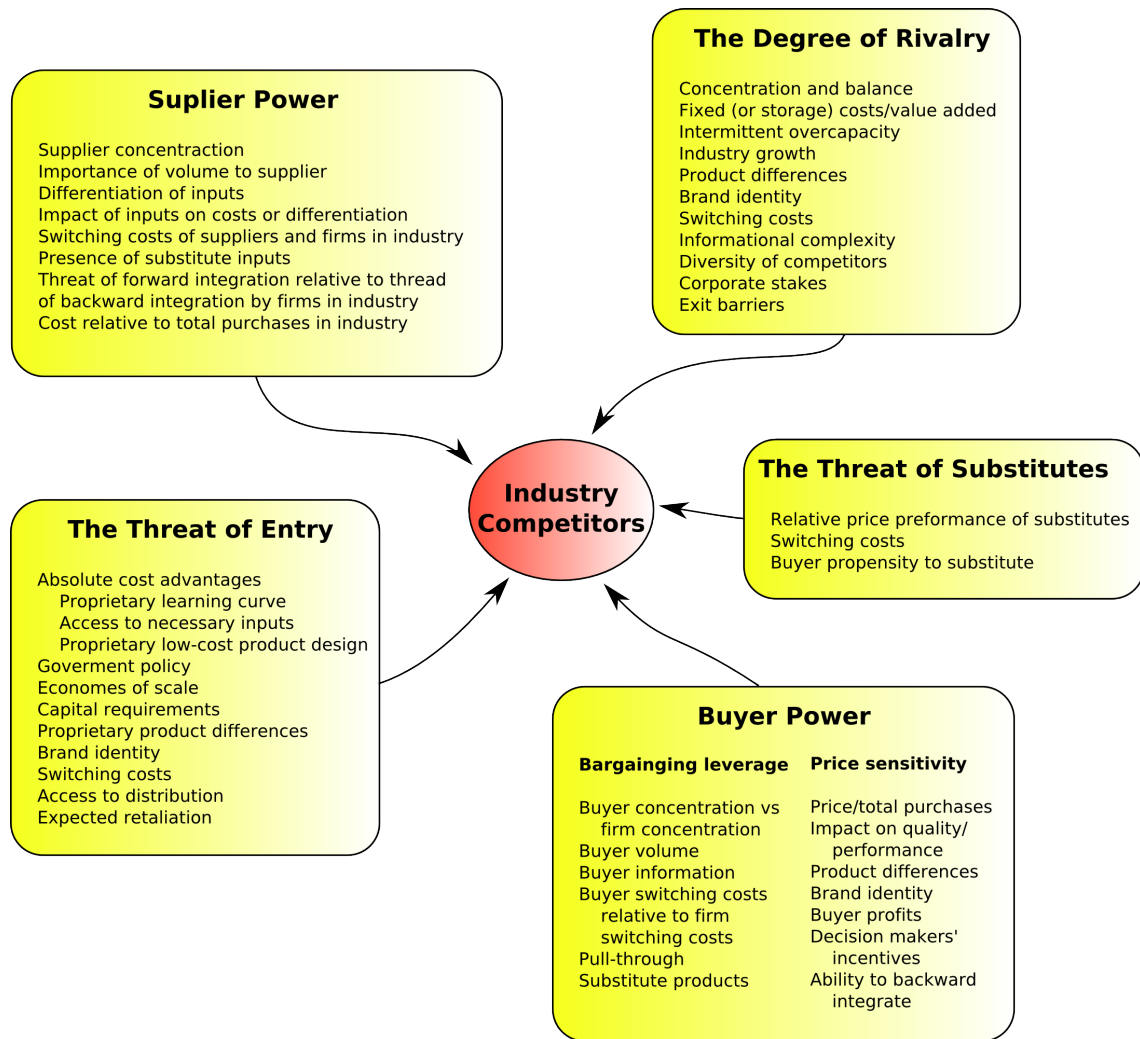


Figure 2.7: Michael Porter's Five Forces Framework [6]

2.5 Internal Environment Analysis

Resources, capabilities and core competencies are the characteristics that make up the foundation of competitive advantage. Resources are the scope of a firm's capabilities. Capabilities in turn are the source of a firm's core competencies, which are the basis of competitive advantage [12]. The process of a competitive advantage creation is shown in Figure 2.8.

Broad in scope, resources cover a spectrum of individual, social, and organizational phenomena. Typically, resources alone do not yield a competitive advantage. In fact, a competitive advantage is created through the unique bundling of several resources.

Some of the firm's resources are tangible and others are intangible [12]:

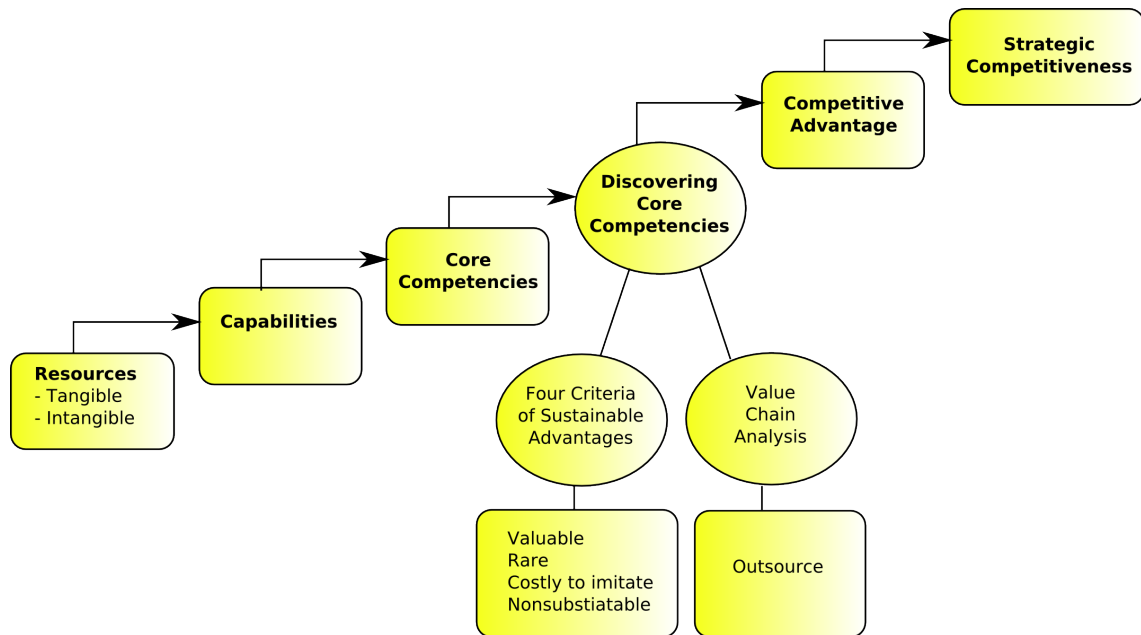


Figure 2.8: Components of Internal Analysis Leading to Competitive Advantage and Strategic Competitiveness [12]

Tangible resources are assets that can be seen and quantified, such as production equipment or manufacturing plants.

Intangible resources include assets that are typically rooted deeply in the firm history and have accumulated over time. Because they are embedded in unique patterns of routines, intangible resources are relatively difficult for competitors to analyze and imitate. Knowledge, trust between managers and employees, ideas, the capacity for innovation, managerial capabilities, the unique ways how people work together, scientific capabilities and the firm's reputation for its goods or services and how it interacts with people are all examples of intangible resources.

Resources are the base for capabilities acquiring. Capabilities are the firm's capacity to deploy resources that have been integrated to achieve a desired end state. The glue binding an organization together, capabilities emerge over time through complex interactions among tangible and intangible resources. The foundation of capabilities lies in the unique skills and knowledge of a firm's employees and often their functional expertise [12].

Four criteria of Sustainable Competitive Advantage

Not all of firm's resources and capabilities are strategic assets. Some resources and capabilities may ever result in incompetence, because they represent competitive areas in which the firm is weak compared to competitors. In contrast, core competencies are resources and capabilities that serve as a source of a firm's competitive advantage over rivals. Core competencies distinguish a company competitively and reflect its personality.

Hitt [12] and Collis and Montgomery [6] introduce four criteria of sustainable competitive advantage when building core competencies:

Valuable capabilities allow the firm to exploit opportunities or neutralize threats in its external environment

Rare capabilities are capabilities that few, if any, competitors possess.

Costly-to-imitate capabilities are capabilities that other firms cannot easily develop.

Nonsubstitutable capabilities are capabilities that not have strategic equivalents.

Combinations of the criteria for sustainable competitive advantage have various outcomes. Details can be read in the book [12].

Value Chain Analysis

The goal of the value chain analysis is to understand the parts of its operations that create value and those that do not. It is important, because the firm earns above average returns only if the value it creates is greater than the costs incurred to create that value. Otherwise it could be better to outsource the operation. Porter's generic value chain is shown in Figure 2.9.

Primary activities are involved with a product's physical creation, its sale and distribution to buyers, and its service after the sale [12]. Support activities provide the assistance necessary to take place [12].

The generic value chain analysis is a typical example of product-oriented analysis, where the process of value creation is clearly defined from inputs, through product creation to placing it to the marketplace. Thus, we will see the need for its modification in service businesses later.

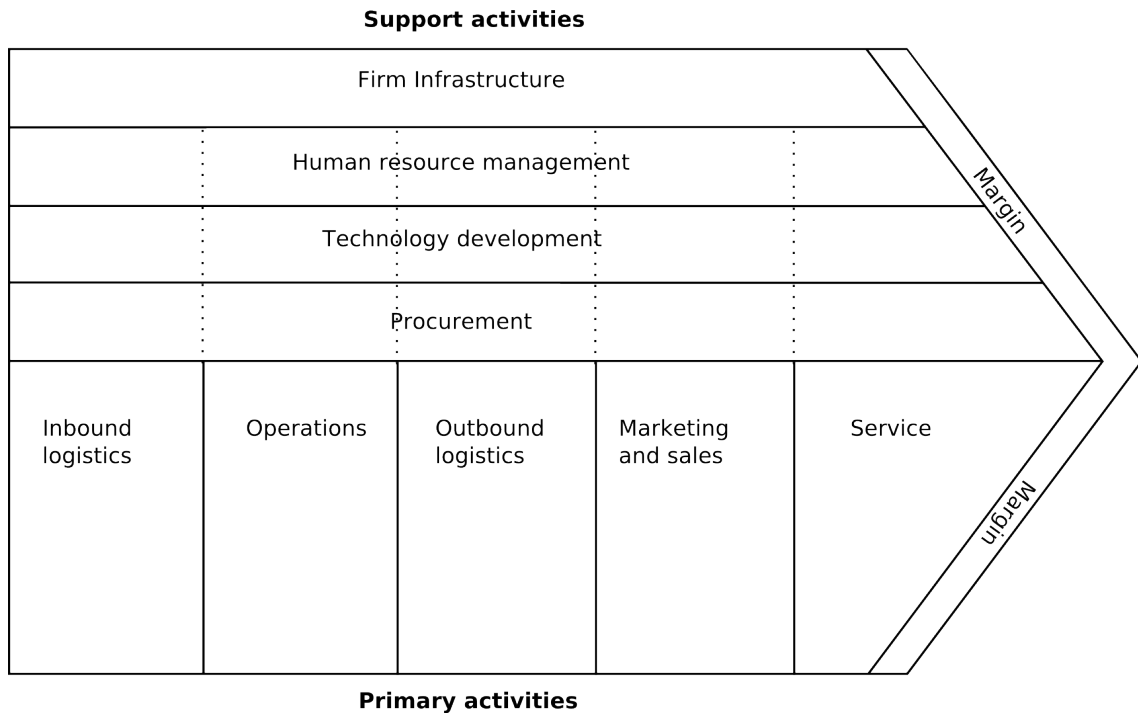


Figure 2.9: Generic Value Chain [6]

2.6 Five Business-Level Strategies

Business-level strategies are intended to create differences between the firm's position and those of its rivals. To position itself, the firm must decide whether it intends to perform activities differently or to perform different activities as compared to its rivals. Thus, the firm's business-level strategy is a deliberate choice about how it will perform the value chain's primary and support activities in ways that create unique value. Porter's five business-level strategies are shown in Figure 2.10.

Each strategy has its own implications and risks as well its own value chain. The framework is very famous and widely used, described in many publications, and principles are well known. Hence, this work will not go more in details now. The model will be referenced later in the chapter about service strategies.

2.7 Competitive Rivalry and Dynamics

The introduced strategies are all based on competition. This section will present basic concepts about the nature of competition itself.

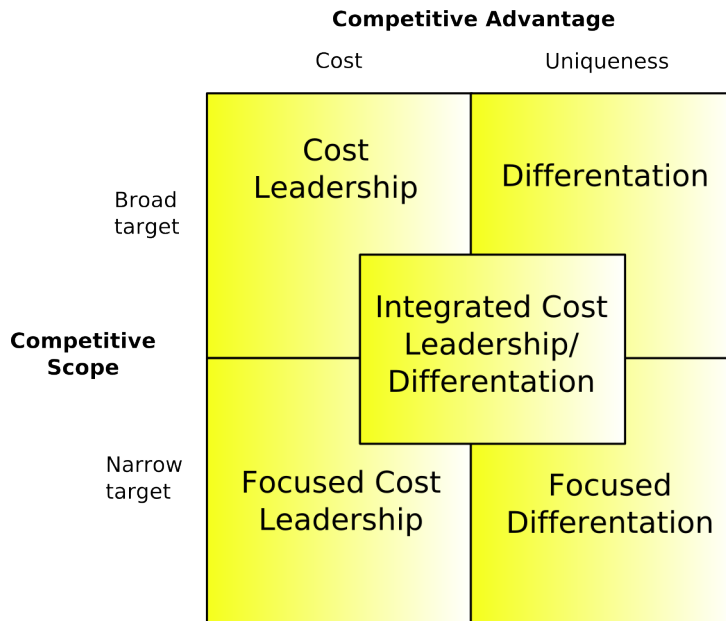


Figure 2.10: Five Business-Level Strategies [12]

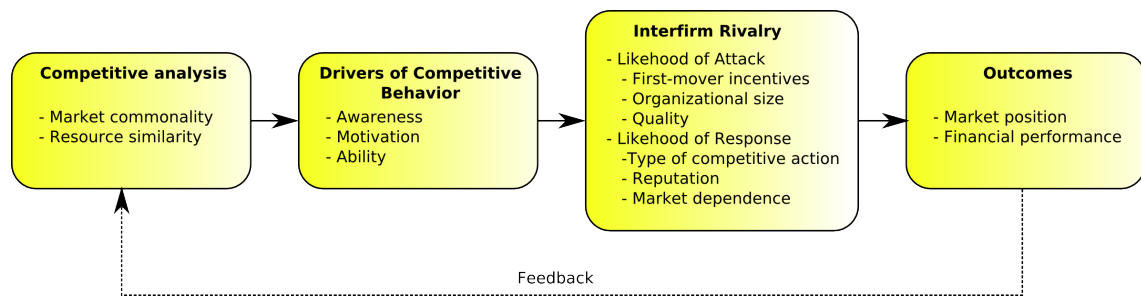


Figure 2.11: A Model of Competitive Rivalry [12]

Firms operating in the same market, offering similar products, and targeting similar products are competitors. Competitive rivalry is the ongoing set of competitive actions and competitive responses occurring between competitors as they compete against each other for an advantageous market position. Competitive behavior is the set of competitive actions and competitive responses the firm takes to build or defend its competitive advantages and to improve its market position [12]. All competitive behavior – that is, the total set of actions and responses taken by all firms competing within a market – is called competitive dynamics.

Figure 2.11 shows what is involved with competitive rivalry at the firm level. We study rivalry at the firm level because the competitive actions and responses the firm takes are foundation for successfully building and using its competitive advantages to gain an advantageous position [12].

Firms use both strategic and tactical actions when forming their competitive actions and competitive responses in the course of engaging in competitive rivalry. A first mover is a firm that takes action in order to build or defend its competitive advantages or to improve its market position while a second mover is a firm that responds to the first mover's competitive action, typically through imitation. A late mover then responds to a competitive action, but only after considerable time has elapsed after the first mover's action and the second mover's response.

2.8 Cooperative Strategies

The effective competition in the 21st-century landscape results when the firm learns how to cooperate with as well as compete against competitors [12]. The statement will be also confirmed in the chapter about service strategies later.

A cooperative strategy is a strategy in which firms work together to achieve a shared objective. Thus, cooperating with other firms in another strategy that is used to create value for a customer that exceeds the cost of constructing that value in other ways.

A strategic alliance is a cooperative strategy in which firms combine some of their resources and capabilities to create a competitive advantage. Hitt [12] establishes three types of strategic alliances:

A joint venture is a strategic alliance in which two or more firms create a legally independent company to share some of their resources and capabilities to develop a competitive advantage.

An equity strategic alliance is an alliance in which two or more firms own different percentages of the company they have formed by combining some of their resources and capabilities to create a competitive advantage.

An nonequity strategic alliance is an alliance in which two or more firms develop a contractual relationship to share some of their unique resources and capabilities to create competitive advantage. In this type of strategic alliance, firms do not establish a separate independent company and therefore do not take equity positions.

2.8.1 Business-Level Cooperative Strategies

A business-level strategy is used to help the firm improve its performance in individual product markets. Hitt [12] introduces four business-level cooperative strategies:

Complementary strategic alliances are business-level alliances in which firms share some of their resources and capabilities in complementary ways to develop competitive advantages.

- In vertical complementary strategic alliance, firms share their resources and capabilities from different stages of the value chain to create a competitive advantage.
- A horizontal complementary strategic alliance is an alliance in which firms share some of their resources and capabilities from the same stage of the value chain to create a competitive advantage.

Competition response strategy uses strategic alliances to respond to competitors' attacks. They are primarily formed to respond to strategic rather than tactical actions.

Uncertainty reducing strategy uses strategic alliances to hedge against risk and uncertainty. They are also used where uncertainty exists, such as in entering new product markets or emerging economies, developing new products or establishing a technology standard.

Competition reducing strategy is used to reduce competition, usually by a collusive strategy, when two or more firms cooperate to raise prices above the fully competitive level.

2.8.2 Corporate-Level Cooperative Strategies

A firm uses a corporate-level strategy to help it diversify in terms of products offered or markets served, or both [12]. Diversifying alliances, synergistic alliances, and franchising are the most commonly used corporate-level cooperative strategies:

A diversifying alliance is a corporate-level cooperative strategy in which firms share some of their resources and capabilities to diversify into new product or market areas.

A synergistic alliance is a corporate-level cooperative strategy in which firms share some of their resources and capabilities to create economies of scope. Similar to the business-level horizontal complementary strategic alliance, synergistic alliances create synergy across multiple functions or multiple business between partner firms.

Franchising is a corporate-level strategy in which a firm (the franchisor) uses a franchise as a contractual relationship to describe and control the sharing of its resources and capabilities with partners (the franchisees).

Attention paid to cooperative strategies will become very useful, especially when explaining the principles of cooperation and co-creation in service systems in later chapters.

2.9 Organizational Aspects of Strategies Implementation

Research shows that organizational structure and the controls that are a part of it affect firms performance [12]. In particular, when the firm's strategy is not matched with the most appropriate structure and controls, performance declines.

Organizational structure specifies the firm's formal reporting relationship procedures, controls, and authority making processes. A firm's structure specifies the work to be done and how to do it, given the firm's strategy and strategies. Structural stability provides the capacity the firm requires to consistently and predictably manage its daily work routines, while structural flexibility provides the opportunity to explore competitive possibilities and then allocate resources to activities that will shape the competitive advantages the firm will need to be successful in the future. An affective organizational structure allows the firm to exploit current competitive advantages while developing new ones [12].

Strategy and structure has a reciprocal relationship. This relationship highlights the interconnectedness between strategy formulation and strategy implementation. Hitt [12] gives examples of organizational structures relevant to each of Porter's generic strategies. In general, three major structures are distinguished:

The simple structure is a structure in which the owner-manager makes all major decisions and monitors all activities while the staff serves as an extension of the manager's supervisory authority.

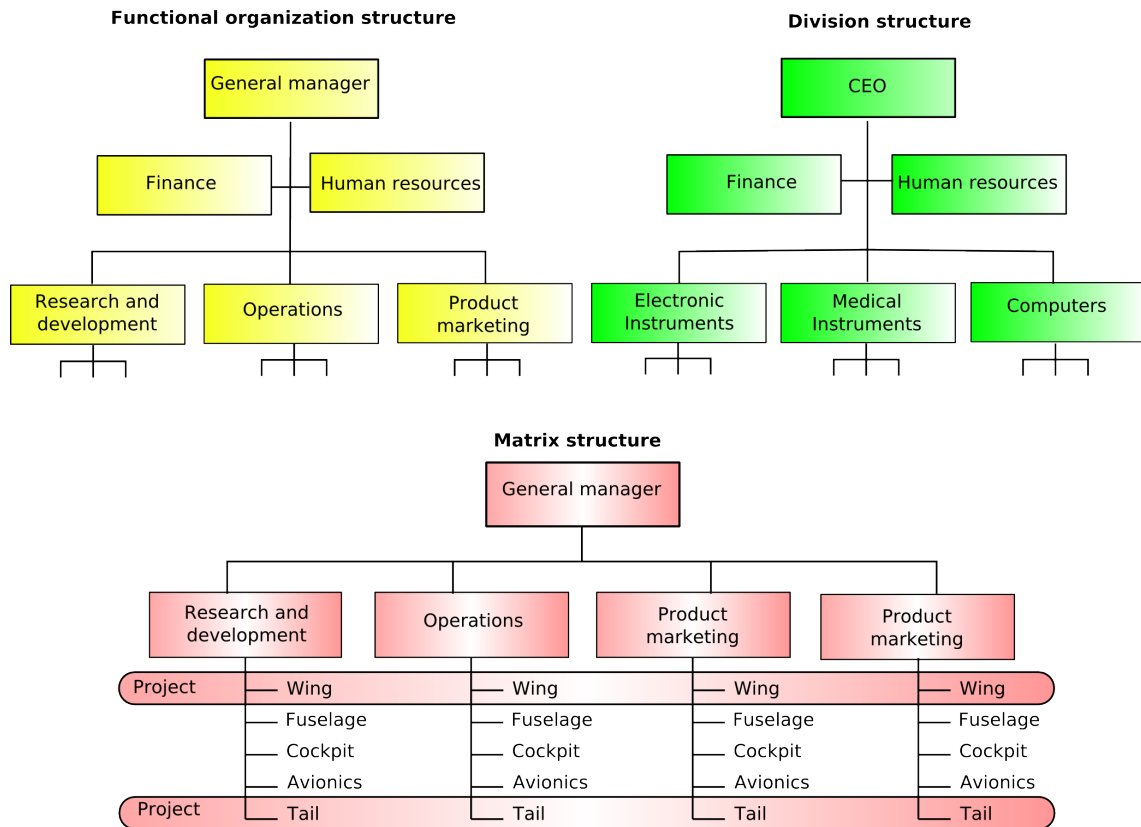


Figure 2.12: A Range of Organization Types [6]

The functional structure is a structure consisting of a chief executive officer and a limited corporate officer and a limited corporate staff, with functional line managers in dominant organizational areas, such as production, accounting, marketing, R&D engineering, and human resources (top left segment of Figure 2.12).

The multidivisional (M-form) structure consists of operating divisions each representing a separate business or profit center in which the top corporate officer delegates responsibilities for day-to-day operations and business-unit strategy to division managers (top right segment of Figure 2.12).

Collis and Montgomery [6] notice another two structures especially for firms which have important independencies along multiple dimensions, where is no clear-cut structure that is appropriate:

In the matrix structure, people with similar skills are pooled for work assignments. Employees report to two superiors – a function and a project manager. The matrix structure allows team members to share information more

readily across task boundaries and allows for specialization that can increase depth of knowledge, professional development and career progression to be managed [16]. It is argued that matrix organizations have to face problems of individuals who had to balance the demands of two bosses [6] (bottom segment of Figure 2.12).

The network organization uses rather than a formal organizational structure loose and shifting set of relationships both internally (among teams) and externally (with suppliers, customers, and even with competitors). The advantages of such a structure are argued to be flexibility and adaptability to reconfigure the firm rapidly and cheaply in response to changing circumstances. The disadvantages that are argued include this structure may lead to chaos in large, complex companies [6]. The network organizational structure can be hardly illustrated without certain people. Therefore, an illustration is presented in the last chapter in Figure 5.1 in context of selected company.

No organizational structure is inherently superior to the other structures. Peter Drucker says that the firm must select a structure that is “right” for the particular strategy that has been selected to pursue the firm’s strategic intent and strategic mission [12]. Because no single structure is optimal in all instances, managers concentrate on developing proper matches between strategies and organizational structures rather than searching for an “optimal” structure. And in flexible service systems environment, the stress to balance the best match between strategies is becoming even greater.

Perspective	Concept of Corporate Strategy	Organization Structure	Diversification	Portfolio Planning	Value-Based	Generic Corporate Strategies	Resource-Based View
Representative authors(s)	Ansoff (1965) Andrews (1971)	Chandler (1962) Wrigley (1970) Bowler (1970) Vancil (1978)	Rumelt (1974) Montgomery (1985)	BCG (1968) Haspeslagh (1982)	Jensen (1985) Copeland (1990) Schmalensee (1985) Rumelt (1991)	Porter (1987) Goold & Campbell (1987) McKinsey (1989)	Wernerfelt (1984) Prahalad and Hamel (1990) Barney (1991)
Date	1960s	1960s and 1970s	1970s	1970s	1980s	1980s	1980s
Concern	General management role	Organization structure	Extent and mode of diversification	Resource allocation	Corporate contribution to SBU performance	Source of corporate advantage	Firm idiosyncrasy and growth
Contribution	Original (blurred) statement of corporate and competitive strategy	Structure follows strategy, "fit", decentralization	Set of businesses as strategic variable, "synergy"	Portfolio management	Limited evidence of corporate value; market for corporate control	Typology of corporate advantage	Tangible and intangible assets and capabilities
Output	Corporate vision, distinctive competence, SWOT analysis	M-form multidivisional structure	Measure of relatedness, analysis of performance	Growth/share matrix	Free cash flow, value-based strategy	Corporate role	Characteristics of valuable resources

Table 2.1: Perspectives on Corporate Strategy [6]

Chapter 3

Service Economy in Context of Service Systems

In order to develop a proposal for strategies in service economy, we must introduce principles of service systems first. This chapter will compare paradigms of the product- and service-based economy at the beginning. It will then introduce principles of service systems and apply them to the business world. It will also point out main ideas of the “Service systems, management and engineering (SSME)” initiative.

3.1 History of Economic Paradigms

The shifts in economic thinking and practises have been outlined in the first introductory chapter. One possible approach to the paradigms development is illustrated in Table 3.1.

There cannot be any doubt about the first two product economy phases – agrarian and industrial. Although it seems that we live in service economy now, some authors, especially Prahalad and Ramaswamy [20] show that many firms base their strategies on co-creating value with customers. The definition of service used in SSME initiative also deals with value co-creation.

It seems that the third phase (services) is a base for the other two phases meaning the nature of service determines the result of its impact. As the agrarian, industrial and service phases were not strictly isolated, we could expect that the situation will be similar in the next phases.

We will see later that successful service strategy crafting includes many characteristics of the next phases which should (as described in Table 3.1) come after the service economy.

<i>Economic Offering</i>	<i>Commodity Goods</i>	<i>Packaged Goods</i>	<i>Commodity Services</i>	<i>Consumer Services++</i>	<i>Business Services++</i>
<i>Economy</i>	Agrarian	Industrial	Service	Experience	Transformation
<i>Economic Function</i>	Extract	Make	Deliver	Stage	Co-create value growth
<i>Nature of Offering</i>	Fungible	Tangible	Intangible	Memorable	Effectual
<i>Key Attribute</i>	Natural	Standard	Custom	Personal	Value growth relationship
<i>Method of Supply</i>	Stored in Bulk	Inventory of product	Delivered on demand	Reveal over duration	Sustained over time
<i>Settler</i>	Trader	Manufacturer	Provider	Stager	Collaborator
<i>Buyer</i>	Market	Customer	Client	Guest	Collaborator
<i>Factors of Demand</i>	Characteristics	Features	Benefits	Sensations	Capabilities (cultural values)

Table 3.1: History of Economic Paradigms [25]

3.2 Product Economy Paradigms

The main principle of the product economy (i.e. product-oriented or product-based economy) resides in a tangible product exchange between a product supplier and a product consumer. The paradigm comes from the era, when it was considered that wealth is created only by a production of tangible commodities. The simplified product life-cycle in the product economy can be summarized as follows:

1. A manufacturer develops a product.
2. The manufacturer makes the product.
3. The product is given to the market.
4. A consumer buys the product.
5. The consumer uses the product.
6. The supplier eventually provides additional support of the product.
7. The consumer gets rid of the product.

As we can see, the process is easily conceivable. The role of the producer and the consumer is exactly defined in every step of the process as well as the

ownership of the product. The process could be considered as an ownership transfer – from the producer to the consumer. The producer and buyer are not closely connected during the whole life-cycle. Basically, they have to be in touch only at the moment of the ownership transfer.

Products are tangible, therefore it is not usually so hard to convert a product value into money. At least we are able to set the price on the market according to the production costs. The major task in production is an optimization of production quantity according to fixed and variable costs to achieve maximum profit.

Returning to the previous chapter, we can see direct correspondence of the product life-cycle and Porter's generic chain (see Figure 2.9).

3.3 Service Economy Paradigms

On the other side, the service economy paradigm is different. The emphasis is not laid on the tangible products, it is laid on services which a customer can get. No matter if the service is realized through a product or someone else performs the service. The result is important as well as the experience which a customer undergoes. To deal with ownership is not needed primary, service customer obtain benefits by renting the right to use a physical object, to hire the labour and expertise of personnel, or to pay for access to facilities and networks [14].

The second crucial issue of the service paradigm is the act of customer co-operation during the process of service. The service provider creates the value together with the service consumer and the both sides learn and influence each other. The difference can be seen in Figure 3.1.

As Gummesson wrote even in 1994 [11], customers do not buy goods or services: they buy offerings which render services which create value. The traditional division between goods and services is long outdated. It is not a matter of redefining services and seeing them from a customer perspective; activities render services, things render services. The shift in focus to services is a shift from the means and the producer perspective to the utilization and the customer perspective.

This section covers only a brief introduction of the service concept. The details of the concept will be expanded in the next sections, especially the role of service systems.

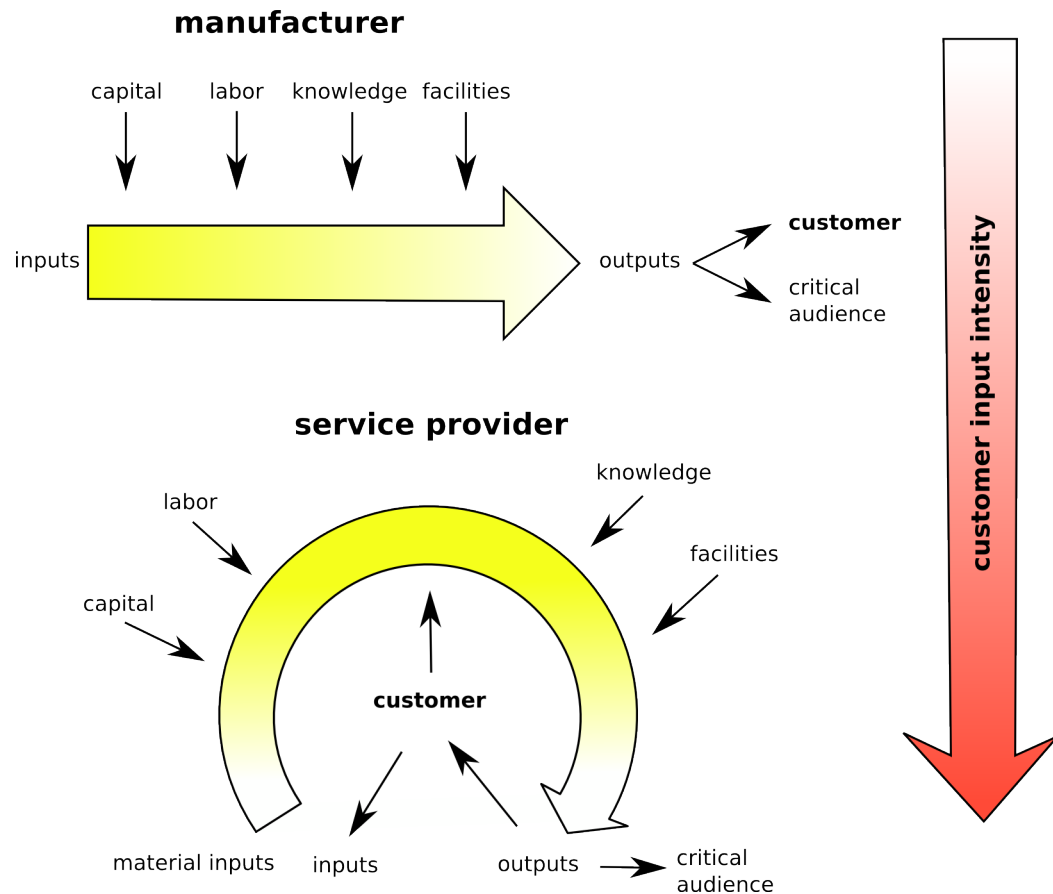


Figure 3.1: Product and Service Paradigms – Customer Input Intensity [24]

3.4 Definitions of Service

Various sources understand and define a service concept differently. This section introduces some of them in order to compare their scope and choose the most proper one.

The word service was originally associated with the work that servants did for their masters [14]. In time, a broader association emerged, captured in the dictionary definition of “the action of serving, helping, or benefiting; conduct tending to the welfare or advantage of another [32]”.

The more complex, general definition of the service term reads as follows [22]: A service is a set of benefits delivered from the accountable service provider, mostly in close coaction with his service suppliers, generated by the functions of technical systems and/or by distinct activities of individuals, respectively, commissioned according to the needs of his service consumers by the service customer from the accountable service provider, rendered individually to the authorized service consumers on their dedicated request, and, finally, utilized by the

requesting service consumers for executing and/or supporting their day-to-day business tasks or private activities.

Lovelock [14] defines service as economic activities offered by one party to another, most commonly employing time-based performances to bring about desired results in recipients themselves or in objects or other assets for which purchasers have responsibility. In exchange for their money, time, and effort, service customers expect to obtain value from access to goods, labor, professional skills, facilities, networks, and systems; but they do not normally take ownership of any of the physical elements involved.

Vargo and Lusch [33] define services as the application of specialized competencies (knowledge and skills) through deeds, processes, and performances for benefit of another entity or the entity itself.

Spohrer [24] defines service as the application of competencies for the benefit of another, meaning that service is a kind of action, performance, or promise that's exchanged for value between provider and client. He uses the definition based on Gadrey [9], which is illustrated in Figure 3.2.

Services are anything of economic value that cannot be dropped on your foot – the key to service value is in actions, performed now or promised for the future. Services transform/protect or promise to transform/protect a state of the target of the service. The client may not have the skill, time, desire, or authority to perform self-service, do it themselves. Services often create mutual interdependencies. Service is performed in close contact with a client; the more knowledge-intensive and customized the service, the more the service process depends critically on client participation and input, whether by providing labor, property, or information [24].

Services are value coproduction performances and promises between clients and providers, with alternative work sharing, risk sharing, information sharing, asset sharing, and decision sharing arrangements and relationships (promises to perform now or in the future, once or repeatedly, when needed or demanded, standard or customized, satisfaction guaranteed or best effort, service levels fixed or variable).

The true meaning and implications of services will be completely expanded only in a context of service system, which is a subject of the next section.

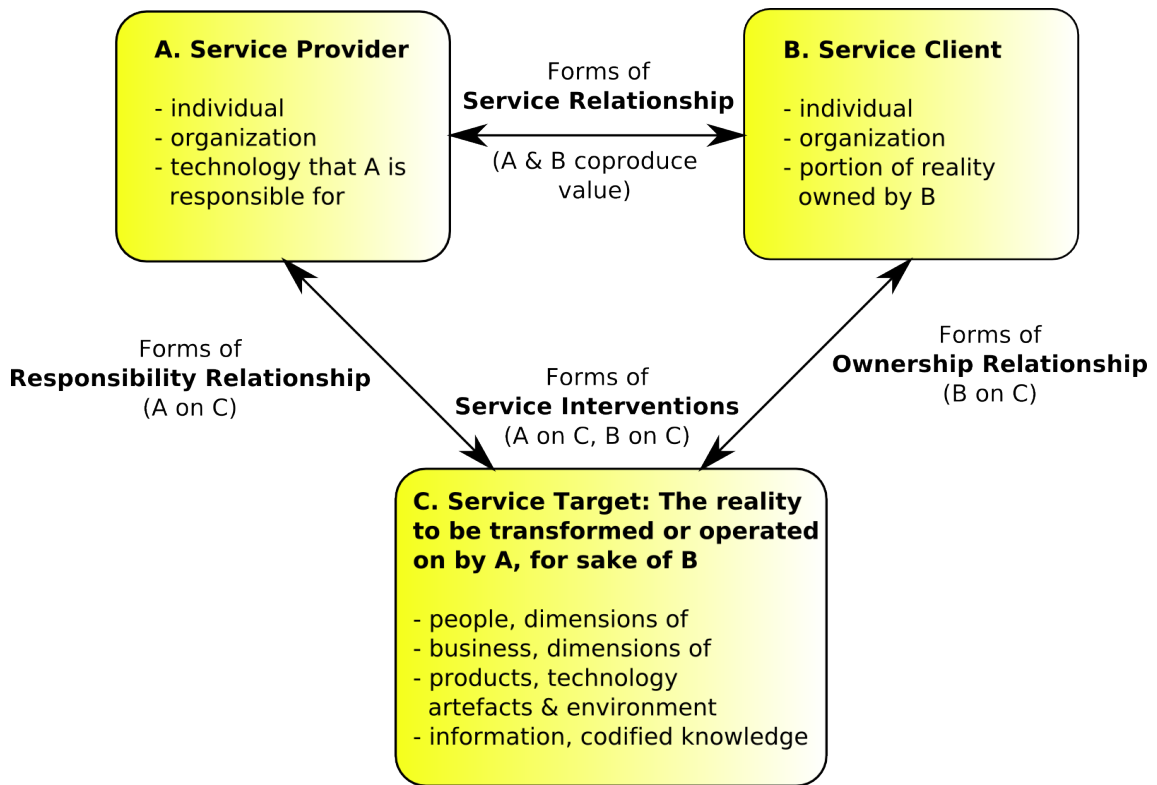


Figure 3.2: Service Illustration [9]

3.5 Service System Architecture

A service system comprises people and technologies that adaptively compute and adjust to a system's changing value of knowledge [26]. It comprises service providers and service clients working together to coproduce value in complex value chains or networks. Providers and clients might be individuals, firms, government agencies, or any organization of people and technologies.

The key is that providers and clients work together to create value. The client owns or controls some state that the provider is responsible for transforming according to some agreement between provider and client.

Individuals, families, firms, nations, and economies all represent instances of service systems [26]. The illustration of such service system can be seen in Figure 3.3.

Service system complexity is a function of the number and variety of people, technologies, and organizations linked in the value creation networks, ranging in scale from professional reputation systems of a single kind of knowledge worker or profession, to work systems composed of multiple types of knowledge workers, to enterprise systems, to industrial systems, to national systems, and ultimately to the global service system [15].

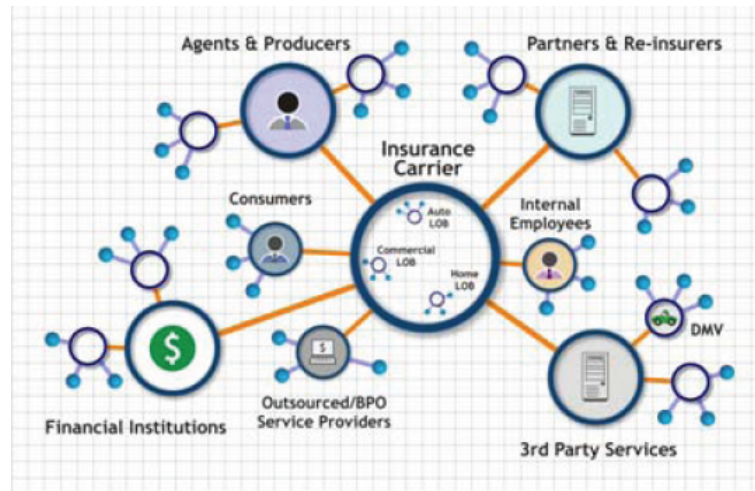


Figure 3.3: Service System Illustration [25]

Most of the time, real-world competencies of great value are not simple. Some competencies even might have side effects and associated risks to other service systems if not executed properly. Regardless of how competence leads to action and value, coordination and governance require shared information. Three key types of shared information are language, laws, and measures [26]:

Language Without some form of language, signaling, or standard encoding of information, systems would find coordination difficult, leading to missed opportunities for innovation or efficiency gains.

Laws Provisioning sophisticated service and maintaining complex service systems requires laws and contracts. Typically, every service system has a governing authority that seeks to ensure that all those in the service system can communicate in shared languages and abide by shared laws. In firms, it is the CEO and board of directors; and in nations, it is government leaders and agencies, as well as shared legal documents and enforcement agencies.

Measures Prices are one type of measure of the value of services exchanged within or between service systems. Often, standardizing the sets of measures used within and between service systems improves the productive capacity of the system by eliminating unneeded transaction costs and improving coordination.

Language, laws, measures, and other types of shared information evolve over time as service systems invest to improve productivity, quality, compliance, and innovation.

3.6 Shift to Service Economy

Vargo and Lusch [33] illustrate the shift to service-centered view in Figure 3.4. The distinction between mentioned two views is obvious – the emphasis shifts from tangible, statics, discrete transactions, and operand resources to intangibles, competencies, dynamics, exchange processes and relationships, and operant resources.

3.6.1 Operand and Operant Resources

Over the past 50 years, resources have come to be viewed not only as stuff but also as intangible and dynamic functions of human ingenuity and appraisal, and thus they are not static or fixed. Everything is neutral until humankind learns what to do with it. Essentially, resources *are* not; they *become* [33].

Vargo and Lush illustrate the change to service-centered view with the role of operand and operant resources [33]:

Operand resources are resources on which an operation or act is performed to produce an effect (eg. goods, minerals, animal life, plant life, and other natural resources)

Operant resources are resources which produce effects, they are employed to act on operand resources and other operant resources (eg. knowledge and skills, technology).

The shift to the service paradigm explained by a role of operant and operand resources is illustrated in Figure 3.5.

In the product-oriented economy the operand resources were considered primary. A firm (or nation) had factors of production (largely operand resources) and a technology (an operant resource), which had value to the extent that the firm could convert its operand resources into outputs at a low cost. Customers, like resources, became something to be captured or acted on [33].

The relative role of operant resources began to shift in the late twentieth century as humans began to realize that skills and knowledge were the most important types of resources. It is never resources themselves that are the “inputs” to the production process, but only the services that the resources can render. Operant resources are often invisible and intangible; often they are core competencies (see section 2.3.2) or organizational processes (see section 2.9). They are likely to be dynamic and infinite and not static and finite, as is usually the case

with operand resources. Because operand resources produce effects, they enable humans both to multiply the value of natural resources and to create additional operand resources [33].

The service-oriented economy perceives operand resources as primary, because they are the producers of effects. This shift in the primacy of resources has implications for how exchange processes, markets, and customers are perceived and approached [33].

3.6.2 Eight Foundational Premises of Service-Centered View

Vargo and Lush introduced eight premises of service-centered view (adapted from [33]):

1. The Application of Specialized Skills and Knowledge Is the Fundamental Unit of Exchange

People have two basic operand resources: physical and mental skills. Both types of skills are distributed unequally in a population. Each person's skills are not necessarily optimal for his or her survival and well-being; therefore, specialization is more efficient for society and for individual members of society. Largely because they specialize in particular skills, people (or other entities) achieve scale effects. This specialization requires exchange.

2. Indirect Exchange Masks the Fundamental Unit of Exchange

Over time, exchange moved from the one-to-one trading of specialized skills to the indirect exchange of skills in vertical marketing systems and increasingly large, bureaucratic, hierarchical organizations. Consequently, the inherent focus on the customer as a direct trading partner largely disappeared and most marketing personnel (and employees in general) stopped interacting with customers. In addition, because of the confluence of these forces, the skills-for-skills (services-for-services) nature of exchange became masked.

3. Goods Are Distribution Mechanisms for Service Provision

Goods are not the common denominator of exchange; the common denominator is the application of specialized knowledge, mental skills, and, to a lesser extent, physical labor (physical skills). Knowledge and skills can be transferred (1) *directly*, (2) *through education or training*, or (3) *indirectly by embedding them in objects*. Thus, tangible products can be viewed as embodied knowledge or activities.

4. Knowledge Is the Fundamental Source of Competitive Advantage

Knowledge is an operant resource. It is the foundation of competitive advantage and economic growth and the key source of wealth. Knowledge is composed of propositional knowledge, which is often referred to as abstract and generalized, and prescriptive knowledge, which is often referred to as techniques. The techniques are the skills and competencies that entities use to gain competitive advantage (compare with sections 2.3.1 and 2.3.2). This view is consistent with current economic thought that the change in a firm's productivity is primarily dependent on knowledge or technology.

5. All Economies Are Services Economies

Formal economic thought developed during the industrial economy, and it has tended to describe economies in terms of the types of output, or operand resources (game, agricultural products, and manufactured products), associated with markets that were expanding rapidly at the time. However, the "economies" might be better viewed as macrospecializations, each characterized by the expansion and refinement of some particular type of competence (operant resource) that could be exchanged:

- The hunter-gatherer macrospecialization was characterized by the refinement and application of foraging and hunting knowledge and skills.
- The agricultural macrospecialization by the cultivation of knowledge and skills.
- The industrial economy by the refinement of knowledge and skills for large-scale mass production and organizational management.
- The services and information economies by the refinement and use of knowledge and skills about information and the exchange of pure, unembedded knowledge.

Services and the operant resources they represent have always characterized the essence of economic activity.

6. The Customer Is Always a Coproducer

From the traditional, goods-based, manufacturing perspective, the producer and consumer are usually viewed as ideally separated in order to enable maximum manufacturing efficiency.

From a service-centered view of marketing with a heavy focus on continuous processes, the consumer is always involved in the production of value.

Even with tangible goods, production does not end with the manufacturing process; production is an intermediary process. As we have noted, goods are appliances that provide services for and in conjunction with the consumer. However, for these services to be delivered, the customer still must learn to use, maintain, repair, and adapt the appliance to his or her unique needs, usage situation, and behaviors. The customer is continuing the marketing, consumption, and value-creation and service delivery processes in using a product.

In summary, the customer becomes primarily an operant resource (coproducer) rather than an operand resource (“target”) and can be involved in the entire value and service chain in acting on operand resources.

7. The Enterprise Can Only Make Value Propositions

The enterprise can only offer value propositions; the consumer must determine value and participate in creating it through the process of coproduction. If a tangible good is part of the offering, it is embedded with knowledge that has value potential for the intended consumer, but it is not embedded with value (utility). The consumer must understand that the value potential is translatable to specific needs through coproduction. The enterprise can only make value propositions that strive to be better or more compelling than those of competitors.

8. A Service-Centered View Is Customer Oriented and Relational

The customer-interaction process begins with the interactive definition of the individual customers’ problem, the development of a customized solution, and delivery of that customized solution to the customer. The solution may consist of a tangible product, an intangible service, or some combination of both. It is not the mix of the solution (be it product or service) that is important, but that the organization interacts with each customer to define the specific need and then develops a solution to meet the need.

It is in this sense of doing things, not just for the customer but also in concert with the customer, that the service-centered view emerges. It is a model of inseparability of the one who offers (and the offer) and the consumer. We also suggest that the interactive and integrative view of exchange is more compatible with the other normative elements of the marketing concept, the idea that all activities of the firm be integrated in their market responsiveness and the idea that profits come from customer satisfaction (rather than units of goods sold).

A service-centered view of exchange points in an opposing normative direction. It implies that the goal is to customize offerings, to recognize that the consumer is always a coproducer, and to strive to maximize consumer involvement in the customization to better fit his or her needs. A service-centered view identifies operant resources, especially higher-order, core competencies, as the key to obtaining competitive advantage. It also implies that the resources must be developed and coordinated to provide (to serve) desired benefits for customers, either directly or indirectly [33].

3.7 Business As Service System

Considering eight foundational premises of service-centered view introduced in the previous section, especially the fifth premise meaning “all economies are services economies”, we could assume that business in the service economy will exactly satisfy the definition of service system (see section 3.5). Assuming that, many interesting implications appears (adapted from [24] and [33]):

The importance of strategies First, and most fundamentally, organizations and business strategy can be as important as technology, cost, and demand in determining a firm’s success.

The source of competitive advantage Only true source of competitive advantage is the ability to conceive the entire value creating system and make it work.

The importance of marketing strategy The new paradigm is service-oriented, customer-oriented, relationship-focused, and knowledge-based, and places marketing, once viewed as a support function, central to overall business strategy.

Organizational structures in service systems The study of organization is not about how berries are arranged on a tree of authority, but about how people are coordinated and motivated to get things done.

Coordination What needs to be coordinated, how coordination is achieved in markets and inside firms, what the alternatives are to close coordination between units, and how the pieces of the system fit together.

Incentives and motivation What needs to be motivated, why incentives are needed, and how they are provided by markets and firms, what alternative kinds of incentive systems are possible, and what needs to be done to make incentive systems effective.

These implications will serve as a base for creating proposal of service strategies in the next chapter.

3.8 Service Systems As Computational Systems

Because IT is such an important part of service systems today, we might ask how service systems are similar to and different from computational systems [26]:

The main difference is people. The largest service system, the global economy, includes more than six billion people. Some large firms have hundreds of thousands of employees. People do a lot of the work – physical, mental, and social. Furthermore, unlike computational system components, we cannot easily model and simulate the behavior of people doing work in service systems. For example, laws and policies only partially govern people. Even when citizens and employees know government laws and corporate policies, compliance is not complete, which creates risk as well as opportunities.

Spohrer also introduces a very interesting problem [26]: Many innovations break a rule or violate a policy. How can we tell the difference between cheating and innovation in a service system, where people informally and formally change rules and policies?

The other emerging problems in modeling service systems formally [24]:

- Accelerating economic, technological, social, and environmental change challenge managers and policy makers to learn at increasing rates, while at the same time the complexity of the systems in which we live are growing. Many of the problems we now face arise from unanticipated side effects of our own past actions.
- Dynamic complexity arises because systems are: Dynamic, tightly coupled, governed by feedback, nonlinear, history dependent, self organizing, adaptive, counterintuitive, policy resistant, and characterized by trade-offs
- How rapid is the change and are there any patterns in how humans deal with complexity, how do people invest their time?

Spohrer also tries to compare service science and grid computing for the first time in the paper [23]. Although he introduced several distinctive similarities there, he concludes with many issues which have to be solved in the future.

3.9 Services Science, Management and Engineering Initiative

Many innovative companies (such as IBM, Accenture, HP, EDS, CSC, Cisco, P&G, American Express, John Deere, Avaya, Oracle, and many others) are aware of emerging importance of services. Therefore, the IBM company has established the Services Science, Management, and Engineering (SSME) initiative¹. It is one of the materializations of service approach and IBM calls it as “an urgent call to action” [24]. The major goals of the initiative are:

- to become more systematic about innovation in services
- to complement product and process innovation methods
- to develop “a science of services”

Although several theories have identified the building blocks of service systems, researchers have not yet developed a theory of service systems [26]. Therefore, the proposed academic discipline draws on many disciplines and aims to integrate them into a new speciality. The proposed research areas should deal with various disciplines such as [24]:

- computer systems (how service systems are designed)
- linguistic and social systems (how service systems evolve)
- economic systems (how service systems have scale-emergent properties)

The proposal of a general theory of service systems should consist of three parts [26]:

- science: what service systems are and how to understand their evolution; it is a way to create knowledge
- management: how to invest to improve service systems; it also improves the process of creating and capturing value
- engineering: how to invent new technologies that improve the scaling of service systems; it is a way to apply knowledge and create new value

The application of scientific, management, and engineering disciplines to services should help to [24]:

¹<http://www.research.ibm.com/ssme/>

- understand the evolution and design of service systems
- make productivity, quality, compliance, attainability, and innovation rates more predictable, especially complex organization to organization services – business to business, nation to nation, organization to population
- invest in service systems to make them into double-loop learning systems

The focus on SSME is important for many parts of economy service systems. Governments need to make service innovation a priority, because GDP growth of nations increasingly depends on it. In businesses, revenue and profit growth also increasingly depend on service innovation. And academics also need to make service innovation a priority because improved education productivity and quality depends on the SSME disciplines as well as a new frontier of research with business and societal impact. The SSME also emphasizes the cooperation of governments, business and academics through win-win strategy.

The SSME initiative also points out the need for people educated in more disciplines. They call them as T-shaped professionals (Figure 3.6), which are supposed to be both “deep and broad”. Deep means that they should have deep knowledge in a selected discipline (the core field of study) and broad aims to multidisciplinary overlaps (communication skills across other fields). The wider scope of T-shaped people is necessary due to an ability to deal with multidisciplinary nature of service affairs.

As mentioned in this section many times, the SSME initiative lays stress on the multidisciplinary approach. Hence, the service science touches many areas and disciplines. This approach implies that if we want to deal with the emerging service paradigm in a context of a particular discipline, we cannot avoid investigating its relationships to many adjacent areas. This approach explains the fact why proposed strategies in the service economy need such a wide theoretical base. The relationship matters, therefore it is important to introduce connections between different views of services, strategies and derive new consequences.

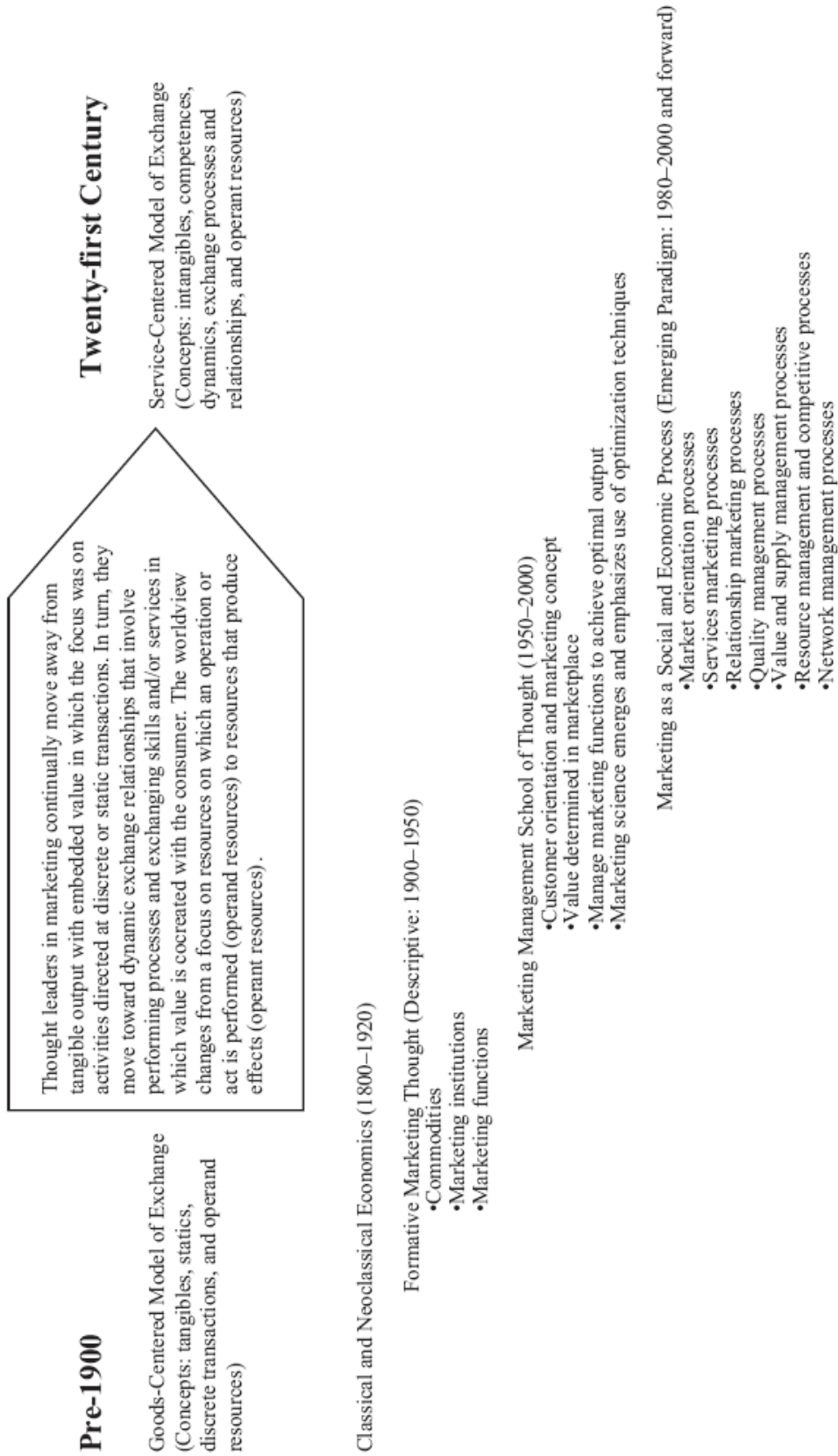


Figure 3.4: From Goods-Centered to Service-Centered View [33]

Operand and Operant Resources Help Distinguish the Logic of the Goods- and Service-Centered Views

	Traditional Goods-Centered Dominant Logic	Emerging Service-Centered Dominant Logic
Primary unit of exchange	People exchange for goods. These goods serve primarily as <i>operand resources</i> .	People exchange to acquire the benefits of specialized competences (knowledge and skills), or services. Knowledge and skills are <i>operant resources</i> .
Role of goods	Goods are <i>operand resources</i> and end products. Marketers take matter and change its form, place, time, and possession.	Goods are transmitters of <i>operant resources</i> (embedded knowledge); they are intermediate "products" that are used by other operant resources (customers) as appliances in value-creation processes.
Role of customer	The customer is the recipient of goods. Marketers do things to customers; they segment them, penetrate them, distribute to them, and promote to them. The customer is an <i>operand resource</i> .	The customer is a coproducer of service. Marketing is a process of doing things in interaction with the customer. The customer is primarily an <i>operant resource</i> , only functioning occasionally as an operand resource.
Determination and meaning of value	Value is determined by the producer. It is embedded in the <i>operand resource (goods)</i> and is defined in terms of "exchange-value."	Value is perceived and determined by the consumer on the basis of "value in use." Value results from the beneficial application of <i>operant resources</i> sometimes transmitted through <i>operand resources</i> . Firms can only make value propositions.
Firm–customer interaction	The customer is an <i>operand resource</i> . Customers are acted on to create transactions with resources.	The customer is primarily an <i>operant resource</i> . Customers are active participants in relational exchanges and coproduction.
Source of economic growth	Wealth is obtained from surplus tangible resources and goods. Wealth consists of owning, controlling, and producing <i>operand resources</i> .	Wealth is obtained through the application and exchange of specialized knowledge and skills. It represents the right to the future use of <i>operant resources</i> .

Figure 3.5: Operant and Operand Resources in Goods- and Service-Centered Views [33]

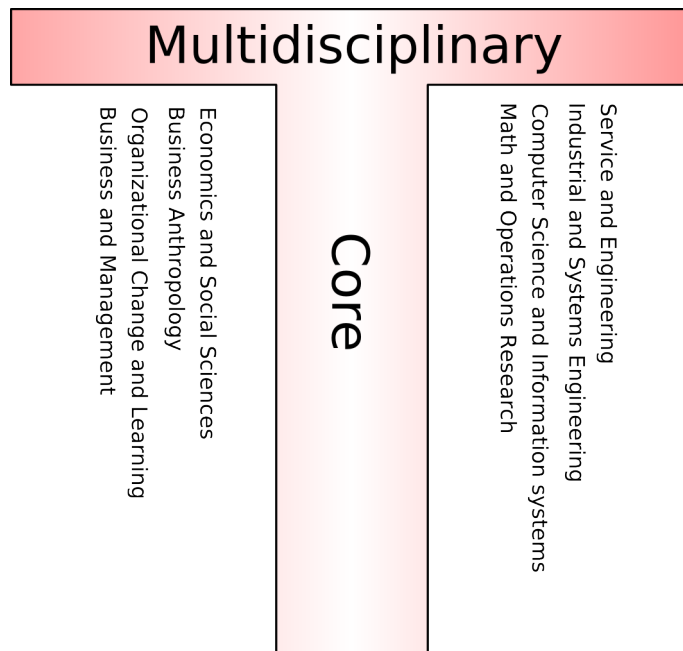


Figure 3.6: T-shaped Professional [25]

Chapter 4

Practical Proposals for Strategies in Service Economy

This chapter will join the theoretical background of the strategic management presented in the second chapter and the emerging service paradigm introduced in the third chapter to create a proposal for corporate strategies in service environment. The traditional approach to corporate and business strategies formulation will be discussed and confronted with new ideas, such as principles of blue ocean strategy, co-creation and management by competencies. Combination of these new ideas will then create a basic framework for the proposal of service strategies.

4.1 Challenges To Service Strategies

At first, we have to notice that some firms still see many services masked as standardized products. Although many of them practise this approach today, it cannot be considered to be sustainable in the future. Even successful companies will have to modify the approach in order to be successful in the future. Basing on the premises introduced in the section 3.6.2, goods can be viewed as providers of services, but services cannot be seen as goods at all – at least from customer's point of view. Therefore, the service-centered view can be understood as a generalization of the product-centered view. The role of service is summarized in Figure 4.1.

The proposed model has many interesting implications. The service cannot be taken separately, it has to be considered with a connection to the right side of the model (with customers' needs, expectations and experiences):

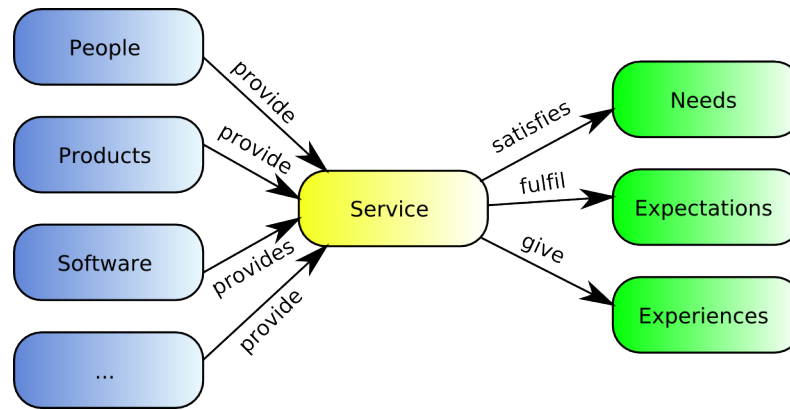


Figure 4.1: A Model of Service-Centered View (by author)

1. **The service has to satisfy consumer needs.** It is a crucial premise, it has to be always respected. If a service does not satisfy any possible customer's needs, there is no reason to provide it.
2. **The service has to fulfil customer expectations.** The premise is a base for a successful services provision. The importance of the premise is raised if a service provider and a service consumer have negotiated a service level agreement (SLA). It could sometimes happen that although the service doesn't fulfil original customers' expectations, the service satisfies their other needs and invokes different experiences. The customer discovers the value of the service according to section 3.6.2, premise number 7 and 6. It happens especially if the SLA is not made and expectations are understood on intuitive levels.
3. **The service gives experiences to customers.** An experience can be considered as a difference between expected and acquired service value compared with customer's needs which were satisfied. Prahalad and Ramaswamy [20] as well as other authors (see Figure 3.1) propose that the economy should be based on customers' experiences.

Assuming concepts introduced in the previous chapters, we can outline main ideas for being used in service strategies. On the whole, strategies in services should be:

- more flexible, adaptive, communicative
- more customer-oriented
- more cooperation-oriented

- more relationship-oriented
- more experience-oriented
- more interactions
- more people-oriented
- more innovative
- more multidisciplinary

These ideas will be expanded in next sections.

4.2 Blue Ocean Strategy In Service Economy

Red oceans

The metaphor of red and blue oceans describes the market universe. Red oceans are all the industries in existence today – the known market space. In the red oceans, industry boundaries are defined and accepted and the competitive rules of the game are known. Here companies try to outperform their rivals to grab a greater share of product or service demand. Grabbing a bigger share is seen as a zero-sum game in which one company's gain is achieved at another company's loss. As the market space gets crowded, prospects for profits and growth are reduced and cutthroat competition turns the red ocean bloody. Hence, the term red oceans [1].

Because the total profit level of the industry is also determined exogenously by structural factors, firms principally seek to capture and redistribute wealth instead of creating wealth. They focus on dividing up the red ocean, where growth is increasingly limited [1].

The strategies based on a competition in the known market space are called the red ocean strategies (ROS). Strategic management based on these strategies was introduced in the first chapter.

Blue oceans

Blue oceans, in contrast, denote all the industries not in existence today – the unknown market space, untainted by competition. In blue oceans, demand is created rather than fought over. There is ample opportunity for growth that is both profitable and rapid. In blue oceans, competition is irrelevant because the

rules of the game are waiting to be set. Assuming that structure and market boundaries exist only in managers' minds, practitioners who hold this view do not let existing market structures limit their thinking. Blue ocean is an analogy to describe the wider, deeper potential of market space that is not yet explored [1]. Therefore, we call this kind of strategies blue ocean strategies (BOS). In other words, a competitive advantage becomes so complex and huge that it will create the new market space.

The concept of BOS does not reject the ROS at all. The book [13] states that it will be important to swim successfully in the red ocean by outcompeting rivals. Red oceans will always matter and will always be a fact of business life. Even newly established blue oceans will become red oceans sooner or later.

But with supply exceeding demand in more industries, competing for a share of contracting markets, while necessary, will not be sufficient to sustain high performance. Companies need to go beyond competing. To seize new profit and growth opportunities, they also need to create blue oceans [13].

However, blue oceans are largely uncharted. The dominant focus of strategy work over the past twenty-five years has been a fairly good understanding of how to compete skillfully in red waters, from analyzing the underlying of how to compete skillfully in red waters, from analyzing the underlying economic structure of an existing industry, to choosing a strategic position of low cost or differentiation or focus, to benchmarking the competition [13].

Value innovation

Authors of the book [13] state that "value innovation" is the corner-stone of BOS. A blue ocean is created when a company achieves value innovation that creates value simultaneously for both the buyer and the company. The innovation (in product, service, or delivery) must raise and create value for the market, while simultaneously reducing or eliminating features or services that are less valued by the current or future market. The creation of innovative value unlocks new demand then. The major differences of ROS and BOS are presented in Table 4.1.

The summarization of BOS principles and risks which the principles reduce is shown in Table 4.2.

Blue ocean strategy offers the four actions framework to create a blue ocean. The framework is illustrated in Figure 4.2. Resulting factors than create a visualization of proposed strategy, a strategy canvas. The visualization helps to distinguish whether the strategy aims to a blue ocean or whether it still resides in a red ocean.

4.2. BLUE OCEAN STRATEGY IN SERVICE ECONOMY

<i>Red Ocean Strategy</i>	<i>Blue Ocean Strategy</i>
Compete in existing market space	Create uncontested market space
Beat the competition	Make the competition irrelevant
Exploit existing demand	Create and capture new demand
Make the value-cost trade-off	Break the value-cost trade-off
Align the whole system of firm's activities with its strategic choice of differentiation or low cost	Align the whole system of firm's activities in pursuit of differentiation and low cost

Table 4.1: ROS vs. BOS [13]

<i>Formulating Principles</i>	<i>Risks Being Reduced</i>
Reconstruct market boundary	Search risk
Focus on strategy canvas, not on exact numbers	Planning risk
Go beyond existing demand	Scale risk
Execute strategic steps properly	Business model risk
<i>Realization Principles</i>	<i>Risks Being Reduced</i>
Beat crucial organizational obstacles	Organizational risk
Make strategy realization part of strategy	Management risk

Table 4.2: The Six BOS Principles [13]

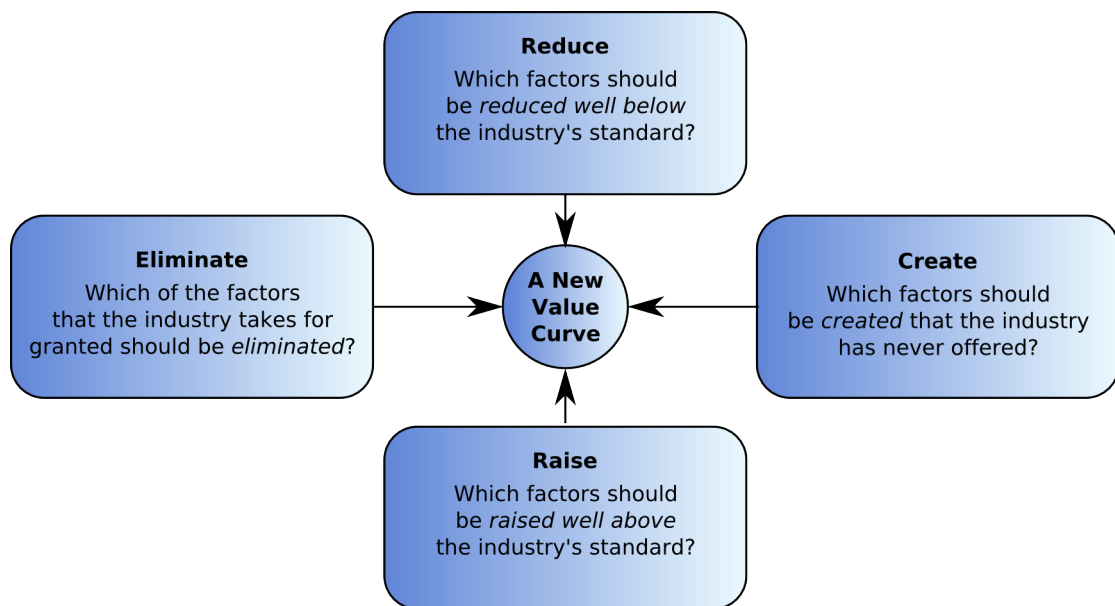


Figure 4.2: BOS Four Actions Framework [13]

Blue ocean strategy in service economy

If we try to apply BOS to service approach presented in the second chapter, we will see some interesting similarities:

	Product-centered view	Service-centered view
ROS	1	2
BOS	3	4

Table 4.3: Growth Potential of ROS and BOS in Product- and Service- Centered View (by author)

1. BOS aims to create new markets through the existing ones, SSME (see section 3.9) lays stress on the multidisciplinary approach. *Considering services as an essence of all economic activities (see section 3.6.2, premise number 5), blue oceans can be created easier combining all factors presented in Figure 4.1.*
2. BOS establishes a value innovation as its corner-stone as well as SSME. The source of innovation are knowledge and skills (see section 3.6.2, 1st premise). Therefore, people become the most important operant resources, especially people who are able to deal with multidisciplinary service networks (ie. T-shaped professionals – Figure 3.6).
3. A value innovation is always connected with an utility for customers in BOS, which is in harmony with the foundational premises of service-view (section 3.6.2), especially with 8th premise).
4. Marketing strategy becomes central to overall business strategy (see 3.7). Hence, if a firm decides to follow BOS, the marketing strategy will affect corporate strategy mostly.

The potential of growth using ROS and BOS in the product and service economy is summarized in Table 4.3.

Blue ocean strategy also forces to understand Porter's Five forces model (Figure 2.7) in a wider context of various markets. The strategy also rejects four Porter's basic generic business-level strategies (cost leaderships and differentiations) and refers to the fifth, central strategy in Porter's five-business-level strategy figure 2.10, to the strategy of integrated cost leadership/differentiation. The BOS proposes finding value that crosses conventional market segmentation and offering value and lower cost. The process of BOS formulation is shown in Figure 4.3.

Although BOS aims to uncontested market with no competition, the other competition still remains – the competition for resources, and especially for people with thorough knowledge and valuable competencies. Therefore, even firms implementing BOS have to be aware of competitive rivalry and dynamics introduced in section 2.7.

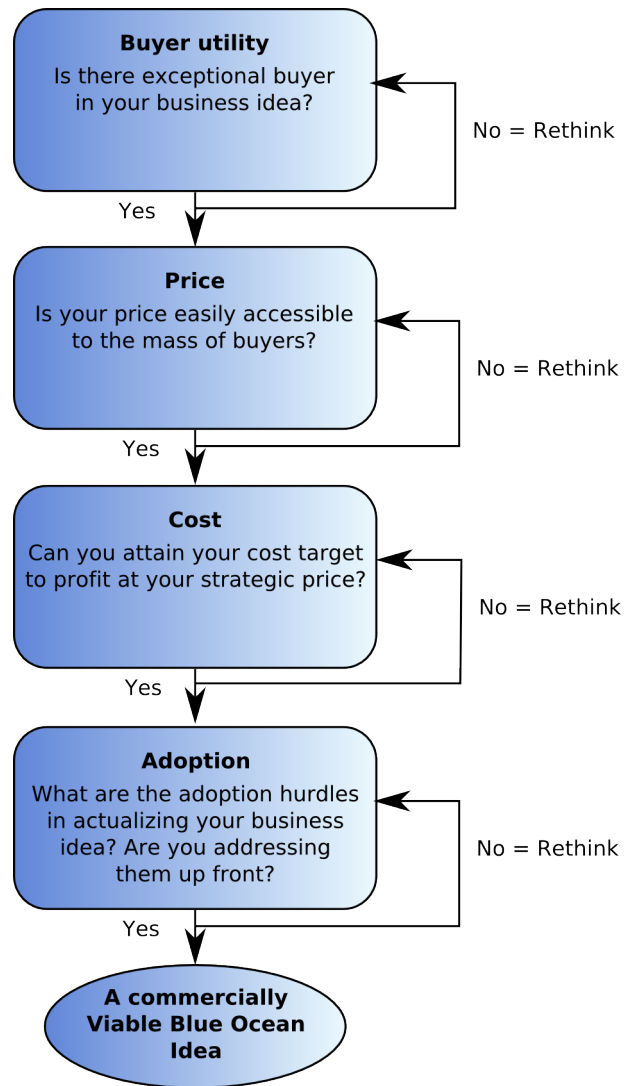


Figure 4.3: The Sequence of BOS Formulation [13]

BOS in Corporate Strategies

The blue ocean strategy also offers a map for positioning business-units to growth portfolio using pioneers, migrators (Figure 4.4) [13]:

Pioneers are business units which provide a value innovation and create blue oceans.

Settlers are business units which “settle” in red oceans.

Migrators lie between pioneers and settlers. They exists on the border of a red and blue ocean.

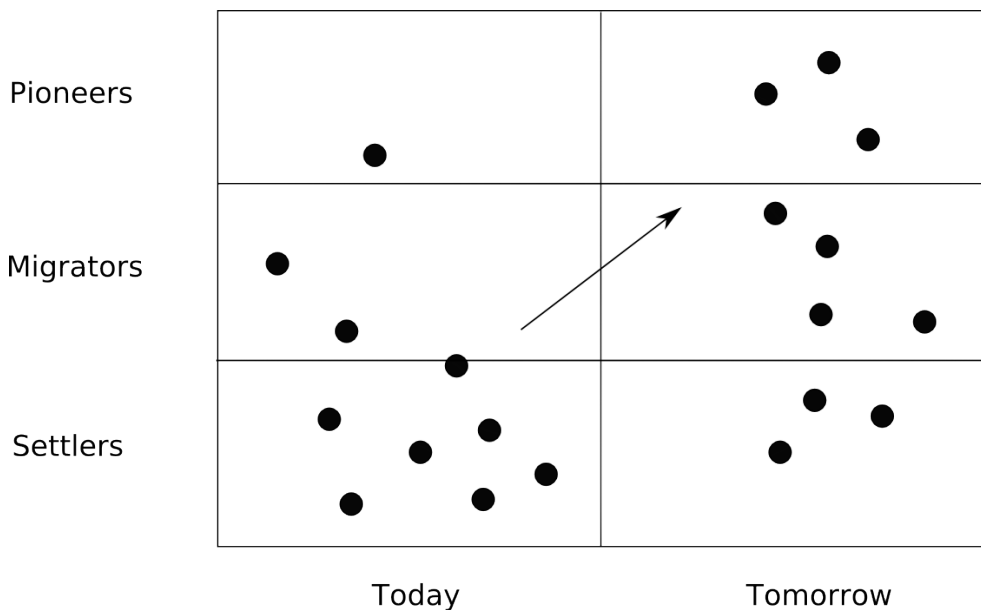


Figure 4.4: BOS Business Units Growth Potential [13]

Although pioneers have the highest growth potential, settlers bring money to the firm very often. Therefore, the main task is to balance the ratio of settlers and pioneers to achieve effective growth and sustainable cash flow.

4.3 External Environment As Service System

As it was stated in the section 3.5, individuals, families, firms, nations, and economies all represent instances of service systems [26]. Therefore, the firm as a service provider must be considered as a part of a bigger service system. Basole and Rouse [3] argue that organizations existence in networks is based on the premise that firms do not merely operate in dyadic relationships, but are deeply embedded in complex economic systems consisting of numerous interorganizational relationships.

Brandenburger and Nalebuff [3] identify several types of actors in a value network that affect the ability of a firm to produce and deliver value to an intermediate or final customer or end consumer: suppliers, other customers, competitors, and complementors. In addition to these types of actors, studies have also emphasized that value networks are shaped and influenced by government agencies, research and development institutions, educational institutions, and industry associations [3].

Several characteristics and attributes have been used to describe a network. Network size refers to the number of actors in the network. Network connected-

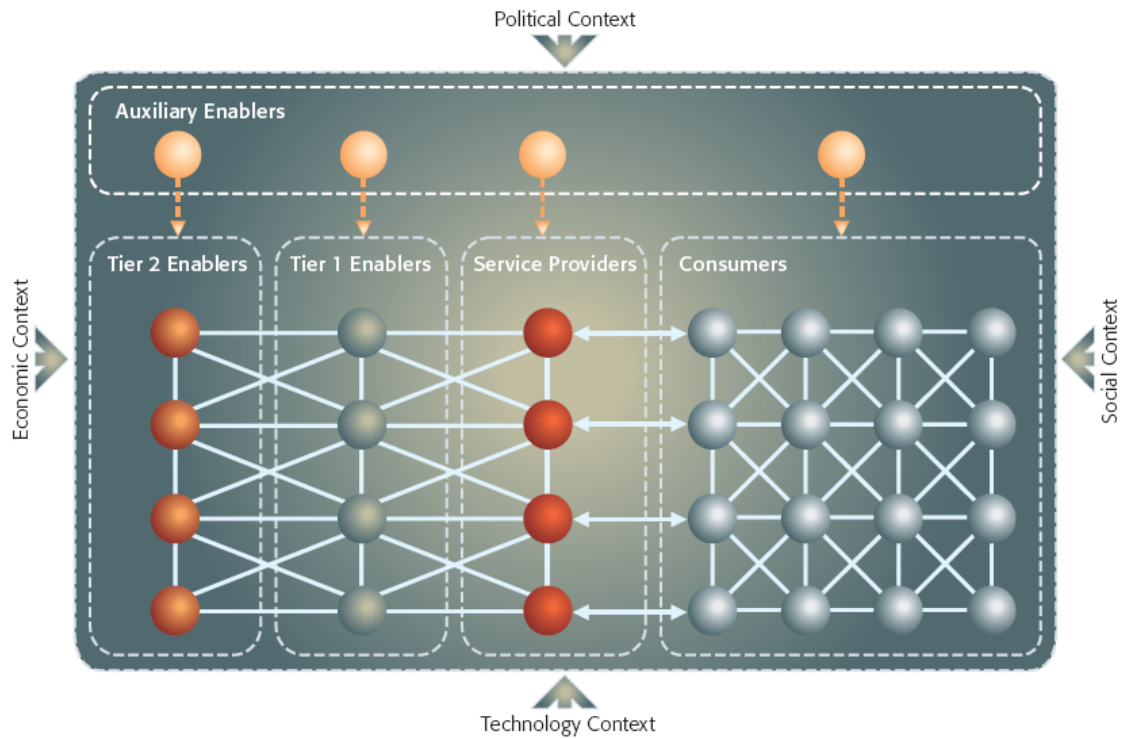


Figure 4.5: A Conceptual Model of Service-Value Networks [3]

ness and density are commonly used measures to denote the relative number of ties in the network that link actors.

According to Basole and Rouse [3], service value network contains five types of actors: consumers, service providers, tier 1 and 2 enablers, and auxiliary enablers (see Figure 4.5). Value in a service value network is created through a complex set of B2B, B2C, and C2C relationships, and influenced by the social, technological, economic and political context in which it is embedded [3]:

Consumers In a service value network, all activities are initiated from the point where value is “realized” or “consumed”, the point of the end consumer. Consumers thus trigger all the activities in the service value network. In alignment with the 7th premise in the section 3.6.2, consumers play a much more central role: they demand product and service customization, speed, and high levels of quality of service. In many instances, consumers will only use and continue using services if their value preferences and criteria are met or exceeded by the service provider.

Service providers The service provider is the primary contact point for a consumer. For end consumers to experience, use, and consume the value they desire or expect, a service (or a bundle of services) with that value must be

provided by one or more actors in the value network. The service provider is sometimes an aggregator of multiple products and services and it provides these in a bundled and integrated fashion to the consumer. In other cases, it is an enabler to other service providers.

Enablers A service provider relies on numerous enablers that help create, design, initiate, and deploy the service. In general, Basole and Rouse [3] differentiate enablers as tier 1, tier 2 and auxiliary enablers (see Figure 4.5):

- Tier 1 enablers provide direct goods and services to the service provider. These can be producers, manufacturers, or other service providers.
- Tier 2 enablers provide goods and services to tier 1 enablers (such as material suppliers and component manufacturers).
- Auxiliary enablers are those that are essential to the entire ecosystem and not specific to one industry. They tend to have an influence on some or all actors in the value network. (e.g. government agencies, financial institutions such as banks and infrastructure providers – utility, facility, and transportation).

Contextual influences All of the actors in the services ecosystem act in the context of society, culture, the economy, and politics. Economic activities can not be viewed in isolation from other institutions or from the technological, political, and social context in which organizations exist.

The idea of networked environment extends the standard model of firm's external environment (Figure 2.6). The networked model focuses on relationships between actors and forces people to view an external environment as a networked service system.

4.4 Modified Resource Based Model

Returning to the models of above-average returns, the two models were presented – the I/O model of above-average returns (Figure 2.4) and the resource based model of above-average returns (Figure 2.5).

If we consider the eight foundational premises of the service-centered view, especially the 4th one (“Knowledge Is the Fundamental Source of Competitive Advantage”), and the ideas of BOS, they must imply that the I/O model of above-average returns is outdated. If we try to employ the resource based model, we see

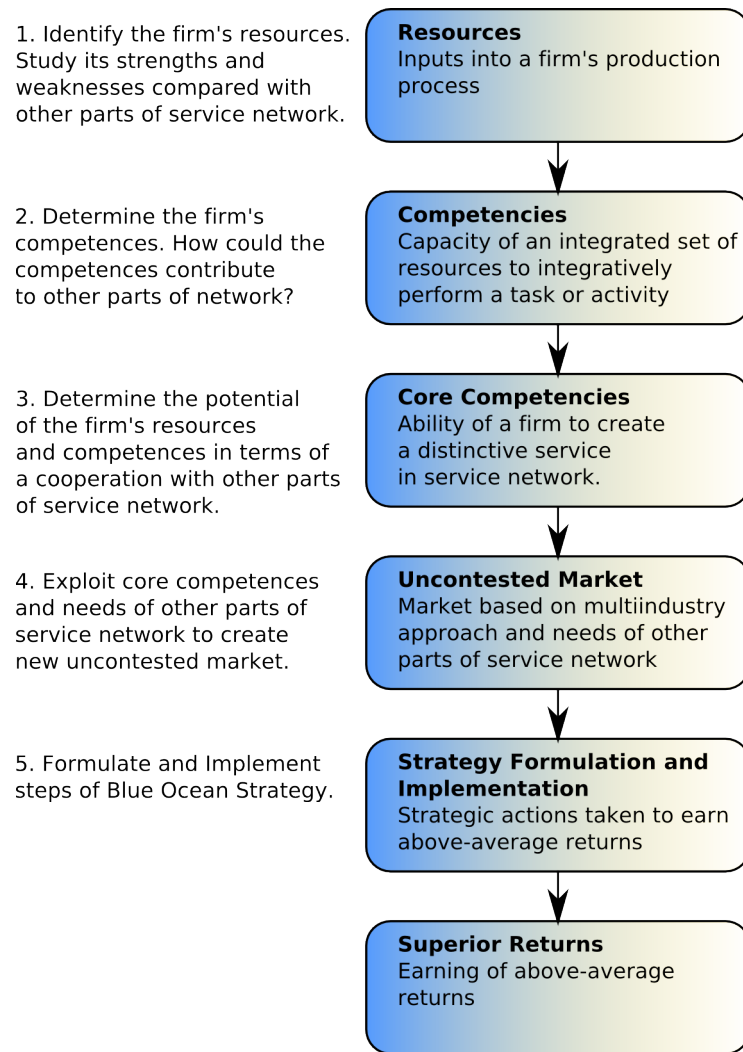


Figure 4.6: Modified Resource Based Model (by author, based on Figure 2.5)

that it suits to the service environment much more than the I/O model. However, some modifications have to be done. The modified model is illustrated in Figure 4.6.

The main difference resides in the service network environment. At first, the firm is considered primarily to be placed in the service system, a service network with the stress on cooperation not on competition. Secondly, the model should not be limited on a single attractive industry, but it should aim to face interdisciplinary relationships to create new uncontested market.

On the other hand, as mentioned in the section 4.3, the organization is a part of a larger network of organizations that together create (i.e., co-create) value. Basole and Rouse present [3] that some researchers have even argued that value nets represent extended enterprises. The value network approach thus views the activities of an organization in a holistic, rather than a fragmented, manner. Con-

sequently, the network perspective shifts the focus of a resource-based view of the firm to a perspective in which examination of resource dependency, transaction costs, and actor-network relationships is critical [3]. However, this concept needs deeper exploration in the future.

4.5 Service Value Chain

The shift toward a network approach to the services ecosystem also changes the concept of value creation [3]. While early research focused on value created at the relational level, value for consumers is now created at the network level, in which each actor contributes incremental value to the overall offering. This view of value creation emphasizes the focus on core competence and competence complementarity (see section 4.4). Instead of providing the maximum value to customers on their own and running the risk of being unprofitable in the long run, actors contribute to the value creation process by focusing on their core competence and cooperating with other network actors, such as suppliers, partners, allies, and customers, through various value constellations. Product and service delivery is thus a complex value creation process enabled by multiple actors [3].

The concept replaces the traditional view of a value chain introduced by Porter, which assumes a linear value flow and where resources flow in dyadic relationships from raw material providers to manufacturers to suppliers to customers. Basole and Rouse [3] argues that critics found that Porter's approach did not adequately describe the multidirectional nature and complexities of the potential myriad of business-to-business (B2B), business-to-consumer (B2C), and emerging consumer-to-consumer (C2C) relationships observed in business environments today. Indeed, products and services are now designed, created, delivered, and provided to customers via complex processes, exchanges, and relationships. It is argued that value chains have evolved into value grids, more commonly referred to as value networks, which are characterized by a complex web of direct and indirect ties between various participants, or actors, all delivering value either to their immediate customer or the end consumer (see Figure 4.5).

Alter [2] proposes an alternative to Porter's value chain (Figure 2.9), which is – as it was discussed earlier – suitable for the goods-centered view, but it can't be applied to service-centered view. The proposed service value chain framework (Figure 4.7) outlines service-related activities and responsibilities of both the service provider and the customer [2]. These activities may occur before, while, and

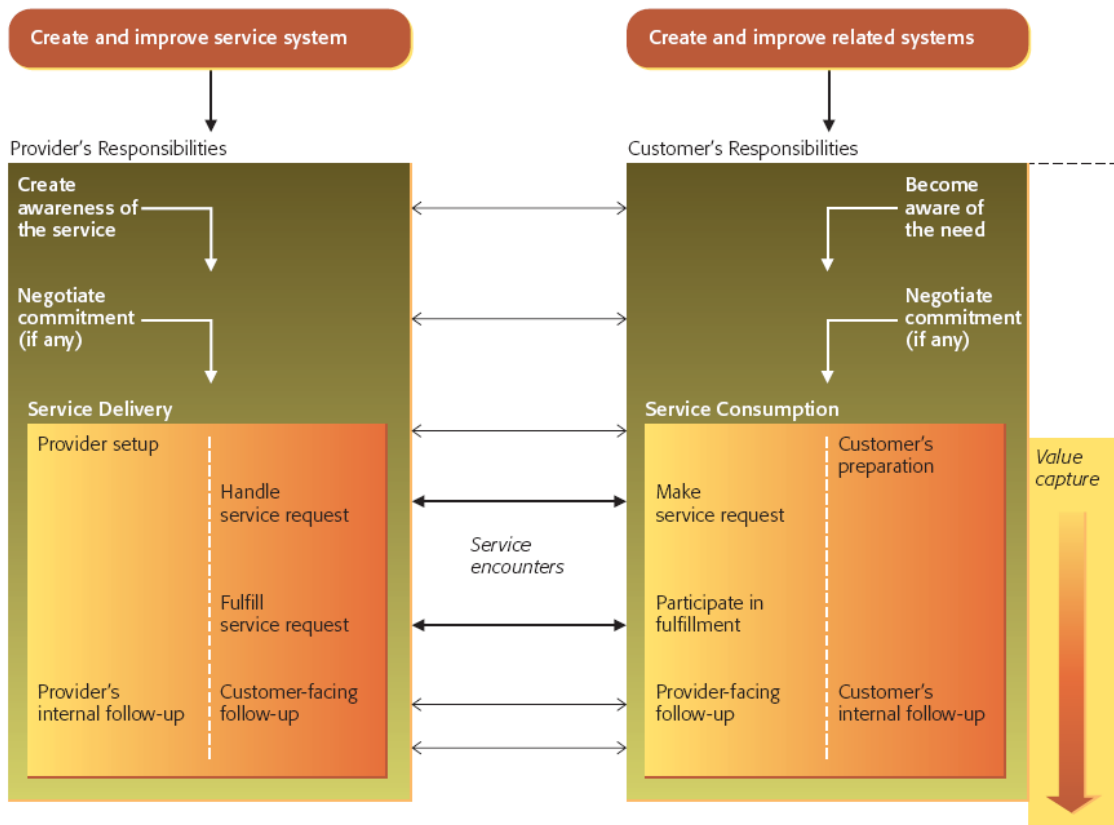


Figure 4.7: Service Value Chain Framework [2]

after a specific service is delivered to a specific customer. The framework is based on the assumptions as follows [2]:

- Services are often coproduced by service providers and their customers. Therefore, a full understanding of a service system requires attention to the actions and responsibilities of both the service provider and the customer. (see definition of service in Figure 3.2 and 6th premise in section 3.6.2)
- Customers of a service system are individuals, groups, or organizations that receive benefits created by the activities within a service system (see Figure 4.7).
- The same basic ideas about services apply regardless of whether services are directed at external customers, internal customers, or both.
- Customer satisfaction is affected by the complete set of activities, responsibilities, and experiences that typical customers associate with acquiring, receiving, and benefiting from a particular service.

- Many service situations involve delivery of services based on negotiated commitments (such as service-level agreements) under which the service may be delivered continuously or repeatedly in the future (see section 4.1).
- For many services, each instance of service delivery includes an explicit or implied service request from the customer.
- Although the fulfillment of a service request is typically viewed as the core of most services, activities related to awareness, negotiation, setup, handling of the request, and follow-up are also important determinants of internal performance and customer satisfaction.
- Services involve front-stage and back-stage activities by both the service provider and the customer.
- Some services require follow-up by the provider or the customer, or both. In some cases follow-up is related to a single service instance. In other cases, it may refer to multiple service instances.
- The customer may experience benefits as the service is produced or may experience benefits later. Value capture is a customer's process of receiving benefits from the efforts of the provider or from self-service.

As we can see, the model can be considered as a replacement of the traditional Porter's value chain.

4.6 Organizational Structure in Service Strategies

In the section about service systems (see section 3.5), it was stated that individuals, families, firms, nations, and economies all represent instances of service systems [26]. Viewing a firm as a service system, an organizational structure has to support flexible interactions between service system elements and does not have to limit it with strict borders between parts of a company. The appropriateness of organization types introduced in the section 2.9 are discussed as follows:

The simple structure: Although it provides a degree of flexibility, it is strictly limited to a very small firm and to competencies of leader-managers. The other members of firms are strongly dependent on the leaders and do not usually act as independent parts of a service network.

The pure functional structure is not suitable for service strategies implementation. It divides the company into functional parts which conflict with an idea of tight cooperation and therefore it does not support the flexibility of service networks.

The multidivisional (M-form) structure as well as the functional structure hampers the multifunctional and multidivisional aspects of a tight collaboration.

In the matrix structure, the functional structure is enhanced with the cross-function collaboration aspects. Although people are pooled into the groups based on their competencies, people from different groups work together on projects which supports flexible interactions between various parts of a company. However, managing a firm with this structure expects increased management skills compared to the previous structures.

The network organization, as the name indicates, considers a firm as a network of relationships which is in a straightforward correspondence with service systems concepts. People act in different roles in different contexts. Considering the multidisciplinary nature of T-shaped professionals (see Figure 3.6), it is hard to distinguish the functional organizational unit which they have to be assigned to. *Individuals represent an unique set of competencies which are connected to a service network for benefit others.* The functional units from the matrix structure become blurred and the matrix structure transforms to *a network of individuals*. Although the structure is the most appropriate for companies implementing service strategies, it requires extremely high management skills especially in a large company. Without them, as Collis argues [6], this structure may lead to chaos especially in large, complex companies.

Successful implementation and management of the network organization structure still retains a big challenge to the future. The question is if companies are now ready for its implementation. The structure needs a significant shift in manager's way of thinking – it increases the importance of stimulation and motivation of people which participate in the network and also requires more trust in them.

4.7 Research and Development in Service Systems

Most authors of management books emphasize the importance of innovation nowadays. However, the focus of innovation is usually limited to the scope of

improving goods meaning the more high tech the product is, the better it becomes.

Considering Figure 4.1, they focus on the left side of the picture (service providers) and do not look at the service itself even on the experience the customer gain. As it was mentioned in the section 4.1 and in Table 3.1, the book [20] states that not *services* but even *customer experiences* become the economy dominant in the future.

In service economy, narrowing the scope of innovation only to service providers will hardly lead into firm's sustainable growth in the future. The innovation has to aim to the whole service network, not only to the isolated element of the net. Therefore, the area of research and development needs to be considered in a broader context of service systems. Hence, innovation of service systems interactions has to be the inherent part of R&D.

Blue ocean strategy speaks about "value innovation" as the corner-stone. This implies the growing importance of R&D, especially in the context of the whole service system. Without focusing on R&D, the firm will not be able to create value innovation and a blue ocean. To create a significant value innovation, an innovative company has to invest many resources to an intensive R&D process and particularly small firms has to strive with a lack of resources in all fields. Therefore it is very hard to handle this complicated situation.

However, a firm (as a part of a service system) can profit from the cooperation with other elements of the service network and establish partnerships with universities: the university transfers research results and learns from their application enhancing their prestige. On the other hand, the firm uses the results of the research and support university to stimulate its further research. We can say the firm "outsource" a part of its R&D activities to universities.

Spin-off companies are clear examples of this approach. Results of the research which was initiated at the university are applied and developed to become ready for business use. The collaboration is sustained all the time and the "industry-academic rotations" are distinctly accelerated. And of course, the SSME initiative also intensively supports the "industry-academic rotations" (see questions in appendix A).

4.8 Role of Information Technologies

Basole and Rouse [3] reveal that the concept of a service value network raises a variety of issues for the development of information systems supporting customers and businesses and the relationships they have among each other. ICT

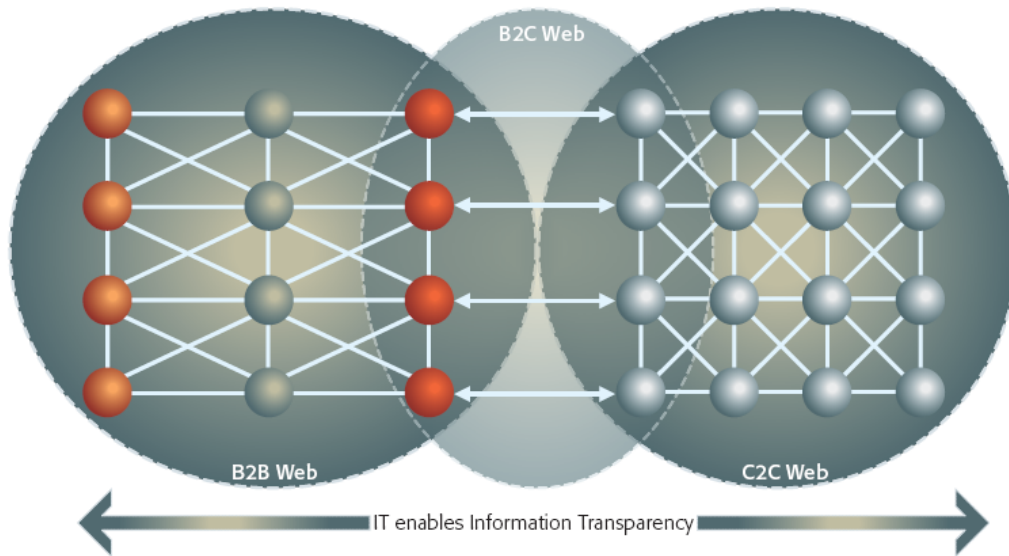


Figure 4.8: Spheres of ICT-enabled Value-network Linkages [3]

provides the ability to link and coordinate activities between and across service providers, customers, producers, and enablers. Broadly, there are three spheres of service value network linkages that ICT supports and enables (Figure 4.8).

Information technologies are necessary accelerators of a shift to the service economy. Basole and Rouse [3] presents that ICT has enabled businesses to lower operating costs, increase productivity, and improve work flow. ICT has also provided significant benefits to consumers. The Internet, for example, has given consumers the ability to access, view, and process information previously not available to them, the ability to perform searches to find products and services that best meet their needs, and in essence the power to make more informed decisions. Consumer value preferences are also influenced through online forums, chat rooms, and other C2C communities. In fact, the social network effect enabled through the C2C web can significantly impact consumer preferences and purchasing behavior. Through C2C relationships, consumers become more informed and receive “no nonsense” feedback on the value, quality, and experience of services they are interested in. All of this has led to greater competition, as businesses must now provide the “best value for better-informed consumers” [3].

The complexity of service networks also implies that ICT also has to provide a comprehensive view over the whole network. Only then will managers be able to successfully manage the proper running of service systems and monitor fulfillment of strategic goals and objectives. These ICT tools have to employ an advanced method of visualization in order to offer really usable view.

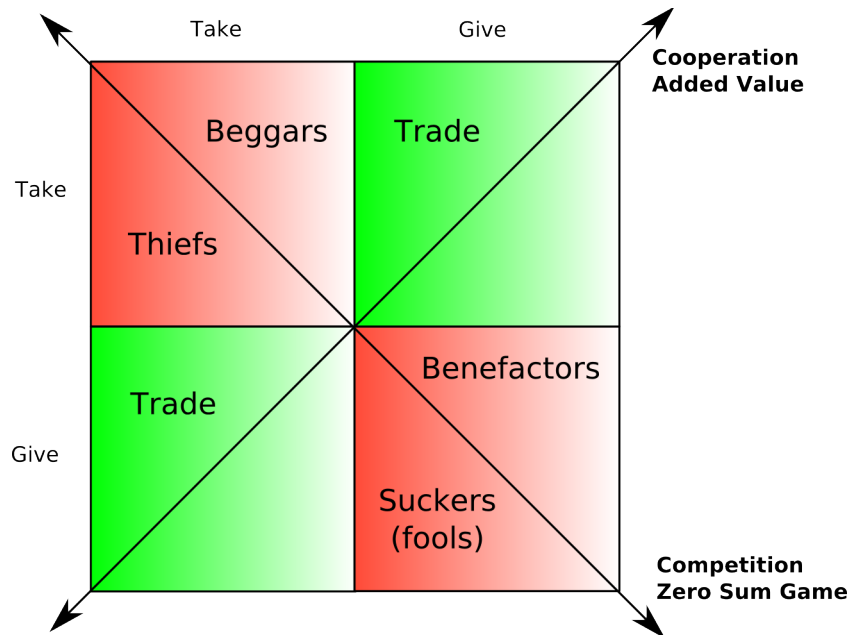


Figure 4.9: The Give-Take Matrix [27]

4.9 Prerequisites and Risks of Proposed Approach

Competent people

The crucial prerequisite of successful service strategies formulation and implementation are *competent* people working at right places. These people include both the people primarily engaged in a value creation for customers and the people who manage and coordinate the function of the whole network. People have to accept the “Give-Take Matrix” (see Figure 4.9) and follow its principles.

The cooperation principle is about the exchange meaning “I give something and get something back as a reward”. The added value is created with an application of this principle. The opposite leads to the zero-sum game. The principle becomes extremely important if a firm uses the network organizational structure (see section 4.6).

The major risks of application of proposed service approach includes an underestimation or even absence of mentioned prerequisite which are, for example, incompetent managers persisting on the product-centered view or people not following the principles of cooperation. The risk is significantly increased when “people deals with their position in a problem instead of solving the problem itself.” [28]

Sufficient ICT Support

Because of the complex and dynamic relationships in the service network, which change very quickly, managing the system requires strong ICT support (in terms of the section 4.8). Without that, a firm will hardly ever implement a successful service strategy.

Butterfly Effect

In the complex service network, even a small variations of the behavior of one element of service system may produce large variations in the long term behavior of the whole system. It means that it can be unpredictable what consequences will have a gentle modification of strategy. The situation can turn to an opportunity for a firm as well for its threat. Therefore, it is important to be aware of this aspect of service system and be prepared for it.

4.10 Final Set of Recommendations

This chapter has introduced several proposals for strategy formulation and implementation from the service-centered point of view. Considering them in the process of strategic management, they should help to reach sustainable firm's growth and to satisfaction of all elements in a service network.

To summarize, a set of brief and easy-to-remember recommendations is presented. They arise from chapters 3 and 4:

- focus on knowledge, competencies, and skills
- look through various markets, keep discovering new blue oceans
- consider all as a service (left side of Figure 4.1)
- take care of customer's needs, expectations and experiences (right side of Figure 4.1)
- prefer cooperation to competition in service networks
- support all with reliable ICT

Chapter 5

Service Strategy in Selected Company

The results of the previous chapter are now applied and illustrated at a real company. We will see that the presented proposals for service strategies are not only unusable pieces of theory, but they can be used as a leading strategic concepts of strategy formulation and implementation of the real firm. This chapter briefly describes the main strategic aspects of the Mycroft Mind company.

5.1 Introduction of Mycroft Mind, a.s.

Mycroft Mind, a.s.¹ is an information technology company founded as a spin-off of Masaryk University² in May 2007 [17]. It consists of about 25 employees, a half of them are graduates of Faculty of Informatics³ at Masaryk University. Its goal is to develop and implement Mycroft technologies for a successful business deployment. Mycroft technologies represent an implementation of research results which are being developed at Knowledge and Information Laboratory⁴ at Faculty of Informatics and verified on projects of Institute of Computer Science⁵ at Masaryk University.

¹<http://www.mycroftmind.com>

²<http://www.muni.cz>

³<http://www.fi.muni.cz>

⁴<http://kirlab.fi.muni.cz>

⁵<http://www.ics.muni.cz>

5.2 Aiming to Blue Ocean

The company is addressing the problems of Visual Analytics defined by National Visualization and Analytics Center (NVAC) in the book “Illuminating the Path: The Research and Development Agenda for Visual Analytics” [5] and the so called Mycroft Problem (see [17]). NVAC warns that our ability to analyze collected information is sorely lacking. They state that technologies that will support the application of human judgment to make the best possible use of this information and share it with others as appropriate prevent, deter, and respond to threats are needed.

Therefore, Mycroft Mind develops software technology which forms the platform for information processing, integration, analysis and visualization. The solution aims to create a blue ocean by satisfying the NVAC requirements, because, as far as leaders of the company know, no solution which satisfies the NVAC requirements has been developed yet.

In addition, the developed technologies also aim to create a solution, which helps to better understand and manage the complex service systems (see section 4.8). The “scope” metaphor is used for describing an idea of developed applications. The technology can be used in a wide range of application domains. However, nowadays the company focuses on application domains as follows [17]:

- Computer network analysis and monitoring
- Security management
- Digital libraries
- Project, program, and portfolio management
- Sensor networks
- Health care

The technology has reached the alpha state in May 2008 meaning that the main concepts have been proved and developers have to focus on making the technology robust enough for real business everyday use. The alpha version of the technology is being tested in the computer networks application domain at Masaryk University now and another commercial deployment is to appear. The other fields are under research and development in collaboration with both academic and business partners of the company.

5.3 Company As Part of Service Network

The company lays stress on the collaboration with “surrounding service network elements”. The service which is provided by applications is executed with loose collaboration with service clients. The technology is prepared for being able to adapt and customize with “valuable knowledge elements”. This allows service clients to adapt the service to their requirements and also service providers can learn from the service adaptation to provide better applications by enhancing technologies the applications are built on.

Being a spin-off of Masaryk University, the major academic partner of the company is obviously Masaryk University, especially Faculty of Informatics and Institute of Computer Science. This fact is in correspondence with the section 4.7 about R&D. The research is held on the university and the results are transferred to real business use in the Mycroft Mind company.

The main business partner of the firm is UNIS a.s.⁶, which supports Mycroft in business area and helps it to attract potential partners and customers for Mycroft technologies, especially in computer networks and security areas.

The company works with other partner companies and institutions in every application domain – for example, with SHINE Consulting s.r.o.⁷ in project management domain or with INVEA-TECH a.s.⁸ in computer network domain.

The company also benefits from the collaboration with the university in human resources management. People who are needed for the company are educated at the university in the selected courses which are taught by members of the Knowledge an Information Robots Lab. At Faculty of Informatics, its team also prepares the new study programme “Service science, management and engineering” in cooperation with IBM⁹ and University of Porto¹⁰ in Portugal.

5.4 Network Organizational Structure

The nature of firm’s primary process activities is so innovative that it requires extremely flexible and adaptive structure. Therefore, the company uses network organizational structure. Every individual represents an unique set of competencies which are used to achieve project goals. It would be very hard to categorize

⁶<http://www.unis.cz>

⁷<http://www.shine.cz>

⁸<http://www.invea-tech.com>

⁹<http://www.research.ibm.com/ssme/>

¹⁰<http://www.up.pt/>

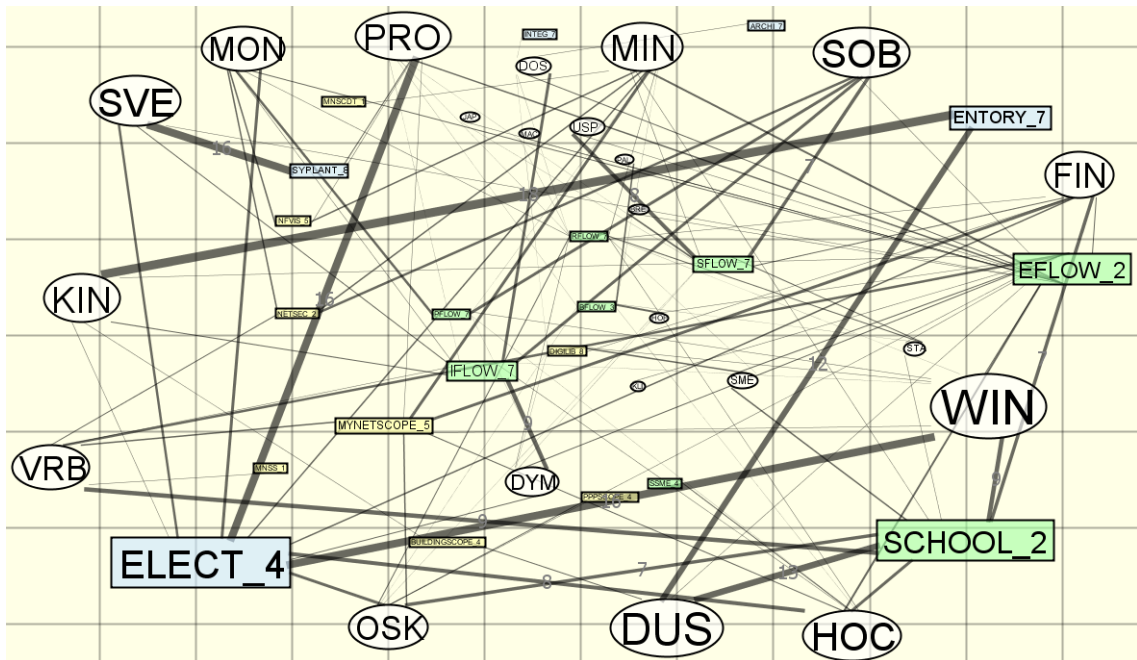


Figure 5.1: The Visualization of Network Structure in the Company (the Output from Firm's Special Tool)

employees into departments because people work on various projects and people are involved into them if their competencies are needed. Hence, their role in various projects is changing in time.

The network structure cannot be managed without sufficient ICT support. In order to deal with it, the company develops a special software tool which is also built on the concepts of Mycroft technologies and allows the firm to use a network organizational structure. The individuals connected to the firm's network structure can be seen in Figure 5.1. Ellipses represent people, rectangles projects and lines illustrate on which project who participates. The size of all elements shows the amount of work being spent on projects by people in one week.

5.5 Employing Modified Resource Base Model

The modified resource base model introduced in the section 4.4 focuses on resources and their competencies. The 1st premise (section 3.6.2) states "the application of specialized skills and knowledge is the fundamental unit of exchange".

The Mycroft Mind company acts in correspondence with these statements. The firm builds on knowledge and skills of its members. Without innovative ideas such as universal modeling [29] or information robots [21], without education at the university and enthusiasm of all members of the company, the

company would not have been born and the blue ocean would not have been discovered.

Chapter 6

Conclusion

6.1 Summary

In a correspondence with the thesis assignment, the first chapter has briefly outlined the service concept and introduced the importance of the service-view in connection with corporate and business strategies and has drawn the motivation for creating the thesis and its goals. The second chapter has presented current “state of the art” in strategic management while the third chapter has revealed the service economy paradigms in comparison with the traditional product oriented view. The fourth chapter has brought in proposals for service strategies formulation and implementation which have been illustrated on the strategy concepts of the real company in the fifth chapter.

The relationships of the main chapters are illustrated in Figure 6.1. Briefly expressed, the thesis has taken the concepts of strategic management. Then, it has tried to “move and transform” the concepts through service paradigms and present the results.

6.2 Thesis Contribution

As it was stated in the thesis many times, relationships matter. And the main value of this work inheres exactly in established relationships. Applying the multidisciplinary nature of SSME initiative, the work deals with many areas and connects them together.

The work expands the traditional strategic management (coming especially from books [12] and [6]) with service economy paradigms presented in papers [33], [26], [14] or [11] using blue ocean strategy (book [13]) and ideas coming from pa-

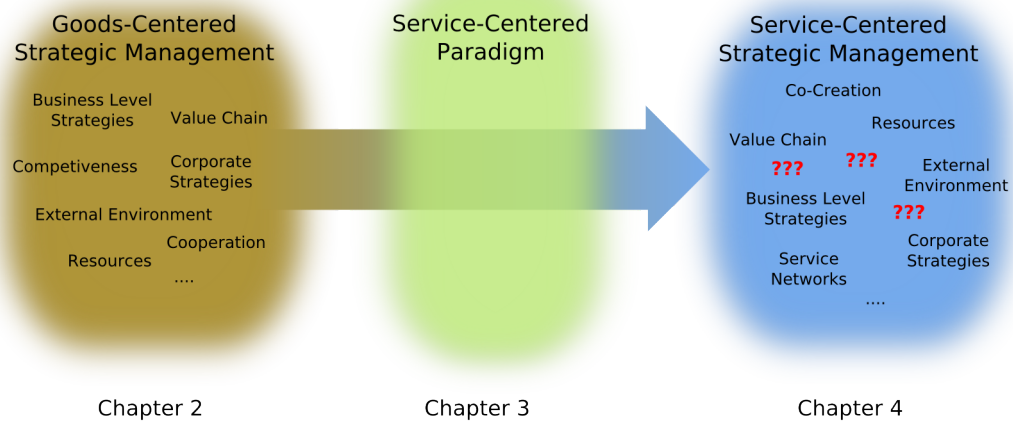


Figure 6.1: Thesis Visualization (by author)

pers [2], [20] or [3]. The thoughts from the books and papers are put together and enriched with author's ideas and proposals.

A contribution of the thesis can be also described, in terms of the thesis, as a service which the thesis as a product offers to potential service consumers. The work offers the service to target readers (as described in the chapter 1) – it can provide an initial insight into strategic management in a context of service paradigm and can also serve as an inspiration for further study. And of course, it provides a service to the author as a fulfillment of his study requirement.

6.3 Future Work

It is important to notice that the work has not declared an ambition to create full consistent theory of service-oriented strategic management. The work has brought “fragments of mosaic” of the whole service strategies theory.

As the service science is emerging and is currently being developed, the future work consists of a huge amount of work. In a nutshell, the left side of Figure 6.1 has to be developed, the mosaic has to be properly filled with its fragments to create harmonic and consistent theory. And this work can serve as a modest source of ideas for that.

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Appendix A

Getting Involved to SSME

The appendix presents several SSME-motivating and inspiring questions [24]:

What can you do to get involved? [government]

- Does your agency fund innovation?
- Does your agency influence innovation policy?
- Does your agency establish standards?
- Does your agency deal with intellectual property?
- Does your agency deal with economic statistics?

What can you do to get involved? [industry]

- Does your business develop, sell, and/or deliver service offerings?
- Does your business have a service innovation process?
- Does your business use services to complement and add value to manufactured products?
- Does your business invest in internal R&D?
- Does your business fund university or other external R&D?
- Does your business create case studies, success stories, white papers, or point-of-view documents about service offerings?
- Does your business recruit service professionals? Service researchers?

- Does your business provide feedback to schools (survey recent graduates hired) on what skills are desired to be most effective in your business?
- Does your business procure services? eSource of services? Outsource services?
- Does your company patent or otherwise protect intellectual property related to service innovation?

What can you do to get involved? [academics]

- Do you teach courses that include or could include complex business to business service case studies?
- Do you have responsibility for revising or creating new curriculum?
- Do you perform research that could be published in the Journal of Service Research or other relevant journals or conferences?
- Do you have students who could intern with business service or service research organizations? Compete for PhD fellowships in services?
- Are you interested in industry-academic rotations?
- Are you interested in developing tools that could enable SSME?
- Are you interested in creating business proposals or grant proposals related to SSME and service innovation? Competing for university research awards?
- Are you interested in participating/speaking in SSME events? Hosting one at your university?
- Does your school already have services related courses, degrees, centers, or institutes?
- Are you a service innovation pioneer? Are you interested in competing for a faculty award?

What is IBM doing to support others?

- Publicizing a “call to action” around SSME and the need for systematic approaches to service innovation (identify IBM relationship/ambassadors)

- Hosting and cosponsoring SSME and service innovation related events with government, industry, and academics around the world
- IBM Faculty Awards to select service innovation pioneers
- IBM PhD Fellowships to select services-related PhD students
- IBM University Research (SUR) awards to select academic institutions proposing leading edge service innovation and SSME related work
- Providing best paper awards for leading service research related journals and conferences
- Working with government funding agencies to increase focus and establish new programs related to service innovation
- Inviting people to contribute to an SSME blog, and share information about their SSME related efforts¹
- Working with some academic institutions to provide access to service data
- Hiring recent graduates into IBM Global Services and IBM Research
- Supporting curriculum development and research efforts, and much more...

¹<http://www.research.ibm.com/ssme/>